



Sustainable Solutions for All

2021 ECOSS Pollution Prevention Outreach Report for the City of Pacific

Date: December 20, 2021

ECOSS

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Introduction

Washington State Department of Ecology considers stormwater (also known as polluted rainwater runoff) to be the biggest water pollution problem in urban areas of Puget Sound. Small spills of hazardous materials and waste, leaks from vehicles, equipment and machinery, and other types of pollutants from business activities, mix with rainwater and travel across hard surfaces. These toxic materials then enter private and public storm systems through storm drains, and eventually end up in local creeks, rivers, and eventually, Puget Sound. The environmental impacts of this polluted runoff affects both wildlife and human health. According to the US EPA's Urban Storm Water Preliminary Data Summary, the impacts range from an increase in bacteria- and disease-causing organisms and contamination of drinking water supplies, to beach closures and high rates of pre-spawn mortality in salmonid populations.

Controlling and treating polluted runoff and non-point source pollution is key to protecting and restoring the Puget Sound ecosystem, and the resources and recreational opportunities the waterbodies provide to local communities. The greatest opportunity for systemic change is for businesses, residents and jurisdictions to do their part and prevent pollution before it enters Puget Sound.

ECOSS started its spill kit outreach program with Seattle Public Utilities (SPU) in 2004. The program expanded to South King County municipalities in 2009. With a large grant in 2013 from Puget Sound Partnership, ECOSS extended into four counties through the Puget Sound Spill Kit Incentive Program (PPSKIP). Since 2013, ECOSS has provided more than 10,000 businesses with spill kits and spill trainings.

The main goals of the program are to: 1) increase awareness of polluted stormwater runoff, and 2) encourage spill preparedness and response in small to medium-sized non-permitted businesses with connectivity to Puget Sound. ECOSS has developed partnerships with over 35 local jurisdictions over the years, including the City of Pacific, to help meet local water quality goals and assist in educating local businesses through this program.

ECOSS seeks to engage businesses on behalf of jurisdictions concerning stormwater pollution prevention, help businesses and municipalities save money by providing tools to keep pollutants at local businesses from entering storm drains, and contribute to a cleaner Puget Sound. By providing free spill cleanup materials and training as incentives, including multicultural and in-language support when needed, ECOSS strives to create a long-term positive relationship between municipalities and businesses.

After early March 2020, the impacts of the Covid-19 pandemic affect all in-person business visits, and ECOSS staff were unable to deliver spill kits until later in the year. From March through September, ECOSS staff were respectful of the ongoing and emerging economic impacts and stress of Covid-19 on the businesses served, and chose to delay deliveries until October.

ECOSS developed Covid-19 Standard Operating Procedures (SOPs) for all staff to use while implementing spill kit deliveries, including conducting phone calls first to perform the pre-service surveys, obtain spill plan information and emails, and then provided socially distanced site visits, with a follow-up email that included a link to our engaging spill kit Instructional Video series for business owners, managers and staff to view on their own time. More about the videos is outlined on page 5.

These tools will be used in 2021 for all spill kit outreach to ensure safe interactions with businesses, and will be useful to augment our complete in-person spill kit site visits when it's safe to do so in the future.

Implementation

Business Prioritization

ECOSS provides spill kit outreach based on each jurisdiction's needs and preferences. As outreach is performed, ECOSS' staff may add additional businesses to the outreach list through field or online research based on the level of risk or business sector. The following facility activities were used as the standard to assess risk:

- Fueling and fuel transfer
- Outdoor manufacturing
- Outdoor equipment/vehicle maintenance
- Outside drum or container storage, including dumpsters and grease recycling containers
- Vehicle, equipment, or building washing
- Loading/unloading of products
- Landscape construction/ maintenance
- Outside storage of uncovered materials

In the City of Pacific, 18 businesses were identified and served through these approaches from March 2021 to June 2021. Of those businesses served during this period, 18 businesses received spill kits, and three post-service surveys were conducted in the city during 2021 while none of the businesses declined service. The lack of participation in the post-service evaluation was largely due to staffing issues and the time since the initial service was provided. This evaluation process will be assessed and updated to reflect the new business landscape. ECOSS has served a total of 34 businesses in the City of Pacific since 2020.

Outreach and Materials

ECOSS outreach staff made contact with each business through either a site visit (socially distanced and for a limited time since the start of the COVID-19 pandemic) or phone call, and introduced themselves as a partner of the City of Pacific. When available, outreach staff used referrals through property management companies, business associations, networks, and in some cases, other agencies and jurisdictions, as a means of introduction. For the participants who accepted the kits, the ECOSS team provided outreach materials in English and Spanish and followed up with e-mails of video content. The materials and video links provided their staff with training guides for use of the spill kit.

In developing this program, several businesses were interviewed to gather information about the perceived barriers and benefits of their participation in the program. A suite

of outreach materials was developed to address perceived barriers and benefits with the help of a social marketing consultant. The list of the materials includes:

- **Program brochure** (Appendix A) – This is the primary tool used to introduce the program and to substantiate the city’s participation. The brochure covers the issue of polluted runoff, the benefits to participation in the program and a historical background on ECOSS to increase the level of trust.
- **Instructional Poster** (Appendix B) – This tool illustrates the steps to clean up a spill. Along with English, ECOSS translated the Instructional Poster into five additional languages including: Chinese, Korean, Somali, Spanish and Vietnamese. The translated posters are available to businesses with employees who speak English as a Second Language (ESL), and provide further assistance for multicultural business owners, managers and employees to better understand stormwater management.
- **Instructional Video** – Because of COVID-19, ECOSS staff expressed concern, as well as ingenuity, while trying to address the real safety issue of spending extended periods of time with a customer in order to deliver materials and training for spill response. As a result, ECOSS developed a series of short videos that walk businesses through why protecting stormwater from pollutants is important, the cost to a business if they have a spill and don’t clean it up, what’s in a spill kit and how to use it, and other applicable information. In addition to English, the videos are being developed in Cantonese, Korean, Mandarin, Spanish and Vietnamese. These videos were delivered by link to businesses by email.
- **Spill Kit Content** (Appendix C) – The spill kit content sheet provides a list of items found in the kit provided to each business. At the bottom of this sheet is a suggested list of companies that sell spill clean-up materials for businesses to purchase materials to refill their kits.
- **Pledge** (Appendix D) – Businesses served through the program are encouraged to sign the pledge saying they will train their staff, use the kit if there is a spill, dispose of materials properly, and restock the kit. They can also demonstrate their effort in fulfilling their corporate social responsibility by posting it where their customers can see it.
- **Spill Plan** (Appendix E) – Each business received a customized plan, noting site-specific risks and contact information for emergency response for both the business and the City. Depending on the language needs of the business, plans were provided in English exclusively or bilingual English and another language including: Chinese, Korean, Somali, Spanish or Vietnamese.
- **Site Map** (Appendix F) – A customized map was created for each business from Geographic Information System (GIS) data provided by cities that showed its

stormwater infrastructure and connectivity to local waterways and/or Puget Sound.

New Municipal Stormwater Permit Requirements

The NPDES Municipal Stormwater Permit requires cities to identify and visit 20% of all potentially polluting non-permitted small businesses in their jurisdiction annually starting in 2023. BMPs provided were both business specific and general property maintenance such as the following:

- Storage of solid and food waste, including cooking grease
- Required BMPs for commercial properties
- Sweeping instead of spraying to clean paved areas
- Catch basin inserts
- Secondary containment
- Covering of materials stored outside
- Pressure washing of buildings, rooftops, and other large items

ECOSS is working with King County Stormwater Division to develop less verbose and more visually accessible BMPs in multiple languages to expand our ability to convey messages about stormwater pollution prevention to diverse communities.

Several cities requested an introductory letter regarding the permit changes, including having it translated from English to Chinese, Korean, Spanish and Vietnamese. This was a helpful introduction to upcoming source control inspections needed for municipalities to meet the NPDES Stormwater Permit requirements.

Initial and Follow Up Visits

During initial visits, email, or phone calls, businesses were given a basic primer on the subject of stormwater pollution and its effects on local water quality. As an incentive to address onsite spills, businesses received a free spill kit containing either universal or oil-only sorbent materials capable of absorbing up to seven gallons of liquid (Figure 1). The kit contents include:

- 1 - 6.5 Gal UN Rated Pail w/ lid
- 2 - Disposal Bag (4 mil)
- 2 - Disposal Bag (6 mil)
- 4 - Zip Ties
- 20 - Heavy Wt. Sorbent Pads
- 2 - 3" x 48" Sorbent Socks
- 1 - Pair Nitrile Gloves
- 1 - Splash Resistant Goggles
- 1 - Instruction/Contents Page
- 1 - Spill Response Labels
- 1 - Grate Hook Pull



Outreach staff provided training on the use and disposal of kit materials, as well as an instructional poster and video on how to clean up spills. Staff collected information on existing hazardous materials, high-risk activities and equipment, and delivered a customized spill plan and site map to each business. The businesses were reminded of ECOSS' role as a resource for future trainings, available in a variety of languages, for their employees.

Baseline Pre-Service Surveys and Follow Up Post-Service Surveys

During the initial visit, a Pre-Service Survey was conducted to obtain a baseline level of awareness and behavior on the part of business owners or staff. This survey helps paint a picture of what each business's beliefs are regarding liability and responsibility before the interaction, as well as awareness of stormwater pollution and stormwater systems. At a later date, between six months and two or three years, businesses previously served are re-contacted for a follow-up Post-Service Survey. The purpose of this Survey is to assess the increase in awareness retained of polluted stormwater runoff and changes in behavior in response to receiving spill training since the first interaction.

When follow up Post-Service Surveys are performed two or more years after the initial site visit, businesses have often changed hands, become a new business or have all new

staff and management. In these situations, ECOSS treated it as a new site visit, providing a spill kit if they didn't have one, a new or updated spill plan, site map and training, as applicable and appropriate.

2nd Trainings

In 2014, ECOSS developed a thorough evaluation report on the effectiveness of the program. Through the Post-Service Survey process, ECOSS found that approximately 50% of businesses had not provided spill response training to their employees. To improve the effectiveness of the program, ECOSS began revisiting previously served businesses and offering the additional service of free spill re-training. As part of the 2nd training, outreach staff reminded business owners, managers and employees about the latest required BMPs, how to replenish spill kits, and provided updated spill prevention plans and emergency spill contacts, as needed.

ECOSS generally does not provide a 2nd free spill kit to businesses if kit contents are used, but outreach staff provide detailed spill kit purchasing information to business managers on each visit. If a language barrier is an issue for business managers to train their employees, ECOSS also offers trainings in nearly 10 different languages.

Businesses Served and Their Stormwater Awareness

Business Sectors Served

In 2021, a total of 18 businesses were served through this program in the City of Pacific. The sectors served automotive, industrial, retail, and food service.

Languages Served

Through this program, ECOSS' Multicultural Outreach Team utilized their language capacities to connect and communicate with multicultural businesses. Only one of the businesses in the City of Pacific spoke English as a Second Language (ESL). This language was Hindi.

Conclusions

The 2021 outcomes for the City of Pacific from this project are as follows:

- **Deliveries:** A total of 18 businesses in the City of Pacific received spill training, a spill kit, spill plan and site map.
- One of the businesses served in the City of Pacific spoke English as a second language with their primary language being Hindi.
- Expressed support on the part of the municipality was crucial to gaining the trust of business representatives.
- The trainings were well-received and the outreach team received positive feedback from attendees about how much they learned.
- Businesses appreciated the BMPs provided.
- **Post-Service Surveys:** Due to the COVID-19 pandemic and internal changes to Project Management staff and subsequent project delay, it has been difficult to spend the budget down with these uncertain factors. The Project Manager position has been filled and we anticipate to have more of an increase in hours billed for the year 2022.
- An Evaluation Summary will be provided to all participating cities in January 2022. The summary will share regional data of post-service surveys conducted in 2021 along with recommendations for a more valuable way to evaluate the program, considering the ongoing impacts of Covid-19 on small businesses in our region.
- **Next steps:** ECOSS will invite municipal staff to join a working group of stakeholders in early 2022, with the intent of gathering feedback to the program's evaluation process. ECOSS will provide all the PSSKIP partner cities an update and new evaluation procedure during 2022, which will be incorporated into our spill kit delivery contracts going forward.

Appendix A: Program Brochure



Why is Stormwater Important?

Stormwater is polluted runoff and the leading source of pollution into Puget Sound. Small amounts of contaminants carried by runoff add up, combining to become a serious threat to local lakes, rivers, and Puget Sound.

Do You Know Where Your Storm Drains and Runoff Go?

ECOSS can determine where your stormwater flows, and will provide a drainage map for your site.



"We have ideas of things we can do to make our workplace better, but most of the time we are simply focused on our bottom line. For ECOSS to come to our door and take the time to show us how we can improve our impact, it makes all the difference."

—San Vo, Warehouse Manager

To get a spill kit or for assistance, contact:



spillkit@ecoss.org
206-767-0432
ecoss.org

Why Should My Business Participate?

- Avoid cleanup costs and fines
- Help keep pollution out of Puget Sound
- It's easy: training is simple and takes 10-15 minutes

The Puget Sound Spill Kit Program has been funded through public and private funders identified below and others. The contents of this document do not necessarily reflect the views and policies of these funders or others, nor does mention of trade names or commercial products constitute endorsements or recommendations for use.








Remember: Only Rain Down the Drain!

Cover photo courtesy of Jeremy Graham, Veterans Conservation Corps.



FREE SPILL KIT

Stormwater Resources for Businesses



Sustainable Solutions for All

A pollution prevention partnership between ECOSS, businesses and local agencies of Puget Sound.

Prevent Pollution & Save Money

You can save money and reduce liability by preventing pollution problems before they start.

Avoid clean up costs and fines:

- 50% of businesses surveyed had spills
- Catch basin cleanup costs average \$2,700
- Regulatory fines can be over \$10,000

In case of an outdoor spill:

- Use the spill kit to clean it up
- Dispose of the used materials properly
- Replenish your kit (cost of replacing materials typically ranges from \$20-60)

By using best practices, you will also be helping improve water quality in our lakes, streams, rivers, and Puget Sound.



Services are available in multiple languages, visit ecoss.org/spillkit for a list of languages.




ECOSS Provides Environmental Services to Eligible Businesses

- Spill kit
- Spill plan and drainage map for your site
- Training for your employees
- Best Management Practices for your activities
- Assistance with permits and regulations
- Water, energy, and resource conservation recommendations



Trusted and Confidential Services

ECOSS provides confidential support to help businesses reduce costs and risks, prevent pollution and conserve resources. ECOSS has helped thousands of businesses improve their environmental performance since 1994 and that's why businesses trust us.

If you appreciate the work we do, please let others know about our services. Businesses also support our work by becoming ECOSS members, visit ecoss.org or call 206-767-0432.



The Spill Kit Program was created by ECOSS and Seattle Public Utilities in 2004. ECOSS is currently partnering with over 25 cities and counties around Puget Sound to provide spill kits to businesses.

"Our staff are now prepared to respond to a spill and understand the importance of protecting our local waterways."

—Michael Nguyen, Business Owner

Photo credits: courtesy of EnviroIssue (left and middle), ©ECOSS (right)

Appendix B: Instructional Poster

HOW TO CLEAN A SPILL



Stormwater is the leading source of pollution in the Puget Sound area. Small amounts of contamination can add up. By cleaning up spills before they reach our local lakes, rivers and Puget Sound you can:

- Avoid fines
- Avoid expensive clean up costs
- Protect local waterways



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1. Evaluate the situation. Put on protective equipment. Follow your spill plan.



2. Stop the source of the spill.



3. Protect the storm drain. If material has entered a storm drain, notify agencies listed on your spill plan.



4. Use kit materials to stop spill.



5. Clean up and dispose of used spill kit materials appropriately. For help call ECOSS: 206-767-0432



6. Restock the spill kit.

Remember: Only Rain Down the Drain!

For more information visit ecoss.org or contact ECOSS at 206-767-0432

Adapted from Seattle Public Utilities.



King County
Department of
Natural Resources and Parks
Wastewater Treatment Division

BOEING

Seattle Public Utilities

This spill kit is for use in public areas only. It is not intended for use in residential areas. The contents of this kit are not intended for use in residential areas.

Appendix C: Spill Kit Content Sheet

OIL ONLY



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Spill Kit

- 1 6.5 Gal. UN Rated Pail w/lid
- 2 Disposal Bag (4mil.)
- 2 Disposal Bag (6mil.)
- 4 Poly Zip Ties
- 20 Heavy Wt. "Oil Only" Pads
- 2 3" X 48" "Oil Only" Socks
- 1 Pair Nitrile Gloves
- 1 Splash Resistant Goggles
- 1 Instruction / Contents Page
- 2 Spill Response Labels
- 1 Grate Hook



*Supplies to restock the kit after use
can be ordered from:*

Abatix
206-963-0995
www.abatix.com

Advanced Environmental
253-872-9363
www.advenvironmental.com

Grainger Industrial Supply
206-767-4500
www.grainger.com

New Pig
1-800-468-4647
www.newpig.com

ecoss.org

Appendix D: Pledge

PLEDGE

 **PUGET SOUND SpillKit PROGRAM**

(Business or contact name)

By signing below, I agree that I will:

- 💧 Train my staff on how to use the Spill Kit
- 💧 Use the kit in case of a spill
- 💧 Dispose of used materials properly
- 💧 Replace any materials that are used


Initials

Date

Remember: Only Rain Down the Drain!


Sustainable Solutions for All
ecoss.org
206-767-0432

Appendix E: Spill Plans



SPILL PREVENTION AND CLEANUP PLAN

Business Name	Phone
Site Address	
Run-off from this site drains to:	Date

SPILL PLANNING AND PREVENTION:

<input checked="" type="checkbox"/>	Take inventory of chemicals and materials on site – <i>use less toxic materials where available.</i>
<input checked="" type="checkbox"/>	Obtain appropriate spill response materials and personal protective equipment (PPE)
<input checked="" type="checkbox"/>	Designate and train spill cleanup coordinator
<input checked="" type="checkbox"/>	Train staff, at least once annually. Document your training

IN CASE OF A SPILL, CONTACT THE FOLLOWING:

	CONTACT NAMES	CONTACT PHONE NUMBERS
Business Owner, or Site Manager		
Onsite Spill Cleanup Coordinator		
REQUIRED PHONE CALLS to make if a spill that is too large to control reaches a catch basin, water-body, or exceeds kit capacity.	Auburn Spill Hotline	(253) 931-3048
	National Response Center	1 (800) 424-8802
	WA State Dept of Ecology	(425) 649-7000 24 hours

SPILL CLEAN-UP:

<input checked="" type="checkbox"/>	Evaluate situation, including safety considerations; notify owner/manager of spill
<input checked="" type="checkbox"/>	Put On Personal Protective Equipment (PPE)
<input checked="" type="checkbox"/>	Stop the source of the spill
<input checked="" type="checkbox"/>	Protect the drain(s)
<input checked="" type="checkbox"/>	Clean up spill by applying spill kit materials
<input checked="" type="checkbox"/>	Dispose of clean up materials properly and restock the kit

FACILITY ACTIVITIES WITH POTENTIAL TO CONTAMINATE RUN-OFF


Activities	check all that apply	Activities	check all that apply
Fueling and fuel transfer		Loading/unloading of products	
Outdoor manufacturing		Landscape construction/maintenance	
Outdoor equipment/vehicle maintenance and repair		Outside storage of uncovered materials	
Outside drum or container storage		Customer and employee vehicles	
Vehicle, equipment, and building washing		Others:	

EQUIPMENT AND MATERIALS STORED ON SITE (>1 GALLON) WITH POTENTIAL TO CONTAMINATE RUN-OFF

Equipment	check all that apply	Vehicle Fluids	check all that apply	Misc. Chemicals	check all that apply
Forklifts		Antifreeze		Acid	
Trucks		Brake fluid, transmission fluid		Ammonia	
Cranes		Gasoline		Caustic, bases, lye	
Other:		Motor oil		Photographic chemicals	
Cleaning Products	check all that apply	Other fluids:		Pesticides, herbicides	
Liquids		Solvents, Paints, Lubricants	check all that apply	Other	check all that apply
Solids		Parts washer		Fertilizers	
Food Preparation/Waste	check all that apply	Dry cleaning fluids		Inks, dyes	
Cooking oil		Paint thinner, turpentine		Others:	
Grease (new or used)		Paint, coatings; oil based			
Dumpster		Paint, latex			
Trash compactor		Machine oil/coolant			
Other liquids:		Hydraulic fluid			
		Others:			

Need help developing your spill plan?

Contact Us! (206) 767-0432 or SpillKit@ecoss.org



SPILL PREVENTION AND CLEANUP PLAN PLAN DE PREVENCIÓN Y LIMPIEZA DE DERRAMES

Business Name (Nombre del negocio)	Phone (Teléfono)
Site Address (Dirección)	Date (Fecha)
Spill Kit Location (¿Dónde se encuentra el kit de limpieza de derrames?)	

SPILL PLANNING AND PREVENTION: PREPARACIÓN Y PREVENCIÓN DE DERRAMES:

<input type="checkbox"/>	Take inventory of chemicals and materials on site – use less toxic materials where available. Haga inventario de las sustancias químicas y otros materiales en su local – Si es posible, use materiales menos tóxicos
<input type="checkbox"/>	Obtain appropriate spill response materials and personal protective equipment (PPE) Obtenga material para limpiar derrames y equipo protector (guantes, lentes, etc.)
<input type="checkbox"/>	Designate and train spill cleanup coordinator Designe y entrene a un coordinador para limpiar derrames
<input type="checkbox"/>	Train staff, at least once annually. Document your training Entrene a su personal por lo menos una vez al año. Mantenga record de los entrenamientos (fechas, personal, etc)

IN CASE OF A SPILL, CONTACT THE FOLLOWING: EN CASO DE QUE OCURRA UN DERRAME, CONTACTE A:

Business Owner, or Site Manager (Dueño del negocio o Gerente)	CONTACT NAMES (NOMBRES)
Spill Kit Cleanup Coordinator (Coordinador para limpiar derrames en su local)	CONTACT PHONE NUMBERS (NÚMEROS DE TELÉFONO)
WISCONSIN STATE DEPT. OF ENVIRONMENT & NATURAL RESOURCES (Departamento de Medio Ambiente y Recursos Naturales de Wisconsin)	(608) 224-7000 (Llamada al 911)
WISCONSIN DEPT. OF ENERGY (Departamento de Energía de Wisconsin)	(608) 224-7000 (Llamada al 911)

SPILL CLEAN-UP: LIMPIEZA DE DERRAMES:

<input type="checkbox"/>	Evaluate situation, including safety considerations; notify owner/manager of spill Evalúe la situación, incluyendo factores de seguridad; informe al dueño/gerente del derrame
<input type="checkbox"/>	Put On Personal Protective Equipment (PPE) Use el equipo protector (guantes, lentes, etc.)
<input type="checkbox"/>	Stop the source of the spill Detenga lo que está causando el derrame
<input type="checkbox"/>	Protect the drains! Proteja las alcantarillas
<input type="checkbox"/>	Clean up spill by applying spill kit materials Limpie el derrame usando los materiales en el equipo para limpiar derrames
<input type="checkbox"/>	Dispose of clean up materials properly and restock the kit Deshágase de los materiales usados de una manera apropiada y reponga estos materiales

Need help developing your spill plan?
¿Necesita ayuda para hacer su plan para limpiar derrames?



Contact us! (206) 767-0432 or spillkit@ecoss.org
Contactenos! (206) 767-0432; spillkit@ecoss.org

SPILL PREVENTION AND CLEANUP PLAN PLAN DE PREVENCIÓN Y LIMPIEZA DE DERRAMES

Business Name (Nombre del negocio)	Phone (Teléfono)
Site Address (Dirección)	Date (Fecha)
Spill Kit Location (¿Dónde se encuentra el kit de limpieza de derrames?)	

FACILITY ACTIVITIES WITH POTENTIAL TO CONTAMINATE RUN-OFF ACTIVIDADES QUE PODRÍAN CAUSAR UN DERRAME

Activities (Actividades)	Check all that apply (marque todas las que apliquen)	Activities (Actividades)	Check all that apply (marque todas las que apliquen)
Refueling and fuel transfer Abastecimiento o transferencia de combustibles	<input type="checkbox"/>	Loading/unloading of products Carga y descarga de productos	<input type="checkbox"/>
Outdoor manufacturing Fabricación de materiales al aire libre	<input type="checkbox"/>	Landscape construction/maintenance Jardinería	<input type="checkbox"/>
Outdoor equipment/vehicle maintenance and repair Mantenimiento de vehículos o equipo al aire libre	<input type="checkbox"/>	Outside storage of uncovered materials Almacenamiento de materiales descubierto	<input type="checkbox"/>
Outside equipment/vehicle storage Almacenamiento de vehículos o equipo al aire libre	<input type="checkbox"/>	Customer and employee vehicles Vehículos de clientes y empleados	<input type="checkbox"/>
Tanker exterior o almacenamiento Tanque exterior o almacenamiento	<input type="checkbox"/>	Others (Otros)	<input type="checkbox"/>
Vehicle, equipment, and building washing Limpieza de vehículos, equipo o edificios	<input type="checkbox"/>	Others (Otros)	<input type="checkbox"/>

EQUIPMENT AND MATERIALS STORED ON SITE (≥4 GALLONS) WITH POTENTIAL TO CONTAMINATE RUN-OFF EQUIPO Y MATERIALES ALMACENADOS EN EL LOCAL (EN CANTIDADES MAYORES A 1 GALÓN) QUE PODRÍAN CAUSAR UN DERRAME

Equipment (Equipo)	Check all that apply (marque todas las que apliquen)	Vehicle fluids (Fluidos vehiculares)	Check all that apply (marque todas las que apliquen)	Misc. chemicals (Sustancias químicas)	Check all that apply (marque todas las que apliquen)
Fertilizers (Fertilizantes)	<input type="checkbox"/>	Antifreeze (Anticongelante)	<input type="checkbox"/>	Acid (Ácido)	<input type="checkbox"/>
Trucks (Camiones)	<input type="checkbox"/>	Brake fluid, transmission fluid (Fluidos de frenos y transmisión)	<input type="checkbox"/>	Ammonia (Amoníaco)	<input type="checkbox"/>
Cranes (Grúas)	<input type="checkbox"/>	Gasoline (Gasolina)	<input type="checkbox"/>	Caustic bases, lye (Sustancias caústicas, lejía)	<input type="checkbox"/>
Other (Otros)	<input type="checkbox"/>	Motor oil (Aceite de motor)	<input type="checkbox"/>	Pesticides/herbicides (Pesticidas, herbicidas)	<input type="checkbox"/>
Cleaning products (Productos de limpieza)	<input type="checkbox"/>	Other fluids (Otros fluidos)	<input type="checkbox"/>	Other (Otros)	<input type="checkbox"/>
Liquids (Líquidos)	<input type="checkbox"/>	Solvents, paints, lubricants (Disolventes, pinturas, lubricantes)	<input type="checkbox"/>	Fertilizers (Fertilizantes)	<input type="checkbox"/>
Solids (Sólidos)	<input type="checkbox"/>	Parts washer (Compartimento para lavar subgrupos)	<input type="checkbox"/>	Inks, dyes (Tinta, tinte)	<input type="checkbox"/>
Food preparation/waste (Comida/basura)	<input type="checkbox"/>	Dry cleaning fluids (Líquidos de tintorería)	<input type="checkbox"/>	Others (Otros)	<input type="checkbox"/>
Cooling oil (Aceite de enfriamiento)	<input type="checkbox"/>	Paint thinner, turpentine (Thinners) (Pulverizadores)	<input type="checkbox"/>		
Greases (Manteca)	<input type="checkbox"/>	Paint, coatings, oil based (Pintura de aceite)	<input type="checkbox"/>		
Other (Otros)	<input type="checkbox"/>	Machine oil/coolerant (Aceite para máquinas/refrigerante)	<input type="checkbox"/>		
Compressor (Compresor)	<input type="checkbox"/>	Hydraulic fluid (Fluido hidráulico)	<input type="checkbox"/>		
Other (Otros)	<input type="checkbox"/>	Others (Otros)	<input type="checkbox"/>		

Need help developing your spill plan?
¿Necesita ayuda para hacer su plan para limpiar derrames?



Contact us! (206) 767-0432 or spillkit@ecoss.org
Contactenos! (206) 767-0432; spillkit@ecoss.org

This Spill Kit is provided as a guide only. It is not intended to be used as a substitute for professional advice. The user assumes all liability for any damage or injury resulting from the use of this kit. The kit is provided as a guide only. It is not intended to be used as a substitute for professional advice. The user assumes all liability for any damage or injury resulting from the use of this kit.

Appendix F: Site Map and Watershed Map (Example Only)

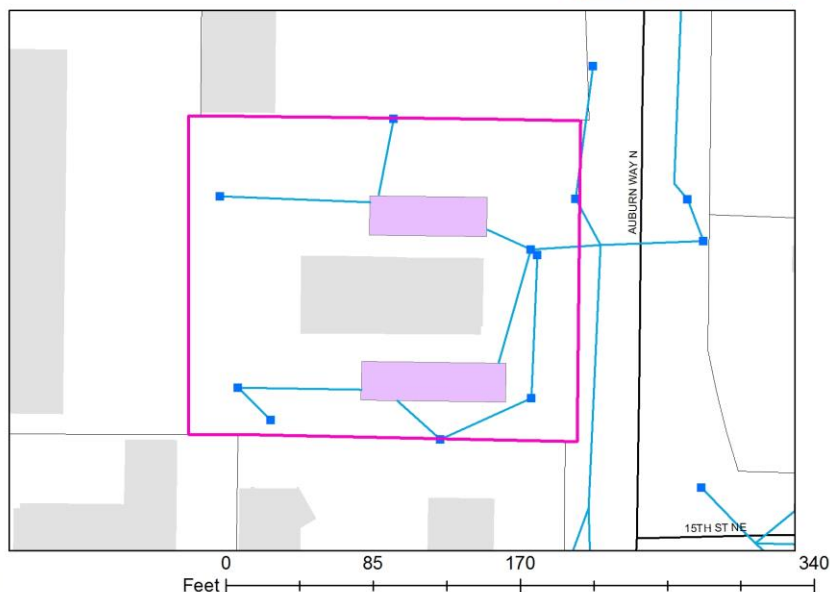
(BIZ NAME)
(ADDRESS)
(City), WA (ZIPCODE)

Runoff from this
business drains to
(BASIN)



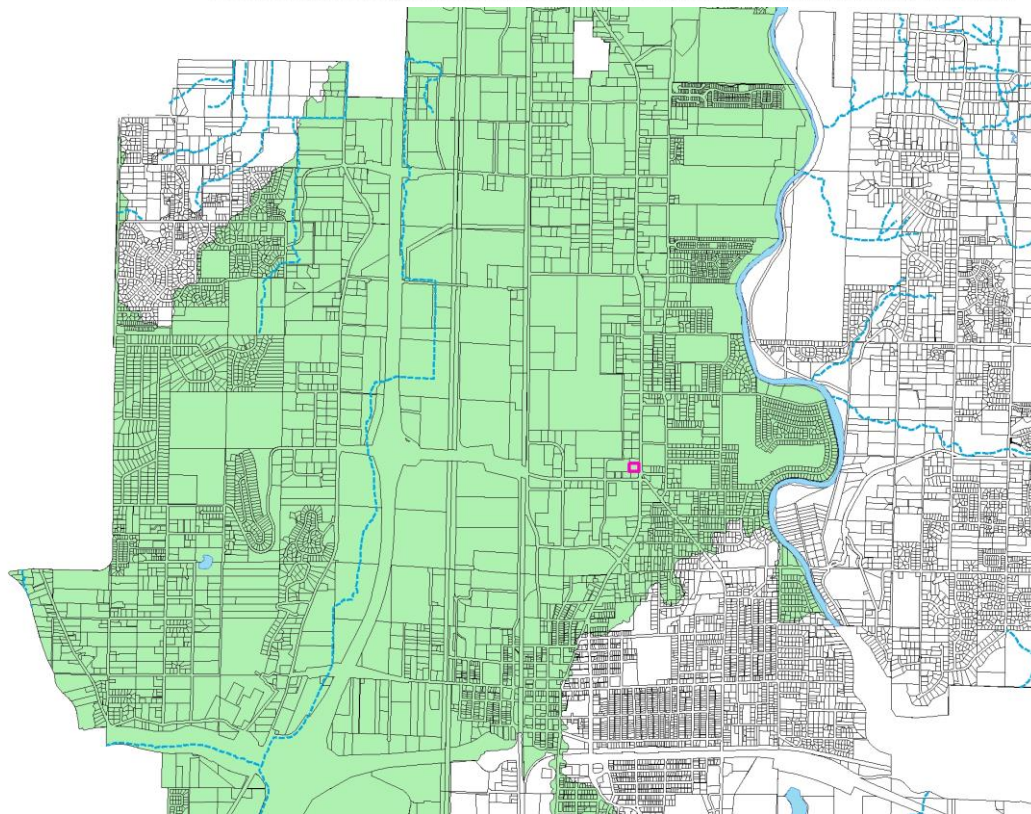
Legend

- Storm Drains (Catch Basins)
- Stormwater Lines
- Detention & Infiltration Sites
- Streets
- Buildings
- Parcels



Date created: 1/16/2014

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2021 ECOSS Pollution Prevention Outreach Report Regional Results

Date: 1/24/2022

ECOSS

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Introduction

Since the start of ECOSS' Spill Kit program in 2004, we have prioritized long-term positive relationships between municipalities and businesses through providing free spill cleanup materials and training, including multicultural and in-language support when needed. The main goals of the post-service evaluation survey are to:

- 1) Track and measure success of our spill kit program;
- 2) encourage spill preparedness and response among businesses by following up with periodic check-ins;
- 3) understand which businesses are experiencing spills and identify needs;
- 4) and gather overall data about how businesses are planning or not for spill preparedness.

This regional evaluation report helps our organization determine how the program works, and where we can improve. The current post-service evaluation method was developed nearly ten years ago with a policy researcher from the University of Washington, meeting the needs of the program within its context at the time. In the midst of a global pandemic in 2021, the needs of the program have shifted as the priorities of businesses changed in recent time. Though there has been a healthy amount of responses from businesses throughout the region in the post-service surveys, there has been a lower than usual participation rate due to the changing business landscape. Page 16 summarizes our recommendations, including proposed changes to outreach approaches following the COVID-19 pandemic.

Survey Results: 2017-2021

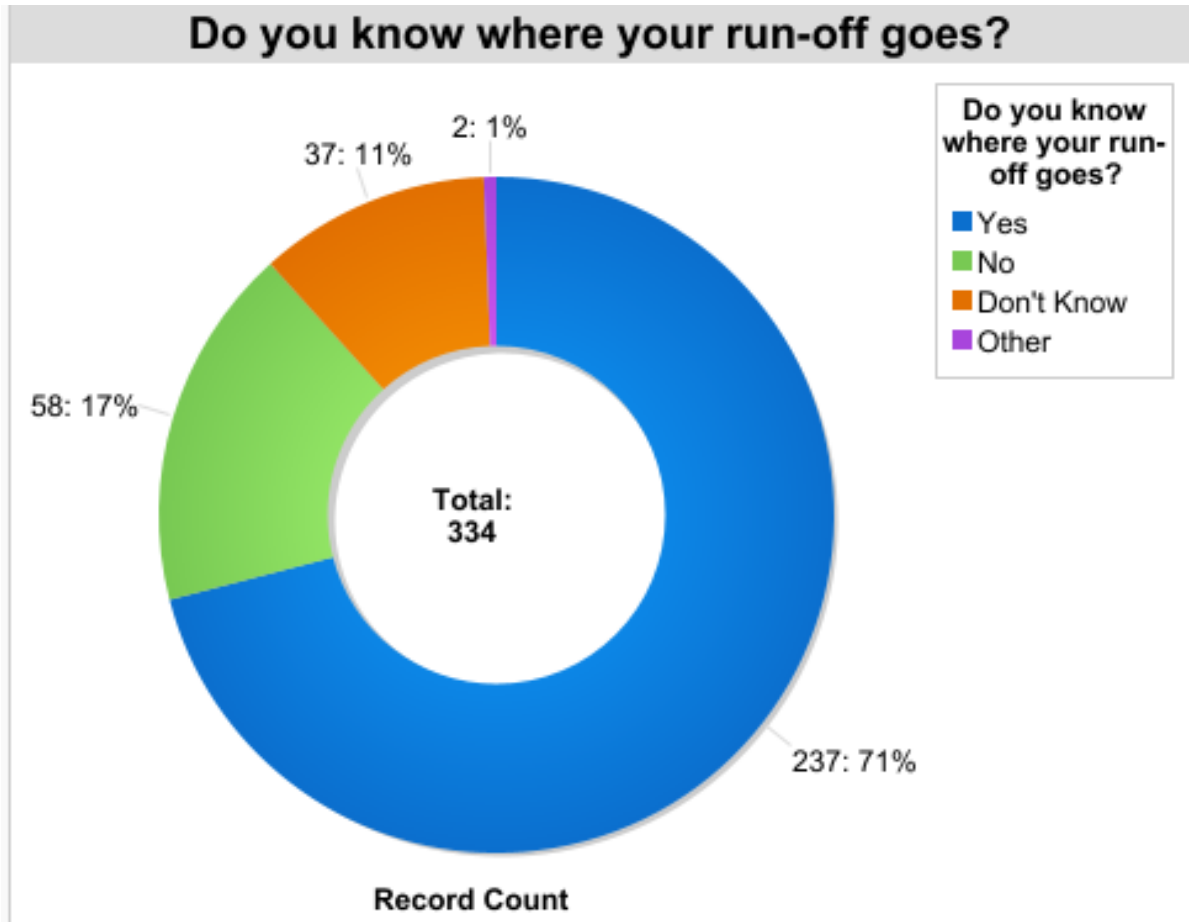
The following Pre- and Post-Service Survey responses are based on a regional effort to provide a more statistically accurate picture of changes in awareness and behavior across the region served. More than 30 municipalities over a five-year period are included in this report.

Municipalities engaged for this comparative evaluation include: Algona, Auburn, Bellevue, Black Diamond, Bothell, Burien, Covington, Des Moines, Duvall, Edmonds, Enumclaw, Federal Way, Kenmore, Kent, Kirkland, Lake Forest Park, Lake Stevens, Lynnwood, Maple Valley, Medina, Monroe, Mountlake Terrace, Mukilteo, Newcastle, Pacific, Redmond, Renton, Sammamish, SeaTac, Seattle, Snohomish, Tukwila, Unincorporated King County and Woodinville.

During initial new business visits, Pre-Service Surveys were conducted to develop a baseline level of awareness on the part of business owners, managers and/or staff. These Pre-Service Surveys provide an initial measure of each business's understanding and beliefs regarding liability and responsibility regarding managing polluted stormwater runoff before ECOSS provided spill training and support materials. Six months to three years later, a percentage of businesses served received follow up visits or called, and Post-Service Surveys were conducted. The purpose of the survey was to assess the change in awareness and behavior concerning polluted stormwater issues since receiving spill response training from the first interaction.

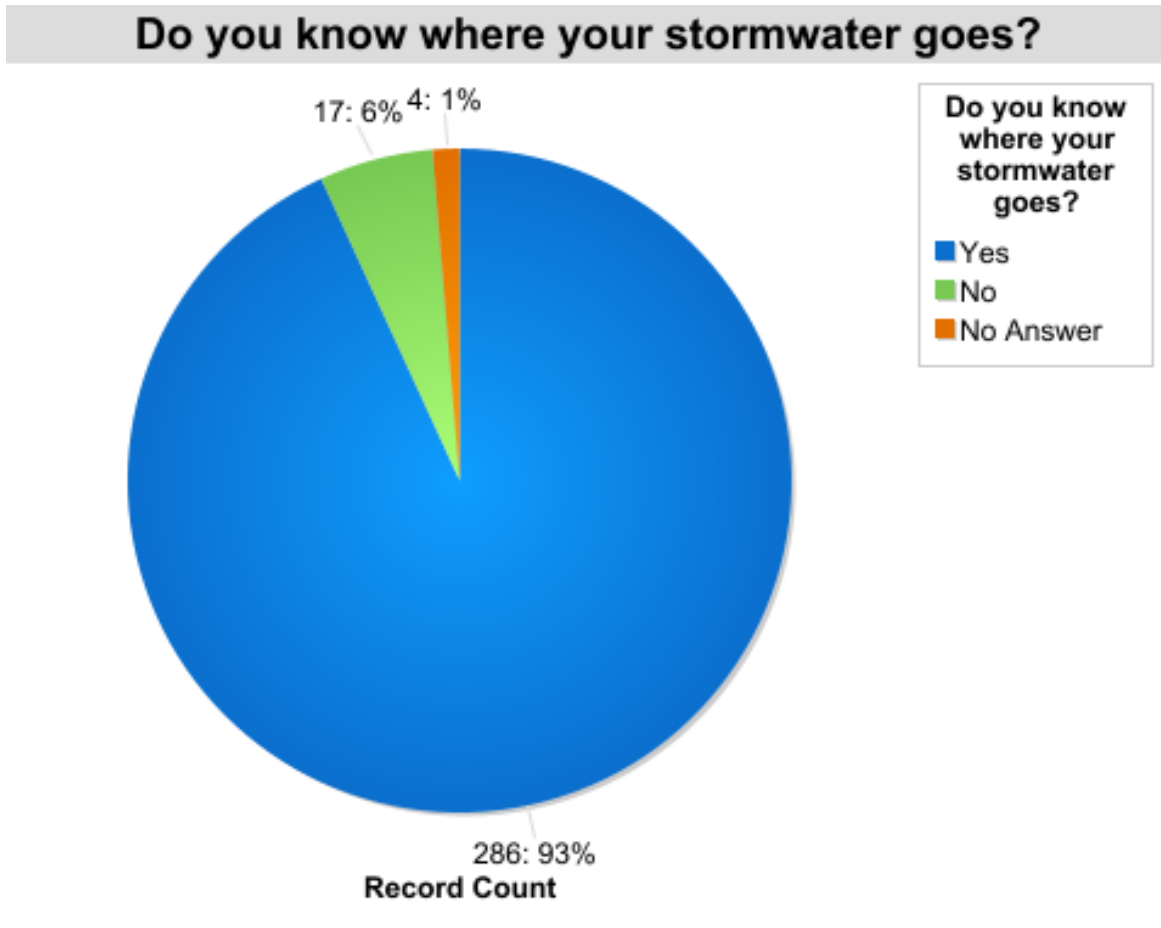
During this four-year period, 3,190 businesses participated in the Pre-Service Survey, and 1,668 businesses responded to the Post-Service Survey. 31% of businesses interviewed for Pre-Service Surveys, either spoke, or had staff who spoke, English as a second language. Of those businesses responding to Post-Service Surveys, 39% either spoke, or had staff who spoke, English as a second language.

A breakdown of the types of businesses participating in the Pre- and Post-Service Survey throughout the region is shown in Figures 1a and 1b.



Baseline (Before Outreach)

Figure 1a. Baseline and Post-Service: Business Sector Breakdown



Post-Service (After Outreach)

Figure 1b. Baseline and Post-Service: Business Sector Breakdown

The following is a summary of highlights of the successes and barriers discovered between the Pre- and Post-Service Surveys:

Business owners, managers and staff showed significant improvement in understanding where polluted stormwater runoff goes when it leaves their sites, as 93% reported knowing where stormwater goes after outreach, compared to 71% accuracy before outreach (Figure 2). This can be attributed to education, spill training and the site-specific GIS maps provided by outreach staff.

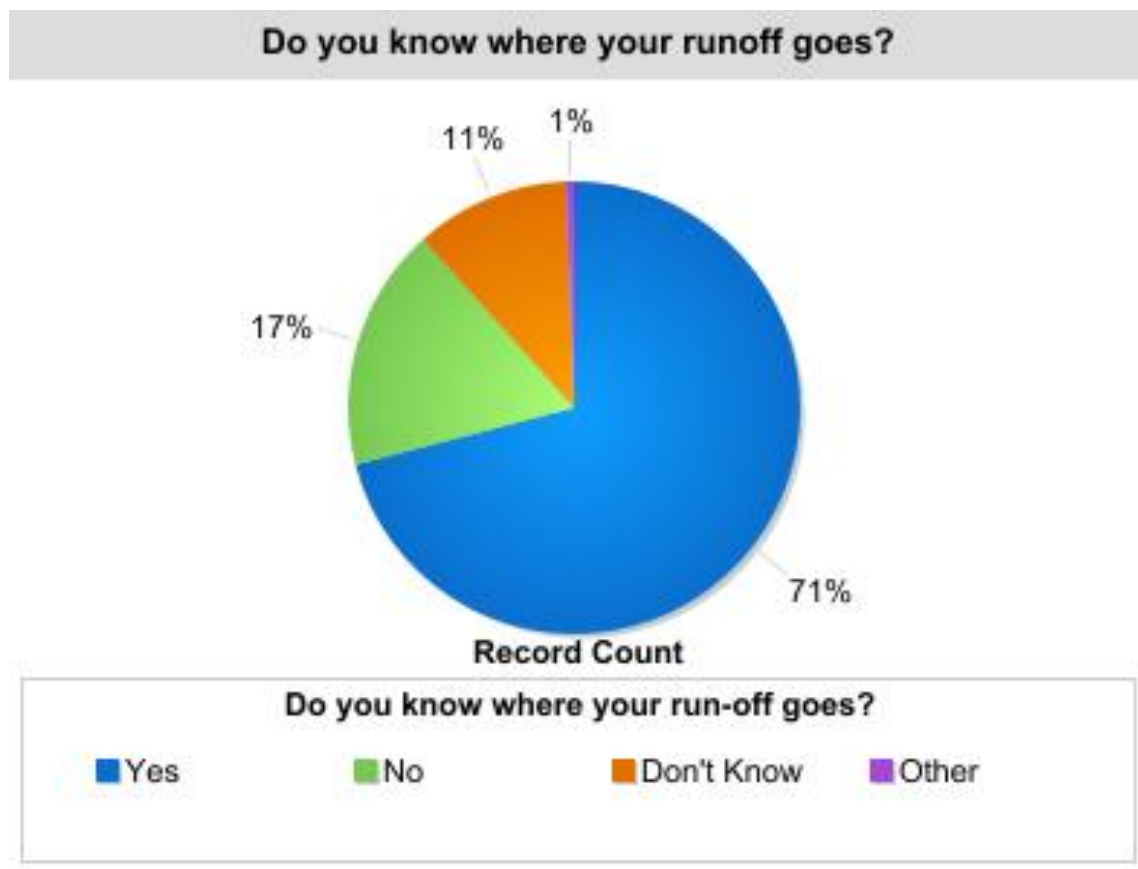


Figure 2. Baseline Question Pre-Service: Business Sector Breakdown

During the initial outreach, ECOSS staff asked each business if they had spill clean-up materials onsite (e.g. shop rags, sorbent pads/booms, sorbent powder, etc.). The team found that about 54% of the businesses had at least some materials to address spill incidents (Figure 3). In these circumstances, ECOSS staff educated and assisted the businesses in utilizing all tools available to address outdoor spills.

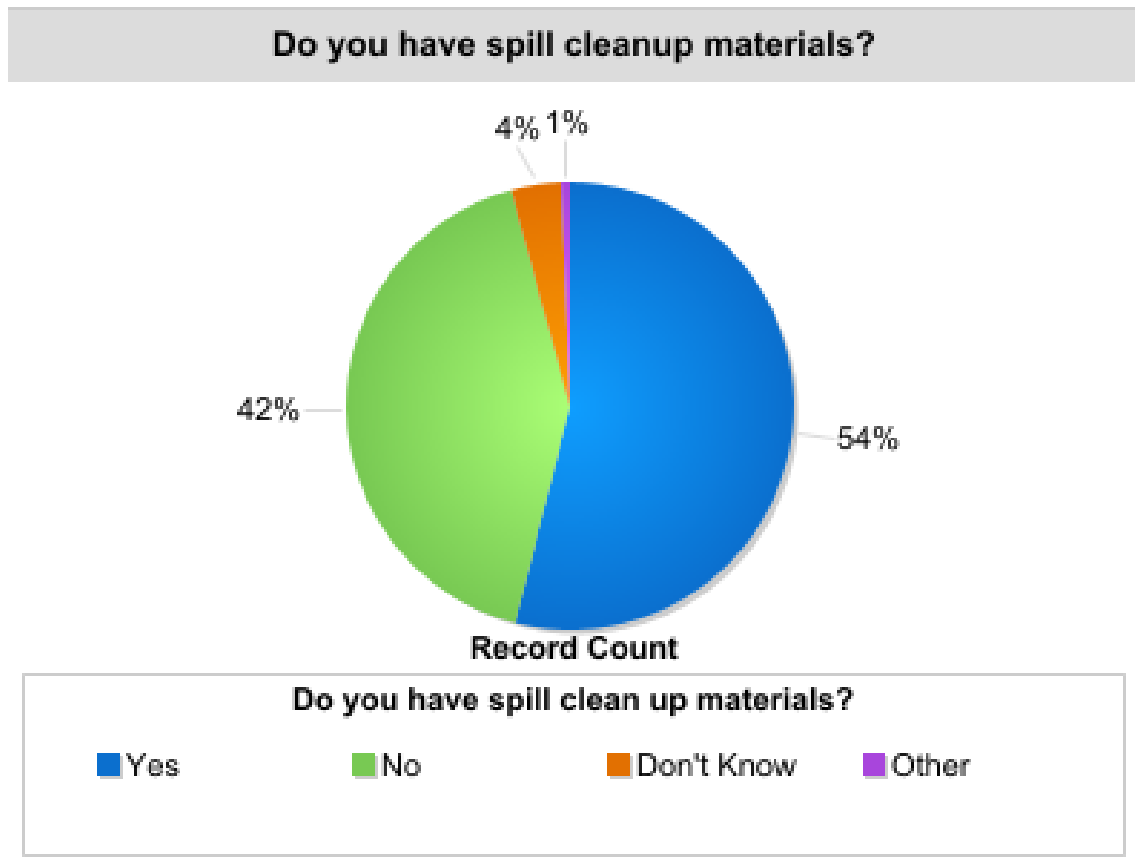


Figure 3. Baseline Question: Do you have spill cleanup materials?

While it was found that 86% of the businesses recognized that outdoor spills associated with doing business were their responsibility to clean up (Figure 4), only 54% of business had materials to address spills. Although it was not documented in the survey, many business managers were unaware of any regulatory liabilities associated with outdoor spills, and often expected property management or municipal staff to be responsible for spill management.

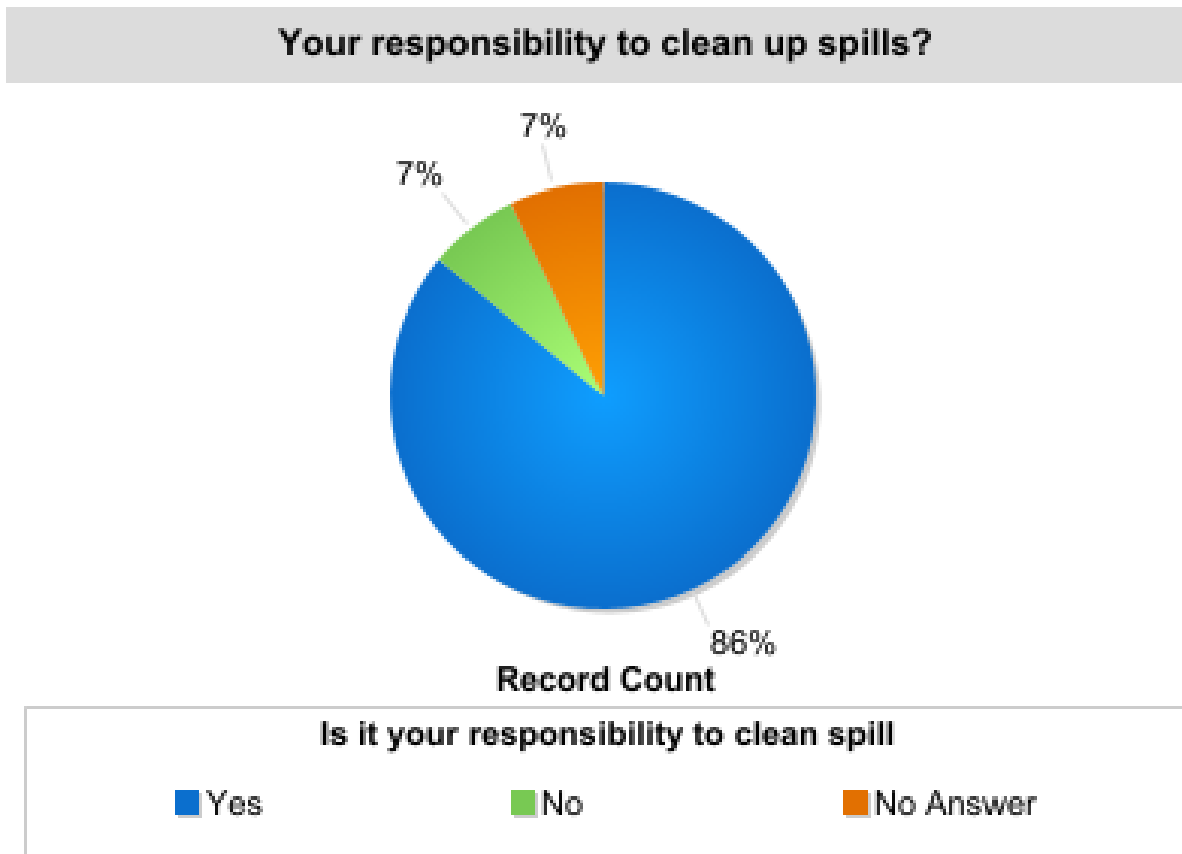


Figure 4. Baseline Question: Is it your business's responsibility to cleanup outdoor spills?

Prior to outreach, only 16% of the businesses trained their staff on spill response, whereas 67% of the businesses conducted trainings for their staff as a result of ECOSS' visit (Figure 5). Automotive businesses were most likely to train their staff after visits or already be trained, and food service businesses were least likely to do so. Since identifying low training rates among certain sectors in 2014, ECOSS has worked with cities to revisit businesses to remind them of the importance of, and to encourage them to provide, spill response training to employees. As part of the initial training, businesses are encouraged to utilize the spill prevention plan, site map and poster as training tools to educate employees on the importance of cleaning up spills.



Figure 5. Baseline and Pre-Service Question: Have you trained your staff since ECOSS visit?
Before Outreach



Figure 5. Baseline and Post-Service Question: Have you trained your staff since ECOSS visit?
After Outreach

By conducting Post-Service Surveys among 1,668 businesses, ECOSS found that approximately 18% of businesses surveyed utilized their spill kits since receiving the training (Figure 6). Assuming that those businesses were in jurisdictions that had spill response programs, those agencies would have saved \$287 in personnel costs per incident based on data provided by Seattle Public Utilities (SPU),¹ which collectively could have added up to close to \$69,454. As part of the same study, if a contractor had cleaned up these spills at a rate of \$2,700 per incident, the accumulated costs would have been nearly \$653,400 to the business.²

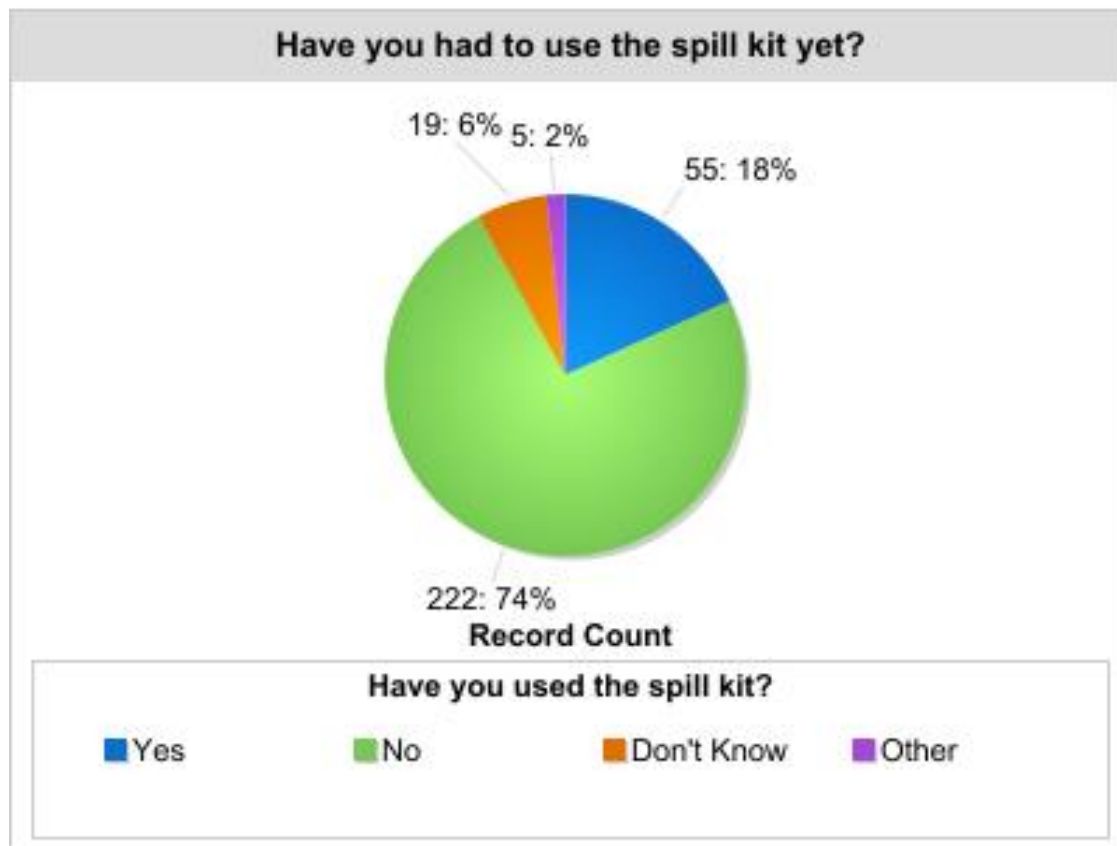


Figure 6. Post-Service survey: Have you used the spill kit?

55 businesses reported the type of material spilled. 33% of these businesses reported that the volume spilled was less than 1 gallon to between 1 and 5 gallons. The spill kits absorb up to 7 gallons of fluids, and therefore nearly all of the spills were able to be cleaned up with the spill kit materials provided. This

¹Eric Autry, Senior Spill Coordinator SPU, Personal Communication.

²SPU reported that when there is a spill that requires the use of a contractor, the average cost per incident is \$2,700 (Eric Autry, Senior Spill Coordinator SPU, Personal Communication).

keeps the cost of response for cities and businesses down, as businesses are able to manage spills without need for municipal response or contracted cleanup costs.

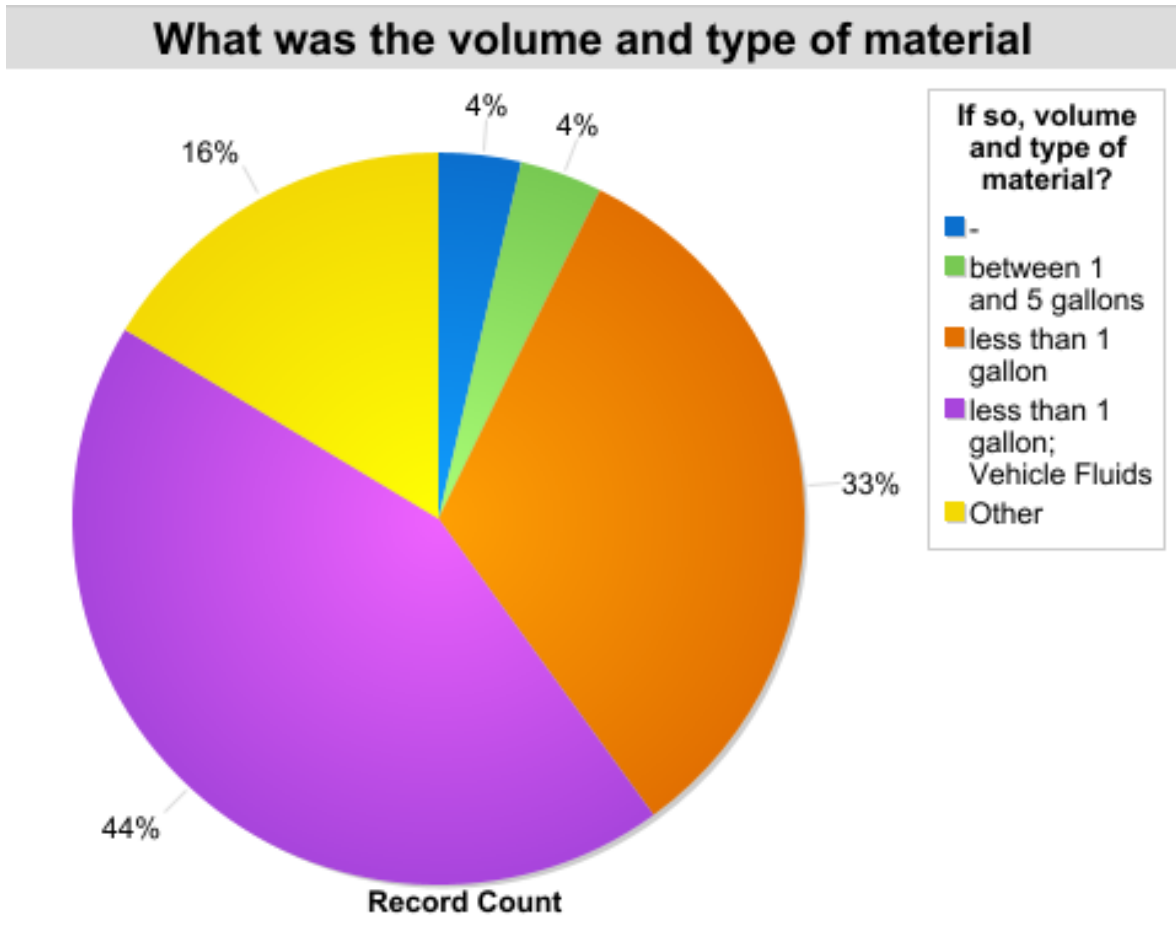


Figure 7. Post-service survey: Types of spills

Since ECOSS' visit, 91% of the businesses have adopted spill prevention practices (Figure 8). Spill prevention practices might include:

- Keeping dumpster lids closed
- Sweeping or blowing parking lots instead of pressure washing
- Using secondary containment
- Keeping outdoor stored materials covered

This year, in addition to discussing some of these basic spill prevention practices listed above, ECOSS staff provided business sector appropriate best management practices (BMPs) from King County's Stormwater Pollution Prevention Manual.

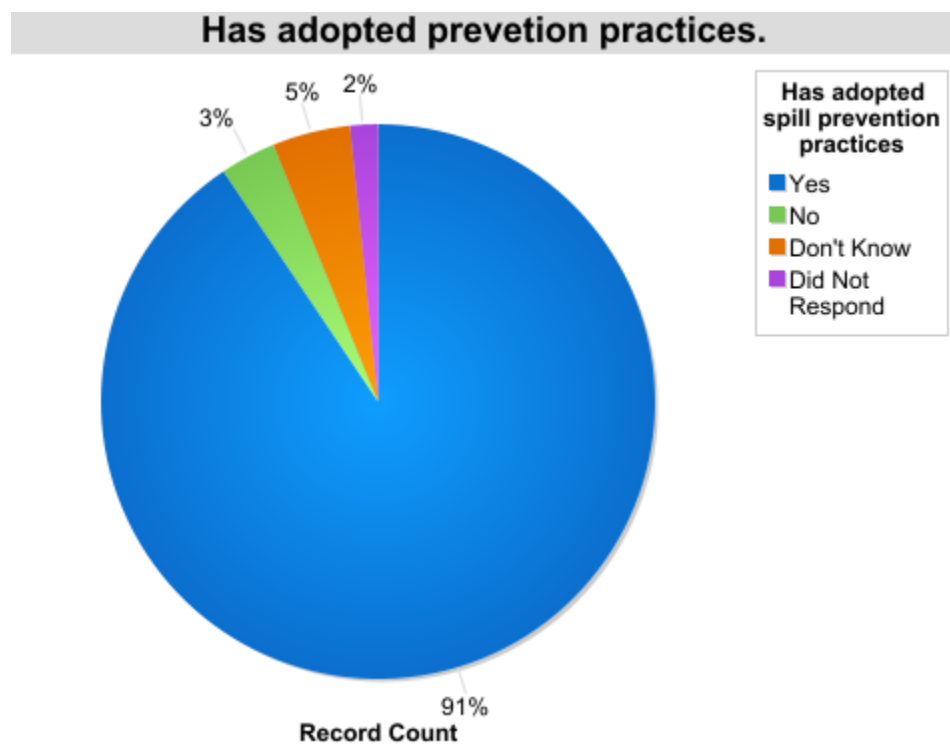


Figure 8. Post-service survey: Has your business adopted spill prevention practices?

When asked the question, “How confident are you that you could clean up an outdoor spill if you had one,” ECOSS found 82% of the businesses served were “Very Confident” that they could clean up a spill, while 16% were “Somewhat Confident,” and only 2% were “Not Very Confident,” or “Not Confident At All” (Figure 9). The survey results showed the majority of businesses are “Very” or “Somewhat Confident” they could respond to a spill after ECOSS’ spill prevention training. When asked why only “Somewhat Confident,” most businesses said they hadn’t responded to a spill before, and they didn’t feel like they could answer the question more accurately. Most believed that once they had responded to a spill, and with the training provided by ECOSS staff, they were confident they could address a spill appropriately.



Figure 9. Post-service survey: How confident is business with cleaning up a spill

Regionally-Based Conclusions

- Approximately 83% of the total businesses served (of all participating cities) reported an outdoor spill since receiving the spill response training, and utilized their spill kit to clean up the spill.
- Assuming that if a spill was not cleaned up and reached a storm drain, and the City did not have the equipment to respond, a contractor would need to be called in to address the spill. In this case, the cumulative costs would have been close to \$653,400 based on an average cost of \$2,700 per catch basin cleaned.
- Pre-Service Surveys reflected that only 71% of the businesses taking part in the program were aware of where polluted stormwater runoff went. This number increased significantly to 93% of the businesses who responded to the Post-Service Survey.
- Support expressed from the city was crucial to gaining the trust of business representatives.
- The majority of the training was well-received and the outreach team received positive feedback from businesses about how much they learned.
- A majority of the businesses contacted for post-survey outreach in 2021 declined to participate in the survey. There was also a large number of businesses with entirely new staff from the last date of service provided by ECOSS.
- A roundtable discussion of the challenges and opportunities available to us as the business landscape changes during and post-pandemic will potentially our scope in the evaluation method.

Recommendations and Next Steps

1. Based on the use of the kits amongst the business community, ECOSS recommends continuing to provide the program in 2022. We recommend a few adjustments to be made to the post-service evaluation method. We infer that because of the time that has passed in between service dates and the uncertain nature of today's business landscape in the midst of a pandemic, businesses are less inclined to participate in the post-surveys. ECOSS coordinators have found in their outreach efforts that a majority of BIPOC owned businesses and others they have served in the past have closed, making outreach nearly impossible.
2. ECOSS recommends revisiting previously served businesses to provide refresher training, as needed and applicable. While conducting the Post-Service Survey, it was found that although many businesses did provide spill trainings for their employees, whether due to high staff turnover, inconvenience, or other reasons, nearly 21% of the businesses previously served did not provide spill trainings. Not only do refresher training encourage businesses to recognize instances in which a spill kit would be of use, but it also helps the City to develop meaningful relationships with the businesses by indirectly providing this free resource. With the addition of our new spill training videos, it will be easier to retrain staff and managers.
3. The utilization of an introductory letter to businesses from some cities with information about the upcoming source control inspections due to new municipal stormwater permit requirements helped catch the interest of business owners and managers, especially those that might not otherwise be inclined to be open to receiving spill response training and support materials. If you haven't already worked with ECOSS to create this letter, you might consider having ECOSS deliver these letters while doing outreach.
4. With the impending changes that municipalities will be facing in the next couple of years to meet the new NPDES Stormwater Permit requirements, ECOSS staff supplemented its outreach to businesses with sector appropriate best management practices (BMPs) from King County's Stormwater Pollution Prevention Manual. The BMPs were helpful, especially when staff could point out the issue, and provide information

about how to change current business practices to reduce or eliminate polluted stormwater runoff. However, the BMPs are currently only in English and very text heavy. Using Waterworks grant funding from King County WTD, ECOSS is working on a series of BMP sheets in up to four languages to improve the transmission of the BMP messages across to diverse communities.

5. In response to the pandemic, and a concern for keeping ECOSS staff and business personnel safe, ECOSS used separate grant funding to develop a series of short Instructional Videos to train businesses in the use of the spill kits. The videos outline why it's important to protect stormwater, to fines and cleanup costs, to what's in the kit and how to use it. This is an easier way for ECOSS to train the multilingual employees at businesses, so they can share spill response training with the whole staff. ECOSS is in the process of recording these videos in six languages, including English, Cantonese, Korean, Mandarin, Spanish and Vietnamese. These videos will be a helpful tool to get the spill response message across to diverse communities, and can be used into the future as part of the spill kit training process. In 2022, ECOSS will gather feedback about the videos and whether additional content or information is needed.
6. We will be inviting cities to a roundtable discussion to explore alternative ways to adjust or replace the post-service evaluation. We do recommend continuing to revisit businesses on a regular basis, enabling ECOSS to build long-term relationships between the City and its businesses. By both engaging new businesses and revisiting those previously served, ECOSS can further solidify the principles of spill prevention and cleanup within the region's business community.