# SOURCE CONTROL AND MOBILE BUSINESSES Pilot Program Plan

Prepared for: King County and Washington State Department of Ecology

Project No. 200212 • March 2023 FINAL





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Aspect Consulting, LLC

for John

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# Acronyms

Aspect	Aspect Consulting, LLC
BIG	Business Inspection Group
BMP	Best Management Practice
DOR	Washington State Department of Revenue
Ecology	Washington State Department of Ecology
MS4	Municipal Separate Storm Sewer System
NAICS	North American Industry Classification System
NPDES	National Pollutant Discharge Elimination System
SAM	Stormwater Action Monitoring
Source ID	Source Identification
Study	This SAM study
TAC	Technical Advisory Committee
WSC	Washington Stormwater Center

# **1 INTRODUCTION**

This document is the Pilot Program Plan for the Source Control and Mobile Businesses SAM study (Study)<sup>1</sup>. The Study is part of the Stormwater Action Monitoring (SAM) cooperative program, which is funded by more than 90 western Washington municipal stormwater permittees of the National Pollutant Discharge Elimination System (NPDES) in Washington state. The SAM program's goal is to improve stormwater management to reduce pollution, improve water quality, and reduce flooding in municipal separate storm sewer systems (MS4s). The Pilot Program of this Study supports this goal by helping NPDES permittees address potential stormwater pollution sources from mobile businesses. The Study is being led by King County, and the SAM program is administered by the Washington State Department of Ecology (Ecology).

# 1.1 Mobile Businesses and Source Control SAM Study

As part of the Source Identification (Source ID) subset of SAM studies, this SAM Study is focused on how permittees are implementing stormwater source control activities with regard to mobile businesses. As a subset of commercial enterprises, some mobile businesses have unique challenges related to stormwater and pollution prevention due to their mobile nature and working at dispersed sites in multiple jurisdictions.

A working definition of mobile businesses related to source control was developed in the Study survey (Aspect, 2022a). The definition was refined in discussion with the Study's technical advisory committee (TAC). The revised and current working definition is:

Mobile businesses are defined by travel to customer sites to provide services, which typically include sites outside of the businesses' home jurisdiction. Like any commercial enterprise, mobile businesses are of interest to stormwater management if there is potential to cause illicit discharges. This includes via business activities that generate, store, transfer, treat, and/or discharge pollution-generating material or waste that could enter the municipal storm drainage system or natural water bodies. Examples include mobile equipment repair services, mobile vehicle repair and detailing, landscaping services, onsite carpet cleaning and pet groomers, and exhaust hood cleaning, among others.

The overall goal of this Study is to provide insight and tools to help permittees identify, inspect, and coordinate in regard to mobile businesses and municipal source control activities. The outcomes from this Study will aid municipal stormwater permittees with their site/business inspections and provide them with tools and resources for including and inspecting mobile businesses.

# 1.2 Task 6 Pilot Program

Task 6 of the Study is to implement a Pilot Program (Program) for municipal permittees on source control and mobile businesses. The Pilot Program serves as an opportunity to test out the tools and resources developed in the Study, which include a business listing

<sup>&</sup>lt;sup>1</sup> <u>https://ecology.wa.gov/regulations-permits/reporting-requirements/stormwater-monitoring/stormwater-action-monitoring/sam-source-identification/mobile-business-source-control</u>

process to identify mobile businesses, outreach materials for mobile businesses, and a best practices guidance document.

The geographic area for the Pilot Program was selected to be King County (County). This provides a reasonably large area while still being manageable for a pilot-level program. In addition, King County is the area in which the business listing process was focused (Task 3 of the Study) and for which likely mobile businesses have already been identified based on business license records (Aspect, 2022b). Currently, there are 26 partner cities in King County who participate in the Washington State Department of Revenue's (DOR) Business Licensing Service (BLS, see Table 1 and Figure 1). Of the BLS partner cities, 24 cities are also municipal stormwater permittees and form the group that will be asked to participate in the Pilot Program.

# 2 PILOT PROGRAM GOALS AND OBJECTIVES

The goals and objectives of the Pilot Program are described below.

# 2.1 Goals

- 1. Develop and test outreach materials with best management practices (BMPs) for Pilot Program participants to use with mobile businesses and pollution prevention efforts.
  - Outreach materials are being developed to complement other available outreach resources for mobile businesses.
- 2. Develop and test a Mobile Business Identification Spreadsheet Tool to identify mobile businesses from business license data
  - The Tool will use the business listing process developed in Task 3 of the Study.
- 3. Identify best practices for municipal source control programs related to identifying and inspecting mobile businesses.
- 4. Identify and communicate lessons learned from Pilot Program to permittees and Ecology.

# 2.2 Objectives

- 1. Prepare a Pilot Program Plan to identify the procedures, schedules, and planned outcomes.
- 2. Obtain participant feedback on the outreach materials developed for the Study and revise the materials accordingly.
- 3. Refine and update the Mobile Business Identification Spreadsheet Tool based on participant feedback and usability during the Pilot Program.
- 4. Convene meetings with participating cities throughout the Pilot Program to discuss progress, questions, and issues.
- 5. Identify and develop case studies related to mobile businesses and source control from participants.
- 6. Survey participants at the end of the Program.
- 7. Write a report presenting the Pilot Program's outcomes, the draft of which will be reviewed by Program participants and the Study TAC.

# **3 PROGRAM IMPLEMENTATION**

The Pilot Program will be implemented based on the six topics below, which include:

- 1. Program participation and recruitment
- 2. Resources provided to participants
- 3. Information about case studies that will be developed
- 4. Survey at the end of the Pilot Program
- 5. Meetings and communications
- 6. Program schedule

# 3.1 Program Participation

The primary audience for the Pilot Program is cites that are municipal stormwater permittees in King County who participate in DOR's BLS program for managing business licenses. This currently includes 26 cities in King County, as listed in Table 1. Table 1 also lists the 13 other incorporated cities in King County who are not BLS partners cities, and these are shown geographically in Figure 1.

The current BLS partner cities are the primary target participants for the Pilot Program since the lists of mobile businesses are a key component and were developed for those cities from BLS data (deliverable from Task 3 of the Study, Aspect 2022b). Some non-BLS cities—Bellevue, Des Moines, Kent, and Renton—were also invited to participate based on their expressed interest and ability to provide a business license list with the same information as the BLS data, which will be used to develop a list of mobile businesses. These non-BLS cities were selected to help create a more contiguous area in the County of participating cities.

Only municipal stormwater permittees are included in the Pilot Program since they are required to have source control programs. Two BLS cities within King County— Carnation and North Bend—are not municipal stormwater permittees, so this reduces the potential pool of participating cities to 24. The pool is reduced one more to 23 because one city does not have an endorsement code option for business license applicants who are not residents of the city, which is a key element needed to develop the mobile business lists.

Although the pool of 23 potential participating cities represents the majority of cities in King County, it does not represent the largest or most populated cities in the county. Notably, five of the ten largest cities in the county are not BLS partners, including Seattle, Bellevue, Kent, Renton, and Shoreline. Even though every city in the County is not included in the Pilot Program, the nature of mobile businesses supports a pilot-level program that assumes mobile businesses travel throughout the County for work.

Participation in the Pilot Program is voluntary, and an opt-in invitation was sent to the target participants. Participation in the Program involves five main activities:

- 1. Using the mobile business resources provided, including the mobile business lists, outreach materials, and Best Practices Guidance document
- 2. Documenting source control activities with mobile businesses for use in case studies
- 3. Attending four planned meetings
- 4. Completing a survey at the end of the Program
- 5. Reviewing the draft Program report

#### 3.2 Resources Provided

Several resources have been developed for the Pilot Program to support stormwater permittees, including mobile businesses in municipal source control programs. These materials were developed to complement existing resources available for mobile business pollution prevention and source control. As part of this Study, the resource materials will be tested by being used in the Pilot Program and then revised and refined based on participant feedback.

#### Mobile Business Lists

A list of likely mobile businesses will be provided to each participating city. The lists will be based on those created during the development of the mobile business listing (Task 3 of the Study) from business license records as of July 2022. That Study task produced a process to search for keywords in the business description and parse the results by the number of keyword matches. The higher the keyword match score, the higher the likelihood of a business being mobile in nature and of interest to stormwater source control and pollution prevention. The keyword search process will be used to develop mobile business lists for the few non-BLS cities invited if they participate.

The numbers of likely mobile businesses that have been identified in each BLS city's business license records are provided in Table 2. Table 2 also includes the total business license records for each city and the count of those with an endorsement number that indicates "non-resident" business. The non-resident status indicates a business that is applying for a license from outside of the licensing jurisdiction; this was used as a key element in the business listing keyword search process. While not all mobile businesses necessarily travel outside their home jurisdictions, the non-resident endorsement helped narrow the search to businesses that would have to be mobile for providing certain on-site services.

The numbers of mobile businesses in Table 2 are also grouped by an assigned relative risk level for pollution generating potential (higher, medium, or lower) based on the business's North American Industry Classification System (NAICS) code. The NAICS codes considered were those listed in Appendix 8 of Ecology's Western Washington Phase II Municipal Stormwater Permit (Ecology, 2019). The NAICS risk levels are provided in Table 3 for reference and indicate what business types have a relatively higher or lower pollution generating potential.

The Study team will be available to help participating cities review and incorporate the mobile business lists into their source control site inventories. This includes free support for a duplicates analysis with a city's existing inventory list, and, if needed, alignment of the risk ranking with the city's existing prioritization approach.

#### **Best Practices Guidance Document**

A document is being prepared that identifies best practices for municipal source control programs to include mobile businesses and address the special pollution prevention needs they have. The document is currently in production and will be provided to Pilot Program participants for use and feedback.

The Best Practices Guidance document will include information about preferred pollution prevention practices for a variety of mobile business types. To this end, the document serves as a collator of BMPs and outreach materials for mobile businesses from a variety of sources, including the *Source Control Inspection Program Guidance Manual* (Washington Stormwater Center, 2022) and web searches as well as the outreach materials for mobile businesses developed for this Study. In addition, the Best Practices Guidance document will include recommendations for working across jurisdictional boundaries, which is a key element of addressing mobile businesses.

#### **Outreach Materials for Mobile Businesses**

The Pilot Program includes creating new outreach materials to addresses specific mobile business types and source control topics to complement existing materials available. Subject ideas for the outreach materials and target mobile business types were discussed with the Study TAC, and a list of topics was identified to consider for creating new outreach items.

To start, we are creating a brochure for mobile automobile repair, which is a very common mobile business type. This topic fills the gap between existing outreach materials for automobile repair in fixed locations and for related mobile business topics such as washing practices, which are widely addressed in existing materials.

Two additional outreach items for mobile businesses will be developed as part of the Pilot Program. The items will be brochures, fact sheet, or poster, and the topics will be decided by the participating jurisdictions who will help develop some of the content and test the items in their source control inspections. The additional topics being considered are listed below and were identified from review of existing outreach materials for mobile businesses and from TAC input. The topics are presented in alphabetical order.

- Contractors at small construction sites
- Cross-Jurisdiction coordination on mobile businesses
- Food trucks
- Landscapers
- Mobile carpet cleaning
- Mobile exhaust/vent hood cleaners

- Painters
- Paving and asphalt maintenance
- Power/pressure washing
- Solid waste haulers

The outreach materials will be prepared as digital files that can be printed by participating cities. The design will include a blank space for adding a label with local contact information and resources, logo(s), and QR codes.

#### 3.3 Case Studies

Case studies will be developed to convey lessons learned from experiences with mobile businesses during the Pilot Program. The case studies will be developed from information provided by Program participants. A template is provided in Appendix A and includes:

- Narrative description of issues found and how they were resolved
- Photos from before or during an inspection and after an issue was resolved

The case studies will be created during and after the Pilot Program and presented in the Pilot Program report.

### 3.4 Survey

At the end of the Pilot Program, a survey will be prepared for participating cities to complete. The survey will focus on elements of the Pilot Program and resources used and tested. Questions are anticipated to include those presented below, among others, along with options to provide feedback and suggest improvements to the mobile business listing and outreach materials.

- Did your city use the mobile business list that was provided? If so, what did you like about it? What could be improved?
- Did your city use any of the mobile business outreach materials? If so, which ones did you use? If you used at least one of the materials, what did you like about it? What could be improved?
- Did your city use the Best Practices Guidance document? If so, what did you like about it? What could be improved?
- How many mobile businesses did your city inspect during the Pilot Program?

The results and feedback provided in the survey will be used to revise and finalize the Best Practices Guidance document and revise the outreach materials. The final versions of these materials will be provided as part of the final deliverables from the Pilot Program.

# 3.5 Meetings and Communications

The Pilot Program, which is planned to run for 6 months, will include four meetings with participating cities that will occur approximately every 6 weeks. The meetings are intended to help participants implement the Program and provide a forum for peer-to-peer discussion among cities about mobile businesses and stormwater management.

The meetings are expected to be online (via Teams) and last from 1 and a half to 2 hours, with agendas sent beforehand and minutes sent after each. Agendas for each meeting are expected to include:

- Status updates from Program participants, including number of mobile businesses inspected, use of mobile business outreach materials, and comments on best practices
- Breakout rooms by mobile business type for peer-to-peer discussion and multijurisdiction coordination
- Creating and sharing of mobile business case studies

Communications with Program participants will be mostly by email, phone, and during meetings, and will occur as needed for Program coordination, planning meetings, and jurisdiction-specific questions. A Sharepoint site will also be used to host and share files and resources and post draft and final deliverables for the Program.

## 3.6 Schedule

The schedule for the Pilot Program is summarized below and shows approximate dates and key activities, milestones (*italics*), and deliverables (in **bold**).

#### Planning: December 2022 – February 2023

- Prepare Pilot Program Plan
- Program recruitment for participating cities
- Prepare draft Best Practices Guidance Document
- Prepare draft outreach materials for mobile businesses
- Prepare lists of mobile businesses for participating cities

#### Implementation: March – August 2023

- Program *kick-off group meeting* with participating cities
- Provide Program materials to participants:
  - o Pilot Program Plan
  - o Best Practices Guidance
  - o Mobile business outreach materials
  - Mobile business listing
- Work with cities individually to incorporate the mobile businesses into their existing site inventories

- Two group meetings with participating cities during the Pilot Program
- Identify and prepare case studies
- Prepare the **Program survey**
- One group meeting with participating cities at the end of the Pilot Program

#### Survey: September 2023

- *Program survey* to be completed by participating cities
- Finish preparing case studies

#### **Report: October – December 2023**

- Prepare draft Pilot Program report
- *Review of draft report* by Program participants and by the Study TAC
- Revise and finalize Best Practices Guidance Document
- Revise and update the mobile business outreach materials
- Finalize Pilot Program report

# References

- Aspect Consulting, LLC (Aspect), 2022a, Source Control and Mobile Businesses: Survey of Municipal Programs Technical Memorandum, May 2022. Prepared for King County and Washington State Department of Ecology. <u>LINK</u> to document on SAM website.
- Aspect Consulting, LLC (Aspect), 2022b, Source Control and Mobile Businesses: Business Listing Generation Technical Memorandum, December 2022. Prepared for King County and Washington State Department of Ecology. <u>LINK</u> to document on SAM website.
- Washington State Department of Ecology (Ecology), 2019, Appendix 8 Businesses and Activities that are Potential Sources of Pollutants, from the Western Washington Phase II Municipal Stormwater Permit. <u>LINK</u>
- Washington Stormwater Center, 2022, Source Control Inspection Program Guidance Manual. <u>LINK</u>

# Limitations

Work for this project was performed for King County and Washington State Department of Ecology (Clients), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Clients apply only to the services described in the Agreement(s) with the Clients. Any use or reuse by any party other than the Clients is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

# TABLES

Incorporated Cities in King County	BLS Partner City	Business License Records for BLS Cities	Records with Endorsement Code for "Non-Resident"
Algona	✓	347	262
Auburn*	✓		
Beaux Arts Village			
Bellevue			
Black Diamond	✓	636	385
Bothell	✓	3,663	2,057
Burien	✓	5,579	3,056
Carnation***	✓	789	638
Clyde Hill	✓	966	854
Covington	✓	2,475	1,661
Des Moines		_,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Duvall	✓	1,187	769
Enumclaw	✓	1,462	720
Federal Way	✓	8,969	3,880
Hunts Point		0,000	0,000
Issaquah	✓	6,868	4,119
Kenmore**	· · ·	1,094	n/a, see note
Kent		1,034	
Kirkland	✓	12,583	5,472
Lake Forest Park	•	12,000	5,472
Maple Valley	✓	2,453	1,294
Medina	•	2,400	1,234
Mercer Island	✓	5,588	3,927
Milton	· ·	816	435
Newcastle	✓ ✓	2,047	1,469
	▼ ▼		
Normandy Park North Bend***	▼ ▼	687	504
	✓ ✓	1,300	694
Pacific	✓ ✓	817	583
Redmond	✓	6,494	3,714
Renton			
Sammamish	✓	4,515	1,772
Seatac	✓	4,496	3,074
Seattle			
Shoreline			
Skykomish			
Snoqualmie			
Tukwila	✓	4,853	252
Woodinville	✓	2,635	1,224
Yarrow Point			
TOTAL BLS Cities	26	83,319	42,815
TOTAL Non-BLS Cities	13	n/a	n/a

#### Notes:

Data are from Department of Revenue from July 2022

\* Auburn recently joined the BLS program, and its mobile business list will be prepared for the Pilot Program

\*\*Kenmore does not have a Non-Resident Endorsement code

\*\*\* Carnation and North Bend are not municipal stormwater permittees

### Table 2. Mobile Business Numbers by City and NAICS Risk Level

Project No. 200212

BLS Partner City and Stormwater Permittee	Likely Mobile Businesses <i>Higher</i> Risk NAICS	Likely Mobile Businesses <i>Medium</i> Risk NAICS	Likely Mobile Businesses <i>Lower</i> Risk NAICS	Total Number Likely Mobile Businesses
Algona	8	153	2	163
Auburn*				
Black Diamond	5	237	2	244
Bothell	47	1,419	23	1,489
Burien	94	1,875	36	2,005
Clyde Hill	19	571	6	596
Covington	62	986	22	1,070
Duvall	25	434	14	473
Enumclaw	15	471	13	499
Federal Way	112	2,386	56	2,554
Issaquah	104	2,269	57	2,430
Kirkland	111	3,614	49	3,774
Maple Valley	43	659	33	735
Mercer Island	83	2,531	56	2,670
Milton	10	306	0	316
Newcastle	37	875	18	930
Normandy Park	7	393	1	401
Pacific	21	315	2	338
Redmond	73	2,309	44	2,426
Sammamish	35	1,105	13	1,153
Seatac	125	1,701	40	1,866
Tukwila	87	1,584	44	1,715
Woodinville	22	761	20	803
TOTAL	1,145	26,954	551	28,650

#### Notes:

See Table 3 for risk ranking assignment by NAICS (per Permit Appendix 8)

\* Auburn recently joined the BLS program, and its mobile business list will be prepared for the Pilot Program

#### Table 3. Permit Appendix 8 NAICS with Risk Ranking

Project No. 200212

NAICS Group Description	NAICS Number		
Support Activities for Animal Production	1152		
Construction of Buildings	236		
Heavy and Civil Engineering Construction	237		
Specialty Trade Contractors	238		
Beverage, Food, and Tobacco Manufacturing	311, 312		
Wood Product Manufacturing	321		
Paper Manufacturing	3221, 3222		
Printing and Related Support Activities	323		
Chemical Manufacturing	325		
Petroleum and Coal Products Manufacturing	3241		
Plastics and Rubber Product Manufacturing	326		
Leather and Allied Product Manufacturing	316		
Nonmetallic Mineral Product Manufacturing	327		
Primary Metal Manufacturing	331		
Fabricated Metal Product Manufacturing	332		
Machinery, Computer, and Electronic Product manufacturing	333, 334		
Electrical Equipment, Appliance, and Component Manufacturing	335		
Transportation Equipment Manufacturing	336		
Rail Transportation	482		
Transit and Ground Passenger Transportation	485		
Truck Transportation and Warehousing	484, 493		
	4881, 4882,		
Support Activities for Transportation	4884, 4889		
Utilities	2211		
	423140, 423930,		
Wholesale Trade – Durable Goods	423110, 4233,		
	<u>4237. 4238</u> 424930. 4244.		
Wholesale Trade – Nondurable Goods	424930, 4244, 4246, 4247, 4248		
Building Materials, Hardware, Garden Supplies Dealers	444		
Food and Beverage Stores	445		
Automotive Dealers and Gasoline Service Stations	441, 447		
Food Services and Drinking Places	722		
Rental and Leasing Services	5321, 5324		
•	811192, 8111,		
Repair and Maintenance	8112, 8113, 8114		
Ambulatory Health Care Services and Hospitals	621910		
Educational Services	6111, 6112,		
	6113, 6115		
Museums, Historical Sites, and Similar Institutions	712		

**Relative Risk Levels** 

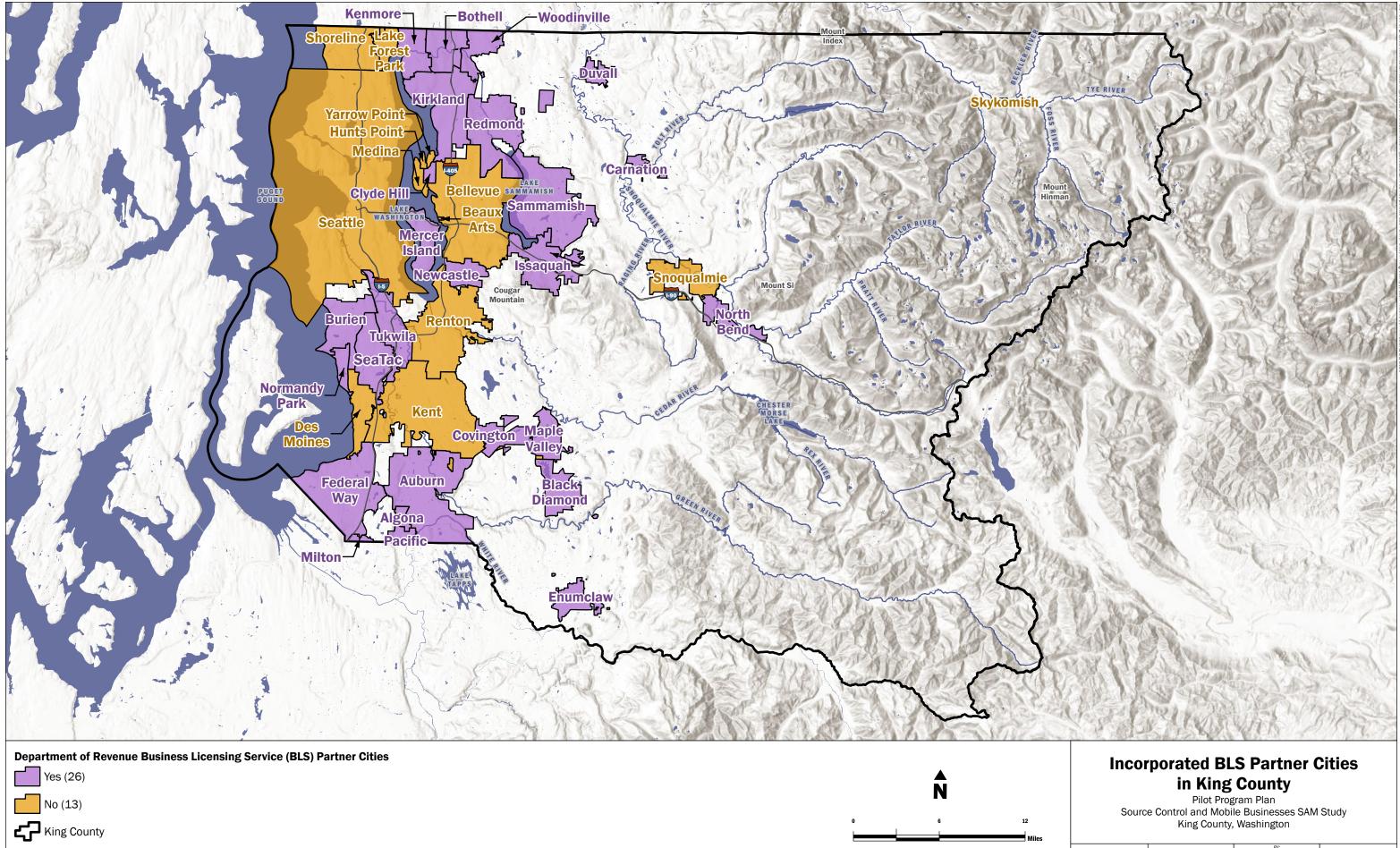
Higher risk NAICS (bolded) Medium risk NAICS (italicized) Lower risk NAICS (gray shaded)

#### Notes:

When codes of less than 6-digits are shown, the number represents the first 5, 4, or 3 digits of the code, corresponding to successively less specific business types.

NAICS numbers are as provided in Appendix 8 of the Municipal Stormwater Permits. The relative risk levels were assigned for this Study.

# FIGURE



	FEB-2023	JP / NLK	FIGURE NO.
CONSULTING	PROJECT NO. 200212	REVISED BY: /	1

# **APPENDIX A**

Case Study Template

	Source Control and Mobile Businesses SAM Study Pilot Program	DEPARTMENT OF ECOLOGY State of Washington
	Case Study Name	Stormwater Action Monitoring
City		
Mobile Business Type		

Narrative
What issues were identified?
How were the issues addressed?
What BMP information was provided to the business?
What is special about this type of mobile business's pollution prevention needs?
If enforcement for code violation was involved, provide brief explanation:

	Source Control and Mobile Businesses SAM Study Pilot Program	DEPARTMENT OF ECOLOGY State of Washington
King County	Case Study Name	Stormwater Action Monitoring
City		
Mobile Business Type		

Case Study – Photos 1				
Before or During Inspection Photo(s):	After Inspection Photo(s):			

	Source Control and Mobile Businesses SAM Study Pilot Program	DEPARTMENT OF ECOLOGY State of Washington
King County	Case Study Name	Stormwater Action Monitoring
City		
Mobile Business Type		

Case Study – Photos 2	
Before or During Inspection Photo(s):	After Inspection Photo(s):