BUSINESS INSPECTION
PROGRAM REPORT

January 2020
Acknowledgments

This survey report was prepared by Business Inspection Group (BIG) members Susan McCleary, Laurie Larson-Pugh, and Heidi Zarghami.

BIG would like to acknowledge the collaborative efforts of staff that contributed to the survey and the jurisdictions that generously contributed information about their programs:

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Dani Driscoll          Ryan Langdon         Tally Young
Kurt Freemont          Kristina Lowthian       Ken Waldo
Jeremy Graham          Erik Lust             
Diana Halar            Larry Schaffner

With guidance and review by:
Meridith Greer    Diane Hennebert    Rachel Konrady    Chris Thorn

Purpose and Disclaimer:

This report compiles information about current business inspection programs conducted by jurisdictions within the Puget Sound region. The purpose of this report is to support local jurisdictions with the development and implementation of business inspection programs that enhance the protection of water quality from sources of pollution.

Not all aspects of a Source Control Business Inspection Program are included in this report nor does it obligate any jurisdictions to follow recommendations provided. For more detailed information about Source Control requirements of the Washington Municipal Stormwater Permit, please visit: https://tinyurl.com/vbxqfv6

For information or questions about this report:
Laurie Larson - Washington Stormwater Center
Phone: 253-445-4593 Email: laurie.larson-pugh@wsu.edu
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List of Abbreviations & Acronyms

- **Appendix 8** - An appendix to the NPDES Permit’s Source Control Program for Existing Development
- **BIG** – Business Inspection Group is a collaborative workgroup consisting of jurisdictional inspectors, NPDES coordinators, program managers, outreach and water program specialists.
- **BMP(s)** – Best Management Practice(s)
- **EAM** – Enterprise Asset Management
- **Ecology** – Department of Ecology (referring to Washington State Department)
- **ECOSS** – Environmental Coalition of South Seattle
- **FOG** – Fats, Oils & Grease
- **FTE** – Full Time Employee
- **GIS** – Geographic Information System
- **IDDE** – Illicit Discharge Detection & Elimination
- **ISWGP** – Industrial Stormwater General Permit
- **LSC** – Local Source Control (program) refers to hazardous waste pollution prevention
- **MS4** - Municipal Separate Storm Sewer System
- **NAICs/SICs Codes** – Numbers or codes attached to specific business types for the purpose of identification or classification
- **NOV** – Notice of Violation
- **NPDES** – National Pollutant Discharge and Elimination System
- **SAW Database** – Secure Access Washington Database
- **SOP** – Documentation of standard operating procedures
- **Source Control** – The practice of reducing or eliminating the cause or source of pollution
- **Stormwater Asset** – A structural stormwater management component
- **Super** – Superintendent
- **SWPPP** – Stormwater Pollution Prevention Plan
- **TMDL** – Total Daily Maximum Load, refers to the maximum amount of pollutant loading to waters of the state
- **QC** – Quality Control
Introduction

With the issuance of the 2019-2024 Western Washington Phase II Municipal Stormwater Permit, jurisdictions across the Puget Sound region are required to develop and implement a Source Control Program for Existing Development. This is a preventative, inspection-based program focused on addressing pollution from existing land use activities that have the potential to release pollutants to a Municipal Separate Storm and Sewer System (MS4). To fulfill permit obligation (S5.C.8 see Appendix B) permittees are required to meet the following objectives within the term of the permit:

- Establish an inventory of public and private commercial and industrial sites with the potential to generate pollutants to the MS4 by 8/1/2022.
- Adopt and make effective an ordinance(s) requiring the application of operational or structural source control BMPs for pollution generating sources associated with existing land uses by 8/1/2022.
- Implement a progressive enforcement policy requiring sites to comply with stormwater requirements within a reasonable time period by 1/1/2023.
  - Permittees shall train staff who are responsible for implementing the source control program to conduct these activities.
- Implement inspection program for sites identified in inventory by 1/1/2023
  - All identified sites with a business address shall be provided educational information about pollution generating activities and source control requirements applicable to these activities by the end of the permit term.

With the permit requirement in mind, the Business Inspection Group (BIG) conducted a survey to gain knowledge of existing business inspection programs across the region. This report provides detailed information to Western Washington Permittees by providing examples and best practices to address various elements of a business inspection program.
Survey Method

This report compiles information gathered by BIG via a comprehensive survey developed and reviewed by regional experts (BIG members and others). The Source Control Business Inspection Program Survey can be found in Appendix A.

BIG invited eight jurisdictions currently implementing business inspection programs (both Phase I and Phase II) to participate in a survey interview. All eight jurisdictions were happy to accept, and all but one survey was conducted in person. Interviews were conducted between August and December of 2019.

Survey implementation teams were formed on a voluntary basis to conduct survey interviews. Teams consisted of two jurisdictional staff, and in most cases from a geographically close jurisdiction, to decrease travel times. Survey interviews were transcribed, not recorded, and names and affiliations were deleted from the transcripts to ensure anonymity. All transcripts were reviewed by the participating jurisdiction for accuracy before being compiled.

Respondents were also asked to provide examples of enforcement strategies, checklists, outreach materials, codes and training materials. These items can be found in the Appendix section of this report.

Report Layout

This report is broken down into six sections outlined in the Source Control Business Inspection Program Survey. Each section references a requirement of the NPDES Permit’s Source Control Program for Existing Development (S5.C.8).

Each section is organized by a survey question, and the corresponding responses from the eight jurisdictions organized into a table format. Each response table is followed by a summary of key themes from the respondents.

Each topic section ends with an overall summary, recommendations, and a link to the appendix and resource documents, when applicable.

The report concludes with the Appendices, which contain resource and reference documents.
Survey Responses

EDUCATION AND OUTREACH (S5.C.8.b.iii)

Question 1.1 What type of outreach was done prior to implementing business inspections?

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<tr>
<th>Respondent</th>
<th>Comments</th>
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| Respondent 1 | • Prior outreach managed by the Solid Waste program as toxics reduction and recycling promotion (some site visits and outreach materials).  
  • Some prior site visits and some outreach materials to Small Quantity Generators of Dangerous Waste. |
| Respondent 2 | • Notification letters mailed prior to inspection program. |
| Respondent 3 | • No specific outreach was done prior to implementing the NPDES-required source control inspection program.  
  • Prior robust education and outreach program was dismantled in early 2000’s resulting in minimal staff for business outreach. |
| Respondent 4 | • No outreach prior to starting program.  
  • Approached inspection as an opportunity to educate on how to do it “clean”.  
  • The jurisdiction partnered with the health department to conduct tandem inspections with the jurisdiction as lead. The health department had their own process for conducting inspections.  
  • Messaging was kept consistent throughout jurisdiction programs. |
| Respondent 5 | • Prior business outreach was conducted before the permit requirement. |
| Respondent 6 | • In 2006-2007 an education and outreach mailer was sent out to businesses to notify them of future permit inspections.  
  • Public advertising was conducted through events and media.  
  • First inspection for new businesses is a technical assistance Audit type inspection that has less strict enforcement triggers. |
| Respondent 7 | • Business outreach began in 2008 in response to S5.C.7 of the Phase 1 Permit.  
  • Outreach materials were mailed to businesses in pilot study.  
  • Door-to-door inspections were conducted after pilot study. |
| Respondent 8 | • Outreach prior to program is unknown.  
  • Site visits were conducted to refine business inventory and for initial education outreach. |

Summary

Before implementing business inspection programs, many of the jurisdictions mailed notification letters to businesses or conducted public advertising alerting them of the program. General stormwater pollution prevention, education, and outreach for business was not conducted in most of the surveyed jurisdictions before beginning their business inspection program.
**Question 1.2** Do you conduct ongoing outreach? For example, for new businesses do they get a heads-up regarding the purpose of the inspection?

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<tr>
<th>Respondent</th>
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| **Respondent 1** | • The permit requires that all business sites in the inventory be provided with outreach during the permit term.  
• A mailer is sent to the entire inventory. |
| **Respondent 2** | • Yes, ongoing outreach is conducted.  
• New businesses receive information about the program’s purpose both in letter and in-person.  
• Inspector often obtains correct business information during site visit. |
| **Respondent 3** | • New businesses do not get a heads up, because we do not know when businesses start up.  
• There is no business licensing program that could provide this information. |
| **Respondent 4** | • Ongoing outreach done at the time of inspection and at any follow up visits.  
• The jurisdictions focus is to develop a relationship as a resource for the business with every inspection, the jurisdictions message is “We are here to help.”  
• The jurisdiction provides a spill plan at the time of inspection. |
| **Respondent 5** | • Ongoing outreach is done through site visits, outreach materials, and online information.  
• Door hangers are left when no one is present.  
• Mailings go to the business owner and the property owner.  
• Would like to have more improved online resources for outreach and education. |
| **Respondent 6** | • No ongoing outreach to new businesses is conducted.  
• Initial site visit is a technical assistance visit.  
• Inspector often obtains correct business information during initial site visits.  
• Annual business license review process generates audits for new businesses. |
| **Respondent 7** | • No notification of the program for new businesses when they open.  
• Inventory is parcel based; therefore, do not keep an ongoing list of businesses that open and close.  
• Small business inventory was improved through canvassing techniques.  
• Any parcel in the inventory that did not receive an inspection during the five-year permit cycle receives informative notification about the business inspection program. |
| **Respondent 8** | • Ongoing outreach for new businesses conducted  
• Expressed interest in adopting outreach for new businesses.  
• Considers outreach materials ineffective unless connected to business compliance.  
• Inspectors are supplied with educational materials to hand out during site visits.  
• Building permit application may trigger outreach if obvious violations are present. |
Summary

Ongoing outreach for new businesses seems dependent on whether an extensive business license inventory is available. Ongoing inspections are usually focused on high-priority businesses, and ongoing outreach materials about the permit are generally distributed throughout the regions.

Question 1.3 Please provide examples of outreach and distribution timeline if available. See resources listed in Appendix C

Question 1.4 Are you providing incentives or recognition to businesses that are regularly in compliance?

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| Respondent 1 | • Compliant businesses are encouraged to pursue recognition in a local “Green Business Program”.
| Respondent 2 | • No recognition for compliance currently offered.
• Expresses an effort in planning a future recognition program.
| Respondent 3 | • EnviroStars program has undergone a major reboot and have not had any referrals yet.
• Incentives are provided in the form of free spill kits if the business is inspected as part of the LSC contract with Ecology
• Frequently provide information on the jurisdiction’s Hazardous Waste Voucher program and strongly encourage utilization.
| Respondent 4 | • No incentives are provided.
• Jurisdiction recognizes compliant businesses at quarterly council meetings and distributes calendars with compliant business coupons.
| Respondent 5 | • No recognition program is currently offered.
• Recognition program was discontinued as it was time-intensive and seemingly little benefit, and due to lack of new applications.
| Respondent 6 | • No recognition program is currently offered.
• Outside programs such as the LHWMP voucher program, ECOSS spill kits, and EnviroStars are available to businesses.
| Respondent 7 | • No recognition program currently available.
• Expressed interest in creating an incentive program.
| Respondent 8 | • No recognition program is currently offered.
• Potential to participate in new EnviroStars program.

Summary

Most respondents do not have a recognition program for compliant businesses, but there is a stated interest for, and some initial planning of future recognition programs. The EnviroStars program was a common outside source for business compliance recognition. This program is currently undergoing changes.

Question 1.5 Have you developed outreach materials and/or letters of non-compliance for ESL businesses? See resources listed in Appendix C
Education and Outreach Recommendations and Summary

- For links to education and outreach materials see Appendix C.
- Send initial notification materials without the option to schedule an appointment for inspection.
- Outreach materials can include a summary of stormwater code requirements with BMP information.
- Adopt an inspection approach that is more of a technical site visit that promotes education and outreach of BMPs rather than enforcement.
- One respondent suggests that hand-delivered materials during site-visits are more effective than sending outreach information via letters or postcards.
- Include resources on outreach materials in order to help businesses find a contractor to clean onsite catch basins.
**CODE AND CODE ENFORCEMENT (S5.C.8.b.i) (S5.C.8.b.iv)**

**Question 2.1** How do you handle complaint-based response for mobile businesses that provide services within your jurisdiction but are not based there? For example, if you receive a complaint about a discharge in your jurisdiction but they are based in another jurisdiction?

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| **Respondent 1** | • Mobile business are required to implement BMPs for stormwater protection and waste management.  
• All businesses are treated the same. |
| **Respondent 2** | • Code holds both the mobile business and the person who hired them are liable for any illicit discharges.  
• Jurisdiction educates both parties of their responsibilities.  
• Encourage the party hiring the contractor to ask the appropriate questions to ensure that contractors are using proper BMPs.  
• Business owners are sent outreach materials on how to prevent illicit discharges into the MS4.  
• Determine if contractor/business has a current business license. |
| **Respondent 3** | • If caught in the act jurisdiction provides direct feedback.  
• Notifies the property owner they are ultimately responsible.  
• Send a warning letter to the business if jurisdiction can identify business home base from the Washington State Department of Licensing. Usually a residence. |
| **Respondent 4** | • If we witness illicit dumping activity, we immediately act upon it. If stormwater impacted, have Mobile Business clean-up site. Send letter to business owner.  
• If we are informed via citizen phone call or email, we inspect site for illicit discharge, contact Mobile Business (if name known), have them clean-up and follow-up with letter.  
• We have done a generic flyer to all known Mobile Businesses in our jurisdiction to give them basic education on proper disposal (car detail, carpet cleaning, and food). |
| **Respondent 5** | • Have not received complaints about mobile business.  
• If there was a complaint, the jurisdiction’s stormwater staff would be contacted where the business is based. |
| **Respondent 6** | • Meet business where complaint occurred, or outside jurisdiction, or offer option to meet at jurisdiction’s office.  
• Implement cost recovery if needed. |
| **Respondent 7** | • Staff investigate and address water quality complaints.  
• Business inspectors conduct inspections once the water quality issue is resolved.  
• Not contacting other jurisdictions about problem businesses.  
• Mobile business complaint’s limited response time doesn’t allow staff to collect evidence a business caused harm.  
• If there is enough evidence the business is contacted to educate on complaint and if code enforcement is necessary.  
• For IDDE complaints involving businesses with source control issues, the jurisdiction schedules a source control inspection. |
Summary
Most jurisdictions attempt to contact the mobile business owner to provide education on stormwater protection and code compliance. Most do not contact the jurisdiction where the business is based. If unable to contact mobile business owner, some jurisdictions contact the property owner that hired the services.

**Question 2.2 What percent of business inspections require follow-up? Is there a threshold that triggers a follow-up?**

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| Respondent 1 | - 20% of last 1000 businesses.  
- Between Jan.-Aug. 2019, 26% required follow-up.  
- Conduct follow-up when high priority issues are identified to provide information/guidance or to confirm correction, improvement, or establish compliance. |
| Respondent 2 | - 90% require re-inspection to ensure work was completed and meets O&M requirements.  
- 50% of businesses require work to be completed. |
| Respondent 3 | - Estimated 50% require follow-up: can be verbal or an inspection letter.  
- Follow-up can be verified by: business sending photos documenting compliance (signage, clean-up, stenciling) or receipts for conveyance system cleaning reducing on-site inspection.  
- Some businesses require handholding or face-to-face for compliance. |
| Respondent 4 | - Most corrections completed at time of inspection.  
- Follow up is triggered by major violations, however, follow-ups are done also based on the business's interest in a follow-up.  
- Major violations have follow-up within 30 days. These are violations that have a high potential of environmental contamination.  
- Many smaller violations trigger a follow-up, typically 60 days after initial inspection. |
| Respondent 5 | - Three out of 100 in 2019 required follow-up.  
- Most corrections completed at time of visit.  
- Follow-ups are conducted when correction is not completed at time of inspection. |
| Respondent 6 | - Around 40% of businesses visited require a follow-up.  
- Initially this number was higher but has been dropping since continually working with businesses.  
- Follow-ups triggered by certain corrective actions. |
Respondent 7

- 25% between 2009-2012.
- Since 2013 5% as a result of educating businesses.
- Follow-up triggers are determined at inspection if business is compliant with minor corrections, or if non-compliant, it is dependent on number and severity of deficiencies.
- Staff meets regularly to ensure consistency among inspectors.

Respondent 8

- Below 10% require follow-up action.
- Follow-ups include phone calls, warning letters re-inspections or escalating enforcement protocol.
- Follow-up is triggered when compliance requires action. Determined at inspector’s discretion at time of visit and business history.

Summary

The percent of businesses that require follow-up range widely from 3% - 90% across the surveyed jurisdictions. This suggests that follow-up rates are dependent on jurisdiction program design. Two of the eight respondents reported a reduction in the percentage of follow-up actions required over time. Follow-up actions tend to be triggered by high-priority violations found during inspections. The methods of follow-up include phone calls, additional site visits, and notification letters.

**Question 2.3** What percent of businesses require enforcement protocol? How much time do you give a business to comply before implementing enforcement protocol?

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| Respondent 1 | • Less than 1%.  
• In the last five years all enforcement actions ended with Notice of Violation.  
• If necessary, jurisdiction has code enforcement officer ready to implement enforcement protocol. |
| Respondent 2 | • Under certain circumstances a re-inspection letter may be sent.  
• Time for enforcement begins with Admonishment letter (notification without legal enforcement) allowing 30 days or as jurisdiction sees fit.  
  o Following is Correction Notice (10 days) then Notice of Violation (14 days). |
| Respondent 3 | • Most are resolved with a tiny percentage going on to enforcement. Those that are in enforcement have issues with multiple agencies.  
• Currently implementing a new progressive enforcement action strategy incorporating technical assistance and enforcement. |
| Respondent 4 | • Jurisdiction does a lot of handholding and providing of assistance until compliance is reached.  
• Department of Ecology contacted in a few cases where compliance wasn’t met. |
| Respondent 5 | • Enforcement actions are rare.  
• In 2018, two to three notice of violations and warning letters were sent out.  
• Timeline is dependent on issue severity ranging from 2 days to months. |
### Respondent 6
- Less than 1% require enforcement.
- Enforcement process:
  - Corrective Action Letter
  - Notice of Violation
  - Penalty
- Timeline for enforcement:
  - 30 days to implement changes (extensions available).
  - 15-day Notice of Violation then Penalty if non-compliant.
- Egregious violations and illicit connections and spills are issued NOV on the spot.

### Respondent 7
- Less than 1% with a few requiring progressive code enforcement usually achieved after official warning. Few cases required monetary fines.
- Use program that focuses on technical assistance with owners to achieve voluntary compliance.
- Some cases require multiple follow-ups or joint inspections with Ecology or conservation district.
- Jurisdiction’s code and drainage manual gives 30 days to comply.
- Timeline can be extended if business is making progress towards compliance and are not actively polluting.

### Respondent 8
- 5-10% require warning letter or higher action (requires significant amount of staff time).
- Timeline depends on the issue.
  - Immediate compliance for discharges and spills.
  - No immediate threat reasonable time allowed to implement BMP.

### Summary
Enforcement actions for permit compliance is rare for all surveyed jurisdictions, averaging at an estimated 1% of businesses. Enforcement protocol for all jurisdictions include an admonishment/notification letter of water quality violation(s) with 30-day timeline for business compliance, followed by a notification letter of violation(s) which requests that corrective actions be taken with a timeline ranging from 14-30 days. The final stage of enforcement is a penalty, though all jurisdictions report that very few businesses require more than a notice of violation to enforce compliance.

**Question 2.4** Please provide example ordinances/policies. See resources listed in Appendix D

**Question 2.5** Please provide an example enforcement strategy.

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</table>
| Respondent 1 | • Jurisdiction enforcement strategy is part of the code.  
• Focus on compliance through education. |
| Respondent 2 | • No response |
| Respondent 3 | • “Prosperous Compliance” tactic to assist businesses to comply with the code.  
• Allowing staff time without limits on inspection to provide in-person tech assistance (especially for small businesses) equals big returns.  
• After the corrective action letter comes a Notice and Order. Penalties calculated with matrix adopted by Public Rule.  
• Any appeals are submitted to the Hearing Examiner. |
Respondent 4
- Progressive Enforcement Strategy is used:
  - Review site inspection at end of site visit
  - Sending formal inspection summary with required corrections
  - Follow up communications, visits and letters as necessary
- Non-compliance cases are worked together with Code Enforcement.
- If those options don’t work, we communicate with Ecology, depending on the severity of the violation. In 15 years, this has happened approximately 5 times.

Respondent 5
- We use a penalty matrix. No fines have been issued using that matrix. We base Warning and NOVs on the matrix as well.
- Working on strategy, but not ready for distribution.

Respondent 6
- Uses enforcement penalty matrix guideline.

Respondent 7
- Progressive Enforcement Strategy goal of businesses voluntary compliance.
- Approach includes:
  - Review site inspection at end of site visit
  - Sending formal inspection summary with required corrections
  - Follow up communications, visits and letters as necessary.
- Non-compliance cases are forwarded to Planning and Development Services Dept. for prioritization with their open cases.
- Per jurisdiction code they send warning notices, notice and orders, etc. Until issues is resolved.

Respondent 8
- Follows an enforcement philosophy formalized through Ecology’s format.

Summary
Responding jurisdictions incorporate a voluntary compliance strategy that is based on providing technical guidance to businesses to reach compliance. If businesses do not reach compliance through this method, most jurisdictions follow a prescribed enforcement policy based on Ecology’s format.

Code and Code Enforcement Recommendations and Summary
- For examples of code and code enforcement resources, see Appendix D.
- All out of compliance businesses receive some form of notification, citing water quality issues and further actions required.
- Conduct follow-up when issues are identified to provide information/guidance or to confirm correction, improvement or establish compliance.
- Follow-up can be verified by the businesses who send photos documenting compliance (signage, clean-up, stenciling) or receipts for conveyance system cleaning, thereby reducing on-site inspection.
- Some businesses require hand holding or face-to-face interactions for compliance.
- Corrective actions needed may be diminished by business education and outreach.
- Although enforcement rates tend to be very low (about 1%) these cases can take a significant amount of time to bring businesses into compliance.
- Any business re-inspections (site-visits) can be counted towards the 20% Permit requirement.
DATA COLLECTION AND MANAGEMENT (S5.C.8.b.ii)

**Question 3.1** What type of data management/inspection tracking systems are you using? Cityworks, GIS, zoning, parcel, Cartograph, NPDES Pro, etc.? Has it the system changed? If so, why?

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<th>Respondent</th>
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<tbody>
<tr>
<td>Respondent 1</td>
<td>• Data managing system used are ESRI field applications on iPads.</td>
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<td>• Inventory is in ArcGIS database for tracking workflow and site status.</td>
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<tr>
<td></td>
<td>• Participate in Ecology program and enter data into their SAW database</td>
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<td></td>
<td>• Use SAW database to assign unique IDs to each business site and associated current business information.</td>
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<tr>
<td>Respondent 2</td>
<td>• Access-based in-house developed program called Prism is used.</td>
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<tr>
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<td>• Transitioning to permit-tracking Amanda software in the future which aligns with other departments.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• Transitioning from multiple Microsoft Access databases to Cityworks.</td>
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<tr>
<td>Respondent 4</td>
<td>• For the past fifteen years used Microsoft Excel to keep track of inspections.</td>
</tr>
<tr>
<td></td>
<td>• Each inspection has its own file and contains the history on that site.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>• Use the customized in-house Enterprise Asset Management (EAM) system.</td>
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<td></td>
<td>• Web-based data management used for source control records, inspection, and maintenance records.</td>
</tr>
<tr>
<td>Respondent 6</td>
<td>• Transitioned from Microsoft Access to Dynamics and Resco app for ArcGIS field data collection.</td>
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<td>• Resco app benefit is that it works offline for field collection.</td>
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<tr>
<td>Respondent 7</td>
<td>• Transitioned from Amanda to Cartegraph OMS to track and record inspection data.</td>
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<tr>
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<td>• Cartegraph OMS has improved functionality and the spatial component that integrates into an ArcGIS database.</td>
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<tr>
<td>Respondent 8</td>
<td>• In-house database used in tandem with ArcGIS, since database and inventory were already in use with those systems.</td>
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**Summary**

Data management systems are often integrated with ArcGIS since there is an in-field spatial component of the inspection program. Two of the jurisdictions transitioned from Microsoft Access to other software programs. In-house programs were used by another three of the eight respondents. Four of the respondents are transitioning to software that better suits their needs. Each jurisdiction has unique circumstances that requires tailored data management systems.

**Question 3.2** Are you using the same data management system for other inspection programs? If so, how well do they integrate with other data management systems?
Respondent 1
- Separate apps used for stormwater inspection and IDDE work.
- Stormwater facility inspections are performed during source control visits and are automatically loaded into the asset management program, but this process needs improvement.
- The asset management system is going to be replaced but the GIS inventory will remain the same.

Respondent 2
- Prism is used for multiple inspections and integrated with Outlook to schedule inspections.
- Crystal Reports is used for running reports on inspection data.

Respondent 3
- Transitioning from multiple Access databases to CityWorks.
- Facility inspections, asset management, drainage complaints, water quality complaints, drainage engineering reviews, stormwater management fee measurements, etc. are all now are using CityWorks system.

Respondent 4
- Microsoft Excel is used for all stormwater inspection programs.

Respondent 5
- Enterprise Asset Management (EAM) also used for stormwater facility inspections.
- Public Works uses ArcGIS Collector and Survey 123 to collect IDDE information.
- Integration would require IT support.

Respondent 6
- Spills, IDDEs, and private drainage inspections all use Dynamics and the Resco app.
- Interfacing with other departments can be challenging since each program had different parameters and/or rules.

Respondent 7
- Cartegraph OMS is used for most NPDES lines of business within the Stormwater department and have plans to expand its use.
- Integration works well with ArcGIS by offering real-time updates, daily syncs, and easy export of data to Excel for analysis.
- Field inspection staff input data into Cartegraph OMS using iPad in the field.
- Drainage inventory data is collected using Trimble GPS devices, and that data is uploaded into ArcGIS, and then synced into Cartegraph OMS.

Respondent 8
- The in-house data management system is not used for other inspection programs.
- There is a discussion of transitioning to a hosted data management system.

Summary
Some jurisdictions use the same data management system in other stormwater programs or departments. In many of the jurisdictions interfacing between department/programs is challenging and needs improvement. Some data management systems are asset-based, and others are inspection-based; there is no clear consensus on which is better. Older data management systems have trouble interfacing with ArcGIS and handling the amount of data required by the business inspection program. Cartegraph OMS is working well for Respondent 7 and they intend to expand its use.

Question 3.3 Please share what’s working and what’s not working (strengths and shortcomings) with your data management system.
| Respondent 1 | • iPad apps in both ArcGIS Collector and Survey 123 work well.  
  • The IDDE database system is the schema required by Ecology. |
| Respondent 2 | • The Prism data management system currently in use is now dated and cannot sustain the amount of data required. |
| Respondent 3 | • CityWorks is an awkward fit for business compliance inspections, but it was chosen because the primary user is the stormwater asset management program and transportation.  
  • CityWorks claims to be customizable but that turns out to be not quite true. It is really geared for a field asset, and not a business or a parcel of land.  
  • It is very complex and not at all intuitive unless the user has significant experience with ArcGIS. |
| Respondent 4 | • Excel has been a great tool for many reasons.  
  • It is not an extra expense to the jurisdiction and is very user friendly.  
  • The only downfall, as with any database management system, is your data is only as good as your input. |
| Respondent 5 | • The in-house EAM system would require IT support for integration with other programs.  
  • In house databases have competing uses so the IT is not agile in response to innovation.  
  • There are many asset management systems out there to choose from. |
| Respondent 6 | • What’s working: inspectors can access SharePoint data in the field with Dynamics and Resco app.  
  • A network connection is not needed, it links to e-mail, and photos are streamlined into the database.  
  • What’s not working: system is not interfacing well with other departments and inspectors still need to add a lot of data into several locations in the database. |
| Respondent 7 | • Cartegraph OMS workflows have been streamlined and improved, with real-time updates, task assignments, and tracking.  
  • Maintenance history is immediately available and accessible to field staff, and inspection data is analyzed more easily.  
  • Having access to the inspection data remotely via the iPads creates operational efficiencies and aids in providing excellent technical assistance to customers.  
  • Some challenges have been user adoption, training, consistent use across divisions, and some limitations in querying information.  
  • Building queries and reports can be less than intuitive for the typical end user. |
| Respondent 8 | • What’s working: ArcGIS used in tandem with in-house database system has a strong GIS component, and builds relationships with IT department.  
  • Shortcomings: over developed on homegrown system. |
Summary

What’s working: Both Dynamics and Cartegraph offer many features such as in-field data access, links to photos and emails, tracking and analyzing data that create operational efficiencies. In-field access to information helps provide better technical assistance to businesses. In many of the jurisdictions, ArcGIS components work well and are used in tandem with in-house or other data management systems.

What’s not working: Both Cityworks and Cartegraph may have challenges with user adoption. They are complex and may not be intuitive unless the user has training or experience with ArcGIS. Field staff may require training for consistent use across program divisions. There are some limitations in querying information in Cartegraph. Interfacing challenges between departments and/or programs seem to be a trend across jurisdictions.

Question 3.4 Do you have any data management recommendations? If so, why?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Respondent 1 | • IT knowledge of the program is beneficial for creating GIS applications.  
• Site inventory is important; therefore, it is beneficial to have an existing business license or fire marshal database.  
• Assessor data for business personal property and associated NAICS codes were used to make current inventory. |
| Respondent 2 | • Parcels are used as the base of the file system and the name of the businesses are changed as needed.  
• Recommends that the parcel number should be used in connection with the file. |
| Respondent 3 | • NPDES Pro wasn’t around when we started, would recommend that it be looked at first.  
• CityWorks has not worked well as anticipated for source control and water quality complaint investigations because it is really designed for specific assets, not events or businesses. |
| Respondent 4 | • Make sure to stay on top of entering the data and be descriptive so when you need to look back at previous inspections you can see what the issues were.  
• Before creating a data management spreadsheet, think of all the items that would be important to list, ie: Parcel number, NAIC code (if known), business name, address, business license, etc. It is time consuming to incorporate information after the spreadsheet is being used. |
| Respondent 5 | • Use electronic collection rather than paper forms during inspections.  
• This eliminates the need for the data entry transfer in the office.  
• Make as much of the data drop down and multiple choice. Get agreement on these from your team. Open text field will result in inconsistent data entry, which will not be usable for evaluating programs. |
| Respondent 6 | • Know what type of database you need.  
• If a programmer is developing it take them out in the field with you and make sure they really understand the inspector’s jobs and what is needed in the system.  
• When building the data management system, you’ll need to determine whether you’d prefer a system that will fit your program needs or fits the Ecology format. Those two may not align. |
Respondent 7
- Cartegraph OMS has worked well despite some of the challenges. The positive improvements outweigh the challenges.
- ArcGIS has also worked well for this program.
- Both require substantial investment in licensing, implementation, data gathering, and data management.

Respondent 8
- Have robust business inventory and do not recommend managing database in Excel.
- Have one project manager role for sending requests to IT, SOPs for process, and data change management. GIS experience required. Should have data stewardship role.

Summary
A solid business inventory is an important foundation for the data management aspect of the business inspection program for all the surveyed jurisdictions. Parcel numbers in the database as an identifier can help to manage data throughout business ownership transitions. When developing the data management program, a close relationship with IT/programmers should be established for clear communication and effective data development/management.

**Question 3.5 Are you collecting data electronically in the field using a collector app, survey 123, or similar tool? If so why; if not, why not?**

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td><strong>Respondent 1</strong></td>
<td>Yes. Survey 123 and Collector are used because of the volume of work and data.</td>
</tr>
<tr>
<td><strong>Respondent 2</strong></td>
<td>Not yet but interested in transitioning to Amanda system and then will be able to collect data electronically out in the field.</td>
</tr>
<tr>
<td><strong>Respondent 3</strong></td>
<td>Handheld devices are not used during a business inspection, because businesses find it rude and distracting. There is also a safety issue, where it is easier to drop a notebook or clipboard as opposed to a tablet when both hands are needed. Tablets and laptops are in the inspector’s vehicles so updates and notes can be made in the field and/or information acquired. The collector app is used for adding new sites in the field and updating stormwater infrastructure. The asset management inspectors and mappers use a collector app extensively.</td>
</tr>
<tr>
<td><strong>Respondent 4</strong></td>
<td>The job is so face-to-face, pen and paper are preferred. When using pen and paper it seems the interaction is not as authoritative and makes business operators more comfortable to interact.</td>
</tr>
<tr>
<td><strong>Respondent 5</strong></td>
<td>Moving towards a mobile solution with EAM.</td>
</tr>
<tr>
<td><strong>Respondent 6</strong></td>
<td>Yes, use the Resco app in the field.</td>
</tr>
<tr>
<td><strong>Respondent 7</strong></td>
<td>Predominantly use Cartegraph and Trimble for field collection and input. All field staff are equipped with an iPad and Cartegraph has an app that can be used in the field. The app doesn’t have all the same features and details as the webpage portal, but still suffices.</td>
</tr>
<tr>
<td><strong>Respondent 8</strong></td>
<td>Collector is not used. Pictures are the biggest struggle. Recommendations: 1. Store as files on shared networks. 2. Blob objects are stored as a database entry.</td>
</tr>
</tbody>
</table>
• Limitations with Collector are number of cascading dropdowns -- 1 or 2 tiers.
• Develop a scoping document to understand what data you are reporting on for annual report (decisions and outcomes).
• Develop a correct schema based on scoping document.
• Suggestions and lessons learned: Use a three-stage approach: Test (go crazy), develop, then production.
• Data collection implementation plan to include: Pilot study – start simple then look to expand, refine, user acceptance in two rounds = 90-95%, training/SOPs, advertise roll-out date, and get user buy-off.
• Reporting from inspectors should be standardized. Any changes to Collector app should funnel through program manager to IT.

Summary
Field data is collected electronically for most jurisdictions utilizing Collector, Survey 123, Resco, and Cartegraph software. Respondents three and four found that handheld devices tend to make businesses uncomfortable, cause a distraction, or become a hazard in the field when both hands are needed. Respondent eight found limitations and workarounds for the Collector application.

Data Management Recommendations and Summary
- A solid business inventory is an important foundation for data management.
- Use parcel data as the base of the inventory system so when businesses change the file stays with the parcel itself.
- Consider Ecology’s reporting format when building the data management system.
- May be helpful for IT staff to do ride-alongs with inspection staff to understand data management needs.
- Some software systems are asset-based and other are inspection-based.
- Older data management systems have trouble interfacing with ArcGIS and handling the amount of data required by the business inspection program.
### INVENTORY DEVELOPMENT AND UPDATES (S5.C.8.b.ii)

**Question 4.1.1** Describe how you developed your inventory: What criteria did you use?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• Appendix 8 of the Phase I permit</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• Started inventory based on previous complaints and asset inspections. Added businesses that had a potential for illicit discharge. Then filled in gaps with all properties that have private drainage system and potential to pollute MS4.</td>
</tr>
</tbody>
</table>
| Respondent 3 | • We tossed out the suggested list of SIC codes and looked at any property with a commercial activity on it, multifamily properties with 3 or more units and home occupations that had either additional parking or an outdoor component e.g. trucks, material stockpiles, repair, etc. We also included businesses with ISWGPS and Sand and Gravel permits.  
  • Essentially if business has a parking lot, it is a pollutant-generating property.  
  • This program helps pick up the conveyance-only properties, which are not inspected by our asset management group who inspection stormwater facilities. Many conveyance-only properties don’t know they have to maintain their system.  
  • The inventory does not include individual businesses on a parcel unless the business has specific BMPs e.g. restaurants, vets, health care, gas stations, etc. There may be one “inventory asset” for the entire property and then other assets for specific tenants that require their own inspection and technical assistance. |
| Respondent 4 | • Originally, the inventory was developed via windshield survey and all businesses (that were found) within jurisdiction were recorded.  
  • More recently we have worked with the Department of Revenue (DOR) and created a spreadsheet that allows us to work with the businesses in the Appendix 8 of the new permit. The DOR manages our business licenses, so they have the most accurate list of businesses in our jurisdiction. Again, the list is only as accurate as the businesses that actually apply for a permit.  
  • We still do windshield surveys, and periodically find businesses that do not have a license. |
| Respondent 5 | • Windshield surveys; looked for parking lots.  
  • SIC Codes, Tax parcels, Land Use, used and validated with site visits. Junk yards and home businesses can be hard to find. |
| Respondent 6 | • Appendix 8 was used as a guideline and primarily targeted industrial facilities that have a stormwater system (not in the combined storm/sewer areas).  
  • Visit strip malls and large parking lots to meet with the property manager not the individual businesses.  
  • Google Maps is used to develop the inventory, then validated by driving through the areas. |
Respondent 7

- Originally developed through field screenings.
- Changed the inventory to be parcel based so able to use county parcel use tax codes which are less apt to change as frequently as a business may open or close.
- After generating the parcel-based inventory list, field visits were conducted, and staff collected business cards to help populate information on the actual business.
- The assessor’s coding system was compared to the Appendix 8 NAICS code table from the Phase I Permit. All parcels similar to the Appendix 8 NAICS codes were placed on the inventory list.
- The final correction of a site’s status in the inventory is based on field inspection.

Respondent 8

- Used downloads from business license data bases to start, and removed duplicates.
- Whittled list down by conducting door to door “knock and talks” to determine potential for illicit discharge.
- Researched records, site visits and information from other field staff.

Summary

Most jurisdictions began with broad inventory lists, collecting information from various internal and external sources. Inventories were refined based on the Permit Appendix 8 criteria, commercial activity and the potential for illicit discharge. Windshield surveys and site visits for business data validation were a necessary step in editing/developing business inventories for most of the jurisdictions. Most jurisdictions reported that creating and maintaining the inventory is not easy.

Question 4.1.2 What sources were used to collect information for the business inventory?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>Property tax assessor data and fire marshal data.</td>
</tr>
</tbody>
</table>
| Respondent 2 | We are currently going through this process based on: 
  o the type of processes performed inside 
  o existing land use and activities outside of their business 
  o history of inspections at the property 
  o if they have a connection or potential to discharge to our MS4 |
| Respondent 3 | Properties with prior inspections and/or complaints, and properties with drainage facilities. 
  Conducted a review of commercial and multifamily zoned parcels to see if they were in the inventory. 
  Used Google extensively to first visually spot potentially-pollutant generating properties, then googled addresses to determine if there was any online commercial activity. |
| Respondent 4 | The Department of Revenue gives out business licenses for the jurisdiction, so a report can be downloaded to add businesses to the list. 
  Windshield surveys are still done. 
  Google is a helpful tool as well. |
Respondent 5 • County tax parcel information. Example: Boeing owns multiple parcels that are adjacent to each other and are one site because it is a common business process.

Respondent 6 • Site visits, Google Street View, sometimes business licenses, sometimes through spills and complaints.

Respondent 7 • County assessor parcel use tax codes.
• Staff also utilize Google search to help get pertinent information for the database.

Respondent 8 • Business license data bases, other records, Google Maps.

Summary
County parcel information, business license information, complaint records, and inspection information was used by most jurisdictions as information sources for inventory development. Google Earth/Street View was used by four of the jurisdictions to help identify and validate businesses and was found to be very effective. The NAICS codes on state business licenses don’t necessarily indicate the pollutant generating activity and may be self-selected by the business. Jurisdictions used Appendix 8 NAICS codes from the Permit as a guideline for their inventory, but most conducted physical observations to verify business type and activity.

Question 4.1.3 Do you update your inventory when new businesses open and other businesses close?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• We use geographic locations as business sites and update site characteristics.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• We update the file with any new businesses located at a property as needed.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• We are just now implementing a new database, so the process is fluid. Even if the business changes, we don’t eliminate it from the inventory.</td>
</tr>
</tbody>
</table>
| Respondent 4 | • We update our business inventory on a regular basis.  
• Annually we work with DOR for a new list and work from that.  
• If during the year, we see a change in ownership, business activity or closed doors we update list at that time. |
| Respondent 5 | • Update using parcel information.  
• Update regularly/continuously which they find more efficient. Having to update a snapshot in time inventory would be a heavy lift.  
• Inspectors are assigned geographic zones, so they get to know their area which helps identify changes. |
| Respondent 6 | • Yes --the inventory is updated based on inspector insight. Even if a business is gone, they will flag it in their database to inspect every eight years.  
• Business license database data for new businesses is imported annually. |
| Respondent 7 | • Our inventory is updated at least once every five years, not when businesses open and close because our inventory is parcel based not business based. |
| Respondent 8 | • Yes, we are alerted of and add new businesses to the inventory when new water accounts are established. Newly added businesses are eliminated if they don’t meet business inspection criteria. |
**Summary**

There is a lot of turnover in businesses, it is recommended to have a process for adding new businesses. New water accounts, inspectors and field staff can help identify new or closed businesses. Businesses may also be declassified based on history and site circumstances. Keeping track of new businesses can be difficult. At least two jurisdictions do not eliminate closed businesses from inventory but instead flag them.

**Question 4.1.4 If inventory criteria are different than permit language, what is the reason?**

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• The permit language is so broad (2007 and 2013 permits) that it covers any business with a parking lot.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• No response recorded.</td>
</tr>
</tbody>
</table>
| Respondent 3 | • SIC codes were made obsolete years ago.  
• The permit language entirely misses the biggest sources of pollution: parking lots and unmaintained conveyance-only systems. The phase I permittees provided an alternative to Ecology with the first permit.  
• If permittees really want to control stormwater pollution, they will inspect every business with a parking lot. |
| Respondent 4 | • It’s important to conduct inspections on many sectors that may not be labelled as high polluters because they still have the potential to pollute (i.e. banks with wash water/mop water etc.). |
| Respondent 5 | • It’s the same. |
| Respondent 6 | • Appendix 8 is used as a recommendation, but they update their inventory as field conditions change. Need to be flexible in criteria, as it will change. |
| Respondent 7 | • We utilize the requirements of the permit, but since our inventory list is comprised of parcels, we compare the assessor’s land use code to the Appendix 8 list. |
| Respondent 8 | • Appendix 8 is helpful but primarily looking at business type and potential to pollute. |

**Summary**

Although helpful, the Permit Appendix 8 criteria is broad and may not encompass all potential sources of pollution (see Appendix B). Most jurisdictions use this as a guideline, using inspector insight and jurisdictional codes to refine criteria. NAICS and SICS codes from business and license data bases are often self-reported and considered unreliable.
Question 4.2 How are businesses evaluated and eliminated from the original list of businesses identified in the Appendix 8 NAICS codes?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• The site characteristics are managed based on the current business NAICS code.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• We are currently going through this process based on existing land uses and the type of activities performed inside and outside the business. We also look at the history of inspections and if the site has a connection or potential to discharge to the MS4.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• Appendix 8 is not the criteria for our inventory, every pollutant-generating property is included in our inventory list.</td>
</tr>
<tr>
<td></td>
<td>• If the property is vacant with no structures and/or conveyance system that needs maintaining or there isn’t any potentially pollutant generating activity there, it is noted as “no source control needed” in the inventory and doesn’t count towards the inventory number.</td>
</tr>
<tr>
<td></td>
<td>• Properties with businesses no longer operating, but could be in the future, are listed as “inactive”.</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>• Used the list from the Department of Revenue to remove any “non-polluting” NAICS codes from Appendix 8.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>• Field surveys are used to verify and them update accordingly.</td>
</tr>
<tr>
<td></td>
<td>• Sites are added or removed once it has been determined whether a potential source of pollution to the MS4 exists, which is usually done on-site.</td>
</tr>
<tr>
<td>Respondent 6</td>
<td>• Started with Appendix 8 and realized that some businesses on the list don’t have an environmental risk to stormwater through inspections.</td>
</tr>
<tr>
<td>Respondent 7</td>
<td>• Site inspections help verify if a site should stay on the inventory list.</td>
</tr>
<tr>
<td></td>
<td>• On our original list of businesses, if the site did not reflect what we had on record, determined not to be a pollution generating source, or was no longer an active business, it was removed from the inventory list.</td>
</tr>
<tr>
<td></td>
<td>• Currently a parcel-based inspection list is primarily based on existing land use designations. Under this list type, it is unlikely that parcels zoned commercial and industrial would be removed from the list, unless a parcel is annexed or rezoned out of our land use criteria.</td>
</tr>
<tr>
<td></td>
<td>• If a complaint regarding water quality is received and a site visit confirms a pollution generating source that is business related, that site is added to the inventory.</td>
</tr>
<tr>
<td>Respondent 8</td>
<td>• Appendix 8 is helpful but primarily looking at business type and potential to pollute.</td>
</tr>
</tbody>
</table>

Summary

Most jurisdictions evaluate which businesses are added or eliminated from their inventory based on current land use, business activity and the potential to pollute to the MS4. On-site inspection, site or business history, vacancy, or water quality complaints help many jurisdictions refine their inventory.
**Question 4.3** What actions do you take with businesses that are on combined storm/sewer systems, are they included in your inventory?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• Our inventory is separated by if they are connected to the MS4 or not. If they are not connected to the system, they typically have UIC wells, retention basins or discharge directly to streams.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• Shared systems, such as multiple businesses using the same storm system infrastructure, will be addressed in the code update and require a maintenance agreement to identify who is responsible for which structures.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• Do not have any combined storm/sewer systems.</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>• Do not have any combined storm/sewer systems.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>• Do not have any combined storm/sewer systems.</td>
</tr>
<tr>
<td>Respondent 6</td>
<td>• Businesses on combined storm/sewer systems are not in the inventory but would be inspected if they receive a legitimate complaint or respond to a spill.</td>
</tr>
<tr>
<td></td>
<td>• Program goal is to inspect all businesses according to their prioritization ranking irrespective of sewer class.</td>
</tr>
<tr>
<td>Respondent 7</td>
<td>• Do not have any combined storm/sewer systems.</td>
</tr>
<tr>
<td>Respondent 8</td>
<td>• Yes, these businesses are added to the inventory.</td>
</tr>
</tbody>
</table>

**Summary**

Most jurisdictions do not have combined systems. Only two of the jurisdictions have businesses on combined systems. One jurisdiction includes these businesses in their inspection inventory, the other inspects businesses that have received a complaint or where a discharge has occurred.
Inventory Development Recommendations and Summary

- For inventory development resources, see Appendix E.
- Use NPDES Appendix 8 as a guideline for inventory development (see Appendix B).
- Develop a broad inventory list to start, then refine the list based on information collected from various internal and external sources to determine what should be included and what should be removed from the inventory.
- The NAICS codes on state business licenses don’t necessarily indicate the pollutant generating activity and are self-selected by the business.
- There is a lot of turnover in businesses, it is recommended to have a process for adding new businesses and flagging businesses no longer operating.
- Criteria used for inventory development includes:
  - Appendix 8
  - Business activity and site circumstances
  - Potential for illicit discharge
  - Past business history such as complaint records or IDDE records
  - Asset inspection information
  - Current land use
- Sources for business information include:
  - Windshield surveys and site visits
  - County parcel information
  - Business license information
  - Google Street View is helpful to identify and validate businesses
  - City water accounts
  - Other inspectors and field staff
**INSPECTION PROTOCOL (S5.C.8.b.iii)**

**Question 5.1** How do you prioritize businesses once the inventory list is developed?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
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</table>
| Respondent 1 | • Prioritized businesses are ones connected to the MS4.  
• Also prioritize based on a simple system: Is the business a dirty or clean type of business? Is the operator a dirty or clean operator? |
| Respondent 2 | • Prioritization for all businesses (not exclusively for source control businesses) are based on connection to the MS4, whether source control is needed, and historic issues with the business and repeat offenders.  
• Strip malls, grocery stores, and gas stations are a high priority as there are frequent delivery trucks at these businesses. |
| Respondent 3 | • Previously it was every five years, or sooner if a complaint was received, or staff noticed a problem.  
• New system uses an algorithm that was established that looks at the type of business to determine the pollution risk and their compliance history. |
| Respondent 4 | • Prioritized based on waste-stream evaluation, those with higher potential to pollute are inspected more.  
• Monitor and track previous inspections to track the behavior change of the business operations (as compared to previous inspections) and to conduct follow-up inspections.  
• Over 15 years we have created a “Quantifying Behavior Change” Report specific to our jurisdiction and inspections. With this report, we have been able to compare first inspections to most current inspection. This has allowed us to confirm what businesses need more frequent inspections and which ones can go longer between rotations. |
| Respondent 5 | • Prioritization done on a 5-year rotation.  
• Prioritize sites that also have a stormwater facility onsite that requires inspections. |
| Respondent 6 | • Developed a risk prioritization for businesses. Businesses are given a high, medium, or low risk ranking after an initial audit visit.  
• Low risk businesses are inspected every six years.  
• Medium risk businesses are inspected every four years.  
• High risk businesses are inspected every two years.  
• If a business is listed as a high risk but has a good compliance history, that may decrease their risk rating. |
| Respondent 7 | • Businesses are prioritized from a variety of factors such as land use category, potential to pollute, proximity to receiving waters, last inspection date and complaints.  
• Other related permit coverage (do they have their own permit—such as a NPDES or State Waste Discharge) is also taken into consideration. |
| Respondent 8 | • Priority is based on complaints, observations, inspector discretion, and history. |
Summary

Prioritization is often based on proximity to aquatic resources, site history and business history, which include potential to pollute, complaints received, prior observations by staff, connection to an MS4, and business type. Inspection prioritization is an ongoing process that may include a risk ranking system or algorithm.

**Question 5.2 What are your established inspection protocols/strategies?**

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• We are not very reliant on using written procedures, but I do recommend them if you are starting a program. Our staff is very experienced.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• Current SOPs are old, but a draft is under development.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• SOPs are in our Procedures Manual.</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>• Onsite inspection is unannounced and have not yet been turned away. • It’s important to consider how you approach people. Don’t act like the expert in their sector but just want to help them do their job cleaner. • Have a checklist but over time now know what to look for, so just look at the activity onsite and talk to the business operator. • We have found that unannounced inspections allow us to see how a business really operates. I always let them know that I would rather see the “true working actions” than if they cleaned up for my visit. I compliment if I see spill clean-up material on a spill, because then I know they are doing the right thing.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>• Currently use the source control BMPs contained in regional stormwater management manual. • SOPs are in a state of flux, but they are potentially willing to share some depending on completion or status. Working on plain talking the SOPs.</td>
</tr>
<tr>
<td>Respondent 6</td>
<td>• Created checklists, but inspectors found that they weren’t helpful. • Inspectors preferred taking notes in the field of violations, then input the information into their database and follow up with the business electronically.</td>
</tr>
<tr>
<td>Respondent 7</td>
<td>• Recommends focusing on the goal of your program. Example: Prevent pollution to the MS4. • Take an education and outreach approach when conducting inspections. • Provide technical assistance to ensure best management practices are in place. • Enforce the water pollution code. • It’s important to prep for the inspection: Conduct some research – what types of activities occur onsite? Review onsite drainage if available. • When you first show-up to the site: Introduce yourself and explain why you’re there – think elevator speech. Explain the process of the inspection and benefits of the inspection. • Provide recommendations or requirements if they’re deficient in BMPs. • Document: Take pictures, take notes on what you saw, leave them with a reminder if they have some simple BMPs that need to be implemented. Let them know if you will send them a letter stating they’re out of compliance and remind them you’re there to help if needed with technical assistance.</td>
</tr>
<tr>
<td>Respondent 8</td>
<td>• Follow SOP: Pre-investigation desk work: past compliance history, Google Maps Street View, complaints in system, name, background, new company search.</td>
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</tbody>
</table>
• Logistics: what equipment is needed? E&O materials, personal protection equipment, inspection tools.
• Ensure that safety considerations have been made (will there be work in traffic?) and that appropriate Personal Protective Equipment (PPE) and necessary gear is available and in good condition before going out in the field.
• Safety and training (flagging, first aid, confined space) must be tended to before anyone goes out in the field.
• On-site protocol:
  1. Opening – introduce yourself, provide credentials and explain reason for visit, identify the primary contact.
  2. Conduct inspection using checklist.
  4. Document visit – comments and observations entered into data management system, photographs.

Summary
Most jurisdictions have inspection SOPs. Prior to site visits, conduct research to verify past compliance history, complaints, what types of activities have occurred onsite, review onsite drainage if available, Google Maps Street View, name and background or new company search. Consider safety training and equipment that may be necessary for inspections out in the field.

Question 5.3 Do you use a checklist? Is the checklist business type specific (e.g., auto vs. restaurant) or general for all business types?

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<th>Respondent</th>
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<tr>
<td>Respondent 1</td>
<td>No.</td>
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<tr>
<td>Respondent 2</td>
<td>No, but considering it.</td>
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</tbody>
</table>
| Respondent 3 | Use a two-part inspection form—one for commercial business and another for multifamily.  
• Elements of the LSC checklist is incorporated.  
• Additional notes are transcribed into the database inspection report. |
| Respondent 4 | Some generic checklists are used including a few specific checklists.  
• We have used checklists for training and inexperienced staff.  
• For experienced inspectors, checklists are not generally used in the field while conducting the inspection. Can seem like a hindrance to the conversation.  
• Natural conversation without laptop, I-Pad, etc, seems to create a more personal inspection and makes the business representative feel less under pressure. |
| Respondent 5 | Checklists contained in the EAM.  
• Source Control is a simple checklist.  
• Site-specific checklists have been developed in the EAM for businesses sites requiring stormwater facility O&M inspection. |
| Respondent 6 | Does not use a checklist. Inspections are BMP-specific, not sector-specific. |
| Respondent 7 | A checklist prototype covers questions for all business types, and the user must decide which questions are pertinent to the activity onsite. |
After conducting multiple inspections, people will begin to memorize which questions are applicable.

Yes, one checklist is used, not multiple checklists specific to business types.

Summary

Most jurisdictions have some type of inspection checklist, but checklists are not business type specific. Some inspectors use checklists during site visits, although most experienced inspectors do not use them. Checklists may be useful for training purposes and for new inspectors.

**Question 5.4** Please provide an example of a routine inspection, please include details such as whether inspectors lift grates on stormdrains.

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<tr>
<th>Respondent 1</th>
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<tr>
<td><strong>Respondent 1</strong></td>
<td>Inspections start before stepping on site with a quick review of the business itself. This includes a search for any previous inspection history that may include problems identified or corrected in the past. It also includes a review of stormwater mapping, so we know what to look for when we step onto the property.</td>
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<td>The visit begins when a responsible party (RP) that can represent the business is identified and receives our outreach materials regarding Pollution Prevention Assistance and Stormwater protection. Routine Inspections can happen with or without the RP but their presence is always preferred. Inspectors move through the business the same way products and services do, noting operational and structural issues.</td>
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<tr>
<td></td>
<td>During the visit all aspects of Stormwater collection, conveyance and treatment are inspected and examined. Lids are pulled, vaults are opened, measurements are taken, observations are made, and all catch basins are inspected for possible pollutants and debris and sediment levels.</td>
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<tr>
<td></td>
<td>A recap of the observations is done with the RP at the close of the visit, identify BMPs in place that are working and identify any issues or deficiencies that need to be corrected.</td>
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</table>
Respondent 2

- Verify that contact information is correct. Review history of past inspections at the site. Print out site plan/drawings of site.
- Pull all grates/manholes and inspect the integrity of the structures, look for pollutants, odors, measure sediment depth, ensure internal components (e.g. control structure – rod, shear gate, gasket, and chain) are in good shape and functioning, use mirror/light to inspect conveyance lines. Take photos.
- Inspect all stormwater flow control, treatment facilities and low impact development.
- Inspect site for BMPs that are in place, lacking, or need replacement.
- Inspect site for IDDE (may include rooftop inspections).
- Utilize sample test strips if necessary - pH, ammonia, nitrate, total chlorine. Dye test. Provide technical/educational service if necessary.
- Inspect FOG generating facilities in conjunction with drainage inspections.
- Update site plan if necessary, after inspections.
- If ArcGIS is not up to date, submit changes/updates to SharePoint.
- If there are deficiencies; write an admonishment letter informing the property of their stormwater (and FOG) deficiencies. Attach courtesy contractors list, site plan, educational posters, brochures, links to BMP activity sheets etc.

Respondent 3

- After credentials, the inspection involves walking and poking around the exterior of the property, learning the nature of the business, ascertaining what pollution generating activities take place, whether enough BMPs are being employed, and the condition conveyance system.
- If it is a combined LSC inspection, there will be a conversation and observations of universal and hazardous waste storage and handling, chemical storage and handling, etc.
- The inspectors carry long poles to poke the sediment levels of catch basins, but don’t normally lift grates to ensure that only rain is going down the drain.
- Source control staff generally do not go inside building unless: they are doing an LSC inspection, have reason to believe that there are illicit connections, there is the potential of an interior spill reaching the stormdrain, or there are other waste management or disposal issues.

Respondent 4

- We do our business inspections by grouping business types together. I typically will spend a few months on each sector (depending on how many of that type of business we have). I familiarize myself with their potential waste stream, prior to the inspections.
- Upon my site visit, first introduce yourself and let them know why you’re there. Emphasize the fact that you’re there to help them (not so regulatory but there to help them comply).
- Ask them to teach you about their business and let them know if you have any recommendations on how to do their job cleaner. By understanding their methods of doing their work, helps me understand potential waste streams.
- We focus on outside activities, outside storage, disposal practices, spill materials and spill plans.
- I do inspect catch basins onsite as well.

Respondent 5

- Yes, inspectors lift grates on storm drains.
**Respondent 6**
- Yes, inspector lifts storm drain lids during inspections.
- Inspections are primarily focused on outside activities and storage of materials.
- Inspectors would go inside if they suspect an illicit connection.

**Respondent 7**
- Staff show up on site and ask to meet with an available Supervisor or Manager. If there is only frontline staff available, inspectors try to conduct the site visit with them.
- Staff walk the perimeter of the site and look for outside storage of materials or ask where materials are stored.
- Inspectors will only walk a site if someone from the business is present.
- Inspectors currently look in grates, but do not lift lids.
- They do not investigate every single catch basin, but those close to the proximity of the building or wherever materials are being stored.
- If a suspected discharge is observed inspectors will walk around and try to determine where the discharge is going and any necessary corrections. In this instance, source control inspectors would also coordinate with the water quality specialists that address water quality complaints.

**Respondent 8**
- Yes, grates are lifted, using a T-bar probe.
- Follow SOP: Pre-investigation desk work: past compliance history, Google Maps Street View, complaints in system, name, background, new company search.
- On-site: 1. Opening – introduce yourself, provide credentials and explain reason for visit, identify the primary contact.
  2. Conduct inspection using checklist.
  4. Document visit – comments and observations entered into data management system, photographs.

**Summary**
Standard Operating Procedures (SOP) are commonly followed. Site inspections typically include five important steps:

1. Pre-investigation research about the site and prepping of materials (tools, outreach materials and personal protection equipment).
2. On-site introductions that are official, courteous, and explanatory.
3. Conduct the inspection with checklist, notebook, or electronic device.
4. Provide recommendations and give contact information, education and outreach materials and documentation of visit.
5. Document the visit - including notes, photos, and findings into your data management system.

Most jurisdictions do not look inside businesses unless there are signs of a potential for an illicit discharge.
Question 5.5 What is the average length of time for an inspection? Does it vary between business types? What is the range of time experienced?

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| Respondent 1 | • Inspection times vary greatly with business types and sizes and the stormwater system and features that serve these sites.  
• Inspections times may also vary due to availability of person in charge and level of interest and interaction.  
• A business visit could happen in as short as 10 minutes and some business visits can take hours with follow up visits, follow up information, emails and phone calls. |
| Respondent 2 | • The physical inspection process averages two hours, plus time to update GIS and write letters.  
• The inspection could be five minutes to one day depending on the site.  
• If hood vents need inspection or there are fire safety hazards present, the inspection takes longer. |
| Respondent 3 | • Inspection time average is three and a half hours, due to travel distances and because it includes data entry and follow-up.  
• Most inspections take about 30 minutes.  
• Some large or complicated sites can be a few hours, but typically those are joint inspections either with other staff or other agencies. |
| Respondent 4 | • Inspection time varies. Some inspections can be as short as 10 minutes while some can be one and a half hours.  
• For example, a large mechanical shop will take much longer than a nail salon.  
• Regardless of the time of the inspection, each inspection involves a walk-around the facility, indoor inspections, communications on clean-up of spill (regardless of business type), and disposal practices.  
• At the end of each inspection, if anything serious is identified, we discuss that immediately, otherwise I let them know they will be receiving a letter within the next few days. |
| Respondent 5 | • An average of 45 minutes for auto repair/gas stations.  
• Junkyards could take one and a half hours.  
• Many consist of just a visual walk around.  
• If something is found, contact with responsible party is made. A follow-up letter or post card is sent whether or not something is found.  
• Post card to the owner if nothing is found.  
• When something is found, they send a letter stating the findings, expectations for corrections, and when a follow up site inspection will occur. This is sent to the property owner and business operator. Recommends moving to plain talk for the letters. Found that the legal format overwhelming.  
• Letters describe what we want them to do and why. |
Respondent 6

- The length of time does vary by business type.
- The average time for an inspection is about three hours.
- Audits take about one hour onsite, but the total time for the inspection is about two to three hours, including data entry and paperwork.
- Industrial facility inspections are about two to three hours onsite with the total time about five hours.
- It takes about nine hours total for the entire enforcement time for a site.
- Inspection timelines are getting shorter with experience.
- Enforcement is relatively common and can take a long time.

Respondent 7

- Business inspections can vary anywhere between 15 minutes and 45 minutes.
- This will vary between business types as well as what the inspector finds while conducting the inspection.
- Some businesses need more technical assistance than others, and some businesses also ask many questions while others do not.
- In the beginning of a new business inspection program, inspections will most likely take longer because some businesses may not be aware of the proper BMPs that need to be in place.

Respondent 8

- Inspection times vary (20 minutes to multiple hours) for larger industrial sites.
- It depends on the problems present on-site.
- A typical automotive site will take from 30-45 minutes.
- Paperwork can take 20 up to minutes if done by paper.

Summary

Inspection times vary with type and size of business, conditions of the site, availability of person in charge and whether it is a first inspection or a done by a newly trained inspector. Site inspection times range from an average of 25 minutes to two hours, across the responding jurisdictions. Follow-up time for documentation, correspondence and data entry should be considered equal to or greater than the site visit. Inspection follow-up averages between 20 minutes and two hours depending on complexity of site visit. Sites requiring enforcement involve significantly more staff time.

Question 5.6 Do you notify businesses prior to visits? If so, how much advance notice is provided.

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| Respondent 1 | - Businesses are visited without prior notification.  
- May make an appointment for a follow up or delayed inspection. |
| Respondent 2 | - If they have been inspected a few times, do not notify the business. |
| Respondent 3 | - No notice, though if inconvenient at the time or the correct person isn’t present, a follow-up visit is scheduled.  
- Some places that have restricted access necessitate scheduling.  
- No “right of access” unless the Director deems it severe threat to human health or the environment. |
| Respondent 4 | - No notice, however if it is inconvenient at the time of my visit, I do coordinate with them for a better time and schedule a site visit.  
- Follow-ups are scheduled out, i.e.: 30 days, 60 days, but no specific date made unless requested. |
| Respondent 5 |  • Yes, if business requests a prenotification.
  • Advance notification requests are noted in the database. |
| Respondent 6 |  • Inspections are usually not scheduled because it can take a lot of time to schedule visits.
  • Sometimes inspectors will give businesses advance notice.
  • If inspectors meet with property managers they will schedule ahead of time.
  • Scheduled visits are flexible for when it is convenient for the business. |
| Respondent 7 |  • Generally, no notification is given to businesses prior to arrival so inspectors can see their everyday practices.
  • Commercial Animal Handling and Commercial Composting facilities received notification of the program prior to the initial inspection in addition to informing the local agricultural board.
  • Inspection notification available for businesses upon request.
  • Notification of the program and possible inspection to a small number of sites was given as a pilot at the beginning of the business inspection program but was discontinued when complications became evident.
  • A notification was sent to business parcels on the inventory that had not yet received an inspection during the last permit term (2013 NPDES Phase I permit). |
| Respondent 8 |  • Usually only follow-up visits are scheduled.
  • Prefer to visit sites unannounced for a couple of reasons; the logistics of scheduling times is a lot of work and can usually get access quickly to see what a normal day looks like. |

**Summary**

Generally, prenotification is not given for routine site inspections. Scheduled visits may be done for businesses for follow-up or if requested. These businesses are noted in databases. Unannounced visits allow inspectors to observe normal operating practices. Businesses that have not previously had an inspection, or special type businesses, may receive general information about the program prior to inspection.

*Question 5.7 Are there opportunities for phase II jurisdictions to shadow inspectors or do ride-alongs? See resources listed in Appendix F*
5.7 Summary

All respondents are open to scheduled ride-alongs. There may be a mechanism through the Business Inspection Workgroup (BIG) to coordinate ride-alongs.

Inspection Recommendations and Summary

- For inspection resources see Appendix F.
- Conduct pre-inspection research before going on site. This includes:
  - Previous inspection history that may include problems identified or corrected in the past.
  - Business/property owner information
  - Review of the site plan and stormwater system(s)
- It is important to consider how to approach people. Instead of acting like the expert in their sector, try to show that you want to help them improve their BMPs.
- Start your program by using a checklist for inspections. Over time, your inspectors will know what to look for. This way the inspectors can talk to the business operator and inspect the activities more freely.
- Consider safety training and equipment that may be necessary for inspections out in the field.
- During the initial site visit, inspect catch basins for cleanliness.
- It is better to visit sites unannounced to get an understanding of their everyday practices.
**PROGRAM MANAGEMENT** *(S5.C.8.a)*

*Question 6.1* How many site visits (business inspections + follow-ups) do you complete in a year and how many FTE’s complete the work? What is your total number of business inspection sites?

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<th>Respondent</th>
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</table>
| **Respondent 1** | • About 400 completed for one FTE.  
• 602 high priority businesses sites directly impacting the MS4.  
• 2,162 business sites operating in our Permit area. |
| **Respondent 2** | • 500 businesses including multifamily residential and FOG.  
• Three inspectors (inspecting Stormwater, FOG, and Hazardous waste). |
| **Respondent 3** | • 435 annual inspections or more.  
• 75 LSC inspections in other jurisdictions, which don’t count towards the permit requirement.  
• 2,175 inventory.  
• Staffing: one program manager FTE and two and a half inspector FTEs. Number is an estimate because of vacancies and transfers and assistance from other units. (includes LSC inspections). Home-based businesses with equipment are included. |
| **Respondent 4** | • Between 200 to 400 business inspections per year including follow-up visits.  
• 20% requirement is to complete 381 inspections per year.  
• One person is conducting the business inspections, as well as all the other stormwater inspections (1 FTE). |
| **Respondent 5** | • 1,400 sites completed annually, including those requiring O&M inspection. |
| **Respondent 6** | • Complete 750 inspections a year.  
• About 3,500 businesses in jurisdiction’s inventory that have the potential to pollute and discharge into their MS4.  
• Three FTEs, who are also on call for other work.  
• Additional admin and management staff are needed to complete this work and is not included in those three FTEs. |
| **Respondent 7** | • Minimum of 319 inspections per year.  
• Inventory consists of 1,594 parcels.  
• Two full time inspector positions and one part-time program lead to accomplish the work. |
| **Respondent 8** | • Estimate 400 inspections annually.  
• Four FTEs. Each area inspector will visit about a hundred sites. |

**Summary**

The NPDES permit requires the equivalent of 20% of the inventory to be inspected annually, which includes re-inspections. On the average, 400 inspections are conducted by the responding jurisdictions per year. Of the seven FTE responses, they varied from one to four FTEs to comply with the 20% permit requirement. Across the jurisdictions, the total annual inspections completed per FTE range from 100-400, but most averaged approximately 200 inspections per FTE. Included in the FTE positions were inspectors along with program managers.
**Question 6.2** To what extent are inspections such as Private SW Facility Maintenance Inspections or Local Source Control (LSC) Fats, Oil & Grease (FOG-wastewater) Illicit Discharge Detection and Elimination (IDDE) combined with business inspections?

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| **Respondent 1** | • Do not include Health Department inspections in our work but do include stormwater facility inspections.  
  • Could include the inspections in our IDDE screening reporting but do not at this point. |
| **Respondent 2** | • All the time. |
| **Respondent 3** | • Public and private SW facility maintenance inspections are done by a different crew, although if they see any problems, they notify administration.  
  • Local Source Control inspections are blended into our regular source control program – the only difference is that interior operations are sometimes included.  
  • We have no LSC inspections that are not stormwater inspections.  
  • IDDE program in our group is focused on conveyance screening (a complete waste of time) and TMDL work.  
  • Complaints and complaint investigations are run through the source control program, often with the initial inspection/investigation done by asset management inspectors who are usually already in the field.  
  • IDDE team also does sampling if necessary. We don't think of IDDE as being complaint response and investigations.  
  • FOG inspections are done by the local sewer agencies and not the source control program. |
| **Respondent 4** | • One inspector conducts all the inspections: IDDE, drainage facility inspections, business inspections, etc.  
  • The Health Department conducts all FOG inspections.  
  • About 5% of the stormwater inspections are joint inspections with another agency. Pre-2015, about 50% of the inspections were joint inspections with the health department. |
| **Respondent 5** | • Storm and Source Control inspectors provide guidance on combining inspections. They facilitate coordination meetings with Health Department to I.D. core competencies and gaps for bacteria source control.  
  • Very limited focus compared with Source Control. Conduct joint inspections with Ecology on sites with Industrial Stormwater Permits.  
  • Sewage Treatment plant conducts pretreatment inspections.  
  • Local Source Control program – two inspectors at Health Department go inside the businesses. We have not coordinated our inspection with this team yet. |
| **Respondent 6** | • Tries to combine several kinds of inspections during site visits, but it is challenging.  
  • LSC inspections count as permit inspections.  
  • Private SW Facility Maintenance Inspections sometimes do business inspections.  
  • IDDE inspections would count as a business inspection if a cross connection is investigated and found.  
  • FOG wastewater source control inspections include stormwater elements. |
Respondent 7
- We have specialists that conduct inspections on stormwater facilities as well as IDDE.
- Do not have a specific FOG program because other jurisdictions conduct these inspections. Although, we do discuss FOG during the business inspection process.

Respondent 8
- Same pool of staff coordinates and overlap when possible (wastewater and stormwater) inspections.
- If a business is due for an inspection will check calendar to see if another inspection is due.

Summary
Most jurisdictions are currently performing some form of overlapping inspections. Some respondents are working with the health department on FOG inspections and with Ecology on industrial inspections. Some jurisdictions combine stormwater inspections with LSC inspections. Many of the respondents are working on methods to combine inspection protocols for efficiencies. One jurisdiction tries to combine several inspections, but finds it challenging.

Question 6.3 Have you had any issues combining business inspections with other inspections? What are the pros and cons of doing this?

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| Respondent 1 | • Strongly in favor of combining source control and stormwater facility inspections because we are a stormwater management agency.  
• As a part of our work we get involved in directing waste management improvements that are Health Department issues. |
| Respondent 2 | • No issues.  
• Pro: It is extremely efficient as these inspections go hand in hand.  
• For example, if a hood cleaning contractor cleaned the hood vent system improperly and illicitly discharged to the private storm, you would catch this by inspecting the private storm system or by conducting a FOG inspection of the kitchen and looking at the date of the hood cleaning sticker. If the date was recent, the nearby drain grate will be lifted rather than call another group out.  
• Pro: It is easier to have one inspector perform a combined inspection at each facility. That way the property owner/manager only has one contact. Also, if there are separate inspectors for FOG and source control they would have to communicate issues back and forth, which is a waste of time. |
| Respondent 3 | • Pro: Joint inspections can be invaluable, particularly with problematic sites.  
• Pro: Save the business time by only having to do one inspection and get answers that are compatible with all agencies.  
• Pro: Prevents businesses from trying to play off one agency against another.  
• Pro: Excellent way for inspectors to learn the other disciplines and to develop collaborative relationships.  
• Con: The success of joint inspections depends primarily on the personalities of the inspectors and how well they get along and the way they deal with the businesses. Inspectors need to be collaborative, observant and very safety conscious because people tend to wander off when their subject matter is not being addressed. |
Respondent 4
- **Pro:** the business operators don’t have to deal with multiple inspections and staff.
- **Pro:** more efficient because we don’t have multiple people interrupting their workflow to conduct the inspection.
- **Con:** it’s very rare, but at times it can be a little overwhelming for the business operator to cover so many topics.
- **Con:** Our jurisdiction has some unique stormwater aspects to it, so it is important that the other inspector understands our stormwater system prior to joint inspections.

Respondent 5
- **No issues.**
- **Pro:** Only experienced upsides on combining inspections – reduces costs and staff time.
- **Con:** Conduct joint inspections with Ecology on sites with Industrial Stormwater Permits.

Respondent 6
- **Pro:** businesses receive less visits from jurisdiction (less stress on the business).
- **Con:** Combining these inspections require communication with other work groups.
- **Data management apps may help with coordinating joint inspections.**
- **Con:** Frequency and timing of business inspections and other inspections can be off, which makes them difficult to combine.
- **Con:** Combining the inspections sometimes the visits are talking with different people (i.e. the owner versus the tenant).

Respondent 7
- **We do not combine with other inspections.**

Respondent 8
- **Pro:** Benefits include a more efficient with time, businesses appreciation -less impact, and save on fuel and CO2.
- **Con:** Difficulties include budgeting, time tracking, training issues, different equipment, different safety gear, switching mind set between two different programs, may get caught up with one inspection, wastewater is more intensive.

**Summary**

Most jurisdictions were in support of combining inspections, citing efficiencies in inspection and travel times as the main benefit. Other benefits include reducing the number of visits a business receives by multiple agencies, creating cross-training opportunities, and developing collaborative relationships between agencies and inspectors. The issues noted when combining business inspections with other inspections include the potential of overwhelming the business owner, scheduling, and timing of inspections between different programs.
Question 6.4 How do you coordinate scheduling business inspections with other inspections? Do you coordinate business inspection to coincide with other organization’s inspections, such as Health Dept. and Ecology?

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| Respondent 1 | • Jurisdiction organizes work so that the Health Department source control business visits are in areas where businesses do not drain to MS4.  
• Coordinates with Ecology on issues like a spill response or industrial stormwater permittee issue.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Respondent 2 | • Rarely conduct joint inspections.  
• Jurisdiction checks inspections that are due in Outlook and group them together so that businesses/properties inspections are near each other to make it as efficient as possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Respondent 3 | • Whenever a business has an ISWGP, try to coordinate with Ecology.  
• Jurisdiction coordinates with an inspection team that includes Ecology, City, County Stormwater and Industrial Waste, Hazardous Waste and occasionally EPA and Puget Sound Clean Air.  
• Coordinate with the Hazardous Waste Program to ensure that we are not duplicating businesses and see a need for more in-depth technical assistance.  
• Sites with septic system issues, Public Health is contacted.  
• Don’t often do joint inspections, but try to collect as much information as possible, including sample data.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Respondent 4 | • With one inspector it is simple to conduct the multiple stormwater inspections on a site.  
• For a joint visit with another agency inspector calls/emails to coordinate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Respondent 5 | • With Ecology (just started, ~20 sites).  
• Not yet with the others currently but looking at improving over the coming years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Respondent 6 | • When coordinating other inspections with Public Utilities staff, employees just verbally communicate with each other.  
• If Public Utilities is performing a joint inspection with other organizations then they try to coordinate those inspections.  
• Timelines for visiting businesses may be different between jurisdiction and external organizations.  
• Jurisdiction might coordinate more often with Ecology to perform joint visits during a follow-up inspection.  
• Joint inspections might be a waste of time for some inspectors since each inspector is looking at the site in a slightly different way (i.e. Ecology reviews a lot of paperwork).                                                                                                                                                                                                                                                                                                                                 |
Respondent 7  
- If complaint-based, and is at a site with a separate permit, coordinate a joint visit with Ecology.
- Jurisdiction inspects separate permitted sites when the site has not been inspected by Ecology in three+ years.
- Non-compliant animal handling facilities go to the Conservation District for technical assistance, but the Conservation District does not participate in the initial inspection of the facility.
- Non-compliant commercial composting operations are referred to the Health District because they issue them operational permits.
- Currently, we do not conduct joint visits with the Health District, but we are in contact with them about our program.

Respondent 8  
- Case by case basis (ex. industrial stormwater permit).
- Not too much coordination with Ecology.

Summary  
For most jurisdictions, joint inspections with other agencies are not common. However, jurisdictions will coordinate with the various agencies in some cases, to reduce duplicate inspections and increase efficiencies. This may include coordinating with Ecology for industrial permit inspections, spills or complaint inspections. It may also include coordinating with the health department for septic inspections and non-compliant composting, and with the conservation district for non-compliant animal handling facilities.

Question 6.5 Logistically, what is your strategy for selecting/scheduling site visits? Is it geographically based or other considerations such as risk to the environment?

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| Respondent 1 | - Focus on both environmental risk and geographical area.  
- Can visit businesses in a drainage area and discuss the geography (i.e. how it drains to a particular creek).  
- Prioritized based on business risk. |
| Respondent 2 | - Jurisdiction checks inspections that are due in outlook and group them together so that businesses/properties inspections are near each other to make it as efficient as possible.  
- Jurisdiction has three inspectors, each with designated areas or inspection types. |
| Respondent 3 | - The list of sites needing inspections is generated at the beginning of the year and divided into about 10 geographic sectors.  
- Currently the list is based on a five-year inspection cycle, but they will be changing with new algorithm.  
- Inspectors self-select the business, usually in geographic clusters to minimize travel time and maximize efficiency. |
| Respondent 4 | - Jurisdiction conducts sector specific inspections.  
- If there are businesses clustered together in one area jurisdiction will conduct multiple inspections. |
| Respondent 5 | - Geographically based, and then it’s the inspector’s call.  
- Schedule site visits to schools early in the year. |
Respondent 6
- At the start of the calendar year the program manager assigns 100 businesses to each inspector.
- Inspector chooses when to inspect the sites, groups inspections based on geographical location.
- “Risk to the environment” is captured in their risk categories, however high-risk sites are necessarily inspected first.

Respondent 7
- Sites are split up into different areas, giving inspectors a combination of both rural and urban areas throughout the jurisdiction, (assign each inspector an even number of sites).
- Sites are selected based on several factors that were listed above (e.g., proximity to water body, potential to pollute, etc.).

Respondent 8
- Combination of geography (clustering) – use quadrants to disperse workload equitably, inspections due, risk assessment, best professional judgement.
  Inspectors use the philosophy of be in your area – this includes institutional knowledge of your area (new businesses, businesses closed) special activities within quadrant.
- Try to drive every street/alley once a quarter.

Summary
All jurisdictions use several criteria to prioritize and schedule site visits such as: proximity to aquatic resources, compliance history and business activity. A common scheduling strategy used in most of the jurisdictions is based on geographic clustering or designated areas. Prioritization is often determined by environmental risk and inspector’s institutional knowledge of the sites.

Question 6.6 Do you coordinate with other jurisdictions on franchise businesses that have multiple locations across jurisdictions?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• Not generally, we could though once phase II permittees begin programs.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• No.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• No. There are 39 different municipalities in this jurisdiction.</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>• No.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>• No. Call corporate, who tends to be more responsive than local, when there is an issue.</td>
</tr>
<tr>
<td>Respondent 6</td>
<td>• No.</td>
</tr>
<tr>
<td>Respondent 7</td>
<td>• No, see a great opportunity to implement region-wide efforts.</td>
</tr>
</tbody>
</table>
| Respondent 8 | • No, would contact corporate headquarters.  
  • Attend regional NPDES coordinators meetings to stay apprised of current issues. |

Summary
None of the respondents coordinate with other jurisdictions on franchise businesses with multiple locations across jurisdictions. One respondent thought it might be possible once Phase II jurisdictions have established source control programs.
Question 6.7 Do you currently contract-out business inspection services? If so, what are the pro and cons?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• No. It is not a consideration. We have an ongoing program staffed by long-time internal specialists.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• No.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>• No.</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>• No.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>• No. Staff knows the businesses and trains for consistency. Current standard is customer service and compliance, and concern is that a contractor would just be doing the numbers.</td>
</tr>
</tbody>
</table>
| Respondent 6 | • Jurisdiction works with a contractor when language services are needed. They used to contract out inspections in other languages, but now they perform joint inspections.  
• Pro: Contracting out provides support for language services.  
• Con: Jurisdiction wants to give businesses the same inspection experience which is difficult to do when the work is contracted out. |
| Respondent 7 | • No, all business inspection services are performed by staff. |
| Respondent 8 | • No. |

Summary

Most jurisdictions don’t hire-out business inspections. Jurisdictions feel internal staff are well trained, provide better customer service and can maintain higher compliance rates. One jurisdiction conducts joint inspections to support language services.

Question 6.8 How do you train business inspection staff? Who conducts training?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>• Jurisdiction staff train new staff by doing ride-alongs and training about code and resources.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>• Yes, we conduct training in-house.</td>
</tr>
</tbody>
</table>
| Respondent 3 | • Training is done by shadowing other inspectors.  
• Program manager does the orientation, regulations, data etc.  
• New inspectors shadow LSC inspectors in other jurisdictions and go out with mappers, asset management inspectors and IDDE samplers.  
• Required to complete a long list of safety related trainings.  
• Use training videos.  
• LSC training is very useful, whenever other applicable training comes up, inspectors are encouraged to take it.  
• Jurisdiction has a Source Control Procedures Manual, but it needs updating. |
| Respondent 4 | • Jurisdiction inspector trains all our O&M staff, park staff, and have in the past trained our contractor, Pro-Vac regarding spill response and IDDE.  
• Jurisdiction inspector also conducts the SWPPP for the police, parks, and O&M. |
| Respondent 5 | • Internally, in-house inspector-to-inspector. |
• Attend conferences and external training (e.g., Managing Stormwater in WA) and online training.

**Respondent 6**
- Jurisdiction staff is trained by internal staff, mostly through mentoring by peers.
- New inspectors go out on inspections with other types of inspectors, such as the spills group, private drainage inspectors, and IDDE inspectors.

**Respondent 7**
- Shadowing in the field.
- Knowledge and understanding of SOPs, NPDES Permit, jurisdiction code, and Drainage Manual Volume IV.
- Important to know the baseline understanding of staff prior to covering topics. Are they new to stormwater? Do they understand the common terminology pertaining to stormwater? Have they worked under a NPDES permit before?
- Develop on-boarding process to ensure the employee understands the short-term goals, long term goals, and vision of the program.
- Send inspectors to outside trainings to earn certificates such as the OSHA Hazwoper 40 hour, and NPDES Stormwater Inspector. There are a variety of companies that provide these trainings in Western Washington.

**Respondent 8**
- Training is in-house, includes on the job ride-alongs with senior inspectors.
- Six-month probation period.
- Attend in-person and on-line trainings such as EPAs National Enforcement Training Institute (NETI), Western States Project, Ken Kerri Water Programs.

**Summary**

Most jurisdictions use in-house training by experienced staff which includes but is not limited to shadowing and peer mentoring. This includes training by other departments (mappers, asset inspection and IDDE). Staff is also encouraged to attend related in-person and on-line training programs and conferences. One jurisdiction suggested that program managers should understand their staff’s baseline knowledge of the inspection program and regulations.

**Question 6.9** Do you coordinate development and implementation of the business pollution source control program with your economic development, planning, or code enforcement departments? What are the challenges? How did you resolve them?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
</table>
| **Respondent 1** | • Not really. It is really a stormwater pollution prevention activity.  
• Involved in code development to do things like require covers over dumpster enclosures. |
| **Respondent 2** | • Inspectors conduct performance, one-year and two-year walkthroughs.  
• Communicate our concerns with items that go beyond the walkthrough punch list such as ownership and maintenance responsibilities, LID implementation; NPDES permit requirements and updating as-builts.  
• Challenges are lack of personnel or interest/knowledge of upcoming permit requirements.  
• Resolve this by communicating in person, sending memos, and holding educational PowerPoint presentations to individual departments/groups. |
Respondent 3 | • Coordination occurs primarily with Code Enforcement, which does building and land use enforcement. Refer cases back and forth and in some instances, do joint inspections.  
• Some Code Enforcement problems seem to go unresolved or are not followed up in a timely manner.  
• Jurisdiction has had historically deficient relationship with our building and land use group, and it is a constant source of friction, though the relationship is slowly improving. They are physically located a long way away from us and have a different approach to environmental compliance and regulation.

Respondent 4 | • Coordinate with other departments within the jurisdiction if a new project is coming in that may have a stormwater facility or deal with stormwater.  
• Other departments will ask for input and to notify the developer or business about what types of things the inspector will be looking for onsite.

Respondent 5 | • No, but coordinate with the Planning Department when stormwater bond is released.  
• Some coordination with Code Enforcement when there are issues such as illegal business or accumulations of trash.

Respondent 6 | • The jurisdiction’s source control program manager meets with the jurisdiction’s code enforcement team every two weeks.  
• They don’t really meet with their economic development department.  
• They do work with code development.

Respondent 7 | • Coordinate with other departments within the jurisdiction.  
• When needed, stormwater management works on processing code enforcement cases with other departments, works closely with the Prosecuting Attorney’s office on legal frameworks and NPDES compliance assessments, and provides inspections and technical assistance to jurisdiction departments who have property in the source control inventory, such as Parks, Airport and Facilities.  
• Challenges include having different priorities, budgets and authorizing environments.  
• Generally, when interdepartmental issues arise and cannot be resolved at the supervisor or manager levels, the Executives office or Prosecuting Attorneys will be included to provide directions and resolve conflicts.

Respondent 8 | • No coordination, just tax and license for inventory information.

**Summary**
Most have limited coordination with economic development and planning departments. Several work with the code enforcement and code development departments on a case-by-case basis. Jurisdictions have noted difficulties coordinating with other internal departments due to differences in priorities, budgets and authority.
Program Management Recommendations and Summary

- For program management resources see Appendix G.
- When calculating FTEs for business inspections, include administrative and management staff time.
- Jurisdictions averaged approximately 200 annual inspections per FTE.
- The NPDES permit requires the equivalent of 20% of the inventory to be inspected annually, which includes reinspection.
- Most jurisdictions were in support of combining inspections, citing efficiencies and travel times as the main benefit.
- Most jurisdictions don’t hire-out business inspections.
- Coordination with other departments can be challenging, but resolution can be achieved by open communication between departments.
- Coordinate ride-along training opportunities with jurisdictions currently implementing Source Control programs.
Appendix A.

Source Control Business inspection program Survey Template

1.0 Education and Outreach

1.1 What type of outreach was done prior to implementing business inspections?

1.2 Do you conduct ongoing outreach? For example, for new businesses, do they get a heads-up regarding the purpose of the inspection?

1.3 Please provide examples of outreach and distribution timeline if available.

1.4 Are you providing incentives or recognition to businesses that are regularly in compliance?

1.5 Have you developed outreach materials and/or letters of non-compliance for ESL businesses?

2.0 Code and Code Enforcement

2.1 How do you handle complaint-based response for mobile businesses that provide services within your jurisdiction but are not based there? For example, if you receive a complaint about a discharge in your jurisdiction but they are based in another jurisdiction?

2.2 What percent of business inspections require follow-up? Is there a threshold that triggers a follow-up?

2.3 What percent of businesses require enforcement protocol? How much time do you give a business to comply before implementing enforcement protocol?

2.4 Please provide example ordinances/policies.

2.5 Please provide example enforcement strategy.

3.0 Data Collection and Management

3.1 What type of data management/inspection tracking systems are you using? City Works, GIS, zoning, parcel, Cartograph, NPDES Pro, etc.? Has it the system changed? If so, why?

3.2 Are you using the same data management system for other inspection programs? If so, how well do they integrate with other data management systems?

3.3 Please share what’s working and what’s not working (strengths and shortcoming) with your data management system.

3.4 Do you have any data management recommendations? If so, why?

3.5 Are you collecting data electronically in the field using a collector app, survey 123, or similar tool? If so why; if not, why not?
4.0 Inventory Development and Updates

4.1 Please describe how you developed your inventory? Please include the following if applicable:

4.1.1 What criteria did you use?
4.1.2 What sources were used to collect business information?
4.1.3 Do you update your inventory when new businesses open and other businesses close?
4.1.4 If inventory criteria is different than permit language, what is the reason?

4.2 How are businesses evaluated and eliminated from the original list of businesses identified in the Appendix 8 NAICS codes?

4.3 What actions do you take with businesses that are on combined storm/sewer systems, are they included in your inventory?

5.0 Inspection

5.1 How do you prioritize businesses once the inventory list is developed?

5.2 What are your established inspection protocols/strategies? Please provide examples of any SOPs that you have created.

5.3 Do you use a checklist? Is the checklist business type specific (e.g., auto vs. restaurant) or general for all business types?

5.4 Please provide an example of a routine inspection, please include details such as whether or not inspectors lift grates on stormdrains.

5.5 What is the average length of time for an inspection? Does it vary between business types? What is the range of time experienced?

5.6 Do you notify businesses prior to visits? If so, how much advance notice is provided. If not, please explain this decision.

5.7 Are there opportunities for phase II jurisdictions to shadow inspectors or do ride-alongs?

6.0 Program Management

6.1 How many site visits (business inspections + follow-ups) do you complete in a year and how many FTE’s complete the work? What is your total number of business inspection sites?

6.2 To what extent are inspections such as Private SW Facility Maintenance Inspections or Local Source Control (LSC) Fats, Oil & Grease (FOG-wastewater) Illicit Discharge Detection and Elimination (IDDE) combined with business inspections?

6.3 Have you had any issues combining business inspections with other inspections? What are the pros and cons of doing this?
6.4 How do you coordinate scheduling business inspections with other inspections? Do you coordinate business inspection to coincide with other organization’s inspections, such as Health Dept. and Ecology?

6.5 Logistically, what is your strategy for selecting/scheduling site visits? Is it geographically based or other considerations such as risk to the environment?

6.6 Do you coordinate with other jurisdictions on franchise businesses that have multiple locations across jurisdictions?

6.7 Do you currently contract-out business inspection services? If so, what are the pro and cons?

6.8 How do you train business inspection staff? Who conducts training?

6.9 Do you coordinate development and implementation of the business pollution source control program with your economic development, planning, or code enforcement departments? What are the challenges? How did you resolve them?
Appendix B.

NPDES Permit S5.C.8: Source Control Program for Existing Development

Read the full Western WA Phase II Municipal Stormwater Permit here:
https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-Municipal-Stormwater

xv. Building exterior cleaning and maintenance

e. Implement an ongoing training program for employees of the Permittee whose primary construction, operations, or maintenance job functions may impact stormwater quality. The training program shall address the importance of protecting water quality, operation and maintenance standards, inspection procedures, relevant SWPPPs, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. Permittees shall document and maintain records of training provided. The staff training records to be kept include dates, activities or course descriptions, and names and positions of staff in attendance.

f. Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under the Industrial Stormwater General Permit or another NPDES permit that authorizes stormwater discharges associated with the activity. As necessary, update SWPPPs no later than December 31, 2022, to include the following information. At a minimum, the SWPPP shall include:

i. A detailed description of the operational and structural BMPs in use at the facility and a schedule for implementation of additional BMPs when needed. BMPs selected must be consistent with the Stormwater Management Manual for Western Washington, or a Phase I program approved by Ecology. The SWPPP must be updated as needed to maintain relevancy with the facility.

ii. At minimum, annual inspections of the facility, including visual observations of discharges, to evaluate the effectiveness of the BMPs, identify maintenance needs, and determine if additional or different BMPs are needed. The results of these inspections must be documented in an inspection report or check list.

iii. An inventory of the materials and equipment stored on-site, and the activities conducted at the facility which may be exposed to precipitation or runoff and could result in stormwater pollution.

iv. A site map showing the facility’s stormwater drainage, discharge points, and areas of potential pollutant exposure.

v. A plan for preventing and responding to spills at the facility which could result in an illicit discharge.

g. Maintain records of the activities conducted to meet the requirements of this Section.

8. Source Control Program for Existing Development

a. The Permittee shall implement a program to prevent and reduce pollutants in runoff from areas that discharge to the MS4. The program shall include:

i. Application of operational source control BMPs, and if necessary, structural source control BMPs or treatment BMPs/facilities, or both, to pollution generating sources associated with existing land uses and activities.
ii. Inspections of pollutant generating sources at publicly and privately owned institutional, commercial and industrial sites to enforce implementation of required BMPs to control pollution discharging into the MS4.

iii. Application and enforcement of local ordinances at sites, identified pursuant to S5.C.8.b.ii, including sites with discharges authorized by a separate NPDES permit. Permittees that are in compliance with the terms of this Permit will not be held liable by Ecology for water quality standard violations or receiving water impacts caused by industries and other Permittees covered, or which should be covered under an NPDES permit issued by Ecology.

iv. Practices to reduce polluted runoff from the application of pesticides, herbicides, and fertilizers from the sites identified in the inventory.

b. Minimum performance measures:

i. No later than August 1, 2022, Permittees shall adopt and make effective an ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (see Appendix 8 to identify pollutant generating sources).

The requirements of this subsection are met by using the source control BMPs in the SWMMWW, or a Phase I Program approved by Ecology. In cases where the manual(s) lack guidance for a specific source of pollutants, the Permittee shall work with the owner/operator to implement or adapt BMPs based on the best professional judgement of the Permittee.

Applicable operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs, or treatment BMPs/facilities, or both, shall be required for pollutant generating sources if operational source control BMPs do not prevent illicit discharges or violations of surface water, groundwater, or sediment management standards because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as determined necessary by the Permittee, in accordance with S5.C.8.b.iv, below.

ii. No later than August 1, 2022, the Permittees shall establish an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4. The inventory shall include:

(a) Businesses and/or sites identified based on the presence of activities that are pollutant generating (refer to Appendix 8).

(b) Other pollutant generating sources, based on complaint response, such as: home-based businesses and multi-family sites.

iii. No later than January 1, 2023, Permittees shall implement an inspection program for sites identified pursuant to S5.C.8.b.ii, above.

(a) All identified sites with a business address shall be provided information about activities that may generate pollutants and the source control
requirements applicable to those activities. This information shall be
provided by mail, telephone, electronic communications, or in person. This
information may be provided all at one time or spread out over the permit
term to allow for tailoring and distribution of the information during site
inspections.

(b) The Permittee shall annually complete the number of inspections equal to
20% of the businesses and/or sites listed in their source control inventory
to assess BMP effectiveness and compliance with source control
requirements. The Permittee may count follow-up compliance inspections
at the same site toward the 20% inspection rate. The Permittee may select
which sites to inspect each year and is not required to inspect 100% of sites
over a 5-year period. Sites may be prioritized for inspection based on their
land use category, potential for pollution generation, proximity to receiving
waters, or to address an identified pollution problem within a specific
geographic area or sub-basin.

(c) Each Permittee shall inspect 100% of sites identified through credible
complaints.

(d) Permittees may count inspections conducted based on complaints, or when
the property owner denies entry, to the 20% inspection rate.

iv. No later than January 1, 2023, each Permittee shall implement a progressive
enforcement policy that requires sites to comply with stormwater requirements
within a reasonable time period as specified below:

(a) If the Permittee determines, through inspections or otherwise, that a site
has failed to adequately implement required BMPs, the Permittee shall take
appropriate follow-up action(s), which may include phone calls, reminder
letters, emails, or follow-up inspections.

(b) When a Permittee determines that a site has failed to adequately
implement BMPs after a follow-up inspection(s), the Permittee shall take
enforcement action as established through authority in its municipal codes
or ordinances, or through the judicial system.

(c) Each Permittee shall maintain records, including documentation of each
site visit, inspection reports, warning letters, notices of violations, and
other enforcement records, demonstrating an effort to bring sites into
compliance. Each Permittee shall also maintain records of sites that are not
inspected because the property owner denies entry.

(d) A Permittee may refer non-emergency violations of local ordinances to
Ecology, provided, the Permittee also makes a documented effort of
progressive enforcement. At a minimum, a Permittee's enforcement effort
shall include documentation of inspections and warning letters or notices of
violation.

v. Permittees shall train staff who are responsible for implementing the source
control program to conduct these activities. The ongoing training program shall
cover the legal authority for source control, source control BMPs and their proper
application, inspection protocols, lessons learned, typical cases, and enforcement
procedures. Follow-up training shall be provided as needed to address changes in
procedures, techniques, requirements, or staff. Permittees shall document and
maintain records of the training provided and the staff trained.
APPENDIX 8 BUSINESS AND ACTIVITIES THAT ARE POTENTIAL SOURCES OF POLLUTANTS

Use this appendix to help identify businesses and/or activities with potential outdoor pollutant-generating sources that discharge to the MS4 and should be included in the Permittee’s source control inventory, developed pursuant to SS.C.8.b.ii. The Standard Industrial Code (SIC), Major Group, and NAICS numbers are provided for reference. Permittees may include additional outdoor pollutant-generating sources that are located within their jurisdictions.

<table>
<thead>
<tr>
<th>Group Description</th>
<th>SIC Major Group</th>
<th>SIC Industry Group No.</th>
<th>NAICS Major Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support Activities for Animal Production</td>
<td></td>
<td>074, 075</td>
<td>1152xx</td>
</tr>
<tr>
<td>Construction of Buildings</td>
<td>15</td>
<td></td>
<td>236</td>
</tr>
<tr>
<td>Heavy and Civil Engineering Construction</td>
<td>18</td>
<td></td>
<td>237</td>
</tr>
<tr>
<td>Specialty Trade Contractors</td>
<td>17</td>
<td></td>
<td>238</td>
</tr>
<tr>
<td>Beverage, Food, and Tobacco Manufacturing</td>
<td>20</td>
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<td>311, 312</td>
</tr>
<tr>
<td>Wood Product Manufacturing</td>
<td>24</td>
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<td>Paper Manufacturing</td>
<td>26</td>
<td></td>
<td>3221xx, 3222xx</td>
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<tr>
<td>Printing and Related Support Activities</td>
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<td>323</td>
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<td>Chemical Manufacturing</td>
<td>28</td>
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<td>Petroleum and Coal Products Manufacturing</td>
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<td>Plastics and Rubber Product Manufacturing</td>
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<td>Leather and Allied Product Manufacturing</td>
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<tr>
<td>Nonmetallic Mineral Product Manufacturing</td>
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<td>Primary Metal Manufacturing</td>
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<td>Fabricated Metal Product Manufacturing</td>
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<td>Machinery, Computer, and Electronic Product manufacturing</td>
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<td>Electrical Equipment, Appliance, and Component Manufacturing</td>
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<td>Transportation Equipment Manufacturing</td>
<td>37</td>
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<tr>
<td>Rail Transportation</td>
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</table>

Appendix 8 – Urban Land Uses and Pollutant Generating Sources
August 1, 2019
<table>
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<tr>
<th>Group Description</th>
<th>SIC Major Group</th>
<th>SIC Industry Group No.</th>
<th>NAICS Major Group</th>
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<td>Support Activities for Transportation</td>
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<td>Wholesale Trade – Nondurable Goods</td>
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<td>Building Materials, Hardware, Garden Supplies Dealers</td>
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<td>Food and Beverage Stores</td>
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<td>Automotive Dealers and Gasoline Service Stations</td>
<td>55</td>
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<td>Food Services and Drinking Places</td>
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<td>Rental and Leasing Services</td>
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<td>Repair and Maintenance</td>
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<tr>
<td>Ambulatory Health Care Services and Hospitals</td>
<td>806, 807</td>
<td></td>
<td>621910</td>
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<td>Educational Services</td>
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<td></td>
<td>6111xx, 6112xx, 6113xx, 6115xx</td>
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<td>Museums, Historical Sites, and Similar Institutions</td>
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<td>842</td>
<td>712</td>
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Appendix C.

Public Education and Outreach Material and Resources

The documents listed or addresses in Appendix C are not links. The documents can be accessed by using the URL address: https://www.wastormwatercenter.org/business-inspection-group-big/

1. Auto Shop 4C’s poster
2. Be the Solution to Surface Water Pollution Post Inspection Handout
3. Only Rain Down the Drain brochure
4. BMP A306 Landscaping & Lawn-vegetation
5. Call Before You Cut Those Trees Handout
6. Car Wash BMP ECY
7. Car Wash Poster
8. Catch Basin One Pager
9. Cleaning and Washing BMPs
10. Incentive Program: https://clarkgreenbiz.com/
12. Leaky Car Brochure
13. FOG BMPs Brochure
14. Only Rain Down the Drain Sticker
15. Only Rain Down the Drain Posters
16. Residential FOG Poster
17. Storm Hood Vent and Pressure Wash Letter
18. Safer Cleaning Infographics
19. Stormwater BMP Brochure
20. The4CsBMP- en-km-F-C with logo
21. The4CsBMP- en-ko-F-C with logo
22. The4CsBMP- en-ru-F-C with logo
23. The4CsBMP- en-vi-F-C with logo
24. The4CsBMP-en-es-F-C with logo
25. Wastewater-Stormwater in House
26. Ways to help Puget Sound
27. Neighborhood Wetland Education Brochure
28. Stormwater and Wastewater Infographic
Appendix D.

Code and Code Enforcement Materials and Resources

The documents listed or addresses in Appendix D are not links. The documents can be accessed by using the URL address: https://www.wastormwatercenter.org/business-inspection-group-big/

1. Enforcement Workflow Diagram
3. Enforcement Penalty Script Matrix
4. Notification of Illicit Discharge Letter
5. Internal Enforcement Action Form
6. Jurisdictions code Title 11: https://www.codepublishing.com/WA/PierceCounty/html/PierceCounty11/PierceCounty11.html
7. Code Enforcement
8. Sanitary Sewer Code
9. Illicit Discharge Code
10. Stormwater Code
11. Notice of Violation Letter
12. Penalty Matrix Guidelines
13. Penalty Matrix Template
14. Letter of Admonishment
15. Correction Notice
16. Notice of Violation
17. Voluntary Correction
18. Stormwater Drainage Enforcement Rule and Guidelines
19. Title 11 in Pierce County’s code: https://www.codepublishing.com/WA/PierceCounty/html/PierceCounty11/PierceCounty11.html
20. Stormwater Compliance Policy
22. FOG Removal Device Installation
Appendix E.

Inventory Development and Updates Materials and Resources

The documents listed or addresses in Appendix E are not links. The documents can be accessed by using the URL address: https://www.wastormwatercenter.org/business-inspection-group-big/

1. Phase I Inventory Development Checklist
Appendix F.

Inspection Protocol Materials and Resources

Question 5.7  Are there opportunities for phase II jurisdictions to shadow inspectors or do ride-alongs?

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>Yes.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>Yes.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>Yes.</td>
</tr>
<tr>
<td>Respondent 4</td>
<td>Yes, however please coordinate in advance.</td>
</tr>
<tr>
<td>Respondent 5</td>
<td>Yes. Five available FTE O&amp;M inspectors, five – Source Control Inspectors and some O&amp;M inspectors. They are also responsible for other duties (spill response, credit programs). One conducts trainings (including spill response).</td>
</tr>
<tr>
<td>Respondent 6</td>
<td>Potentially, a limited number of shadowing or ride-alongs could be approved.</td>
</tr>
<tr>
<td>Respondent 7</td>
<td>Yes, subject to schedule and availability of inspectors.</td>
</tr>
<tr>
<td>Respondent 8</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

The documents listed or addresses in Appendix F are not links. The documents can be accessed by using the URL address: https://www.wastormwatercenter.org/business-inspection-group-big/

1. Business Inspection Form 1
2. Inspection Checklist
3. BMP Suppliers and Services Handout
5. Commercial Inspection Form
6. FOG Courtesy Contractors List
7. Annual Stormwater Management Facilities Inspection Results
8. Inspection Frequency Algorithm
9. Inspection Prioritization and Modification
10. Multifamily Inspection Form
11. Post Card Notification of Satisfactory Inspection
12. Source Control Re-Inspection Letter
13. Source Control Inspection Results for Incompliance
14. Source Control Training Checklist
15. Source Control Checklist
16. Stormwater Drainage Courtesy Contractor List
17. Business Inspection Form 2
18. Inspector Job Qualifications
Appendix G.  

Program Management Materials and Resources  

The documents listed or addresses in Appendix G are not links. The documents can be accessed by using the URL address: https://www.wastormwatercenter.org/business-inspection-group-big/  

1. 2019 NPDES Phase 1 Municipal Stormwater Permit Stormwater Management Program