



2024 Stormwater Management Program (SWMP) Plan

City of Kent



Page intentionally blank.

City of Kent Stormwater Management Program Plan 2024

Table of Contents

Introduction	6
National Pollutant Discharge Elimination System Permit	6
NPDES Phase II Municipal Stormwater Permit	7
S5: Stormwater Management Program Plan	8
S5.C.1: Stormwater Planning	8
S5.C.1.a – Inter-disciplinary Team	8
S5.C.1.b – Coordination with Long-range Plan Updates.....	8
S5.C.1.c– Low Impact Development Code-related Requirements	9
S5.C.1.d – Stormwater Management Action Planning.....	9
Development of the SMAP.....	9
S5.C.2: Public Education and Outreach.....	14
S5.C.2.a.i – Build General Awareness	14
S5.C.2.a.i.a – Build General Awareness with the General Public and Businesses.....	14
S5.C.2.a.i.b – Build General Awareness with Engineers, Contractors, Developers and Land Use Planners	16
S5.C.2.a.ii– Effect Behavior Change.....	17
Regional Dumpster Lid Social Marketing Campaign	17
S5.C.2.a.ii – Measure Understanding and Adoption of Targeted Behaviors.....	18
S5.C.2.a.iii – Create Stewardship Opportunities	20
S5.C.3: Public Involvement and Participation	20
S5.C.3.a – Create Opportunities for Public Participation in SWMP.....	21
S5.C.3.b – SWMP Plan and Annual Report on Kent Website	21
S5.C.4. – MS4 Mapping and Documentation.....	21
S5.C.5: Illicit Discharge Detection and Elimination	22
S5.C.5.a - Illicit Discharge Identification	22
S5.C.5.b - Public Information Associated with IDDE.....	22
S5.C.5.c – Illicit Discharges Ordinance.....	25

S5.C.5.c.i – Allowable Discharges	25
S5.C.5.c.ii – Conditionally Allowable Discharges	25
S5.C.5.c.iii – Other Discharges.....	26
S5.C.5.c.iv– Escalating Enforcement Procedures & Compliance Strategy	26
S5.C.5.d – Detection Program	26
S5.C.5.d.i – Field Screening	27
S5.C.5.d.ii – Spill Reporting Hotline.....	27
S5.C.5.f– Detection and Response Education and Outreach	28
S5.C.5.e – Addressing Illicit Discharges	28
S5.C.5.e.i – Characterizing Threats to the MS4 and Environment	29
S5.C.5.e.ii – Source Tracing Methods.....	29
S5.C.5.e.iii – Elimination of Spills and Illicit Discharges.....	30
S5.C.5.e.iv – Minimum Response Timelines.....	30
S5.C.5.f – Training	30
S5.C.5.g – Record Keeping	31
S5.C.6: Controlling Runoff from New Development, Redevelopment, and Construction Sites	31
S5.C.6.a – Enforceable Mechanisms Addressing Runoff	31
S5.C.6.b – Minimum Requirements.....	31
S5.C.6.b.i - Appendix 1 Minimum Requirements	31
S5.C.6.b.ii – Local Requirements	31
S5.C.6.b.iii – Legal Authority	33
S5.C.6.c – Permitting Process with Site Plan Review.....	33
S5.C.6.d – Construction Stormwater General Permit.....	34
S5.C.6.e – City Staff Training.....	34
S5.C.7 – Operations and Maintenance	34
S5.C.7.a – Maintenance Standards.....	35
S5.C.7.b – Maintenance of Stormwater Facilities Regulated by the City	35
S5.C.7.b.i.a – Enforceable Mechanism to Identify Responsible Parties	35
S5.C.7.b.i.b – Maintenance Inspection Frequency.....	36

S5.C.7.c – Maintenance of Stormwater Facilities Owned or Operated by the City.....	36
S5.C.7.c.i – Inspections and Maintenance of Stormwater Treatment and Flow Control BMPs/Facilities	36
S5.C.7.c.ii – Spot Check Inspections	36
S5.C.7.c.iii – Catch Basin and Inlet Inspection, Maintenance, and Cleaning.....	37
S5.C.7.c.iv – 95% Minimum Compliance	38
S5.C.7.d – Best Management Practices	38
S5.C.7.e – Stormwater Management Training Program	42
S5.C.7.f – Stormwater Pollution Prevention Plan.....	42
S5.C.7.g – Maintain Records of Activities	42
S5.C.8 – Source Control Program for Existing development	43
S5.C.8.a – Source Control Program Elements.....	43
S5.C.8.b – Minimum Performance Measures.....	43
S5.C.8.b.i -Enforceable Mechanisms.....	43
S5.C.8.b.ii - Source Control Program Facility Inventory	44
S5.C.8.b.iii - Source Control Inspection Program	44
S5.C.8.b.iv - Progressive Enforcement Policy	45
S5.C.8.b.v – Staff Training	46
Appendix I: Spill and Illicit Discharge Response Plan	49
• Did pollutant discharge to MS4?	53
• Location of spill/discharge, address if known	53
• Pollutant type and quantity, if known	53
• Source tracing approach used	53
• Source off pollutant and responsible party if known	53
• Description of incident and has the spill discharged to waters of the state if known.....	53
• Caller contact information, unless they wish to remain anonymous.....	53
• Is the spill/discharge on public or private property?.....	53
• Spill/Illicit discharge respondent	53
• Correction/elimination methods used	53
• Who disposed of the materials.....	53

Appendix I (a): Spill Response Quick Action Guide & Checklist.....	55
Appendix II: Stormwater Hotspots	40
Appendix III: S5.C.1.b Coordination with Long-range Plan Updates.....	43
Appendix IV: Definitions and Acronyms	51

INTRODUCTION

The city of Kent (city) is an owner and operator of a regulated municipal separate storm sewer system (MS4), also known as the public drainage system. As such, the city is required to obtain and maintain coverage under the [Western Washington Phase II Municipal Stormwater Permit \(permit\)](#), a [National Pollutant Discharge Elimination System \(NPDES\)](#) permit, issued by the [Washington State Department of Ecology \(Ecology\)](#).

Under the terms of section S5 of the permit, the city is required to develop and implement a Stormwater Management Program (SWMP) and report annually on planned SWMP actions and activities that will be used in the reporting year through a SWMP Plan document.

Effective August 1, 2019, Ecology issued the 2019-2024 permit. As with past permits, ongoing adherence to the existing significant conditions is required and allows for phased implementation of new requirements. This document presents the city's SWMP Plan, which is structured to systematically address all relevant subsections of section S5 and describes the City's plans for ongoing compliance with the 2019-2024 permit cycle for 2024.

A new permit is due to be issued on August 1, 2024, and new compliance actions and activities will be addressed accordingly. The city submitted a Duty to Reapply Notice of Intent per Condition S1.D.2 and is preparing for on-going compliance with the permit.

Permit background is included in this introduction for context and historical reference.

The city actively encourages and values public input and oversight during the continuous development and implementation of this document. Please submit comments, ideas, or concerns regarding this SWMP Plan by:

Telephone: (253) 856-5500

Email: npdes@kentwa.gov

Mail posted to: City of Kent, Public Works Department, Environmental Engineering, 400 West Gowe, Kent, WA 98032

National Pollutant Discharge Elimination System Permit

The National Pollutant Discharge Elimination System (NPDES) is a permit-based water quality program implemented under the authority of the Federal Clean Water Act and administered by the United States Environmental Protection Agency (EPA). The NPDES program is intended to reduce the discharge of pollution to waters of the United States to protect and restore waters for "beneficial uses" such as swimming and fishing. Waters of the United States, or waters of the State, when referred to locally in Western Washington, includes streams, lakes, wetlands, Puget Sound, and groundwater. In the State of Washington, NPDES permits are administered by the Washington State Department of Ecology (DOE), the state's water pollution control agency, delegated by the EPA to be responsible for implementing NPDES permits. The NPDES permit program covers many different types of discharges, including industrial, construction project runoff, and municipal stormwater.

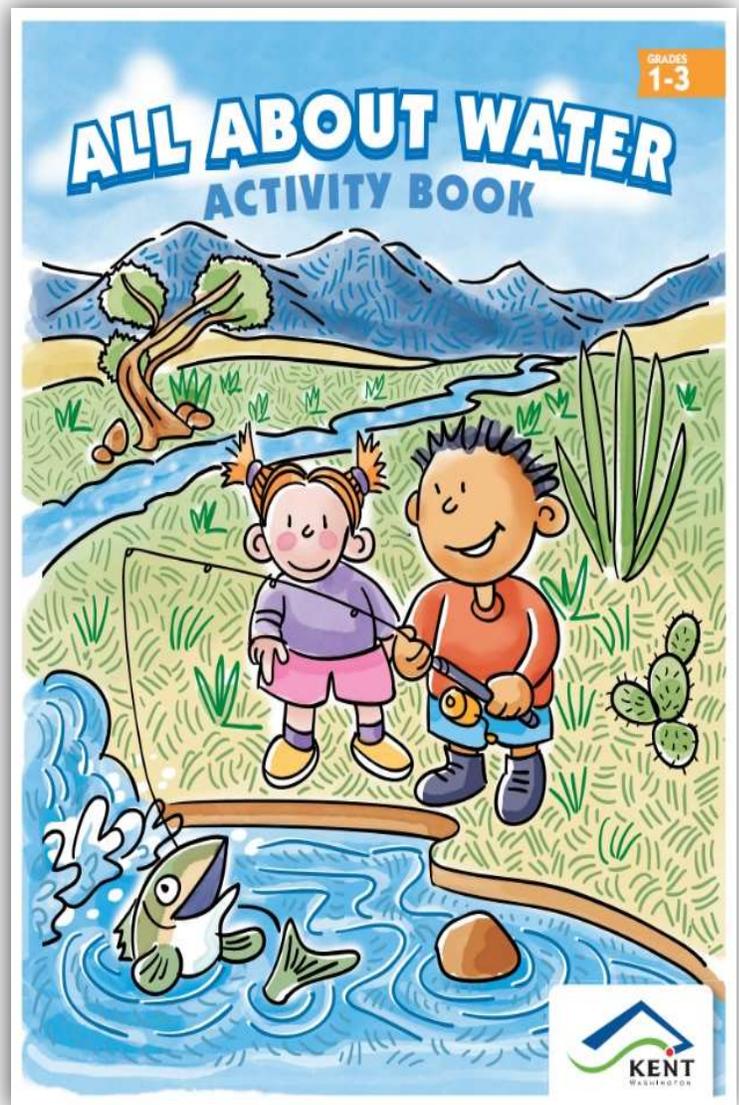
NPDES Phase II Municipal Stormwater Permit

Under the NPDES municipal stormwater general permit program in Washington State, cities and counties that own or operate MS4's serving a population of more than 100,000 (based on the 1990 Census) are required to be covered under the Phase I permit; and MS4 owners and operators serving populations of 1,000 to 100,000 (based on the 1990 Census) are required to be covered under the Phase II Permit.

Kent is currently covered under the Western Washington Phase II Municipal Stormwater permit, effective August 1, 2019 to July 31, 2024. This permit issued by the Department of Ecology contained new requirements including additional programs that were developed during this permit period. Along with these additional requirements, the city is required to continue its compliance obligations and efforts implemented under previous municipal permits.

Principally, the permit requires the city to comply with standards to protect water quality, reduce the discharge of pollutants from the city's stormwater system to the maximum extent practicable (MEP), and meet Washington State's All Known and Reasonable Treatment (AKART) requirements. Section S5 of the permit requires the city to develop and implement a Stormwater Management Program for its jurisdiction's geographic area which must be documented and updated annually as the Stormwater Management Program Plan and made available to the public through the city's website no later than May 31st each year.

In addition to the SWMP Plan, the city prepares an annual report that documents the city's compliance with the permit. Compliance as demonstrated by the annual report will constitute successful implementation of this SWMP Plan. The annual report required for the current permit will be available to the public through the city's website no later than May 31st of each year and will cover the reporting period of January 1 through December 31 for the preceding year.



S5: STORMWATER MANAGEMENT PROGRAM PLAN

The city's Stormwater Management Program (SWMP) Plan is utilized as guidance and reporting both internally and externally. The city coordinates internally as well as with other permittees to accomplish the SWMP Plan.

This SWMP Plan is generally organized to follow and address the required components outlined in S5 of the permit. The new permit requires eight components:

1. Stormwater Planning (S5.C.1)
2. Public Education and Outreach (S5.C.2)
3. Public Involvement and Participation (S5.C.3)
4. MS4 Mapping and Documentation (S5.C.4)
5. Illicit Discharge Detection and Elimination (S5.C.5)
6. Controlling Runoff from New Development, Redevelopment, and Construction Sites (S5.C.6)
7. Operations and Maintenance (S5.C.7)
8. Source Control Program for Existing Development (S5.C.8)

S5.C.1: STORMWATER PLANNING

Stormwater Planning is a new program that Permittees were required to implement to inform and assist in the development of policies and strategies as water quality management tools to protect receiving waters. This program is being implemented in phases according to Permit timelines. The City of Kent convened an inter-disciplinary team to inform and assist in the development, progress, and influence of this program. The program includes the activities described in this section which is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.1:

- Inter-disciplinary Team (S5.C.1.a.)
- Coordination with Long-range Plan Updates (S5.C.1.b)
- Low Impact Development Code-related Requirements (S5.C.1.c)
- Stormwater Management Action Planning (S5.C.1.d)

S5.C.1.a – Inter-disciplinary Team

The inter-disciplinary team included staff who used their expertise to advise in the planning of stormwater investments and actions to accommodate future growth in a way that will emphasize protection of designated uses and improve receiving water quality and habitat under both existing and anticipated future developed conditions. The team included representatives from many city departments and divisions, including Public Works, Planning, Development Review, and Parks.

S5.C.1.b – Coordination with Long-range Plan Updates

For the 2020 NPDES Annual Report the city was required to respond to a series of questions to describe how stormwater management needs and protection/improvement of receiving water health were informing the planning update process

and influencing policies and implementation strategies in the city during the 2013-2019 permit term.

On January 1, 2023 the city was required to submit a report responding to the same questions included in the 2020 NPDES Annual Report, to describe how water quality is being addressed during the current permit term in updates to the comprehensive Plan, or equivalent and in other locally initiated or state- mandated, long-range land use plans that are used to accommodate growth or transportation.

The initiation of this comprehensive stormwater planning requirement is intended to help permittees make informed decisions about how and when to address existing and anticipated flow and water quality problems. See Appendix III for the questions answered for these requirements.

S5.C.1.c– Low Impact Development Code-related Requirements

In 2022 the city adopted the [2021 King County Surface Water Design Manual](#) to comply with NPDES Permit requirements. King County updated their manual to become equivalent with updates that Ecology recently made to their manual. As part of this adoption process the city reviewed and revised local development codes, rules, standards, and other enforceable mechanisms to incorporate and require LID principles and BMPs. The revisions make LID the preferred approach to site development to provide:

- Measures to minimize impervious surfaces
- Measures to minimize loss of native vegetation
- Other measures to minimize stormwater runoff

The [City of Kent 2022 Surface Water Design Manual](#) adopts King County’s manual (KCSWDM) and applies to development proposals within the City of Kent. It includes all changes and deletions to the KCSWDM adopted by the City of Kent. It's to be used for guidance in drainage review and design of stormwater facilities within the City of Kent.

S5.C.1.d – Stormwater Management Action Planning

Permittees were required to conduct a process to consider a range of issues outlined in the [Stormwater Management Action Planning Guidance](#). The Stormwater Management Action Plan (SMAP) developed includes consideration of the following MS4 and complementary strategies:

- capital projects including regional facilities
- land acquisition and/or conservation easements
- land use or zoning code adjustments
- new critical area designations
- protected, enhanced, or restored riparian buffers
- enhanced MS4 maintenance
- education and outreach

Development of the SMAP

The city completed an inventory of the stormwater basins that are all or partially inside the city boundaries. We then used existing information to complete an initial prioritization

of these basins to narrow down the list to contain basins that could benefit from the development of water quality management tools to protect the associated receiving waters.

In 2022 staff identified Mill Creek as the basin to prioritize with the Lower Mill Creek subbasin as the catchment area to focus on. Staff then developed a Stormwater Management Action Plan (SMAP) to implement within that Lower Mill Creek aimed at protecting and improving water quality and surrounding habitat.

Identified Stormwater Management Actions

Based on the information gathered in the basin prioritization process, the city identified seven strategies to further assess for their potential to improve water quality and consider as stormwater management actions for the Lower Mill Creek SMAP.

Identified stormwater management actions included:

- **Flow Control Facility Construction** Install stormwater storage facilities to reduce erosion in streams, damage to habitat, and flooding.
- **Water Quality Facility Construction** Install treatment systems to remove pollutants from stormwater runoff.
- **Water Quality Monitoring (Enhanced Source Control and Tracing) Program** Targeted sampling, testing, and tracing of pollutants in the public drainage system to identify and eliminate pollutant sources.
- **Enhanced Education & Outreach Program** Develop and implement campaigns to encourage behavior change that benefits water quality.
- **Street Sweeping Program** Clean roadways using street sweepers on a regular basis to improve aesthetics, reduce localized flooding, and reduce pollutants in stormwater runoff.
- **Regional Stormwater Facility Construction** Install facilities designed to control stormwater runoff from multiple properties to improve water quality and flow control. These facilities may also be used for education and outreach.
- **Preserve and Restore Natural Areas** Protect and create natural vegetated areas to restore natural processes.

After the initial review of the seven identified stormwater management actions, the following short-term actions, to be implemented within 6 years, actions were selected and refined to address the needs of the Lower Mill Creek Basin:

a. Pollutant Source Tracing Program

As part of the SMAP, the city hired an outside consulting firm to conduct stormwater sampling. This sampling was completed to assess whether pollutants present in the public drainage system could be linked to industrial activities at Source Control properties or other identifiable sources that can be addressed with targeted stormwater actions. Any pollutants found in the public drainage system beyond target threshold levels will be investigated to focus in on the area where the pollutant originated.

b. Targeted Source Control Program

The Lower Mill Creek Basin is primarily composed of industrial Source Control properties, which have the potential to generate pollutants that can discharge into the public drainage system. If pollutants are found in the MS4 during the initial round of the pollutant source tracing program, staff will work with the consultant to investigate pollutants upstream of the point where the pollutant was sampled. Pollutant source tracing program data will be used to target Source Control inspections in areas believed to be the source of pollutants identified during sampling.

c. Enhanced Education & Outreach

Due to the historically high concentration of spills in the Lower Mill Creek Basin, targeted Source Control inspections will include an emphasis on spill prevention and response. During these inspections, the city will educate facility owners, managers, and staff and provide spill kit handouts and information on where to purchase replacement supplies.

To address the potential impacts of dumpsters on water quality, the city joined a regional effort to develop the "Shut It Campaign," which uses community based social marketing techniques to effect measurable behavioral change. The campaign uses regionally developed educational materials including stickers, signs, and posters to encourage business owners and staff to keep dumpster lids closed when not in use. A pilot program determined the campaign was effective in changing behavior and resulted in dumpster lids being closed more often at pilot facilities. The city is now implementing the Shut It Campaign as a part of the existing Source Control Program, which will be targeted within the Lower Mill Creek Basin.

d. Street Sweeping Program

Streets accumulate pollutants that are detrimental to water quality when combined with stormwater. With the Lower Mill Creek Basin being a high traffic area, there is an increase in pollutants on roadways. Street sweeping can minimize some of these pollutants, including sediment, debris, and vehicle fluids. Street sweeping also helps reduce the frequency at which catch basin and line cleaning is needed.

The following long-term actions, to be implemented within 7 – 20 years, were selected for implementation or consideration to determine if it is feasible to implement:

Stormwater Facility Retrofits

Much of the development within the Lower Mill Creek Basin was constructed prior to the standards required today. Stormwater facility retrofits (retrofits) provide an opportunity to address water quality concerns that may result from development not built to today's standards. Retrofits include the improvement of existing treatment facilities or installation of new stormwater BMPs where none previously existed. Constructing a stormwater retrofit may benefit both flow control and water quality if a suitable location is available.

Regional Stormwater Facilities

A regional stormwater facility (regional facility) is designed to control adverse impacts from stormwater runoff. Regional facilities can mitigate insufficient flow control or water quality treatment for existing developments and may have the capacity to provide the same benefit to future developments. A moderate sized regional facility can cost effectively treat stormwater from a large area and fix legacy stormwater problems from roads and land developed prior to today's construction standards. A facility that can provide multiple benefits is especially useful in areas of dense development where land is at a premium.

Regional facilities also benefit water quality by helping preserve and restore natural areas.

Land Management Strategies

Land management strategies should aim to protect current designated uses in Lower Mill Creek, which include recreation, spawning/migration, and stormwater conveyance. The Lower Mill Creek Basin is highly developed with minimal natural areas available for preservation. Therefore, land management strategies will focus on implementing more stringent guidelines for redevelopment. The city actively evaluates opportunities for improvements to development requirements that preserve or protect water quality.

Mill Creek Water Quality Monitoring Program

To move forward with this action, the city hired an outside consulting firm to conduct water quality monitoring programs within Mill Creek and the public drainage system. In addition to the Pollutant Source Tracing Program, the consultant will conduct routine water quality monitoring at four locations within Mill Creek, including sampling locations in the Upper Mill Creek, Mill Creek 76th Outfall, and Lower Mill Creek basins. Gathering data throughout the receiving water allows the city to assess the impacts of stormwater on water quality as it moves through the city and the dense industrial area of the Lower Mill Creek Basin. The ongoing collection of water quality data will provide a baseline for measuring the effectiveness of current and future SMAPs.

S5.C.2: PUBLIC EDUCATION AND OUTREACH

The city's stormwater public education and outreach program strives to build awareness and effect change that will ultimately reduce pollutants in stormwater and improve water quality in waters of the state. To accomplish this, the program focuses on providing accessible resources for information, services, and activities that may help people in Kent better understand and cooperate in stormwater best management practices. By promoting understanding and cooperation through this program, the city hopes that a more knowledgeable and engaged community will adopt attitudes and behaviors that decrease detrimental influences on stormwater.

This program is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.2, with subparts denoted when appropriate:

- Build general awareness about methods to address and reduce impacts from stormwater runoff.
- Effect behavior change to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts.
- Create stewardship opportunities that encourages community engagement in addressing the impacts from stormwater runoff.



S5.C.2.a.i – Build General Awareness

The city utilizes local and regional resources, campaigns, and programs to provide opportunities for education and stewardship for these target audiences in Kent. The following measures are intended to support information sharing and compel desired action from each audience in the various subject areas surrounding stormwater.

S5.C.2.a.i.a – Build General Awareness with the General Public and Businesses

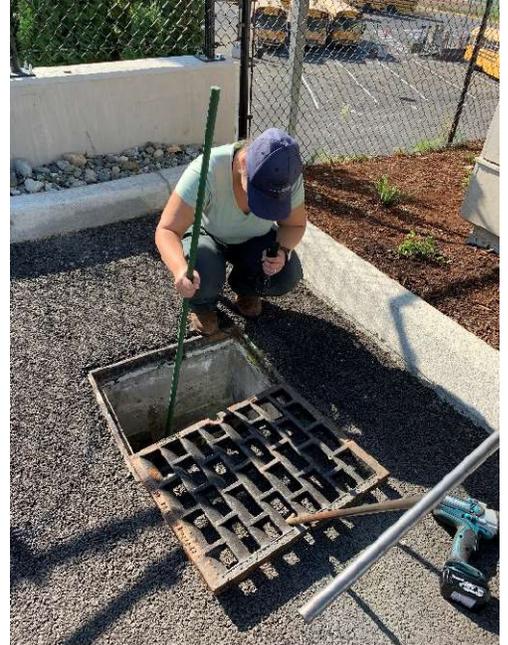
The city supports building general awareness with the general public and businesses in the following subject areas outlined in the permit:

1. General impacts of stormwater on surface waters.
2. Impacts from impervious surfaces.
3. Low impact development (LID) principles and LID best management practices (BMPs).

The city achieves compliance with these subject areas by services, activities, and publications listed below:

- City of Kent 2024 Stormwater Management Program Plan
- *City of Kent Drainage Master Plan*
- City of Kent Surface Water Design Manual
- Personal interactions (via phone, email, virtual meetings, and face-to-face)
- Environmental compliance inspections

- Source Control inspections
- Hazardous waste facility inspections
- Response to private drainage concerns
- Operations and Maintenance activities
- Educational brochures/door hangers
- Posters and stickers
- Signs posted at ponds and wetlands, and for “No Dumping”
- Storm drain markers
- Enviroscene presentations at city events, such as “Kent Cornucopia Days” and “Crusin Kent Car Show” at Kent Station.
- Presentations at Kent Schools
- Joint educational presentations with the Kent Library – Earth Day
- Kent’s Winterfest Tree Lighting and Parade event information booth
- Kent’s “Keep It Clean Kent” Campaign educational posts and materials
- Puget Sound Starts Here campaigns
- Social media through Kent’s Facebook, Instagram, YouTube, and Twitter accounts
- Planet Protectors Summit event for school-aged children
- National Night Out
- Public Works Appreciation Week Event



These programs are advertised and disseminated to the public and others through the following means:

- Kent TV21 – Public Works Committee Meetings
- KentNow Podcast
- Kent 101
- Kent Reporter
- Direct mailings
- Kent’s city website: www.kentwa.gov
- City Council and Committee Meetings
- Public Land Use Notices
- Neighborhood meetings



It is Kent’s goal to continue improving awareness and involvement in stormwater management with the general public, businesses, engineers, contractors, developers, land use planners, residents, landscapers, and property managers and owners. In 2024 the city’s goal is to:

- Participate in 4 education and outreach events,
- Create new education and outreach materials to support the Source Control Program,
- Post 12 educational social media posts,
- Provide spill prevention and response education to 200 businesses including spill kits, and
- Update the city website to include more educational information and materials.



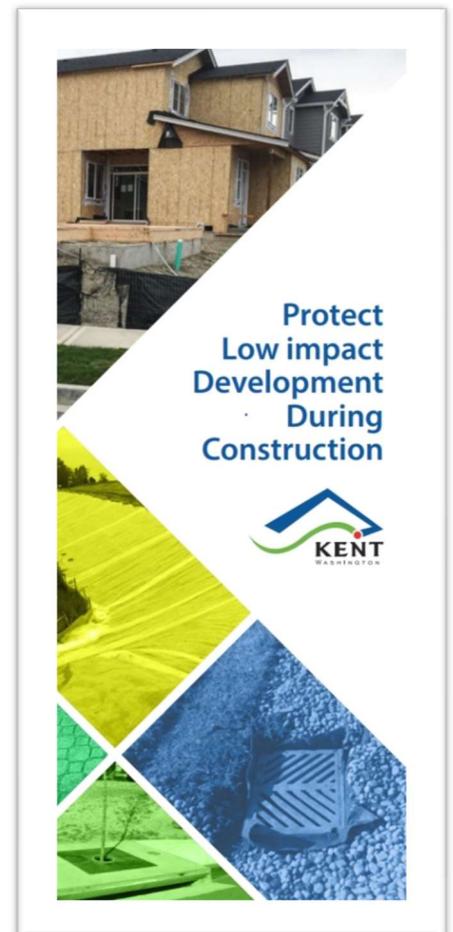
S5.C.2.a.i.b – Build General Awareness with Engineers, Contractors, Developers and Land Use Planners

The city strives to help awareness with engineers, contractors, developers, and land use planners in the three following subject areas in the permit:

1. Technical standards for stormwater site and erosion control plans
2. LID principles and LID BMPs
3. Stormwater treatment and flow control BMPs/facilities

The city achieves compliance with these three subject areas, through the services, activities, and publications listed below.

- City of Kent Stormwater Management Program Plan
- City of Kent Drainage Master Plan
- City of Kent Surface Water Design Manual
- City of Kent Design and Construction Standards
- Personal interactions (via phone, email, and face-to-face)
- Kent’s city website: www.kentwa.gov
- Direct mailings
- Environmental compliance inspections
- Source Control inspections
- Kent Permit Center
- Project plan development and review
- Pre and post-construction meetings
- Construction inspections
- Building inspections
- Erosion and sediment control inspections
- WA Department of Ecology LID training courses
- Low Impact Development Protection Brochure



S5.C.2.a.ii– Effect Behavior Change

The city promotes behavior change with residents, landscapers, property managers/owners, developers, school age children and businesses including home-based and mobile businesses regarding the use of best management practices (BMPs) that protect water quality. These BMPs include:

- Use and storage of: pesticides, fertilizers, and/or other household chemicals.
- Use and storage of: automotive chemicals, hazardous cleaning supplies, carwash soaps, and other hazardous materials.
- Prevention of illicit discharges.
- Yard care techniques protective of water quality.
- Carpet cleaning.
- Repair and maintenance BMPs for: vehicles, equipment, and/or home/buildings.
- Pet waste management and disposal.
- LID Principles and LID BMPs.
- Stormwater facility maintenance, including LID facilities.
- Dumpster, trash compactor and grease bin maintenance.
- Litter and debris prevention.
- Sediment and erosion control.
- Industry specific Source Control BMPs
- Locally important, municipal stormwater-related subject area BMPs.
- Proper management and disposal of hazardous materials.



Regional Dumpster Lid Social Marketing Campaign

In 2021 the city started the development of a campaign to effect behavioral changes with business owners, managers, and staff with regards to closing the lid on dumpsters. This was a joint effort developed by partnering with other local jurisdictions. A Dumpster Summit was held for all jurisdictions interested in collaborating on this campaign.

At this summit partners worked with a social marketing consultant who guided the team through an analysis to determine the best way to market the dumpster lid closer campaign. The result is a campaign toolkit including strategies and educational materials to distribute to businesses. The toolkit is intended to encourage staff to keep the dumpster lid closed while not in use to prevent the discharge of pollutants into the storm system. These toolkit items include:

- Sticker for dumpster
- Sign for dumpster area
- Poster/door sign
- Shut it flyers
- Pledge and window cling
- Drain marker for catch basin by dumpster

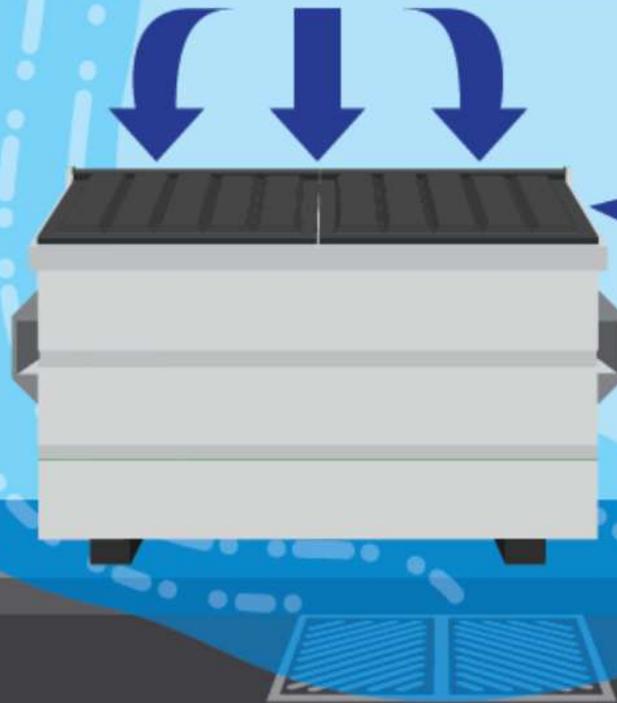


S5.C.2.a.ii – Measure Understanding and Adoption of Targeted Behaviors

In 2021 the city conducted a regional pilot program to test the effectiveness of the strategies and education materials developed for the dumpster lid closure campaign. The pilot program proved that our campaign is a success. After using the toolkit items to educate a small group of businesses in each jurisdiction, collectively, we found that the lid closures moved from a 49% lid closure at baseline to 77% in 6 months, a 54% increase. We then began the implementation of the campaign on a broad basis throughout the city in 2023. In 2024 we will be using social media posts to inform the general public about this campaign and the pledges businesses are taking to shut the lid on pollution. A copy of the report and associated findings can be found attached to City’s 2023 Annual Report.

Additionally, we incorporated the strategies and educational material into our Source Control Inspection Program. The city continues to examine and reflect on its efforts in public education and outreach and is dedicated to revising and improving programming through adaptive management. To achieve greater awareness of the effectiveness of the city’s public education and outreach program, the city utilizes methods of measurement, such as questionnaires, quizzes, and BMP monitoring. Results are used to evaluate environmental understanding and measure behaviors adopted by individuals and groups. The city uses the valuable information obtained through methods of measurement to review and formulate successful resources for education and outreach. The city then incorporates this into each section of the program.

Shut the lid



Shut the lid
Cierra la tapa
Закрийте кришку
Đóng nắp
ਛੱਕਣ ਝੰਦ ਕਰੋ



LESS
SMELL



LESS
GARBAGE
JUICE



FEWER
PESTS

For more information visit
KentWA.gov

Keep it clean
Kent



PHOTO: JEFF

S5.C.2.a.iii – Create Stewardship Opportunities

The city encourages stormwater stewardship and works to promote stewardship opportunities through local and regional initiatives. Below is a list of ongoing opportunities and special events that the city supports and invites the public to take part in.

- Puget Sound Starts Here campaign
 - Drain Ranger Program
 - Scoop Every Poop
 - Don't Drip and Drive
 - Natural Yard Care
- Community volunteer groups
- Green Kent Partnership
- Kent Adopt-A-Street Program
- Neighborhood Grant Program
- Team Up to Clean Up Events
- King County Wastemobile program
- Recycling and hazardous waste collection events
- Public Works Week Open House Day
- ZeroPoo
- Earth Day
- Conservation Day
- Orca Recovery Day
- ReLeaf
- Arbor Day
- Storm Drain Markers



S5.C.3: PUBLIC INVOLVEMENT AND PARTICIPATION



The city encourages and values public engagement in the SWMP and SMAP plans. Public involvement and participation in the SWMP and SMAP will be facilitated through the various means listed below. Furthermore, the city will continue to comply with applicable state and local public notice requirements when developing and updating components of the city's SWMP and SMAP plans.

This section is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.3, with subparts denoted when appropriate:

- Create Opportunities for Public Participation in SWMP and SMAP (S5.C.3.a)
- SWMP Plan and Annual Report on Kent Website (S5.C.3.b)

S5.C.3.a – Create Opportunities for Public Participation in SWMP

The city creates opportunities for public involvement and participation in the development and implementation of the SWMP Plan primarily by posting documentation online through the city's website and soliciting feedback through public notice. The same procedures will be used to provide for public involvement and participation in the development and implementation of the SMAP. The following are specific ways the public may review and provide comment on Kent SWMP and SMAP documents and activities:

- The city NPDES Program webpage: www.kentwa.gov/npdes
- The SMAP Development Survey
- In person, during normal business hours, or by appointment
- City Council and Public Works Committee Meetings
- Kent 101
- Telephone and Kent's spill hotline: (253) 856-5600
- Mail posted to: City of Kent, Public Works Department, Environmental Engineering, 400 West Gowe, Kent, WA 98032
- Email: npdes@kentwa.gov

S5.C.3.b – SWMP Plan and Annual Report on Kent Website

The city will make the SWMP Plan and Annual Report available to the public on Kent's website, www.kentwa.gov/npdes, no later than May 31 each year, as required under the permit. The SWMP Plan and annual report will remain available on the website until replaced the following year. Public notice shall be given when the SWMP Plan is online and available for review and comments. A hard copy of the SWMP Plan is also available from the Kent public works department upon request.

S5.C.4. – MS4 MAPPING AND DOCUMENTATION

Maps of the city's municipal separate storm sewer system (MS4) assure that illicit discharges and spills can be traced upstream for source detection. Maps also aid in identifying downstream fate of non-stormwater discharges. This information can aid in isolating, diverting, and remediating non-stormwater discharges.

The city's Geographic Information System (GIS) Division maintains an electronic stormwater system database as a visible map layer that depicts all city-owned stormwater system conveyance, stormwater facilities, outfalls, treatment and flow control facilities, and non-groundwater receiving waters. This database is updated regularly to reflect new and altered stormwater infrastructure based upon submittals of map update requests by field staff and as-built plans received from completed construction projects. Associated drainage basin layers and land use information layers have been developed and can be viewed in conjunction with the other stormwater system elements. In addition, the city's GIS department is in the process of mapping all privately-owned stormwater systems and low impact development (LID) in the city.

Visit the [Kent GeoPortal](#) tool to explore Kent's open spatial data. Current city of Kent maps are available to DOE, secondary permittees, and neighboring jurisdictions upon request.

S5.C.5: ILLICIT DISCHARGE DETECTION AND ELIMINATION

The city has developed and implemented a program for illicit discharge detection and elimination (IDDE) to effectively prevent, detect, characterize, trace, and eliminate illicit connections and illicit discharges into the MS4. The program includes the activities described in this section which is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.5, with subparts denoted when appropriate:

- Illicit Discharge Identification (S5.C.5.a)
- Public Information Associated with IDDE (S5.C.5.b)
- Illicit Discharges Ordinance (S5.C.5.c)
- Detection Program (S5.C.5.d)
- Addressing Illicit Discharges (S5.C.5.e)
- Training (S5.C.5.f)
- Recordkeeping (S5.C.5.g)

S5.C.5.a - Illicit Discharge Identification

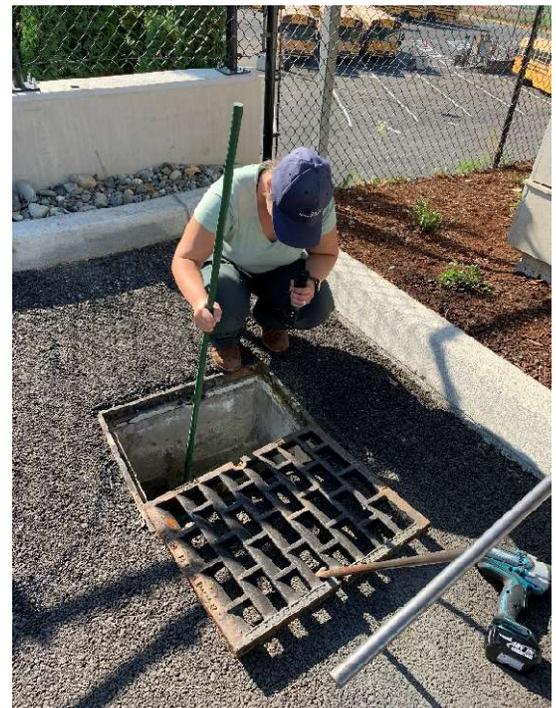
Illicit connections and illicit discharges are identified in many ways including field screening, inspections, complaints/reports, construction inspections, maintenance inspections, Source Control inspections, and/or monitoring information. The IDDE Program includes procedures for identifying and addressing pollutants entering the MS4 from an interconnected, adjoining MS4.

S5.C.5.b - Public Information Associated with IDDE

To ensure that public employees, businesses, and the general public are aware of the hazards associated with illicit discharges and improper disposal of waste, City staff are trained on these hazards and the preventative BMPs needed. These staff members then meet with members of the public, property owners, and business managers while completing field screening, private facility site inspections and education and outreach events to educate on general hazards associated with illicit discharges, the use of BMPs for pollution prevention and proper waste disposal. These meetings may also be documented as part of the public education and outreach program described in S5.C.2: Public Education and Outreach. All staff training is also documented.

Further efforts made by the city toward detection and response education and outreach for the general public include:

- Education and outreach material for Source Control best management practices
- A website has been developed to inform the public about stormwater pollution: [National Pollutant Discharge Elimination Program](#)
- The city is a partner in the 'Puget Sound Starts Here' stormwater educational campaign; an initiative to reduce pollution in the Puget Sound and greater Puget Sound area
- The Shut It regional dumpster lid campaign aimed at encouraging businesses staff to keep the dumpster lid closed while not in use to prevent the discharge of pollutants into the storm system
- Home hazardous waste collection service for eligible seniors and residents with disabilities
- King County Wastemobile Program
- Kent Green Apartment/Condominium Program
- Source Control inspections
- Single family residential environmental compliance inspections
- Public events are held each year to educate the public about the risks of stormwater pollution and improper disposal of waste including:
 - Kent Recycling and Hazardous Waste Collection Day
 - Kent Police Prescription Drug Take-Back Day
 - Public Works Week Open House Day
 - Single family residential environmental compliance inspections
 - Hazardous waste facility inspections
 - Spill Kit Program for Source Control Facilities



We Prevent Pollution

KEEPING FLUIDS OUT OF PUGET SOUND



Capture all fluids properly.

Captura todos los fluidos adecuadamente.



Immediately clean up wet spills with spill kit.

Limpie inmediatamente los derramamientos mojados con el kit del derramamiento.



Keep outdoor storage areas clean and covered.

Mantenga los almacenes al aire libre limpios y los cubrió.



Dry sweep all areas around business.

Utilice la escoba para secar barrido todas las áreas alrededor de negocio.



S5.C.5.c – Illicit Discharges Ordinance

The regulatory mechanism used to prohibit non-stormwater, illicit connections, and discharges into the city's MS4 to the maximum extent allowable is [Kent City Code \(KCC\) Chapter 7.14](#) – Illicit Discharges, which first went into effect July 2, 2009. The ordinance was updated in 2014 and was amended again in 2016 to enhance the city's enforcement ability by allowing criminal charges for egregious cases of contaminants and pollutants being discharged into the MS4.

The ordinance is very specific about what can and cannot be discharged into the city's stormwater system, as described under allowable discharges and conditional discharges. The ordinance also supports actions for compliance through inspections, monitoring, and required use of BMPs to prevent pollutants and non-stormwater from entering the MS4 and waters of the state. A copy of the Illicit Discharges Ordinance is available to the public [online through code publishing](#), and upon request.

S5.C.5.c.i – Allowable Discharges

According to the ordinance, the following types of discharges shall not be considered illicit discharges for the purposes of the code chapter unless the director determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater.

- Diverted stream flows;
- Rising groundwaters;
- Uncontaminated groundwater infiltration as defined by U.S. Code of Federal Regulations [40 CFR 35.2005\(20\)](#);
- Uncontaminated pumped groundwater;
- Footing and foundation drains discharging clean stormwater only;
- Air conditioning condensation;
- Irrigation water from agricultural sources that is commingled with urban stormwater;
- Springs;
- Water from crawl space pumps discharging clean stormwater only;
- Flows from riparian habitats and wetlands;
- Non-stormwater discharges covered by another NPDES permit;
- Discharges from emergency firefighting activities; or
- Dye testing using environmental friendly products for the purpose of testing or tracing source pollution is allowable but requires verbal notification to the city prior to the time of testing.

S5.C.5.c.ii – Conditionally Allowable Discharges

According to the ordinance, the following types of discharges shall not be considered illicit discharges for the purposes of the code chapter if they meet the stated conditions, unless the director determines that the type of discharge, whether singly or in combination with others, is causing or is likely to cause pollution of surface water or groundwater:

- Potable water, including water from water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be de-chlorinated to a concentration of 0.1 ppm or less, pH-adjusted,

if necessary, and in volumes and velocities controlled to prevent re-suspension of sediments in the MS4;

- Lawn watering and other irrigation runoff are permitted but shall be minimized;
- Dechlorinated swimming pool discharges. These discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH-adjusted, if necessary, and in volumes and velocities controlled to prevent re-suspension of sediments in the MS4;
- Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents are permitted if the amount of street wash and dust control water used is minimized; or
- Other non-stormwater discharges. The discharges shall be in compliance with the requirements of a stormwater pollution prevention plan reviewed by the city which addresses such discharges.

S5.C.5.c.iii – Other Discharges

The city shall further assess and respond to any category of the non-stormwater discharges identified as a significant source of pollutants to the waters of the State.

S5.C.5.c.iv– Escalating Enforcement Procedures & Compliance Strategy

The city’s compliance strategy for IDDE may be informal and/or formal depending on the risk level and cooperation of the responsible party.

In many cases, illicit connections and discharges are accidental, and the responsible parties are willing to work with the city to resolve the issue as efficiently as possible. In these cases, the city uses an informal approach to facilitate the abatement of the illicit discharge while providing education and technical assistance to prevent future illicit discharges.

In cases where a responsible party intentionally discharged pollutants or is uncooperative with the city’s efforts to abate the illicit discharge, the city will employ a formal approach through the escalating enforcement procedures outlined below:

1. Education of responsible party
2. Reporting to DOE (if warranted)
3. Notice of correction
4. Notice of violation
5. Stop-use Order on offending property (“red tag”)
6. Civil infraction or criminal charges pursuant to KCC 1.01.140, depending on the severity of the particular situation’s circumstances.
7. Cost recovery

S5.C.5.d – Detection Program

The city’s detection program for non-stormwater discharges and illicit connections relies heavily on city staff, the public, and those doing business in the city to recognize and report suspected illicit discharges, connections, and spills. Detection is achieved by training staff, having an informed and attentive public using a spill hotline, and through field screening.

S5.C.5.d.i – Field Screening

MS4 field screening is implemented by city staff utilizing a methodology that is linked to the operations and maintenance inspections of catch basins, and the inspections of flow control and water quality treatment BMPs; and is comparable to the method recommended in the permit: [Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual. Prepared for Washington State Department of Ecology. Herrera Environmental Consultants. May 2020 Revision.](#) For additional information regarding the city's field screening method associated with scheduled inspections, refer to chapter S5.C.7 of this document regarding Municipal Operations and Maintenance.

Pollutant Source Tracing Program: As a part of our Mill Creek Stormwater Management Action Plan (SMAP), Kent hired Aspect Consulting to sample for the presence of pollutants at 7 locations within the MS4 in 2023. These locations were strategically selected in areas that capture runoff from a variety of source control sites within the Lower Mill Creek Basin. The pollutants sampled for included those expected to be associated with the industrial source control properties in the area. Any pollutants found in the MS4 beyond target threshold levels would be investigated using [Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual. Prepared for Washington State Department of Ecology. Herrera Environmental Consultants. May 2020 Revision](#) to focus in on the area where the pollutant originated. This Enhanced IDDE field screening program will continue to monitor water quality in the Lower Mill Creek Basin in 2024.

Field screening of the private storm sewer systems of commercial, industrial, and single and multi-family properties in Kent is completed by our Environmental Compliance Inspectors. This field screening methodology is identical to the method used for the MS4 referred to above. The Pollutant Source Tracing Program and Enhanced Source Control Spill Kit Program included in the SMAP will be a great resource for identifying and eliminating pollutants from Source Control properties before they become an illicit discharge.

Pursuant to the obligations of the permit, the city is required to screen an average of 12% of the MS4 per year. In 2023 staff conducted field screening on 55% of the MS4.

S5.C.5.d.ii – Spill Reporting Hotline

The city has developed and publicized a spill hotline, telephone number: (253) 856-5600, that is maintained for the public to report suspected spills and illicit discharges. This hotline number is publicized through the following methods:

- Printed on education and outreach materials such as brochures, door hangers and stickers.
- Printed on the back of utility billing envelopes
- Posted on city website
- Bumper stickers on city vehicles
- Posted on social media
- Advertised on city hall information sign board
- Advertised on city telephone "on hold" message

All phone calls received through public works environmental engineering and the spill hotline are logged and documented.



The public can also report spills by using the [KentWorks](#) application on the City of Kent website found at [KentWA.gov](#).

S5.C.5.f– Detection and Response Education and Outreach

The city provides staff members with ongoing training for illicit discharge and/or illicit connection detection and response. The goal is to train all staff, who as part of their normal job responsibilities, might come into contact with, or observe an illicit discharge/connection, on the proper procedures for reporting and responding to suspected and found illicit discharges/connections. Staff members also receive follow-up training as needed to address changes in procedures, techniques, requirements, or staffing. Furthermore, these trainings are documented in relation to S5.C.5.g.



S5.C.5.e – Addressing Illicit Discharges

The city utilizes the DOE recommended manual, [Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual. Prepared for Washington State Department of Ecology. Herrera Environmental Consultants. May 2020 Revision](#), in developing its ongoing program designed to address illicit discharges, including spills and illicit connections.

The response to illicit discharges depends on many factors, including location, magnitude, and type of spill or discharge. Kent has developed and implemented a plan to respond to all suspected spills and illicit discharges; the city's Spill and Illicit Discharge Response Plan was updated in 2020 to meet the requirements and format described in [Appendix 12](#) of the current 2019-2024 Permit.

The updates include easy-to-follow spill response flow charts used to characterize and respond to spills including phone numbers of the appropriate contacts for reporting the spill. An improved process for re-stocking spill kits was implemented which involves the City mechanics inspecting the spill kits during maintenance checks to ensure that the spill kits are fully stocked. An area at our Public Works Operations Facility was set aside to store spill kits and materials in one easy to access area which is clearly marked and includes educational materials. The city trains staff to use this plan and use the following procedures and timelines as required by the permit:

- Procedures for the characterization and abatement of any public or environmental threat posed by illicit connections/discharges (S5.C.5.e.i)

- Procedures and methods for tracing the source of an illicit discharge (S5.C.5.e.ii)
- Procedures for eliminating spills and illicit discharges (S5.C.5.e.iii)
- Minimum response timelines (S5.C.5.e.iv)

S5.C.5.e.i – Characterizing Threats to the MS4 and Environment

In 2021 City staff updated its response procedures for characterizing a threat to the MS4, human health, and the environment in the Illicit Discharge and Spill Response Plan (Appendix I). The plan describes whether the discharge must be immediately contained, precautions to take, mitigation measures, and it describes the steps that must be taken for the containment of the discharge.

S5.C.5.e.ii – Source Tracing Methods

Source tracing is often necessary to identify the origin of a spill or illicit discharge, understand the impact on the city’s MS4, determine responsibility for cleanup costs, and prioritize procedural actions.

Below is a list of common source tracing methods used in the city of Kent. This is not a comprehensive list, but a list of the most frequently used techniques. This list is not in any particular order, but is intended to be used as guidance. It is understood that each incident is unique, and may require the use of different source tracing methods. Dye testing, video inspection, and smoke testing are more advanced methods, and may be used once a determination is made about their appropriateness at each specific site.

Field Exploration

In some cases, the source of a spill can be found in close proximity to the discharge point. A brief examination of the area may help to identify the potential source of the discharge.

Maps and GIS

The city has extensive GIS layers depicting the sanitary and storm sewer systems, as well as inventoried wetlands, other sensitive areas, drainage basins, and past spills within the city. This information will aid in the inspection and abatement of illicit discharges.

Pollutant Source Tracing Program

Testing samples downstream of Source Control facilities can identify possible illicit discharges associated with the facilities.

Manhole Linking

Manholes can be opened for visual inspection to trace discharge sources, working up the ‘trunk,’ from the discharge detection point, up to the next upstream manhole, analogous to ‘connecting the dots.’

Dye Testing

When a sanitary sewage conveyance is suspected of being illegally connected to the storm sewer system, dye can be used to tint water color. For example; when a toilet is flushed with dye added, and it is connected to the storm sewer, the dyed water is visible as it runs into and through the storm system if there is an illicit connection. Contact public works environmental engineering staff before dye testing for illicit connections.

Video Inspection

The city has a video-inspection team that is equipped to specifically inspect city storm and sanitary sewer systems for cracks, leaks, misconnections, and blockages. This service can be used when there are inspection issues (private property, inaccessible conveyance, etc.).

Smoke Testing

If an illicit connection or a crack in the storm sewer system is suspected, smoke testing can be used to trace the location of the crack or connection. This source-detection procedure often requires the temporary blockage of the storm system (to cause smoke to exit cracks rather than the storm system) and should not be employed when there is risk of smoke entering an enclosed structure. Contact public works environmental engineering staff before smoke testing for illicit connections.

S5.C.5.e.iii – Elimination of Spills and Illicit Discharges

Kent's IDDE Program and Illicit Discharge and Spill Response Plan address how to appropriately respond and eliminate discharges, procedures for notification of authority and involved parties, and escalating enforcement. Refer to Appendix I and subsection S5.C.5.e.iv.

S5.C.5.e.iv – Minimum Response Timelines

Compliance with the previous three sections (S5.C.5.e.i, S5.C.5.e.ii, and S5.C.5.e.iii) will be achieved by meeting the following timelines as outlined in permit section S5.C.5.e.iv:

- Immediately respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare, or the environment, consistent with General Condition G3.
- Investigate (or refer to the appropriate agency with the authority to act) within 7 days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge.
- Initiate an investigation within 21 days of any report or discovery of a suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection.
- Upon confirmation of an illicit connection, use the compliance strategy in a documented effort to eliminate the illicit connection within 6 months. All known illicit connections to the MS4 shall be eliminated.

S5.C.5.F – TRAINING

Similar to subsection S5.C.5.d.iii, the city provides ongoing training for identification, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connections, and to conduct these activities to staff, businesses, and general public. Follow-up training is provided as needed to address changes in procedures, techniques, requirements, or staffing. All training is documented.

S5.C.5.g – Record Keeping

City staff document, track, and maintain records of all activities associated with IDDE in Kent. In 2019 we developed a new data base in Survey 123 to meet the reporting format requirements described in [Appendix 12](#) of the current 2019-2024 Permit.

S5.C.6: CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

Kent has an ongoing development review and inspection program to reduce pollutants and stormwater flow rates from new development, redevelopment, and construction site activities. The program applies to all private and public development, including roads.

The program is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.6, with subparts denoted when appropriate:

- Enforceable Mechanisms Addressing Runoff (S5.C.6.a)
- Permitting Process with Site Plan Review (S5.C.6.b)
- Long-term Operation and Maintenance (S5.C.6.c)
- Notice of Intent (NOIs) (S5.6.d)
- Training (S5.6.e)
- Low Impact Development (LID) (S5.C.6.f)
- Watershed-scale Stormwater Planning (S5.C.6.g)

S5.C.6.a – Enforceable Mechanisms Addressing Runoff

Kent utilizes a combination of city codes, city standards, and adopted standards to establish authority and administer requirements for standards to control runoff. These different components for standards and authority are outlined below. Copies of these codes and standards are available to the public online and upon request.

S5.C.6.b – Minimum Requirements

S5.C.6.b.i - Appendix 1 Minimum Requirements

Kent requires all new development and redevelopment in the city to meet stormwater management standards that are substantively equivalent to the “Minimum Technical Requirements for New Development and Redevelopment” in [Appendix 1 of the permit](#). These standards apply to all new development and redevelopment projects in the city that meet the thresholds identified in Appendix 1.

S5.C.6.b.ii – Local Requirements

The following local requirements include limitations, and criteria that, when used to implement the minimum requirements in [Appendix 1 of the permit](#) will protect water quality, reduce the discharge of pollutants to the maximum extent practicable and satisfy the State requirement under Chapter [90.48 RCW](#) to apply all known, available and reasonable methods of prevention, control and treatment prior to discharge.

Surface Water and Drainage Code

The city council finds that the [Surface Water and Drainage Code, KCC 7.05](#), is necessary in order to:

1. Promote sound development policies and construction procedures which respect and preserve the city's watercourses;
2. Minimize water quality degradation and control the sedimentation of creeks, streams, ponds, lakes, and other water bodies;
3. Protect property owners adjacent to developing and developed land from increased run-off rates which could cause erosion of abutting property;
4. Protect downstream owners;
5. Preserve and enhance the suitability of waters for contact recreation and fishing;
6. Preserve and enhance the aesthetic quality of the waters;
7. Maintain and protect valuable groundwater resources;
8. Minimize adverse effects of alterations in groundwater quantities, locations, and flow patterns;
9. Ensure the safety of city and King County roads and rights-of-way; and
10. Decrease drainage related damage to public and private property.

The City of Kent updated the Kent Surface Water and Drainage Code in early 2022. KCC 7.07 was repealed and combined with KCC 7.05. [KCC 7.05](#) was revised for consistency with state law and technological advances as well as to provide for a well-defined and consistent enforcement mechanism. The updates to the revised code will also support the required utilization of additional Best Management Practices, including structural controls when current methods of pollution prevention are ineffective. This revised code was made effective in March 2022.

Design and Construction Standards

[Kent City Code Chapter 6.02, Required Infrastructure Improvements](#), requires that all construction projects within the city adhere to the [2021 City of Kent Design and Construction Standards](#) for two primary reasons:

1. To the extent practicable, to set forth the minimum requirements for specific and consistent requirements for construction of, and improvements to: public and private streets, water utilities, sewer utilities, and storm water utilities; placement and operation of any utilities in rights-of-way; and all excavation and grading in the city. These Standards include procedures for inspection, acceptance, warranty and deviations.
2. To establish uniform criteria to guide the city's own design, construction and improvement of city streets and utilities.

Surface Water Design Manual

The [2022 City of Kent Surface Water Design Manual](#) (KSWDM) requires construction projects within the city to adhere to specific stormwater management standards during all phases; planning and design, construction, and operations and maintenance. The KSWDM requires the following:

- Site planning requirements
- BMP selection criteria

- BMP design criteria
- BMP infeasibility criteria
- LID competing needs criteria
- BMP limitations



The KSWDM adopts, by reference, the [2021 King County Surface Water Design Manual](#). (*King Co Manual*) through *City of Kent Ordinance #4434*. In 2021 King County updated their manual to be consistent with the Department of Ecology requirements. Kent’s SWDM includes city-specific requirements, many of which are more stringent than those outlined in the King County Manual. Kent’s SWDM requires all development within the city of Kent to utilize stormwater management techniques to achieve a measure of protection equivalent to [Appendix 1 of the permit](#).

Critical Areas Code and Flood Hazard Regulation Code

Kent’s [Critical Areas Code \(KCC 11.06\)](#) and [Flood Hazard Regulation Code \(KCC 14.09\)](#) address the restrictions related to wetlands, flood hazard areas, and other critical areas within the city. These

restrictions include stormwater discharge limitations.

S5.C.6.b.iii – Legal Authority

Kent has established the legal authority to inspect and enforce maintenance standards for private stormwater facilities through the above codes and standards and permitting process.

S5.C.6.c – Permitting Process with Site Plan Review

Kent’s permitting process includes site plan review, inspection, and enforcement-capability provisions to ensure projects meet all the minimum and local requirements outlined in S5.C.6.b. The permitting process includes:

- Review of all stormwater site plans for proposed development activities.
- Inspection, prior to clearing and construction, of all known development sites that have a high potential for sediment transport based on definitions and minimum requirements in thresholds found in [Appendix 7 of the permit](#) - *Determining Construction Site Sediment Damage Potential*, and enforcement as necessary based on inspection.
- Inspection of all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls; and enforcement as necessary based on inspection.
- Management of maintenance activities to inspect all stormwater treatment and flow control BMPs/facilities, and catch basins, in new residential developments every six months, until 90% of the lots are constructed (or when construction has stopped,

and the site is fully stabilized), to identify maintenance needs and enforce compliance with maintenance standards as needed.

- Inspection of all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. Verify that a maintenance plan is completed and responsibility for maintenance is assigned for stormwater treatment and flow control BMPs/facilities. Enforce as necessary based on the inspection.
- Kent maintains a database of inspection and enforcement activities.
- Kent City Code provides enforcement provisions for development that does not comply with the city's adopted standards.

S5.C.6.d – Construction Stormwater General Permit

Stormwater runoff from construction sites can carry muddy water, debris, and chemicals into local waterways. Sediment, Chemicals, and debris can harm aquatic life and reduce water quality. The Department of Ecology requires regulated construction sites to get coverage under the Construction Stormwater General Permit (CSWGP). Following the requirements in this permit helps control and reduce water pollution.

The City of Kent makes available a link to the Department of Ecology's information on the Construction Stormwater General Permit that includes the electronic Construction Stormwater General Permit Notice of Intent (NOI) form for construction activity and the Industrial Stormwater General Permit NOI form for industrial activity to representatives of proposed new development and redevelopment. Here is that link: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit>.

The city will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

S5.C.6.e – City Staff Training

City staff whose primary job duties are implementing the program to control stormwater runoff from new development, redevelopment and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training is provided as needed to address changes in procedures, techniques or staffing. The city maintains records of the training provided and the staff trained.

S5.C.7 – OPERATIONS AND MAINTENANCE

The city implements maintenance standards for the city's MS4 as well as stormwater facilities regulated by the city. These maintenance standards are developed for efficient conveyance, storage, and treatment of stormwater before it is discharged to surface or ground waters. This helps to reduce localized flooding, decrease instances of erosion, and allow treatment processes to function properly. As a result, the city continues to ensure that these facilities are full-functioning and properly maintained and will prevent and/or reduce stormwater pollution.

This section is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.7, with subparts denoted when appropriate:

- Maintenance Standards (S5.C.7.a)
- Maintenance of Stormwater Facilities Regulated By The City (S5.C.7.b)
- Maintenance of Stormwater Facilities Owned or Operated by the City (S5.C.7.c)
- Inspections of Flow Control and Treatment Facilities (S5.C.7.c.i)
- Spot Inspections (S5.C.7.c.ii)
- Catch Basin Inspections, Maintenance and Cleaning (S5.C.7.c.iii)
- 95% Minimum Compliance (S5.C.7.c.iv)
- Best Management Practices (S5.C.7.d)
- Stormwater Management Training Program (S5.C.7.e)
- Stormwater Pollution Prevention Plan (S5.C.7.f)
- Maintain Records of Activities (S5.C.7.g)

The information in this section is also used as a training guide to inform public works operations, parks staff and management of the requirements of the permit and how the city fulfills those requirements. The Spill Prevention and Response Standard Operating Procedures were updated in early 2021.

S5.C.7.a – Maintenance Standards

For all stormwater treatment and flow control BMPs/facilities, catch basins, and inlets, the city adheres to maintenance standards specified in the [2021 City of Kent Design and Construction Standards](#) and [2022 City of Kent Surface Water Design Manual](#). These standards establish criteria for identifying maintenance deficiencies and needs. Maintenance deficiencies are discovered through an inspection process. When an inspection identifies maintenance is needed, the city makes every effort to ensure that maintenance is performed to return the facility to standard within the following timelines:

- Within 6 months for catch basins
- Within 1 year for typical maintenance of facilities, except catch basins
- Within 2 years for maintenance that requires capital construction of less than \$25,000

For each exceedance of the above timeline for maintenance, Kent will document the circumstances and remedy.

S5.C.7.b – Maintenance of Stormwater Facilities Regulated by the City

Kent verifies long-term operation and maintenance (O&M) of permanent stormwater treatment and flow control BMP's/facilities that are permitted and constructed pursuant to S5.C.6.c.

S5.C.7.b.i.a – Enforceable Mechanism to Identify Responsible Parties

The city utilizes code and standards (refer to S5.C.6.a) as enforceable mechanisms to identify responsible parties for maintenance of constructed stormwater treatment and flow control BMP's/facilities, and establish enforcement procedures.

Per the [2022 City of Kent Surface Water Design Manual](#) and [2021 City of Kent Design and Construction Standards](#), an executed declaration of stormwater facility maintenance covenant shall exist for all privately owned and maintained stormwater treatment and flow

control BMP's/facilities. The covenant identifies the party responsible for maintenance and inspection of stormwater facilities and allows right-of-entry for city inspectors. In the absence of a covenant, the city may establish maintenance responsibilities through other legal documentation and means.

S5.C.7.b.i.b – Maintenance Inspection Frequency

Annual inspections will be completed for all stormwater treatment and flow control BMPs/facilities that discharge into the MS4 and were permitted according to the permitting process (refer to S5.C.6.c). Inspection frequency will be performed annually unless there are maintenance records to justify a different frequency.

All inspection visits and outcomes are documented and recorded. Pursuant to permit obligations, no less than 80% of scheduled compliance inspections shall be completed annually during this permit period.



S5.C.7.c – Maintenance of Stormwater Facilities Owned or Operated by the City

The city implements an Operations and Maintenance Program to regulate activities and to conduct maintenance activities to prevent or reduce stormwater impacts.

S5.C.7.c.i – Inspections and Maintenance of Stormwater Treatment and Flow Control BMPs/Facilities

In accordance with permit requirements, the city will annually inspect all municipally owned or operated stormwater treatment and flow control BMPs/facilities, other than catch basins. Inspection frequency will continue to be performed annually unless there are maintenance records to justify a different frequency. All inspection visits are documented and recorded utilizing electronic database entry methods.

The city addresses the maintenance deficiencies discovered during the inspection process within the timelines stated in S5.C.7.a. The most common and routine maintenance, such as vegetative maintenance and inlet and outlet structure maintenance, is completed by public works operations and parks staff. However, for facilities that require excessive maintenance, the city may hire contractors to complete the work.

S5.C.7.c.ii – Spot Check Inspections

In the event of a storm with 1.87 inches or more rainfall in 24 hours (known as a 2-year 24-hour event), public works staff perform spot checks of public stormwater infrastructure that have a history of drainage problems, commonly called hotspots. These hotspots are inspected for structural damage and/or localized flooding. Spot checks may be performed

for lesser storm events at the discretion of the stormwater utility manager or engineering staff. If spot checks indicate widespread damage or maintenance needs, all treatment and flow control facilities in the area that may have been affected will be inspected and maintenance performed where necessary. Blockages and debris may be immediately removed if it is safe to do so. This work is done in accordance with all relevant safety and environmental requirements.



The current hotspot inventory includes more than 35 stormwater facility locations within Kent. A map of the hotspot inventory is included in Appendix II for reference purposes only. A fully descriptive list of hotspots is available from public works operations and parks.

S5.C.7.c.iii – Catch Basin and Inlet Inspection, Maintenance, and Cleaning

Inspections of all publicly owned catch basins and inlets in the city need to be inspected at least once every two years. All inspection visits are documented and recorded utilizing the city's City Works database and other electronic methods.

The city addresses cleaning needs and maintenance deficiencies discovered during the inspection process within the timelines stated in S5.C.7.a. The most common and routine maintenance and cleaning is completed by public works operations and parks staff. However, for facilities that require excessive maintenance or cleaning, the city may hire contractors to complete the work.

Catch basins contain a sump that allows sediments to settle out as stormwater passes through. Catch basins must be cleaned of sediments when levels in the sump exceed 60% of sump holding capacity (pursuant to the established maintenance standards (refer to S5.C.7.a)). Public works operations cleans catch basin sumps either by hand or more commonly using a Vactor truck, a vacuum eductor truck. Decanted water from the Vactor truck is disposed of in accordance with [Appendix 6 of the permit](#), Street Waste Disposal, at permitted sites within Kent. Parks hires a contractor to clean catch basins.

S5.C.7.c.iv – 95% Minimum Compliance

Compliance with the requirements in three previous sections, S5.C.7.c.i-iii, shall be achieved with an inspection rate of at least 95%. Reports are run to help monitor the inspection achievement rate and prepare work-plans allowing for adequate time and effort toward fulfilling a 95% minimum compliance within the permit timeframe.

S5.C.7.d – Best Management Practices

The city makes all known and reasonable efforts through policy, procedure and practices to reduce stormwater impacts associated with runoff from all lands owned and/or maintained by the city, such as parking lots, streets, roads, highways, buildings, parks, open space, and maintenance yards. While performing maintenance activities, Best Management Practices (BMPs) are utilized to prevent stormwater runoff.

Kent is a part of a [Regional Road Maintenance Endangered Species Act Program](#) (RRM/ESA Program). The guidelines of this program provide a set of road maintenance policies and practices that will meet the dual goals of contributing to the conservation of Endangered Species Act listed species, while meeting critical roadway safety and maintenance needs. The RRM/ESA Program guidelines provide detailed information on specific BMPs required during maintenance operations. Training on these guidelines is provided regularly to public works operations staff. Documentation of these activities is maintained when the maintenance activities result in the use of physical BMPs as outlined in the RRM/ESA Program guidelines. Technical assistance on these guidelines is available by calling public works environmental engineering at (253) 856-5500 or visiting the City of Kent website [Stormwater Best Management Practices](#) page.

The following is a list of maintenance activities that must be addressed pursuant to the permit. A brief description is given of the maintenance activity and typical items of concern during the activity. The activities listed below are all part of routine operations and maintenance intended to ensure a well-maintained and functional infrastructure.

Pipe Cleaning and Maintenance

Storm sewer pipes convey stormwater downstream to alleviate flooding issues. The stormwater discharges to ponds or other stormwater facilities, or often directly to streams, rivers or other water bodies. Storm pipes must be clear of obstructions and breaks to prevent localized flooding, and to minimize the addition of pollutants to water bodies.

Storm pipes are maintained on an as-needed basis; maintenance triggers include localized flooding or inspection reports that document a maintenance need. All sediment, debris, and dirty water are disposed of in a manner protective of the environment and surface water.

Culvert Cleaning and Ditch Maintenance

Ditches are open conveyance systems that collect and convey stormwater from roads and impervious surfaces where a storm pipe is not necessary or feasible (i.e. rural roads). Culverts are relatively short, closed-pipe systems used in a ditch to convey stormwater-runoff under roads and driveways. Culverts may also be used to allow perennial streams to flow unimpeded under roads. It is important to keep ditches and culverts clear of obstructions to prevent localized flooding, minimize the addition of pollutants to water bodies, and prevent damage to culverts, roadways, and the environment.

The city maintains ditches and culverts on an as-needed basis. All sediment, debris, and dirty water are disposed of in a manner protective of the environment and surface water.

Street Cleaning

A street sweeping service provider is contracted to perform street sweeping in the city. The contract agreement stipulates sweeper types, a sweeping schedule, and BMPs that must be implemented when sweeping is performed. Swept material is handled by the street sweeping contractor at a permitted facility. The city trains street sweeper drivers on identifying and reporting spills. Water trucks are not used to clean streets.

Road Repair and Resurfacing

Roadways are not only important to transportation, but also convey stormwater. Roadways free of potholes or other deficiencies are important to safe transportation, but also keep sediment and other debris from being washed into the stormwater system and downstream to local waterways and other sensitive areas.

The city maintains roadway surfaces on an as-needed basis, or as part of regularly scheduled roadway improvement projects. For roadway improvement projects, BMPs are a required part of the planning process and are consistent with the requirements of [Appendix 1 of the permit](#). For roadway maintenance spot repair or emergency work, BMPs are utilized to ensure sediment or sediment-laden water is not discharged into catch basins or to surface waters.



Snow and Ice Control

Snow and ice control and removal are important to city operations. Snow and ice accumulation can be controlled by using de-icer. Kent currently uses calcium chloride, as necessary, in concentrations which are approved by DOE and EPA, and with an application technique that won't result in pooling or runoff. Sand is applied to improve traction in areas where snow or ice has already accumulated. Sand is removed as soon as weather and road conditions permit to minimize the transport of sediments to the stormwater system.

Utility Installation

Utility installation is often conducted by public works staff, either as planned improvements or repairs, or as part of emergency repair and replacement. City staff utilize RRM/ESA Program guidelines to select BMPs to ensure that utility installation work does not impact water quality.

Contractors performing utility installation in the city must adhere to Kent standards, which require the use of BMPs for all work that has the potential to impact water quality.

Pavement Striping Maintenance

Pavement striping and striping maintenance are performed so that water quality is not adversely impacted. This includes applying paint striping during dry conditions and ensuring debris from grindings is contained and disposed of properly.

Maintenance of Roadside Areas

Roadway shoulders are maintained for safety reasons and to protect roadway and related infrastructure. Public works operations staff maintains roadway shoulders using means that prevent further damage, such as excessive vegetation removal or activities that could cause erosion. Soil stabilization BMPs are utilized on exposed dirt. For vegetation management, application of fertilizers, pesticides, and herbicides is performed consistent with state law and integrated pest management principles.

Dust Control

Dust from maintenance activities can degrade air quality and, when it settles, dust can reduce the quality of water courses and sensitive areas. Thus, for sites that have the potential to create dust, BMPs must be implemented to reduce the potential of airborne pollution and must be carefully selected so as not to further cause environmental harm. Urban sources of dust include exposed soils from construction activities and unpaved roads and alleys. BMPs include applying water to exposed soils, encouraging the use of vegetative cover where applicable, and minimizing the amount of soil disturbance.

Application of fertilizer, pesticides, and herbicides

The application of fertilizers, pesticides, and herbicides is performed consistent with state law and integrated pest management principles. The city implemented an Integrated Pest Management (IPM) plan for maintenance operations pertaining to the application of pesticides and herbicides. The IPM plan identifies standard operating procedures for the application of pesticides or herbicides by maintenance crews in both the public works and parks departments. A copy of the IPM is available from public works operations and parks.

The city is covered as a limited agent under the [Washington State Department of Agriculture's Aquatic Noxious Weed Control NPDES Permit](#). Under the guidelines, and with reporting requirements, this permit allows for the responsible application of herbicides and pesticides in the vicinity of local water bodies.

Sediment and Erosion Control

Kent requires all maintenance activities and construction sites employ erosion and sediment controls. For projects that disturb soil or maintenance activities that have the potential to pollute, Kent requires the implementation of stormwater pollution prevention BMPs as outlined in the [2022 City of Kent Surface Water Design Manual](#) and [Regional Road Maintenance Endangered Species Act Program](#) guidelines.

Landscape Maintenance and Vegetation Disposal

Landscaping is performed in such a way as to minimize exposed soils, to reduce sediment laden runoff, and to encourage infiltration. Vegetation from maintenance activities is collected and recycled into compost through a contracted waste handler. The IPM plan provides guidance to effectively manage the use of vegetation and pest treatments and controls.

Trash and Pet Waste Management

A solid waste service provider is contracted to collect garbage in Kent. The contract requires all solid waste trucks to carry spill kits, and training for drivers on how to respond to and report spills. The contractor must also replace fleet vehicles upon discovery of leaks. The garbage contractor is also required to replace leaking dumpsters within 24 hours.

Kent has full-time staff to collect trash within city right-of-way and mitigate illegal dumping. Staff are trained on the collection and disposal of pet waste on city owned property. City parks that are designated as dog parks provide pet waste bags and garbage cans for the disposal of the waste.

Kent also maximizes recycling in the city through a Conservation Coordinator who implements the solid waste program and promotes recycling education.

Building Exterior Cleaning and Maintenance

Cleaning and maintenance activities and requirements for buildings owned and operated by the city of Kent have been outlined in the Operations Facility Stormwater Pollution Prevention Plan. Parks and Recreation staff will continue to receive annual training on proper methods of cleaning and maintaining parks facilities. City-building maintenance activities must comply with the requirements of [KCC chapter 7.14, Illicit Discharges](#).

S5.C.7.e – Stormwater Management Training Program

Kent implements an on-going training program for employees whose construction, operations, or maintenance job-functions may impact stormwater quality. The training program addresses the importance of protecting water quality, the requirements of applicable NPDES permits, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training is provided as-needed to address changes in procedures, techniques or requirements. Currently, training is held at least twice annually. Kent documents and maintains records of training provided.

S5.C.7.f – Stormwater Pollution Prevention Plan

Kent has developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) for its Operations, Vector-solids, and East Hill facilities. All structural and operational BMPs listed in the SWPPP are currently being implemented or are scheduled for implementation as soon as practicable. This SWPPP shall be modified and applied at any other sites that meet the need for a SWPPP in the future. The SWPPP includes periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs. These facilities are also inspected annually to ensure proper functioning of stormwater infrastructure and implementation of the SWPPP. A copy of the SWPPP is available from the public works department, and on-site at all three locations.



S5.C.7.g – Maintain Records of Activities

Records of inspections and maintenance or repair activities conducted by the city are maintained in accordance with S9, reporting requirements, of the permit.

S5.C.8 – SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT

The 2019-2024 permit required Kent to implement a Source Control program to prevent and reduce pollutants in runoff from areas that discharge to the MS4. This program includes the inspection of publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4.

The program is generally organized to follow and address the minimum performance measures outlined in permit subsection S5.C.8, with subparts denoted when appropriate:

- Source Control Program Elements (S5.C.8.a)
- Minimum Performance Measures (S5.C.8.b)
- Enforceable Mechanisms (S5.C.8.b.i)
- Source Control Program Facility Inventory (S5.C.8.b.ii)
- Source Control Inspection Program (S5.C.8.b.iii)
- Progressive Enforcement Policy (S5.C.8.b.iv)
- Staff Training (S5.C.8.b.v)

S5.C.8.a – Source Control Program Elements

The city's Source Control Program includes the following four elements:

S5.C.8.a.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.

S5.C.8.a.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.

S5.C.8.a.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.

S5.C.8.a.iii – Require practices to reduce polluted runoff from application of pesticides, herbicides, and fertilizers from the sites identified in the inventory.

S5.C.8.b – Minimum Performance Measures

S5.C.8.b.i -Enforceable Mechanisms

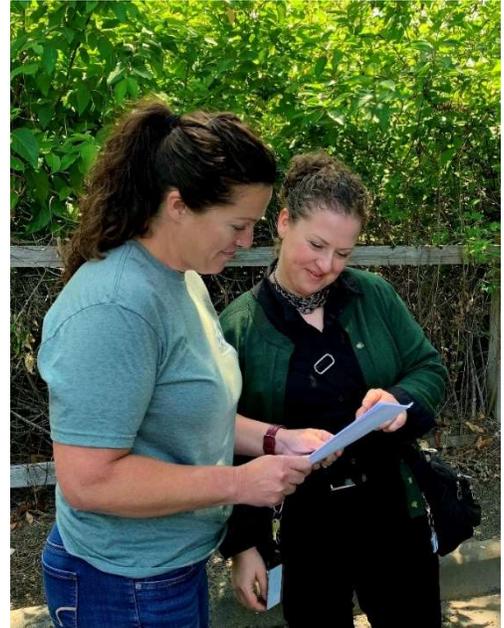
The city was required to adopt and make effective an ordinance(s), or other enforceable documents, requiring the application of Source Control BMPs for pollutant generating sources associated with existing land uses and activities. Effective in March of 2022, [Kent City Code 7.05 Storm and Surface Water Utility](#) was updated to require applicable operational Source Control BMPs for all pollutant generating sources. Structural Source Control BMPs, or treatment BMPs/facilities, or both, are required by the city 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.

S5.C.8.b.ii - Source Control Program Facility Inventory

City of Kent staff established an inventory that identified publicly and privately owned institutional, commercial, and industrial sites that have the potential to generate pollutants to the MS4. The current inventory includes businesses and/or sites identified based on the presence of activities that have the potential to pollute our MS4, have a history of poor BMP implementation and maintenance, based on spill/IDDE complaint responses, were identified in Kent's FileLocal Business License reports, as well as other methods to meet the criteria. There are 1,194 sites identified in our Source Control Program.

S5.C.8.b.iii - Source Control Inspection Program

City of Kent developed a Source Control Business Inspection Program Communications letter aimed at informing businesses about the Source Control Program, proper implementation and maintenance of Source Control Best Management Practices (BMPs) pertaining to activities that may generate pollutants, and requirements applicable to those activities. This information was provided by a variety of methods, including electronic communications, in person, by mail and made available on [Kent's Source Control for Existing Development webpage](#).



The Kent Source Control Business Inspection Program officially kicked off January 1st, 2023. Inspections are prioritized based on site history and high-risk potential for pollution generation, such as food service establishments, industrial sites, and shopping plazas. The permit requires the city to conduct inspections equal to 20% of the Source Control inventory each year. In 2024, this equates to approximately 239 inspections. Staff will visit 100% of sites identified through complaints or referrals (e.g., identified during IDDE investigations), as required by the permit. During site visits, staff will aim focus on providing education and technical guidance regarding pollution prevention practices, such as hazardous and solid waste handling, storage, and disposal, spill prevention and specific BMPs depending on the potential pollutants each business generates. In addition, various educational resources such as Kent's Source Control Communications letter, Source Control pollution prevention BMP brochure/poster, a spill kit, pollution prevention button, and "Shut the Lid" dumpster material will be provided as appropriate to the business activity. Businesses are also informed of [Kent's Best Management Practices webpage](#), where they can find additional helpful resources.

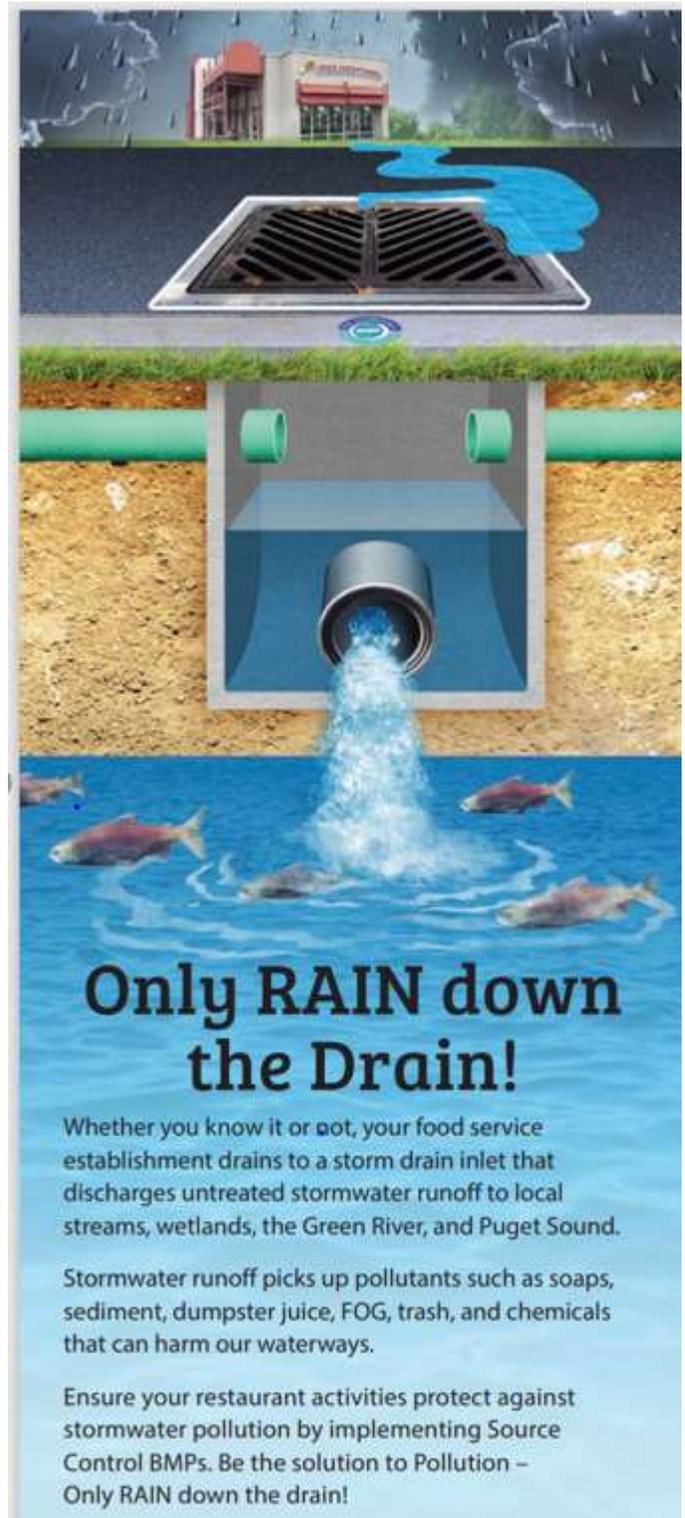
Kent continues to work with other jurisdictions to develop education and outreach materials as well as other program elements by participating in routine Business Inspection Group (BIG), Stormwater Partners, Storm, and SAM Effectiveness committee/workgroup meetings.

S5.C.8.b.iv - Progressive Enforcement Policy

The City of Kent has developed a system of inspection procedures and progressive enforcement to implement for pollutant generating businesses. After sending an Admonishment letter (warning), if the Source Control team determines through follow-up inspections or otherwise, that a site has failed to adequately implement required BMPs or other Source Control requirements, they will proceed to contact the responsible party through phone calls, emails, and additional site visits. If code violations still exist, code enforcement is initiated and executed as outlined in [Chapter 1.04 of the Kent City Code](#). Progressive enforcement may include a Correction Notice, Voluntary Correction Agreement, Notice of Violation, and/or civil penalties.

The City of Kent has an established database to maintain records, including documentation of each site visit, record of phone calls/emails, educational outreach provided, photos, inspection reports, warning letters, correction notices, notice of violations, and other enforcement records, all demonstrating an effort to bring sites into compliance.

The City of Kent may refer non-emergency violations of Kent City Code to Ecology, provided, the City also makes a documented effort of progressive enforcement. At a minimum, the City's enforcement effort shall include documentation of inspections and warning letters or notices of violation.



S5.C.8.b.v – Staff Training

The city has trained staff who are responsible for implementing the Source Control program to conduct these activities. This ongoing training program covers 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 will be provided as needed to address changes in procedures, techniques, requirements, or staff. The city maintains records of the training provided and the staff trained.

Best Practices for a Clean Kent



Purchase a Spill Kit
Even if taking all precautions, spills still happen. Have a spill response plan in place and routinely train employees to:

- **Control** the spill in a safe manner.
- **Contain** the spill to prevent the pollution from entering the nearby storm drains.
- **Clean-up** the area with spill response material.

Purchase and maintain your spill kit
Spill kits can be purchased from online suppliers or from most local industrial supply businesses. Your spill kit is meant to be used for all wet spills and leaks outdoors, so it is important to make sure the supplies are replenished often.

 Kitty litter or dry absorbents	 Zip ties*
 Disposal bags	 Absorbent pads and socks*
 Disposable gloves	

 **Educate employees** on the importance of keeping pollution out of the storm drains. Hang the poster on the reverse side on the back door or in a location visible to all employees.

 **Close dumpster lid** after every use. Report broken lids, lids trapped open against a wall, or dumpster leaks/missing plugs as soon as possible for free maintenance or replacement. Contact Republic Services at 425-646-2492.

 **Apply storm drain markers** next to each storm drain inlet to remind workers, customers, and contractors that dumping is prohibited.

 **You are responsible for the contractors you hire.** Be there when service technicians are onsite. Remember, their poor practices can lead to code violations and costly cleanup efforts that could have a big impact on your wallet.

 **Install and maintain rooftop containment systems** to protect stormdrains from chemicals and grease pollution. Block downspout openings when washing roof or servicing equipment. Collect and dispose of wastewater to sanitary sewer or take offsite to a permitted hazardous waste facility.

 **Reduce flooding and stormwater pollution at your business by:**

- Remove debris and trash from grates, swales, and ponds.
- Keeping structures clear! Do not cover or block storm drains.
- Picking up and bagging fallen leaves and landscape debris.

STORMWATER POLLUTION PREVENTION FOR RESTAURANTS



Do you know where the stormwater goes?



Protect Your Restaurant From Stormwater Fines and Penalties

Regulations and Penalties

Under the Federal Clean Water Act and as required by the Kent Surface Water Design Manual and Kent City Code, your business is required to provide reasonable protection from the accidental discharge of pollutants and prohibited material into the municipal separate storm sewer system (MS4), through the use of operational source control best management practices (BMPs).

City of Kent Source Control staff are required to conduct routine inspections, random inspections, and inspections based on complaints received or concerns of possible code violations at businesses that have the potential to generate pollutants.

In accordance with Chapter 7.14 and 7.05 of the Kent City Code, the property owner, the property tenant, or any other person responsible for the entry of pollutants, including FOG (fats, oils, and grease), soap or detergent, or any other non-stormwater into the MS4 may be jointly and severally liable for both civil and criminal penalties.

Protecting Your Business

To reduce potential legal consequences, you should implement proper source control BMPs described in this publication, in and around your business.

Implementing these simple Source Control BMPs also has a few additional benefits:



Reduce pests around your restaurant, such as rats, mice and birds



Improve the overall image of your restaurant with your customers



Improve local water quality and wildlife habitat

LET'S STOP BUSINESS POLLUTION



Hood filter, cooking equipment and floor mat
Cleaning should take place indoors only where wash water is directed to the sanitary sewer through a pretreatment device (grease trap).



Mop bucket wash water
Dispose of wash water, such as mop bucket water, in a utility sink or toilet. No dumping outside!



Grease dumpster/barrel
Inspect daily and keep lid closed/locked. Scrape grate prior to pouring used cooking oil into container. If a spill occurs, clean immediately. Call for collection pickup when container is ¾ full.



Garbage and recycle dumpsters
Inspect and sweep around dumpster area daily. Close dumpster lids after every use.



Spills and leaks
Use a spill kit to **control** a spill, **contain** the problem, and properly **clean up** the area.



Cigarette butt receptacle and garbage can
Pick up litter and trash daily. Provide and maintain cigarette receptacles and garbage cans for employee break area and for customers to encourage proper disposal of cigarettes and trash.



Parking lots, drive-thru, and dumpster pad
Hire a cleaning contractor trained to use pollution prevention practices when cleaning hard surface areas. Wash water, soaps and sludge should NEVER enter storm drains.



Report Spills and Water Pollution
www.kentwa.gov • 253-856-5600



Connect With Us



APPENDIX I: SPILL AND ILLICIT DISCHARGE RESPONSE PLAN

Introduction

This document outlines actions city staff will take should they encounter a spill or illicit discharge to road surfaces and other city-owned property. Often, city staff may be the first to respond to spills or illicit discharges of potentially hazardous materials. Such incidents can pose a danger to human health and the environment, and must be contained with prompt, decisive actions to minimize the potential danger.

Response to illicit discharges and spills will depend on many factors including quantity, location, and type of pollutant discharged. Spills and illicit discharges are classified accordingly into the following three risk categories: Low; Minor; and Major.

Specific procedures are provided for low and minor spills, and general procedures for major spills. Specific procedures for major hazardous spills are addressed in the [Kent Comprehensive Emergency Management Plan](#). As a general rule, major spills and illicit discharges dictate that the Fire Department is immediately called to take the lead in implementing the appropriate spill response procedures.

The Illicit Discharge and Spill Response Plan will be made accessible at all times. When it comes to spills or discharges of all sizes, every second counts.

Spill Response Procedures

Follow these steps when responding to a spill:

1. Control - Assess the Situation/Secure the Area
2. Contain the Spill/Illicit Discharge
3. Clean-up the Material
4. Call and Report the Spill/Illicit Discharge
5. Identify Responsible Party
6. Document the Response in See Click Fix for City Records

These steps are detailed as follows and are also outlined in the Spill Response Quick Action Guide & Checklist (Appendix I (a)).

1. Control -Assess the Situation/Secure the Area

Utilize the Risk Characterization Chart (Appendix I (b)) to help assess the level of risk associated with the spill or illicit discharge then proceed appropriately.

If the spill/illicit discharge is “Major”, an unknown material or immanent health risk, immediately call 911. Remain on site to assist Fire Department Hazardous Materials staff with operational issues.

- City employees should only approach a spill or illicit discharge of *known* materials (example: paint, motor oil, diesel or antifreeze). Ensure that the location is safe to enter before approaching, especially if on a roadway open to traffic.

- Ensure safety of city staff and the public by keeping the public and other city staff at a safe distance from the spill/illicit discharge area.
- Apply personal safety equipment including goggles and nitrile gloves. If working in the right-of-way, a reflective safety vest and hard hat will be worn.
- Isolate any ongoing spills or leaks if it is safe to do so. If not, wait for emergency personnel and maintain a safe perimeter.
- Implement traffic control as necessary.
- Call the spill hotline at (253) 856-5600.
- Call your supervisor.
- Call public works, environmental engineering, at (253) 856-5500.

Attempt to stop an ongoing discharge *only* if it is safe to do so.

Example 1

When a container of known material has fallen over, the responder could stop the spilling of material by righting the container.

Example 2

Simply turning a valve to stop further release of material.

2. Contain the Spill/Illicit Discharge

- Protect yourself first. Wear personal protective equipment (PPE). At a minimum, work boots, eye protection and work/rubber gloves are necessary. If working in the right-of-way, a reflective safety vest will be worn.
- Set up a work zone to safely work within the right-of-way. Consider the location of the spill, traffic volume, time of day, spilled material and quantity, length of time needed to clean up the spill, and employee/public safety.
- If the material is known and non-toxic; place booms, pipe plugs, or other impermeable barriers to prevent the spread of spilled material into the stormwater system, waters of the state, and to pervious surfaces such as soil, grass, or bioswales.

3. Clean-up the Material

- Contact an outside spill response contractor if the spill is too large to be handled by city operations staff, or if the material is hazardous and needs to be removed from the roadway, ditch, or stormwater system with a vacuum eductor truck.
- Clean-up normally involves the use of granular absorbents, vermiculite, floor sweep, peat moss, absorbent pads and booms.
- Use absorbent materials to clean up the spilled substance. If the first application of absorbent becomes saturated and will not soak up all of the spilled liquid, a second application may be necessary.
- Used absorbent materials should be collected and double bagged, and if in the right of way, moved out of the travel lanes and stored at the roadside, preferably well off the shoulder.
- Absorbent material may be double bagged in heavy-duty trash bags, wrapped or 'diapered' in plastic sheeting, or contained in pails or barrels.
- The containers used to hold the material should be tagged with the time and date of the spill, and clearly marked to indicate the type of absorbent used and the material that was spilled. It is also desirable to indicate the responsible party if known.
- Care should be taken not to overload the containers used to store the absorbents. If trash bags are used, double bag and limit each bag to about 15 pounds.

- If traffic has been stopped to allow the spill response to occur in a safe manner, traffic may resume once spill cleanup has been completed and the travel lanes are safe (i.e. sanded if necessary to provide traction). Before restoring traffic flow, ensure that it will not endanger any remaining cleanup efforts.
- Spills which have soaked into soil will require cleanup but may be completed at a later date by the responsible party. This process will be initiated after public works environmental engineering staff is notified.
- Contact public works environmental engineering staff for the appropriate disposal method of spent absorbent materials or contaminated soil.



4. Call and Report the Spill/Illicit Discharge

Spill Type	Report to (in this order)
Low Risk Spills can be cleaned up safely by 1 person and have no potential to reach Waters of the State.	Supervisor
	P.W. Environmental Engineering – (253) 856-5500
Minor Risk Spills do not pose a risk to human health or the environment. They have potential to make it to the city’s MS4, Waters of the State, and can be cleaned up safely by Public Works Staff.	Supervisor
	Spill Hotline – (253) 856-5600
	P.W. Environmental Engineering – (253) 856-5500
	Washington State Department of Ecology - only if you are unable to contact P.W. Environmental Engineering - (425) 649-7000
	For hazardous waste contact the fire department – (253) 856-4440
Major Risk Spills are composed of hazardous or unknown materials that cannot be safely cleaned up by Public Works Staff.	911
	Spill Hotline – (253) 856-5600
	Supervisor
	P.W. Environmental Engineering – (253) 856-5500
	Washington State Department of Ecology - only if you are unable to contact P.W. Environmental Engineering - (425) 649-7000
	Washington Emergency Management Division - only if you are unable to contact P.W. Environmental Engineering - (800) 258-5990
	National Response Center - only if you are unable to contact P.W. Environmental Engineering - (800) 424-8802
Private Property	If it is a Major Risk call 911 and follow Major Risk instructions.
	Spill Hotline – (253) 856-5600
	P.W. Environmental Engineering – (253) 856-5500
	Washington Emergency Management Division - only if you are unable to contact P.W. Environmental Engineering - (800) 258-5990

For all spill types, please report the following information:

- Your name
- Contact Information
- Date, time, and location of spill
- Weather
- Address of incident
- Responsible Party/Property including contact information if available
- Odor, Clarity & Color
- Description of spill
- Photos of spill (IMPORTANT)
- Pollutant type/Quantity
- Spill destination (Asphalt, private drains, public drains, ditch, wetland, retention pond or stream)
- Current status of incident (e.g. contained, cleaned up, in process etc...)

5. Identify Responsible Party

- Attempt to identify the party responsible for the spill or illicit discharge through source tracing methods.
- Collect contact information from the responsible party using the Spill Or Illicit Discharge Incident Response Form (Appendix I (c))
- The Responsible Party [RP] is responsible for spilled materials, including the final removal and proper disposal of materials and if needed the subsequent site remediation. If the RP does not or cannot handle this responsibility in a timely manner, the city may initiate disposal and the responsible party may be billed. **Clean-up actions taken by early responders do not affect or limit the RP responsibilities.**

6. Document the Response for City Records

Public works staff will record the following in the Spill and Illicit Discharge Database:

- Date incident discovered or reported to city
- Date of beginning the response
- Date of end of response
- How was the incident discovered or reported to city?
- Did pollutant discharge to MS4?
- Location of spill/discharge, address if known
- Pollutant type and quantity, if known
- Source tracing approach used
- Source of pollutant and responsible party if known
- Description of incident and has the spill discharged to waters of the state if known
- Caller contact information, unless they wish to remain anonymous
- Is the spill/discharge on public or private property?
- Spill/Illicit discharge respondent
- Correction/elimination methods used
- Who disposed of the materials

Definitions

For the purposes of this plan, the following definitions apply:

Absorbent materials: any materials, manufactured or natural that may be used to absorb spilled fluid, and may include commercial absorbents, saw dust, floor sweep, peat moss, absorbent pads, clay or even topsoil.

Illicit discharge: means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.

Low risk spills and illicit discharges: meet all of the following conditions:

1. The spilled material is known.
2. The material spilled is not highly toxic.
3. The quantity spilled is small enough that it can be safely cleaned up using public works spill kits.
4. There is no fire hazard present.
5. The spill can be completely contained and the material has little or no potential to reach the stormwater system or surface waters of the state.
6. If material enters Waters of the State, it is **NOT low risk**, treat as minor or major.

Major spills and illicit discharges: hazardous or unknown materials, or spills of a known non-hazardous material larger than can be safely contained and cleaned up by the public works staff. These pose a risk to the responder, the public, or the environment.

Minor spills and illicit discharges: do not pose a risk to human health or the environment and have not entered Waters of the State.

Responders: include the fire department, contractors, King County employees, Department of Ecology, or trained city personnel.

Responsible Party (RP): the entity having dominion over the product prior to the spill, not necessarily the party responsible for the accident.

Spill: the expulsion of any fluids or solids upon the roadway itself or the abutting areas that cause an immediate threat to traffic by hindering its normal operation in any way (covering surfaces causing slicks, dripping onto traffic below, etc.) or that may enter the storm drainage system or Waters of the State.

Waters of the State: Those waters as defined as "Waters of the United States" in 40 CFR 122.2 within the geographic boundaries of the state of Washington and "waters of the state" as defined in Chapter 90.48 RCW, which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Spill and Illicit Discharge Response Quick Action Guide

CONTROL, CONTAIN, CLEAN UP & CALL

CONTROL

Assess the Spill or Illicit Discharge - Employees should only approach a Spill or Illicit Discharge of known materials (e.g. paint, motor oil, fuel, antifreeze, and coolants). If unknown or hazardous and cannot be cleaned by City of Kent staff, call 911 immediately! *Refer to flow chart on other side for proper guidance if spill occurs.*

Remember safety first! Protect yourself with personal protective equipment (PPE).

Isolate the contaminated area with items such as cones, barricades, rope, and tape.

Stop the source of pollution if safe to do so.

CONTAIN

Contain the Spill/Illicit Discharge in as small an area as possible.

Build barriers with absorbent socks to keep the spill from spreading.

Protect nearby storm drains, Waters of the State and pervious surfaces such as soil, detention ponds and bioswales with absorbents and impermeable barriers such as heavy duty plastic.

CLEAN UP

Clean up the Spill/Illicit Discharge with the following Spill response material:

Granular, Vermiculite or Similar Sweep up Absorbent - Absorbs both water-based and hydrocarbon spills.

Gray Pads & Socks - Universal - Absorbs both water-based and hydrocarbon spills.

White Pads & Socks - Oils, fuels, solvents and petroleum-based products. White pads and socks **repel water!** Ideal for spills in storm drains, lakes, detention ponds, creeks and wetlands.

Spill kits, spill response drum and bulk spill response materials are located in PW Shed Row and Warehouse.

Replenish spill kit and spill response drum contents after each spill.

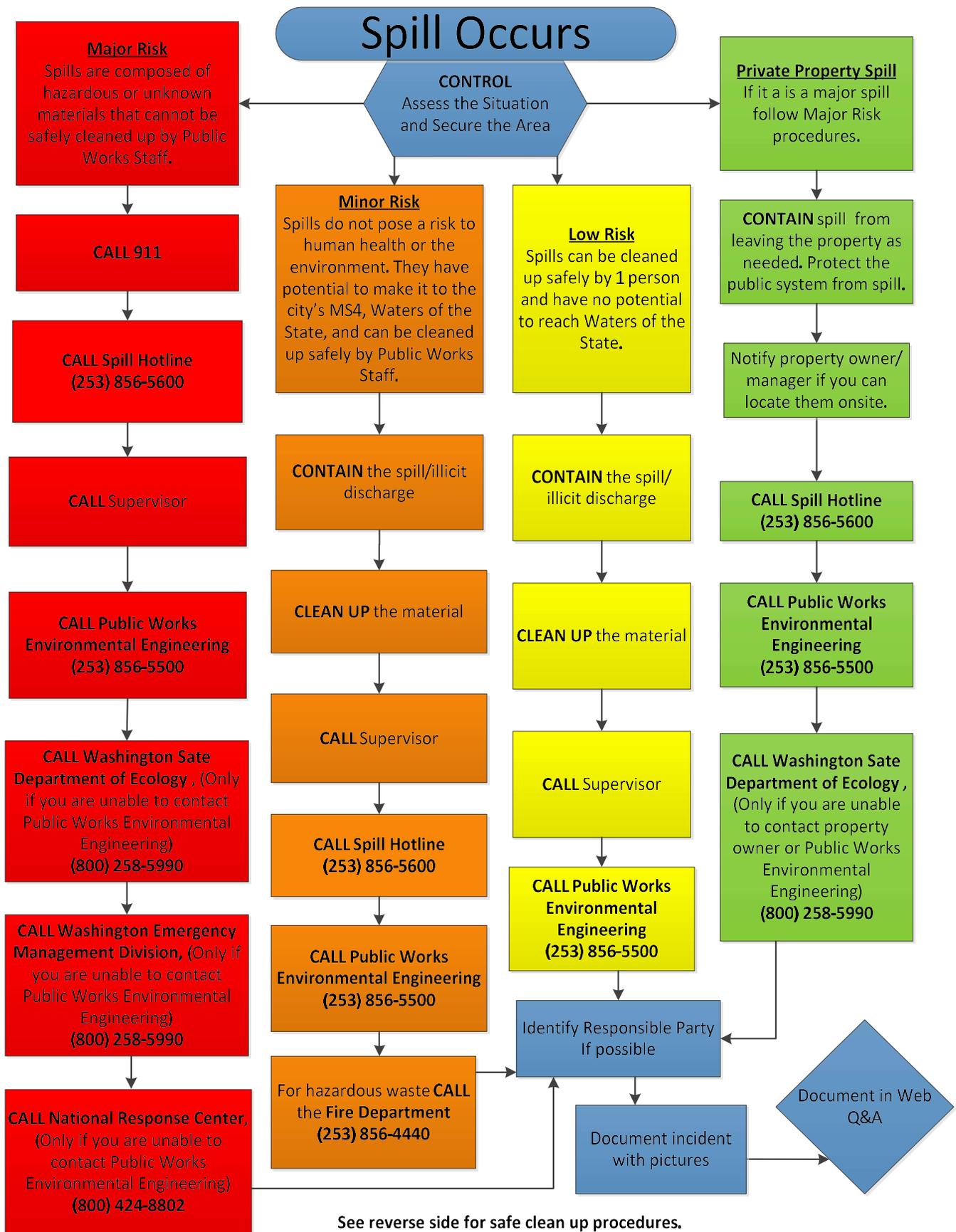
Used absorbent material should be collected, double bagged (no more than 15lbs) and labeled.

Contact Environmental Engineering for appropriate disposal method 253-856-5500.

CALL

Document and Report the following:

- | | |
|---|---|
| <input type="checkbox"/> Your Name | <input type="checkbox"/> Responsible Party/Property |
| <input type="checkbox"/> Odor, Clarity & Color | <input type="checkbox"/> Description of spill |
| <input type="checkbox"/> Contact Information | <input type="checkbox"/> Photos of spill (<i>IMPORTANT</i>) |
| <input type="checkbox"/> Date & Time | <input type="checkbox"/> Pollutant type/Quantity |
| <input type="checkbox"/> Weather | <input type="checkbox"/> Spill destination (Asphalt, private drains, public drains, ditch, wetland, retention pond or stream) |
| <input type="checkbox"/> Address of incident Location | |



APPENDIX II: STORMWATER HOTSPOTS

Storm Hot Spots

Drainage Hot Spots (long-term only)

Storm Hot Spot **Water Over Roadway** **Beaver Issue**

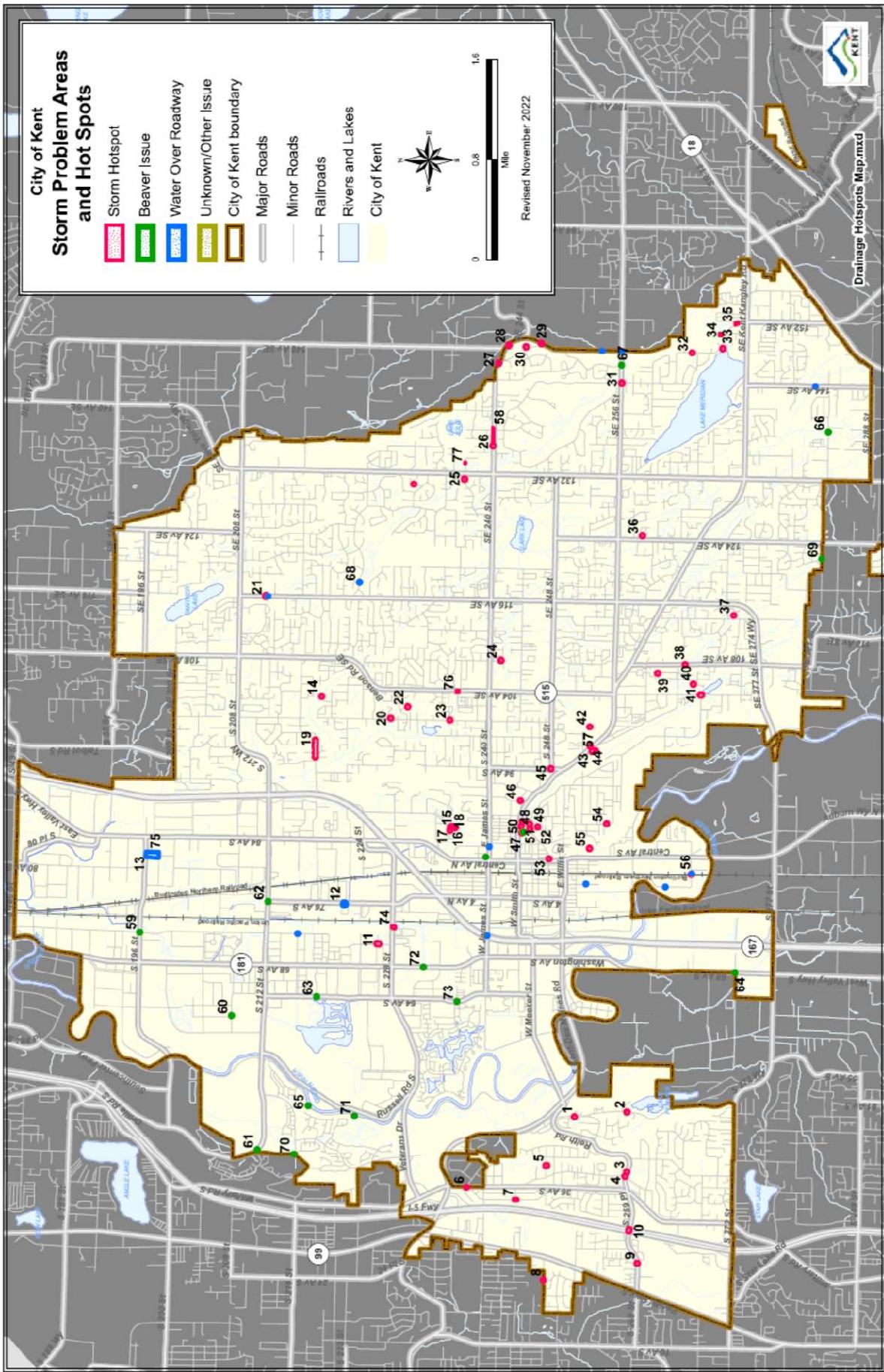
1. 3903 S. 248th St.: CB's on bottom of hill across from the house and Armory
 - a. Would require cooperative effort w/Armory
2. 7235 S. 227th Pl.: Two CB's that sit on the East side of 72nd Ave on S. 227th Pl
 - a. Restricted flow in ditch line
3. 19600 81st Ave S.: The bar screen and beehive that is just west of the 81st pump station on 81st Ave
 - a. Kent Design Staff working on plans.
4. 22704 100th Ave SE: Twin culverts and the 3 chain link screens upstream of it on the East side of 100th at bottom of ravine just south of SE 227th St.
 - a. Access concerns for maintenance. Could benefit from box culvert.
5. 116th Ave SE & SE 210th Pl: Culvert Ends in wetland on either side of the street
 - a. Culvert end maintenance. Project could potentially address this. Indigo Springs. Private to the West. Upsizing culvert and road raising could alleviate long-term.
6. 24418 147th Ave SE: Bar screen in wetland at the end of 148th Ln. SE off of 148th Ave Se.
 - a. Restricted flow. Unsure if this location is private. Potentially set structure to create overflow opportunity.
 - b. 14731 SE 244th St flooding concern at East of Road ADS pipe with root infiltration.
7. 14826 SE 270th St.: Lake Meridian bar screen at boat launch
 - a. Maintenance could benefit if bar screen is moved to entrance of large culvert.
8. 26016 107th Pl. SE: Bar screen inside fence at the end of 107th Ave SE alongside of apartment complex (Little Russia)
 - a. Long-term maintenance issue. Review methods for preventing trash from entering system.
 - b. Could benefit from different structure. (i.e. large bird cage for debris catch).
9. 104th Ave SE & Se 267th St.: The intersection along the West side of 104th shoulders need attention. Water puddles and can't exit road.
 - a. Would benefit from project.
 - b. Large culvert under 267th is failing.
10. S 196th St & 72nd Ave S
11. 59th Pl S & 62nd Ave S

12. 42nd Ave S & S 212th St
 - a. Beaver exclusion fence installed late last summer.
13. S 212th St & 76th Ave S
14. 64th Ave S & S 219th St
15. S 272nd St NW & 68th Ave S
16. Green River Rd & roughly 47th
17. SE 282nd St & roughly 138th
18. SE 265th ST & 146th Ave SE
19. SE 223rd Dr & 118th Ave SE
20. SE 282nd St & 121st Ave SE
21. 42nd Ave S & S 216th St
22. Frager Rd & roughly 224th
23. 68th Ave S & roughly 232nd
24. 64th Ave S & S 236th St
25. 144th Ave SE & Soosette Creek
 - a. Road Raising Project recently completed. Ongoing monitoring.
26. 222nd - West of Central Ave
 - a. Would benefit from project.
 - b. Is it possible to get water to flow in the opposite direction, towards Central Ave?
 - c. Public property to RR property.
27. Mill Creek and James St.
 - a. Ongoing concern.
28. 2nd & Crowe
 - a. East Willis St.
 - b. Dry well system failed and does not drain well.
29. Drainage area West of Kiwanis Park
30. 110th PI SE & Kent Kangley Road
 - a. Drainage backing up into parking lot from off-site drainage.
31. Type-2 CB NE of French Field
 - a. Could benefit from improved structure.
32. 26221 79th Ave S.
 - a. Low spot with no drainage

City of Kent Storm Problem Areas and Hot Spots

- Storm Hotspot** (Red square)
- Beaver Issue** (Green square)
- Water Over Roadway** (Blue square)
- Unknown/Other Issue** (Yellow square)
- City of Kent boundary** (Thick brown line)
- Major Roads** (Grey line)
- Minor Roads** (Thin grey line)
- Railroads** (Line with cross-ticks)
- Rivers and Lakes** (Blue area)
- City of Kent** (Yellow fill)

Revised November 2022



Drainage Hotspots Map.mxd

APPENDIX III: S5.C.1.B COORDINATION WITH LONG-RANGE PLAN UPDATES

City of Kent NPDES Phase II Municipal Stormwater Permit 2020 Annual Report
 S5.C.1.b Questions 6-16a **Western Washington Phase II Municipal Stormwater Permit** means a program that applies to all regulated small municipal separate storm sewer systems located west of the eastern boundaries of the following counties: Whatcom, Skagit, King, Pierce, Lewis, and Skamania.

Permit	Question	Answer
6	S5.C.1.b.i(a) List the relevant land use planning efforts that have taken place in your jurisdiction (land use plans that are used to accommodate growth, stormwater management, or transportation). (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	The City of Kent Transportation Master Plan The City of Kent Drainage Master Plan The City of Kent Midway Subarea Plan The City of Kent Comprehensive Plan The City of Kent Shoreline Master Program
7	S5.C.1.b.i(a) List of stormwater capital projects (currently in or slated for future design and construction) that resulted from this planning. (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	City of Kent 2020 Annual Report_7_032920211641 19 (See below)

8	S5.C.1.b.i(a)	Describe watershed protection measures associated with stormwater management and land use planning actions that resulted from this planning. (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	<p>The City of Kent Transportation Master Plan was updated in 2020 to reduce the impacts of the city's transportation system on water quality using technology, expanded public transit use and non-motorized transportation options.</p> <p>The City of Kent Drainage Master Plan was prepared to evaluate and recommend drainage facility capital improvement needs to reduce flood risks, improve water quality, enhance fish passage and instream/riparian habitats, and to efficiently serve planned growth.</p> <p>The City of Kent Midway Subarea Plan is a joint strategy between the City of Kent and the City of Des Moines to plan for future growth in the shared community. The plan includes creating an urban form that is environmentally sensitive and sustainable by; promoting environmentally sustainable building design, emphasizing natural drainage systems wherever feasible, and applying landscaping standards that emphasize environmentally sustainable practices.</p> <p>The City of Kent Comprehensive Plan was updated in 2015. The City has adopted policies and development regulations to protect critical areas and enhance a sustainable natural environment, including endangered species and aquatic habitat, air and water quality and large-scale natural resources.</p> <p>The City of Kent Shoreline Master Program was updated in 2019.</p> <p>Kent Design and Construction Standards was updated in 2020.</p>
9	S5.C.1.b.i(a)	Were land acquisitions identified (or are planning ahead for) that are useful for stormwater facilities to accommodate growth or to better serve an existing developed area? (S5.C.1.b.i(a) and (b) ± Required by March 31,	Yes

9a	S5.C.1.b.i(a)	If yes, for what purpose?	The City of Kent continuously evaluates potential land acquisitions to meet strategic goals, accommodate growth, and improve service to existing developed areas. Potential land uses may include flood risk reduction, habitat improvements, and infrastructure improvements, including storm facilities.
10	S5.C.1.b.i(a)	Identified corrective actions, in addition to the minimum requirements of the Municipal Stormwater Permits, to control or treat municipal stormwater discharges that pollute waters of the State (e.g. Limits to impervious cover added to any zoning districts, regional facility planning, minimization of vegetation loss, etc.)? (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	No
11	S5.C.1.b.i(a)	Updates to goals and policies related to investment in stormwater management facilities/BMPs? (yes/no) (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	Yes
11a	S5.C.1.b.i(a)	If yes, briefly describe.	<p>14.09 Flood Hazard Code ± Updated to ensure that it is consistent with the requirements of the Critical Areas Ordinance, KCC 11.06.</p> <p>7.05 Storm and Surface Water Drainage Utility ± Updated to require the use of operational and structural Source Control BMPs and to require self-inspection of private drainage systems.</p> <p>7.14 Illicit Discharge Code ± Updated to require the use of operational and structural Source Control BMPs to prevent illicit discharges to the MS4.</p> <p>City of Kent Comprehensive Plan - The City has adopted policies and development regulations to protect critical areas and enhance a sustainable natural environment, including endangered species and aquatic habitat, air and water quality and large-scale natural resources.</p>

12	S5.C.1.b.i(a)	Does the long-range plan identify the location and existing capacity of the stormwater facilities owned or operated by the permittee and show which of those stormwater facilities have unused capacity? (yes/no) (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	No
12a	S5.C.1.b.i(a)	Do these stormwater facility locations impact where housing, or other types of development, are projected to be located or influence the acquisition of land? (if yes, how?)	-NA-
12b	S5.C.1.b.i(a)	Does the long-range plan identify a lack of facilities and the potential impacts of existing or new development to those areas and receiving waters?	No
12c	S5.C.1.b.i(a)	Any new proposed locations and capacities of stormwater facilities needed for the timeframe of the plan?	No
13	S5.C.1.b.i(a)	Based on the projected population densities and distribution of growth over the planning period, describe how stormwater runoff impacts are forecasted. Does stormwater management information (including water quality) direct where growth is directed? (S5.C.1.b.i(a) and (b) ± Required by March 31, 2021 and January 1, 2023)	<p>The Drainage Master Plan is based off the latest population forecasts. Stormwater is modeled accordingly. Improvements are suggested within the plan of where stormwater improvements are warranted. This process does not direct where development occurs.</p> <p>Development is required to conform with Kent's Shoreline Program and fit constraints for water quality and flow control within the area. All development is required to comply with the Kent Surface Water Design Manual which requires further consideration of level of flow control and water quality treatment.</p>
15	S5.C.1.c	Continue to design and implement local development-related codes, rules, standards, or other enforceable documents to minimize impervious surfaces, native vegetation loss, and stormwater runoff, where feasible? See S5.C.1.c.i. (Required annually)	Yes

16	S5.C.1.c	From the assessment described in S5.C.1.c.i (a), did you identify any administrative or regulatory barriers to implementation of LID Principles or LID BMPs? (Required annually)	Yes
16a	S5.C.1.c	If yes, describe the barrier(s) and the measures taken to address them. (S5.C.1.c.i(a))	City of Kent 2020 Annual Repor_16a_032920211 64119 (See below)

City of Kent 2020 Annual Report Question #7

S5.C.1.b.i(a) –

List of stormwater capital projects (currently in or slated for future design and construction) that resulted from this planning. S5.C.1.b.i(a) and (b).

Stormwater Capital Projects from 2013 to 2021

The list below is a summary of capital projects completed or worked on from 2013 to 2021. As the 2008 Drainage Master Plan (Plan) was prepared as a conceptual level planning document, not all projects identified in the Plan were completed as specifically described in the Plan. As more information was gathered and detailed studies were prepared, projects changed in scope and new projects were added. Additionally, other new drainage capital projects were completed as new drainage problems arose and other projects moved forward. The result of this ongoing planning and prioritizing effort of new and existing stormwater capital projects, is summarized by the projects completed or worked on below.

2013

Riverview Park Habitat Restoration: A large scale side channel constructed off the main stem of the Green River to restore salmon habitat and reduce flood risk.

2014

64th Ave South Channel Culvert Replacement: Replaced three undersized culverts with a large box culvert to improve stormwater conveyance and reduce flood risk.

Leber Homestead Habitat Restoration: Phase 1 of a large backwater channel constructed along the Green River to restore salmon habitat and reduce flood risk.

2015

Gowe Street Storm Drainage Improvement: Installed storm pipes, catch basins, curbs and gutters to improve local drainage.

North Park Storm Drainage Improvement: Installed storm pipes, catch basins, and an asphalt swale to improve local drainage.

76th Ave South Storm Drainage Improvement: Installed storm pipes and catch basins to improve local drainage.

2016

Mill Creek Side Channel/Leber Homestead Habitat Restoration: Final phase of a large backwater channel constructed along the Green River to restore salmon habitat and reduce flood risk

James Street Stormwater Pump Station: Installed a new stormwater pump station to reduce the duration and frequency of ongoing flooding along James Street, an important roadway arterial near downtown Kent

1st Avenue South Storm Drainage Improvement: Installed storm pipes, catch basins, curbs, and gutters to improve local drainage

2017

Rock Creek Habitat Restoration (HCM 6): One of several key Habitat Conservation Measures (HCM) in Rock Creek. Project installed large woody debris to improve salmon habitat

Woodford Avenue Storm Drainage Improvement: Installed storm pipes, catch basins, curbs, and gutters to improve local drainage

64th Ave South Large Culvert and Channel Cleaning: Removed and cleaned accumulated sediments in culverts and a large drainage channel to improve stormwater conveyance and reduce flood risk.

W Meeker Street and S 240th Street Large Storm Pipe and Culvert Cleaning: Cleaned and removed accumulated sediments in large pipes and culverts to improve stormwater conveyance and reduce flood risk.

Lake Meridian Estates Storm Drainage Repair: Phase 1 of a storm drainage project to repair a failing catch basin and stormwater outfall pipe.

Meridian Valley Creek Erosion Repair: Installed coir netting and native plantings to reduce erosion risk along a creek with high winter flows

Horseshoe Bend Stormwater Outfall Repair: Repaired a failing stormwater outfall pipe in the Green River through slip lining and installation of a new TideFlex check valve to reduce backwater risk from high river flows.

2018

Lake Meridian Estates Storm Drainage Repair, Phase 2: Installed storm pipes and catch basins to improve local drainage and reduce localized flood risk to this area.

Upper Mill Creek Dam Stormwater Improvements: Raised the height of an existing dam at the top of the east hill to increase its detention and storage of peak stormwater flows and reduce flood risk to downstream areas in the Kent Valley.

Union Pacific Stormwater Pump Station: Replaced an existing stormwater pump station with a larger capacity pump to reduce flood risks to its service area in the Kent Valley.

2019

GRNRA South Stormwater Pump Station Force Main: Installed a stormwater force main pipe as the first phase for the future Green River Natural Resources Areas (GRNRA) South Stormwater Pump Station project, to reduce flood risks.

Downey Farmstead Salmon Habitat Restoration, Phase 2: A large scale multiple inlet through channel constructed along the main stem of the Green River to restore salmon habitat and reduce flood risk

GRNRA South Stormwater Pump Station: Installed a new stormwater pump station to divert peak storm flows from the 64th Ave South drainage channel away from the Green River Natural Resources Area (GRNRA) to reduce flood risk.

2020

Rock Creek Habitat Restoration (HCM 3): One of several key Habitat Conservation Measures (HCM) in Rock Creek. Project reconnected a historic creek channel and installed large woody debris to improve salmon habitat.

Downey Farmstead Salmon Habitat Restoration, Phase 3: A large scale multiple inlet through channel constructed along the main stem of the Green River to restore salmon habitat and reduce flood risk

South 212th Street/Garrison Creek Culvert Outlet Maintenance: Excavated a buried culvert outlet end to improve stormwater conveyance and reduce flood risk

76th Ave South Road Raising: Raised the height of an important industrial collector arterial roadway in the Kent Valley to address ongoing roadway closures due to flooding.

2021

Lake Fenwick Aerator Improvements: Project will replace an existing lake aerator with a larger capacity system to deliver increased oxygen to the lake, which will address ongoing water quality issues at Lake Fenwick.

Earthworks Canyon Sedimentation: Addresses ongoing sedimentation from Earthworks Park Canyon into Mill Creek to improve water quality and reduce flood risk.

Mill Creek/Little Property Restoration: Creates a new side channel in a vacant undeveloped city-owned parcel to reduce flood risk and improve salmon habitat in Mill Creek.

Mill Creek/76th Ave South Culvert Replacements: Replaces undersized drainage culverts at five locations with four larger culvert bridges, to reduce flood risk along this major industrial roadway arterial.

Mill Creek Culvert Cleaning: Project will remove accumulated sediments at key culvert crossing locations in the Kent Valley along Mill Creek, to reduce the risk of ongoing flooding in these localized areas.

Mill Creek Channel Reestablishment: A large scale project to reestablish the channel capacity of Mill Creek through the Kent Valley, to restore its stormwater conveyance and storage capacity to improve salmon habitat and reduce flood risk.

Downey Farmstead Salmon Habitat Restoration, Phase 4: A large scale multiple inlet through channel constructed along the main stem of the Green River to restore salmon habitat and reduce flood risk.

Lower Russell Levee Habitat Restoration: Large scale salmon habitat areas will be created along the Green River as part of the Lower Russell Levee project, which is being constructed by the King County Flood Control District in the Kent Valley.

81st Ave South Stormwater Pump Station: Replaces an existing undersized stormwater pump station with a larger capacity pump to reduce the risk of localized flooding near 81st Ave South and South 196th Street.

144th Ave South Road Raising/Storm Drainage: Raises the road and widens a creek culvert to address ongoing flooding along this roadway segment.

Kent Scenic Hill Drainage/Kensington Ravine: Addresses ongoing erosion and scour from storm flows along a steep ravine, which impacts downstream areas.

GRNRA North Stormwater Pump Station: Installs a new stormwater pump station at the Green River Natural Resources Area (GRNRA) to increase the GRNRA's flood storage capacity and improve its functionality as a regional stormwater detention and water quality facility.

WA Ave South Stormwater Pump Station: Replaces an existing stormwater pump station with a larger capacity pump to reduce the risk of localized flooding along WA Ave South and its surrounding service area.

Upper Mill Creek Dam Diversion Channel Modification: Modifies the fish screen at the Upper Mill Creek Dam's diversion channel to improve its functionality to convey peak stormwater flows to reduce flood risk to downstream areas.

South 212th Street/Garrison Creek Culvert Repairs: Repairs a deteriorated culvert pipe which conveys Garrison Creek flows under South 212th Street to reduce the erosion potential and risks of flooding.

Rock Creek/Summit Landsburg Road Culvert Replacement (HCM 5): One of several key Habitat Conservation Measures (HCM) in Rock Creek. Project replaces three undersized culverts with a new bridge, improve salmon habitat and reduce flood risks

Green River Stormwater Outfall Repairs: Project will address repairs at stormwater outfall ends at two separate outfall locations, to reduce scour impacts and erosion potential in areas underneath the outfall pipes.

City of Kent 2020 Annual Report Question #16a

S5.C.1.c - Kent continues to improve the implementation of LID BMPs. Kent has observed that the most pronounced barrier appears to be the lack of experience in design, design review, installation, and maintenance of LID BMPs. Lack of formal training opportunities on the new King Co Manual and LID BMP implementation in general have contributed to the challenge, but the city and its partners are continually working to improve LID implementation policies and practices.

Through our evaluation process we have determined that the city may benefit from more focus on big-picture and perhaps regional opportunities for stormwater flow control and water quality LID facilities when planning for future growth. The current city drainage master plan focuses more on storm system improvement related to capacity and reducing flood risk. Through this interdisciplinary planning process and in our forthcoming update of the city's drainage master plan, the city will continue to evaluate opportunities to integrate LID facilities into long range planning efforts, including as retrofits and in underserved areas.

Appendix IV: Definitions and Acronyms

The following words, terms, and phrases will have the meanings ascribed to them in this section, unless a different meaning is plainly required.

303 (d) waterbody means any body of water that does not meet water quality standards as defined by section 303 (d) of the Clean Water Act.

AKART is an acronym meaning all known, available and reasonable methods of prevention, control and treatment. AKART shall represent the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants associated with a discharge. The concept of AKART applies to both point and nonpoint sources of pollution.

BMPs or Best management practices means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or the MS4. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Clean Water Act (CWA) means the federal Water Pollution Control Act ([33 U.S.C. 1251](#), et seq.), and any subsequent amendments thereto.

Construction activity means land-disturbing operations including clearing, grading or excavation which disturbs the surface of the land. Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Director means the city of Kent public works department director.

Groundwater means water in a saturated zone or stratum beneath the surface of the land or below a surface water body.

Hazardous material means any material; including any substance, waste, or combination thereof; which because of its quantity, concentration, or physical, chemical, or infectious characteristics; may cause or significantly contribute to a substantial present or potential hazard to human, health, safety, property, or the environment; when improperly treated, stored, transported, disposed of, or otherwise managed.

Hyperchlorinated means water that contains more than ten (10) mg/liter chlorine. Disinfection of water mains and appurtenances requires a chlorine residual of ten (10) mg/liter at the end of the disinfection period.

Illicit connection means any conveyance that is connected to the MS4 without a permit, excluding roof drains and foundation drains. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the MS4. Illicit connections allow an illicit discharge to enter the MS4 and include, but are not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the MS4; any connections to the MS4 from indoor drains and sinks, regardless of whether such drain or connection was previously allowed, permitted, or approved by an authorized enforcement agency; or any drain or conveyance connected from a

commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the city or another agency of government duly authorized to give such approvals.

Illicit discharge means any discharge to a MS4 that is not composed entirely of stormwater or of allowed non-stormwater discharges as specified in the permit.

Incidental spills and illicit discharges meet all of the following conditions:

1. The spilled material is known.
2. The material spilled is not highly toxic.
3. The quantity spilled is small enough that it can be safely cleaned up using public works spill kits.
4. There is no fire hazard present.
5. The spill can be completely contained and the material has little or no potential to reach the stormwater system or surface Waters of the State.
6. If material enters Waters of the State, it is **NOT** an incidental release.

Industrial activity means activities subject to NPDES industrial permits as defined in [40 CFR 122.26\(b\)\(14\)](#).

Major spills and illicit discharges mean any hazardous or unknown materials, or spills of a known non-hazardous material larger than can be safely contained and cleaned up by the public Works staff. These pose a risk to the responder, the public, or the environment.

Minor spills and illicit discharges do not pose a risk to human health or the environment **and** have not entered Waters of the State.

MS4 or Municipal separate storm sewer system means a conveyance, or system of conveyances; including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains:

1. Owned or operated by a state, city, town, county, district, port, or other public body created by or pursuant to state law having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to Waters of the State;
2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a publicly owned treatment works ("POTW") as defined at [40 CFR 122.2](#).

National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit means a permit issued by the U.S. Environmental Protection Agency, or by the Washington Department of Ecology under authority delegated pursuant to [33 U.S.C. 1342\(b\)](#), that authorizes the discharge of pollutants to Waters of the State, whether the permit is applicable to an individual, group, or general area-wide basis.

Non-stormwater discharge means any discharge to the MS4 that is not composed entirely of stormwater.

Outfall means point source as defined by [40 CFR 122.2](#) at the point where a municipal separate storm sewer discharges to Waters of the State and does not include open conveyances connecting two municipal separate storm sewer systems, or pipes, tunnels, or other conveyances which connect segments of the same stream or other Waters of the State and are used to convey Waters of the State.

Owner/operator means any person or entity with an ownership interest or control over real property on which a violation of this chapter occurs, any person or entity participating in any activity regulated by this chapter, and any person or entity participating in any violation of this chapter.

Pollutant means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, and accumulations, so that the same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous materials and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Premise means any real property or interest in real property and any improvement upon real property.

RCW means the state Revised Code of Washington. It is the compilation of all permanent state laws now in force.

Sanitary sewage means domestic wastewater including flushed toilet water, water from dishwashers, clothes washing machines, and any other used water that generally is disposed of down interior household drains.

Sanitary sewer system means a conveyance, or system of conveyances, which is designed to convey domestic wastewater.

Stormwater means any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater Management Program (SWMP) means a set of actions and activities designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable and to protect water quality, and comprising the components listed in S5 or S6 of the Western Washington Phase II Municipal Permit and any additional actions necessary to meet the requirements of applicable.

Stormwater Pollution Prevention Plan (SWPPP) means a document which describes the BMPs and activities to be implemented by an owner/operator or business to identify sources of pollution or contamination at a site, and the actions to eliminate or reduce pollutant discharges to stormwater, the MS4, and/or receiving waters.

Wastewater means any water or other liquid, other than uncontaminated stormwater, discharged from any premises.

Water quality standards means the Water Pollution Control Act, as defined herein; Surface Water Quality Standards – Chapter [173-201A WAC](#); Ground Water Quality Standards – Chapter [173-200 WAC](#); and Sediment Management Standards – Chapter [173-204 WAC](#). The water quality standards are established to sustain public health and public enjoyment of the waters and the propagation and protection of fish, shellfish, and wildlife.

Waters of the State means those waters as defined as “waters of the United States” in [40 CFR 122.2](#) within the geographic boundaries of the state of Washington and “Waters of the State” as defined in Chapter [90.48 RCW](#), which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

