City of Burien

2019 Stormwater Management Program (SWMP) Plan

City of Burien
Department of Public Works
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Background
This Stormwater Management Program (SWMP) Plan is required by the Western Washington Phase II NPDES Municipal Stormwater Permit (Permit). The current Permit was issued by the State Department of Ecology (Ecology) to the City of Burien (City) on August 1, 2012 and became effective on August 1, 2013. This Permit was appealed, and a modified Permit became effective on January 16, 2015. It provides general guidelines, procedures and regulations to support an effort to preserve, protect, and improve the State’s water resources. This Permit is intended to reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Permit and SWMP related components are intended to support these goals and are required to be implemented by the specific dates provided in the permit.
The current permit expires on July 31, 2018, though a 1-year extension proposed by Ecology delays the permit expiration to July 31, 2019.

The next Phase II Permit will be issued on July 1, 2019. It is set to become effective on August 1, 2019 for a period of five years, through July 31, 2024. Planning efforts by the City of Burien specific for the upcoming Permit cycle will be included in this document where applicable.

This document will be updated annually to reflect those items that have been implemented during the previous year in response to permit target dates. The SWMP should be viewed as a “working draft” as it appears here and in later annual updates. As required, by May 31st of each year, the updated document will be available for review and comment on the City of Burien Stormwater website. This SWMP is available on the City’s website at http://www.burienwa.gov/swmp.

Questions, suggestions and comments on the National Pollution Discharge Elimination System (NPDES) permit or SWMP development can be directed to Dan O’Brien at (206) 248-5538.
Discussion

The Permit identifies six major components of the SWMP:

1. Public Education and Outreach. (S5.C.1)
2. Public Involvement and Participation. (S5.C.2)
3. Illicit Discharge Detection/Elimination. (S5.C.3)
4. Controlling Runoff for new and redevelopment construction sites. (S5.C.4)
5. Pollution Prevention for Operations and Maintenance for Municipal Operations. (S5.C.5)
6. Monitoring and Assessment (S8)

Additionally, the upcoming 2019-2024 Permit has three additional components being added to the SWMP, and one component being removed (Monitoring and Assessment). The new SWMP components are:

7. Comprehensive Stormwater Planning (S5.C.1)
8. MS4 Mapping and Documentation (S5.C.4)
9. Source Control Program for Existing Development (S5.C.8)

Planned efforts for these new Permit requirements will be discussed in this document as well.

A general description of these components, followed by a detailed listing of related requirements and current City activities are provided on the following pages. The City of Burien is responsible for implementing Permit requirements by the specified target dates, and updating the SWMP to reflect this implementation. Current component and item statuses are briefly addressed with notes generally following the appropriate requirement listings. This document constitutes the City of Burien’s SWMP and will be revised and formalized as Plan implementation progresses.

1. PUBLIC EDUCATION AND OUTREACH

This section describes the permit requirements, current City activities, and planned actions. The education program may be developed locally or regionally. As required by the previous Phase II Permit, the City must have a public education and outreach program currently in place. This section will outline upcoming implementation deadlines required by the current Permit.

1.1 Permit Requirements

The Permit (Section S5.C.1) requires the City to:

- Provide an education and outreach program for the area served by the MS4. The program shall be designed to educate target audiences about the stormwater problem and provide specific actions they can follow to minimize the problem.
• Create stewardship opportunities and/or partner with existing organizations to encourage residents to participate in activities such as stream teams, storm drain marking, volunteer monitoring, riparian plantings and educational activities.

1.2 Current Activities

Current City of Burien activities include:

• Car wash program, which includes providing car wash kits to local groups to use for fundraising events, or for residents for home use, free of charge. This includes a pre site visit to ensure proper use of the car wash kit and to decrease barriers for compliance.

• Miller and Walker Creek Basin Stewardship program. Working with the Basin Steward and Miller-Walker Committee on creek and watershed restoration and education. This includes community outreach, restoration parties, responding to resident requests and complaints, and long term watershed planning.

• Distributing Low Impact Development (LID) information to interested audiences, both businesses and residents.

• New creation of a Stormwater Education and Outreach webpage on the City’s website in 2016 and updated in 2018. This webpage currently hosts information on:
  o Residential car wash information
  o City partnership information and links, including Puget Sound Starts Here, King County Miller-Walker Basin Steward, and King Conservation District.
  o Public education workshop and event information
  o General stormwater housekeeping information
  o Storm drainage issue information
  o Information on current, City sponsored stormwater campaigns and programs
  o Rain garden information, including a feature on a rain garden installed by a local school
  o Rain cistern and barrel information
  o Stormwater calendar
  o StormFest resources (more later on StormFest)
  o Residential LID information
  o Stormwater BMP’s that residents can do themselves
  o “Which watershed do I live in” tool

• A partnership with the Burien Parks and Recreation program allowing the stormwater outreach staff person to book and run stormwater programs at the Burien Community
Center. This type of partnership allows utilization of Recreation services like the quarterly Recreation Guide.

- A social media presence on Facebook and Twitter. Programming details, opportunities, and relevant information is posted frequently.

- Working with King Conservation District (KCD) on:
  - Shoreline Stewardship Classes. KCD and Burien collaborated on teaching residents who live on a shoreline (stream, lake, or Sound) about stormwater issues and how to maintain their shoreline in an environmentally friendly way.

- Sponsoring natural yard care workshops with subjects such as integrated pest management, natural lawn care, rain gardens, and alternatives to rain gardens like cisterns and rock filled trenches, pollinators, etc.

- Developing a “De-pave” program in coordination with King County. The De-pave program will target areas that fall within Burien city limits and the Miller-Walker Basin that can benefit from social and environmental change. We will then work with the community to take out pavement and replace with GSI. There will be a strong focus on soliciting feedback from the community to direct projects. Phase 1 began by partnering with King Conservation District to submit a grant on the partnership’s behalf. The grant was not awarded, and other funding sources are currently being sought out.

- Participation in the Don’t Drip and Drive Steering Committee. Don’t Drip and Drive is a regional campaign aimed at encouraging citizens to fix their car leaks. Residents can go to participating shops and get their cars checked for free.

- Participation in a Stormwater Community Messaging workgroup. The workgroup completed focus group testing on stormwater messaging in the English speaking and Spanish speaking communities throughout Puget Sound to develop messaging that works versus vernacular that created confusion for the public. This was finalized in 2018.

- STORM Steering Committee Member. Being a steering committee member on STORM has opened up opportunities for Burien, such as input on developing a website for sharing materials, Drain Rangers curriculum, social marketing/stormwater science language data, and assisting with stormwater BMP PSA’s produced and shown by Comcast in 2018.

- Participation and planning of Puget Sound Starts Here (PSSH) Month. Every year, May is dedicated to water quality awareness in our watershed. Social media, website advertising, and the “Comcast Spotlight” Stormwater PSA’s will all take place this month. Previous May events have included a Leak Check event, taking place on Mother’s Day as a fun, “Get-Your-Mother’s-Car-Checked-for-Leaks Day” and the Mariners Game, where we have lured participants with discounted tickets and free hats (branded PSSH) and then played stormwater trivia and other fun games with the participants. The 2019 campaign will be branded, “Orca Health Starts Here,” and will involve providing awards to residents in the Puget Sound area who have dedicated their time and actions to helping reduce stormwater pollution and therefore helping Orca health.
- Sylvester Middle School Stormwater Curriculum and Field Project. Along with Washington Green Schools, Burien City staff helped a Sylvester Middle School Science Teacher plan a stormwater science curriculum with their final project resulting in their own stormwater solution design on campus. The final culmination was the installation of a rain garden on campus incorporating elements from their own design projects. Installation took place on April 19th, 2017 in celebration of Earth Month. The interpretation sign was designed by Sylvester Middle School students, and was presented on March 16th, 2018 in English, Spanish, and Vietnamese.

- Coordinating with Parks and Recreation for the annual Strawberry Festival, now the annual Kids Day of Play.

- Providing stormwater information to the public in the quarterly City magazine. The Winter 2016 issue featured this in a four page spread titled, “8 Easy Ways to Keep Stormwater Clean During the Winter Season”. Stormwater education articles are posted in the magazine 2-4 times per year.

- Stormwater education at Highline High School science classes. This has included stormwater presentations, judging sustainability and stormwater projects, and providing expertise on natural resource curriculums.

- City of Burien was awarded a $152,200 GROSS Grant by the Department of Ecology to create and implement StormFest. StormFest is a stormwater education event that adapts the Drain Rangers curriculum into an interactive field-based experience for 6th graders. In one day, students rotate through hands-on education stations, learning about their local watershed, the animals that live in them, sources of pollution, and engineering solutions to prevent stormwater pollution. StormFest was offered this spring, 2018 on June 13th and 14th and again, this fall 2018, on October 10th and 11th. The events provided stormwater education to over 2,000 Highline School District students. StormFest increases knowledge of stormwater pollution and watershed science, as well as increases behaviors that reduce stormwater pollution. Behavior change will be tested after the fall StormFest events to ascertain whether students adopted a new stormwater BMP behavior. A focus of StormFest is to ensure that all students receive quality stormwater education. To facilitate this, bilingual educators are prioritized and additional interpreters were trained to help communicate educational information the day-of.

- Litter pick up and analyzation with ZeroWaste Washington. ZeroWaste Washington has created a litter pick-up analysis tool and tested it out on multiple litter pick-ups in Burien during the spring, summer, and fall of 2018. This analysis let us know what types of litter are making their way into Burien waterways, while educating residents along the way. ZeroWaste Washington will be continuing litter pick up and community outreach throughout 2019.

- Tree Give-aways. Burien and DirtCorps have teamed up to offer tree giveaways for Burien residents. The first event (January 2018) was so popular that we ran out of trees halfway
through the event. Future tree giveaways are planned with Forterra, a nonprofit managing Green Burien.

- Incorporation of a part-time AmeriCorps Volunteer. Her main project involved working on a Natural Yard Care program for Burien residents. We offered six workshops in spring 2018 with Spanish and Vietnamese translators at all workshops. Additional language translators are available upon request. At least one workshop is scheduled for 2019.

- Partnership with King County on Chinook Book giveaways. Chinook Books provide discounts at environmentally friendly businesses in the Puget Sound area. In exchange for a Chinook Book coupon book, residents must complete a pledge committing to a stormwater pollution BMP. The pledge allows an opt-in for a 6 month follow-up in order to track behavior change.

- Partnership with K4C and KCD in an Urban Forestry group. This group has worked on creating legal language that municipalities can choose to adopt in order to use their SWM funds for urban forestry purposes, in regards to stormwater mitigation. Through this group, we have been able to use education and outreach documents such as, “Stormwater Benefits of Trees” which have been popular with the public.

- Working with the Port of Seattle on ACE grant recipients, providing environmental education and stewardship for the Burien community.

- Continued ongoing Public Education programs with the Environmental Science Center for students, City staff, and the general public. The Environmental Science Center is a non-profit organization offering experiential environmental education programs for students and citizens in Burien and South King County.

- Responding to resident requests regarding water pollution, the environment, and community outreach.
2. PUBLIC INVOLVEMENT AND PARTICIPATION

This section describes the permit requirements, current City activities, and planned actions for providing opportunities for public involvement and participation in Stormwater Management Plan development. All cities shall create opportunities for the public to participate in the decision-making processes involving the development, implementation and updating of the Permittee’s SWMP. Each city shall develop and implement a process for consideration of public comments on their SWMP.

2.1 Permit Requirements

The Permit (Section S5.C.2) requires the City to:

- Provide ongoing opportunities for public involvement and participation through advisory councils, public hearings, watershed committees, and participation in developing rate-structures or other similar activities. Each Permittee shall comply with applicable state and local public notice requirements when developing elements of the SWMP.

- Create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the Permittee’s SWMP.

- Post on its website the updated SWMP Plan and the annual report required under S9.A no later than May 31st each year. All other submittals shall be available to the public upon request.

2.2 Current Activities

- The City posts the latest version of the SWMP and Permit Annual Report on the City’s website by May 31st each year. The City continues to solicit and receive public comments through the City’s website and City newsletters.

- The City continues to involve the public through the Basin Stewardship program, including volunteer event coordination and providing a public liaison for stormwater questions and concerns with the Miller-Walker Basin Steward.

- There is now an updated Stormwater Education and Outreach webpage available to the public. The website has both static information available, as well as a changing calendar of events. This allows easier access of stormwater information to our residents.

- The City’s Environmental Education Specialist has been distributing contact information to the public at outreach events and asking for input from the public. Contact information is also posted on public outreach materials, such as articles in Burien Magazine or social media posts. This has proven to be very effective, with multiple contacts per month from the public regarding things like programming, drainage issues in the City, and stewardship activities.
3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

This section describes the permit requirements, current City activities, and planned actions related to Illicit Discharge Detection and Elimination (IDDE). The City shall continue to provide an ongoing program designed to prevent, detect, characterize, track and eliminate illicit connections and illicit discharges into the MS4.

3.1 Permit Requirements

The Permit (Section S5.C.3) requires the City to:

- Continue mapping the MS4 on an ongoing basis, including periodic updates as needed.
- Implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges into the Permittee’s MS4 to the maximum extent allowable under state and federal law.
- Implement an ongoing program designed to detect and identify non-stormwater discharges and illicit connections into the Permittee’s MS4. **This program shall include field screening of at least 40% of the MS4 no later than December 31, 2017, and on average 12% each year thereafter.**
- Document IDDE Field Screening Methodology in the Annual Report.
- Implement an ongoing program designed to address illicit discharges, including spills and illicit connections, into the Permittee’s MS4.
- Train staff that are responsible for identification, investigation, termination, cleanup, and reporting of illicit discharges, including spills, and illicit connection, to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements or staffing. Permittees shall document and maintain records of the training provided and the staff trained.
- Track and maintain records of the activities conducted to meet the requirements of this section.

3.2 Current Activities

- The City continually updates its GIS stormwater map from existing as-built drawings and from new and re-development projects that contain either privately or publicly owned stormwater facilities.
- A GIS Stormwater Map is available on the City’s website, and paper maps are available upon request from the Public Works Department.
- The hotline number for spills and illicit discharges is publicized on the City’s website. This number is 206-248-5521.
- The City performs field inspections and keeps records for all reported illicit discharges and connections, with technical assistance from King County and DOE.
• The City has a Water Quality Audit program, assisted by King County. This program provides inspections of businesses of which the City has received reports of spills or other activities that may have created an illicit discharge.

• The City has adopted a SWM ordinance to address Illicit Connection (IC) and Illicit Discharge Detection and Elimination (IDDE). The ordinance includes a list of allowable and prohibited discharges to the City’s drainage system or streams.

• The City has developed an enforcement strategy and the SWM ordinance includes escalating enforcement procedures and actions.

• The City has prioritized receiving waters for visual inspection. The evaluation was based on potential pollution, flooding, and erosion. Prioritized water bodies within the City are listed as Miller Creek, Walker Creek, and Salmon Creek.

• Utilizing Ecology’s 2013 Illicit Connection and Illicit Discharge Field Screening and Source Tracing Guidance Manual (IDDE Manual) as a procedural guide, the City has begun to implement a combination of Catch Basin/Manhole and Outfall inspections as its IDDE Field Screening Methodology. Inspections will begin at an outfall, and when signs of any current or past potential illicit discharge are present, inspections will progress upstream, following a “monitoring node approach”, as described in Section 3 of the IDDE Manual, in which the inspection of a small drainage area is begun at an outfall, and each outfall or catch basin inspected will include up to 20 upstream catch basins, or an entire conveyance network, whichever is smaller. Each grouping of catch basins is considered a “node.” Standard field screening techniques, based on the IDDE Manual, will be applied to these inspections. An electronic inspection form has been developed for the City’s Cityworks Asset Management system, and has been used for Field Screening inspections beginning in 2015. See Appendix A for more information on the City’s efforts in this area for 2018.

• The City provides IC/IDDE training to City staff, as needed, on identification and reporting of illicit discharges. Follow up training is provided to City staff, as necessary, to address changes in procedures or requirements. One training covering IDDE topics was provided in 2018, with five City staff attending. Additional IDDE training will be provided as needs and personnel dictate.

• The City keeps updated records for drainage complaints, spills, and IC/IDDE reports.
4. CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

This section describes the permit requirements, current activities, and planned actions related to controlling runoff from new development, redevelopment, and construction sites. As required by the previous Permit, the City must have adopted an ordinance or other enforceable mechanism no later than February 16, 2010. The program shall apply to private or public development, including roads.

4.1 Permit Requirements

Section S5.C.4 requires the City to:

- Implement an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects. The ordinance or other enforceable mechanism shall be adopted and effective no later than December 31, 2016. The local program adopted to meet the requirements of S5.C.4.a (i) through (iii), shall apply to projects approved prior to January 1, 2017, which have not started construction by January 1, 2022.

The local program outlined above shall include:

- A permitting process with site plan review, inspection and enforcement capability to meet the standards listed in S5.C.4.b (i) through (iv), for both private and public projects, using qualified personnel. At a minimum, this program shall be applied to all sites that meet the minimum thresholds adopted pursuant to S5.C.4.a.i.

- Provisions to verify adequate long-term operation and maintenance (O&M) of stormwater treatment and flow control BMPs/facilities that are permitted and constructed pursuant to S5.C.4.b. These provisions shall be in place no later than December 31, 2016.

- The program shall make available as applicable copies of the “Notice of Intent for Construction Activity” and copies of the “Notice of Intent for Industrial Activity” to representatives of proposed new development and redevelopment. Permittees shall continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.

- Each Permittee shall ensure that all staff whose primary job duties fall within this section are trained to conduct these activities. Follow-up training shall be provided as needed to address changes in procedures, techniques or staffing. Permittees shall document and maintain records of the training provided and the staff trained.

- Permittees shall address Low Impact code-related requirements, pursuant to S5.C.4.f (i) and (ii), no later than December 31, 2016, and shall submit a summary of the results of the review and revision process with the annual report no later than March 31, 2017.
• Each Permittee that has all or part of its coverage area in a watershed selected by a Phase I county for watershed-scale stormwater planning under condition S5.C.4.c of the Phase I Permit shall participate with the watershed-scale stormwater planning process led by the Phase I county.

4.2 Current Activities

• On November 7, 2016, Burien City Council adopted the 2016 King County Surface Water Design Manual (KCSWDM), along with several additional code changes, to gain equivalency with Ecology’s 2012 Stormwater Management Manual for Western Washington, as amended in 2014 (SWMMWW). The new manual and related code changes went into effect on December 31, 2016 to comply with Permit requirements.

• In 2015, the City began the process of analyzing potential LID development code changes for the City to implement in order to comply with the SWMMWW and section S5.C.4.f of the current Permit. On November 7, 2016, four ordinances were adopted by Burien City Council that include all elements required per S5.C.4.f.

• The adopted 2016 King County Surface Water Design Manual includes stormwater maintenance standards and requirements that are equivalent to the SWMMWW.

• The City conducts site inspections for new development and redevelopment projects that disturb a land area one acre or greater, including projects less than one acre that are part of a larger common plan of development.

• An Erosion and Sediment Control (ESC) brochure for small project sites and a Small Project Drainage Requirements brochure have been created and are available to the public.

• The City conducts site inspections for new City-owned drainage facilities, and documents and maintains all records.

• The City purchased and implemented Azteca Cityworks, a Stormwater Asset Management system. The City is using the system to keep records of drainage inspections and maintenance, create work tickets, and track costs and time.

• The City provides routine training to City staff responsible for implementing the program to control runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspection, and enforcement. In 2018, thirteen City staff attended two trainings on the above topics.

• The City continually provides Certified Erosion and Sediment Control Lead (CESCL) training to all relevant City staff. In 2018, no City staff attended CESCL training. In 2019, five City staff are due for recertification.
• The City has documented and maintained records for all training.

• The City has adopted an Ordinance that provides the legal authority, through the approval process for new development, to inspect private stormwater facilities that discharge to the City’s MS4.

• The City SWM Ordinance allows for non-structural preventive actions and source reduction approaches, such as Low Impact Development (LID) Techniques, to minimize the creation of impervious surface and the disturbance of native soils and vegetation.

• The City has implemented a program designed to annually inspect and maintain all City-owned or operated permanent stormwater treatment and flow control facilities.

• The City has inspected all new stormwater treatment and flow control facilities privately owned or operated to identify maintenance needs and enforce compliance with maintenance standards as needed.

• The City has implemented a procedure for keeping inspection records and enforcement actions by staff, including inspection reports, warning letters, notices of violation, and other enforcement records, maintenance inspections and maintenance activities.

• The City SWM Ordinance identifies the party responsible for maintenance, requires inspection of facilities and establishes enforcement procedures. This ordinance includes an enforcement strategy to respond to issues of non-compliance with regulations for qualifying projects.

• The City has implemented a long-term Operations and Maintenance (O&M) program for post-construction stormwater facilities and BMPs.

• The City inspects and maintains the records of post-construction stormwater controls, including structural BMPs, at new development and redevelopment projects.

• The City has established maintenance standards that are as, or more, protective of facility function than those specified in 2016 KCSWDM.
5. POLLUTION PREVENTION AND OPERATIONS AND MAINTENANCE FOR MUNICIPAL OPERATIONS

This section describes the permit requirements and current City activities related to pollution prevention and operations and maintenance for municipal operations. Per the current 2013 Permit, each City shall implement an Operations and Maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

5.1 Permit Requirements

Section S5.C.5 requires the City to:

- Implement maintenance standards that are as protective, or more protective, of facility function than those specified in Chapter 4 of Volume V of the SWMMWW.

- Perform annual inspections of all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities, and take appropriate maintenance actions in accordance with the adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.

- Conduct spot checks of potentially damaged permanent treatment and flow control BMPs/facilities (other than catch basins) after major storm events (greater than 10-year, 24-hour recurrence interval). If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control BMPs/facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.

- **Inspect all catch basins and inlets owned or operated by the City at least once before August 1, 2017, and every two years thereafter.** Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the 2012 Stormwater Management Manual for Western Washington. Decant water shall be disposed of in accordance with Appendix 6 Street Waste Disposal.

- Establish compliance with the inspection requirements listed in S5.C.5.b, S5.C.5.c, and S5.C.5.d of the Permit, which shall be determined by the presence of an established inspection program designed to inspect all sites and achieving inspection of 95% of all sites.

- Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City, and road maintenance activities under the functional control of the City.
• Implement an ongoing training program for employees of the City whose construction, operations or maintenance job functions may impact stormwater quality. The training program shall address the importance of protecting water quality, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing. The City shall document and maintain records of training provided and staff trained.

• Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to this Permit that are not required to have coverage under the Industrial Stormwater General Permit, or another NPDES permit that authorizes stormwater discharges associated with the activity. A schedule for implementation of structural BMPs shall be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP shall include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP.

• Maintain records of inspections and maintenance or repair activities conducted by the City.

5.2 Current Activities

• The City adopted the 2016 King County Surface Water Design Manual (KCSWDM) on November 7, 2016, which includes the maintenance standard and requirements of drainage structures such as flow control, conveyance, and water quality.

• The City adopted the 2016 King County Stormwater Pollution Prevention Manual (KCSPPM) on November 7, 2016, which include Best Management Practices (BMPs) for Commercial, Multi-Family and Residential Properties.

• Inspection of both City and privately owned drainage facilities occurs annually by City staff. Inspection and maintenance records for both City-owned and private drainage facilities are tracked and documented utilizing the City’s asset management system, Azteca Cityworks.

• Beginning in 2015, the City implemented a mobile version of our Cityworks software, Freeance Mobile, to allow field staff to work more efficiently while performing site inspections and maintenance of City-owned assets. Since March 2016, Freeance Mobile is being utilized for public and private facility inspections, as well as catch basin inspections.

• In 2013, the City implemented a 2-year catch basin inspection cycle. Publicly owned catch basins south of 140th St were inspected in 2013, 2015 and 2017, and CBs north of 140th St were inspected in 2014, 2016 and 2018. The exception to this schedule
previously included public catch basins within drainage easements that lie on private property. These basins were categorized and compiled for inclusion in the 2-year inspection cycle beginning in 2016. This North-South split on alternating years will continue into the future. Required maintenance on inspected basins is performed as required, scheduled as staffing and equipment availability allows.

- All inspection records and maintenance/repair activities are being properly documented and stored for future access.

- The City conducts spot checks of all City-owned detention/retention ponds after major storms, and documents these and all other inspections. No storms of this magnitude occurred in 2018. However, all City-owned stormwater facilities were inspected through the City’s regular annual inspection program in 2018.

- The City will continue to utilize its adopted Standard Operating Procedure for Pest and Vegetation Management. The purpose of this procedure is to provide for mitigation and control of pests in environmentally-friendly ways and to direct operations and maintenance of the City that manages pests or vegetation on public lands, rights-of-way and bodies of water. This procedure applies to all properties and facilities owned or operated by the City.

- The City will continue to implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated in the areas subject to this permit that are not required to have coverage under the General NPDES Permit for stormwater discharges associated with Industrial Activities or another NPDES stormwater permit. Due to the City’s Public Works Maintenance Shop moving to a new location, the City’s current SWPPP was reviewed and updated in 2017, and will continue to be revised as needed.
6. MONITORING AND ASSESSMENT

This section describes the permit requirements, current activities, and planned actions related to monitoring and assessment of stormwater related issues.

6.1 Permit Requirements

Section S8.A requires the City to:

- Provide, in each annual report, a description of any stormwater monitoring or stormwater-related studies conducted by the Permittee during the reporting period.

Section S8.B requires the City to:

- Notify Ecology by December 1, 2013, which of the options for Status and Trends Monitoring the City chooses to carry out during this permit cycle. These choices are either to pay into a collective fund for monitoring in the Stormwater Action Monitoring (SAM) program, or to conduct status and trends monitoring themselves, according to section S8.B.2 of the Permit.

Section S8.C requires the City to:

- Notify Ecology by December 1, 2013, which of the options for Stormwater Management Program Effectiveness Studies Monitoring the City chooses to carry out during this permit cycle. These choices are either to pay into a collective fund for monitoring in the Stormwater Action Monitoring (SAM) program, or to conduct effectiveness study monitoring themselves, according to section S8.C.2 of the Permit.

Section S8.D requires the City to:

- Pay into a collective fund to implement the SAM Source Identification Information Repository (SIDIR). This fund will manage the Source Identification and Diagnostic Monitoring required by the Permit.

6.2 Current Activities

- The City is conducting flow and water quality monitoring through a consultant for the Northeast Redevelopment Area (NERA) Drainage Improvement Project. The monitoring generally consists of water level and flow monitoring at two sites within the NERA, upstream and downstream of the project area, and water quality sampling during and after construction. The details of this monitoring are outlined in a QAPP within the City’s NERA Master Drainage Plan.

- The City has taken the “pay-in” option for all three SAM Monitoring tasks.
7. COMPREHENSIVE STORMWATER PLANNING

This section describes the permit requirements and planned actions related to Comprehensive Stormwater Planning in the upcoming 2019-2024 Permit.

7.1 Draft Permit Requirements

Section S5.C.1 of the 2019-2024 Permit requires the City to:

- Implement a Comprehensive Stormwater Planning program to inform and assist in the development of policies and strategies as a water quality management tool to protect aquatic resources.

- On or before March 31, 2020, the Permittee shall describe how water quality and watershed protection were addressed during the 2013-2018 permit cycle 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.

- On or before March 31, 2022, the Permittee shall describe how water quality and watershed protection are being addressed during this permit cycle 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.

- Permittees shall continue to require LID Principles and LID BMPs when updating, revising, and developing new local development-related codes, rules, standards, or other enforceable documents, as needed.

- Begin implementing a process of Stormwater Management Action Planning, including a receiving water basin assessment, receiving water basin prioritization, and, by December 31, 2022, develop a Stormwater Management Action Plan (SMAP) for at least one high priority area, in accordance with Permit requirements.

7.2 Planned Activities

- In 2019, City staff will begin researching options for addressing the requirements listed in S5.C.1 of the upcoming Permit. Current alternatives include the option of hiring a consultant to assist with the planning efforts.
8. **MS4 MAPPING AND DOCUMENTATION**

The Permittee’s SWMP shall include an ongoing program for mapping and documenting the MS4.

8.1 **Draft Permit Requirements**

Section S5.C.4 of the 2019-2024 Permit requires the City to:

- Maintain mapping data for the features listed in Section S5.C.4.a.

- By January 1, 2020, map size and material for all known MS4 outfalls.

- By August 1, 2021, complete mapping of all known connections from the MS4 to privately owned stormwater systems.

- By August 1, 2021, maintain all mapping data electronically.

8.2 **Planned Activities**

- Once the 2019-2024 Permit goes into effect, City staff will begin researching missing mapping data, and will begin adding outstanding data to the City’s database as it is obtained.

- The City currently maintains all MS4 mapping data electronically. City staff will confirm that all data in maintained in a format that is accessible for review by relevant parties, per S5.C.5.d and S5.C.5.e.
9. **SOURCE CONTROL PROGRAM FOR EXISTING DEVELOPMENT**

Each Permittee shall implement a program to prevent and reduce pollutants in runoff from areas that discharge to MS4s.

### 9.1 Draft Permit Requirements

Section S5.C.8 of the 2019-2024 Permit requires the City to:

- By August 1, 2022, adopt ordinances or other enforceable items requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities.
- By August 1, 2022, establish an inventory that identifies publicly and privately owned commercial and industrial properties which have the potential to generate pollutants to the Permittee’s MS4.
- By January 1, 2023, implement an inspection program for sites identified above, inspecting 20% of listed sites annually, and 100% of sites identified through legitimate complaints.
- By January 1, 2023, implement a progressive enforcement policy that requires sites to comply with stormwater requirements within a reasonable time period.
- Train staff who are responsible for implementing the source control program to conduct these activities.

### 9.2 Planned Activities

- City staff is beginning to look into options for a source tracing inspection program. Current alternatives involve either performing inspections in-house or contracting out the work.
- City staff will research opportunities for source control training throughout the year.
Appendix A

City of Burien
2018 IDDE Program Field Screening Efforts

In 2018, City staff began categorizing outfalls that showed signs of possible illicit discharges from the 2017 inspections. Field screening inspections will resume again in 2019. They will include the remainder of the northern outfalls (north of 140th St) and the flagged outfalls from 2017 will be reinspected using the “node” inspections of any upstream catch basins. In total approximately 60% of the total MS4 have been inspected to date.