



Water Quality Program

Permit Submittal Electronic Certification

Permittee: TUKWILA CITY OF

Permit Number: WAR045544

Site Address: 6200 SOUTHCENTER BLVD
Tukwila, WA 98188-2544

Submittal Name: MS4 Annual Report Phase II Western

Version: 1

Due Date: 3/31/2020

Questionnaire

Number	Permit Section	Question	Answer
1	S5.A	Attach a copy of any annexations, incorporations or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period per S9.D.6.	Not Applicable
2	S5.A	Attach updated annual Stormwater Management Program Plan (SWMP Plan). (S5.A.2)	19340 Tukwila_PW-NPDES-SWMP-20_2_03202020090315
3	S5.A	Implemented an ongoing program to gather, track, and maintain information per S5.A.3, including costs or estimated costs of implementing the SWMP.	Yes
4	S5.A.5.b	Coordinated among departments within the jurisdiction to eliminate barriers to permit compliance. (S5.A.5.b)	Yes
4a	S5.A.5.b	Attach a written description of internal coordination mechanisms. (S5.A.5.b).	Internal Coordination Nov 2019_4a_01142020135 519
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)	No
20	S5.C.2	Did you choose to adopt one or more elements of a regional program? (S5.C.2)	No
21	S5.C.2	Attach a description of general awareness efforts conducted, including your target audiences and subject areas, per S5.C.2.a.i.	2019 Education and Outreach Ef_21_01172020092009
22	S5.C.2	Conducted an evaluation of the effectiveness of the ongoing behavior change program and documented recommendations as outlined in S.5.C.2.a.ii(b). (Required no later than July 1, 2020)	Not Applicable

26	S5.C.2	Promoted stewardship opportunities (or partnered with others) to encourage resident participation in activities such as those described in S5.C.2.a.iii.	Yes
26a	S5.C.2	Attach a list of stewardship opportunities provided.	20yrStewardshipPlan_26a_02112020073925
27	S5.C.3.	Describe in Comments field the opportunities created for the public, including overburdened communities, to participate in the decision-making processes involving the development, implementation, and updates of the Permittee's SWMP and the SMAP. (S5.C.3.a)	Opportunities are provided at Transportation and Infrastructure Council Committee meetings, Council Committee of the Whole meetings, Council Regular meetings. Input is encouraged through the year on the City's NPDES website: www.Tukwila.gov/pubwks/npdes.html . Notices are also posted on bulletin boards at various locations within the City. This year the City conducted three open house and workshop opportunities to address updating the City's SWMP.
28	S5.C.3.	Posted the updated SWMP Plan and latest annual report on your website no later than May 31. (S5.C.3.b)	Yes
28a	S5.C.3.	List the website address in Comments field.	http://www.tukwilawa.gov/departments/publicworks/npdes
29	S5.C.4.	Maintained a map of the MS4 including the requirements listed in S5.C.4.a.i-vii?	Yes
30	S5.C.4.	Started mapping outfall size and material in accordance with S5.C.4.b.i? (Required no later than January 1, 2020)	Yes
30a	S5.C.4.	Attach a spreadsheet that lists the known outfalls' size and material(s).	zone 5 river outfalls_30a_01152020142654
31	S5.C.4.	Completed mapping connections to private storm sewers in accordance with S5.C.4.b.ii? (Required no later than August 1, 2023)	Not Applicable
32	S5.C.4.	Developed an electronic format for map, with fully described mapping standards in accordance with S5.C.4.c? (Required no later than August 1, 2021)	Not Applicable
33	S5.C.5	Informed public employees, businesses, and the general public of hazards associated with illicit discharges and improper disposal of waste. Describe actions in Comments field. (S5.C.5.b)	Yes
34	S5.C.5	Implemented an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illicit discharges as described in S5.C.5.c.	Yes

35	S5.C.5	Implemented procedures for conducting illicit discharge investigations in accordance with S5.C.5.d.i.	Yes
35a	S5.C.5	Cite field screening methodology in Comments field.	The City uses its GIS Surface Water mapping book to begin its investigations. Enforces its IDDE ordinance, uses local laboratory services when sampling is conducted. O&M provides video detection to storm drainage pipes, and provides visual inspections during the course of a day. A hotline is maintained for public reporting. The City also reacts to the Ecology's ERTS program.
36	S5.C.5	Percentage of MS4 coverage area screened in the reporting year per S5.C.5.d.i. (Required to screen 12% on average each year.)	84
36a	S5.C.5	Cite field screening techniques used to determine percent of MS4 screened.	Staff conducts business inspections, catch basin/manhole inspections, ditch, outfall inspections, stormwater BMP inspections and video inspections. In all cases, a visual/olfactory inspection is conducted and when warranted indicator sampling is conducted.
37	S5.C.5	Percentage of total MS4 screened from permit effective date through the end of the reporting year. (S5.C.5.d.i.)	84
38	S5.C.5	Describe how you publicized a hotline telephone number for public reporting of spills and other illicit discharges in the Comments field. (S5.C.5.d.ii)	The City's hotline telephone number is (206) 433-1860 and is publicized on the City's NPDES web page.
39	S5.C.5	Implemented an ongoing illicit discharge training program for all municipal field staff per S5.C.5.d.iii.	Yes
40	S5.C.5	Implemented an ongoing program to characterize, trace, and eliminate illicit discharges into the MS4 per S5.C.5.e.	Yes
41	S5.C.5	Municipal illicit discharge detection staff are trained to conduct illicit discharge detection and elimination activities as described in S5.C.5.f.	Yes
42	S5.C.5	Attach a report with data describing the actions taken to characterize, trace, and eliminate each illicit discharge reported to, or investigated by, the Permittee as described in S5.C.5.g. The submittal must include all of the applicable information and must follow the instructions, timelines, and format described in Appendix 12.	WAR045544-2019-ImportedIDDEs_03202020090917

43	S5.C.6.	Implemented an ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites per the requirements of S5.C.6.b.i-iii.	Yes
44	S5.C.6.	Revised ordinance or other enforceable mechanism to effectively address runoff from new development, redevelopment, and construction sites per the requirements of S5.C.6.b.i-iii. (Required no later than June 30, 2022)	Not Applicable
45	S5.C.6.	Number of adjustments granted to the minimum requirements in Appendix 1. (S5.C.6.b.i. and Section 5 of Appendix 1)	Not Applicable
46	S5.C.6.	Number of exceptions/variances granted to the minimum requirements in Appendix 1. (S5.C.6.b.i., and Section 6 of Appendix 1)	Not Applicable
47	S5.C.6.	Reviewed Stormwater Site Plans for all proposed development activities that meet the thresholds adopted pursuant to S5.C.6.b.i. (S5.C.6.c.i)	Yes
47a	S5.C.6.	Number of site plans reviewed during the reporting period.	119
48	S5.C.6.	Inspected, prior to clearing and construction, permitted development sites per S5.C.6.c.ii, that have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 7 – Determining Construction Site Sediment Damage Potential?	Yes
49	S5.C.6.	Inspected permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls per S5.C.6.c.iii.	Yes
49a	S5.C.6.	Number of construction sites inspected per S5.C.6.c.iii.	130
49b	S5.C.6.	Inspected stormwater treatment and flow control BMPs/facilities and catch basins in new residential developments every 6 months per S5.C.6.c.iv?	Yes
50	S5.C.6.	Inspected all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities. (S5.C.6.c.v)	Yes
51	S5.C.6.	Verified a maintenance plan is completed and responsibility for maintenance is assigned for projects prior to final approval and occupancy being granted. (S5.C.6.c.v)	Yes
52	S5.C.6.	Number of enforcement actions taken during the reporting period (based on construction phase inspections at new development and redevelopment projects). (S5.C.6.c.ii-iv) (S5.C.7.c.viii)	2
53	S5.C.6.	Achieved at least 80% of scheduled construction-related inspections. (S5.C.6.c.vi)	Yes

54	S5.C.6.	Made Ecology's Notice of Intent for Construction Activity and Notice of Intent for Industrial Activity available to representatives of proposed new development and redevelopment? (S5.C.6.d)	Yes
55	S5.C.6.	All 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? (S5.C.6.e)	Yes
56	S5.C.7.	Implemented maintenance standards that are as protective, or more protective, of facility function than those specified in the Stormwater Management Manual for Western Washington or a Phase I program approved by Ecology per S5.C.7.a.?	Yes
57	S5.C.7.	Updated maintenance standards specified in Stormwater Management Manual for Western Washington per S5.C.7.a? (Required no later than June 30, 2022)	Not Applicable
58	S5.C.7.	Applied a maintenance standard for a facility or facilities which do not have maintenance standards specified in the Stormwater Management Manual for Western Washington? If so, note in the Comments field what kinds of facilities are covered by this alternative standard. (S5.C.7.a)	No
59	S5.C.7.	Verified that maintenance was performed per the schedule in S5.C.7.a.ii when an inspection identified an exceedance of the maintenance standard.	Yes
59a	S5.C.7.	Attach documentation of maintenance time frame exceedances that were beyond the Permittee's control.	Not Applicable
60	S5.C.7.	Implemented an ordinance or other enforceable mechanisms to verify long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities regulated by the permittee per (S5.C.7.b.i (a))?	Yes
61	S5.C.7.	Annually inspected stormwater treatment and flow control BMPs/facilities regulated by the Permittee per S5.C.7.b.i(b)	Yes
61a	S5.C.7.	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.7.b.i (b)	Not Applicable
62	S5.C.7.	Achieved at least 80% of scheduled inspections to verify adequate long-term O&M. (S5.C.7.b.ii)	Yes
63	S5.C.7.	Annually inspected all municipally owned or operated permanent stormwater treatment and flow control BMPs/facilities. (S5.C.7.c.i)	Yes
63a	S5.C.7.	Number of known municipally owned or operated stormwater treatment and flow control BMPs/facilities. (S5.C.7.c.i)	76
63b	S5.C.7.	Number of facilities inspected during the reporting period.	76

63c	S5.C.7.	Number of facilities for which maintenance was performed during the reporting period.	15
64	S5.C.7.	If using reduced inspection frequency for the first time during this permit cycle, attach documentation per S5.C.7.c.i.	Not Applicable
65	S5.C.7.	Conducted spot checks and inspections (if necessary) of potentially damaged stormwater facilities after major storms as per S5.C.7.c.ii.	Yes
66	S5.C.7.	Inspected municipally owned or operated catch basins and inlets every two years or used an alternative approach? Cleaned as needed? (S.5.C.7.c.iii)	Yes
66a	S5.C.7.	Number of known catch basins?	5625
66b	S5.C.7.	Number of catch basins inspected during the reporting period?	4749
66c	S5.C.7.	Number of catch basins cleaned during the reporting period?	466
67	S5.C.7.	Attach documentation of alternative catch basin cleaning approach, if used. (S5.C.7.c.iii.(a)-(c))	Not Applicable
68	S5.C.7.	Implemented practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.7.d)	Yes
69	S5.C.7.	Documented practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the Permittee, and road maintenance activities under the functional control of the Permittee. (S5.C.7.d – Required by December 31, 2022)	Not Applicable
70	S5.C.7.	Implemented an ongoing training program for Permittee employees whose primary construction, operations or maintenance job functions may impact stormwater quality. (S5.C.7.e)	Yes
71	S5.C.7.	Implemented a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee in areas subject to this Permit that are not required to have coverage under an NPDES permit that covers stormwater discharges associated with the activity. (S5.C.7.f)	Yes
72	S5.C.7.	Updated, if needed, SWPPPs according to S5.C.7.f no later than December 31, 2022.	Not Applicable
73	S5.C.8	Adopted ordinance(s), or other enforceable documents, requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities per S.5.C.8.b.i. (Required by August 1, 2022)	Not Applicable
74	S5.C.8	Established an inventory per S5.C.8.b.ii. (Required by August 1, 2022.)	Not Applicable
75	S5.C.8	Implemented an inspection program S5.C.8.b.iii (Required by January 1, 2023).	Not Applicable

76	S5.C.8	Implemented a progressive enforcement policy per S5.C.8.b.iv (Required by January 1, 2023).	Not Applicable
77	S5.C.8	Attach a summary of actions taken to implement the source control program per S5.C.8.b.iii and S5.C.8.b.iv.	Not Applicable
78	S5.C.8	Attach a list of inspections, per S5.C.8.b.iii, organized by the business category, noting the amount of times each business was inspected, and if enforcement actions were taken.	Not Applicable
79	S5.C.8	Implemented an ongoing source control training program per S5.C.8.b.v?	Not Applicable
80	S7	Complied with the Total Maximum Daily Load (TMDL)-specific requirements identified in Appendix 2. (S7.A)	Not Applicable
81	S7	For TMDLs listed in Appendix 2: Attach a summary of relevant SWMP and Appendix 2 activities to address the applicable TMDL parameter(s). (S7.A)	Not Applicable
82	S8	Submitted payment for cost-sharing for Stormwater Action Monitoring (SAM) status and trends monitoring no later than December 1, 2019 (S8.A.1); and no later than August 15 of each subsequent year? (S8.A.2.a.)	Yes
83	S8	Notified Ecology by December 1, 2019 which option you selected: S8.A.2.a, or S8.A.2.b.	Yes
84	S8	Submitted payment for cost-sharing for SAM effectiveness and source identification studies no later than December 1, 2019 (S8.B.1); and no later than August 15 of each subsequent year (S8.B.2.a or S8.B.2.c)?	Yes
85	S8	Notified Ecology by December 1, 2019 which option you selected: S8.B.2.a, or S8.B.2.b?	Yes
86	S8	If conducting stormwater discharge monitoring in accordance with S8.C.1, submitted a QAPP to Ecology no later than February 1, 2020? (S8.C.1.b and Appendix 9)	Not Applicable
88	G3	Notified Ecology in accordance with G3 of any discharge into or from the Permittees MS4 which could constitute a threat to human health, welfare or the environment. (G3)	Yes
89	G3	Took appropriate action to correct or minimize the threat to human health, welfare, and/or the environment per G3.A.	Yes
90	Compliance with standards	Notified Ecology within 30 days of becoming aware that a discharge from the Permittee's MS4 caused or contributed to a known or likely violation of water quality standards in the receiving water. (S4.F.1)	Yes
91	Compliance with standards	If requested, submitted an Adaptive Management Response report in accordance with S4.F.3.a.	Not Applicable
92	Compliance with standards	Attach a summary of the status of implementation of any actions taken pursuant to S4.F.3 and the status of any monitoring, assessment, or evaluation efforts conducted during the reporting period. (S4.F.3.d)	Not Applicable

93	G20	Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance. (G20)	Not Applicable
94	G20	Number of non-compliance notifications (G20) provided in reporting year. List permit conditions described in non-compliance notification(s) in Comments field.	Not Applicable

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David Cline

3/20/2020 1:00:44 PM

Signature

Date



2019

Education and Outreach Efforts

The City of Tukwila has an active public educational and outreach program, regarding general impacts of stormwater on surface waters, using the following approaches and target audiences:

- The City continued to use the findings of the 2017 Stormwater Survey and Assessment to target priority 2 & 3 issues with commercial businesses that provide the following services: food, sign and graphics, painting, concrete work, and truck and automotive repair. This effort was conducted by Environment Coalition of South Seattle (ECOSS) whereas ECOSS met with priority 27 priority 2 & 3 businesses and provided spill kits and spill response trainings. In addition, provided 8 follow up outreach with post-service surveys.
- Posted on the City's web page the LID course training catalog, 2016 King County Surface Water Design Manual and 2016 King County Stormwater Pollution Prevention Manual. Also posted an Illicit Discharge Detection & Elimination video that is available in English and Spanish and a Lost and (Puget) Sound stormwater video directed at school aged children.
- Posted on the City's web page it's NPDES Permit 2019-2024 Compliance Analysis Summary. This document identifies several permit conditions which are new or have changed.
- Provided a SWMP booth at the annual Backyard Wildlife Festival. Staff targeted the general public and promoted low impact development by demonstrating how pervious concrete works and conducted a children's hands-on water sampling demonstration using a turbidity meter and pH test kits. Also, staff engaged with the children using a Child Passport Questionnaire regarding stormwater quality. Bilingual IDDE posters were installed to reach non-English-speaking citizens.
- Articles regarding general impacts of impervious surfaces and its stormwater runoff are inserted in the City's Hazelnut newsletter and mailed to over 11,000 addresses that include the general public, commercial and industrial businesses.

- A variety of brochures are made available, and are handed out during residential and business storm drainage inspections, i.e. Low Impact Development, Protecting Washington's Waters from Stormwater Pollution, Local Recycling Center for Used Oil, Spills-Who do you call? Natural Lawn Care, Small Business Hazardous Waste Disposal and Good Business Practices for Carpet Cleaning & Wastewater Disposal, and Concrete Washout.
- Continue with residential and commercial inspections where one on one discussions of pollution and its impact to our creeks and rivers is conveyed. Also, technical support given to construction sites for erosion control.
- Continue to educate Illicit discharge violators.
- The City's Habitat Program supports NPDES goals by promoting better volunteer carwash practices, increasing public awareness about what healthy streams and rivers look like, increase use of low impact development and porous concrete.
- Provided local elementary schools with a science-based stormwater and pollution video designed specifically for schooled aged children.



Internal Coordination

City internal coordination is initiated by Public Works Engineering Division integrating NPDES requirements into the City permit process. Coordination begins at the pre-application stage whereas a Plan Review/Routing Slip, along with the pre-application package, is forwarded to various City departments including Fire, Police, Building, Planning and Public Works. Public Works engineering staff and the Phase II Permit representative meet weekly to provide plan review and comments to proposed private development projects within the City. Public Works projects are also reviewed by the for mentioned individual departments. Plans are distributed to various departments via a formal routing form for further review which includes site visits to determine site conditions. Included in coordination efforts is the City's Operations and Maintenance (O&M) whereas proposed project plans are routed for review and comments in relation to the City's stormwater conveyance system as well as all other functions of O&M. Internal coordination is ongoing and is improved upon when gaps are identified, upon new employee's or new information is available.

Additional coordination is conducted as the various departments report findings and violations that have occurred during routine field visits.

Engineering Division has compiled the following list of key Department contacts to coordinate SWMP Plan components:

City of Tukwila NPDES Permit Coordination		
Departments	NPDES Contacts	Permit Component
Public Works Engineering		
NPDES Coordinator	Greg Villanueva	S1 S2 S3 S4 S5 S8 S9
NPDES Inspector	Russell Betteridge	S5.C.3 S5.C.4
Surface Water- Senior Program Manager	Ryan Larson	S1 S2 S3 S4 S5 S8 S9
Development Engineering	David McPherson, Joanna Spencer, Eric Pritchard	S5.C.4 Appendix 7, 9
Operations and Maintenance		
Manager	Bryan Still	S5.C.3 S5.C.4 S5.C.5 Appendix 6
PW Surface Water – Sewer	Jeff Heglund, Ernie Ballejos	S5.C.3 S5.C.4 S5.C.5
PW Streets	Scott Mitchell	S5.C.3 S5.C.4 S5.C.5 Appendix 6

PW Water	Jason Bates	S5.C.3 S5.C.4 S5.C.5
Facilities Maintenance		
Building & Utilities Superintendent	Henry Ancira	S5.C.3 S5.C.4 S5.C.5
Fleet Superintendent	Jeff Morton	S5.C.3 S5.C.4 S5.C.5
Parks & Recreation		
Parks/Golf Maintenance	Robert Eaton, Kris Kelly, Curt Chandler	S5.C.3 S5.C.4 S5.C.5
Department of Community Development		
Planning	Minnie Dhaliwal, Andrea Cummins, Moira Bradshaw Caro Lumb	S5.C.4
Building Official	Jerry Hight	S5.C.3 S5.C.4
Code Enforcement	Laurie Dunning, Jim Toole	S5.C.3
Fire Department		
Fire Marshal – Battalion Chief	Ben Hayman	S5.C.3 S5.C.4
Mayor's Office		
City Administrator	David Cline	S1 S2 S3 S4 S5 S8 S9
City Attorney's Office	Rachel Turpin	S5.C.3 S5.C.4

Revised 12/09/2019



City of Tukwila 2019 Stewardship Activities

The City of Tukwila continues to partner with Forterra, EarthCorps and the Friends of Duwamish Hill Preserve to provide stewardship training and restoration activities in Tukwila's parks and shoreline areas.

At least once a month volunteers gather to do restoration and conservation work in Tukwila directly effecting the water quality, natural habitat and vegetation within the Duwamish/Green watershed. In conjunction with these volunteer events the City of Tukwila hosts and annual Healthy Earth, Healthy You 5k and tree planting involving people in learning about the Duwamish watershed and how they are a part of the cleanup.

The City also works with Duwamish Clean-up Coalition, actively participating in the Duwamish Alive! Restoration and community education activities throughout the year on 3 restoration sites.

The Green Tukwila 20-Year Stewardship Plan has been completed and site-specific Stewardship Plans are being developed for three parks with more coming in the future hopefully. These plans will be the guideline for restoration and stewardship activities at these sites and will bring further consistency in the implementation of restoration work within the city.

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    <xs:element type="YesNotifiedDOHDischarge" name="YesNotifiedDOH"/>
    <xs:element type="YesNoNoticeDischarge" name="YesNoNotice"/>
    <xs:element type="YesAllowableDischarge" name="YesAllowable"/>
    <xs:element type="NoNoneFoundDischarge" name="NoNoneFound"/>
    <xs:element type="NoCleanedUpDischarge" name="NoCleanedUp"/>
    <xs:element type="NoToUICDischarge" name="NoToUIC"/>
    <xs:element type="UnknownDischarge" name="Unknown"/>
    <xs:element type="OtherDischarge" name="Other"/>
  </xs:choice>
</xs:complexType>
- <xs:complexType name="Discovered">
  - <xs:sequence>
    - <xs:element name="Discovered" maxOccurs="unbounded">
      - <xs:complexType>
        - <xs:sequence>
          <xs:element type="xs:string" name="Explain" maxOccurs="1"
            minOccurs="0"/>
        </xs:sequence>
        <xs:attribute type="DiscoveredType" name="type"/>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
- <xs:complexType name="Location">
  - <xs:all>
    <xs:element type="AddressType" name="Address" maxOccurs="1" minOccurs="0"/>
    <xs:element type="LatLongType" name="LatLong" maxOccurs="1" minOccurs="0"/>
  </xs:all>
</xs:complexType>
- <xs:complexType name="Pollutant">
  - <xs:sequence>
    - <xs:element name="Pollutant" maxOccurs="unbounded">
      - <xs:complexType>
        - <xs:sequence>

```

```

        <xs:element type="xs:string" name="Explain" maxOccurs="1"
            minOccurs="0"/>
    </xs:sequence>
    <xs:attribute type="PollutantType" name="type"/>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
- <xs:complexType name="Source">
    - <xs:sequence>
        - <xs:element name="Source" maxOccurs="unbounded">
            - <xs:complexType>
                - <xs:sequence>
                    <xs:element type="xs:string" name="Explain" maxOccurs="1"
                        minOccurs="0"/>
                </xs:sequence>
                <xs:attribute type="SourceType" name="type"/>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
- <xs:complexType name="Trace">
    - <xs:sequence>
        - <xs:element name="Trace" maxOccurs="unbounded">
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                - <xs:sequence>
                    <xs:element type="xs:string" name="Explain" maxOccurs="1"
                        minOccurs="0"/>
                </xs:sequence>
                <xs:attribute type="TraceType" name="type"/>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
- <xs:complexType name="Correction">
    - <xs:sequence>
        - <xs:element name="Correction" maxOccurs="unbounded">
            - <xs:complexType>
                - <xs:sequence>
                    <xs:element type="xs:string" name="Explain" maxOccurs="1"
                        minOccurs="0"/>
                </xs:sequence>
                <xs:attribute type="CorrectionType" name="type"/>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
- <xs:complexType name="YesNotifiedECYDischarge">
    - <xs:annotation>

```

```

        <xs:documentation>Discharge reached MS4, Notified Ecology</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="YesNotifiedDOHDischarge">
    - <xs:annotation>
        <xs:documentation>Discharge reached MS4, Notified Ecology and
            Health</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="YesNoNoticeDischarge">
    - <xs:annotation>
        <xs:documentation>Discharge reached MS4, Did not notify
            Ecology</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="YesAllowableDischarge">
    - <xs:annotation>
        <xs:documentation>Discharge reached MS4, but it was allowable</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="NoNoneFoundDischarge">
    - <xs:annotation>
        <xs:documentation>No discharge found</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="NoCleanedUpDischarge">
    - <xs:annotation>
        <xs:documentation>Discharge cleaned up and did not reach MS4</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="NoToUICDischarge">
    - <xs:annotation>
        <xs:documentation>Discharge to Underground Injection Control (UIC)
            well</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="UnknownDischarge">
    - <xs:annotation>
        <xs:documentation>Unknown if discharge reached MS4</xs:documentation>
    </xs:annotation>
</xs:complexType>
- <xs:complexType name="OtherDischarge">
    - <xs:annotation>
        <xs:documentation>Something else happened, tell us what</xs:documentation>
    </xs:annotation>
    - <xs:sequence>
        <xs:element type="xs:string" name="Explain" maxOccurs="1" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>

```

```

- <xs:simpleType name="DiscoveredType">
  - <xs:annotation>
    <xs:documentation>Responses for How was this incident discovered or reported to you?
    </xs:documentation>
  </xs:annotation>
  - <xs:restriction base="xs:string">
    - <xs:enumeration value="0">
      - <xs:annotation>
        <xs:documentation>Pollution hotline (phone, web, app)</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="1">
      - <xs:annotation>
        <xs:documentation>Direct report to your staff</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="2">
      - <xs:annotation>
        <xs:documentation>Staff referral</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="3">
      - <xs:annotation>
        <xs:documentation>Other agency referral</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="4">
      - <xs:annotation>
        <xs:documentation>ERTS referral</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="5">
      - <xs:annotation>
        <xs:documentation>Business inspection</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="6">
      - <xs:annotation>
        <xs:documentation>Construction inspection</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="7">
      - <xs:annotation>
        <xs:documentation>MS4 inspection or screening</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="8">
      - <xs:annotation>
        <xs:documentation>Other</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
  </xs:restriction>
</xs:simpleType>

```

```

        <xs:appinfo>Explain</xs:appinfo>
      </xs:annotation>
    </xs:enumeration>
  </xs:restriction>
</xs:simpleType>
- <xs:complexType name="AddressType">
  - <xs:annotation>
    <xs:documentation>Conventional Street Address or Nearest
      Intersection</xs:documentation>
  </xs:annotation>
  - <xs:sequence>
    <xs:element type="xs:string" name="Address"/>
    <xs:element type="xs:string" name="City"/>
    <xs:element type="xs:string" name="PostalCode" maxOccurs="1" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
- <xs:complexType name="LatLongType">
  - <xs:annotation>
    <xs:documentation>Latitude Longitude pair, 6 decimal digits.</xs:documentation>
  </xs:annotation>
  - <xs:sequence>
    <xs:element type="LatNumber" name="Latitude"/>
    <xs:element type="LongNumber" name="Longitude"/>
  </xs:sequence>
</xs:complexType>
- <xs:simpleType name="LatNumber">
  - <xs:annotation>
    <xs:documentation>Latitude, 6 decimal digits.</xs:documentation>
  </xs:annotation>
  - <xs:restriction base="xs:decimal">
    <xs:totalDigits value="8"/>
    <xs:fractionDigits value="6"/>
    <xs:minInclusive value="-90"/>
    <xs:maxInclusive value="90"/>
  </xs:restriction>
</xs:simpleType>
- <xs:simpleType name="LongNumber">
  - <xs:annotation>
    <xs:documentation>Longitude, 6 decimal digits.</xs:documentation>
  </xs:annotation>
  - <xs:restriction base="xs:decimal">
    <xs:totalDigits value="9"/>
    <xs:fractionDigits value="6"/>
    <xs:minInclusive value="-180"/>
    <xs:maxInclusive value="180"/>
  </xs:restriction>
</xs:simpleType>
- <xs:simpleType name="PollutantType">
  - <xs:restriction base="xs:string">

```

- <xs:enumeration value="0">
 - <xs:annotation>
 - <xs:documentation>Unconfirmed, unspecified, or not identified</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="1">
 - <xs:annotation>
 - <xs:documentation>Fuel and/or vehicle related fluids</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="2">
 - <xs:annotation>
 - <xs:documentation>Food-related oil/grease</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="3">
 - <xs:annotation>
 - <xs:documentation>Sediment/soil</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="4">
 - <xs:annotation>
 - <xs:documentation>Solid waste/trash</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="5">
 - <xs:annotation>
 - <xs:documentation>Sewage/septage/pet waste/human waste</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="6">
 - <xs:annotation>
 - <xs:documentation>Other wastewater</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="7">
 - <xs:annotation>
 - <xs:documentation>Paint</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="8">
 - <xs:annotation>
 - <xs:documentation>Firefighting foam</xs:documentation>
- </xs:enumeration>
- <xs:enumeration value="9">
 - <xs:annotation>

```

        <xs:documentation>Soap or cleaning chemicals</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
  - <xs:enumeration value="10">
    - <xs:annotation>
      <xs:documentation>Other</xs:documentation>
      <xs:appinfo>Explain</xs:appinfo>
    </xs:annotation>
  </xs:enumeration>
</xs:restriction>
</xs:simpleType>
- <xs:simpleType name="SourceType">
  - <xs:restriction base="xs:string">
    - <xs:enumeration value="0">
      - <xs:annotation>
        <xs:documentation>Unconfirmed, unspecified, or not
          identified</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
  - <xs:enumeration value="1">
    - <xs:annotation>
      <xs:documentation>Vehicle-related business</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  - <xs:enumeration value="2">
    - <xs:annotation>
      <xs:documentation>Food-related business</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  - <xs:enumeration value="3">
    - <xs:annotation>
      <xs:documentation>Landscape-related business</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  - <xs:enumeration value="4">
    - <xs:annotation>
      <xs:documentation>Mobile business</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  - <xs:enumeration value="5">
    - <xs:annotation>
      <xs:documentation>Construction activity</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  - <xs:enumeration value="6">
    - <xs:annotation>
      <xs:documentation>Other commercial/industrial activity</xs:documentation>
    </xs:annotation>
  </xs:enumeration>

```

```

- <xs:enumeration value="7">
  - <xs:annotation>
    <xs:documentation>Vehicle collision</xs:documentation>
  </xs:annotation>
</xs:enumeration>
- <xs:enumeration value="8">
  - <xs:annotation>
    <xs:documentation>Other accident/spill</xs:documentation>
  </xs:annotation>
</xs:enumeration>
- <xs:enumeration value="9">
  - <xs:annotation>
    <xs:documentation>Intentional dumping</xs:documentation>
  </xs:annotation>
</xs:enumeration>
- <xs:enumeration value="10">
  - <xs:annotation>
    <xs:documentation>Illicit connection</xs:documentation>
  </xs:annotation>
</xs:enumeration>
- <xs:enumeration value="11">
  - <xs:annotation>
    <xs:documentation>Other</xs:documentation>
    <xs:appinfo>Explain</xs:appinfo>
  </xs:annotation>
</xs:enumeration>
</xs:restriction>
</xs:simpleType>
- <xs:simpleType name="TraceType">
  - <xs:restriction base="xs:string">
    - <xs:enumeration value="0">
      - <xs:annotation>
        <xs:documentation>Not applicable</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="1">
      - <xs:annotation>
        <xs:documentation>Observation
          (color/sheen/turbidity/floatables/odor)</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="2">
      - <xs:annotation>
        <xs:documentation>Map analysis</xs:documentation>
      </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="3">
      - <xs:annotation>
        <xs:documentation>Dye, smoke, or pressure testing</xs:documentation>

```

```

        </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="4">
        - <xs:annotation>
            <xs:documentation>Field indicator measurements</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="5">
        - <xs:annotation>
            <xs:documentation>Analytical laboratory indicators</xs:documentation>
        </xs:annotation>
    </xs:enumeration>
    - <xs:enumeration value="6">
        - <xs:annotation>
            <xs:documentation>Other</xs:documentation>
            <xs:appinfo>Explain</xs:appinfo>
        </xs:annotation>
    </xs:enumeration>
</xs:restriction>
</xs:simpleType>
- <xs:simpleType name="CorrectionType">
    - <xs:restriction base="xs:string">
        - <xs:enumeration value="0">
            - <xs:annotation>
                <xs:documentation>Clean-up</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        - <xs:enumeration value="1">
            - <xs:annotation>
                <xs:documentation>Education/technical assistance</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        - <xs:enumeration value="2">
            - <xs:annotation>
                <xs:documentation>Add or modify operational source control
                    BMP</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        - <xs:enumeration value="3">
            - <xs:annotation>
                <xs:documentation>Add or modify structural source control
                    BMP</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        - <xs:enumeration value="4">
            - <xs:annotation>
                <xs:documentation>Add or modify treatment BMP</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
    </xs:restriction>
</xs:simpleType>

```

```
- <xs:enumeration value="5">
  - <xs:annotation>
    <xs:documentation>Enforcement</xs:documentation>
  </xs:annotation>
</xs:enumeration>
- <xs:enumeration value="6">
  - <xs:annotation>
    <xs:documentation>Referred to other agency or
      department</xs:documentation>
  </xs:annotation>
</xs:enumeration>
- <xs:enumeration value="7">
  - <xs:annotation>
    <xs:documentation>Other</xs:documentation>
    <xs:appinfo>Explain</xs:appinfo>
  </xs:annotation>
</xs:enumeration>
</xs:restriction>
</xs:simpleType>
</xs:schema>
```