

CITY OF LYNDEN

STORMWATER MANAGEMENT PROGRAM PLAN (SWMP) 2016 ANNUAL REPORT



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MARCH 30, 2017

This document serves as Attachment A to the City of Lynden's 2016 Annual Report submittal to the Department of Ecology for its Phase II NPDES Municipal Stormwater Permit

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1.0 Introduction

The City of Lynden (City) has developed a Stormwater Management Program (SWMP) to meet the terms and conditions of its Western Washington Phase II Municipal Stormwater Permit (Permit) under the National Pollutant Discharge Elimination System (NPDES). This permit is required because the City of Lynden has been designated by the Environmental Protection Agency and the Washington State Department of Ecology as one of thousands of municipalities in the United States requiring a special stormwater permit. These permits were deemed necessary because stormwater runoff from streets, parking lots, construction sites, industrial properties, and residential areas is now recognized as one of the leading sources of pollution to our streams, lakes, wetlands, the Nooksack River and Puget Sound. In addition, the City has requirements to monitor fecal coliform levels in stormwater as part of the Nooksack River Total Maximum Daily Load (TMDL) study.

The Phase II Permit allows municipalities to discharge stormwater from municipal systems into “waters of the state” such as rivers, lakes and streams, as long as there are programs in place to reduce pollutants in stormwater to the “maximum extent practicable”. Much of the stormwater runoff from the City of Lynden’s municipal separate storm sewer system (MS4) discharges into Fishtrap Creek, a tributary to the Nooksack River that runs through the middle of the City. Smaller volumes of stormwater go to Kamm Creek and Duffner Creek (other Nooksack Tributaries), and some stormwater goes directly into the Nooksack River. Eventually, all of the stormwater from the Lynden MS4 goes into the Nooksack River. Regulating stormwater quality is a designated component of the City’s Comprehensive Plan. Requirements under the NPDES Phase II Permit provide the City opportunities to accomplish cleaning up these waterways.

The Permit issued by the Department of Ecology (Ecology) became effective August, 1 2013, and goes through July 31, 2018. The City is required to file an annual report and supplemental attachments by March 31st each year of the Permit term. The annual report details the permit compliance accomplishments carried out during the previous calendar year and activities planned for the coming year. This SWMP document serves as Attachment A to the City of Lynden’s Annual Report submittal to Ecology.

1.1 City Organizational Responsibilities

The City of Lynden’s Public Works Department holds the primary responsibility for developing the stormwater program and tracking Phase II Permit requirements. Within the Public Works Department, program administration is carried out by the Public Works Director, Program Manager, and administrative staff. Inspection, testing and tracking duties are carried out by the administrative staff and the Public Works Systems and Operations crews. The Planning Department, Parks Department, Fire Department, and Police Department also hold integral roles in implementing certain components of the stormwater program.

In 2016, the City of Lynden continued internal coordination on stormwater issues. Efforts included training of City Public Works and Parks crews, Stormwater Committee meetings, presentations at

Public Works Committee Meetings and City Council meetings as well as site visits to document activities at City Streets, Parks, and Water/ Wastewater Treatment plant facilities. The site visits encouraged interdepartmental discussion of stormwater issues and pollution prevention procedures and were also conducted in support of the development of stormwater pollution prevention plans for these facilities. Currently, the Stormwater Committee consists of the Public Works Director, Program Manager, and Administrative Office Manager, Streets-Systems Superintendent, Plant(s) Superintendent, and Parks Director. The Planning staff and GIS Analyst have attended meetings and have been briefed on Phase II requirements. In 2017, Fire and Police will also be asked to attend as the Low Impact Development (LID) code integration progresses. The following table details specific responsibilities of City personnel for permit elements. In addition, the City coordinated with other jurisdictions, particularly the Whatcom Conservation District (WCD) and Whatcom County. Details are discussed in the following sections.

Table 1: Internal Stormwater Coordination -- Staff and Responsibilities

City of Lynden Staff Titles	Individual Responsibilities
Public Works Director Steve Banham	<ul style="list-style-type: none"> • Oversees the stormwater program (S5.A) • Has Signatory responsibility for annual reporting (per G19; S9.A) • Presents stormwater program elements to Public Works Committee and Council
Public Works Programs Manager Mark Sandal	<ul style="list-style-type: none"> • Coordinates and implements the stormwater program (S5.A) • Organizes the implementation of training programs (S5.C.3.c, S5C.3.e, S5.C.5.h) • Sets up the stormwater committee meetings (S5.A.5.b) • Coordinates interjurisdictional contracts and agreements for stewardship, education and outreach, and grant funding (S5.A.5.a) • Manages the City fats, oils, and grease (FOG) program and related business education on housekeeping practices (S5.C.1) • Oversees GIS mapping support to keep MS4 map up to date (S5.C.3.a)
Public Works Administrative Manager Laura Burford	<ul style="list-style-type: none"> • Coordinates reporting & recordkeeping (S9, S5.A) • Works on refining cost tracking system (S5.A.3) • Coordinates permit compliance and scheduling (S5.A) • Posts water quality hotline number on website (S5.C.3.c) • Maintains website content and public involvement solicitations (S5.C1a, S5.C.2a,b)
Public Works Streets-Systems Superintendent Dale Tevelde	<ul style="list-style-type: none"> • Schedules and oversees stormwater system inspections (S5.C5.b,c,d) • Keeps stormwater system inspection records and reports to administrative manager (S9) • Addresses stormwater during safety meetings (S5.C.3.c, S5C.3.e, S5.C.5.h) • Implements BMPs and good housekeeping (S5.C.5)
Plant(s) Superintendent Tamara Adams	<ul style="list-style-type: none"> • Conducts educational tours of facilities and addresses stormwater issues (S5.C1.a) • Conducts water quality monitoring sampling and analyses for TMDL compliance (Appendix 2)
Parks Department Director Vern Meenderinck	<ul style="list-style-type: none"> • Implements BMPs and good housekeeping (S5.C.5) • Addresses stormwater during safety meetings (S5.C.3.c, S5C.3.e, S5.C.5.h)
Planning Department Dave Timmer	<ul style="list-style-type: none"> • Manages and oversees code revisions (S5.C.3.b and S5.C.4a)

1.2 Document Organization

This document is organized by program components in the order found in condition S5.C of the Phase II Permit. To facilitate cross-reference with the permit language, each permit item is presented along with the associated permit section indicator in parentheses as follows:

- ✓ Section 2.0 addresses the Stormwater Management Program Development (S5.A & S5.B)
- ✓ Section 3.0 addresses the Public Education and Outreach Component (S5.C.1)
- ✓ Section 4.0 addresses the Public Involvement and Participation Component (S5.C.2)
- ✓ Section 5.0 addresses Illicit Discharge Detection and Elimination (S5.C.3 & G3)
- ✓ Section 6.0 addresses Controlling Runoff from New Development, Redevelopment and Construction Sites (S5.C.4)
- ✓ Section 7.0 addresses Pollution Prevention and Operation and Maintenance for Municipal Operations (S5.C.5)
- ✓ Section 8.0 addresses Total Maximum Daily Load requirements and reporting (S7 & S8)

2.0 Stormwater Management Program Development (S5.A and S5.B)

2.1 Permit Requirements

Sections S5.A and S5.B of the Permit require the City to:

- Develop and implement a Stormwater Management Program and submit annual compliance reports
- Manage an ongoing program for gathering, tracking, maintaining and using information to evaluate the SWMP development, implementation and permit compliance and set priorities
- Track the cost of the development and implementation of the SWMP
- Track the number of inspections, official enforcement actions and types of public education
- Coordinate with other NPDES permittees and partners in the region on stormwater related policies, programs, and projects
- Coordinate internally among City Departments and document the efforts

2.2 Accomplishments in 2016

The City of Lynden has been developing and implementing a Stormwater Management Program to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable in order to protect water quality. Sections 3.0 through 8.0 summarize the efforts the City has initiated and provide additional detail on the protocol that the City is building.

2.3 Plans for Program Activities in 2017

The City plans to continue to build its stormwater program with a focus on education and outreach, public involvement, partnering, and develop and adopt code revisions to cover utilization of Low Impact Development (LID) where feasible. Additionally, good housekeeping protocol for City operations will be developed and stormwater pollution prevention plans will be completed for City shops and maintenance yards.

3.0 Public Education and Outreach (S5.C.1)

3.1 Permit Requirements

Section S5.C.1 of the Permit requires the City to address the following public education and outreach elements:

- Develop an education program that targets specific audiences including the general public (including school age children), businesses, homeowners, landscapers, property managers, engineers, contractors, developers, review staff and land use planners, and other City employees
- Create stewardship opportunities
- Develop a program that aims to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts
- Measure improvements in the target audience’s understanding of the problem and what they can do to solve it. Use this information to improve the education program
- Track and maintain records of public education and outreach activities

3.2 Accomplishments in 2016

The City of Lynden continued to coordinate educational efforts with other entities and renewed an interlocal agreement with the Whatcom Conservation District (WCD). Under this agreement, the WCD designed, implemented and reported on the education and outreach efforts undertaken during 2016. Table 2 summarizes the main components of this effort and the following paragraphs describe the depth of the efforts.

Table 2: Summary of Education and Outreach Activities Undertaken In 2016

Educational Activity	Description of Activity	Target Audience
<i>City of Lynden</i>		
City Website	The City added a website page to introduce the stormwater program to the public. Links to educational factsheets were included as well as other sources of information	General Public, Businesses
Wastewater/Water Treatment/Stormwater Educational Tours	Four tours were conducted of the wastewater treatment plant and composting system for Lynden schools reaching approximately 60 students. Three open houses were conducted showcasing the new wastewater plant reaching 120 community members and other jurisdictions.	School Children, Community members, other jurisdictions
Partnering with County and CD	Educational outreach/ stewardship and water quality monitoring	Community members, school children
Local Source Control / FOG	The City conducted semi-annual FOG visits to 42 business establishments in 2016. County Health visited seven establishments in the vicinity of Lynden; three inside the city limits.	Businesses, churches, schools

Citizen Science Monitoring Program, Fishtrap Creek Stream Team:

Whatcom Conservation District (WCD) in partnership with Whatcom County Public Works (WCPW) and the City of Lynden implemented a citizen science water quality monitoring program. The program was built to enhance current monitoring on Fishtrap Creek, connect local citizens with their neighborhood creek, educate and train volunteers to educate others on non-point source pollution and encourage stewardship to reduce stormwater related impacts.



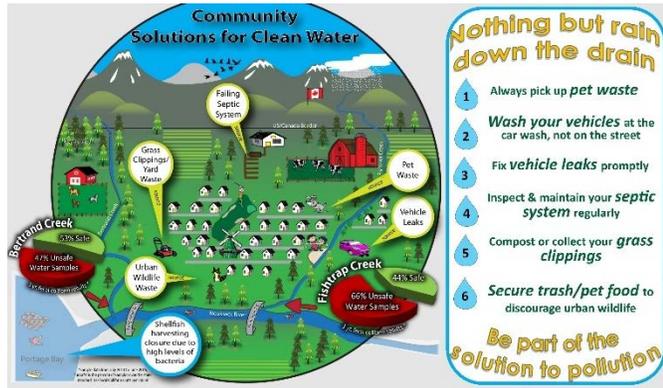
Grab samples were collected twice monthly in coordination with WCPW weekly sampling runs on Fishtrap Creek and analyzed for Fecal Coliform bacteria. This allowed for samples taken by volunteers to help characterize fecal pollution throughout the entire watershed.



- High School students from Lynden Christian School were trained on water quality sampling techniques in January 2016. Students helped collect samples during two storm events during the winter of 2016. 15 students and 2 teachers were trained.
- **Volunteer Recruitment Event** was held on Feb 10th 2016 at Sonlight Community Church in Lynden. The event was designed by WCD to educate and inform the public on current state of water quality, impacts of polluted stormwater on public health, shellfish and salmon recovery in Whatcom County. The purpose was to recruit and train new volunteers so there is a competent pool of citizen scientists to pull from for future efforts. Recruited 7 volunteers and presented to 15 people.
- **Field Training** took place on Fishtrap Creek on Feb 29th 2016 with 7 volunteers. The goal was to train volunteers on safety procedures, monitoring protocols and equipment, data sheets, communication plan and where the sites are located. Additionally, the need for stormwater sampling, sources and solutions to non-point source pollution and other local water quality issues were presented.
- Bi-monthly updates and summaries of water quality testing is sent to all volunteers.
- Monthly reporting to other local agencies including North Lynden Watershed Improvement District, WCPW and Washington State Dept of Agriculture.

Publications:

- Lynden Stormwater Brochure:** WCD produced a pollution prevention infographic for use in a stormwater informational brochure. This infographic was modified for inclusion in the 2017 Stormwater Brochure that will be sent to all Lynden citizens. Sources and solutions to pollution are depicted as well as the current water quality status in a fun and colorful layout.



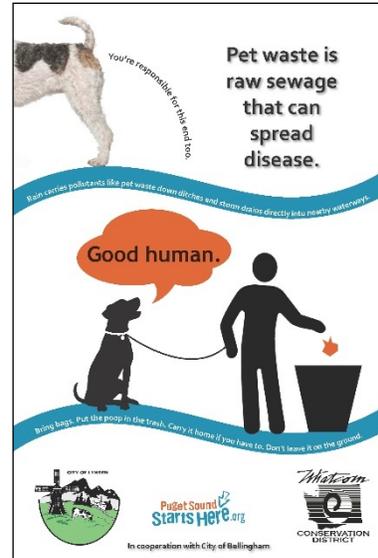
- WCD Newsletter:** The annual WCD newsletter contains articles on water quality and farm planning and had a large layout exemplifying completed projects and landowner stories. The publication was distributed countywide and was specifically mailed to rural landowners in the Lynden area. Specifically included was an article on the City of Lynden’s citizen science project, stormwater efforts and the Wheat Week stormwater education program. 3,000 newsletters were printed and distributed in late January 2016.
- Drainage Fact Sheet:** A fact sheet was created for the urban/ city portion of the Double Ditch Drainage in May 2016.
- Sonlight Community Church Connect Newsletter:** An article was written about the City of Lynden’s role in fecal coliform reduction and volunteer sampling in March 2016 edition.
- Crush the Sewage Sniffing Dog:** Articles were written in the Bellingham Herald, Lynden Tribune and Seattle Times documenting water quality efforts of the “sewage-sniffing dog”. The sampling program was conducted in partnership with WCPW, WCD, and other local agencies.

Pet Waste Program:

Citizen volunteers on Fishtrap creek noticed significant amounts of dog waste along their sampling area that extends along Fishtrap Creek. Working with these local citizens an initial assessment was made of the current state of pet waste pick up along Fishtrap creek. In July 2016, 10 residents from

the City of Lynden did a survey of the shoreline and adjacent parks along Fishtrap Creek between Depot Rd and Aaron Drive.

- Coordinated volunteers to map existing pet waste infrastructure and recommended improvements for a coordinated dog waste educational campaign. July 2016
- Results:
 - 22 piles of dog waste visible on the trail
 - 5 existing bag dispensers, 8 new ones proposed
 - 1 existing sign to pick up dog waste (at dog park only), 13 signs recommended
 - 39 existing Trash Cans, 7 new locations recommended
- Designed graphics for and coordinated the purchase of pet waste bags, informational signs and bag dispensers in partnership with the City of Bellingham.



Watershed K-12 Education:

- **Whatcom Explorer: Mobile Watershed:** The Whatcom Explorer: Mobile Watershed is a hands-on educational tool that allows participants to connect with their local watershed and examine the natural movement of streams and rivers. The Whatcom Explorer is a place-based interactive watershed model with focus on watershed processes and function, land-uses with Best Management Practices (BMPs), and in conjunction with human and salmonid coexistence. Participants explore how streams behave under natural conditions and what happens when those conditions change.



The Whatcom Explorer was designed in coordination with teachers from the Lynden School District to be a resource for future stormwater education. It will be used in 2017 for the Young Water Stewards, Garden of the Salish Sea and Wheat Week programs in addition to its use independently in local schools.

- **Young Water Stewards Program:** The Young Water Stewards program reaches out to high school students in rural Whatcom County to help our future water stewards develop an understanding of and appreciation for the importance of clean water. Through stewardship activities, hands-on learning, and a science-based approach, high school-aged participants will gain experience with water quality testing and analysis, Best Management Practices,

and mitigation techniques to develop valuable skills and apply their learning to protect the health of our drinking water, creeks, lakes, and beaches.

City of Lynden partnered with ReSources for Sustainable Communities regarding an in-school partnership on water quality at Lynden High School 10/4/16. The Whatcom Explorer Mobile Watershed trailer was used to teach about watersheds, habitat, stormwater and non-point source pollution.

Students were given written tests before and after the educational experience to assess the change in behavior and understanding associated with the learning experience.

53 students and 2 teachers at Lynden High School attended

90% of students showed increased knowledge

82% of students demonstrated an understanding of human impacts

- **Garden of the Salish Sea Curriculum:** Developed scope of work with Garden of the Salish Sea Curriculum to propose working with elementary schools in Lynden for Spring 2017 in conjunction with the Whatcom Explorer.
- **Wheat Week:** WCD in partnership with the Washington Grain Commission teaches Wheat Week to elementary students in Whatcom County. Wheat Week is a series of five lessons, delivered over the course of one week, educating students in 4th and 5th grade about water, soil, watersheds, energy, systems, and wheat, and how they impact our lives. Students discover what a watershed is and how individuals affect the watersheds we live in. Students create individual paper watershed models and learn about the impacts of land planning, pollutants, and stormwater. A Lynden area specific teaching aid was created to nurture a place-based connection to the local watershed.
1259 students, 67 teachers throughout Whatcom County and
229 students, 12 teachers in Lynden School District were served

Partnerships:

- Attended monthly North Lynden Watershed Improvement District meetings to ensure the work the City of Lynden is doing is understood and well represented.
- Presented to the WRIA 1 Management Team in January 2016 to review the outcome and further sustainability of the Citizen Science Initiative
- Attended and presented at the quarterly Portage Bay Shellfish Advisory Committee meeting about citizen science efforts in Lynden, January 2016.
- Attended and presented at monthly Fecal Coliform Outreach Workgroups on efforts in Lynden, Jan-Dec 2016.
- Worked with WCPW, WSDA, Dept of Ecology, Whatcom Clean Water Program, ReSources and NSEA on the sampling and outreach for Crush visit

- Coordinated with City of Bellingham to develop dog waste campaign.

Community Education Events:

- **March 26th, 2016-** Fishtrap Creek Community Workparty. Helped to recruit volunteers and advertise for Nooksack Salmon Enhancements Community Work party to restore stream side habitat. Volunteers planted native trees and shrubs and removed invasive blackberry.



- **April 28th, 2016-** Environmental Canine Services brought Crush, the sewage-sniffing dog, to Whatcom County. The dog detected the presence of fecal coliform bacteria from human sources. City of Lynden partnered with WCPW and others to collect samples from around Whatcom County including catch basins and outfalls. The public was invited to meet the dog and watch her analyze samples. News articles were published in the

Seattle Times, Lynden Tribune and Bellingham Herald.

- **Oct 20th, 2016-** Whatcom Conservation District hosted Farm Speaker Series in Lynden. The title was Winterize your Farm. Invitations were mailed to all residents located in the North and South Lynden Watershed Improvement Districts. 15 participants attended at the Jansen Art Center in Lynden.
- **Dec 15th 2016-** Water Quality: Neighborhood Forum, 630-8pm, Lynden Public Library. Steve Banham (City of Lynden), Erika Douglas (WCPW) Aneka Sweeney (WCD) presented current water quality issues, stormwater pollution, and fecal coliform sources and solutions. 20 participants

Business Education Efforts:

The City worked with the County Health Local Source Control specialist to prioritize businesses for pollution source visits and education on good housekeeping practices. Educational materials were distributed to the businesses and the County sent follow-up letters itemizing specific recommendations for pollution prevention. Through the City's city-wide fats, oil and grease (FOG) program, inspections of grease removal devices were conducted two times over the year and included education on good housekeeping practices.

3.3 Plans for Program Activities in 2017

- Continue Wheat Week in all Lynden elementary schools
- Increase use of Whatcom Explorer Mobile Watershed in Lynden schools
- Fully implement the City of Lynden Pet Waste Campaign
- Conduct a follow up volunteer survey of pet waste volume to assess the effectiveness of the Pet Waste Campaign and document behavioral changes
- At least one educational brochure/tip sheet will be published and mailed to residents
- Write a WCD newsletter article on citizen science monitoring and stormwater prevention
- Continue and enhance collaborative water quality monitoring program
- Conduct presentations and workshops on water quality throughout the Lynden Community
- Continue to collaborate with Whatcom County, North Lynden WID, Whatcom Clean Water Program and Whatcom Conservation District programs to ensure City of Lynden stormwater education and outreach efforts are collaborative and efficient.
- Work with NW Washington Fairgrounds and Event Center to develop a stormwater management plan and outreach program.
- Continue FOG inspections adding new businesses as they come on-line
- Continue partnership with County Health for local source control visits in Lynden
- Investigate working with auto shops on a don't drip and drive campaign

4.0 Public Involvement and Participation (S5.C.2)

4.1 Permit Requirements

Section S5.C.2 of the Permit requires the City to address the following public involvement and participation elements:

- Provide ongoing opportunities for public involvement in the SWMP process through committees/commissions and updating the SWMP
- Make the SWMP and Annual Compliance Report available to the public, including posting on the City’s website

4.2 Accomplishments in 2016

The City of Lynden provided opportunities for public involvement and participation in 2016 through City Council and Public Works Committee meetings. Status reports on the stormwater management program were presented at monthly Public Works Committee meetings. These meetings are open to the public and are always listed on the website. In addition, the current website calls for comment and questions on stormwater management and solicits involvement on the SWMP once this annual report is posted. Public involvement opportunities are summarized in Table 3.

Table 3: Public Involvement Opportunities Undertaken in 2016

Public Involvement Opportunity	Description
City Council Meetings	City Council holds meetings twice a month. These are open to the public
Public Works Committee Meetings	Public Works Department holds monthly committee meetings that are open to the public
Website posting of new stormwater information	City stormwater website page introduces the new program to the public and provides links to other resources and solicits comment on and questions regarding stormwater management

4.3 Planned Activities for 2017

The City plans to offer public involvement opportunities on many fronts in 2017 particularly associated with the code revisions. The City will continue partnering with the County and WCD to establish volunteer coordinators and develop stewardship opportunities. The City will potentially pursue grants in partnership with other entities to support new public involvement programs.

The City has begun the process of updating the municipal code to integrate and promote low impact development (LID) as the preferred option for runoff control. This will expand on the current application by the City of the Department of Ecology Western Washington Stormwater

Manual. An external stakeholder's committee was created and will be called to several meetings where input will be solicited. Announcement in the Lynden Tribune will address the planned code revisions, council Meetings and the public process schedule.

5.0 Illicit Discharge Detection and Elimination (S5.C.3)

5.1 Permit Requirements

Section S5.C.3 of the Permit requires the City to address the following illicit discharge detection and elimination (IDDE) elements:

- Develop an ongoing program to detect and remove illicit discharges, connections, and improper disposal, including any spills into the municipal separate storm sewers owned or operated by the City
- Continue to update the map of the municipal storm drainage system
- Implement an ordinance that prohibits illicit discharges, and create a program to detect and address illicit discharges
- Publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges
- Train City staff on proper IDDE and spill response procedures
- Track all spills, illicit discharges and connections reported to the City and response actions taken, including enforcement actions

5.2 Accomplishments in 2016

The City has taken steps to identify and eliminate illicit discharges. The City has a comprehensive map of its Municipal Separate Storm Sewer System (MS4). The map contains known municipal storm sewer outfalls and receiving waters, and structural stormwater BMP's owned or operated by the City. The City retains development records, and updates the map on an annual basis to show connections. The map is kept current in GIS. Copies of the map are available to the public. The current GIS mapping will be incorporated into a comprehensive Asset Management System (Cartegraph OMS) which will allow better access by City staff to MS4 mapping and allow recording and tracking of actions taken to eliminate illicit discharges.

Summary of program specifics include:

- The Stormwater Committee held quarterly meetings or one-on-one consultations
- Additional training for Public Works and Parks crews on IDDE procedures were held
- The County Health Department visited 3 businesses in Lynden to provide education on good housekeeping procedures
- Public Works worked with Police and Fire to respond to spill calls and water quality violations
- The City responded to 40 incidents of spills from hotline calls or internal departmental calls. Ecology was notified per G3 Environmental Resources Tracking System (ERTS) if the spill entered the MS4. Follow-up was conducted with businesses associated with the spills

- 41 establishments were inspected twice over the year as part of the fats, oil, and grease (FOG) program
- Conducted a dry weather outfall reconnaissance inventory of direct outfalls to Fishtrap Creek to document flow during unexpected times. This dry weather study helps to identify potential illicit connections and discharges. Water quality samples were tested in the field for some parameters and sent to the lab for others. The results showed only a few flowing outfalls. Most met water quality thresholds for all parameters. Additional sampling was performed up the storm system above the flowing outfalls for the ones that exceeded water quality thresholds
- Details on the City's MS4 drainage map was ground-truthed during the outfall study and discrepancies in pipe size, material, or location were updated in the GIS map layer
- Coincident with County Fishtrap Creek sampling, contractors sampled upstream of outfalls to bracket inputs of bacteria to the MS4
- Participated in a County effort to bring Crush, the sewage sniffing dog, to the Lynden area. Fecal coliform samples were collected from Fishtrap Creek and the dog indicated presence or absence of human waste by sitting at or passing by the sample. The dog also walked along Fishtrap Creek and responded to the creek water to cover a larger area than the grab samples. Results were mixed but helped the County identify a few failing septic systems
- Microbial source tracking (DNA testing) on samples was conducted to identify the presence of human waste entering the MS4. This was coordinated with fecal sampling. Results were inconclusive
- 720 hours were logged on the City's street sweeper. On average, the City sweeps two days a week usually starting on the East side of the City working Westward. Additionally, the main arterials that tend to be the dirtiest are often swept on Fridays
- Catch basins were cleaned prior to the first heavy rains on Bender Rd, Depot Rd, Drayton St and 2nd Street. The yearly cycle through the system started in the east area of the City and worked to the west. No large amounts of sediment were noted as the sweeping program catches most of it before it reaches the basins
- Increased catchbasin cleaning frequency in areas of IDDE concern
- Purchased a self-propelled storm/sewer camera and a panel van to inspect pipes. Began building protocol for prioritizing inspections. Inspected several new construction sites and a few known problem connections

Water quality, illicit discharge hotline numbers are posted on the City's website:

- **(360) 354-3446** during work hours (8 am to 5 pm)
- **(360) 815-5755** outside of normal working hours

The Public Works Department has the ability to record all calls regarding illicit discharges or illegal spills that are received on the hotline. In 2016, the department responded or was informed by Fire or Police 40 incidents. Several of these were calls on the hotline while others were email notifications from Ecology through their ERTS system. These included pollutants such as sewage overflows, fuel spills, hydraulic oils, washwater, and paint disposal. All circumstances were dealt with fully and resolved by either containment prior to entering the MS4 or by City or private

contractor vactor cleaning catchbasins. Also, yard clipping disposal and bank encroachment and erosion along Fishtrap Creek were reported to the City and these are being handled through the Code Enforcement Officer and the education program.

The illicit discharges reported to the water quality hotline and those identified by the staff are typically associated with less toxic discharges such as small fuel spills or wash-down water and can be handled by public works staff. Most of these are not continuous and can be addressed directly with the discharger. The City developed a spill response plan that is housed at the public works administrative department, street department shop, parks department shop, and at the wastewater treatment plant. This plan offers detailed instructions to first responders with steps for containment, if safe. Emergency contacts and reporting requirements are explicitly discussed. A spill report form is used to document an event. All crew vehicles have a mobile spill kit for containment and cleanup of small spills. The street and parks crews received training on the spill response plan and safety meetings address any additional questions or concerns that arise.

Medium and large spills require the fire department and/or police department to be notified. These departments have emergency response protocols that include procedures for characterizing the nature of and potential threat to the public from illicit discharges. Because the City is not equipped to respond to all hazardous spills, the City relies on Whatcom County Department of Emergency Management (WDEM), Ecology and other agencies to assist in coordinating response.

5.3 Planned Activities for 2017

- Continue to respond to dry weather outfall discharges. City staff or contractors will trace sources of dry weather flows from the outfalls to Fishtrap Creek as practical
- Work on source control in conjunction with County Health to determine potential sources and work toward reducing the potential of these outfall contributions to the water quality violation of Fishtrap Creek
- Update the septic system data within the City including additional status attributes from County Health
- Develop shorter spill response instructions to be laminated and posted in shops and carried in crew vehicles
- Provide additional information to City Police and Fire personnel on spill response.

6.0 Controlling Runoff from New Development, Redevelopment and Construction Sites (S5.C.4)

6.1 Permit Requirements

Section S5.C.4 of the Permit requires the City to address the following elements regarding controlling runoff for new development, redevelopment and construction sites:

- Develop, implement, and enforce a program to reduce pollutants in stormwater runoff discharging to the municipal separate storm sewer system from new development, redevelopment, and construction site activities
- Adopt an ordinance to address runoff from new development, redevelopment, and construction activities from both public and private sites using Appendix 1 as the standard including site planning requirements, BMP selection, design and infeasibility criteria, BMP limitations, and Low Impact Development related code
- Develop and implement a planning process for development that includes plan review, inspection, and enforcement capability
- Provide provisions for long-term operation and maintenance of permitted stormwater facilities
- Provide copies of the Notice of Intent (NOI) for construction or industrial activities to representatives of the proposed new development and redevelopment
- Provide training to staff on the new codes, standards, and standard operating procedures
- Develop a process to record and maintain all inspections and enforcement actions by staff

6.2 Accomplishments in 2016

The City is not yet required to take action under this permit element except to make available copies of Notice of Intent for construction activity (NOI) forms to those proposing new or redevelopment projects. Several components however are in place:

- City Staff instructs development applicants to comply with the Department of Ecology's Stormwater Manual requirements and specifically those Best Management Practices related to new development or redevelopment
- Public Works Department reviews stormwater site plans and maintenance plans for all new development and redevelopment projects
- The City also contracts with a qualified engineering firm for construction inspections on larger projects, and enforces implementation of Best Management Practices during construction, as needed
- The City Permit Center provides Notice of Intent (NOI's) for all permitted development
- The City Public Works Department (Systems Division) or contractor currently inspects public stormwater facilities
- The City has begun the process of Low Impact Development (LID) municipal code revisions. An internal planning team has met and an external stakeholder team formed. Code language and development standards are under review. Comprehensive plan LID revisions were incorporated

6.3 Planned Activities for 2017

The City is moving forward with the LID code integration effort which is required to be adopted by December 2017. The code will be reviewed in more detail and suggested text changes will be made and presented to both committees as well as the Public Works Committee, Planning Commission, and City Council. Comments will be incorporated with legal review and revisions will go through public process prior to adoption. In addition, standards and rules will be reviewed to align them with LID code changes. The City plans to continue to review development plans, require stormwater BMPs, and update the MS4 map on GIS and the City's Asset Management System with facility information. Post-2013 site inspections for maintenance of runoff control are scheduled to begin in 2017.

7.0 Pollution Prevention and Operation and Maintenance for Municipal Operations (S5.C.5)

7.1 Permit Requirements

Section S5.C.5 of the Permit requires the City to address the following pollution prevention and operation and maintenance elements:

- Develop and implement an operations and maintenance program, with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Adopt maintenance standards for the municipal separate stormwater system that are at least as protective as those specified in the Ecology's 2012 Stormwater Management Manual for Western Washington
- Perform annual inspections and necessary maintenance of municipally owned stormwater flow control and treatment facilities and inspect and clean catchbasins throughout the City on a circuit basis
- Develop Standard Operating Procedures to reduce stormwater impacts associated with runoff from municipal O&M activities
- Train staff to implement new procedures
- Prepare Stormwater Pollution Prevention Plans (SWPPPs) for all heavy equipment maintenance or storage yards identified for year-round facilities or yards, and material storage facilities owned or operated by the City

7.2 Accomplishments in 2016

The City of Lynden maintains its stormwater facilities as needed and responds promptly to reported maintenance issues. The City is not yet required to take action under this permit element; however, several components are in place:

- Conducted street sweeping and gutter cleaning on a regular basis
- Began development of stormwater pollution prevention plans (SWPPPs) for the Street Department shop, the Parks Department shop and the Wastewater Treatment Plant.
- Conducted a training for maintenance and street crew staff on stormwater protocol and pollution prevention and IDDE
- Inspected and cleaned catch-basins on a rotational circuit basis

- Additional training for Public Works and Parks crews on pollution prevention and good housekeeping procedures occurred at stormwater committee meetings

Over the last 6 years the Public Work Crew has been cleaning the catchbasins in the City's stormwater system on a circuit basis. A few of the basins on some of the major arterials were inspected again and not much debris was found. In 2016, the circuit was started again but very little debris was found in the catchbasins so focus was shifted to the main arterials and support of IDDE efforts.

The City logged 720 hours on its street sweeper. Streets are swept after every storm event, starting with the major arterials, beginning at one end of the city and working toward the other (normally working east to west). In the fall, when the leaves are falling, some streets are swept every day. Other times of the year the goal is to cover the entire city at least once a month depending on the amount of debris on the streets. The City often sweeps the main arterials 2-3 times a month.

7.3 Planned Activities for 2017

The City plans to continue to develop good housekeeping protocol for pollution prevention and maintenance associated with municipal operations. The City will continue to monitor the catchbasins on major routes and some of the secondary routes and begin the City-wide inspection circuit again. Street sweeping will also continue. Stormwater pollution prevention plans will be completed for the Public Works shop and the Parks Department shop.

8.0 TMDL Requirements and Reporting (S7 and S8)

The City of Lynden has 12,930 people which typically would trigger an individual stormwater monitoring program or payment into the regional stormwater management program for status and trends monitoring and effectiveness monitoring. As a first time Phase II permittee, Lynden is not required to perform or pay for stormwater monitoring under S8.B or C for this permit term but does need to report on other water quality monitoring efforts (S8.A). Once the City becomes aware that a receiving waterbody does not meet water quality standards an adaptive management plan must be developed per S4F. Attachment B reports on the other monitoring efforts undertaken and action items developed to comply with the S4F permit element.

In addition, Lynden has two requirements per Appendix 2 of the NPDES Phase II permit to meet Total Maximum Daily Load (TMDL) requirements set by the Department of Ecology: annually submit a stormwater capital Improvement plan and monitor fecal coliform in one priority basin. Attachment C contains the 2016 Capital Improvement Plan and Attachment D discusses the water quality monitoring plan and details the results from the 2016 fecal coliform monitoring effort at a BC Avenue catchbasin.

8.1 Planned Activities for 2017

The City will continue to respond to storm system quantity and quality issues and update the capital improvement plan as necessary. The City will also continue monitoring for fecal coliform at BC Avenue as outlined in the Quality Assurance Project Plan (QAPP) and compile results of inspection records for annual reporting per Appendix 2 of the permit. In addition, the City will initiate water quality sampling up the storm drain system coincident with the sampling at BC Avenue. The concern is that there is often no flow or not enough to get a clean sample. The aim is to bracket where the sources of pollution are coming from.