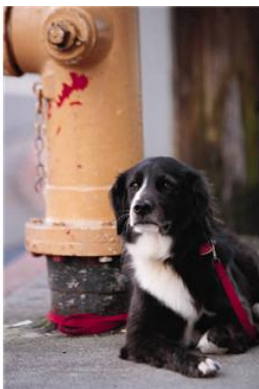




## **North Creek (DRAFT) Bacteria Pollution Control Plan**



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## 1. Introduction

303(d) of the Clean Water Act (CWA) mandates that a Total Maximum Daily Load (TMDL) plan be written for surface water pollutants in waters of the state that do not meet standards after application of technology based pollution controls.

The Washington State department of Ecology has determined through technical studies that North Creek does not meet fresh water fecal coliform standards. As a result of this a TMDL was written. It includes written language that recommends the City of Mill Creek implement a clean up plan known as best management practices (BMPs) to reduce fecal coliform bacteria levels in fresh surface waters.

Fecal coliform bacteria are believed to come from pet waste, bacteria re-growth in storm sewers, failing septic tanks, areas of concentrated wildlife, and illegal discharges. As a result of the bacterial pollution problem, the Department of Ecology (Ecology) worked with local municipalities to develop the North Creek Fecal Coliform Total Maximum Daily Load Detailed Implementation Plan, (Svrjcek 2003). In this plan, Ecology established water quality monitoring requirements for local municipalities that collect, treat, and/or convey stormwater.

North Creek is ranked as an extraordinary primary contact for recreation by the Washington State department of Ecology. Primary contact recreation are activities where a person would have direct contact with water to the point of complete submergence including, but not limited to skin diving, swimming and water skiing. Fecal coliform organism levels must not exceed a geometric mean value of 50 colonies/100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 100 colonies/100 mL. The City of Mill Creek started sampling North Creek once a month since October of 2003. Our results find that the section sampled in North Creek has a geomean between 10/2003 and 10/2010 for North Creek in the City of Mill Creek is 65.

The rest of the report will discuss more on what the City of Mill Creek is doing to improve the fecal coliform results in North Creek.

## 2. Pet Waste Ordinance

City Municipal Code 15.14.230 Discharge of polluting matter prohibited clearly states that polluting matter is prohibited and shall not enter into the storm drain system. Noted in bold and underlined are substances that could contain fecal matter.

### **15.14.230 Discharge of polluting matter prohibited.**

A. Discharge of Polluting Matter Prohibited. No person shall discharge, directly or indirectly, any organic or inorganic matter into the stormwater system that may cause or tend to cause pollution. Without limiting the foregoing, the following

materials shall be deemed to be pollutants when the discharge of such material causes or results in pollution:

1. Petroleum products, including but not limited to oil, gasoline, grease, fuel oil and heating oil.
2. Trash or debris.
3. **Pet wastes.**
4. Chemicals.
5. Paints.
6. Steam cleaning wastes.
7. Washing of fresh concrete for cleaning and/or finishing purposes or to expose aggregates.
8. Laundry wastes.
9. Soaps and detergents.
10. Pesticides, herbicides, or fertilizers.
11. **Sanitary sewage.**
12. Heated water from pools, spas, etc.
13. Chlorinated water or chlorine.
14. Degreasers and/or solvents.
15. **Tree bark and other fibrous material or ground cover.**
16. Antifreeze or other automotive products.
17. Lawn clippings, leaves, or branches.
18. Animal carcasses.
19. **Sediment**, silt, sand, etc.
20. Acids or alkalis.
21. **Recreational vehicle wastes.**
22. Dyes.
23. Construction materials.

B. Discharge of Pollutants – Liability for Expenses Incurred by the Utility. Any person responsible for a pollutant discharge into the stormwater system shall be responsible for the costs and expenses incurred by the utility in carrying out any pollutant abatement or restoration procedures, including the collection, removal, containment, treatment or disposal of pollutant materials, and including all personnel, legal and other costs and expenses. (Ord. 2009-702 § 2 (Exh. C); Ord. 2005-609 § 2; Ord. 2000-498 § 2. Formerly 15.14.240.)

#### **15.14.240 Violations – Penalties.**

Any violation of this chapter constitutes a separate violation for which a monetary penalty may be assessed and abatement may be required. The city shall seek compliance with and enforcement of this chapter under the provisions of Chapter [14.13](#) MCMC. (Ord. 2009-702 § 2 (Exh. C); Ord. 2005-609 § 2; Ord. 2000-498 § 2. Formerly 15.14.250.)

City Municipal Code 6.14.010 requires people to properly dispose of animal feces from animals at least once every 24 hours, pick up pet waste immediately before leaving the scene and people must have pet waste bags on them when walking their animals.

**6.14.010 Sanitation.**

It shall be unlawful for any person to:

- A. Allow animal feces to accumulate in any open area, run, pen, shelter, or yard where animals are harbored or fail to remove and properly dispose of animal feces from such areas at least once every 24 hours.
- B. Fail to remove fecal matter deposited by an animal under his ownership or control on the public or private property of another before leaving the immediate area where the fecal matter was deposited.
- C. Fail to have in his immediate possession an appropriately sized bag to be used for the removal of animal feces when accompanying an animal on public property or private property of another.

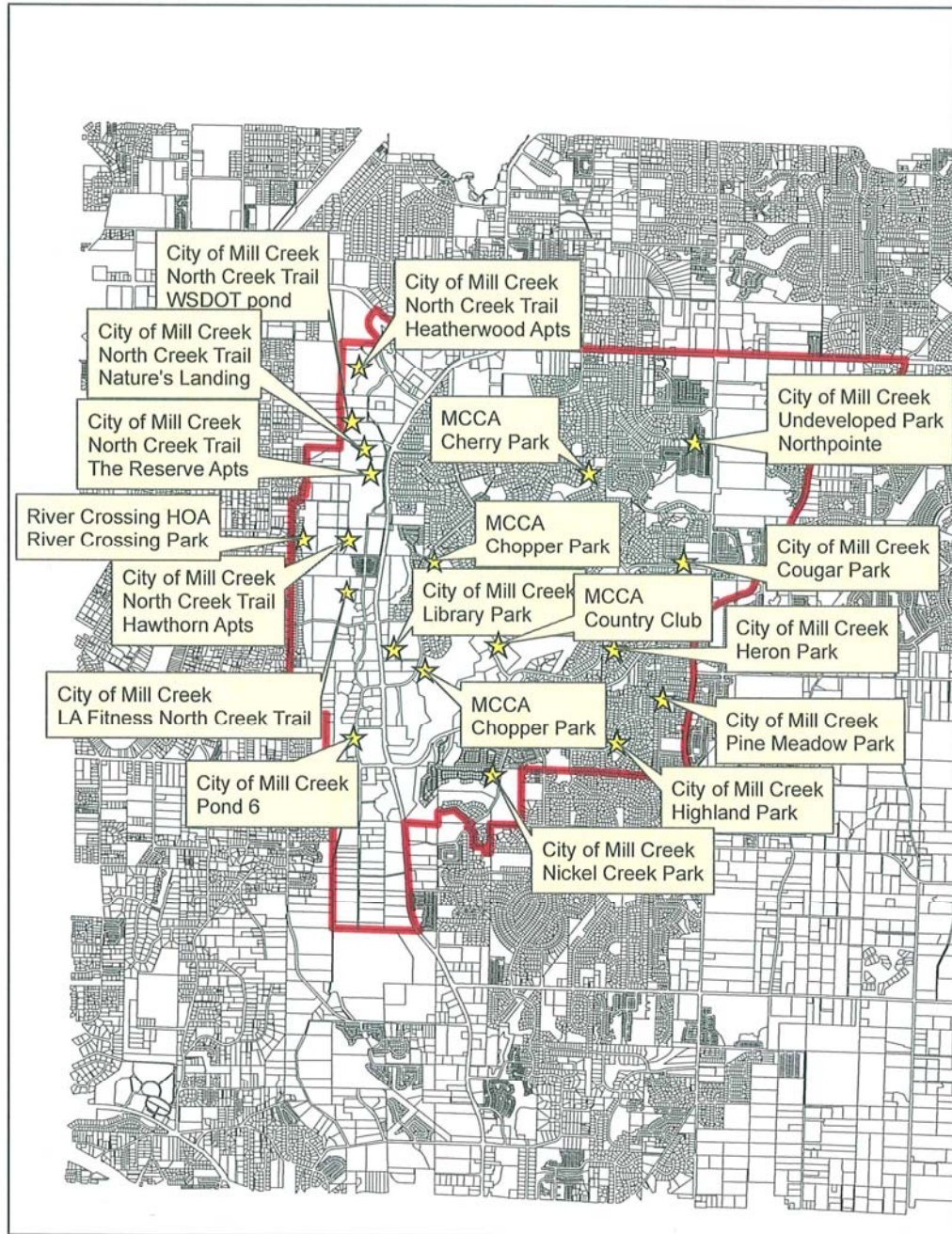
The City also has Scoop and Leash Your Dog signs throughout the City to remind people who live here or people visiting that it is against the law to not pick up after their dogs.

In order to encourage people to pick up after their pets the City has installed “Mutt Mitt” pet waste stations at all City and Mill Creek Community Association (MCCA) parks. (Figure 1.1) There are 19 pet waste station within a 4.68 square mile area.



Figure 1.1

# Pet Waste Station Locations



Last Updated: November 2010



### 3. Water pollution control enforcement capabilities

At this time the Surface Water Technician tries to educate the offender to change their behaviors. The public is able to call City Hall during normal business hours to report illegal discharges into the surface water storm drains. After hours they are to call the Department of Ecology's 24 hour phone number. The City Police Department will be hiring a Code Enforcement Officer whose primary duty will be to make sure citizens are following the municipal code. This person will be able to write police tickets for offenses, for example, if they see someone not scooping their dogs poop they can issue a police ticket. Costs per ticket has not been decided yet.

### 4. Critical areas ordinance in relation to TMDL goals

The City's critical areas ordinance (CAO) is updated when needed as required under the Growth Management Act (GMA). The City regulations provide adequate buffer distances from streams and wetlands which help to prevent fecal coliform from human activities (such as dog waste) from reaching the stream.

## Figure 2.2

### Wetland Buffer Guidelines for Building Setback

	<b>High Impact Land Use</b>	<b>Low Impact Land Use</b>
1. Category I Wetland	300 feet	200 feet
2. Category II Wetland	200 feet	100 feet
3. Category III Wetland	100 feet	50 feet
4. Category IV Wetland	50 feet	25 feet

### Stream Buffer Guidelines

North Creek and Tambark Creek	150 feet
All other streams	75 feet
Lakes	75 feet
Ponds	50 feet

## 5. Education program directed at reducing bacterial pollution

In September 2009 the City of Mill Creek hired Hebert Research, Inc to measure the public's knowledge and practices regarding stormwater. A random sample size of 200 residents in the City of Mill Creek were called by telephone. 92.2% of the residents that were surveyed answered the following statement correctly, "When I am outside with my pet I always pick up my pet waste".

The City has a brochure that is available on-line, in the City hall lobby and distributed at public gatherings called "How to Properly Remove Pet Waste from the Environment".

The City has a Mill Creek Festival each year in July and the City Surface Water booth has focused on pet waste education in the past. One year the City encouraged people to take a pledge to pick up after their pets and they received dog treats and keychain style pet waste dispensers.

In the summer of 2010 the City intern walked along a section of North Creek trail where the City was having problems of people not picking up after their dogs. The intern was directed to spray paint around each pile of dog feces and posted a 8"x11" Puget Sound Starts Here I Poop, You pick it up" signs. Another 8"x11" sign was also scattered along the trail that let people know why the signs were posted and about the program. The intern documented how many piles were found in mapped sections along the trail.

In general most citizens know to scoop their dogs poop and there are only a few problem areas that the City is working on addressing.



## **6. Investigation and implementation of methods that prevent additional stormwater bacterial pollution through stormwater in association with new development**

In 2008 the City worked with Puget Sound Partnership to implement Low Impact Development into the Municipal Codes. In September 2009 the City Council approved changes to encourage Low Impact Development. The City Community Development Department has written guidelines to encourage Low Impact Development and LEED construction in the new East Gateway Urban Village design guidelines.

The City of Mill Creek has a small section of single family residents that are on septic systems. Since the City does not have its own sewer and water district it cannot regulate who is on sewer vs. septic. The City relies on the Snohomish County Health District to educate and regulate septic system maintenance. The City has had once incident regarding a failing septic system in the past eight years. When the City Surface Water Utility was notified about the situation they went out immediately and took samples in the storm drainage system. The City contacted the Snohomish County Health District and was told that there was already legal action being taken place to fix the problem. The City sent a notice to the homeowner requiring they fix their failing septic system immediately or the City would be forced to also take legal action. The problem has since been resolved.

## **7. Bacterial pollution through stormwater in association with new development**

Any new development must use the latest version of the Stormwater Management Manual for Western Washington. The City also encourages incorporating Low Impact Development and LEED design in new development.

## **8. Implementation of activities in the North Creek Watershed Management Plans**

The City of Mill Creek does not have a North Creek Watershed Management Plan.

## **9. Ambient water quality and stormwater quality to specifically identify bacterial pollution sources**

The City Surface Water Technician has been collecting fecal coliform samples from North Creek on a monthly basis since October 2003. The City is committed to continuing the monthly sampling for fecal coliform through this NPDES permit cycle.