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| **Department:** | **Eng. & Public Works**  | **Area:** | **Wastewater** |  |
| **Subject:** | **Natural Water Courses**  |

**NATURAL WATER COURSES**

**PURPOSE:**

It is important to maintain an unobstructed path within our collection system to prevent back-ups and flooding. Cleaning and maintenance is a routine duty and is a preventative measure during excessive rain and snowfall events. Certain safety precautions need to be considered when working in or around natural water flows.

**HAZARDS:**

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| * Drowning
 | * Slippery surfaces
 | * Steep slopes
 | * Darkness.
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| * Skin (phytophotodermatitis)
 | * Eyes
 |  |  |

**PPE:**

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| * Gloves and safety boots
 | * high -visibility vest
 | * Rubber boots
 | * Eye and hearing protection
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| * Hip waders
 | * Hardhat or coveralls and when required - P.F.D. (personal flotation device)
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**Description:**

Beaver Dams:

* There are a number of beaver dams within the City limits. Beavers like to block flow with branches and mud around inlets structures causing potential flooding issues. It is necessary to partially dismantle these structures on a routine basis.

Inlets And Outlets:

* Throughout the City of Nanaimo, there are some culverts that have a priority designation. These inlets/outlets have a history of causing damage when plugged and must be cleared regularly during heavy rainfall accumulations.

**Procedure:**

* Take great care and pay special attention to footing when clearing debris in front of inlet structures.
* Do not attempt to enter water in front of inlet structure when removing branches leaves etc.
* Flow levels during heavy rainfall may be deep and fast. It is advisable to don a P.F.D. when the slope to the inlet/outlet is steep.
* Always work in tandem with a co-worker in darkness. Proper lighting is crucial in maintaining safe work environment.
* When hip waders are required to perform maintenance on natural watercourses, it is advisable to wear a P.F.D
* Do not stand in water downstream of outlet when co-worker is clearing inlet upstream.

**Summary:**

* Remember to be conscious of footing on steep and slippery slopes.
* Dress appropriately during inclement weather
* Always work with a co-worker or call for help if task at hand appears to be risky or dangerous.
* Avoid standing in water flows when possible.
* Try to clear obstructions from the side of inlet or outlet
* Maintain a safe working distance from co-workers when using hand tools.
* **When there is a risk of drowning, employee must where a P.F.D.**
* **When there is a risk of contact with noxious plants white disposable coveralls, rubber gloves, Eye Protection and plant disposal procedure must be adhered to.**

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| **Date written: 2010-Mar-30****Revision Date** | **Written by: Riley St. Luke** | **Manager’s Approval: John Elliot**  |