

# 2016 FACT SHEET



## ENGINEERING STORM DRAINS

The Storm Drain  
net 2016  
budget is  
\$1,996,000

### WHAT ARE STORM DRAINS?

Storm drains are designed to convey rainwater and groundwater flows to nearby water bodies and they are typically located within public road rights-of-way or easements on private property. The Saanich storm drainage system includes 600 km of mains, 30,000 service connections, 14,000 catch basins and 8,500 manholes.

### DID YOU KNOW WE PROVIDE?

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#### Administration:

This group provides overall management and administrative support for all sections including clerical support, public engagement, and communications. This includes drainage capital planning and project management, administering and coordinating the auxiliary call list, daily time records, hired and municipal equipment tracking, purchase reconciliation and the provision of equipment and safety training.

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**Net cost**    **\$426,400**

#### Drain Mains Cleaning:

High pressure water jetting is used to flush out settlement and accumulated debris due to flat grades in storm drain pipes, clear blockages such as those caused by root infiltration and pipe failure. We clean 250 km of drain mains or approximately 20% of the system each year on a priority scheduled basis to ensure that the entire system is cleaned once every five years.

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**Net cost**    **\$259,500**

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### Surface Drains Cleaning:

Surface drains are ditches, creeks and/or waterways. The entire ditch system is maintained every 18 months to prevent flooding. Trash racks are maintained biweekly or as needed through the winter months and during inclement weather. Emergency spills response is provided and the waterways program is primarily complaint driven.

**Net cost**     **\$483,300**

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### Catch Basins and Silt Traps Cleaning:

Approximately 14,000 catch basins and silt traps are cleaned using a hydro excavator or gully sucker to remove accumulated sediments and debris to prevent downstream drain mains from plugging, to reduce the amount of sediment discharged into creeks and waterways and to reduce the risk of West Nile Virus. Approximately 8000 catch basins and silt traps or approximately 66% of the total system is cleaned annually and monthly maintenance of 9 oil interceptors in the Municipal Yard is performed. Dumping charges account for approximately 15% of the budget.

**Net cost**     **\$188,000**

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### Catch Basin and Manholes:

Approximately 70 catch basins and manholes are repaired or replaced each year as well as replacement of ten wood boxes, (a predecessor to manholes), with properly constructed manholes. Repairs and replacements involve the excavation of site, removal of damaged structure, replacement of bedding, backfilling of site and then restoration of the surface area.

**Net cost**     **\$128,100**

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### Replacing Substandard Drains:

Substandard drains are old drain pipes that are either below current standards or have not been mapped and recorded in the system. They make up 40% of the municipality's total stormwater infrastructure. Substandard drains that are less than 10m in length and that are broken or collapsed are replaced to eliminate blockages. Damaged drains greater than 10m are replaced through the capital program. Annually 500 meters of substandard drains are replaced.

**Net cost**      **\$71,200**

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### Drain Mains/Connections Repair:

Approximately 40 stormwater mains and 95 service connections are repaired each year. The excavation and repair of a collapsed or blocked drain main or service includes removal of damaged pipe sections, bedding, backfilling and restoration of surface.

**Net cost**      **\$268,900**

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### Emergency Flooding:

The emergency flooding program is used to address seasonal high influxes of customer services request. During a typical storm event staff will respond to 100 to 400 service calls. Work includes home owner customer service, blockages, sink holes, sand bagging, obstructed catch basins and overland flooding.

**Net cost**      **\$59,500**

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### Video Assessment:

Video assessment and investigation is a key component to the operations and maintenance program. Video information is used in determining life span and conditional assessment of existing drain mains and services.

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**Net cost    \$111,100**