

# 2024 BUDGET

## Water Utility



### Our role

#### ***Net budget \$28,641,200***

The potable Water Utility system has been in existence since the early 1900's and includes 550 km of pipe, over 29,000 water services, 4 reservoirs, 18 pump stations, and 2,300 fire hydrants. Bulk water is purchased from the Capital Regional District and then distributed to Saanich customers via the municipal water system.

The utility provides potable water in accordance with applicable health standards and the Drinking Water Protection Act. It is also designed to support emergency uses for firefighting capability.

The system is self-financed from water charges on a user pay basis. The user charges cover the cost of CRD bulk water purchase, Saanich operations and maintenance activities, and the capital infrastructure replacement program.

Full life cycle asset management services for the water system are provided by the Engineering Department through collaboration of the Waterworks team of the Public Works Division and the Water Resources Division staff. Together they plan, analyse, operate, maintain, design, and construct the infrastructure that delivers drinking water to the community.

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### Services we provide

#### **FIELD OPERATIONS**

***Net cost \$802,100***

Overall management and supervision support for Public Works field operations staff in the delivery of maintenance and operations plans, construction programs and development related servicing; and ensuring that staff are receiving the proper training, safety considerations and tools to meet the requirements for the District's Operating Permit for a Level 3 potable water distribution system.

#### **GENERAL ENGINEERING SERVICES**

***Net cost \$2,675,400***

The Water Resources Division provides professional engineering services for water system management including long range planning, operational technical support, system analyses, asset renewal and capital planning, servicing requirements for development applications, and capital program management, design, and construction services.

#### **OPERATING OVERHEADS AND ADMINISTRATION**

***Net cost \$78,800***

Supporting the field and engineering staff are administrative staff including those for development approvals and permitting. In addition, this sum includes costs for rental of equipment, tools and spaces and related site maintenance, as well as stand-by for after hours emergency response.

#### **WATER SUPPLY**

***Net cost \$11,300,000***

This sum represents the anticipated volume of water to be purchased from the Capital Regional District (CRD) over the budget year. It is based on the historical average consumption from the past five years, multiplied by the bulk water rate established by the CRD.

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### **WATER SYSTEM LEAK REPAIR**

*Net cost \$947,800*

Reacting to water system leaks and conducting emergency repairs are part of the fundamental services provided by the utility operations. These are unplanned and often unforeseen circumstances. This sum represents a budget to address these instances based on an average of 22 breaks per year over the last 5 years.

### **PUMP STATION MAINTENANCE**

*Net cost \$1,061,100*

There are 30 different water system pressure zones in the District of Saanich. These zones are the result of the topography in the District and the need to successfully move water through the hills and valleys to homes and businesses. A collection of pump stations strategically placed allows the District to accomplish this. Water system pressure and flow are managed by a central, electronic Supervisory Control and Data Acquisition (SCADA) system which communicates with the distribution system to meet our service needs. Pressure adjustments are managed through the combination of set points at pressure reducing stations, pumping stations, and water reservoirs. The reservoirs also provide stored water to balance peak system demand.

### **FIRE HYDRANT MAINTENANCE**

*Net cost \$302,900*

Conducting regular fire hydrant maintenance ensures that those facilities are in good operating condition in the event of an emergency. Annually, the District inspects and maintains approximately 25% of our hydrant asset inventory.

### **VALVE MAINTENANCE**

*Net cost \$300,000*

Line valves provide the ability to isolate sections of watermain for maintenance, flushing, repair, and replacement. They are typically located on each city block, and at the intersects with fire hydrants and services to large commercial, institutional, industrial, and mixed-use properties. Maintaining the operation of these valves includes ensuring all locations are mapped and accurate, they are visually marked with paint and that they are exercised to confirm proper function. If a valve is found to be un-operable it is repaired or replaced.

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### WATER METER MAINTENANCE

*Net cost \$600,300*

The District's water system is fully metered; meaning all customer service connections have a water meter at the property line to record the amount of water consumed by each customer during the utility billing period. The water meters are divided into two categories: large (75mm to 250mm), and small (12.5mm to 50mm). Water meters require regular maintenance, testing and eventually replacement.

### CONNECTION AND CHLORINATION

*Net revenues \$14,200*

Watermain construction (whether capital replacement or for development servicing) requires a connection to be made between any new main and an existing live watermain. To ensure adequate water quality is maintained in the system prior to this new inter-connection, steps that are taken to safeguard the existing water distribution system. Every new section of watermain must be properly chlorinated, flushed, and water samples taken to ensure adequate disinfection has taken place before connecting to the distribution system.

### WATER QUALITY PROGRAMS

*Net cost \$427,100*

Watermain flushing is a key activity for maintaining water quality standards in the network. It is performed strategically through a process known as unidirectional flushing (UDF). UDF systematically draws water through the pipe network to promote the removal of sediment from the source supply to the extremities. Annually, the District flushes 50% of the distribution system—flushing the entire distribution system every two years.

### METER READING AND BILLING

*Net cost \$125,400*

The District has nearly 30,000 water utility accounts that are billed three times per year. To generate the bills for each account, the water meters for each property are read each billing period.

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### RESERVE FUNDING

*Net cost \$418,500*

Funds are set aside in anticipation of an upcoming or forecasted major project (i.e. reservoir replacement) and to address unexpected system issues requiring immediate repair.

### WATER CAPITAL ACQUISITIONS

*Net cost \$57,000*

Some funding is set aside in anticipation of the eventual need to replace the heavy equipment that supports the construction of the capital program. This is incrementally augmented with additional funds that can contribute to new equipment where needs evolve.

### CAPITAL CONSTRUCTION PROGRAM

*Net cost \$9,559,000*

Water utility assets include watermains, service connections, meters, fire hydrants, valves, pump stations and reservoirs. The capital replacement program sets out the priority infrastructure renewal projects based on an engineering evaluation of information from the Water Supply Master Plan, operational feedback, and in reaction to emerging priorities. The District is preparing to embark on formalized Asset Management Plans which will form the basis of future capital programs.