

CITY OF NANAIMO

BUSINESS CASE – Water Distribution Section: Operator in Training Position

CURRENT OVERVIEW

Water services are supported in the 2022 City Plan under the goal, “A Green Nanaimo: Resilient & Regenerative Ecosystems”. As part of policy C1.5, the desired outcomes for water services include:

- A clean, safe, cost effective, resilient, and sustainable drinking water supply for all customers that supports continued growth, while maintaining environmental quality and accounting for climate change impacts.
- A strong link between growth and servicing capacity planning so that utility expansion and upgrades are strategic and efficient.

The Water Distribution Section oversees the operation and maintenance of over 649 km of distribution mains, 26,550 services, 3,283 fire hydrants, including 12,000 valves and air valves. The water distribution network consists of assets that were installed in the early 1900’s to present day. Over the past ten years, the population of the City has increased 19.2% to 99,863. This population growth has resulted in a substantial amount of water infrastructure to maintain and service which is putting a strain on existing staffing resources. The City is projected to grow by another 40,000 residents in the next 25 years.

There are currently 10 FTEs in the Water Distribution Section:

Position	# of FTEs
Supervisors	2
Water Operators	6
Equipment Operator	1
Truck Driver II	1
Total	10

During the summer months there are three Servicepersons: Night Patrol added to the team to assist in carrying out the maintenance programs. Four months each year, one temporary Water Operator is added to the team to assist in carrying out maintenance programs. Eight weeks each year, 3 temporary staff are added for the flushing program.

The Water Distribution Section performs maintenance programs on water meters, water valves, air valves, service line upgrades, main repairs, flushing watermains and leak detection. New services added through development are installed by the Section, including new fire hydrants and valves. Staff also oversee the contract for the maintenance of the city’s fire hydrants. All of these activities are done to ensure the distribution of safe potable water to the residents of Nanaimo.

The Drinking Water Protection Act requires all Operators of water systems serving more than 500 individual to be certified as Operators through the Environmental Operators Certification Program. This means all City staff performing repairs and maintenance on the Water Distribution and Supply system must be certified.

BUSINESS ISSUE

As the City's water distribution infrastructure & assets continue to grow through population growth and development, there is a need to add additional staff. The Water Distribution Section is unable to complete regular scheduled maintenance programs. Crews are having to spend more time on reactive repairs and maintenance decreasing efficiencies and increasing the risk of watermain breaks and service leaks causing property damage, flooding and road infrastructure damage.

EXPECTED OUTCOME

The addition of a Water Distribution Operator in Training will help to continue to enhance the water distribution system maintenance and extend life of the existing infrastructure by:

- Allowing existing staff to maintain and service water infrastructure and assets at scheduled intervals,
- Reducing reactive repairs and maintenance;
- Becoming more preventative, planning repairs instead of emergency repairs;
- Reducing the risk of failures and damage to public and private property.

OPTIONS

Option #1 – Add one Water Distribution Section Operator in Training Position

Addition of one permanent full-time Water Distribution Section Operator in Training position reporting to the Supervisor, Water Distribution.

Benefits:

- Provides a needed semi-skilled worker resource;
- Reduces risk and liability in the water distribution system, resulting in less service or main breaks and overflows to the environment or flooding into homes and businesses;
- Improves asset management capacity of the Water Distribution section by increasing proactive water maintenance of water distribution infrastructure;
- Residents will experience better maintained water distribution system;
- Crews will increase focus on leak reduction into the system, increasing longevity;
- Improves the City's ability to proactively work towards protecting and enhancing the Environment;
- Supports City Plan goal: "A Green Nanaimo: Resilient & Regenerative Ecosystems".

Weaknesses:

- Permanent increase to operating budget of the Water Distribution Section.

Financial Analysis:

- The position is will be a CUPE level 4 working 40 hours/week.
- After completion of one year experience and passing of the EOCP level I exam, the position will be paid CUPE level 6. After three years experience and completion of the level II exam, the position will be paid CUPE level 9.
- Estimated budget impact for 2023 wages and benefits is \$65,600 based on an April 1st start date.
- Additional annual costs are estimated at \$600 in 2023 for memberships, training, and footwear.
- There are no projected additional one-time costs as this position will be using existing equipment and vehicles.

- The cost of the position will be funded from water user fees. Future water rate increases will take into account the additional cost of this position.

Option# 2 – Status Quo

Continue with no additional Operator in Training position in the Water Distribution Section.

Benefits:

- No increase to operating budget for the Water Distribution Section.

Weaknesses:

- Continuation of break-fix maintenance model resulting in higher costs due to emergency repairs;
- Decreased level of service in responding to and repairing issues in water distribution system;
- Reduces the ability to proactively work towards protecting and enhancing the Environment, one of the City wide goals.

RECOMMENDATION

Option #1 – Add one Operator in Training position to the Water Distribution Section.