



STAFF REPORT

TO: Council **MEETING DATE:** December 4, 2018
FROM: Dave Newman **FILE NO:** 5600-20-015
Director of Infrastructure Services
SUBJECT: Well Drilling Tender Award

RECOMMENDATION(S)

THAT the Director of Engineering's report regarding the Well Drilling Tender Award be received;

AND THAT Council provide 2019 pre-budget approval in the amount of \$150,000 for the drilling of a new supply well with a funding source from 2019 User Fees;

AND THAT any budget surplus from the Well Inspection Budget and the Monitoring Wells Budget be reallocated to the Supply Well Budget;

AND FURTHER THAT staff be instructed to award the Existing Town Well Works and Service Area Expansion tender to Drillwell Enterprises in the amount of \$203,493.

BACKGROUND/PURPOSE

Staff tendered three separate well-related projects in one package entitled Existing Town Well Works and Service Area Expansion:

1. Well 2 and 3 inspection
2. Monitoring well drilling
3. Supply well drilling

Items 1 and 2 have been budgeted for in 2018; Item 3 has been budgeted for in 2020. However, staff included item 3 in the 2018 tender for two reasons: the drilling equipment will be mobilized already so it will be less expensive overall to have the supply well drilled at the same time as the monitoring wells; the second reason is that drilling the well and having it pump tested to determine its capacity will provide the requisite information to apply for an additional water license for Zone 3.

Staff is seeking Council authorization to award the above work to Drillwell Enterprises in the amount of \$203,493.

DISCUSSION

In November 2018 Staff tendered the following work on BC Bid:

- Inspections of Town wells 2 and 3
- Drilling of three monitoring wells in Lower Gibsons
- Drilling of a new production well in Dougall Park

The regular inspection of the Town four supply wells is a Vancouver Coastal Health requirement of our Permit to Operate. Inspections involve removal of the well pump and a down-hole video completed to identify any issues with the well casing or screen. Wells #1 and #4 were inspected in 2016 and found to be in excellent condition; the remaining Town wells (#2 and #3) are due for inspection this year.

Well #2 has historically been available for backup to Well #3 but cannot be used at the same time. Staff plan on decommissioning this well as a production well and converting it for use as an observation well. The existing pump has not run for years and would not be worth reinstalling; there would be little benefit to justify the cost of installing a new pump.

Additional monitoring wells are required to gather data on our aquifer pressure, which will provide better indicators of the impact from changing aquifer conditions. A third monitoring well is required to monitor the aquifer to ensure that saltwater intrusion does not occur. The well for saltwater intrusion is required by FLNRORD prior to granting a license for expanded aquifer use.

Staff included the drilling and pump testing of the production well in the 2018 tender for two reasons: the drilling equipment will be mobilized already so it will be less expensive overall to have the supply well drilled at the same time as the monitoring wells; the second reason is that drilling the well and having it pump tested to determine its capacity will provide the requisite information to apply for an additional water license for Zone 3. Note that the costs for the proposed supply well is for drilling alone. Assuming a license was granted by the Ministry of Forests, Land, Natural Resource Operations and Rural Development (FLNRORD), a pump would still need to be installed and connected to the Town distribution system but this would not have to be completed prior to 2020. The proposed production well will provide additional water for expansion of the aquifer service area and will also replace Well 3. Well 3 will remain as a backup well.

Until a pump test is completed on the proposed new supply well in Dougall Park in early 2019, it will not be clear as to whether the single new well will be able to supply all the Town's future needs, i.e., full buildout to 10,000 population. An optional additional supply well was included in the tender package; however, staff are proposing to postpone the drilling of this well until it becomes clearer as to the SCRD's plans for commissioning a supply well in the same vicinity. The tender price for this work was an additional \$104,447.

Staff tendered the above works and received one response from Drillwell Enterprises. Drillwell has conducted work for the Town in prior years and staff feel confident in Drillwell's ability to provide the necessary services. Drillwell's costs have been reviewed and are comparable to other similar projects. Staff is recommending awarding the project to Drillwell in the amount of \$203,493 (Items 2, 4 & 8 in Table 1).

Drillwell Enterprises proposes to complete all works within three months of award, i.e. March 5, 2019.

| Table 1: Well Drilling/Inspection Costs | | | | |
|--|------------------|-----------------|------------------|--------------------|
| Item | Tender | Contingency | Total | Budget |
| Well Inspection | | | | |
| 1. Well inspection - Urban | \$18,300 | \$2,800 | \$21,100 | |
| 2. Well inspection - Drillwell | \$23,226 | \$3,500 | \$26,726 | |
| 3. Transducer/SCADA - by others | \$12,000 | \$1,800 | \$13,800 | |
| Total - Well Inspection | \$53,526 | \$8,100 | \$61,626 | \$63,000 |
| Monitoring Wells | | | | |
| 4. Monitoring wells - Drillwell | \$75,143 | \$15,100 | \$90,243 | |
| 5. Well 2 decommission - Urban | \$11,800 | \$2,400 | \$14,200 | |
| 6. Well 2 decommission - optional work | \$10,031 | \$2,100 | \$12,131 | |
| Total - Monitoring Wells | \$96,974 | \$19,600 | \$116,574 | \$133,000 |
| Supply Well | | | | |
| 7. Well design & Construction Services - Urban | \$34,340 | \$6,900 | \$41,240 | |
| 8. Supply Well: Dougall - Drillwell | \$105,124 | \$21,100 | \$126,224 | |
| Total - Supply Well | \$139,464 | \$28,000 | \$167,464 | \$0 |
| Total - All | \$289,964 | \$55,700 | \$345,664 | \$196,000 |
| Budget Shortfall | | | | (\$149,664) |

COMMUNICATION

Staff intend to place an informational section on the Town's website regarding this project.

PLAN/POLICY IMPLICATIONS

Strategic Plan Implications

n/a

Financial Plan Implications

The Well Inspection work and the Monitoring Wells are both funded from User Fees in 2018 in the current Financial Plan.

The supply well (drilling and testing only) have been budgeted in 2020, however, staff are recommending that this part of the project be completed in 2019 and that 2019 pre-budget approval be given in the amount of \$150,000 to be funded from User Fees. Furthermore, staff are seeking approval to use any budget surplus in the Monitoring Well Budget and the Well Inspection Budget to put towards the proposed Supply Well Budget.

Other Policy or Plan Implications

The proposed works are consistent with the Town's Asset Management Policy, the Town's Water Use and Conservation Policy and the Aquifer Mapping Study (as far as anticipated yield of the aquifer).

RECOMMENDATIONS / ALTERNATIVES

Staff's recommendations are on the first page of this report. Alternatively, Council could opt not to award the tender or to omit the drilling of the supply well from the proposed works.

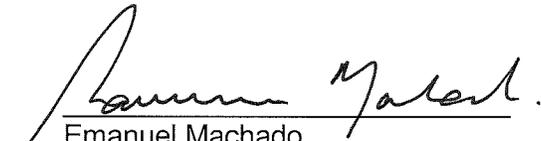
Respectfully Submitted,



Dave Newman, AScT
Director of Infrastructure Services

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:

I have reviewed the report and support the recommendation(s).



Emanuel Machado
Chief Administrative Officer