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**REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE
MEETING OF THURSDAY 19 MARCH 2009**

SUBJECT STORM DAMAGE AND REPAIRS TO WATER PLANT IN DECEMBER 2008

PURPOSE

To provide the Port Renfrew Utility Services Committee (PRUSC) an update on the storm damage to the Port Renfrew water plant during the extended storm activity in December 2008 and to seek approval to expend contingency funds for electrical service replacement.

BACKGROUND

Immediately preceding and during Christmas, 2008, Vancouver Island was subjected to an ongoing period of cold weather, high snowfall and other storm related conditions. Power was lost to the townsite and to the water plant on numerous occasions, which coupled with a number of leaks from the system due to cold weather, resulted in significant drawdown of the reservoir and potential loss of water supply. The Port Renfrew operators, with assistance from the community and local contractors, were able to make the repairs to the system to replenish the tank after the first wave of storm activity however a tree dropped on the power line to the well site which again took out power and put the community supply at risk. This latter incident has damaged the main electrical service to the water plant, which will now need to be replaced. During this same period, emergency pumping at the sewer plant was necessary due to flooding of the area immediately surrounding the plant and due to the high inflow of stormwater to the sewer system.

Standby Power

During the outage, Capital Regional District (CRD) staff attempted to locate a trailer mounted generator to power the water plant. The three-phase service configuration installed at both the water and wastewater plants is no longer in common use and finding a generator supporting this configuration proved to be a problem. Although a unit was eventually located, the water plant lacked the required interconnection point and transfer switch which would have allowed the unit to be safely connected and operated.

Water Plant Electrical Service Damage

Heavy snowfall resulted in a number of trees parking themselves on the power line to the water plant. The added weight was transferred to the transformer pole at the plant, the last pole on the system. The pole restraint was insufficient to keep the pole vertical and as the pole leaned, the service mast on the plant was ripped away from the wall. In reviewing the damage and the best method to repair the damage, it was decided, in concert with discussions with BC Hydro engineers and the BC Electrical Safety Branch, that the service should be replaced to a current Hydro standard and the electrical gear brought up to code standards. The service mast has been replaced with a new mast that meets BC Hydro and Electrical Code requirements. Further work required includes the replacement of three transformers, a new manual transfer switch and revisions to wiring internal to the station. The replacement works will result in an electrical system which will address electrical code issues, one which provides higher levels of safety to operators and the system components, one which is more acceptable to the BC Hydro system and one which will allow the safe connection of a portable generator to the facility in future. Staff will request authorization to complete this work in a subsequent report to the committee.

Sewer Plant Flooding

The operator spent many hours at the wastewater plant setting up and maintaining supplemental gas driven pumps at the sewer plant to try to keep the blower and electrical rooms from flooding. Staff from Victoria, bringing supplemental pumps, were initially turned back due to the road washout leaving the operator to work with the tools at hand. As a consequence of the event staff have engaged the Ministry of Transportation in discussions on re-establishing the culvert through the dike next to the plant.

Costs

The costs expended by CRD operators and contractors to try to keep the water running during the storm event, and to maintain pumping at the wastewater plant is likely to exceed \$13,000. The CRD has made a claim under the Provincial Emergency Program for these costs. The costs for replacement of the service at the water plant are likely to cost a further \$10,000. The CRD has also made a claim for replacing the damaged electrical service mast at the water plant. For costs not covered by the program, the committee will need to approve expenditures from the 2009 operating budget.

ALTERNATIVES

1. That the Port Renfrew Utility Services Committee receive this report for information and approve the funding as required for emergency repairs to replace the electrical service at the water plant from the 2009 operating budget contingency.
2. That the Port Renfrew Utility Services Committee request further information from staff.

FINANCIAL IMPLICATIONS

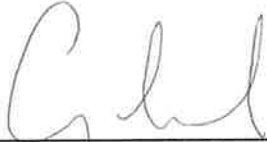
It is likely that a significant portion of the costs expended during the response phase of the storm event can be fully recovered from the Province. It is also possible that a portion of the costs expended during the recovery phase of the event may also be recovered from the Province. The committee has provided a contingency in the 2009 budget, amounting to \$11,185 which the committee may wish to draw on for any funds not covered by the Province.

SUMMARY/CONCLUSIONS

The Port Renfrew water and sewer system suffered numerous failures over the Christmas period due to cold weather, snow and thaw conditions. The sewer plant required continuous and supplementary pumping during the snow melt due to high surface water levels in Beach Camp. The water system operation was compromised by high demand due to leaks on the system, power outages and finally damage to the electrical service at the plant due to trees falling on the power line. The costs for response to the events and for recovery after the event will be in the order of \$23,000. CRD has applied to the Provincial Emergency Program for recovery of some of the costs incurred. The service at the water plant was damaged to the point replacement was necessary. With further upgrades, the replacement service will allow for the safe connection of a portable generator to the facility for more secure water supply in future. If additional funding is required for the works, the committee may wish to draw down the contingency provided in the 2009 budget.

RECOMMENDATION

That the Port Renfrew Utility Services Committee receive this report for information and approve the funding as required for emergency repairs to replace the electrical service at the water plant from the 2009 operating budget contingency.



Colwyn Sunderland, ASCT
Local Services Engineering Coordinator

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