

REPORT TO MAY 26, 2018 HAMLET MEETING – CAPITAL BUDGET COMMITTEE

Priority of Projects – The Committee evaluated & ranked items as listed on the previous Hamlet budget:

“A” PRIORITY Definition – Urgent “Need” and/or Respond to potential serious negative consequences

1. Build New Pumphouse - \$20,000 (NOTE: Capital Project is already in progress by Hamlet Council)
2. Install Summer Watering System (pump house and piping) - \$50,000 (to protect water well from future over use)
3. Replace AED with a new unit (approximately every 8 years) - \$3,000

“B” PRIORITY Definition – Important “Wants” which provide broad benefits

1. Subdivide/buy property from Colesdale Park Corporation and construct Hamlet playground. Buy sufficient land for future Hamlet needs - \$45,000 **COMMENT:** Hamlet was never provided sufficient public reserve for a central facility.

“C” PRIORITY Definition - Important “Wants” which are anticipated in next 5 to 10 years and longer-term

1. Drill Backup water well for hamlet water supply - \$20,000
2. Build a Hamlet Community Building (not a storage garage) - \$20,000+
3. Install water purification system - \$35,000 (NOTE: becomes an “A” upon Regulatory requirement)
4. Develop a Bike/Walking path - \$30,000
5. Build a wildlife viewing platform - \$4,000
6. Pave Hamlet roads - \$100,000

NOTE – Cost figures above are from the previous Hamlet Budget.

Existing Hamlet Water System & Well Protection

HISTORY - The existing Hamlet water system (2 inch pipeline and standpipes) was sized for households to fill their own cistern tanks (Highway One Drilling phone conversation). The well was drilled in 1994 and tested at a rate of 50 gal/min for 3 hours with water level staying steady – no drop observed. The driller (Highway One) rated it at 30 gal/m. It has a 4 inch plastic casing to 75 feet, then a 5 foot stainless steel slotted screen at the bottom.

WATER USE - Peak summer daily water use has now reached approximately 35,000 gal/day (49 gal/min averaged over 12 hrs). The system has expanded to 32 homes including yard irrigation. Most of the water is used for yard and garden irrigation since winter household use (14 homes occupied in the winter) is about 1000 gal/day (1.4 gal/min over 12 hrs). A large 5 HP pump was purchased to reduce the complaints of low water pressure by residents at the north end of the Hamlet. Also, keep in mind that all this water is now chlorinated so the majority of the Hamlet’s chlorination system’s cost is being wasted on irrigation water.

WELL TESTING – Regular water quality testing (coliform, potability, etc.) is done according to provincial requirements. At some time in the past the PFRA Watrous office assisted the Hamlet in doing a well pump test (info from Earl Mosewich) but that office could no longer locate any records on it.

In December 2017 the Capital Budget Committee arranged for detailed water quality testing of both the well and nearby lake water to assess where the well draws water from. Based on the test results, the Sask. Environmental Lab representative estimated that there is a 75 to 100% chance the well – at that time – was drawing water from an aquifer, not the lake. Repeating this testing in the summer during high water use from the well would be beneficial, as would doing periodic water level measurements in the well.

Conducting a professional well drawdown test to determine the sustainable yield has not been done. Consultants indicate it would cost \$5,000 to \$10,000 to do this testing.

WATER CHARGES - Residents are not charged for their water use, nor is there any administrative method for Council to regulate individual water use. Council asks residents to conserve water at the Hamlet meetings but this seems to have little effect on water use. Council could raise awareness and monitor high water use by advising all ratepayers on weekly or monthly volumes from May to October. In 2017 the Hamlet paid approximately \$4,200 in total to operate and maintain the water system, which is paid from the Hamlet Reserve Account.

At their own cost, some lake-front residents have installed summer irrigation systems which reduces pumping from the Hamlet well. These residents are subsidizing the hamlet costs and reducing demands on the system, keeping pressures high for other residents without receiving any benefit or remuneration.

SUMMARY - North Colesdale property owners receive significant value from the existing water system – both convenience and significant financial savings vs. having to supply their own water needs. Property value is another benefit to property owners.

Committee Conclusion: The well and water system are a major asset that needs to be protected for the benefit of current and future residents. This is the highest priority for a capital project.

Options for Capital Projects to protect the Well and satisfy future water needs of the Hamlet

FUTURE WATER DEMAND – It is possible that maybe 10 +/- new dwellings could be developed within the Hamlet's current 61 lots, 30% more than at the present time. More cottages could be occupied on a year-round basis in the future. As well, but unlikely in the near to medium term (10 – 15 years), the Colesdale Park Corporation (CPC) could sell the park area to a developer. On this land another 10 to 30 dwellings could be established. Furthermore, those lake-front owners who have their own summer water systems could at any time decide to stop subsidizing the Hamlet and revert to using Hamlet water for summer irrigation.

The peak day summer demand is at 35,000 gal/day. In 10 years this could be as high as 70,000 gal/day (100 gal/min over 12 hours). And if the CPC sold the park land this 5 acres of land could add another 35,000 gal/day of summer demand.

- A) **LOW COST – INSTALL WATER METERS AND SHUT DOWN HYDRANTS** – The well would continue to be used. This has been done at other resorts to control water use. Each tie-in to the water line would be equipped with a remote-read meter. Fees generally start at a basic dollar amount for a “base” volume of water. Using more than the “base” volume costs more, and rates per 1,000 gallons increase so excessive use becomes significantly more expensive. The RM has a step-by-step process to implement this. Water fees would be an added line item on the RM tax bill. Capital cost is relatively low. There is no land disturbance from trenching. But extra administrative processes and costs are required for reading, accounting, and when a property is sold, similar to a city system. This would be the most equitable option for residents since it is based on the “User Pays” principle. Fees would cover operating, maintenance, and future capital expenses (pumps, back-up well drilling, and similar expenses). Property owners would be motivated to control their water use and possibly invest in their own summer water systems.
- B) **MEDIUM COST – DO PUMP TEST ON WELL. IF SUFFICIENT CAPACITY FOR FUTURE NEEDS THEN DEVELOP SUMMER WATER SYSTEM FROM WELL** – Do a professional well drawdown test. If capacity is proven. Install shallow-buried lines same as Option C below, with service boxes 1 for every 2 lots. Expand pump house. Install separate tank and pumping system with no chlorination. May require a second well as back-up. Info - Strasbourg's well has capacity for town of 1,000 people. No need for spring and fall placement and removal of a lake suction line as for Option C. One location for operator monitoring. Capital cost would be similar to Option C below. Residents would be charged a hook-up fee. Some may opt out of using it. Hydrants would be abandoned.
- C) **MEDIUM COST – INSTALL NEW SUMMER WATER SYSTEM WITH PUMPHOUSE ON NORTH MUNICIPAL RESERVE LAND** SaskPower to install new power service to new pump house. Shallow buried lines looping the hamlet for best pressure to all. Service boxes 1 for every 2 lots. Residents would be charged a hook-up fee as indicated above. A Sask. Water permit would need to be obtained. Hydrants would be abandoned.

Quotes have been received from 2 contractors for Option C. Cost of both B and C exceeds the present Hamlet Reserve Account. Quoted costs were adjusted by the Committee for items not included (SaskPower service, pump house) and we estimate the current final cost to be approximately \$135,000 to \$145,000. The RM office would handle tendering and obtaining official bids. The Committee believes that a contingency of 15 to 20% should be assumed, adding potentially another \$20,000 to 30,000.

Lastly – System Hook-Up fees would need to be established for either Option B or C. Annual water system operating costs are recommended to be paid from the Hamlet Reserve Account as done at present.

SUGGESTED NEXT STEPS:

TODAY - Council asks for an indication of interest or preference for Options A, B or C.

TODAY – If there is a great deal of support for one of the Options, then Council asks for a Motion to approve the preferred Option and give authority to Council to proceed and begin coordination with the RM.

TODAY – Establish an Implementation Committee of Hamlet ratepayers to assist Council.

SUBMITTED BY COMMITTEE MEMBERS: Brian Croft, Jim Leibel, Graeme Hunter, JoAnn Hval