WATER METER UPGRADE PROGRAM

Grant Funding Opportunities & Recommended Direction

Report to Council | June 10, 2026

Prepared by: CAO, Jim Brown

1. Executive Summary

This report presents a comprehensive review of water metering options for the Village, recommends the Neptune MACH 10 ultrasonic water meter supplied through Accu-Flo Ltd. (Calgary, AB) as the preferred product, and outlines the most promising grant funding programs available to offset the capital cost of a full meter replacement or installation program.

The Neptune MACH 10 is proven technology already deployed by neighbouring municipalities — Cardston County and the Town of Magrath — and has demonstrated exceptional long-term reliability. At an estimated cost of $800–$900 per unit, the total capital outlay will be significant. However, multiple grant programs exist at both the federal and provincial levels that could substantially reduce the Village's share of costs.

A collaborative bulk purchasing and grant partnership with Cardston County is also recommended, as it aligns with regional program eligibility criteria and will strengthen both communities' applications.

Council is asked to review this report and provide direction to Administration on next steps, including authorizing engagement with grant program administrators and formalizing the partnership discussion with Cardston County.

2. Background & Purpose

Accurate water metering is essential to sustainable municipal utility management. It ensures ratepayers are billed fairly for actual consumption, supports water conservation, and enables the municipality to detect leaks and losses within the distribution system. Many villages in Alberta — particularly those without metering or with aging mechanical meters — face unaccounted-for water losses that directly impact revenue and operating costs.

Administration has conducted research into the current best-available metering technology and identified the Neptune MACH 10 as the premier product for residential and small commercial applications. This report consolidates that research and layers in an analysis of available grant programs to help Council make an informed decision on how to proceed.

3. Recommended Product: Neptune MACH 10 Ultrasonic Water Meter

3.1 Technology Overview

The Neptune MACH 10 is a solid-state ultrasonic water meter manufactured by Neptune Technology Group, headquartered in Tallassee, Alabama. Unlike traditional mechanical meters that rely on spinning components, the MACH 10 uses transit-time ultrasonic technology to measure water flow. This technology takes advantage of the principle that an acoustic signal travels faster moving with the flow of water than against it, allowing precise measurement without any moving mechanical parts.

3.2 Key Technical Features

- No Moving Parts: Eliminates the primary source of wear and mechanical failure found in conventional meters, directly reducing the risk of accuracy degradation over time.
- Sustained Accuracy for Life of Meter: Solid-state metrology means there is no mechanical degradation. The meter delivers the same accuracy on Day 1 as it does in Year 20.
- Extended Low-Flow Detection: The MACH 10 offers superior low-flow sensitivity, enabling detection of even small household leaks that conventional meters would miss — a critical feature for revenue protection.
- Lead-Free, High-Copper Alloy Maincase: Fully compliant with NSF 61 and NSF 372 (lead-free) standards, ensuring safe drinking water applications.
- Fully Potted Electronics & Battery: The meter's electronics and battery are sealed against moisture, dirt, and contaminants, making it suitable for installation in pit environments including those prone to flooding.
- AMR/AMI Compatible: The MACH 10 R900i variant includes an integrated Neptune R900 radio module for Automatic Meter Reading (AMR) and Advanced Metering Infrastructure (AMI) systems, enabling drive-by or fixed-network meter reading.
- Available Sizes: Residential models in 5/8" x 3/4" through 1", and intermediate/commercial models in 1.5" and 2", with a commercial and industrial range up to 12".
- Certifications: AWWA C-715, ANSI 61, ANSI 372, NSF 61, NSF 372, and UL 327B (for 1.5" and 2" fire service applications).
- No Maintenance Required: The design eliminates routine maintenance requirements, reducing the long-term labour and operational cost of the metering program.

3.3 Supplier: Accu-Flo Ltd., Calgary, Alberta

Accu-Flo Ltd. is an Alberta-based distributor supplying Neptune meters to municipalities across the province. Administration has confirmed that both Cardston County and the Town of Magrath source their Neptune MACH 10 meters through Accu-Flo, and both municipalities report high satisfaction with both the product performance and the supplier relationship. The use of an Alberta-based supplier supports local supply chains and ensures responsive after-sales service and parts availability.

3.4 Pricing

Item	Low Estimate	High Estimate
Neptune MACH 10 (per unit — residential)	$500	$700
Estimated units (placeholder — confirm with Accu-Flo)	TBD	TBD
Meter reading equipment (if purchased independently)	$25,000	$30,000
Note: Meter reading equipment cost can be eliminated through Cardston County contract — see Section 5.		

3.5 Local Peer References

The following municipalities in the region are currently using Neptune MACH 10 meters through Accu-Flo and have confirmed reliable performance over multiple years of operation:

- Cardston County — Extensive deployment across rural residential and agricultural connections. County staff have reported high satisfaction and negligible maintenance requirements.
- Town of Magrath — Deployed for residential metering. Reported sustained accuracy and no significant field failures.

These peer references are particularly valuable as both communities share similar climate conditions (including cold winters and freeze-thaw cycles) and rural-municipal water service characteristics comparable to our own.

4. Grant Funding Opportunities

Administration has identified four primary grant and funding programs well-suited to a water meter installation or replacement project. These are summarized in the table below, followed by individual program descriptions.

Program	Funding Level	Jurisdiction	Notes
Alberta Municipal Water/Wastewater Partnership (AMWWP)	Up to 75% of eligible costs	Provincial	Primary program — water conservation metering strongly incentivized
Canada Community-Building Fund (CCBF)	Annual allocation — flexible use	Federal/Provincial	Broadest flexibility; water infrastructure is eligible
FCM Green Municipal Fund (GMF)	Grants up to 50–60% + low-interest loans	Federal (FCM)	Water efficiency/conservation projects eligible
Investing in Canada Infrastructure Program (ICIP)	Federal/Provincial cost-share	Federal/Provincial	Larger projects; regional collaboration strengthens applications

4.1 Alberta Municipal Water/Wastewater Partnership (AMWWP)

The AMWWP is the most directly relevant provincial program. Administered by Alberta Transportation and Economic Corridors, it has provided cost-shared capital funding to Alberta municipalities since 1991. Eligible projects can receive up to 75% of project costs, with the exact percentage determined by the municipality's official population at the time of approval — meaning smaller communities like ours qualify for higher funding ratios.

A critical and highly relevant feature of the AMWWP is its water conservation criteria. Municipalities may be subject to reduced grant funding if they do not have water metering in place and average annual consumption exceeds the provincial norm, or if they have meters but have not implemented a consumption-based rate schedule. This means that not only is a metering program eligible for AMWWP funding — it is actively incentivized. Proceeding with a metering program directly strengthens the Village's position for any future AMWWP applications related to water supply or treatment upgrades as well.

Application deadlines are typically November 30 each year, with approved projects announced in the spring. Administration should contact the relevant Alberta Transportation Regional Office to discuss eligibility and project scoping prior to submitting an application. Regional water partnerships between two or more municipalities — such as the proposed collaboration with Cardston County and Hill Spring — are also explicitly eligible under AMWWP provisions.

4.2 Canada Community-Building Fund (CCBF)

The CCBF (recently rebranded as the Community Stream of the Build Communities Strong Fund at the federal level) is a permanent, indexed federal funding program that flows to municipalities through the Province of Alberta. All local governments in Alberta — including villages — receive annual per-capita allocations. Water and wastewater infrastructure is a listed eligible project category, and the FCM has specifically cited water meter replacement programs as a successful use of CCBF funding by other Canadian communities.

Unlike competitive grant programs, CCBF funding is allocated annually and can be banked for up to five years, giving Council flexibility to accumulate and deploy funds strategically. A water meter program could be funded in whole or in part from accumulated CCBF reserves, and CCBF dollars can be stacked with other grants to bridge any funding gaps. Alberta received $276 million in CCBF funding for 2025–26, with allocations flowing to all municipalities across 19 eligible project categories.

4.3 FCM Green Municipal Fund (GMF)

The Green Municipal Fund, administered by the Federation of Canadian Municipalities (FCM), provides grants and low-interest loans for municipal environmental projects. The water sector is one of five eligible sectors under GMF, and water efficiency and metering projects are directly aligned with the Fund's outcomes-based eligibility criteria, which focus on improvements to water quality, reduction in water loss, and conservation.

For capital projects, the GMF offers low-interest loans combined with a grant of 15% of the loan amount, with financing available for up to 80% of eligible project costs. For pilot and feasibility initiatives, grants of up to 50% of eligible costs (to a maximum of $350,000) are available. Given that a metering program can be structured to demonstrate measurable water conservation and loss reduction outcomes, it is a strong candidate for GMF support.

4.4 Investing in Canada Infrastructure Program (ICIP)

The ICIP is a broader federal-provincial cost-sharing program for infrastructure projects. It has previously funded water and wastewater upgrades across Alberta through multi-community partnership applications. While this program is better suited to larger capital projects, the collaborative approach being discussed with Cardston County could make a joint meter and AMR/AMI infrastructure application competitive under this stream. Administration should monitor ICIP intake windows and consult with Alberta Municipal Affairs regarding eligibility.

4.5 Grant Stacking Strategy

Grant stacking — the combined use of multiple funding sources to reduce a municipality's net share — is permitted under most of these programs provided federal stacking limits are respected (typically, federal funding from all sources cannot exceed 50% of total eligible costs in a province). A recommended stacking approach would be:

- Primary application: AMWWP (up to 75% of eligible provincial project costs)
- Supplement with CCBF annual allocation to cover remaining municipal share
- Explore GMF for a complementary feasibility or pilot study grant to support project planning
- Monitor ICIP for future phases that may accommodate regional joint applications

5. Regional Partnership with Cardston County

5.1 Bulk Purchasing

Cardston County has expressed interest in collaborating on a bulk purchasing arrangement for Neptune MACH 10 meters. Purchasing in volume through a single coordinated order with Accu-Flo has the potential to reduce the per-unit cost below the current $800–$900 range and to strengthen the supplier relationship for ongoing support. Administration recommends that Council authorize formal discussions with Cardston County to scope out a potential joint procurement, including confirmation of the number of units each municipality would require and any timeline considerations.

5.2 Joint Grant Application

A joint or regional grant application with Cardston County and Hill Spring would likely be viewed favourably under both the AMWWP and ICIP frameworks, which explicitly recognize regional partnerships as a funding priority. A combined application representing the water metering needs of multiple southern Alberta municipalities demonstrates regional benefit, reduces duplication, and aligns with provincial water conservation objectives. It may also allow the combined project to meet minimum thresholds for programs that favour larger-scale initiatives.

5.3 Contracted Meter Reading Services

Administration has held preliminary discussions with Cardston County and regarding the possibility of contracting their meter reading services to serve the Village. This arrangement would allow the Village to avoid the capital cost of purchasing its own meter reading equipment — currently estimated at $25,000 to $30,000 — and instead access an established service on a fee-for-service basis.

This is a significant operational and financial advantage. Not only does it eliminate a major upfront cost, it leverages Cardston County's existing investment in AMR/AMI infrastructure and their trained staff. A formal service agreement would need to define the scope of service, frequency of

reads, data delivery format, and annual fees. Administration recommends that this be formalized through a Memorandum of Understanding (MOU) or service contract as part of the broader regional partnership.

6. Indicative Financial Overview

The following estimates are illustrative and will require confirmation of the exact number of meters needed, final unit pricing from Accu-Flo (including any bulk discount), and the applicable grant percentages based on the Village's official population. Council should treat these as order-of-magnitude figures for planning purposes.

Cost Item	Low Estimate	High Estimate
Meter supply (TBD units × $500–$700)	To be confirmed with Accu-Flo	
Meter reading equipment (if not using County contract)	$25,000	$30,000
Meter reading equipment (with County contract — capital avoided)	$100/month	$200/month
Installation labour (estimate; may be eligible cost)	$200	$300
Potential AMWWP grant offset (up to 75% of eligible costs)	**(up to 75%)**	**(up to 75%)**
CCBF — potential supplemental contribution	**Annual allocation**	**Annual allocation**

7. Recommended Next Steps

Based on the research summarized in this report, Administration recommends that Council provide direction on the following actions:

- Authorize Administration to contact Accu-Flo Ltd. to obtain a formal quote for Neptune MACH 10 meters, including available volume pricing and delivery timelines.
- Direct Administration to conduct a meter inventory assessment to confirm the total number of units required for a full Village-wide program.
- Authorize Administration to contact Alberta Transportation and Economic Corridors (Southern Region) to discuss AMWWP eligibility and project scoping for a metering program.
- Authorize Administration to formally approach Cardston County to explore: (a) a joint bulk purchasing arrangement for Neptune MACH 10 meters; (b) a joint or coordinated grant application under the AMWWP; and (c) a contracted meter reading service agreement.
- Direct Administration to submit an inquiry to the FCM Green Municipal Fund regarding eligibility of a water metering feasibility study and/or capital project grant.

- Bring a follow-up report to Council once quotes, grant eligibility confirmation, and partnership terms with Cardston County and Hill Spring are in hand.

8. Conclusion

The Neptune MACH 10 ultrasonic water meter represents the current standard of excellence in residential and small municipal water metering. Its no-moving-parts design, lifetime accuracy, and compatibility with modern AMR/AMI reading systems make it the right choice for a long-term metering investment. The fact that it is already in proven service with our nearest neighbours — Cardston County and the Town of Magrath — provides strong peer validation and a support network that smaller communities rarely have access to.

The grant landscape for this type of project is genuinely favourable. The AMWWP's explicit water conservation incentive means the Village is well-positioned for a strong application. The Canada Community-Building Fund provides a flexible, bankable backstop. And the FCM Green Municipal Fund opens another avenue for environmental outcomes funding.

The partnership opportunity with Cardston County and Hill Spring is perhaps the most strategically important element of this report. Combining bulk purchasing power, joint grant applications, and a contracted meter reading arrangement eliminates the need for the Village to make a separate $25,000–$30,000 capital investment in reading equipment and positions all communities for better grant outcomes.