

Vermilion River Region Water Operator Consortium Project



Disaster Strikes

- May 15, 2000, “the Walkerton, Ontario disaster” forever changed the way municipal water operators performed their day to day operations of their municipal plants.
- Although many provinces away, this disaster prompted the Government of Alberta to introduce the Alberta Environmental Protection and Enhancement Act.
- Effective January 1, 2005, every municipality is REQUIRED to have a minimum of ONE certified operator at every municipal water plant.

Small Communities

- Small municipalities were having trouble keeping Level 1 water operators in each of our communities because of constant turn over or inability to fill the vacancy.
- The economic boom often meant we simply could not compete with the large salaries outside companies were offering
- Stringent water quality standards and strict requirements for certified operators to retain certification resulted in a shortage of personnel who were trained or willing to train for that position.
- Many operators could not and did not want to maintain the double duty of Public Works Foreman and Water Operator.



A Solution Must Be Found

- In 2008, several Villages in the Vermilion River Region started looking for a long term, financially feasible solution that met Alberta Environment's new regulation for the Water Operator Attendance.
- On October 22, 2008, the Alberta Environment study "Operator Consortium Report" was initiated. Six municipalities: Marwayne, Mannville, Paradise Valley, Dewberry, Kitscoty and the County of Vermilion River signed the "Memorandum of Agreement" which stated that the municipalities were interested in developing inter-municipal co-operation for the operation and maintenance of our drinking water supply systems.
- This initiated a three step approach towards our final goal of hiring a "Regional Water Operator"

The Solution

Step 1: Completion of the "Operator Consortium Report: Alberta Environment"

The objective of this preliminary design was to develop several models of cooperation among the Vermilion River area municipalities. Final recommendation was that a SCADA system would be deliberately built to communicate, if needed, with the Villages and the County, forming a backbone to a bigger regional system as regional water lines are built within the area. SCADA also provides reliable information on the current and historical operations of the water plant and provides leading edge technology for detailed record keeping and remote access to water treatment equipment.

The Solution

Step 2: Develop a Business Case to work regionally: governance model and SCADA feasibility completed

A Regional Initiatives Grant was awarded and completed to break down costs, financial feasibility and establishing a governance model to work under. On September 20, 2010, a Memorandum of Agreement "Water and Wastewater Treatment Systems Agreement" was entered into by the Village's of Marwayne, Kitscoty and Dewberry. This agreement allowed the villages to co-ordinate their efforts and co-operate in having adequate provision and maintenance of the water and wastewater services to their respective municipalities by jointly supporting and funding the hiring of a Level 1 Operator. The Village of Marwayne hired a qualified operator who is dedicated to providing the regional service with all costs divided equally.

The Solution

Step 3: SCADA Supervisory Control and Data Acquisition

Water For Life: SCADA grant \$353,855

- We secured funding from the Water for Life program for SCADA. This application to Alberta Transportation for funding was viewed as a new concept for small system operations and cooperation within a regional group.
- Funding was awarded and SCADA was put in place allowing many efficiencies including reliable information on current and historical operations of the water plants, reducing the need for daily attendance by the operator, providing leading edge technology for detailed record keeping and remote access to the water treatment equipment, saving weekend/evening callouts as the operator can ascertain remotely if attendance is not immediately required.

The Solution

Step 4: To establish the position of the Regional Water Operator

The Village of Marwayne hired a qualified operator who is dedicated to providing the regional service with all costs divided equally. The Villages of Mannville and Paradise Valley already having their own certified operator, would have access on a cost-basis to the Consortium Operator to cover their operator's holidays or sick days. The hiring of a new operator meant all human resource policies had to be reviewed and updated. All three municipalities had to revise their job descriptions and organizational charts to ensure everyone had equal communication and chain of command in each municipality.

The Results

Regional Partnership Initiative

- ▣ The Villages of Marwayne, Kitscoty and Dewberry were able to recruit and fill the position with a graduate from the NAIT water/wastewater two year course.
- ▣ The villages purchased all necessary accessories including a truck, computer and equipment, cost sharing all cost equally at one-third each.

Regional Collaboration Program

- ▣ Our operator is fully self sufficient with a “mobile office”, equally dividing his time and efforts within the three communities.
- ▣ One operator then resulted in joint purchasing and delivery of various supplies such as chlorine, further saving municipalities money.
- ▣ One operator in each community does not make sense.
- ▣ There is one operator handling three municipalities with the other two Villages retaining their current multi-functional staff.
- ▣ Each municipality is still training current public works staff to fill that backup role, enabling operators to be available to cover holidays and sick time

Costs

Marwayne’s Set-Up Costs for Regional Water Operator Consortium: net \$10,854

- ▣ Water operator truck, 1/3 portion: \$9,024
- ▣ 10% cost for SCADA: \$4,830
- ▣ Marwayne will be paid by other municipalities \$3000 for payroll/invoicing activities

Marwayne’s 2nd year and beyond costs/year:
\$38,500

Budget Projections

	Year 1	Year 2	Year 3
Expenditures - Operating			
Salaries	\$58,500	\$60,000	\$62,000
Benefits	\$14,500	\$15,000	\$15,500
Travel and Subsistence	\$2,000	\$2,000	\$2,000
Training	\$1,500	\$1,500	\$1,500
Memberships	\$1,000	\$1,000	\$1,000
Administration	\$3,000	\$3,000	\$3,000
Telephone/Cell	\$2,500	\$2,600	\$2,700
Equipment Maintenance	\$1,500	\$1,500	\$1,500
Computer Supplies and Stationary	\$1,500	\$1,500	\$1,500
Insurance	\$1,100	\$1,200	\$1,300
Gas, Oil and Lubricants	\$15,000	\$15,000	\$15,000
Relief Operator	\$5,000	\$5,200	\$5,400
Transfer to Reserves	\$0	\$6,000	\$6,000
Sub-total	\$107,100	\$115,500	\$118,400
Expenditures - Capital			
Vehicle	\$35,000	\$0	\$0
Other Capital for Start Up	\$15,000	\$0	\$0
Sub-total	\$50,000	\$0	\$0
Total Expenditures	\$157,100	\$115,500	\$118,400
Total Expenditures - Three Years		\$391,000	
Expenditures Per Year (Average)		\$130,333	

Outcomes

- Increased competitiveness
- Sustainable Communities
- Regional/Community Readiness
- Community/Regional Capacity Building

This project highlighted the fact that Villages can work together without big municipalities to create practices that work for small urban municipalities.

Villages are finding ways to be flexible and open to solving solutions to various problems.

Small communities are continuing to find unique ways for cost effectiveness.

