



Operator Consortium Report Counties of Two Hills and Minburn



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Operator Consortium Report Counties of Two Hills and Minburn

Final Report – January 18, 2008

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Operator Consortium Report Counties of Two Hills and Minburn

1.0 INTRODUCTION

Many smaller communities are experiencing difficulties finding and retaining certified personnel to operate their water treatment and distribution systems. This has come about due to the economic boom in Alberta, the more stringent water quality standards and the strict requirements for operators to become certified and subsequently retain that certification. In addition, Operating Approvals are requiring that operators dedicate more time to water systems and be in attendance on a more regular basis. Many communities are finding it difficult to budget for these expanded duties. The problem is more critical if communities have only one employee to operate the water system and complete other public works activities.

Alberta Environment has recognized the problem facing smaller communities and has endeavored to provide some assistance through the Drinking Water Operation Specialist positions it created. Alberta Environment has also commissioned studies, such as this one, to seek other solutions that may be put into practice by municipalities.



This study details the situation at several water treatment plants within rural Alberta and develops several models that could be used to provide regional or inter municipal cooperation for the operation and maintenance of their drinking water supply systems. Based on this work, Earth Tech provides a series of recommendations and Memorandums of Understanding that will assist in the development of an operator consortium,

2.0 SITE INFORMATION

2.1 *Village of Derwent*

The source of water for the Village of Derwent is considered to be poor as it contains high levels of sodium and solids. With two deep wells and a process of only chlorination, most of the 117 population do not drink the supplied water, preferring bottle water for drinking and cooking.

With no immediate plans to improve the water treatment process, it is the long term view of the Village that it will be supplied from a new water treatment plant 30 km to the north, on the North Saskatchewan River, via a regional water line.

The Village currently employs one certified operator who operates only the water system. This operator spends about 5 hrs per week completing daily checks and tasks with maintenance completed on an as needed basis. The intention in the future is for the CAO of the Village to obtain her certification so that she can provide back-up to the certified operator.

The Village confirmed that they were very interested in a consortium. However, they felt that they would probably be a better fit with the County of Vermilion River or the Town of Vermilion.

2.2 Hamlet of Duvernay

With a source of water from two wells, that presents no treatment challenges, the water treatment plant that serves the Hamlet of Duvernay only comprises of simple chlorination. With a population of 40 individuals, the Hamlet is managed by the County of Two Hills. In order to ensure a supply of wholesome potable water, the County has engaged the services of the Town of Vegreville to provide a certified operator to operate the water system. Due to the size and complexity of the system, the required daily testing and checks take approximately 1 hour per day.

2.3 Village of Innisfree

With three deep groundwater wells providing raw water, the Village of Innisfree, population 233, considers its water source to be of good quality. With elevated concentrations of iron and manganese within the raw water, the water treatment process consists of potassium permanganate dosing, greensand filtration and chlorination.

At this time, the operation of the water treatment plant presents no challenges and its certified operator spends approximately six hours per week checking and maintaining the plant. The Village currently has an additional individual to provide cover-off, with a third person due to write certification exams shortly. Both of these individuals have other responsibilities/positions within the Village, limiting their availability.



The Village confirmed its interest in an operator consortium, but noted that the operators would need to be consulted as they are part time and have other responsibilities. In addition, the council would have to be approached for approval. This is consistent with any other town or village.

2.4 Hamlet of Lavoy

The Hamlet of Lavoy is supplied with water from a source with high concentrations of both iron and manganese. Using three water wells located within the Hamlet, the treatment process consists of oxidation using potassium permanganate, greensand filtration and chlorination. With two treated water storage reservoirs and a population of 112, no issues with regard to water supply were raised during discussions. Responsibility for the operation of the water treatment system rests with the County of Minburn. They have engaged the services of the Town of Vegreville to provide certified operators to run the water treatment system and ensure the supply of potable water.

2.5 Village of Mannville

The Village of Mannville is in a unique situation as they have a certified operator with 20 years of experience and are currently trying to record the knowledge he has gathered on their water system.

The water system is supplied with good quality ground water that requires no significant treatment. Sodium hypochlorite is used to chlorinate the water at each source location. One of the deep water wells supplies the reservoir directly and the remaining three pump water directly into the distribution system.

The public works staff consists of one supervisor (certified) and two additional permanent staff members, who support the certified operator. The Village is open to exploring the creation of an operator consortium and certainly has resources that could be used. However, they did raise valid points about the time that would be required for cross-training and maintaining familiarity with other water systems within the consortium.

2.6 Village of Myrnam

The Village of Myrnam operates a water treatment plant that addresses the high concentrations of iron and manganese within the source water. Supplied by two ground water wells, the treatment plant consists of potassium permanganate dosing, greensand filtration and chlorination using sodium hypochlorite.

The public works staff for the Village consists of a single individual who operates the water treatment plant in addition to completing all other public works activities. On average this individual spends approximately one hour per day completing the required daily tasks and a further one to two hours per week on maintenance. In order to manage his work load, the operator has set up his system so that he can monitor key parameters at the water treatment plant via the internet and has installed a web-camera so that he can view the plant remotely.

The Village believed that they would have little to offer a consortium where resources were shared on an as needed basis as their operator is fully occupied. They also raised concerns with regards to liabilities, cross training and how tasks would be prioritized.

2.7 Town of Two Hills

With five ground water wells spread around the community, the source water for the Town of Two Hills contains high concentrations of both ammonia and sodium. With chlorination applied at each of the well locations, the treated water is pumped directly into the distribution system, with any excess water entering the water tower located close to the centre of Town.

The two certified operators working for the Town spend a total of two hours per day completing daily residual checks and tasks. However, when the concentration of



ammonia within the raw water varies, it can take the operators several hours to re-establish and stabilize the total chlorine residual. Other tasks such as water break repairs and maintenance are completed as required.

The Town expressed interest in the operator consortium. However, staff noted that substantial work would be required in its set up as establishment of common standard operating procedures and further cross-training would be required.

2.8 Town of Vegreville

The Town of Vegreville has no water treatment plant and receives its water from EPCOR via the regional transmission line that runs east out of Edmonton. The water from the transmission line enters a large reservoir on the edge of Town and requires no further chlorination before being re-pumped into the local distribution system.

The Town of Vegreville has undertaken a strategy where it is prepared to enter into contracts with other communities to supply certified personnel to operate water systems. At this time they have agreements with the County of Two Hills for the Hamlet of Duvernay, the County of Minburn for the Hamlet of Lavoy and the Village of Willingdon. With the support of the Town Council, the public works department already has three certified operators available to provide these services. Two more staff members are due to become certified in the coming months.

The Town confirmed their willingness to be involved in, and potentially lead, an operator consortium that would operate water systems under contract to local municipalities. By the application of remote monitoring system, the Town believes a team could be built, as contracts were set up, that would be directed by an experienced senior operator.

2.9 Village of Willingdon

The Village of Willingdon, population of 295, is responsible for the operation of a small water treatment plant that uses ground water as a source. As this water contains high concentrations of iron and manganese, the water treatment process consists of potassium permanganate dosing, greensand filtration and chlorination.



As the Village has previously experienced difficulty in finding and retaining certified water treatment operators, they have entered into a contract with the Town of Vegreville to operator the water treatment plant. This contract also extends to sewer maintenance and the provision of a by-law officer.

At the time that the data for this report was collected, the certified operator confirmed that he spent approximately 1 hour a day completing daily checks and 2 hours traveling. As the water treatment plant has issues with calcium carbonate scaling and its general condition,

approximately 15 hours of the operator's week can be allocated to maintenance. After hours issues at the treatment plant are dealt with by the local public works employee.

The Village believes that water supply is an important issue that requires attention and welcomes the idea of a consortium or commission that would run a number of water treatment plants.

2.10 County of Minburn

The County of Minburn is responsible for the operation of the water treatment plant that serves the Hamlet of Lavoy. With no certified operators on staff, the operation of the water treatment system has been contracted to the Town of Vegreville.

At this time, the County is satisfied with the arrangement and welcomes the creation of a not-for-profit commission as they foresee that in the future more water treatment systems (both community and developments) will come under County control. The County also noted that they would like to see more support from Alberta Environment from both a technical and funding perspective.

2.11 County of Two Hills

The County of Two Hills is responsible for the operation of the water treatment plant that serves the Hamlet of Duvernay. As with the County of Minburn, the operation of the water treatment system has been contracted to the Town of Vegreville.

The County does recognize its responsibility in supplying drinking water and has procured SCADA equipment to allow remote access to the Hamlet of Duvernay's water treatment plant. Once installed, this will allow the certified operator for the plant to access and monitor the process from remote locations and, if necessary, take appropriate measures.

The County supports the initiative to create an operator consortium and favors the option that would have a senior certified operator direct and manage a team dedicated to the operation of water treatment plants. It is the County's intention to identify a further three to four individuals from within their staff who could undergo the process for small systems certification.

3.0 GENERAL DISCUSSION

During the discussions held with the representatives of each of the municipalities, several items were repeatedly raised that need to be noted.

- ***Wastewater Treatment*** - Since the certified operators are generally the same people who operate the wastewater treatment facilities, it makes sense to include the operation of these systems within the consortium. The wastewater treatment facilities are lagoons in all cases and it would be a matter of the certified operator covering the water treatment plant overseeing the operation of the wastewater system on an as required basis.
- ***Budget Requirement*** – Due to the potential complexity and lack of real information the municipalities were cautious with regards to committing budgets and resources. It would be prudent, but not essential, that in the initial stages each municipality enters into agreements with as many of the other municipalities as is practical. These agreements

would be similar to the mutual aid agreements set up by the fire departments and could be as straight forward or as complex as the individuals involved require. As the more distant ones would be more expensive, due to driving time and distances, charges on an hourly and mileage basis is suggested. The costs for participating in the consortium may appear to outweigh the cost of hiring a new employee. However, factors such as ongoing certification, experience, knowledge, identifying suitable applicants and retaining them need to be considered.

- *Regional Water Line* – The lines are either in a conceptual or study stage and are several years away from completion. The need for mutual support or an operator consortium is recognized as an immediate requirement, and as such can adapt if and when regional water lines are commissioned.
- *Role of Alberta Environment* – Concerns were raised as to what would happen if an operator covering a site were to make an error which required the involvement of Alberta Environment. How Alberta Environment would react needs to be considered and this view communicated to the municipalities involved so that they fully understand the level of responsibility and the liability they are taking onboard by entering into the operator consortium.

During recent discussions with Alberta Environment staff, they have confirmed that they fully endorse and encourage the creation of an operator consortium. With regards to liability, they confirmed that this rests with the approval holder and as such the approval holder must ensure that checks to demonstrate due diligence are completed.

- *Familiarity with Water Treatment Systems* – Once the consortium is in place, initial cross training would be necessary, as would occasional refreshers. Each system's standard operating procedures would need to be updated so that they were all as similar as possible, allowing the operators to locate the relevant information quickly. The costs for cross-training and refreshers would need to be included within any agreements.
- *Prioritization* – In the case of cover-off, a situation will eventually occur where an individual will need to decide if his or her own work takes priority over providing support to another community. Sometimes, that decision will be made for them by a superior. Therefore, each community would need to implement a system whereby operators can either prioritize their work or refer the prioritization to management. In addition, communities requesting support must recognize that sometimes ad hoc support cannot be given.
- *Operator Certification* – A water treatment operator's level of certification is dependant upon the complexity of the water treatment plant and system he or she normally operates. In considering the operator consortium, Alberta Environment needs to agree how certification will be maintained when an operator is responsible for multiple plants and how the temporary cover-off for water treatment plants and systems can be achieved when one or two water treatment plants require operators with a higher level of certification than the majority.

4.0 CONSORTIUM MODELS

The three models listed below are possible versions of an operator consortium that could be implemented by the municipalities. These models are listed in the order of implementation at a rate to be determined by the parties involved. In certain circumstances it may be appropriate to move straight to the second model.

4.1 *Co-operative Agreement*

- List of named certified operators who provide emergency support and cover-off.
- Communities have an agreed protocol for requesting support. Both operators and the municipalities' administration need to fully support the consortium, recognizing that this may impact other public works activities.
- Costs are charged on pre-agreed hourly rates and kilometers traveled and invoiced on a regular basis. Chargeable hours to include travel time.
- Operators have to become familiar with the water systems in the other communities within the consortium. Therefore, budgets must be made available to maintain/improve standard operating procedures and to allow site visits to maintain familiarity with the systems (i.e. cross-training).

4.2 *Lead Municipality*

- A municipality within the region is identified, or volunteers, to provide certified operators to other communities to operate their water treatment plants and systems.
- The lead municipality will enter into agreements with the communities detailing the services provided and the associated costs.
- In order for this to work the lead municipality must received a minimum level of commitment from the communities so that resource levels can be maintained and staff recruited accordingly.

4.3 *Regional Commission*

- A commission independent of any specific municipality.
- Member municipalities will share the costs to provide a dedicated team of certified operators. These operators will be responsible for water treatment and distribution within those municipalities.
- If appropriate, local public works staff could be utilized to provide after hours support. Agreements would need to be created to allow the Commission to fund these support activities. This could be extended to other contracted services such a water break repairs, which would be conducted under the supervision of the certified operator.

5.0 SCHEDULE

On the basis of the information collected as part of this study and the discussions held with each municipality, Earth Tech believes that a staged approach is the best option. This can be summarized as:

1. Set up Memorandums of Understanding to create a consortium to provide short term support and cover-off.
2. Identify a lead municipality to provide certified operators to operate the water system of those communities who wish to engage their services.
3. Create a Regional Commission.

Regardless of the options undertaken and the schedule followed, the implementation of a remote monitoring system is key for the operation of a consortium within a rural environment. By investing in remote access/control, the amount of travel between locations can be reduced, which in turn reduces operational costs.

An initiative of this type would qualify for funding from Alberta Infrastructure and Transportation either under the “Water for Life” program or the standard Municipal Grant program.

Options to be considered for remote monitoring systems include:

- i. Basic site monitoring of final water quality, reservoir levels, flowrates, pump status and building condition. These parameters would be trended where appropriate so that an operator can view historical information.
- ii. All of the provisions in the first option, plus the ability to stop and start the water treatment plant.
- iii. Full automation of system to allow all previous provisions including the ability to monitor chemical storage levels, change chemical feed rates and change duty/stand-by arrangement for equipment.

6.0 CONCLUSIONS

Historically, the role of a community’s water treatment operator has been filled by public works staff that were initially hired to maintain the community’s roads and buildings. Where there is sufficient staff to allow an individual time to develop the skills and operate the water treatment plant, this has system worked.

However, where individuals have the levels of education and training required to become certified operators, they are often reluctant to perform other public works duties. Today with options in formal education such as NAIT’s Water and Wastewater Technician Program, this issue is becoming more apparent and as such the need to recognize the importance of water and the skills required to operate water treatment plants and distribution systems is long overdue.

In the case of the municipalities that were consulted as part of this process, the hiring and retention of certified water treatment operators is a significant issue. In all cases, the principle of

an operator consortium was welcomed, subject to clarification of its workings and the budget/time commitment required.

In some cases an operator consortium in the form of formal and informal agreements between communities already exists. This provides a basis on which to build some of the ideas and options presented within this report. The importance of a reliable remote monitoring/SCADA system to enhance the daily operation of a consortium cannot be stressed enough. These monitoring systems will reduce traveling time, operational costs and provide reliable information on the current and historical operation of the water treatment plants. The Town of Vegreville, which indicated a desire to lead such a consortium, is already working under contract to operate water systems, some of which have the capability for remote monitoring.

The municipalities included in this study indicated that there is already a support and communication network in place among the operators. The water treatment plants reviewed as part of this study either use simple chlorination or iron/manganese reduction with potassium permanganate and greensand filtration. This level of treatment does not present any issues with regards to the level of certification required for cover-off. However, operators used to a simple chlorination system may require refresher training with regards to the iron and manganese removal systems

The cover-off for the water distribution systems is more complex. Three of the communities consulted have operators that hold SSW certification. This restricts these operators from covering three of communities that have populations greater than 500 as WDI certification is required. This includes the Town of Vegreville which has a water distribution system that has a WDII classification as it has a population greater than 1,500. This is not envisaged to be a problem for the Town of Vegreville as it currently has sufficient certified staff to provide cover-off.

The expectations of Alberta Environment with regard to the level of certification required for the distribution system cover-off is unclear. It may be possible for an operator with a slightly lower level of certification to cover the distribution system for a short period, providing instructions by the senior certified operator have been provided. As such, this possibility should be explored further by the communities and Alberta Environment during the development of the Memorandums of Understanding resulting from this study.

7.0 RECOMMENDATIONS

Based on the information collected during this study and the development work undertaken, Earth Tech's recommendations with regards to the implementation of an operator consortium within Counties of Two Hill and Minburn are:

Timeline

1. Interested municipalities to finalize and sign a general Memorandum of understanding confirming their intention to develop agreements which will result in regional or inter municipal cooperation for the operation and maintenance of their drinking water supply systems. By April 2008

Timeline

- | | | |
|-----|---|--|
| 2. | Implement formal agreements between individual municipalities based upon the Memorandum of Understanding included within Appendix III of this report, to provide temporary cover on an as needed basis. | By May 2008 |
| 3. | As a group of interested parties, determine the degree of remote monitoring and control required by individual communities and an operator consortium and the feasibility of achieving it. | By June 2008 |
| 4a. | Consider the lead municipality model and identify a party who would be prepared to provide water treatment system services to other communities. | Consideration/
identification by July
2008 |
| 4b. | Implementation of the lead municipality option would be dependant upon the identification of such a municipality and the challenges they face. | Implementation by End
of 2008. |
| 5. | Implementation of remote monitoring and control systems for use by individual communities or the operator consortium. | By End of 2008 |
| 6. | Formation of independent Regional Commission. | When Appropriate |

APPENDIX A

PROCESS/OPERATOR CERTIFICATION SUMMARY

Counties of Two Hills and Minburn – Process / Operator Certification Summary

Municipality	Pop. Served	Process Description	Prod.	Facility Classification	Level of Certified Operator Required	Certified Operator
Village of Derwent	117	Chlorination		Water Distribution I	Treatment - n/a Distribution – WDI / SSW	Mike Laszlo (SSW)
Hamlet of Duvernay	40	Chlorination		Water Distribution I	Treatment – n/a Distribution – WDI / SSW	Randy Cyba (WTI / WDII)
Village of Innisfree	233	Potassium Permanganate Dosing Greensand Filtration Chlorination		Water Treatment I Water Distribution I	Treatment – WTI / SSW Distribution – WDI / SSW	Ried Burgman (WTI) Elden Kostynuk (SSW)
Hamlet of Lavoy	112	Potassium Permanganate Dosing Greensand Filtration Chlorination		Water Treatment I Water Distribution I	Treatment – WTI / SSW Distribution – WDII / SSW	Randy Cyba (WTI / WDII)
Village of Mannville	782	Chlorination		Water Distribution I	Treatment – n/a Distribution – WDI	Dean Gadke (WDI)
Village of Myrnam	362	Potassium Permanganate Dosing Greensand Filtration Chlorination	1.5 l/s	Water Treatment I Water Distribution I	Treatment – WTI / SSW Distribution – WDI / SSW	Carey Yaremchuk (SSW)
Town of Two Hills	1232	Chlorination Ammonia in Raw Water		Water Distribution I	Treatment – n/a Distribution – WDI	Dwight Popowich (WTI / WDI) Darren Banack (WTI / WDI)
Town of Vegreville	5520	None		Water Distribution II	Treatment – n/a Distribution – WDII	Randy Cyba (WTI / WDII) Dale Lefebvre (WTI / WDII) John Sokoluk (WTI / WDI)
Village of Willingdon	295	Potassium Permanganate Dosing Greensand Filtration Chlorination	2 l/s	Water Treatment I Water Distribution I	Treatment – WTI / SSW Distribution – WDI / SSW	Randy Cyba (WTI / WDII)
County of Two Hills	n/a	Responsible for Duvernay Future Development		See Duvernay Unknown – future	See Duvernay Unknown – future	See Duvernay Unknown – future
County of Minburn	n/a	Responsible for Lavoy Hamlet of Ranfurly - Future Future Development		See Lavoy Unknown – future	See Lavoy Unknown	See Lavoy Unknown – future

APPENDIX B

GENERAL MEMORANDUM OF UNDERSTANDING

General Memorandum of Understanding

Operator Consortium

Introduction

Many smaller municipalities are experiencing difficulty finding and retaining certified operators to operate their water treatment and distribution systems. This is due to the lack of qualified operators within the workforce, the more stringent drinking water quality standards and the strict requirements for operators to become certified and subsequently maintain their certification.

Purpose

The purpose of this Memorandum of Understanding is to provide a basis for interested municipalities to develop agreements which will result in regional or inter municipal cooperation for the operation and maintenance of their drinking water supply systems.

Terms of the Memorandum of Understanding

The signatories shall:

- Support the concept of a water system operator consortium.
- Seek to enter into agreements with other municipalities for mutual support.
- Actively participate in operator consortium agreements by making operators and equipment available where appropriate.
- Provide the necessary training to operators included in any agreement so that those operators are familiar with appropriate systems and equipment.

Provincial Government Support

Alberta Environment recognizes the challenges inherent with operating a municipal potable water system and fully supports the concept of regional or inter-municipal cooperation to provide the necessary operational expertise to meet provincial regulations. Further, Alberta Environment actively encourages municipalities to enter into some type of agreement to allow them to secure operator support and backup.

Duration of the Memorandum of Understanding

This memorandum of understanding will become effective upon approval of the signing parties and will exist as a living document. It will be reviewed annually and amended as appropriate. Any signatory may withdraw from the mutual agreement by providing 60 days notice in writing to the other signatories.

Dated the _____ of _____, 2008

_____	_____	_____
Municipality	Printed name and title	Signature

_____	_____	_____
Municipality	Printed name and title	Signature

_____	_____	_____
Municipality	Printed name and title	Signature

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Municipality	Printed name and title	Signature

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Municipality	Printed name and title	Signature

_____	_____	_____
Municipality	Printed name and title	Signature

APPENDIX C

**MEMORANDUM OF UNDERSTANDING BETWEEN
TWO MUNICIPALITIES**

Operator Consortium

Memorandum of Understanding

between

and

Provision of temporary services for the operation water treatment systems to ensure the criteria specified within Operating Approvals are met.

Background

Many smaller communities are experiencing difficulties finding and retaining certified personnel to operate their water treatment and distribution systems. This has come about due to the economic boom in Alberta, the more stringent water quality standards and the strict requirements for operators to become certified and subsequently retain their certification. In addition, Operating Approvals are requiring that operators dedicate more time to water systems and be in attendance on a more regular basis. As such, many communities are finding it difficult to budget for these expanded duties. The problem is more critical if a community has only the one employee to operate the water system and to complete other public works activities as well

Alberta Environment has recognized the problem facing smaller communities and has endeavored to provide some assistance through the Drinking Water Operation Specialist positions it created. Alberta Environment has also commissioned studies to seek other solutions that may be put into practice by municipalities.

Purpose

The purpose of this Memorandum of Understanding (MOU) is to provide a basis for municipalities to provide temporary cover-off for the operation of water treatment plant and distribution systems where the certified operator is unable to operate the facilities due to long term sickness, vacation or commitment to training and development.

Definitions

Daily/Working Hours -	Normal working day 0800 to 1700 hrs, Monday to Friday with the exception of statutory days.
Home Operator –	Certified Water Treatment / Distribution Operator who is certified to operate his / her designated water treatment system and does so for the majority of the year.

Visiting Operator - Certified Water Treatment / Distribution Operator who has agreed to provide cover whilst the Home Operator is unable to operate their designated water treatment system.

Water Treatment System - Water treatment plant and associated distribution system.

Terms of Agreement

Visiting Operator's Duties/Responsibilities

The minimum tasks required to be performed by the visiting operator are:

1. The completion of a daily site visit and visual inspection of the water treatment plant.
2. The completion of the required daily water quality checks, which are to be recorded in the site records.
3. The completion of sampling within the water treatment plant and distribution system for the purpose of off-site analysis as required.
4. The filling/topping-up of storage tanks containing chemicals used in the water treatment process.
5. The investigation of, and resolution of, alarms that may occur with regards to the water treatment plant only.
6. The recording of any actions completed or issues resolved with regard to the water treatment plant and distribution system within the water treatment plant log book.
7. Verbal contact with a designated daily contact to inform them of the results of the daily checks, actions taken and any relevant information.
8. The provision, on an emergency basis only, of out of normal working hours cover to assist in the resolution of any issues with regard to the water treatment plant and distribution system.

Home Operator's Duties/Responsibilities

Prior to each occasion where the visiting operator takes responsibility for the home operator's water treatment plant, the home operator and/or their municipally must provide the following:

1. An up to date SOP (Standard Operating Procedure) that is sensibly organized and truly represents the water treatment system to be covered and the way in which it is operated.
2. Appropriate and timely on-site training for the visiting operator with emphasis on the water treatment plant operation.
3. Sufficient supplies of water treatment and analysis chemicals, on site, to cover the anticipated leave of absence.

4. An up to date list of the names, roles and contact details of individuals who may need to be contacted during the leave of absence. This must include persons who are to be contacted in the event of an incident or emergency.

Requesting Cover

When cover-off is required, the duration and details shall be worked out between the individual operators. It is understood that unless otherwise stated the individual operators have control over their time, prioritization of work and are authorized to commit to covering other water treatment systems for which a MOU has been signed.

Since there may be occasions when an operator is unable to provide cover, it is prudent that a municipality enter into more than one MOU.

Operator Certification

All visiting operators must have the appropriate level of certification so that they are qualified to operate the potable water system they are providing cover-off for.

Contact Details

As part of the completion of this MOU, each municipality must complete the contact details sheet attached to this document so that individuals involved in this process are listed and can be contacted when necessary.

Amendment of Memorandum of Understanding

Any propose changes to this MOU will be presented by the proposing party to the other party who will have the opportunity to provide input to the proposer prior to implementation.

If an operator provides notice that he/she intends to leave the employment of a municipality, any other parties involve in any MOU where this operator was named as providing cover-off must be informed immediately. On the appointment of a new operator whose services may be available for cover-off, a new MOU must be created.

In the event that that either municipality wishes to withdraw from this MOU, a minimum of 8 working weeks notice in writing must be provided.

Any changes to this MOU must be communicated to Alberta Environment in a timely fashion.

Reimbursement of Services

As the complexity of each water treatment system and the distances to be traveled will vary, the provision of these services will be reimbursed to the visiting operator's municipality on the basis of:

\$..... per hour spent providing the services identify previously (excluding GST).

\$..... per kilometer travel in the visiting operators vehicle (excluding GST).

An additional% will be added to the total of the above costs to cover invoicing and administration charges

These rates are based upon:

- Time charges starting from when the visiting operator leaves either his/her place of work or home until he/she returns to either location. Time and mileage costs to complete other tasks are not to be charged.
- Time charges for emergency cover-off, outside of normal working hours, are to be charged at the rates stated previously, unless otherwise agreed.
- Mileage rates are based upon the visiting operator's municipality providing him/her with a vehicle and fuel to fulfill his/her responsibilities previously outlined.
- Costs incurred by the visiting municipality's operators for cross-training and on-going refreshers of the water treatment systems to be covered under this agreement will be charged at the rates stated previously.
- The home operator's municipality is to provide all equipment that will be necessary to safely fulfill all of the duties and responsibilities previously outlined.
- The visiting operator will provide a timesheet, detailing the time spent providing services and the distances travel, to an appointed person within the home operator's municipality at the end of each working week. The appointed person will review and if appropriate, sign and date the timesheet confirming his/her approval of the hours and mileage to be charged. The visiting municipality will then invoice the home municipality, attaching a copy of the signed timesheet for information.

We the undersigned, agree to this Memorandum of Understanding.

Municipality

Municipality

Signature

Signature

Position

Position

Date

Date

Contact Details Sheet

Name of Municipality

Water Treatment Plant Level

Operator Name

Operator Certification Level

Operator Office Number

Operator Cell Number

Operator E-mail

Daily Contact Name

Daily Contact Office No

Daily Contact Cell No

Daily Contact E-mail

Supervisor / Manager Name

Supervisor / Manager Office
No

Supervisor / Manager Cell No

Supervisor / Manager E-mail

Alberta Environment Contact

AENV Contact Office No

AENV Contact Cell No

AENV Contact E-mail

Accounts Payable Contact

Purchase Order No

Invoicing Address
