



## Meeting Notes (Rev.1) Town of Turner Valley

**Client:** Town of Turner Valley **File:** N:\23\70\109-01\Rev.1  
**Project:** Infiltration Gallery, Monitoring Program, and WTP  
**Date:** December 9, 2015  
**Time:** 1:30 pm – 4:30 pm

<b>Attendance:</b>	Barry Williamson	Turner Valley	cao@turnervalley.ca
	Brock Rush	AEP	brock.rush@gov.ab.ca
	Janet Brown	AEP	janet.brown@gov.ab.ca
	Frank Lotz	AEP	frank.lotz@gov.ab.ca
	Lynda Cooke	Urban Systems	lcooke@urbansystems.ca
	David Alberti	Stantec	david.alberti@stantec.com
	Lincoln Weller	Stantec	lincoln.weller@stantec.com
	Theo Owel	MPE	towel@mpe.ca
	Jill Hardy	MPE	jhardy@mpe.ca
	Randy Boras	MPE	rboras@mpe.ca

**Location:** Alberta Environment and Parks (AEP) Office, 2938 – 11 Street NE, Calgary

**Purpose:** Discuss Requirements of Ministerial Order 41/2015 (MO)

**Distribution:** All Present

		<b>Action Req'd By:</b>
<b>1.0</b>	<p><b>Introduction and Housekeeping:</b></p> <ul style="list-style-type: none"> <li>• Introductions made.</li> <li>• Barry Williamson – CAO of the Town of Turner Valley</li> <li>• Brock Rush - Regional Director; Janet Brown – Contaminant Hydrogeologist; Frank Lotz – Municipal Approvals.</li> <li>• Lynda Cooke present on behalf of the Sheep River Regional Utility Corp. (SRRUC) as consultant related to governance.</li> <li>• MPE Engineering Ltd. present on behalf of the Town of Turner Valley as project managers and designers.</li> <li>• Stantec Consulting Ltd. present on behalf of the Town of Turner Valley as environmental consultants.</li> <li>• Meeting notes to be taken by MPE outlining the proceedings and the Town's understanding of the requirements of the MO as discussed at this meeting.</li> </ul>	Info

<b>2.0</b>	<p><b>Review of Agenda Items</b></p> <ul style="list-style-type: none"> <li>• Agenda items reviewed. No changes. Same as presented in these notes.</li> <li>• Discussed purpose of meeting: <ul style="list-style-type: none"> <li>To reach reasonable consensus on the expectations of AEP regarding the deliverables to be prepared and submitted by the Town and/or SRRUC to the Director as required by the Ministerial Order (MO). A number of submissions are due April 1, 2016.</li>   <li>To better understand the process of transferring the existing Town of Turner Valley approvals to the SRRUC, which will become operational in the New Year.</li>   <li>To update the Director on the Town of Turner Valley Stage 2 source water project, the water treatment plant project, and the source water monitoring program.</li> </ul> </li> </ul>	Info
	<b><u>New Business</u></b>	
<b>3.0</b>	<p><b>Technical elements of Ministerial Order 41/2015</b></p> <ol style="list-style-type: none"> <li>1. Reviewed Ministerial Order 41/2015 section by section. Highlights listed below.</li> <li>2. MO Clauses 1 to 3 reviewed and seem relatively clear. Director clarified that the MO now becomes part of the Town’s EPEA Approval.</li> <li>3. MO Clause 4 gives the Director discretion to change frequency of Schedule 3C sampling (Well and Infiltration Gallery Water). Discretion is limited by EPEA.</li> <li>4. MO Clause 5 (first) gives the Director discretion to change frequency of Schedule 3D sampling (Infiltration Pit Water). Discretion is limited by EPEA.</li> <li>5. MO Clause 5 (second) deals with a number of items as discussed: <ol style="list-style-type: none"> <li>a. Section 17 outlines the requirements of the Waterworks Advisory Committee (WWAC). Mr. Williamson updated the Director that the Town has this week reported an administrative non-compliance to AEP because MO Clause 2.1.10 requiring two meetings per calendar year cannot be accomplished for calendar year 2015 given the Manager, Municipal Dispute Resolution Services, Alberta Municipal Affairs has yet to appoint an independent facilitator. This is a pre-requisite to holding the next meeting as per MO Clause 2.1.11. This circumstance is beyond the control of the Town and means the next WWAC meeting cannot be held until 2016. This is only an administrative non-compliance (not an operational non-compliance), so the operation of the water</li> </ol> </li> </ol>	Info  Info  Info  Info  Info

	<p>system and the potable water produced remains safe. Mr. Rush confirmed that AEP representatives will be attending the first three WWAC meetings.</p> <p>b. Section 17 Clause 2.1.12 identifies that written correspondence between the approval holder and AEP regarding the waterworks system must be posted on the Town of Turner Valley website. This may have to be amended in future if the Town’s EPEA approval is transferred to the SRRUC, or the Town and SRRUC may have to strike an agreement to continue to post on the Town’s website.</p> <p><b>ACTION: Town will discuss next steps with SRRUC.</b></p> <p>c. Section 18 MONITORING REVIEW PROGRAM will address the frequency of monitoring associated with Schedule 3C (Well and Infiltration Gallery Water) and Schedule 3D (Infiltration Pit Water) as outlined in the MO Clauses 5.4.2 and 5.4.5. The MO does not specifically extend this to include monitoring wells or the raw water reservoir. It is important to note that the limitations of the MO with respect to this program do not preclude the Town and/or its consultants from recommending other improvements to this or any other existing programs, as is already done on an annual basis. The focus of this particular program is the seasonality (“peaks and troughs”) of parameters sampled in Schedules 3C and 3D. Each parameter must be addressed. The sampling frequency recommended after completion of the review shall not be less than twice per year. The proposed program shall be submitted to the Director by April 1, 2016 as per the MO. The Town’s consultants should review the EAB’s report comments when addressing the issue of seasonality. The document should be detailed and stand alone. It should eventually be incorporated and appended to one of the Town’s existing programs, such as the <i>Well and Infiltration Gallery Water Monitoring Program</i> outlined in EPEA Approval Clause 5.3.14, or another as appropriate.</p> <p><b>ACTION: The analytical work and primary report associated with this review will be carried out by Stantec. MPE will be project managers. Proposed Monitoring Review Program to be submitted to Director by April 1, 2016.</b></p> <p>d. Section 18 FURTHER MONITORING REVIEW PROGRAM could be required at the discretion of the Director should at some time in the future a change be detected in the groundwater with new seasonal patterns or distribution. Similar to the MONITORING REVIEW PROGRAM the MO extends this program only to the frequency of sampling associated with Schedule 3C (Well and Infiltration Gallery Water) and Schedule 3D (Infiltration Pit Water). There is no need to prepare or submit this program at this time.</p>	<p>Info</p> <p>Town</p> <p>Info</p> <p>Stantec MPE</p> <p>Info</p>
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	<p>e. Section 18 SAMPLING METHODOLOGY outlines a review of the monitoring well and source facilities sampling methodology. The review shall include a review of the sampling protocol and procedures, a review of the resulting analytics, and any other information required by the Director. From the EAB report, this review seems to primarily focus upon Issues 6 and 7 of the appeal, specifically with respect to the groundwater monitoring wells surrounding the raw water reservoir and the source water area. Paragraphs 122 and 123 on Page 40 of the EAB report provide some key background. The EAB report and initial party submissions should be revisited in preparation for this review. This is more of a desk top review of existing procedures and data. The Department will want a rationale for each parameter being in the sampling program (i.e. contaminant, indicator, etc.). The source aquifer monitoring wells analytical and sampling protocol should also be documented and submitted. With respect to the practical aspects of the review, for the raw water reservoir there is more historical data to rely upon to provide comment and rationale. For the more recently installed monitoring wells, such as the source aquifer monitoring wells, there is much less historical data. References to published literature will likely have to supplement the review of the more recent monitoring wells, more so than the longer established monitoring wells. The conclusions of this document may be to maintain the existing sampling program with no changes, to modify the existing sampling program, or to change the sampling methodology altogether. This review may help inform and complement the subsequent <i>Low Flow Sampling Pilot Project</i>. The review document should be detailed and stand alone. It should eventually be incorporated and appended to one of the Town's existing programs, as appropriate. The analysis and review shall be completed, and the document prepared and submitted to the Director by April 1, 2016.</p> <p><b>ACTION: The analytical work and primary report associated with this review will be carried out by Stantec. MPE will be project managers. Full Sampling Methodology Review Report to be submitted to Director by April 1, 2016.</b></p>	<p>Info</p> <p>Stantec MPE</p>
	<p>f. Clause 18 NEW WELLS makes provisions, at the discretion of the Director, to require the Town to install a new monitoring well should an existing monitoring well be found to be inadequate and the sampling from the existing monitoring well location be found to be necessary to ensure the safety of the water supply. This is foreseen as the possible outcome of conclusions drawn from the previously described review programs and/or ongoing programs that provide recommendations on a regular basis (i.e. annual reports) and/or specific operational events (i.e. RAP events, unforeseen well damage, etc). Apart from the expected reviews and normal reporting, there is no need to prepare or submit anything specific to this clause at this time.</p>	<p>Info</p>

	<p>g. Clause 19 LOW FLOW SAMPLING PILOT PROJECT requires the Town to first develop a pilot program proposal and submit it to the Director by April 1, 2016. Once approved by the Director, the pilot project will then be carried out for three subsequent years as a minimum. The proposal shall include a description of the program described in the Appeals to date, use of at least five sampling locations, a methodology for correlation between existing data being collected and that collected by the pilot program, annual reporting requirements, final reporting requirements, a schedule for implementation, and any other information required by the Director. Based upon the EAB report and hearing, this program has likely been triggered by sampling issues at the raw water reservoir site, where some monitoring wells have had insufficient water (“dry”) to sample. While the raw water reservoir monitoring wells are likely to be the prime focus, consideration will also be given to including a monitoring well (or wells) from the source aquifer area, or if not, a rationale provided. No broad policy or information guidance letter has been prepared by AEP with respect to low flow sampling. For reference, the submissions prepared for the Appeal should be revisited, and references reviewed (i.e. USEPA Superfund, etc.). Important details should be documented such as pump location, field measured parameters, drawdown, volume pumped, rationale for using specific wells, borehole logs, screen lengths, type of material, figures, sampling frequency (minimum twice per year), etc. The results of this project should eventually be incorporated and appended to one of the Town’s existing programs, such as the <i>Detailed Sampling and Analytical Protocol</i>, as appropriate.</p> <p><b>ACTION: The analytical work and primary report associated with this project will be carried out by Stantec. MPE will be project managers. The Proposal for the Low Flow Sampling Pilot Project to be submitted to the Director by April 1, 2016.</b></p>	<p>Info</p> <p>Stantec MPE</p>
<p><b>4.0</b></p>	<p><b>Process for transferring the raw water supply and treatment portion of the Town’s EPEA Approval No. 1242 to another party.</b></p> <ol style="list-style-type: none"> <li>1. The Sheep River Regional Utilities Corporation (SRRUC) will become active in the New Year. It is a municipal corporation formed and owned by the Town of Turner Valley, the Town of Black Diamond, the MD of Foothills, and the Village of Longview. The Village does not have voting shares, as Longview will not be receiving potable water service in the near future.</li> <li>2. Turner Valley has an existing EPEA Approval that includes a raw water system (including wells, infiltration gallery/well, raw water reservoir), a treatment plant, and a piped potable water distribution system (including a potable water reservoir). Ownership of the raw water system, water treatment plant, and transmission main to Black Diamond are planned to be transferred to the SRRUC in the New Year.</li> <li>3. Black Diamond has an existing EPEA Code of Practice Registration for their</li> </ol>	<p>Info</p> <p>Info</p> <p>Info</p>

	<p>potable water distribution system, including the transmission main from Turner Valley to Black Diamond.</p> <p>4. Turner Valley and Black Diamond both hold diversion licences under the Water Act. Each municipality will retain ownership of these licences. Black Diamond currently has an application for amendment submitted to AEP to amend the point of diversion of their licence upstream to the raw water facilities of Turner Valley.</p> <p>5. Consideration should be given by Black Diamond to amend their recent Water Act application from being conveyed through the works of Turner Valley to being conveyed through the works of the SRRUC, since the raw water facilities will be owned by the SRRUC in the New Year. This change would require a letter from Black Diamond and a Use of Works Agreement between Black Diamond and SRRUC. Both would have to be submitted to AEP.</p> <p><b>ACTION: MPE and Urban Systems (USL) to discuss amending the Water Act application with the Town of Black Diamond, regarding the name of the owner of the works.</b></p> <p>6. There are two likely approaches to transfer the EPEA Approval from Turner Valley to SRRUC:</p> <p>a. APPROACH 1:</p> <ul style="list-style-type: none"> <li>• Turner Valley, at an appropriate time in this process, meets with the WWAC, providing an update particularly with respect to the fact that there will be no reduction from the current level of monitoring anywhere on the water system with respect to the upcoming transfer of EPEA Approval to SRRUC and the change from an Approval to a Code of Practice (COP) Registration on the Town’s distribution system. Any requirements for testing of the distribution system in the current Approval will be transferred to the COP Registration.</li> <li>• Black Diamond transfers (by an agreement) ownership of the transmission main to Turner Valley, and applies to EPEA to remove this transmission main from their existing COP Registration.</li> <li>• Turner Valley applies to AEP for an EPEA Approval amendment to remove their distribution system from the EPEA Approval, and to add the transmission main to Black Diamond.</li> <li>• Turner Valley applies to AEP for a COP Registration on their distribution system, with any existing monitoring requirements in the current EPEA Approval transferred to the new COP Registration.</li> <li>• Turner Valley transfers the Turner Valley EPEA Approval to the SRRUC through an Approval Transfer Agreement. Ownership of the works will transfer to the SRRUC through a Master Asset Transfer Agreement between the parties. AEP to confirm if this step will trigger an Approval amendment.</li> </ul>	<p>Info</p> <p>Info</p> <p><b>MPE USL</b></p> <p>Info</p>
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	<ul style="list-style-type: none"> <li>• Turner Valley, for each Water Act Licence to Divert, makes application to amend each of its licences so as to convey water through the works of the SRRUC. This requires a Use of Works Agreement between the parties. AEP to confirm if this step will trigger an Approval amendment.</li> </ul> <p><b>ACTION: AEP to confirm to Turner Valley if a transfer of the EPEA Approval and/or Water Act Licences to SRRUC triggers an Approval amendment.</b></p> <p>b. APPROACH 2:</p> <ul style="list-style-type: none"> <li>• Similar to Approach 1, except the transfer of Black Diamond’s transmission main occurs after Turner Valley has transferred their Approval and ownership to SRRUC. The process would be as follows.</li> <li>• As outlined in Approach 1 previously, Turner Valley at an appropriate time in this process, meets with the WWAC, providing an update particularly with respect to the fact that there will be no reduction in the current level of monitoring anywhere on the system after the EPEA Approval transfer to SRRUC, and any current monitoring requirements for the distribution system will be transferred to the Town’s new Code of Practice (COP) Registration.</li> <li>• Turner Valley applies to AEP for an EPEA Approval amendment to remove their distribution system from the EPEA Approval.</li> <li>• Turner Valley applies to AEP for a COP Registration on their distribution system, with any existing monitoring requirements in the current EPEA Approval transferred to the new COP Registration.</li> <li>• Turner Valley transfers the Turner Valley EPEA Approval to the SRRUC through an Approval Transfer Agreement. Ownership of the works will be transferred from Turner Valley to the SRRUC through a Master Asset Transfer Agreement between the parties. AEP to confirm if this step will trigger an Approval amendment.</li> <li>• Turner Valley, for each Water Act Licence to Divert, makes application to amend each of its licences so as to convey water through the works of the SRRUC. This requires a Use of Works Agreement between the parties. AEP to confirm if this step will trigger an Approval amendment.</li> <li>• Black Diamond transfers (by agreement) ownership of the transmission main to SRRUC, and applies to EPEA to remove this main from their existing COP Registration.</li> <li>• SRRUC applies to AEP for an EPEA Approval amendment to add the transmission main to Black Diamond to the SRRUC’s EPEA Approval. A Third Approach may include the preceding, with the exception of transferring the transmission main at the pre-scheduled time of the Turner Valley Approval renewal (in 2018).</li> </ul>	<p><b>AEP</b></p>
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	<p>In both approaches, water diversion licences from the SRRUC members would be conveyed through the works of the water facilities owned by SRRUC located in Turner Valley (after ownership transfer from the Town). Mr. Rush confirmed that in either Approach, the AEP 10% water diversion license holdback will not come into play.</p> <p>Two hard copies of a draft of the EPEA and Water Act process as prepared by AEP were provided to the consultants (MPE and USL). Copy is attached.</p> <p><b>ACTION: AEP to confirm to Turner Valley if a transfer of the EPEA Approval and/or Water Act Licences to SRRUC triggers an Approval amendment.</b></p> <p><b>ACTION: Turner Valley and Urban Systems to discuss the approval options with the SRRUC, and to seek direction.</b></p>	<p><b>AEP</b></p> <p><b>TV USL</b></p>
<p><b>5.0</b></p>	<p><b>Update on the Source Water Program and the water treatment plant upgrade</b></p> <ol style="list-style-type: none"> <li>1. MPE provided an update.</li> <li>2. Regarding the source water project, the Town of Turner Valley has engaged Stantec to complete an initial desk top and now a field exploration at a number of sites along the Sheep River upstream of the existing raw water facilities. The intention is to drill for a potential raw water production well (or wells) to supplement the existing water wells located in Turner Valley. One of the sites is within the Town limits near the west Town boundary. This site is less desirable given it is downstream of the existing slope failure just west of Town, and it is downstream of the oil and gas facilities corridor west of Town. However, it has the advantage of being closer to town, so a shorter pipeline can be installed, at a lower cost. A second site is being investigated west of Town, upstream of the oil and gas corridor and upstream of the existing slope failure. It is expected to be a higher cost option, given the longer distance from Town. Once a second water source is established, the Town will reclaim the infiltration pit adjacent to the existing water treatment plant.</li> <li>3. Regarding the water treatment plant, it is now fully commissioned and operational, ahead of the December 31, 2015 deadline date. The plant includes the GAC filters, a new direct filtration train, ultraviolet (UV) disinfection and on-site chlorine gas generation. A ribbon cutting was held last month.</li> </ol>	<p>Info</p> <p>Info</p> <p>Info</p>



<p><b>6.0</b></p>	<p><b>Recent monitoring additions to the Source Water Program</b></p> <ol style="list-style-type: none"> <li>1. At the request of AEP, the Town of Turner Valley has added four new locations to the source aquifer monitoring program. These include the long abandoned Town Well No. 3 (TW3) and the three bedrock monitoring wells. These will be sampled twice per year similar to the other source aquifer monitoring wells. This sampling is over-and-above that specifically requested in the MO, but is within the discretion of AEP to request given the terms of the EPEA Approval.</li> <li>2. Discussion ensued regarding the fact that TW3 has a known and repeatable PAH exceedance, which was presented at the EAB hearing. Adding TW3 will likely result in a Remedial Action Plan (RAP) event being triggered at each sampling event. It was further noted that a source aquifer monitoring well is already in place between TW3 and the infiltration gallery and well area. AEP will take this into consideration when reviewing the data from TW3, and whether continuance of the sampling of TW3 needs to be continued in the foreseeable future, once baseline data is better established.</li> </ol>	<p>Info</p> <p>Info</p>
<p><b>7.0</b></p>	<p><b>General discussion and next steps</b></p> <ol style="list-style-type: none"> <li>1. The Town and USL would take back the information and options discussed at this meeting back to the SRRUC for further consideration.</li> <li>2. MPE would prepare the meeting notes and action points for circulation.</li> </ol>	<p>See Above</p> <p>See Above</p>

**Meeting was adjourned at 4:30 pm.**

**Recorded by: Randy Boras, MPE Engineering Ltd.**

**If there are any errors, omissions or discrepancies, please contact the MPE office at (403) 250-1362.**

**Attachment: Draft Approval Process as prepared by AEP.**

**CORRECTION NOTE: This Meeting Notes Rev. 1 is issued with references to Ministerial Order 41/2015 corrected to read 41/2015 (rather than 4/2015 as referenced in the initial issue of the Meeting Notes). Disregard the previous version of the Meeting Notes for this meeting.**