



# **RURAL WATER PIPELINE HANDBOOK FOR SASKATCHEWAN**

*UNIT FIVE (V) -  
APPROVALS & AGREEMENTS*

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*April 2009*

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**NOTE:** Portions of this Unit are:  
“Under Construction”

## Section 1 Approval Requirements

### 1.0 General

This unit addresses the process in which *Organizations* can apply for approvals and/or agreements to enter, cross, or access lands or facilities which may be required. The *Organization* must apply to government departments, individuals, utilities or affected companies for these approvals.

Certain agreements between the *Organization* and various agencies or local governing administrations concerning issues such as quantities of water used, land control, or annual equipment testing may have an expiration date. It is the *Organization's* responsibility to ensure that these agreements are maintained and/or updated throughout the life of the pipeline. Failure to maintain these agreements could result in temporary or permanent loss of operating permits, loss of water and/or liabilities.

A table listing contacts for most crossings (some of which are described in this section) is included in [\(Appendix V - A\)](#). This table includes:

- ✓ Agency/Company
- ✓ Contact names and addresses
- ✓ Phone numbers
- ✓ Application fees
- ✓ Agreement information

Some of the detailed crossing and approval information is provided in this section. (Note: Contact information may be obsolete and will be updated with the next revision).

### 1.1 MOE Approvals

Prior to proceeding with construction, your *Pipeline Organization* must submit an application to Ministry of Environment for either a:

- ✓ Permit to Construct and/or Operate a Waterworks [\(Appendix III – K\)](#).
- or
- ✓ Permit to Construct, Extend or Alter Existing Works [\(Appendix IV – B\)](#).

Approvals to construct are required for pipelines, pumphouses and wells, whether they are completely new projects or additions/modifications to existing ones. Ministry of Environment reviews the request for Approval to Construct and forwards the request to various provincial agencies for their approval and/or recommendations. An appropriate amount of time for the “Approval to Construct” should be allowed for in planning a pipeline project. More information is available in Section IV – Regulatory Requirements.

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## 1.2 Rural Municipalities

All affected Rural Municipalities (RM's) will have to approve the pipeline crossings of municipal roads and the installation of the pipeline in municipal road right-of-ways (if applicable). These approvals do not normally require a formal agreement, but they should be passed by council and the *Organization* should obtain a written resolution from the RM. The RM may add some conditions or restrictions to any or all of the agreements (e.g. – approval to install pipe in ditch subject to certain hours and/or signage).

## 1.3 Department of Highways & Transportation

### 1.3.1 Highway Crossings

Approval to cross Provincial or Federal Highways is required for all highway crossings. The Department of Highways requires installations to be either augered or directional-bored beneath the highway, and in most cases, installed in an encasement pipe. The encasement pipe's purpose is to support the water supply pipeline and ensure that if the pipeline were to burst beneath the highway, water would flow away from the travelled surface of the highway. Encasement pipes are sized to be practical and should extend to at least the shoulder of the road but are preferred to extend beyond the shoulder. The outside diameter of the casing pipe should be as close as possible to the inside diameter of the bore hole. Bell and spigot Series PVC pipe in 20 foot lengths is acceptable as encasement pipes. The Department of Highways should be contacted to confirm that PVC may be used. In some cases, the Department of Highways may require that steel casing pipe be used. Marker posts should be installed on the highway property line where the pipeline crosses the highway. Highway crossings should be made perpendicular to the highway whenever possible, but may be approved at angles less than 90 degrees.

The submission to the Department of Highways should be made to the appropriate district office and should include a plan showing the location of the crossing, a cross-section of the crossing (showing depths of cover over the pipe in the ditch and in the centre of the road), details of the water supply pipe (size and pressure rating), operating pressures of the water supply pipe, details of the encasement pipe (size and pressure rating) and proposed method of installation (auguring).

A Department of Highways application form and a sample application is included in ([Appendix V - C](#)) ([Appendix V - D](#)).

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### 1.3.2 Highway Paralleling

Installing pipe parallel to the road surface in the right-of-way or within 90 metres of the highway centreline requires approval from the Department of Highways. *Pipeline Organizations* should give consideration to possible future pipe re-grading or re-locating should the road be widened or the ditch grades changed in the future.

### 1.4 Railway Crossings

Approval to cross Railways is required for all railway crossings for all projects. Railway Crossings must be installed in accordance with the Canadian Transport Commission's General Order E-10 ([Appendix V - E](#)) and the requirements of the railway involved. The Railway should be contacted to obtain their most recent guidelines and requirements. In general, Railways require auguring beneath the railway and installing an encasement pipe to support the water supply pipe and ensure that if the pipeline were to burst beneath the railway, water would flow away from the railway right-of-way. The encasement pipe is steel with the wall thickness determined using General Order E-10. Marker posts are installed on the railway property line where the pipeline crosses the railway to identify the existence of the water pipeline. Railway crossings are normally made perpendicular to the railway but may be approved at angles less than 90 degrees.

The submission to the Railways should be made to the appropriate regional office and should include a plan showing the location of the crossing with references to property lines, a cross-section of the crossing (showing depths of cover over the pipe in the ditch and in the centre of the railway), details of the water supply pipe (size and pressure rating), operating pressures of the water supply pipe, details of the encasement pipe (size and pressure rating), location of nearest shut-off valves and proposed method of installation (auguring).

A sample application and list of information required by the Railways on the drawing submitted for approval is included in ([Appendix V - E](#)). Approval to cross railways should be done as soon as possible as they may take two or more months to obtain.

NOTE: If agreement cannot be reached by the *Pipeline Organization* and the Railway company, the Canadian Transportation Agency will negotiate an agreement with the Railway company. Such an agreement or approval triggers the Canadian Environment Assessment Act (CEAA).

### 1.5 Major Gas and Oil Pipelines

#### 1.5.1 Gas/Oil Pipeline Crossings

Each major gas and oil company has their own set of rules for crossings that must be obtained before tendering the pipeline. Usually the company will request a drawing along with a request for approval to cross (from the *Organization*). The company will likely insist on auguring underneath their pipeline, will not allow open cutting within a certain distance of the pipeline, and may request the water pipeline be installed in an encasement pipe. An encasement pipe is recommended to protect the water supply pipe from possible damage due to a pipeline break and petroleum spill (in the case of a

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petroleum pipeline). They will also usually insist on being given a certain amount of notice prior to crossing, such that a representative can be on site to inspect the crossing; the cost of which may be absorbed by the company. They will also require the *Pipeline Organization* to enter into a crossing agreement with them, usually at little cost to the organization.

### **1.5.2 Trans Gas Crossings**

Trans Gas is responsible for the high pressure natural gas feeders throughout the Province of Saskatchewan. The Trans Gas lines require a formal agreement to cross, executed between the group or community and Trans Gas. This is unlike the smaller diameter, lower pressure mainlines and laterals for which an agreement to cross is not required. These smaller diameter, lower pressure natural gas pipelines are owned and operated by Sask Energy who do not require a crossing permit.

Trans Gas approval usually takes less than a month to obtain. Trans Gas will require a plan showing the proposed pipeline route, the Contractor to excavate by hand a distance of 0.6 metres either side of the pipeline, three days notice prior to the crossing to have inspectors on site, and the pipeline be at least 0.6 metres from any Trans Gas line, either above or more generally below.

### **1.6 River and Creek Crossings**

For all instances where a proposed pipeline crosses a creek, stream, river, lake or similar body of water, approval will be required from Provincial Fisheries, Federal Fisheries and the Canadian Coast Guard. In most cases, only Fisheries approval is necessary which normally takes less than one month to obtain. Canadian Coast Guard approval, however, can take as much as three months to obtain. All three agencies may request some mitigative measures (such as slope protection) and will likely not allow construction during certain times of the year (such as during spawning season). On projects where Federal funds are contributed, the Canadian Environmental Assessment Act will apply. See [\(Appendix V - F\)](#) for more details on Environmental Assessment Procedures.

The following table lists some of the many options for crossing creeks, streams, rivers and other bodies of water with a water supply pipeline. Also listed are some likely comments that might be received from various agencies in the approval process for each option.

Crossing Alternative	Comments
Coring Beneath	<ul style="list-style-type: none"> <li>- Likely not restricted during certain times of the year</li> <li>- Remedial measures required would be restoring any disturbed slopes to original grade and placing erosion protection</li> </ul>
Insulated Pipe Installed Above (to a Bridge Deck for example)	<ul style="list-style-type: none"> <li>- Likely not restricted during certain times of the year</li> <li>- Will require approval from agency who owns/maintains the bridge</li> </ul>
Open Cutting (with or without concrete weights on the pipe)	<ul style="list-style-type: none"> <li>- Likely to be restricted during certain times of the year</li> <li>- Remedial measures required would be restoring disturbed slopes to original grade and placing erosion protection</li> <li>- Will likely not allow the installation of cofferdams or the importing of any fill material</li> </ul>
Ploughing (Polyethylene only)	<ul style="list-style-type: none"> <li>- Likely to be restricted during certain times of the year</li> <li>- Remedial measures required would be restoring disturbed slopes to original grade and placing erosion protection</li> </ul>

In some cases, where the impacts of the proposed method of crossing cannot be mitigated and the crossing location cannot be changed, habitat compensation will be required by the Federal Department of Fisheries and Oceans (DFO). DFO strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis.

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## Section 2 Agreement Requirements

### 2.0 General

This section addresses the agreements that may be required by your *Organization*. Some agreements allow you to enter, cross, or access lands or facilities which may be required to install water pipelines. Other agreements are prepared to allow your *Pipeline Organization* to provide services such as a water supply. Lastly, your *Organization* will draft agreements between you and your subscribers (See Unit VII Sections 4 and 5 for more information).

### 2.1 Rural Municipality

#### 2.1.1 Forming a Public Utility

In cases where the *Organization* wishes to formalize into a public utility, the affected R.M. (s) will have to pass a bylaw establishing the public utility (See Unit VII Section 1.1 for more information).

### 2.2 Water Supply Agreement

There are several different ways in which your *Organization* may source its water supply. Some of the possible water sources are:

- ✓ Municipal Water systems
- ✓ Municipal Wells
- ✓ SaskWater supply line
- ✓ New Ground Water Supply
- ✓ New Surface Water Supply

The *Organization* will require written documentation allowing them to purchase or consume water. This can be accomplished by either a formal agreement or a water rights license, depending on the nature of the supply.

#### 2.2.1 Existing Water Supply

- Purchasing Water from a Town or City

When the *Organization* is tying into an existing supply such as a town system, a water rights license may not be required but a written agreement with the water purveyor is a requirement in all cases. The terms of each agreement must be worked out jointly between the purveyor and the *Organization*. As a minimum, the agreement should address the unit cost of the water, the minimum use charge (if any), the maximum volume of water available, the pressure and flow guarantee (if any), and the expiration date of the agreement. Generally, the *Organization's* water rate charge is based on the town's commercial or residential rate. The agreement should be accompanied by a resolution from the Town/City Council approving of the agreement between the *Organization* and the community for the sale of water.

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An example of an agreement for the sale of water is included in [\(Appendix III - D\)](#).

- **Purchasing Water from SaskWater**

When the *Organization* is tying into an existing SaskWater supply line, a written agreement with SaskWater is a requirement in all cases. Waterworks organizations in Saskatchewan looking to source potable (treated) water may be able to connect to a SaskWater supply line if the company has operations in your planned service area and available capacity. In these situations, SaskWater will sell potable water in bulk (wholesale) to your pipeline association which your *Organization* can then re-distribute and bill to your individual members.

As a minimum, the agreement should address the unit cost of the water, the minimum use charge (if any), the maximum volume of water available, the pressure and flow guarantee (if any), and the expiration date of the agreement.

### **2.2.2 New Water Supply**

In the case of a new supply, the *Organization* must obtain a water rights license from Sask Watershed Authority. The process of obtaining a license is designed to ensure that not only will the *Organization* have adequate water for their demands, but that surrounding supplies will not be adversely affected by the *Organization's* withdrawal of water. MOE has a detailed list of requirements that the *Organization* must address prior to an "Approval to Construct" being granted [\(Appendix III - K\)](#).

PFRA may provide various types of assistance for this facet of the project. Sask Watershed Authority also requires new sources be posted for 60 days prior to issuing an "Approval to Construct."

- **New Groundwater Supply**

In the case of a new groundwater supply, a regional groundwater investigation must be undertaken. A pump test, detailed geologic analysis, and approval from all groups, communities or individuals within a certain radius of the well are required to develop a supply.

- **New Surface Water Supply**

In the case of a new surface water supply, a detailed hydrologic analysis, dam/dugout design and management plan would be required.



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## Section 3 Easement Requirements

### 3.0 General

This section addresses the easements required by your *Organization* to obtain land control. These easements allow you to cross, or access lands or facilities which may be required to install your water line.

### 3.1 Easements for Pipelines

Land control is required when the main or lateral lines of a water pipeline crosses over private property. This land control must be in place prior to construction and is required regardless of whether the private property in question belongs to a subscriber of the *Organization* or not. Land control is usually accomplished in the form of an easement registered on the Certificate of Title at the Information Services Corporation (formerly Land Titles Office).

A typical water pipeline easement (Right of Way Agreement) is included in [\(Appendix V-G\)](#). Note the areas in bold typing. These areas consist of the name of the Grantor, the name of the Grantee, the legal description of the lands to be crossed and the actual legal description of the easement through the land described or shown in Schedule A [\(Appendix V - H\)](#). However, additional conditions are sometimes required or insisted upon by the Grantor or Grantee.

An easement will require the following:

- ✓ an affidavit with the signatures of the Grantor, the Grantee and one witness to the signing;
- ✓ an affidavit of the Grantor signed in the presence of a Commissioner of Oaths [\(Appendix V - I\)](#)
- ✓ An Affidavit of Execution in which the witness to the signing must sign in the presence of a Commissioner of Oaths [\(Appendix V - J\)](#); and,
- ✓ if the land in question is the "Home Quarter" on which the Grantor and spouse reside, the HOMESTEADS ACT must be administered to and signed by the spouse in the presence of a Notary Public or Solicitor or other qualified individual [\(Appendix V - K\)](#).

Registration of easements can be done by the *Organization* without the aid of a lawyer, provided all the necessary conditions of the ISC office are met.

In general there are two options available to describe pipe line easements for registration purposes on Certificates of Titles.

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### OPTION 1

A Right of Way Survey is performed by a Saskatchewan Land Surveyor and the ensuing plan is registered in the ISC Office of the corresponding District.

An actual survey is generally only required when the route of a pipeline across the private property becomes complicated with many deflections and intersections of previous registered surveys. See [\(Appendix V - L\)](#) for an example of a typical Plan of Right of Way easement procedure, time considerations and costs.

### OPTION 2

An interest (caveat) option is also available. This is the registration of an interest on the affected lands title. The interest would refer to plans held by the *Organization* which would describe the pipeline route.

An interest will require:

- ✓ a detailed sketch or plan of the pipeline route
- ✓ an affidavit with the signatures of the Grantor, the Grantee and one witness to the signing (Appendix N6);
- ✓ an affidavit of the Grantor signed in the presence of a Commissioner of Oaths (example in Appendix N2);
- ✓ an Affidavit of Execution in which the witness to the signing must sign in the presence of a Commissioner of Oaths (example in Appendix N2); and,
- ✓ if the land in question is the "Home Quarter" on which the Grantor and spouse reside, the HOMESTEADS ACT must be administered to and signed by the spouse in the presence of a Notary Public or Solicitor or other qualified individual (example in Appendix N3).

## 3.2 Easements for Other Utilities

Utilities such as Sask Energy & TransGas, SaskPower and SaskTel may require the *Organization* to sign a formal agreement but it is not common. In general, these utility companies will require a certain amount of advance notice for locating lines and will ask that certain areas be excavated by hand. The following is a summary of the requirements of the various agencies:

Agency	Advance Notice	Requirements
SaskTel	48 hours	<ul style="list-style-type: none"> <li>- minimum 0.3 metres of separation between telephone cable and pipeline</li> <li>- minimum 0.7 metres of cover over telephone cable after construction</li> <li>- hand exposing cables before excavation for a minimum distance of 1.5 metres on each side of the telephone cable</li> </ul>
Sask Energy & TransGas	48 hours	<ul style="list-style-type: none"> <li>- minimum 0.6 metres clearance between water and gas pipeline</li> <li>- hand exposing gas lines before excavation for a minimum distance of 0.6 metres on each side of the gas line</li> <li>- no equipment within 0.6 metres of gas line</li> <li>- NOTE: TransGas will require a crossing agreement</li> </ul>
SaskPower	72 hours for "start up" meeting; short notice thereafter	<ul style="list-style-type: none"> <li>- no equipment allowed within 3 metres of any exposed electrical conductor (until line staked and hand exposed)</li> <li>- no easement or right-of-way within 5 metres of a SaskPower above-ground structure (e.g. pole or transformer)</li> <li>- hand exposing cables before excavation</li> <li>- SaskPower personnel on site to decide how close equipment can get to the conductor after hand exposing.</li> </ul>

It is usually very beneficial to show a local representative of the agency a proposed pipeline route and advise them of the proposed construction schedule as soon as possible to assist them in scheduling their work.

### 3.3 Easements for Treaty Land Entitlements (TLE's)

Property which is being considered as Treaty Land Entitlement land cannot have any new easements, etc. placed upon it. This should be considered when choosing the route for the pipeline. The Department of Indian and Northern Affairs in Regina should be contacted once a proposed route has been identified to ascertain if there are any possible conflicts with TLE's.

### 3.4 Easements for Heritage Resources

Construction on lands designated as having heritage value may be restricted. A review of the pipeline route by the Heritage Branch, Saskatchewan Municipal Government, may be required to determine if the project affects any known heritage lands, or is in the proximity to known heritage sites. If there are affected heritage resource sites, a Heritage Resource Impact Assessment pursuant to Section 63 of the Heritage Property Act, may be required.