

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT:	Penn West Exploration
PROPOSAL NAME:	Waskada Sales Line
CLASS OF DEVELOPMENT:	2
TYPE OF DEVELOPMENT:	Transportation and Transmission
CLIENT FILE NO.:	5579.00

OVERVIEW:

On April 30, 2012, the Environmental Approval's Branch (EAB) of Manitoba Conservation and Water Stewardship received a Proposal dated April 27, 2012, from Penn West Exploration to construct and operate two pipelines (a crude oil pipeline and a Natural Gas Liquids (NGL) pipeline) in one right-of-way from 30-1-25 WPM to the Cromer Facility at 17-9-28 WPM with the NGL pipeline further extending to the Provident Facility at 17-10-28 WPM. The proposed right-of-way, which originates near Waskada and traverses the Rural Municipalities of Brenda, Arthur, Albert, Pipestone and Wallace, includes a 219.1 mm diameter oil pipeline of 92 km and one 114.3 mm diameter natural gas pipeline of 105 km.

The Proposal was distributed to the Technical Advisory Committee (TAC) for review and was advertised in the Reston Recorder, the Virden Empire-Advance, and the Melita New Era on May 18, 2012. The proposal was also placed in the Public Registries at the Millennium Public Library, the Manitoba Eco-Network, the Lakeland Regional Library in Killarney, the Border Regional Library in Virden, and the Conservation Library (Main). TAC and public comments were due on June 18, 2012

EAB sent request for additional information based on the comments on the proposal from TAC and the public to the proponent on June 27, 2012. Responses to this request were received on June 12, July 13, 23, and 26, September 13 and 28, and October 1, 2012.

Penn West submitted a notification of a change in the proposed pipeline route on March 18, 2013. It was determined that the change in the route was a minor alteration pursuant to the Environment Act. The notification was placed in the public registries. It was also circulated to TAC for review and comment with a due date of April 10, 2013.

A second notification of a change in the proposed pipeline route was submitted by Penn West on June 17, 2013. The change consisted of removal of the NGL pipeline portion of the project. The project now consists of the crude oil pipeline alone from 30-1-25 WPM to the Cromer Facility at 17-9-28 WPM. It was determined that the change in the project was a minor alteration pursuant to the Environment Act. The notification was placed in the public registries.

ASSESSMENT OF PUBLIC COMMENTS:

The following public comments were received in response to the Environment Act advertisement of the Proposal. Copies of the original comments from the public are available in the Public Registries.

Glenn Campbell

My background as a previous Manager of West Souris River Conservation District and member of the Oak Lake Aquifer (OLA) Management Advisory Board has deeply ingrained the value of the OLA as well as it's susceptibility to contamination. Very little more than a mention of the aquifer appears in the EAP.

Table 17 - Effects of Project on Water does not indicate any residual effects on groundwater during or after construction. The table indicates that there would be no residual effects from spills and shows nothing under the "Significance" section of the table. The Environmental Protection Plan (EPP) as well does not indicate what the potential damage would be to the aquifer should a spill or pipeline failure take place within the aquifer and as such does not mention any mitigation. Penn West should be instructed to verify what the risks are and what measures they will take for environmental protection of the OLA during construction and in the long term. Will the pipe be thicker walled in the sections that pass through the aquifer for instance? How will spills be handled to prevent destruction of a very valuable resource?

A second concern is the placement of two pipes in a common trench. This seems a risky move given the volatility of the natural gas that will flow next to crude oil. In my mind there are safety as well as environmental issues with this practice.

In regard to the decommissioning of the pipeline and the plan to abandon it in place, this practice is becoming more and more of an environmental concern to landowners. In the minds of many, it's comparable to underground fuel tanks which by regulation have to be removed and the soil tested for contamination before property can be sold. Oil companies need to be responsible to ensure that pipelines don't become an environmental liability to landowners after the pipeline is abandoned. The best way to eliminate any risk is to eliminate the old pipe.

Disposition:

With regard to concerns related to the installation of two pipes in a common trench and decommissioning, the pipelines will be installed and decommissioned in accordance with Canadian Standards Association (CSA Z662 Oil and Gas Pipeline Systems).

ASSESSMENT OF COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE (TAC):

Following is a summary of the assessment of TAC comments received pertaining to the proposal. Copies of the original comments from TAC are available in the Public Registries.

Manitoba Conservation and Water Stewardship, Environmental Programs and Strategies Branch

Comments on the proposal submitted in April 2012:

We have no comment on the above proposed replacement of the existing oil pipeline and addition of a gas pipeline. It is expected that the proposal has no significant impact on air quality. While not mentioned in the submitted document, if pump/compressors using gaseous fuel will be utilized in the proposed pipelines, it may be subject to the requirements of the proposed Base Level Industrial Emissions Requirements (BLIERs) for reciprocating engines under the federally led Air Quality Management System.

Disposition:

These comments were forwarded to the proponent for their information.

Manitoba Conservation and Water Stewardship, Fisheries Branch

Fisheries Branch's comments on the proposal submitted in April 2012:

Fisheries Branch has reviewed this proposal to replace existing 87 km long pipeline with 219 mm crude oil pipeline and install a new gas line from the battery site at 12-30-1-25 W to the Cromer terminal at 13-17-9-28W. The pipeline crosses 5 larger waterbodies (Souris River, Jackson, Stony, Pipestone and Waskada Creeks), a number of tributaries to the rivers/creeks, oxbows and natural drainages. Penn West proposes to horizontal drill the larger waterbodies and open cut the remaining surface water features. Valve sites will also be located at the larger waterbodies to be able to shut down those sections of pipelines in the event of a leak.

For the most part, as long as the proponents adhere to DFOs operational statement on directional drilling and there is an Emergency Contingency Plan to address spills and frak-out emergency procedures any fisheries concerns associated with the crossings at larger waterbodies should be addressed.

In general any concerns we do have are with the intention to trench all the other intermittent water crossings and to some degree the drainage ditches. While these natural drainages may only carry water intermittently it is not unusual for them to provide spawning, nursery and feeding areas in the spring and, if not used by fish directly, they contribute to the overall health of the downstream receiving waters.

We would like to note that regional fisheries staff have found watercourse crossings that are open cut often difficult to stabilize and result in ongoing erosion and sedimentation. We prefer any crossings with a defined channel and water throughout

the year or enough water during the spring runoff to provide spawning and nursery habitat, and contribute to downstream habitat to be directionally drilled.

There is no indication of what width of riparian area will be retained for the trenching. In Manitoba our Department has been requesting that from the high water mark, 15 m be retained on 1st and 2nd order creeks and 30 m on 3rd order and greater streams and rivers. If the proponents do continue with trenching then for those connected to downstream waters the work needs to be done outside of the spring spawning period (April 1-June 15) **and**, preferably in the dry. Both factors that the proponent have indicated they will follow.

The bed and bank must be contoured to resemble the pre-construction dimensions. If there is the need to consult on a particular stream crossing, the method on the major waterbodies change or an incident occurs, Bruno Bruederlin is the regional fisheries biologist in Brandon. He can be reached at 726-6452 or email: bbruederlin@gov.mb.ca. For open cut sites it is equally important to conduct post construction monitoring. This is necessary until the crossings are stabilized. Monitoring should be done in the spring and after every major precipitation event. We would like to see watercourse crossings included as part of the post-construction environmental report - method implemented; success/failures; type of remediation if required and when. We would also like another cross-sectional and longitudinal profile to ensure the bank and bed reflect pre-construction conditions.

It would appear from the information provided that the hydrostatic testing medium will be sourced from man-made or natural waterbodies. Depending on the source, timing, and quantity of water required Fisheries Branch may have concerns which we should be able to address through the Surface Water Licensing review process. Please note that on occasion depending on the year (low flow years) and the waterbody we have had to deny requests to withdraw from surface water.

Finally, for any piece of equipment or machinery that is used in or near the water at different locations (e.g. large machinery, temporary bridges, mats, pump intake and screen, diversion dams, etc.) to minimize the potential for introduction of foreign biota the equipment/machinery should be visually inspected (any plants, algae and animals removed) and disinfected. We've been requesting equipment be cleaned off (not adjacent to the surface water) with a bleach solution and then rinsed with water prior to using. This should become a standard protocol every time it is used at a new location.

As a reminder, any handling and/or transportation of fish and mussels during salvage operations require a Live Fish Handling Permit from Fisheries Branch, Manitoba Water Stewardship. We would also expect that at open trench cuts mussels, if present, would be relocated to suitable habitat upstream of the crossing.

Fisheries Branch's comments on the revised route submitted on March 18, 2013:

Fisheries Branch has reviewed the revised route. From the information provided while the only place where there appears to be a change in a water course crossing is at

Stony Creek and as long as the intention is to directional drill adhering to DFO's Operational Statement then fisheries concerns should be addressed.

Disposition:

These comments were forwarded to the proponent for their information and addressed in the licence conditions.

Manitoba Conservation and Water Stewardship, Groundwater Management

Groundwater Management's comments on the proposal submitted in April 2012:

We request a more comprehensive assessment of groundwater conditions and use along the proposed pipeline route. The assessment should be based on a reference material and a field verified survey of water wells within a 500 metre radius of the proposed pipeline. The assessment should identify where the pipeline route crosses the Oak Lake, Medora-Waskada and Pierson aquifers and any other aquifers of significant scale identified from the survey. The assessment should indicate if the pipeline is to be emplaced in the aquifers, or into sufficient overlying material.

The results of the assessment should be incorporated into an emergency response plan, providing information on the type of aquifer and appropriate response, when appropriate.

The following was requested in EAB's June 27, 2012 information request:

Water Stewardship requests a more comprehensive assessment of groundwater conditions and use along the proposed pipeline route. The assessment should identify where the pipeline route crosses the Oak Lake, Medora-Waskada and Pierson aquifers and any other aquifers of significant scale identified from the survey. The assessment should indicate if the pipeline is to be emplaced in the aquifers, or into sufficient overlying material.

Based on the results of the assessment, the proponent should also provide a description of the potential impacts of the development on groundwater and proposed management practices to be employed to prevent or mitigate adverse impacts during construction and operation.

The proponent provided the following in response:

- o Letter report outlining a groundwater assessment dated September 13, 2012, which concluded the following:

An assessment of water wells was undertaken in proximity to the proposed pipeline in areas where sand and gravel aquifers have been identified. The assessment used GWdrill data to determine depth of overlying cover and characteristics of the Medora-Waskada, Pierson, and Oak Lake Aquifers as well as ground water conditions in the Elkhorn area. For the majority of the pipeline route, there is

sufficient overlying material to reduce the potential impacts of the proposed pipeline on groundwater. However, in a few locations, most prominently the Pierson-Oak Lake Aquifer, there are areas of insufficient overlying materials. In these areas the pipeline may be embedded in the upper portion of the aquifer.

Eight water wells were identified in proximity to the proposed pipeline in areas where depth to cover was not sufficient. The current status of these wells and their locations will be confirmed by discussions with landowners and field-verification. In addition, quarter sections where residences or corrals have been noted in proximity to the proposed pipeline will be assessed for unrecorded water wells. The proposed pipeline has the potential to impact groundwater resources in the areas where there are insufficient overlying materials. The implementation of mitigation measures during construction and operations will reduce the potential for these impacts to occur. Discussions with landowners and the field verification of current water wells will enable the prompt and appropriate response to the unlikely event of a potential leak or pipe failure. This water well assessment has provided information that has been included in the Environmental Protection Plan and the Emergency Response Plan for the Penn West Exploration Sales Line.

Groundwater Management's comments on the revised route submitted on March 18, 2013:

The changes do not make a significant difference in terms of groundwater. The original recommendations are still valid.

Disposition:

The groundwater assessment report was sent to Groundwater Management for review and comment. They indicated that the report addresses their concerns.

Manitoba Infrastructure and Transportation

Comments on the proposal submitted in April 2012:

The proposal indicates that two pipelines will be installed through Provincial Roads (PR5) 251, 255, 256 & 345, as well as Provincial Trunk Highways (PTHs) 2, 3 & 83. These installations will require an underground utility agreement prior to the start of work. Agreements can be obtained at Manitoba Infrastructure & Transportation Office located in Brandon. Please contact Ms. Ashley Beck, Regional Planning Support Technician, at (204)726-7000 or by email (Ashley.Beckgov.mb.ca) for further information.

The proposal indicates under "Additional Activities" the need for temporary access roads, shoo flies, equipment marshalling yards, riser sites and isolation valves. As such, the proponent should be informed that under the Highways and Transportation Act (for PRs) and the Highways Protection Act (for PTHs), any new, modified or relocated access connection, including any change in use of existing access, onto a

departmental road will require a permit from Manitoba Infrastructure and Transportation (for PRs) and or from Highway Traffic Board (for PTHs). A permit is also required for any construction, above or below ground level, within 38.1 m (125 ft) or for any plantings within 15.2 m (50 ft) from the edge of the right of way along the PR5 or PTHs. Permit applications can be obtained by contacting Ms. Beck at the Brandon Office.

Disposition:

These comments were forwarded to the proponent for their information.

Manitoba Conservation and Water Stewardship, Office of Drinking Water

Office of Drinking Water's comments on the proposal submitted in April 2012:

The EAP notes that construction and maintenance procedures will be utilized to minimize effects upon the environment and emergency procedures will be in place to contain any spills or other unplanned occurrences. Based upon this, the EAP concludes that effects upon the environment will be temporary and mitigable. Based upon this, Office of Drinking Water does not see any cause for concern that the proposed project will directly impact the treated water quality in any public or semi-public water system. That being said, we would note the following points:

- The pipeline will cross the Souris River by underground directional drilling. The Souris River empties into the Assiniboine River, which provides the raw water for the City of Portage la Prairie and the Cartier Regional Water Cooperative (Co-op). Thus, a major spill into the Souris River could potentially affect the water quality at these two treatment facilities. As such, the Office of Drinking Water would recommend that contact information for the two water systems be included in the emergency procedures with at provision that, in the event of a major spill from the project, the water plant operators at Portage la Prairie and Cartier Water Co-op be notified.

Rural domestic water distribution systems are constantly expanding in central and western Manitoba. These systems distribute treated potable water in long distance, small diameter pipelines to rural residences, farms etc. and, in some cases, towns or villages. The pipeline material of these systems is usually either polyvinyl chloride (PVC) or high density polyethylene (HDPE). These plastics are vulnerable to degradation if in contact with petroleum hydrocarbon compounds over extended periods of time. This could potentially affect the quality of the water in the pipelines. The EAP does not specifically note whether the proposed oil/gas pipeline will cross any domestic water pipelines. For future EAPs of this type, ODW would recommend that any crossings of domestic water pipelines be identified and any potential risks to the water pipelines be discussed.

The following was requested in EAB's June 27, 2012 information request:

Please indicate if the pipeline will cross domestic water lines.

The proponent provided the following in response:

Contact information for the water plant operators at Portage La Prairie and Cartier Water Coop has been included in the Environmental Protection Plan and Emergency Response Plan for the Waskada Sales Line. In the event of a major spill into the Souris River, the operators of these facilities will be notified.

Portage La Prairie Water Treatment Plant contact: Doug Campbell 204-239-8374

Cartier Regional Water Coop contact: Kale Black 204-353-4055 (office), 204-931-2076 (emergency)

The proposed pipeline will cross five domestic water lines and has the potential to cross a sixth water line (proposed). Crossing agreements have been applied for with the applicable Rural Municipalities and Coops and all conditions of the agreements will be followed during construction and operation of the pipeline. All water line locations have been surveyed and are included on the survey plans. All water lines are located adjacent to provincial or municipal roads; therefore, they will be crossed using a trenchless method (bore) in conjunction with the road crossing. The proposed pipeline will be situated below the water lines at a sufficient depth (*i.e.*, 1 m minimum) to minimize the potential for interaction between an unlikely spill or failure event and the susceptible water line pipe material. However, standard mitigation measures such as regular operational testing and maintenance of the pipeline will be conducted to prevent spills or failures and to provide early detection of unforeseen events. Spill mitigation and contingency plans have also been developed and are included in the Environmental Protection Plan and Emergency Response Plan.

The potential risk to the water lines is considered low given the placement of the pipe and the standard measures of operation and maintenance that are implemented to minimize the potential for a spill to occur and to ensure a quick response in the event of a potential event.

Water Lines to be Crossed:

- NE 30-1-25 W1M: Waskada Rural Water Coop
- NW 33-3-26 W1M: R.M. of Arthur Water Line
- NE 24-4-27 W1M: R.M. of Arthur Water Line
- NW 25-4-27 W1M: R.M. of Arthur Water Line
- NE 16-5-27 W1M: R.M. of Albert Water Line

R.M. of Pipestone is proposing to install a water line somewhere along 44 N between 162 W and 163 W later in the year. Penn West Exploration will make itself aware of this potential water line prior to construction.

Office of Drinking Water's comments on the revised route submitted on March 18, 2013:

In my reply of June 8, 2012 to Darrell Ouimet respecting the original EAP, I noted concerns respecting spills into surface waterways and potential effects of hydrocarbons on underground plastic watermain pipes. These concerns would still apply to the proposed revised routing of the pipeline. Beyond these points, I have no other concerns respecting drinking water safety from the revised EAP.

Disposition:

The proponent's response addresses the concerns noted by the Office of Drinking Water.

Manitoba Conservation and Water Stewardship, Parks and Natural Areas Branch

Comments on the proposal submitted in April 2012:

The proposed pipeline passes through SW 11-5-27 W1. Parks and Natural Areas Branch is pursuing designation of Section 11-5-27 W1 in its entirety as an ecological reserve. Ecological reserves provide the highest level of protection of all designations within Manitoba's Protected Area Network. Oil and gas development, including pipelines, is prohibited in ecological reserves.

Section 11-5-27 W1 is part of a complex of mixed-grass prairie remnants being pursued for protection as an ecological reserve. All of 11-5-27 W1 has been identified and selected for protection through a *Critical Habitat - SW Manitoba Crown Land Review Process* conducted by Conservation and Water Stewardship (CONWS). The attributes of this remnant prairie site that make it of significant value to be deemed appropriate for protection as an ecological reserve include the fact that these parcels are made up of native mixed-grass prairie and associated wildlife assemblages. Native prairies are recognized by many as the most imperilled ecosystem worldwide. Much of the native prairie has been destroyed or altered by agricultural activities hence, the unique avian assemblages associated with these grasslands are also in danger. Mixed-grass prairie and improved grasslands in extreme southwestern Manitoba have accounted for a majority of recent endangered and threatened grassland bird records in Manitoba. Several grassland birds that are at risk nationally or provincially have distributions that roughly parallel the extent of grassland complexes in southwestern Manitoba. These include the: Ferruginous Hawk (*Buteo regalis*), Burrowing Owl (*Athene cunicularia*), Loggerhead Shrike (*Lanius ludovicianus*), Baird's Sparrow (*Ammodramus bairdii*), and Sprague's Pipit (*Anthus spragueii*). These five species share a common problem - the loss or modification of critical grassland habitat.

Due to the high value of this parcel as a native mixed-grass prairie remnant and its contribution to the area proposed for protection, Parks and Natural Areas Branch does not support this development or breaking of native grassland in this area proposed for protection. However, recognizing that it may not be possible to locate this section of the pipeline on privately-owned land, the Branch recommends that the pipeline follow the existing undeveloped road allowance on the southern edge of SW 11-5-27 W1

(between SW 11-5-27 and NW 2-5-27) to minimize habitat fragmentation. Native prairie in Section 11-5-27 W1 that is disturbed during construction of the pipeline must be reseeded immediately following construction with native seed typical of the mixed-grass prairie from genetically appropriate seed sources.

The following was sent to the proponent in the June 27, 2012 information request:

SW 11-5-27W1 should be avoided because of its ecological importance. Please resubmit a final route (including shape files) that avoids this area.

The proponent provided the following in response:

Shortly after the submission of the Environmental Assessment Report, Rangeland became aware that Section 11-5-27 W1M may be consideration for protection. Following confirmation Parks and Natural Areas Branch, the pipeline route was re-routed through private cultivated lands adjacent to 11-5-27 W1M to follow the existing Penn West Exploration pipeline thereby avoiding the area of concern. A revised shapefile of the final route has been sent to Manitoba Conservation and Water Stewardship and is included in this submission

Comments on the revised route submitted on March 18, 2013:

Parks and Natural Areas Branch has reviewed the Penn West Waskada Sales Line Revised Route. The Branch would like to acknowledge that its previous concerns with the proposed pipeline route going through 11-5-27 WPM (part of a proposed ecological reserve) have been addressed. The proposed pipeline has been rerouted south into 2-5-27 WPM and no longer crosses 11-5-27 WPM.

Disposition:

Rerouting of the pipeline addressed the concerns of the Parks and Natural Areas Branch.

Manitoba Conservation and Water Stewardship, Regional Water Operations

Comments on the proposal submitted in April 2012:

If there is a need to alter wetlands or change existing water flows, a license will be required with appropriate consents. No further comments.

Disposition:

This concern was addressed in the licence conditions.

Manitoba Conservation and Water Stewardship, Sustainable Resource and Policy Management Branch

Comments on the proposal submitted in April 2012:

Part of the proposed route crosses S½ 11-5-27W1. All of 11-5-27W1 has been identified and selected for protection through a Critical Habitat - SW Manitoba Crown land Review Process conducted by Conservation and Water Stewardship (CONWS), and are proceeding through the Protected Areas Initiative Planning Process for full protection. 11-5-27W1 has been identified as a proposed ecological reserve.

The SRPM and Lands Branch are opposed the pipeline route crossing any part of 11-5-27W1 and requests that any activities associated with the construction of the new pipeline near 11-5-27W1 be carried out in a way that maintains this vital habitat because these lands:

- have high ecological significance and are proceeding through the PAI Planning Process for full protection.
- make up one of the most important remnant blocks of intact mixed-grass prairie in southwest Manitoba - less than 5-10% of intact mixed-grass prairie habitat remains in Manitoba.
- are critical to the survival of a variety of endangered grassland birds.
- support species designated under Manitoba's Endangered Species Act and the federal Species at Risk Act.
- fall within the Southwestern Manitoba Mixed-Grass Prairie Important Bird Area (IBA). IBAs are home to threatened birds, large groups of birds, and birds restricted by range or by habitat. These species are incurring loss and modification of their shrinking grassland habitat. Protecting IBAs is vital to the long-term conservation of the world's birds, and helps to conserve globally diverse habitats. IBAs are identified using criteria that are internationally agreed upon, standardized, quantitative, and scientifically defensible.
- Are part of the Manitoba Grasslands Birding Trail, a popular destination for international visitors and is highly visible to the public. This trail is part of Manitoba's Watchable Wildlife program.

Comments on the revised route submitted on March 18, 2013:

The Sustainable Resource and Policy Management Branch and the Lands Branch have no concerns as the revised route does not impact Crown land. Particularly, the route no longer crosses 11-5-27W, the area of previous concern with the pipeline route.

Disposition:

Rerouting of the pipeline addressed the concerns of the Parks and Sustainable Resource and Policy Management Branch.

Manitoba Conservation and Water Stewardship, Water Resources Branch

Comments on the proposal submitted in April 2012:

The withdrawal of water for hydrostatic testing may require an authorization under *The Water Rights Act* and that some lead time is required to process such a request.

Disposition:

The comments were forwarded to the proponent for information.

Manitoba Conservation and Water Stewardship, Water Science and Management Branch

Comments on the proposal submitted in April 2012:

It is noted the pipeline proposed is to replace an ageing pipeline at higher risk of failure. By replacing the current pipeline it should help reduce the risk of an uncontrolled spill to the environment. It is assumed the current high risk pipeline will be decommissioned and any impacted soil will be remediated.

Oil and gas pipelines have the potential to affect water quality during construction and operation. While the EAP report does a reasonable job in identifying potential impacts during construction of this pipeline project. The report seems to glance over impacts from potential leaks and malfunctions. Crude oil contains numerous components which are toxic to aquatic and terrestrial life. Accidents and spills can and have occurred in this area. It is recommended proponent implement the following: a regular maintenance inspection schedule of the pipeline, electronic leak detection equipment, an emergency response plan, and having staff with training and equipment in the area for rapid response in the event of an accident or malfunction.

It is noted that the proposed pipeline route has numerous water crossings. The environmental protection plan satisfies most concerns regarding how water quality in these areas will be protected during construction and operation.

Concerning hydrostatic testing, the proponent notes they propose to use methanol as an antifreeze during pipeline testing. Although the proponent intends to recover this material upon completion of testing we are concerned about potential leaks and discharges during pipeline testing as methanol can be toxic to aquatic life. The use of non-toxic or the least toxic, biodegradable antifreeze fluids such as food grade ethanol or propylene glycol is preferred. Should any water be required to be withdrawn from surface waters or discharged to the environment the proponent should contact the Water Stewardship Division of Manitoba Conservation and Water Stewardship regarding requirements for obtaining and discharging hydrostatic test water in Manitoba.

The proponent is required to develop a standard protocol to prevent the introduction of foreign biota to aquatic ecosystems.

Concerning construction other recommendations include:

- silt curtains be installed several meters past the riparian margin along the right of way
- Biodegradable erosion control materials be used.,
- and all re-vegetation should use a seed mix native to the area to prevent the spread of invasive species.
- It is also recommended that construction that could lead to sediment transport into waterways be halted during periods of heavy rain fall.
- If there are some undefined channels that carry water into a watercourse with a defined bed and banks and the crossing will be trenched, the work shall be conducted during dry conditions and temporary and permanent sediment and erosion control measures are implemented until the sites have stabilized.

Further comments:

- In order to protect riparian areas, including during trenchless drilling, the proponent is required to establish and maintain an undisturbed native vegetation area located upslope from the ordinary high water mark and adjacent to all water bodies and waterways connected to the provincial surface water network:
- A 30-metre undisturbed native vegetation area is required for lands located adjacent to surface waters;
- The combined alteration—including new and existing structures—within this undisturbed native vegetation area is limited to a maximum of 25 % of the shoreline length
- Alteration within this undisturbed native vegetation area—including a dock and/or the removal of near shore or stream aquatic habitat—shall not occur unless an activity conforms to a Department of Fisheries and Oceans Canada Operational Statement or an activity is reviewed by the Department of Fisheries and Oceans Canada.

Comments on the revised route submitted on March 18, 2013:

With respect to File number 5579.00 comments were originally provided May 30, 2012. The revised route should not substantially alter our original comments.

Disposition:

The comments were forwarded to the proponent for information. Concerns regarding accidents and spills are addressed in licence conditions, the proposal, and in the required industry standards. Concerns regarding the introduction of foreign biota were address in the licence.

Manitoba Conservation and Water Stewardship, Wildlife Branch

Wildlife Branch's comments on the proposal submitted in April 2012:

The Wildlife Branch notes that this environmental assessment does not contain any wildlife field survey information. Wildlife survey information is crucial for making informed decisions, minimizing environmental impact, ensuring sustainable development, and the avoiding conflicts with species at risk. Wildlife survey information needs to be included as part of a complete environmental assessment submission. South-western Manitoba has the highest density of endangered plants and animals in Manitoba, and is designated as an "Important Bird Area" by Bird Life Canada. It is important to note that the results of a wildlife survey may require major changes to a proposed project route. The Wildlife Branch requests that an environmental licence for this project not be granted, even on an interim basis, or with a clause, until a complete wildlife survey has been provided, and Wildlife Branch biologists has been provided with a an opportunity to review the information. Only once departmental wildlife biologists have had an opportunity to review this information, and any additional information requests have been provided to a satisfactory level, should the issuance of an environmental licence be considered.

Wildlife Branch is opposed to this pipeline crossing any portion of 11-5-27W1. These Crown lands support valuable intact mixed-grass prairie habitat, and provide valuable habitat for species protected under the Manitoba *Endangered Species Act* and the Federal *Species at Risk Act*. In addition these lands are under consideration for full protection by the Protected Areas Initiative.

The Wildlife Branch notes that the following parcels are 1) proposed for development in this project 2) are comprised of grasslands 3) and are known to provide habitat for bird species listed in the *Species at Risk Act* (Federal) and *Endangered Species Act* (Provincial):

- NE 23-08-28W
- SW 28, 05-27W
- SW 21-05-27W
- NE 16 05-27W
- SW 15-05-27W
- N 10-05-27W
- SW 02-05-27W
- NW 25-04-27W
- NE 28-03-26W
- SW 27-03-26W

The Wildlife branch requests that detailed site specific development plans, including proposed mitigation measures for grassland bird, be prepared for each parcel.

The Wildlife Branch notes that the following parcels are proposed for development in this project and provide habitat for Great Plains Toad, a species listed in the *Endangered Species Act*:

- NE-35-04-27W
- SE-35-04-27W
- SW-4-17-04-26W
- SE-4-17-04-26W
- NW-17-04-26W

The Wildlife branch requests that detailed site specific development plans, including proposed mitigation measures for Great Plains Toads, be prepared for each parcel.

The Wildlife Branch recommends that this project be reviewed under the *draft Habitat Protection Policy* administered by the Wildlife Branch – Manitoba Conservation. As per the programs policies, any lands classified as wetlands, native prairie, and uplands that are developed for industrial purposes require habitat mitigation. While it is apparent from the environmental assessment that on-site mitigation measures will be used to minimize the negative impacts to the environment, specifically wetlands and native uplands, on-site impact minimization techniques cannot fully compensate for the spatial, temporal and functional losses to the habitat. Mitigation for these areas will require off-site compensation. As part of the mitigation process, Manitoba Conservation and Water Stewardship will require that a review of the habitat mitigation outcomes be conducted three years after construction to assess the extent to which on-site mitigation measures have been successful. A third-party consultant will need to be contracted for this assessment. This assessment will serve as the basis to determining the requirement for off-site compensation. These requirements are in keeping with the recent ruling by the National Energy Board on wetland habitats effected by the Enbridge Bakken Pipeline (2010), and is referenced in section 4.2.6 of this environmental assessment.

Options for providing compensation are outlined below;

- Securing nearby land and restoring, enhancing, or creating habitat;
- Securing alternate high-value wildlife habitat and transferring ownership to a conservation agency;
- Contributing to the *Habitat Compensation Fund*, to be administered by a conservation agency;

Habitat compensation: loss ratios, as described in the program, are outlined below:

Table 1: Wetland Habitat Compensation: Loss Ratios

Compensation Activity	Class 1*	Class 2*	Class 3*	Class 4-5*
Wetland Restoration/Enhancement/Creation	8:1	6:1	5:1	3:1
Wetland Securement	15:1	12:1	6:1	3:1

- *Based on the wetland classification system developed by Stewart and Kantrud, 1971.*

Table 2. Upland Habitat Compensation: Loss Ratios

Compensation Activity	Class 1*	Class 2*	Class 3*	Class 4-7*
Upland Restoration/Enhancement/Creation	8:1	6:1	5:1	3:1
Upland Securement	15:1	12:1	6:1	3:1

- *Based on the Canada Land Inventory habitat classification system.*

Table 3: Native Prairie Habitat Compensation: Loss Ratios

Compensation Activity	Class A	Class B	Class C	Class D
Grassland Restoration/Enhancement/Creation	8:1	6:1	5:1	3:1
Native prairie securement	15:1	12:1	6:1	3:1

- *Based on the native prairie habitat classification system.*

As an alternative to relying solely on post-construction habitat mitigation assessments, the proponent may discuss with Manitoba Conservation how compensation requirements could be addressed in advance of construction, understanding that it will not be possible to fully mitigate some habitats on-site. The proponent is encouraged to contact Manitoba Conservation – Habitat Mitigation Biologist, Jonathan Wiens at jonathan.wiens@gov.mb.ca or 204-945-7764 to discuss details.

Wildlife Branch **requires** the following conditions be implemented for the post-construction phase of the project, in areas of native prairie and native pasture:

- Recontouring of a disturbed site must be completed, as required, to match the predisturbed landscape and/or blend with the surrounding topography. Slope steepness and contour should consider the potential for erosion. Subsequently, stripped topsoil should be replaced as closely as possible to the predisturbance state. Practices should be taken to reduce soil profile compaction on disturbed areas (e.g., subsoil ripping prior to topsoil replacement) assist in root penetration and soil moisture intake.
- Revegetation programs that maximize the re-establishment of native species (trees, shrubs, forbs, grasses, etc.) must be used.
- Reclamation planners must select seed mixes and plant materials that allow reestablishment of the complete range of native species. To ensure compatibility with surrounding areas, available native plant materials adapted to local growing conditions may be required to approximate the predisturbance diversity of the prairie vegetation. Revegetation planning should consider use

of lower seeding rates to promote encroachment/reestablishment of native species. Plant distribution should simulate off-site occurrence as much as possible. For example, shrubs may be planted in clumps, depending on the site plan.

- Natural recovery (no seeding) is an acceptable approach to revegetation, if reclamation planner identifies that the following site specific conditions are adequate; topography, soils, moisture, range condition and grazing pressure, weed sources, and construction timing. Reclamation Planners must consider the risk of erosion, type of available seed source, and whether the site is a sufficient distance from sources of problem plan species. The condition of the surround prairie around the site must be good (lots of seed) and the potential for erosion low.

MB Wildlife Branch **requires** that if locally sourced native seed mixes are required to use in this project, that seed mixes be approved by the Regional Wildlife Biologist (Allison Krause-Danielson Allison.krause-danielson@gov.mb.ca) or Habitat Specialist (Jonathan Wiens Jonathan.wiens@gov.mb.ca) prior to seeding.

MB Wildlife Branch **requires** that vegetation monitoring of the native pasture/prairie portions of the project be conducted by a native prairie revegetation specialist for a minimum of **three** complete growing seasons (as outlined in *Recovery Strategies for Industrial Development in Native Prairie*) . MB Wildlife Branch is aware of two companies who offer these services in Manitoba: Native Plant Solutions (<http://www.ducks.ca/consERVE/programs/nativeplants/index.html>) and Prairie Habitats (<http://www.prairiehabitats.com/>). There may be other companies who can also offer these services.

MB Wildlife Branch recommends the proponent review the following guidelines with respect to working in native prairie and native pasture:

- *Petroleum Industry Activity in Native Prairie and Parkland Areas – Guidelines for Minimizing Surface Disturbance*. Native Prairie Guidelines Working Group. January 2002.
- *Native Plant Revegetation Guideline for Alberta (2001)*
- *Minimizing the Effects of Oil and Gas Activity on Native Prairie in Alberta*. June 2002. Prairie Conservation Forum. Occasional Paper No. 4.
- Appendix 3 of the EA outlines the preliminary list of wetlands to be crossed by the project.
 - Wildlife Branch requires that, in order to minimize immediate and long term disturbance, all wetlands that are classified as:
 - class III or higher;
 - bush;
 - low prairie; or
 - hayed

that cannot be avoided, are required to be crossed using a trenchless method (i.e. boring). This includes crossing numbers: 9, 13, 14, 22, 23, 25, 26, 30, 31, 35, 36, 38, 40, 41, 43-47, 49, 50, 52, 53, 55-57, 59-67, 69-73, 77, 80, 85, 86, 89-93, 95, 97, 98, 100, 104, 106, 107-111, 114, 116, 119, 121-124.

The following was requested in the June 27, 2012 information request:

I also want to bring your attention to the concerns identified by the Wildlife Branch in the attached document regarding the need to review the field survey results before a licensing decision is made. Environmental Approvals is supportive of this request and while the environmental assessment and licensing process will continue to a certain point, no final licensing decision will be made until Wildlife Branch has had the opportunity to review and comment on the survey results and associated mitigation proposed by the proponent. Wildlife Branch has also included specific information they would like to see in the survey.

The proponent provided the following in response:

- Penn West Exploration 2012 Wetland Survey for the Proposed Waskada Sales Line Project
- Penn West Exploration 2012 Vascular Plant Survey for the Proposed Waskada Sales Line Project
- Penn West Exploration 2012 Wildlife Survey for the Proposed Waskada Sales Line Project
- Penn West Exploration 2012 Weed Survey for the Proposed Waskada Sales Line Project

Wildlife Branch's comments on the proponent's response:

Wildlife Branch has reviewed the supplementary wetland documents (*Penn West Exploration 2012 Wetland Survey for the Proposed Waskada Sales Line Project* and the *Penn West Wetland Assessment Summaries*). After reviewing this additional information, the Wildlife Branch provides the following comments:

- The use of a trenchless method to cross wetlands (> Class 3) in prairie habitats is preferred.
- Wildlife Branch is pleased to see that 28 of the 158 higher quality (> Class 3) wetlands potentially affected by this project are proposed to be crossed using this methodology.
- The supplementary report outlines that most of the other (> Class3) wetlands proposed to be crossed by this project are degraded, have low *Riparian Health Score*, or are only being crossed along the margins. Therefore the use of a trenched method will be considered acceptable, if the wetland is dry at the time of construction, and the slope and hydrology of the site are not altered to promote drainage.
- However, the Wildlife Branch would like particular attention to be provided to the following wetland crossing sites, due to their higher Riparian Health Score,

presence of standing vegetation, and probability of supporting valuable wildlife habitat:

- 56 – standing wetland vegetation. Higher Riparian Health Score.
- 75- standing wetland vegetation. Higher Riparian Health Score.
- 90 – standing wetland vegetation, and probability of supporting valuable wildlife habitat.
- 115 - standing wetland vegetation. Higher Riparian Health Score.
- 116 – standing wetland vegetation. Higher Riparian Health Score.
- 136 - standing wetland vegetation. Higher Riparian Health Score.
- If these wetlands are not completely dry at the time of construction, we would request that they be crossed using a trenchless method.

Wildlife Branch's concerns related to wetland crossings at locations with higher Riparian Health Scores can be accommodated with licence conditions.

Wildlife Branch's comments on the revised route submitted on March 18, 2013:

Wildlife Branch has reviewed this proposal, and do not have any wildlife related concerns with the proposed route changes.

Disposition:

Rerouting of the pipeline addressed the concerns regarding 11-5-27. The remaining comments were addressed by the additional information provided by the proponent or in the licence conditions.

Manitoba Conservation and Water Stewardship, Environmental Compliance and Enforcement

Comments on the revised route submitted on March 18, 2013:

No comments

Disposition:

No action required.

Manitoba Local Government, Community Planning Services

Comments on the revised route submitted on March 18, 2013:

The pipeline route runs through rural areas which are zoned for agricultural land uses as well as natural resource development, such as oil exploration and extraction. We have identified no land use issues with this pipeline proposal.

Disposition:

No action required.

Canadian Environmental Assessment Agency (CEAA)

CEAA's comments on the proposal submitted in April 2012:

Transport Canada (TC) has reviewed the project information and determined it is not a responsible authority (RA) for the project. TC has indicated it could provide advice related to navigation to an RA if requested.

Health Canada (HC) has indicated it is not a responsible Authority (RA) for the project. However, it could contribute expert knowledge in the area of human health to an RA if requested.

Transport Canada (TC) has indicated that all the waterways and pipeline crossings fall under the Minor Works guidelines; therefore, a Navigable Waters Protection Act approval will not be required. However, temporary bridges will be required for vehicle crossings. These crossings may require NWPA approval and the proponent should contact the Navigable Waters Protection Program for advice related to these crossings.

The Canadian Transportation Agency (CTA) has reviewed the available project information and is requesting additional information regarding railroad crossing agreements to determine its interest in this project. The contact for the CTA is John Woodward. He can be reached by phone at (819) 953-0319.

Environment Canada (EC) would like to take this opportunity to provide specialist advice and/or expert information or knowledge on the Environment Act proposal (EAP), with a focus on federal statutes, regulations, policy and associated program concerns as defined by EC's mandate. EC appreciates the opportunity to provide feedback on this matter. In general, the following areas of concern/comment were identified:

Native Prairie - Section 3.1, Environmental Concerns and Proposed Mitigation, page 5, states that "Minimum disturbance topsoil stripping, approximately twice the width of the trench and up to 0.5 m wider on either side of the trench (approximately 2.5 m wide [maximum]), shall be conducted on native prairie, seeded pasture and hayland during non-frozen ground conditions, and on cultivated land during frozen ground conditions" and that "construction equipment will arrive on site in clean and weed-free condition to minimize the spread of weeds." EC also notes that all surveys will be included on the Environmental Alignment Sheets (EAS, Supplemental Application). EC recommends that the proponent take all reasonable measures to avoid native prairie, especially larger tracts of native prairie (e.g. larger than a quarter section). EC notes the proponent's commitment to clean equipment before entering native prairie from cultivation or pasture. Migratory birds and species at risk are dependent upon habitat for survival. Because alignment sheets are not included it is difficult to assess routing selection, how much native prairie will be disturbed, and the significance of effects.

Wetlands - The Federal Policy on Wetland Conservation promotes the wise use of wetlands and elevates concerns for wetland conservation to a national level. The policy promotes the maintenance of the functions and values derived from wetlands throughout Canada, enhancement and rehabilitation of wetlands in areas where continuing loss or degradation of wetlands have reached critical levels, no net loss of wetland functions for federal lands and waters, recognition of wetland functions in 2 of 3 resource planning and economic decisions, and utilization of wetlands in a manner that enhances prospects for their sustained and productive use by future generations. EC recommends that proponents comply with the provisions of the Federal Policy on Wetland Conservation. Wetlands should be avoided irrespective of whether they are wet or dry and buffers or setbacks should originate from the high water mark. 100m setbacks should be utilized where feasible. Where wetlands will be lost, consideration should be given for compensation that is consistent with the Policy.

Section 4, Routine Environmental Protection Measures, page 9, states that “The proposed project will cross eleven (11) watercourses. All watercourses with defined bed and banks and all wetlands with standing water will be crossed via HDD. Watercourse and wetland crossings and construction methods will be verified during the aquatic assessment in spring 2012, with mitigation further outlines in the Supplemental Application”, and section 6.2.1, Watercourse Crossings, pg 24, which mentions that construction is proposed to occur during late fall and early winter 2012. EC notes the proponents winter construction schedule and commitment to HDD all wetlands containing water. For those wetlands not containing water, EC recommends the use of minimal disturbance techniques. Wetlands that will be disturbed should be monitored to ensure there is no residual loss of wetland function.

Species at Risk - The federal Species at Risk Act is directed towards preventing wildlife species from becoming extinct or lost from the wild, helping in the recovery of species that are at risk as a result of human activities, and promoting stewardship. The Act prohibits the killing, harming or harassing of listed species; the damage and destruction of their residences; and the destruction of critical habitat. The prohibitions apply to all Threatened, Endangered and Extirpated species listed on Schedule 1 of SARA on federal lands. The prohibitions apply only to Migratory Birds (under the MBCA) and aquatic species (under the Fisheries Act) on lands that are not federal lands, unless an Order is made. If species at risk are likely to occur within the project area, proponents are advised to use experienced personnel to undertake appropriately timed surveys and using widely accepted protocols. To minimize effects to listed species proponents are advised to follow species appropriate timing restrictions and setback distances. As such, EC has appended its Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region.

The following are recently developed species setbacks for high disturbance activities not yet reflected in the attached Petroleum SAR guidelines:

Canada Warbler (Threatened SARA) May 1 to July 31 300m (high disturbance) 150m (medium) 0- 50m (low), Olive-sided Flycatcher (Threatened SARA) May 1 to August

31 300m (high disturbance) 150m (medium) 0-50m (low), Rusty Blackbird (Special Concern SARA) May 1 to July 31 300m (high disturbance) 150m (medium) 0-50m (low),

Common Nighthawk (Special Concern SARA) May 1 to August 31 200m (high disturbance) 100m (medium) 0-50m (low), Barn Swallow (Threatened COSEWIC). May 1 to August 31. 100m setback from active nests, Bobolink (Threatened COSEWIC). May 1 to August 31. 200m setback from active nests. Chestnut-collared Longspur (Threatened COSEWIC). May 1 to August 31. 200m setback from active nests. Chimney swift (Threatened SARA). April 1 to August 31. 100m setback from active nests, Horned Grebe (Special Concern COSEWIC). April 1 to August 31. 100m setback from the high water mark of the wetland or waterbody containing a nest. Monarch (Special Concern SARA). June 1 to September 30. 30m setback from occupied host plants. Snapping Turtle (Special Concern SARA) – Year round 400m setback from potential nesting and wintering sites, Whip-poor-will (Threatened SARA) May 1 to August 31 100 m.

EC has also appended the federal Activity Set-back Distance Guidelines for Prairie Plant Species at Risk.

EC notes in section 7.2, Species of Concern, pg 42, the proponents contingency mitigation plans for wildlife and rare plants. EC also notes that the proponent has not provided the results of the 2012 wildlife surveys, as such EC is limited in its ability to assess the potential effects of the project on species at risk. Even though winter construction is proposed, routing changes may be necessary to avoid SARA Listed plant species (Buffalo grass) and several SARA listed wildlife species that have year round protection (e.g. Burrowing Owl and Ferruginous Hawk).

Migratory Birds - EC's mandate includes the protection of migratory birds and their habitat. Regulations pursuant to the Migratory Birds Convention Act provide for the conservation of migratory birds and the protection of their nests and eggs. Section 5(1) of the Regulations prohibits the hunting of a migratory bird except under authority of a permit. "Hunt" means chase, pursue, worry, follow after or on the trail of, lie in wait for, or attempt in any manner to capture, kill, injure or harass a migratory bird, whether or not the migratory bird is captured, killed or injured. Section 6 of the Regulations prohibits the disturbance, destruction, or taking of a nest, egg or nest shelter of a migratory bird. Possession of a migratory bird, nest or egg without lawful excuse is also prohibited. Section 5.1 of the Act prohibits the deposition of substances harmful to migratory birds in waters or areas frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

EC notes the proponent's commitment to undertake construction and clearing activities outside the migratory bird breeding season, and to undertake wildlife surveys for late spring cleanup activities. The proponent is also advised to be cognizant of any early nesting species at risk such as the Ferruginous Hawk and observe appropriate setbacks.

The following was requested in EAB's June 27, 2012 information request:

The Canadian Transportation Agency (CTA) has reviewed the available project information and is requesting additional information regarding railroad crossing agreements to determine its interest in this project. Please contact John Woodward with the CTA at (819) 953-1140 for further information. Please confirm that CTA has been provided the additional information in your response to this information request.

The proponent provided the following in response:

At the request of the CTA, the proponent provided the rail crossing agreements for the proposed project.

Disposition:

The comments were provided to the proponent for their information and addressed in the licence conditions. The rail crossing agreements provided by the proponent addressed the information requirements of the CTA.

PUBLIC HEARING:

A public hearing is not recommended as there were no requests for a public hearing and comments received from the member of the public can be addressed by the proposed mitigation measures or as conditions of licensing.

CROWN-ABORIGINAL CONSULTATION:

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with First Nations, Métis communities and other Aboriginal communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or Aboriginal right of that First Nation, Métis community or other Aboriginal community.

Since no First Nations communities are located adjacent to or near to the right-of-way of the proposed development and the current land tenure consists mostly of privately owned property which would preclude the possibility of traditional activities being practiced on these lands, it is concluded that Crown-Aboriginal consultation is not required for this project.

RECOMMENDATION:

The TAC and public comments received on the Proposal can be addressed as conditions of licensing for the project, or have been forwarded to the Proponent for information. Therefore, it is recommended that the Development be licensed under The Environment Act subject to the limits, terms, and conditions as described in the attached

Environment Act Licence. It is further recommended that enforcement of the Licence be assigned to the Western Region prior to construction.

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