Environment

Manitoba Hydro

Manitoba-Minnesota Transmission Project
Summary of Round 1 Public Engagement Process

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Date:

September 1, 2015

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AECOM: 2012-01-06

Executive Summary

A. Public Engagement Process

AECOM Canada Ltd. (AECOM) worked closely with Manitoba Hydro Licensing & Environmental Assessment Department staff to develop an approach to public engagement for the Manitoba-Minnesota Transmission Project (MMTP). This process would aim to collect input related to preferred routing of the transmission line and the environmental assessment of 59 Alternative Route Segments, and provide information for inclusion in the project Environmental Assessment Report.

The Public Engagement Process (PEP) incorporated a range of engagement strategies, and involved over 475 participants. A summary of events and participants is provided in Table E1.

Table E1: Public Engagement Process Events for MMTP

Engagement Strategy	Number of Events	Timing	Number of Participants	Notes
Key Person Interviews (KPI)	32	July 2013 to September2013	32	Calls to a wide range of informants including government agencies, municipalities, and NGOs
Stakeholder Group Workshops	2	November 2013	12	Stakeholder Groups represented a range of interests (one observer)
Stakeholder Group Meetings Including Follow up Communications	13	November 2013 to December 2013	34	Follow up reports/briefs provided by various public and private Stakeholder Groups
Public Open House Events	11	November 2013 to December 2013	326	Held in Headingly (2), Winnipeg, Ste. Anne, Steinbach, Vita, Piney, Marchand, Anola, Ile des Chenes and Glenboro; 142 Comment Sheets returned
Email and Telephone Communications	76	June 2013 to January 2014	76	
Total	**134**		**479**	

The purpose of the PEP was to gain an understanding of general issues and concerns, constraints, and obtain feedback on factors for consideration in the transmission line routing process and preferences from a broad cross-section of Stakeholder Groups, local landowners and the general public.

In total, over 400 people directly participated in the MMTP pre-engagement and Round 1 PEP. Many of the Stakeholder Groups involved in KPI, Workshops and Stakeholder Group Meetings represented government departments, municipalities or broad constituencies, ranging from Keystone Agriculture Producers and Dairy Farmers of Manitoba to Trans Canada Trail.

Newspaper advertising, newsletters, postcards and the Manitoba Hydro website were used to inform the public about the project. Emails and telephone calls were also utilized to contact potential Stakeholder Groups. A summary of the methods of notification utilized during Round 1 is provided in Table E2.

Table E2: Notification of Public Engagement Opportunities

Type of Notification	Number of Items or Contacts	Source	Notes
Landowners Initial Notification Letters	8,204	Manitoba Hydro	Informing the public about opportunities to learn about and comment on proposed Alternative Routes
Email and Telephone	98	AECOM	Contacted 125 Stakeholder Groups to ask how they would like to be engaged: through Workshops, Meetings or Public Information Centres (Open Houses), or through emailed information and the Manitoba Hydro website. 98 people responded.
Email and Telephone	57		Contacts who indicated they would be interested in attending (or possibly attending) Stakeholder Group Workshops.
Email and Telephone	75	AECOM	Workshop and Meeting invitations sent
Postcards		Manitoba Hydro	Informing the public about Public Open House Events
Newspaper Ads Published	15	Manitoba Hydro	Typically published two weeks in advance of Open House Events
Postcards	26,059	Manitoba Hydro	Public Open House Invitations/Postcards sent October 10th and 22nd, 2013.

Workshops

Project information was shared in two Workshops, which provided an opportunity for more hands-on involvement from participants. At the workshops, Manitoba Hydro:

- Presented project information;
- Collected feedback to assist with the transmission line routing process, including criteria that are most important to Stakeholder Groups;
- Identified Preliminary Alternative Routes and Preferred Border Crossings addressing the transmission line routing criteria selected (working groups);
- Determined local issues and concerns; and
- Discussed mitigation strategies.

The Workshops allowed different Stakeholder Groups to work together and collaborate with each other and to assist Manitoba Hydro with identification of factors for the transmission line routing process. The Workshops were intended to stimulate open dialogue and contributions from varying perspectives that would assist Manitoba Hydro in further understanding the Project area.

Stakeholder Group Meetings

To share project information and to gather feedback from interested government representatives, Manitoba Hydro held Stakeholder Group Meetings their office located at 820 Taylor Avenue, Winnipeg, MB. At the meetings Manitoba Hydro:

- Introduced the project including the alternative routes and potential border crossings;
- Shared project timelines;
- Presented information regarding the public engagement and environmental assessment processes;
- Outlined the routing process and ways that groups can become involved in route determination; and

- Responded to Stakeholder Group questions and discussed concerns/opportunities with regards to routing.

A number of Government Stakeholder Groups and others provided briefs or memoranda to clarify their points. These were incorporated into the email and telephone conversation logs.

The Stakeholder Group Meetings provided specific environmental considerations, as well as other issues and concerns related to Alternative Route Segments and Border Crossing Areas.

Key Person Interviews (KPI)

Manitoba Hydro utilized information from KPIs conducted with 32 representatives of government agencies, municipalities and key agricultural, environmental and business and industry organizations. The organizations were contacted to discuss a wide range of issues and concerns, and preferences related to power transmission lines in southern Manitoba.

A preliminary letter with an outline of questions tailored to specific interests was sent to all key informants prior to the telephone interviews being administered by AECOM. In many cases key informants consulted with their colleagues or organizations or councils prior to responding to KPI questions.

The KPI process provided broad socio-economic information, as well as more specific issues and concerns, and preferences regarding transmission line routing across southern Manitoba.

Public Open Houses

Project information was shared in Public Open House events conducted in 11 communities from Winnipeg to Vita.

Public feedback was obtained through Comment Sheets and Map Stations as well as one-on-one discussions with participants.

At each Public Open House Manitoba Hydro:

- Presented project information in storyboards;
- Identified Alternative Routes and Border Crossing Areas;
- Presented transmission line routing criteria (Comment Sheets and Map Stations);
- Determined local issues and concerns; and
- Discussed mitigation strategies.

Information received from Public Open House Comment Sheets and Map Station logs was important to identifying public preferences and concerns related to routing criteria and individual concerns about the Alternative Route Segments.

Email and Telephone Communications

Manitoba Hydro was proactive in contacting individuals who were involved in the various Public Engagement forums conducted throughout Round 1 to respond to their questions. Information sheets related to transmission line tower design and EMF; maps, and other information were available online, in-person or sent out to interested individuals on request.

Email and telephone communications (76 contacts between June 2013 and January 2014) allowed Manitoba Hydro to engage with individuals, address their concerns, and provide information clarifying the intent of the project, potential impacts and approaches to mitigation.

Project Website

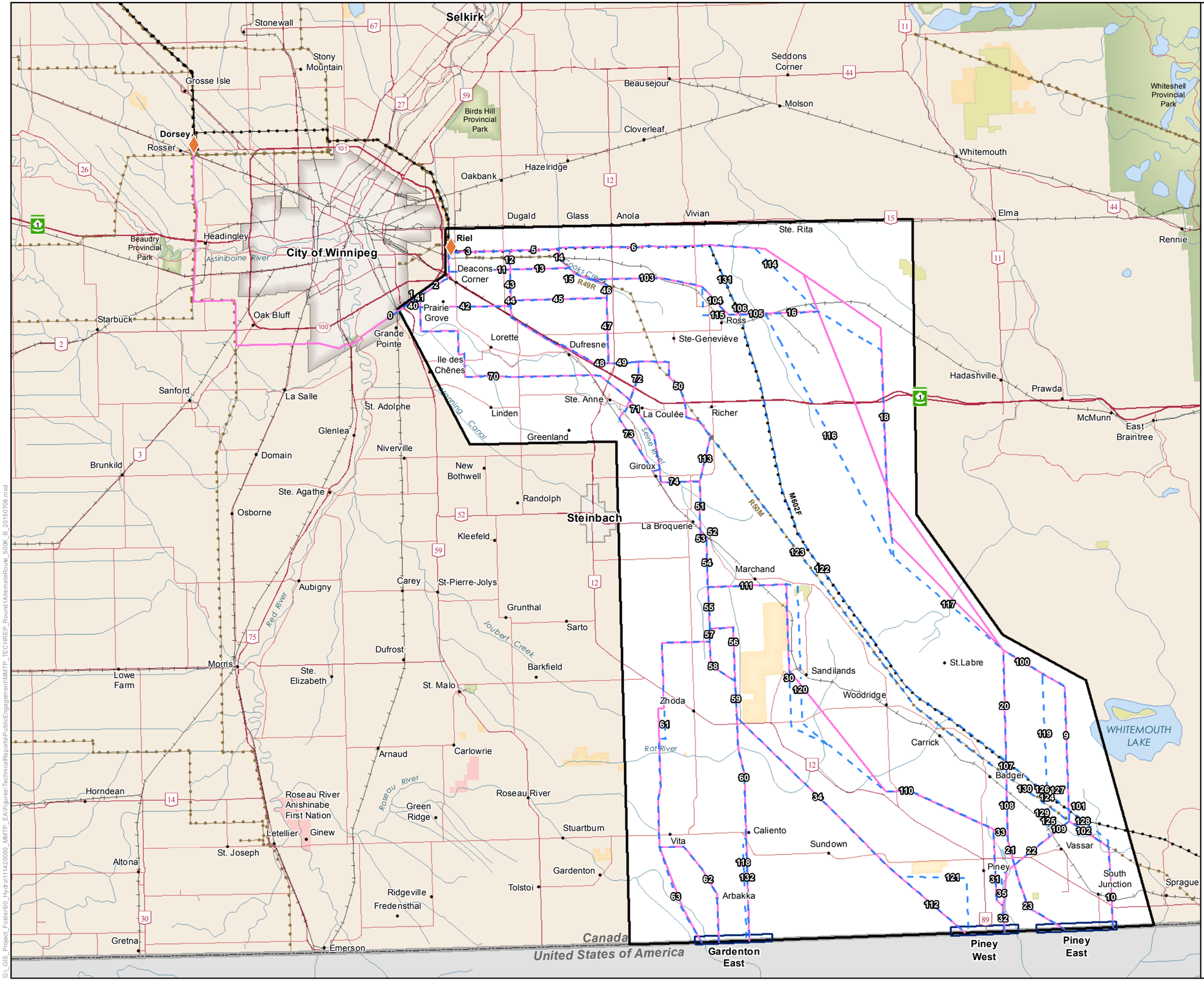
The Project's website (www.hydro.mb.ca/mmtp) provided information to assist interested parties in understanding Alternative Routes and Border Crossing Areas under consideration in Round 1 of the MMTP process. Publicly available material such as maps, GIS files, brochures, were provided in the document library.

B. Round 1 Feedback Relating and the Transmission Line Routing Process

Prior to the Round 1 PEP activities, Manitoba Hydro developed 59 Route Segments leading to three Border Crossing Areas located on the Manitoba-Minnesota border. Feedback was collected from sources and utilized in the Transmission Line Routing Process to further understand the landscape surrounding the route segments.

Stakeholder Groups and members of the public were encouraged to participate in the PEP and provide input regarding appropriate criteria for transmission line routing, as well as issues and concerns related to the Alternative Route Segments. **Map 1-1 Round 1 Alternative Routes** illustrates the Project Area, Alternative Route Segments and Border Crossing Areas presented in Round 1 of the PEP.

Manitoba Hydro evaluated the number of concerns related to each segment, as well as the potential for mitigation to lessen the potential impact of concerns. The feedback collected during Round 1 was used to develop the framework for establishing criteria for use in the Transmission Line Routing Process.



Manitoba Hydro

Manitoba-Minnesota Transmission Project

Project Infrastructure

- Converter Station (Existing)
- 100 Round 1 Evaluation Routes and Segment Number
- Round 1 Alternative Routes

Infrastructure

- Existing 500kV Transmission Line
- Existing 230kV Transmission Line

Assessment Area

- Border Crossing Area
- Route Planning Area

Landbase

- Community
- Railway
- Trans Canada
- Provincial Highway
- Provincial Road
- City
- First Nation Lands
- Ecological Reserve
- Wildlife Management Area
- Provincial Park

Coordinate System: UTM Zone 14N NAD83
Data Source: MBHydro, ProvMB, NRCAN
Date Created: July 14, 2015

N

0 5 10 Kilometres
0 5 10 Miles

1:500,000

Round 1 Alternative Routes

Map 1-1

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C. Preliminary Alternative Routes and Border Crossing Areas

A rating scale for sorting the 59 different Alternative Route Segments into five categories ("Most Preferred", "Preferred", "Potential", "Not Preferred" and "Least Preferred") corresponding to numerical values of "0" to "3.5" based on public feedback was utilized during the analysis of information collected during Round 1 of the PEP.

This rating scale first ranked all concerns and constraints as "3, High"; "2, Medium"; "1, Low", or "0, Very Preferred". An additional ranking of "3.5, Very High" (VH) indicated the "Least Preferred" segments, most with statutory requirements to be avoided. The rankings were then applied to each of the Stakeholder Groups and public comments received about each of the Alternative Route Segments. Some individual informants provided comments about more than one segment and/or more than one issue for a single segment.

Assumptions about potential mitigation strategies were incorporated into the Preference Determination process, with the levels (or severity) of each concern being partially determined by how difficult and/or costly it would be to mitigate. Relocation would be the only mitigation for segments receiving a VH ranking to be consistent with provincial legislation. In other cases, such as single residences within or close to the transmission line right-of-way for example, relocation or compensation might be acceptable mitigation.

Each Alternative Route Segment was assigned a numerical value based on a "0, Very Preferred/Best", "1, Preferred/Better", "2, Potential/Better" and "3, Not Preferred/Good" scale, taking into consideration all of the ranked location-specific concerns and constraints received from Stakeholder Group Workshops and Meetings; Public Open House Comment Sheets; Public Open House Map Stations, and mail, email and telephone communications. Alternative Route Segments with "0" values, no comments overall or only Preferences, were considered Very Preferred. Routes ranked "3.5" overall were "Least Preferred".

In the Round 1 Routing Workshop Preliminary Alternative Routes and related Preferred Border Crossing Areas were recommended based on combining the lowest scoring (Very Preferred and Preferred) Alternative Route Segments, and including some Potential or Not Preferred Route Segments, as necessary to complete a route. In some cases routes designated "Least Preferred" or "Not Preferred" due to significant concerns were relocated.

D. Alternative Route Segments Rankings Provided by Public and Stakeholder Feedback

In order of **criticality,** as identified by Stakeholder Groups and public, the summary of "Preferred" and "Not Preferred" Alternative Route Segments is provided below. Note that a list is provided in numerical order in Section 7.4):

Least Preferred (Critical Concerns Requiring Segment Relocation or Very High Level of Concern)

Very High (3.5) – Multiple Concerns

- **Alternative Route Segment 70** – 1 Very High concern, 23 High concerns, 11 Medium and 9 Low = 3.5 (Least Preferred). [Concerns about "Crossing and paralleling TransCanada Pipelines pipeline", "Residential area/business", "Dairy farm/stray voltage", "Prime agricultural land/agricultural operations", "Beekeeper/pivot irrigation", "Municipal lagoon expansion", "Density of transmission lines" and "Aesthetics"].

Very High (3.5) – Due to Environmental Concerns

- **Alternative Route Segment 20** – 4 Preferred but 3 Very High concerns, 1 High, and 6 Medium = 3.5 (Least Preferred). [Concerns related to "Overlaps proposed Badger Protected Area", and "Overlaps Woodridge Ecological Reserve", "Forestry", "Agriculture, aerial spraying", "Proposed Badger PA", "Forest habitat", "Proximity to residences" and "Views in forest".]
- **Segment 7** – 4 Preferred but 2 Very High concerns, 2 High, 1 Medium and 2 Low = 3.5 (Least Preferred) [Concenrs about "Overlaps proposed Nourse Bog PA", "Forestry", "Crossing pipeline" and "Outfitter"].
- **Segment 8** – 2 Very High concerns, 1 High, 3 Medium and 1 Low = 3.5 (Least Preferred) [Concerns about "proposed Labre Bog PA", "Forestry", "Forest habitat" and "Aesthetics/views in forest"].
- **Segment 16** – 3 Preferred but 2 Very High concerns, 1 High and 3 Medium [Concerns about "Overlaps proposed Nourse Bog PA", "Forestry" and "Proximity to homes"].
- **Segment 18** – 7 Preferred but 2 Very High concerns, 1 High, 1 Medium and 1 Low = 3.5 (Least Preferred) [Concerns about "Proposed Cedar Bog PA", "Forestry", Crossing pipeline" and "Outfitter allocation area"].
- **Segment 19** – 7 Preferred ("better than Segment 8") but 2 Very High concerns, 1 High, 1 Medium and 1 Low = 3.5 (Least Preferred) [Concerns about proposed "Proposed Labre Bog ER", "Forestry", "Forest habitat" and "Aesthetics/views in forest"].
- **Segment 34** – 1 Very High concern, 3 High concerns, 12 Medium and 2 Low = 3.5 (Least Preferred). [Concerns from Government Stakeholder Groups were that the route "Overlaps the proposed Caliento Bog" and "Adjacent to the Watson P. Davidson WMA". The bog was also mentioned in Workshop Meetings. Concerns from Open Houses were "Cemetery", "Endangered Species", "Close to residence" and "Berry farm" (customers may be deterred from picking fruit)].
- **Segment 35** – 1 Preferred but 1 Very High concern and 1 Medium = 3.5 (Least Preferred) [About "Overlaps proposed Piney ER" and "Agricultural land"].
- **Segment 6** – 11 Preferred but 1 Very High concern, 2 High and 3 Medium = 3.5 (Least Preferred). [Related to "Overlaps proposed Nourse Bog Protected Area", "Proposed Nourse Bog PA", "Forestry" and "Rural residential"].
- **Segment 17** – 4 Preferred but 1 Very High concern and 1 High [About "Proposed Nourse Bog PA" and "Forestry"].

Not Preferred (Significant Number / Level of Concern)

The following identifies the Alternative Route Segments that are recommended to be avoided if possible.

High (3)

- **Alternative Route Segment 52** – 9 High concerns, 5 Medium and 3 Low = 3 (Not Preferred). [Concerns about "Existing and proposed house locations", "Prime agricultural land" and "Agricultural operations, spraying and manure management"].
- **Segment 53** – 8 High concerns, 5 Medium and 2 Low = 3 (Not Preferred). [Concerns about "Existing and proposed house locations", "Autistic child - noise", "Prime agricultural land" and "Agricultural operations, spraying and manure management"].
- **Segment 72** – 7 High concerns and 1 Medium = 3 (Not Preferred). [Concerns about "Residential area" and "Lilac Resort (all year round residential)"].
- **Segment 49** – 6 High concerns, 2 Medium and 1 Low = 3 (Not Preferred). [Related to "Many residences along segment" and "Lilac Resort which includes some year-round residential"].
- **Segment 62** – 5 High concerns, 15 Medium and 1 Low = 3 (Not Preferred). [Concerns about the segment being "too near residences", "Shevchenko School", "Church and cemetery" "Wildlife habitat", "Farmland and useful pasture land/agricultural operations"].

- **Segment 30** – 7 High concerns, 3 Medium, 1 Low = 3 (Not Preferred). [Concerns about "Interfering with retirement homes", "Too near residences", "One home relocated", "Forest habitat" and "Adjacent to Watson P. Davidson WMA]".

Moderately High (3)

- **Alternative Route Segment 71** – 5 High concerns and 7 Medium = 3 (Not Preferred). [Concerns about "Residential area", "House – health, property values, noise" and "Agricultural operations"].
- **Segment 50** – 4 High concerns, 7 Medium and 1 Low = 3 (Not Preferred). [Concerns about "Grass airstrip", "New development with 16 properties", "Limiting use of agricultural land", "Pipeline crossing" and "Proximity to ecological reserve"].
- **Segment 51** – 1 High concern, 15 Medium and 2 Low = 3 (Not Preferred). [Concerns about "Three homes relocated", "Aerial spraying", "Agricultural operations", "Manure spreading", "Existing and proposed house locations" and "View-shed"].

Potential (2)

- **Alternative Route Segment 48** – 4 High concerns, 3 Medium and 1 Low = 2 (Potential). [Related to "many residences along segment"].
- **Segment 74** – 3 High concerns, 5 Medium = 2 (Potential). [Concerns about "Through residential area", "Limiting use of agricultural land", and "Aerial spraying" and "Manure application"].
- **Segment 73** – 3 High concerns, 5 Medium and 1 Low = 2 (Potential). [Concerns about "Residential area", "Agricultural" and "View"].
- **Segment 47** – 2 High concerns, 3 Medium and 3 Low = 2 (Potential). [Related to "Many residences along segment", "Agriculture land splitting" and "Aerial spraying and seeding", "View-shed and property values"].
- **Segment 61** – 2 High concerns and 4 Medium = 2 (Potential). [Related to "Close to School", "Close to house", "Agriculture", and "Elk habitat"].
- **Segment 46** – 2 High concerns and 1 Low = 2 (Potential). [Related to "Many residences along segment", "Drainage ditch"].
- **Segment 55** – 2 High concerns and 2 Medium = 2 (Potential). [Related to "Livestock feeder barn" and "House"].
- **Segment 32** – 1 Preferred but 2 High concerns and 2 Medium = 2 (Potential). [Related to "Forestry", "Hutterite Colony", "Agricultural land" and "Close to proposed Piney ER"].
- **Segment 54** – 1 Preferred but 1 High concern, 9 Medium and 3 Low = 2 (Potential). [Related to "Residence", "EMF", "Agriculture", "Horses boarded" and "Views and aesthetics" and "Wildlife"].
- **Segment 42** – 3 High concerns, 7 Medium and 2 Low = 2 (Potential). [Related to "Numerous residences", "Urban development", "Agricultural land disruption" and "Adjacent to Watson P Davidson WMA" and "Views"].
- **Segment 9** – 1 Preferred but 2 High concerns, 2 Medium and 2 Low = 2 (Potential) [About "Forestry/habitat" and "Opening bush for ATVs and hunters"].
- **Segment 2** – 2 Preferred but 1 High concern, 5 Medium and 1 Low = 2 (Potential) [About "Hamlet of Prairie Grove", "House, health, EMF, property values" and "Aesthetics"].
- **Segment 60** – 1 Preferred but 9 Medium concerns and 3 Low = 2 (Potential). [Related to "Residence", "House and shop", "Agriculture", "Agricultural operations, EMF and spraying", "Revenue from productive woodlot", "Views and aesthetics", "Future cottage development" and "Native grassland"].

Preferred (1)

- **Alternative Route Segment 23** – 3 Preferred but 1 High concern, 2 Medium and 2 Low = 1 (Preferred) [About "Forestry", "Agricultural operations", "Access for ATVs" and "Habitat"].

- **Segment 56** – 1 High concern and 2 Medium = 1 (Preferred) [About "Livestock calving operation", "Manure application", "Proximity to Watson P. Davidson WMA"].
- **Segment 21** – 3 Preferred but 1 High concern and 1 Medium = 1 (Preferred) [About "Forestry" and "Habitat"].
- **Segment 10** – 1 Preferred but 1 High concern and 1 Medium [Concerns about "Forestry" and "Special area under consideration"].
- **Segment 22** – 1 Preferred but 1 High concern and 1 Medium = 1 (Preferred) [Concerns about "Forestry" and "Habitat".
- **Segment 31** – 1 High concern and 1 Medium = 1 (Preferred) [Concerns about "Forestry" and "Proximity to Piney ER"].
- **Segment 33** – 1 High concern = 1 (Preferred) [Concerns about "Forestry"].
- **Segment 0** – 7 Medium concerns and 4 Low = 1 (Preferred) [Concerns about "House EMF", "Agricultural operations" and "Views"].
- **Segment 63** – 3 Preferred but 7 Medium concerns and 2 Low = 1 (Preferred). [Concerns related to "Residence", "Wildlife", "Recreation area", "Floodway" and "Aesthetics"].
- **Segment 40** – 3 Medium concerns = 1 (Preferred) [Concerns about "Agricultural land" and "Residential - health and property values"].
- **Segment 41** – 3 Medium concerns = 1 (Preferred) [Concerns about "Agricultural land", "Aerial spraying annually" and "Residential - health and property values"].
- **Segment 59** – 2 Medium concerns = 1 (Preferred) [Concerns about "Proximity to Watson P. Davidson WMA"].

Most Preferred (0 - Minimal/ Less Significant Concerns)

Most Preferred Alternative Route Segments, those with positive comments and either no negative comments or Medium and Low concerns below thresholds marking more significant issues, were identified as follows:

- **Alternative Route Segment 5** – Total 8 Preferred/recommended, no negative comments = 0 (Most Preferred).
- **Segment 1** – Total 2 Preferred, no negative comments = 0 (Most Preferred).
- **Segment 4** – Total 2 Preferred, no negative comments = 0 (Most Preferred).
- **Segment 15** – Total 2 Preferred, no negative = 0 (Most Preferred).
- **Segment 12** – No comments = 0 (Most Preferred).
- **Segment 13** – No comments = 0 (Most Preferred).
- **Segment 3** – Total 4 Preferred but 1 Low concern = 0 (Most Preferred) [Concern about "Relocated homes"].
- **Segment 14** – Total 1 Preferred but 1 Low concern = 0 (Most Preferred) [Concern about "Proximity to homes"].
- **Segment 44** – Total 1 Medium concern = 0 (Most Preferred) [Concern about "Proximity to house - aesthetics and property values"].
- **Segment 11** – Total 1 Medium concern = 0 (Most Preferred) [Concern about "Cultural site"].
- **Segments 57** – Total 1 Medium concern = 0 (Most Preferred) [Concern about "Agriculture"].
- **Segment 58** – Total 2 Medium concerns = 0 (Most Preferred) [Concern about "Agriculture"].
- **Segment 43** – Total 1 Medium concern and 1 Low = 0 (Most Preferred) [Concern about "Agricultural land" and "House – views"].
- **Segment 45** – Total 1 Medium concern and 1 Low = 0 (Most Preferred) [Concern about "Agricultural land – split management unit" and "Ditch"].

Not Existing

- Alternative Route Segments 24, 25, 26, 27, 28, 29 – DO NOT EXIST.
- Segments 36, 37, 38 and 39 – DO NOT EXIST.

- Segments 64, 65, 66, 67, 68 and 69 – DO NOT EXIST.

E. Results Based on Stakeholder Groups and Public Engagement

The Preliminary Alternative Routes defined by a majority of Workshop participants, Public Open House attendees and many emails and telephone calls reflected a bias to “go east” to avoid residences and productive farmland, but this was tempered by information received from Protected Areas Initiative (PAI), Wildlife Branch, Forestry Branch and Parks and Natural Areas Branch of Manitoba Conservation and Water Stewardship, which indicated that many of the easterly Alternative Route Segments over-lapped proposed Protected Areas.

The\ westerly Preliminary Route Alternatives, although generally avoiding Protected Areas, typically have “Potential” northern and southern Alternative Route Segments but significant issues in central segments, which were generally “Not Preferred” by participants.

F. Summary of Comments and Concerns

Table E3 summarizes comments and concerns derived from all of the public engagement sources, including Stakeholder Group Workshops and Meetings, Public Open House events, KPIs and email and telephone communications. Table E3 also provides an indication of how information from Stakeholder Groups and members of the public was addressed in the Preference Determination process.

Table E3: Comments and Concerns

Comment/Concern	How Comments Were Addressed
Routing Issues	
Proximity to cities, towns, villages and rural residential.	Locations of urban centres and rural residential areas are a major consideration in refining routes.
Proximity to individual residences and farmsteads.	Throughout the transmission line routing process, transmission line corridors aim to avoid residences to the greatest extent possible. A voluntary buy-out policy has been developed for residences within 75 m of the transmission line.
Perceived health effects due to electric and magnetic fields (EMF).	Informational sources, including Health Canada, the World Health Organization and other international health entities state that no scientific evidence suggests that exposure to EMF will cause any negative health effects on humans, vegetation and wild or domestic animals. Manitoba Hydro will design and maintain exposure levels from the transmission lines within the guidelines set forth by the International Commission on Non-Ionizing Radiation Protection which have been adopted by the World Health Organization and Health Canada. Manitoba Hydro also retained experts in this field and has undertaken modeling and assisted in the development of material to assist in the assessment and to share information with the public regarding EMF.
Aesthetics of towers.	Where new transmission lines are placed adjacent to an existing line, Manitoba Hydro attempts to construct towers with similar spacing and heights when possible. Installation underground is cost prohibitive for high voltage lines and is therefore not a feasible option for the Project.

Comment/Concern	How Comments Were Addressed
Routing Issues	
Loss of high-quality farm land	To reduce the potential effects on agriculture, the preference is to align the route along the half-mile (quarter-section). Self-supporting towers with a smaller footprint are used in agricultural areas to lessen the effects to agriculture. Alignments along road rights-of-ways require offsets due to the height of the 500 kV towers and the requirement that the transmission line right-of-way cannot overlap the road right-of-way.
Impacts to farm equipment operation, and manure application	Half-mile (Quarter-section) alignments are preferred due to the size of the 500 kV towers. Towers located in non-agricultural areas typically use guyed wires. Towers in agricultural areas are self-supporting in order to eliminate the hazard guyed wires would create for farmers.
Avoid aerial applicator airstrips.	Locations of airstrips were identified in the early planning phases and will be avoided where possible in transmission line routing. Manitoba Hydro has been in discussions with the Manitoba Aerial Applicators Association regarding the Project.
Potential effect to livestock, particularly dairy cattle (tingle voltage)	Tingle voltage tends to occur with faulted distribution lines, as opposed to major transmission lines. Livestock operators are encouraged to contact Manitoba Hydro if they have noticed occurrences in order to allow for identification of the source.
Potential bio-security issues particularly related to construction in pasture lands	Manitoba Hydro has an existing Agricultural Biosecurity Policy that creates standard operating procedures that assess potential biosecurity risks, considering factors such as soil conditions and time of year, and prescribes actions to manage potential risks. Manitoba Hydro employees and contractors working on private agricultural land are trained and aware of these procedures. The Policy indicates that if the affected livestock operator's personal/corporate Policy is more stringent than Manitoba Hydro's Policy, Manitoba Hydro will abide by their protocols.
Compensation for private landowners	A Land Compensation Policy has been developed for land required for the transmission line right-of-way. The policy offers landowners 150 percent of the current market value for the easement and additional structure payments for agricultural lands.
Avoidance of heritage sites, including Centennial Farms and areas used for the religious practices (Praznik).	Heritage resources, including archaeological resources, were identified during the Routing Process and were avoided where possible. This information will continue to be collected and considered as project planning proceeds.
Parallel existing transmission lines	Paralleling of transmission lines was considered as part of transmission line routing. The alternative routes utilize paralleling options where possible.
Concerns related to the use of herbicides during clearing and maintenance activities.	Manitoba Hydro does not use herbicides for right-of-way clearing. For maintenance of the right-of-way, an Integrated Vegetation Management Program will be developed to reduce the amount of herbicide required.

Comment/Concern	How Comments Were Addressed
Routing Issues	
Stream crossings can impact riparian habitat.	Vegetation buffer zones are established at watercourse crossing areas to protect fish habitats in riparian zones of streams and rivers.
Potential effects on wildlife habitat and use located within private properties.	The Environmental Assessment process identified potential sensitivities and has recommended appropriate mitigation measures for various species. Field studies conducted as part of the assessment, including private lands when permitted, were used to locate species and assess potential effects. Field studies included winter track surveys, trail cameras, elk breeding surveys and bear bait monitoring.
Potential impact on endangered plant species and natural areas.	The Environmental Impact Statement identifies potential environmental sensitivities and the Environmental Protection Plan prescribes appropriate mitigation measures.
Environmental degradation and reduced opportunities for hunting, trapping, and gathering of berries and medicinal plants as well as potential impacts to culturally significant areas.	The Environmental Assessment and Public Engagement Process identified potential sensitivities. Manitoba Hydro will identify sensitive sites and will consider mitigation or construction scheduling to lessen potential effects.
Increased access to private lands and increased access to hunting in wilderness areas.	Manitoba Hydro will work with local authorities to manage access along the right-of-way once a final route has been approved and will work with landowners who wish to implement measures to limit access to the right-of-way. To minimize the potential increase in access existing trails, roads and cut lines will be used as access routes whenever possible.
Avoid landfills, lagoons and cemeteries.	Locations of landfills, lagoon and cemeteries are noted. Structure placement generally tries to avoid crossing these features; however, there is sometimes a preference to route near these locations to minimize effects on farms and residences.
Transmission lines in proximity to Wildlife Management Areas, Ecological Reserves and Protected Areas, or proposed Reserves and Protected Areas.	Manitoba Hydro has consulted with provincial agencies and NGOs such as Manitoba Protected Areas Initiative, Parks and Protected Areas and the Nature Conservancy regarding existing and proposed ecological reserves. Electric power transmission infrastructure is not permitted in WMAs or Protected Areas, and is recommended to be 1.6 kilometres (one mile) away from their boundaries. Transmission line routing has also minimized impacts to areas with identified rare species habitat.
Construction affects trapping activities due to disruption to fur bearing animals.	Environmental characterization conducted as part of the environmental assessment process identifies potential sensitivities related to fur bearing animals and prescribes appropriate mitigation measures, such as modifications to construction scheduling.
Potential damages to municipal roads resulting from MMTP construction and maintenance activities.	Damages incurred as a result of construction, maintenance or repair work for the transmission line, would be repaired by Manitoba Hydro, where appropriate.

Comment/Concern	How Comments Were Addressed
Routing Issues	
Noise and dust, and disruption of traffic, particularly related to emergency services, during constructions.	Line noise is typically perceived in close proximity to the towers. Manitoba Hydro seeks to avoid development in close proximity to residences where possible. Manitoba Hydro abides by guidelines set forth by the province related to noise. Construction operations follow best practices for mitigation of noise and dust. Construction traffic routes and any detours will be identified and made available to local police, fire and emergency services.
Long-term impacts on municipal roads.	Manitoba Hydro works with local municipalities to address long-term impacts of their maintenance operations on municipal infrastructure.
Routing Preferences	
Locate transmission lines within existing Manitoba Hydro transmission line corridors.	Part of the line is in an existing Hydro corridor known as the Southern Loop Transmission Corridor. There is also potential to parallel existing lines running east of the City of Winnipeg. For reliability reasons paralleling is not always possible or desirable.
Where possible, locate transmission line infrastructure adjacent to other linear infrastructure, including highways, roads and ditches, to reduce land requirements.	Alignments with other linear features were identified as potential routing opportunities in the transmission line Routing Process and were taken advantage of where possible. In agricultural zones, a 500 kV transmission line must be placed in-field so to ensure the entire right-of-way width does not overlap any road rights-of-way, for reliability reasons. Therefore, a preferred option for many in intensive agricultural areas is routing along the half-mile to reduce in-field presence of a transmission line.
Benefits of Electrical Transmission Lines	
City, municipal, and business and industry Stakeholder Groups, in particular, noted beneficial effects of a more secure power supply on their operations, and growth. Agricultural Stakeholder Groups also noted that they are impacted by electrical power system reliability.	Development of the new transmission line will improve long-term power system reliability and capacity.

G. Socio-economic Benefits and Costs

Key socio-economic benefits recognized by Stakeholder Groups were:

- Greater power reliability and security; and
- Potential benefits of power sales in maintaining low Hydro rates.

Costs included physical disruption and reduced property values:

- Relocation of houses;
- Impacts on property values, including aesthetic concerns;
- Impacts on agricultural operations, including aerial spraying, manure spreading, irrigation, livestock, bio-security issues and noxious weeds;

- Loss of productive farmland;
- Impacts on future municipal infrastructure expansion; and
- Impacts on trapping activities.

H. Environmental Impacts and Mitigation

Environmental impacts included:

- Impacts on endangered species and habitat, including riparian and wetland habitats;
- Effects on fur bearers;
- Impact of access for ATV use and hunting on wilderness areas;
- Noise and dust;
- Effects on heritage sites; and
- Health and safety concerns, including EMF and tingle voltage.

Mitigation typically started with avoidance. Other approaches included:

- Compensation for loss of revenue;
- Modification of construction schedule to avoid sensitive stages of wildlife and biota; and
- Cataloguing heritage sites and working with the Historic Resources Branch.

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1 Public Engagement Process

1.1 Project Description

The Manitoba-Minnesota Transmission Project (MMTP) involves environmental assessment of a 500 kV transmission line in southern Manitoba.

The MMTP includes construction of a 500 kilovolt AC transmission line, and upgrades to Manitoba Hydro's Dorsey, Riel, and Glenboro Stations. Originating at the Dorsey Converter Station northwest of Winnipeg the transmission line and will follow the Southern Loop Transmission Corridor ("Southern Loop") around Winnipeg. The Southern Loop is an existing dedicated transmission corridor with multiple transmission lines, reducing the number of separate rights-of-way on the landscape. The new transmission line will run to one of three border crossings, and connect to the Great Northern Transmission Line to be constructed by Minnesota Power, which will terminate at Blackberry Station, northwest of Duluth, Minnesota. Anticipated in-service date for the project is 2020.

1.2 Project Need

The Manitoba-Minnesota Transmission Project is required to:

- Export electric power based on current sales agreements.
- Improve reliability and import capacity in emergency and drought situations.
- Increase Manitoba Hydro access to markets in the United States.

In 2012–13 Manitoba Hydro export sales totaled $353 million with 88% derived from sales in the U.S. market, and 12% from Canadian markets. Manitoba Hydro's utility customers in the United States want long-term price certainty and stability. These utilities see value in purchasing hydroelectricity from Manitoba through long-term fixed contracts that are not linked to volatile natural gas prices and will not be subject to future changes in regulatory requirements associated with air emissions. The MMTP will meet conditions of a 250 MW power sale to Minnesota Power and will allow for increased access to markets in the United States, which could lead to further sales to other utilities.

Manitoba Hydro also imports power in situations of extreme drought to meet provincial demands exceeding Manitoba Hydro's generating capacity. This line will provide a secondary 500kV line to support provincial needs when there is a need.

1.3 Regulatory Approvals

Regulatory approvals are related to the following:

- National Energy Board Act & Canadian Environmental Assessment Act (2012).
- Manitoba Conservation and Water Stewardship.
- Manitoba's Clean Environment Commission may become involved.
- An Environmental Impact Statement (EIS) will be developed that will be subject to review and approval under the respective federal and provincial environmental regulatory processes.

Construction of the proposed Manitoba Minnesota Transmission Project will require a **Class 3 License** under *The Environment Act* (Manitoba).

The Environmental Impact Statement (EIS) for the project will include:

- Study area characterization, obtained through site visits and background investigations.
- Documentation of public engagement to obtain input and feedback into transmission line routing.
- Assessment of potential environmental and socio-economic effects.
- Assessment of cumulative effects of the transmission line.
- Mitigation measures and monitoring plans developed for the Project.
- An environmental protection program.

1.4 Overall Public Engagement Process

The overall process of public engagement will involve three Rounds.

Round 1 (October to November 2013)

- Three (3) Alternative Border Crossing Areas reviewed.
- 59 Alternative Route Segments reviewed.
- Identify routing criteria and a Preferred Border Crossing Area.

Round 2 (April to August 2014)

- Preferred Border Crossing location refined.
- Alternative Route Segments.

Round 3 (January to May 2015)

- Preferred Route to Border Crossing presented.

This report summarizes the results of the Round 1 Public Engagement Process (PEP).

2 Purpose, Goal and Objectives

2.1 Purpose of the Public Engagement Process

The purpose of PEP was to support the stages of stakeholder and public feedback for an Environmental Assessment license application to Manitoba Conservation and Water Stewardship for the 500 kV AC transmission line.

Information collected as a result of the PEP informed two principal aspects of the project:

- To understand local concerns to be considered in the transmission line routing process.
- Enhance the environmental assessment work being undertaken.

Information collected through PEP included biophysical, socio-economic, and site-specific concerns.

2.2 Goal and Objectives of PEP

The goal of the PEP was to facilitate the exchange of information between members of the public, and those involved in the transmission line routing and environmental assessment processes.

The objective of the first round of the PEP was to provide stakeholders and the general public with meaningful opportunities to receive information about, and provide input into the transmission line routing and environmental assessment processes. The PEP included:

- Reviewing KPIs to support the Environmental Assessment (particularly socio-economic considerations).
- Engaging with stakeholders and the general public in the initial stages of the environmental assessment process.
- Providing input into transmission line routing (feedback on transmission line routing criteria, evaluation of alternative routes) and Environmental Assessment (Valued Components, socio-economic considerations, potential effects, mitigation measures) using information gathered from the PEP.

2.3 PEP Components

The PEP was developed in cooperation with Manitoba Hydro and other project consultants. A Program outline is included in Appendix A.

Data sources related to socio-economic, natural and built environment issues and concerns, physical constraints and potential mitigation strategies included:

- KPIs done in conjunction with the St. Vital Transmission Complex project.
- Stakeholder Workshops (Workshops).
- Stakeholder Meetings (Meetings).
- Public Open House events (POH).
- Email and telephone communications (Communications) with landowners and other interested parties.
- Media outreach and information venues, e.g. mail outs and a project website.

2.4 Relation to Transmission Line Routing Process

Manitoba Hydro's transmission line routing process identified a number of Alternative Routes between Winnipeg and three potential Border Crossing Areas along the Manitoba-Minnesota boundary. Stakeholder and public input to the routing process included the following:

- KPI interviews obtained comments about specific features and considerations that could affect transmission line routing.
- Public Open Houses included Map Stations, which permitted members of the public, particularly local landowners and leasers, to indicate specific issues and concerns, and constraints associated with alternative route segments.
- Stakeholder Workshops allowed a number of stakeholders to identify and provide feedback on proposed criteria for transmission line routing.
- Stakeholder Meetings provided opportunities for various stakeholders, for question and answer and information sessions with Manitoba Hydro staff.
- A number of people emailed, telephoned or wrote to Manitoba Hydro and their consultants to provide a range of comments, some specific to alternative routes.

2.5 Determination of Criteria for Evaluating the Preliminary Alternative Routes and Border Crossing Areas

A framework for evaluating public engagement feedback related to the Alternative Route Segments was established. It included four ranking categories for the segments. The process first ranked concerns as High, Medium and Low. The rankings were then applied to Alternative Route Segments based on the frequency (number) and congruency (balance of positive and negative) of stakeholder and public comments received in the Round 1 PEP. Assumptions about potential mitigation strategies were also incorporated in the process, the level of concern being partially determined by how difficult and/or costly it would be to mitigate particular concerns.

Numerical values were based on a 1 (More Preferred) to 3.5 (Least Preferred) scale from location-specific feedback received during Stakeholder Workshops and Meetings; Public Open House Comment Sheets; Public Open House Map Stations, and mail, email and telephone communications. Alternative Route Segments with zero (0) values were considered “Best”.

2.6 Report Organization

This report follows the PEP through the KPIs, Public Open Houses, Stakeholder Workshops and Meetings and Other Communications processes, describing processes and results.

The final sections describe the process for ranking criteria, and provide recommendations on Preliminary Alternative Routes and Preferred Potential Border Crossing areas, and summarize issues and concerns (positive and negative impacts) as described by PEP participants.

3 Stakeholder Group Workshops and Meetings

3.1 Purpose

The purpose of the Stakeholder Group Workshops and Stakeholder Group Meetings were to engage representatives of a wide range of organizations concerned with transmission lines in group discussions related to the criteria to be used for transmission line routing, understanding concerns, routing preferences, environmental assessment process, and related environmental considerations.

Participants were asked to identify their individual issues and concerns, particularly those based on local knowledge to provide feedback to be considered during the transmission line routing process and to suggest possible mitigation strategies related to the 74 Alternative Route Segments identified by Manitoba Hydro for the Project.

3.2 Stakeholder Workshops

Two (2) Stakeholder Group Workshops were held in the following locations:

- Winnipeg, at the Norberry-Glenlee Community Centre on November 15, 2013.
- Steinbach at the Friedensfeld Community Centre, November 19, 2013.

Stakeholder Group Workshops were scheduled between 9:00 am and 1:30 pm. They were intended to inform participants about the Project, and to obtain stakeholder groups’ input for transmission line routing criteria, issues and concerns related to the Project, and preferences related to the Alternative Routes and potential Border Crossing Areas.

The Workshops were designed to initiate discussions and learning amongst the stakeholder groups and to provide an opportunity for the stakeholder groups to understand the process for developing a route which would balance perspectives, including those of the public, in the transmission line routing process.

3.2.1 Workshop Notification and Attendance

On November 1, 2013 email invitations were sent to 75 stakeholders, representing local municipalities, government departments, local interest groups and non-government organizations (including environmental NGOs). The Stakeholder Groups invited to attend were identified based on their preferences for involvement as indicated in the pre-engagement process for the Project.

Attendance at Stakeholder Group Workshops included eleven (11) representatives of the following organizations:

- Winnipeg (Norberry-Glenlee Community Centre), November 15, 2013
  - Five (5) attendees representing:
    - RM of Springfield
    - Manitoba Infrastructure and Transportation (2)
    - Manitoba Forestry Association
    - Manitoba Metis Federation observer
- Steinbach, Freidensfeld Community Centre, November 19, 2013
  - Six (6) attendees representing:
    - RM of Tache
    - RM of Piney
    - Keystone Agriculture
    - Manitoba Forestry Association
    - Manitoba Municipal Government
    - Manitoba Agriculture, Food and Rural Development

3.2.2 Workshop Methods

A background presentation (Appendix C2) outlined the purpose of the Project and described the transmission line routing process, Environmental Assessment process and PEP. Participants completed exercises utilizing large maps of the Project area and workbooks. The participants were asked to identify:

- Potential issues and concerns relating to the Project.
- Potential criteria for evaluation by specialists undertaking the environmental assessment.
- Potential mitigation strategies for the Project.
- Potential routing opportunities and constraints for consideration during the transmission line routing process.

3.3 Review of Stakeholder Workshop Results

Workshop results are summarized in Appendices C3, C4 and C5. They include the following:

1. Summaries of Workbook responses outlining issues and concerns for each of the route segments (Appendix C3).
2. Summary of each team's major routing criteria, rationale for transmission line routing and mitigation measures (Appendix C3).
3. Summary of information from the Workshop Preferred Route Maps (Appendix C4).
4. Summary of Workshop Comment Sheets (Appendix C5).

3.3.1 Summary of Evaluation Criteria Importance for Participants

Participants of the workshops were asked to indicate their level of importance for different evaluation criteria that would be used in the transmission line routing process. The potential criteria were separated into three categories (built, natural and engineering). Based on their understanding of the criteria, the following table summarizes the importance rating applied by each of the Workshop teams.

Table 3-1 summaries the evaluation criteria importance ratings from the workshop participants.

Table 3-1: Built, Natural, Engineering and Cost Criteria – All Teams

Item	Features*	Importance Ratings		
		Winnipeg Team (H/M/L)	Steinbach Blue Team (H/M/L)	Steinbach Purple Team^ (Dots)
Built				
1.1	Relocated Residences - Within ROW	M	H	7
1.2	Potential Relocated Residences (75 m) - Edge of ROW	M	H	4
1.3	Proximity to Residences (75 – 250 m) - Edge of ROW	M	H	4
1.4	Agriculture Crop Land (Acres) - ROW	**H**	H	11
	Class 1 to 3			7
	Class 4 to 6			4
	Manure Spreading (avoid infield lagoon)			5
	Natural Hay Land		M	
	Livestock Production		H	
	Proximity to Livestock Operations (hogs, cattle)			4
1.5	Proximity to Commercial Buildings (100 m) - Edge of ROW		M	1
1.6	Special Features (School, Daycare, Church, Cemetery, Park Parcels, Recreational Trail, Campgrounds, Lodges) (250 m) - Edge of ROW	**H**		
	Intensive use – school, daycare, church, lodge		H	1
	Trail, park, cemetery			1
	Campground, park		M-H	
1.7	Historic / Cultural Resources (250 m) - Edge of ROW	L/M		
Natural				
2.1	Natural Forests (Acres) - ROW (Proxy for woodlots)	H		
	Crown forest (overall management/more control)		M	3
	Private forest		H	1
2.2	Stream/River Crossings - Centerline	M	L	1
2.3	Wetland Areas (Acres) - ROW	M	L	1
2.4	Floodplain/Riparian Areas (Acres) - ROW	M	L	1
2.5	Special Areas (ASI, Heritage Marshes, Proposed Protected Areas, Conservation Lands)	H	L	1
2.6	Native Grassland Areas (Acres) - ROW	**H**	L	1
Engineering				
3.1	Length (Km)	**H**	L	1
3.2	Length in Separation Buffer (Km) - D602F	M	L	1
3.3	Length in Separation Buffer (Km) - BPIII	M	L	1
3.4	Existing Transmission Line Crossings (#)	M	L	1
	Foundation Needs			
	Construction Cost Considerations			
4.1	Clearing Costs		L	1
4.2	Land Acquisition Costs		L	8
4.3	Property Compensation Costs		L	4
4.4	High Angle Costs		L	1
4.5	Existing Transmission Line Crossing Costs		L	1
	Proximity to PTH and PR (access)			2
	Road Maintenance Cost (impact to Municipal Roads is $5000/km/year			6
	Noted that construction costs are related to engineering and other.			

** Bold items under "Features" were generated by the Workshop teams for consideration.*

^ Purple Team (Steinbach) utilized dots. The higher number of dots indicated a higher importance.

3.3.2 Summary of Preferences and Concerns for Potential Issues and Concerns

Three participants from the Winnipeg Team completed the Workbook section which asked participants to identify issues and concerns and the level of importance for each topic. Participants were provided with the following list of potential issues and concerns for consideration, including the total of summary preferences and concerns:

- Access to the transmission line right-of-way (2 preferences, 1 concern).
- Aesthetics of the right-of-way (2 preferences).
- Impact on agricultural activities (1 preference, 1 concern).
- Construction of the transmission line (1 concern).
- Economic considerations (2 preferences).
- Health and safety issues (2 concerns).
- Location of the line (1 concern).
- Location of the border crossing zone (1 concern).
- Property issues (1 preference, 2 concerns).
- Reclamation (2 concerns).
- Protection of vegetation (3 concerns).
- Impacts on wetlands (1 preference, 2 concerns).
- Impacts on wildlife / waterfowl (1 preference, 2 concerns).

Additional topics identified by one of the workshop participants included:

- Forest Health (concern).
- Woodlot Properties/Private Properties (concern).

3.3.3 Summary of Mitigation Strategies

Proposed mitigation strategies for the Winnipeg Team applied to two route segments only.

- Alternative Route Segment 50 - Adjust or modify segment to avoid private woodlot.
- Alternative Route Segment 71 – Keep the 188 metre separation from the seasonal campground (noted that it is cost prohibitive to bury the 500 kV transmission line).

General Strategies proposed by one of the Steinbach Teams were as follows:

- Owners of lands with a lower value may see towers and resulting compensation as revenue.
- Compensation should be considered relative to the long term value of land.

3.3.4 Summary of Maps

Maps in Appendix C4 provide each team’s Preferred Routes and any proposed realignments of route segments, as well as specific constraints.

3.3.5 Summary of Comment Sheets

Comment Sheets were completed by eight (8) participants at the Workshops. Representatives from six (6) stakeholder groups thought the process was “Very Appropriate”; the remainder, “Somewhat Appropriate”. Seven (7) respondents said they liked the Workshops; and one (1) disliked them.

Reasons included:

- “Facilitator did a very good job in leading the discussion and engaging participants; important to get feedback from different stakeholder groups. Visuals were a bit hard to see at times (maybe too many people at one table & proximity of monitors).” “Found that it was disorganized when we sat and looked at different proposed line sections. With the low attendance, it wasn't very productive use of everyone's time.” Winnipeg Team
- “Appreciated getting more information and the availability of exact numbers and information on which to make recommendations.” Blue Team
- “Good mix of stakeholder groups. Good format, like the group facilitator, helpful to keeping discussion on track.” “Good and small, group discussions.” Purple Team

Comments on the Stakeholder Group Workshop methodology included the following:

- “I think it was a great opportunity to identify and discuss our concerns and help refine the selection criteria.” “Took into account a lot of the criteria used to select a route and engaged participants.” “More detailed information, especially regarding land ownership would be very useful.” Winnipeg Team
- “Identifying important criteria and ranking was useful to help in route selection but (there was a) need of better explanation of dots, i.e. H, M, L might be better or Positive vs. Negative, i.e. avoid Ag land, stay on Crown.” “Difficult to focus on criteria only. Needs to be emphasized more at beginning that it is the focus of the Workshop.” Purple Team

General Comments included:

- “Lack of local knowledge of areas outside of RM.” “Realized the complexity of planning such a facility.” Winnipeg Team
- “People and their homes and the environment are far more important than economics. People, their wishes and concerns, must be a priority.” Blue Team

Steinbach, MB – Friedensfeld Community Centre, November 19, 2013

- Crown lands and soil information was available, particularly for discussion with MAFRI and Trappers Association
- Intent of facilitation was not to guide decisions, just to ask questions during facilitation
- Note takers documented why routes were preferred or not preferred.

Opening Comments and Criteria

- Concern that two major transmission lines are already going through the RM of Piney.
- If the transmission line follows Crown Land versus private land, a lot of issues would be eliminated.
- Transmission lines provide no benefit to the RM of Piney.
- Municipal roads would be impacted (road infrastructure) by Manitoba Hydro maintenance vehicles.
- RM of Piney has a problem with Manitoba Hydro: there is concern about the loss of a Hydro office in Piney with no consultation, no chance for public input.
- A representative from a stakeholder group wanted to know how often transmission lines go down in southeastern Manitoba. Transmission lines near Piney have not gone down in 30 years.
- Manitoba Hydro noted that transmission lines can be tripped, smoked, and taken out by wind, icing, forest fires.
- Looking at costs (value of land) would help in selecting Preliminary Alternative Routes.
- Suggested obtaining Development Plans from municipalities, which would show future residential expansion. Zoning plans only show zoning and wouldn’t be as helpful.

- An important criterion was minimizing impacts on prime agricultural land, including less important agricultural land.
- Suggested using existing rights-of-way, although this may not be an option considering reliability and proximity to existing transmission lines.
- An airport is located west of PTH 89 and was identified on a map.
- Pineland Colony is located east of Hwy 89 (near Segment 32) and identified on a map. The Colony does mostly grain farming.

3.3.6 Summary of Prioritization of Transmission Line Routing Criteria

Based on participant's knowledge of the Project Area and their understanding of potential criteria to be utilized in the routing process, ratings of potential criteria were provided. Table 3-2 indicates the ratings of potential routing criteria by Workshop participants. "Separation from residences and urban areas" was the most important criteria with three ratings of "1" (most important) and one rating of "2", moderately important. On the other hand, "Follow undeveloped roadways" was only moderately important to only one participant.

Prioritization of potential transmission line routing criteria by all teams were as follows:

Table 3-2: Rankings of Potential Transmission Line Routing Criteria

Criteria	*Ratings by Participant (A-E)*					*Notes*
	A	*B*	*C*	*D*	*E*	
Separation from residences and urban areas	*2*	*1*	*1*		*1*	*Highest*
Avoid agricultural lands	*2*	*1*	*1*			
Parallel existing transmission lines	*1*	*2*	*1*			*(Not Winnipeg)*
Follow existing highways or roadways		*1*	*1*	*2*		*(Not Winnipeg)*
Avoid forested areas	*1*		*1*			
Avoid wetlands and marshes		*1*		*1*	*1*	
Follow existing drainage ditches			*1*		*2*	
Follow undeveloped roadways				*2*		
Cost					*1*	
Other (Proximity to Livestock)				*1*		

Note: Blank cells indicate that participant did not include a rating for the criteria.

3.3.7 Summary of Preliminary Alternative Route Preferences

The Preliminary Alternative Routes were reviewed by attendees at the Workshops. General preferences based on the stakeholder group's knowledge of the area surrounding the segments were considered in the initial preferences, as described in Table 3-3.

Blue shaded areas indicate that the team did not identify the route segment as preferred. "Y" notations indicate the primary Preliminary Alternative Route. "Y" notations in blue shaded areas indicate alternative route segments, providing alternative routes. The border crossing areas suggested by the Preliminary Alternative Routes are also noted at the bottom of the chart.

Although this was not the focus of the workshop, participants worked through various combinations of segments to understand the various concerns or preferences that may exist in the development of a preferred route.

Table 3-3: Preliminary Alternative Route Segments

Route Segments	Notes		
	Initial preferences:		
Segment Number	Winnipeg Team– All Preferred Route Segments /Preferred Route and Alternative	Steinbach Blue Team Preferred Route	Steinbach Purple Team Preferred Route and Alternative
0	Y – Preliminary Route	Y	Y
1	Y	Y	Y
2	Y	Y	Y
3	Y	Y	Y
4			
5	Gap to 6	Y	Y
6		Y	
7			Y - Alternative Route
8			Y
9			Y
10			Y
11	Historic Site		
12			
13			
14	Y		Y
15	Y		Y
16			
17		Y	Y
18		Y	Y
19		Y	Y
20		Y	Y
21		Y	Y
23		Y	Y
32			
40			
41			
42			
43			
44			
45			
46	Y		
47	Y		
48			
49	Y		
70	House		
73	Y		
74	Y		
Added later:			
50	Alternative Route, close to another 500kV line, more forested area but longer, Segment 50 could be used versus Segments 72, 73, and 74		
51			
53			
54			
55			
56			
59	Less forest affected		
34	High Area Forest		
60			
Border Crossing Area	Piney West	Piney East	Piney East

3.4 Stakeholder Group Meetings

Stakeholder Group Meetings to discuss the Alternative Routes were held between Manitoba Hydro staff and various government agencies, municipalities and NGOs (such as Conservation Districts), as well as agricultural organizations, trappers and aerial applicators.

Meetings were held with various Stakeholders Groups on the following dates:

Table 3-4: Stakeholder Group Meetings

Date of Meeting	Stakeholder Group
November 18, 2013	Travel Manitoba (1)
	Manitoba Lodges and Outfitters Association, and KC Outfitting (1)
	City of Winnipeg (1)
	RM of Springfield (1)
	Keystone Agricultural Producers (2)
	Nature Conservancy of Manitoba (1)
	Protective Areas Initiative / Manitoba Conservation and Water Stewardship (5)
	Manitoba Infrastructure and Transportation (1)
	Manitoba Agriculture Food and Rural Initiatives (1)
	Manitoba Tourism, Culture, Sport and Historic Resources (1)
November 21, 2013	RM of Stuartburn, Rouseau River Anishinabe First Nation Representative and Manitoba Health
November 25, 2013	Integrated Resources and Environmental Management Team (7)
December 16, 2013	Manitoba Aerial Applicators Association (1)
December 11, 2013	Nature Conservancy (6)
December 17, 2013	Wildlife Branch, Manitoba Conservation and Water Stewardship
December 20, 2013	Manitoba Eastern Region IRMT, including Regional Parks, Regional Wildlife and Regional Forestry
December 23, 2013	Manitoba Trappers Association (2)

Summaries of the Stakeholder Group Meetings were recorded by a Manitoba Hydro representative. Additionally, any correspondence with a Stakeholder Group representative, including phone or email, was documented. Summaries of the Stakeholder Group Meetings are provided in the following sections and additional meeting details are provided in Appendix C6.

3.4.1 KC Outfitting

General discussion regarding soil conditions for guyed towers. Manitoba Lodges and Outfitters Association and KC Outfitting identified the following concerns:

- Outfitting in RM of Stuartburn or Crown Land – areas with minimal agriculture.
- Alternative Route Segment 30 - Use of lands for outfitting locations. Noted 24 bait sites.
- Alternative Route Segment 34 - Location of lodge.
- Alternative Route Segment 63 - Wintering area for elk close to US border.

3.4.2 RM of Springfield

Meeting discussions included long-term price that Manitoba Hydro receives for the power, how is each criterion weighed, and how property values are determined.

3.4.3 Keystone Agricultural Producers (KAP)

KAP would like to include the Comment Sheet in their newsletter. They wanted to know if it was on the Manitoba Hydro Website.

- Manitoba Hydro indicated the Comment Sheet and maps showing all Alternative Routes are on the Website.

3.4.4 Manitoba Conservation and Water Stewardship (MCWS)

Discussions were generally regarding project modeling. That high quality habitat modeling should be done for this project and to include species at risk and areas designated for future protection. Discussions also included the Electric Power Research Institute (EPRI) – Georgia Transmission Corporation (GTC) model.

3.4.5 Manitoba Agriculture, Food and Rural Development (MAFRD)

MAFRD was concerned about the effect of towers on manure application in livestock operations.

- Manitoba Hydro indicated that tower placement would provide sufficient room for equipment to move under the transmission line. Manitoba Hydro works with landowners to identify the best tower placement on their land.

3.4.6 Manitoba Tourism Culture Sport and Historic Resources

Main concern is how Manitoba Hydro will address culturally and historically significant sites.

3.4.7 MCWS Eastern Region Integrated Resources and Environmental Management Team

Representatives from IRMT departments in attendance included Regional Parks, Regional Wildlife and Regional Forestry.

Discussions included known elk locations, endangered species occurrence and the working boundaries of the Manitoba Tall Grass Prairie. General meeting discussion included concerns regarding loss of productive land base, timber harvesting, and FMU 24; a highly fragmented forest land base. Discussions also included a no net-loss approach that should be applied to this project. The Forestry Branch provided a map identifying segments and if Regional Forestry support will be available.

3.4.8 Manitoba Aerial Applicators Association

Discussion included preferred Alternative Route Segments (staying east of Segments 50 and 51), the preference of the new transmission line parallel other existing lines, areas that require considerable amount of spraying, and general aerial spraying practices. Preference would be for the transmission line to parallel PTH #1. Additional comments included:

- Alternative Route Segment 70 is least preferred due to proximity to Bipole III.
- Segment 48 would be preferred over Segment 70.
- Segment 47 should either be very close to an existing line, or at least two miles away from it.
- A distance of 120 feet would be an acceptable offset if the Alternative Route is infield, so as not to box a farm in between two lines.

3.4.9 Nature Conservancy of Canada

Meeting discussions included border crossing information/details, how was the criteria selected for this project including how the criteria was weighted, biodiversity values (are they similar to Minnesota), how mitigation influence the weighting and value system, and weighting per section. Discussions also included design elements and timeline for Minnesota Power. A map was provided that includes the tall grass prairie area, and the Whitemouth River Watershed which has the biggest peat expanse in southern Manitoba and has distinct fish including the Carmine Shiner. Overall, concerns included:

- Avoid special areas identified by Nature Conservancy.
- Discuss more about potential opportunities to provide insight into natural area values.

3.4.10 Parks and Protected Spaces

In general, the proposed routing segments are in close proximity to or overlap several proposed ecological reserves and are concerned that the proposed development may have negative impacts on these proposed ecological reserves and will threaten the ecological integrity of these sites. Segments discussed included Segments 50, 18, 8, 19, 20, 35, 31 and 32.

Parks and Protected Spaces Branch had no comments or concerns with other segments the proposed alternative routes for the Manitoba-Minnesota Transmission Project.

3.4.11 Manitoba Conservation and Water Stewardship - Wildlife Branch Comments

Main concerns discussed during the meeting included fragmented habitat, increase access by ATVs and other vehicles, and improved travel routes for hunters and predators. Discussions also included how the development will directly impact critical habitat such as wetlands, bogs, and forested areas for a range of species. The Caribou-Vita Elk herd was also discussed along with some other endangered species such as the Western Prairie Fringed Orchid.

3.4.12 Manitoba Agriculture, Food and Rural Development (MAFRD)

Discussions were mainly in regards to the proximity of the proposed transmission line to livestock operations in Manitoba and the potential imparts to these operations. Main concerns included stray voltage, bio-security, earthen and/or liquid manure storage, and manure land application process.

3.4.13 Manitoba Trappers Association

Manitoba Trappers have no real preference for route location or criteria and have no allocation in open trapping areas. It was suggested that creating an edge effect along rights-of-way by reducing straight-line cutting to the edge of the rights-of-way. Also, leaving a small shrub community under transmission lines would be beneficial in areas where small mammal trails cross a Hydro right-of-way. Discussions also included the pine marten which is one of the more important species for trappers.

It was also suggested to engage trappers by setting up an information table at the North American Fur Auction (NAFA) in January 2014. Leave a notice of a Meeting/Workshop for trappers to attend.

3.4.14 TransCanada Pipeline

An email was received outlining their crossings of concern and preferred routes. Additional information, including a map received from TransCanada Pipeline, is provided in Appendix C6.

3.4.15 Summary of Stakeholder Groups' Location Specific Concerns

Table 3-5 extracts all location specific (Alternative Route Segment) concerns from the stakeholder group meetings, and includes recommendations for mitigation.

Table 3-5: Location Specific Concerns from Stakeholder Group Meetings

Location of Meeting	Alternative Route Segment	Concerns/Constraints	Recommendations by Participants for Minimizing/Mitigating Potential Effects
Meeting	2	• 16 lots in the area. • Lagoon setback requirements.	• Adhere to lagoon setback requirements.
820 Taylor/ Later Feedback	5	• Wildlife Branch does not support portions of segment.	• Alter segment.
820 Taylor/ Later Feedback	6	• Sensitive Site - Protected Area. • Forestry Branch would not support. • Wildlife Branch does not support portions of segment.	• Alter segment to reduce linear distance through protected area. • No net loss – Forestry. • Relocate segment.
Later Feedback	7	• Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators. • TransCanada Pipelines crossing.	• No net loss – Forestry • Relocate segment • AC mitigation studies required by TransCanada Pipelines
Later Feedback	8	• Overlaps St. Labre Ecological Reserve (potential). • Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• Avoid crossing potential Ecological Reserve - relocation required by statute. • No net loss – Forestry. • Relocate segment.
Later Feedback	9	• Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry. • Relocate segment.
Later Feedback	10	• Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry; • Relocate segment.
820 Taylor/ Later Feedback	15	• Wildlife Branch does not support portions of segment.	• Alter segment.
820 Taylor/ Later Feedback	16	• Sensitive Site - Protected Area. • Forestry Branch would not support. • Wildlife Branch does not support portions of segment.	• Avoid crossing protected area. Adjust route to parallel GWWD Railway to the north of the segment.

Location of Meeting	Alternative Route Segment	Concerns/Constraints	Recommendations by Participants for Minimizing/Mitigating Potential Effects
		• Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators. • New lots Ashfield.	• No net loss – Forestry. • Relocate segment.
820 Taylor/ Later Feedback	17	• Sensitive Site - Protected Area. • Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• Avoid crossing protected area. Adjust route. • Relocation may be required by statute. • No net loss – Forestry; • Relocate segment
Later Feedback	18	• Overlaps Cedar Bog Ecological Reserve (potential). • Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators. • TransCanada.	• Avoid crossing potential Ecological Reserve - relocation required by statute. • No net loss – Forestry. • Relocate segment. • AC mitigation studies required by TransCanada Pipelines.
Later Feedback	19	• Overlaps St. Labre Ecological Reserve (potential). • Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry. • Relocate segment.
820 Taylor	20	• Overlaps Woodridge Ecological Reserve (potential). • Sensitive Site – proposed Badger Protected Area. • White-tailed Deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• Avoid crossing protected area. • Relocate segment
Later Feedback	21	• Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry. • Relocate segment.
Later Feedback	22	• Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry. • Relocate segment.
Later Feedback	23	• Forestry Branch would not support. • White-tailed deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry. • Relocate segment.
820 Taylor/ Later Feedback	30	• Sensitive Site – Watson P Davidson WMA; rare species. • Use of lands for outfitting locations (24 bait sites). • Wildlife Branch – stay at least one mile away from Watson P. Davidson WMA. • 200, 2-acre lots.	• Avoid by one mile. Adjust route.

Location of Meeting	Alternative Route Segment	Concerns/Constraints	Recommendations by Participants for Minimizing/Mitigating Potential Effects
Later Feedback	31	• Close to Piney Ecological Reserve (Potential). • Forestry Branch would not support. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry • Relocate segment
Later Feedback	32	• Close to Piney Ecological Reserve (Potential). • Forestry Branch would not support. • White-tailed Deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• No net loss – Forestry. • Relocate segment.
Later Feedback	33	• Forestry Branch would not support.	• No net loss – Forestry. • Relocate segment.
820 Taylor	34	• Sensitive Site – Watson P Davidson WMA; rare species. • Sensitive Site - Protected Area. • Crosses northeast area of proposed Caliento Bog PA. • Biodiversity and Habitat. • Forestry Branch – maybe.	• Avoid by one mile. Adjust route. • Avoid crossing protected area. Adjust route.
820 Taylor	34	• Location of lodge. • Wildlife Branch – adjust route to avoid Caliento Bog proposed PA.	• Offset from residential. • Move proposed line north and eastward, keeping it as close to PR 12 as possible. • Relocation required by statute.
Later Feedback	35	• Overlaps Piney Ecological Reserve (potential. • Forestry Branch would not support. • White-tailed Deer habitat and species diversity. • Wildlife Branch – fragments habitat and provides access for ATVs, hunters, predators.	• Avoid by one mile. Adjust route. • No net loss – Forestry. • Relocate segment.
Email	50	• TransCanada Pipelines crossing.	• AC mitigation studies required by TransCanada Pipelines.
Meeting	51	• Rural residential expansion area within half a mile of the Alternative Route Segment.	
820 Taylor	56	• Sensitive Site – Watson P Davidson WMA; rare species.	• Avoid by one mile. Adjust route - required by statute.
820 Taylor	59	• Sensitive Site – Watson P Davidson WMA; rare species. • Wildlife Branch – stay at least one mile away from Watson P. Davidson WMA.	• Avoid by one mile. Adjust route - required by statute.
820 Taylor/ Later Feedback	60	• Elk Habitat. • Least impact on KC Outfitters on RM of Stuartburn/Crown Land. • Wildlife Branch – Caribou-Vita Elk herd.	
Later Feedback	61	• Elk habitat, and Tall Grass Prairie/endangered species (2).	

Location of Meeting	Alternative Route Segment	Concerns/Constraints	Recommendations by Participants for Minimizing/Mitigating Potential Effects
		• Wildlife Branch – Caribou-Vita Elk Herd and Tall Grass Prairie Preserve Working Area (2).	
Later Feedback	62	• Elk habitat. • Wildlife – Caribou-Vita Elk Herd and Tallgrass Prairie Preserve Working Area (2).	• Adjust route - required by statute.
Later Feedback	63	• Elk habitat, and Tall Grass Prairie/endangered species (2). • Wildlife Branch – Tall Grass Prairie Preserve Working Area.	• Adjust route - required by statute.
820 Taylor	63	• Wintering area for Elk. • Wildlife Branch – Caribou-Vita Elk Herd.	
Email	70	• TransCanada Pipelines crossing and parallel alignment.	• Avoid route.
Meeting	71	• Development in Ste. Anne and Lacoulee.	
Meeting	72	• Development in Ste. Anne and Lacoulee.	
820 Taylor	General	• Concern about location relative to outfitting lodge.	
820 Taylor	General	• Bait sites (24) and wintering area for elk noted.	

4 Key Person Interviews

4.1 Purpose

The purpose of the KPIs was to obtain input from representatives from a wide range of organizations that could potentially be affected by the development of the Project.

The KPI process provided broad socio-economic information, as well as more specific issues and concerns, and preferences regarding transmission line routing, across southern Manitoba. The information collected was representative of a large portion of southern Manitoba, including the Project area.

4.2 Methodology

4.2.1 Identification of Key Person Contacts

KPI contacts were identified by the consultants and Manitoba Hydro based on project team members' general knowledge of the Study Area, and previous experience with groups involved in Manitoba Hydro projects and general planning projects.

4.2.1.1 Sectors

A number of sectors were identified and separate interview scripts were developed for each. Sectors included:

- Agricultural
- Business and Industry
- Education
- Environmental
- Health
- Municipal
- Infrastructure
- Policing
- Trappers

Scripts for each sector are included in Appendix B1.

4.2.1.2 Organizations Contacted

Organizations contacted included the following:

- Government Departments and Agencies, including:
  - Manitoba Infrastructure and Transportation
  - Manitoba Floodway Authority
  - Manitoba Agriculture, Food and Rural Development
  - Manitoba Conservation and Water Stewardship (Forestry, Wildlife, Parks and Natural Areas and Water Stewardship)
  - Manitoba Culture, Heritage and Tourism
  - Manitoba Historic Resources Branch
  - Land Value Appraisal Commission
  - Manitoba Health, Office of Disaster Management
  - Public Utilities Board
- Cities, Towns and Rural Municipalities in the Study Area
- School Divisions
- Providence College
- Conservation Districts
- Keystone Agricultural Producers
- Manitoba Aerial Applicators Association
- Manitoba Pork Council
- Manitoba Turkey Producers
- Manitoba Chicken Producers
- Dairy Farmers of Manitoba
- Manitoba Wildlife Federation
- Manitoba Naturalist Society (Nature Manitoba)
- Nature Conservancy of Canada, Manitoba Division
- 50 by 30
- Bipole III Coalition
- Ducks Unlimited
- Sno-Man Inc.
- All-Terrain Vehicles Manitoba Inc.
- Trans Canada Trail Association
- Southern Regional Health Authority
- RCMP Detachments
- Manitoba Trappers

Not all organizations agreed to interviews or scheduled interviews. Some organizations (such as Manitoba Local Government) were not interviewed as part of the KPI process but did send representatives to Stakeholder Workshops.

The RCMP sent a general letter for all of the detachments that the project team had intended to contact (included in Appendix B4).

4.2.1.3 Total KPI Interviews

By December 2013, 69 KPI contacts had been initiated: 22 declined interviews (or declined having interviews that were conducted and used for the project) and 15 were deemed not responsive after three contact attempts. The remaining 32 KPI interviewed represented categories indicated in Table 4-1.

Table 4-1: KPI Interviews by Category

Category	No. of Interviews
Business and Industry	3
Environment	8
Municipal	5
Trappers	1
Education	7
Agriculture	5
Infrastructure	2
Health	1
Policing	0
Total	**32**

4.2.2 Interview Questions

Manitoba Hydro developed interview scripts which incorporated questions about recent trends and potential concerns with future Manitoba Hydro development. Most of the scripts (Appendix B1) had questions in common, although the emphasis was different based on the various sectors. Questions addressed the following areas:

- Organization and interests represented.
- Employment and economic development considerations, including the agricultural sector.
- Power requirements.
- Changes occurring in various economic sectors.
- Preferred locations for power transmission lines, such as section or quarter section lines.
- Land uses most suitable for location of power transmission lines, such as grain and oilseed farms, market gardens, livestock operations.
- Effects of power transmission lines on agricultural operations, including: machinery operation, aerial spraying, irrigation and GPS navigation systems.
- Effects of power transmission lines on property values.
- Effects of power transmission lines on environmental components.
- Future plans that would impact power line location.
- Concerns about construction and maintenance activities.
- Use of PowerSmart and other Manitoba Hydro programs.

Examples of sector specific questions included:

- Agricultural KPI were asked specifically about the effects of transmission lines on agricultural activities, use GPS or other navigational tools.
- Business and Industry KPI were asked about the effects of electric power system reliability on operations.
- Education KPI were asked about student enrolment and any programs linked to Manitoba Hydro (co-op).
- Environmental KPI were asked about what environmental features, such as water quality, wetlands, wildlife habitat, were important to their organizations, as well as the impacts of power transmission lines on such features.
- Health KPI were asked about facilities and services, impacts on emergency response times and perceived health impacts of power transmission lines.
- Municipal KPI were asked about linear infrastructure, roads, rail and drainage ditches, and suitability for construction of adjacent power transmission lines. These KPI were also asked about future residential, commercial and industrial development and municipal public works projects, and airports. Other questions addressed transmission line ROW access and safety issues.
- Policing KPI questions also addressed emergency response times as well as types of crime.
- Trappers KPI were asked specific questions related to positive and negative impacts on animal populations and potential use of transmission line corridors by trappers.

Interviewees were also asked if they would be interested in participating in a Stakeholder Workshop, and were provided with Manitoba Hydro contact information should they have additional questions. They were also asked if their responses could be applied to other Manitoba Hydro projects planned for southern Manitoba.

4.3 Summary of KPI Responses

4.3.1 Key Findings

Based on the eight (8) categories identified in Table 4-1, the following key findings were noted:

Agriculture

- Respondents were split in their opinion with respect to the agricultural industry in their area: two felt that it was in a state of growth, two thought it was in a state of decline and one thought there was no perceptible change.
- Four of five respondents felt that the labour force had changed over time.
- Four of five said that the agricultural sector is affected by power system reliability.
- All respondents said that transportation corridors was the land use best suited to Hydro transmission lines and all respondents felt that hydro transmission lines have an effect on agricultural practices.
- All respondents said that they thought property values, irrigation systems, GPS and aerial spraying operations would be negatively affected by the implementation of this transmission line.
- Concerns included loss of land, difficulties in using large machinery and stray voltage, as well as affecting meat production standards.
- All respondents said that they had concerns about Manitoba Hydro operation or maintenance activities on their operating activities.
- All respondents were interested in learning more about the project and attending the workshop.

Environment

- Seven of eight respondents said that past developments had affected environmental features important to their organisation. Most respondents said that they thought this project would affect features important to their organisation.
- Most respondents felt that there are important areas to avoid such as wildlife habitat, waterways and vegetation.
- Key concerns include changes to drainage patterns, changes to species habitat, climate change, heritage areas and flooding.
- Six of eight respondents felt that the transportation corridor would be the best land use to be in proximity to the transmission line.
- Existing rights of way or private lands were suggested as the best locations for a new transmission line.
- All respondents wanted to learn more about the project.

Municipal

- Four out of five municipal respondents thought that the new transmission line would positively affect business in the municipality.
- Positive aspects included increased growth and industry expansion as well as providing better service.
- Generally respondents did not think there would be any major impacts on existing transportation and utility corridors.
- Transportation corridors and pasture/grazing lands were considered the land uses best suited to siting the transmission line.
- All respondents felt that Hydro lines had an impact on agricultural practices.
- Only one respondent said that the community had expressed concerns about noise or dust while a further respondent said that they had heard concerns about infrastructure or water.
- Two respondents said that there were concerns in their community about the impact of construction on watersheds and aquifers.
- All respondents said that they thought there would be effects from the proposed transmission corridor on planned residential, commercial or industrial developments.
- All respondents were interested in learning more about the project.

Education

- Three of seven respondents said that a new transmission line would impact the operations of their organisation.
- Impacts included better resources and more reliable power and concerns over safe walking passages for students.
- Almost all respondents said that they would like to learn more about the project.

Government Infrastructure

- Both respondents thought that there are more jobs available now compared to the past.
- Both respondents thought that the new transmission line would affect existing transportation and utility corridors in a significant way.
- In building a new transmission line it was felt by both respondents that agricultural lands (particularly with cows on them) should be avoided.
- Both respondents felt that the transmission line would affect agricultural practices.
- It was not felt that property values would be affected.

- It was not expected that emergency services be affected by the Project.

Health

- The single respondent we spoke to felt that there would be effects on emergency services from the Project from road closures which could affect response times.

Business and Industry

- One of three respondents we spoke to said that they thought the economy was in a state of decline while the other two respondents felt unable to comment.
- Two respondents thought that there may be some effects on their businesses or operating activities from a new transmission line rights of way, this was related to utility and railway line crossings (situation of transmission lines away from railway lines).

Trappers

- The one trapper we spoke to said that they felt that the project would affect trapping activities in a negative way due to disruption to wildlife and will detract fur bearers.

4.3.2 Key Word Analysis

The frequency of appearance of the following words from KPI responses are further indication of some of the overall issues and concerns of the key informants contacted in relation to the development of a new Manitoba Hydro transmission line. These have been grouped into similar areas of consideration.

Agriculture

1. Aerial spraying – 6 mentions
2. Agriculture – 6 mentions
3. Air field/airstrip – 0
4. Farmers/farming – 23 mentions

Municipal/Land Use

1. Cemetery – 0
2. Commercial – 3 mentions
3. Development – 33 mentions
4. Glider – 1 mention
5. Growth – 11 mentions
6. Health – 5 mentions
7. Housing – 1 mention
8. Industry/ industrial – 17 mentions
9. Lagoon – 2 mentions
10. Landfill – 2 mentions
11. Residential – 7 mentions
12. Views – 0

Infrastructure

1. Highways – 8 mentions
2. Rail lines – 8 mentions
3. Roads – 13 mentions
4. Transmission line(s) – 22 mentions

Environmental/Recreational

1. Habitat – 15 mentions
2. Raptors – 3 mentions
3. Trail – 29 mentions
4. Vegetation – 2 mentions
5. Wetland – 22 mentions
6. Wildlife – 15 mentions
7. Wildfowl – 0

General/Miscellaneous

1. Mitigation – 7 mentions
2. Safety – 3 mentions
3. Trapping – 9 mentions

4.3.3 Location Specific Data

A number of location specific considerations were identified by stakeholders (Appendix B3). These included:

Environmental - Habitat

- Concentrations of geese near the Red River and the Fort Whyte Centre (Southern Loop).
- Tall grass prairie and other vegetation types near Tolstoi Prairie.
- River bottom forest habitat along the Red River.

Recreation

- Recreation trails / ecotourism near Ile des Chenes
- Recreation Areas on Nature Conservancy of Canada Lands

Municipal Land Use and Infrastructure

- Lagoons and landfills: Brady Landfill – potential expansion (Southern Loop), Ile des Chenes Lagoon expansion, Oak Bluff lagoon (Southern Loop).
- Oak Bluff (Southern Loop) as a population centre.

Flood Concerns

- Flooding on local watercourses, including the Seine River.
- Flood prone lands west of PTH 59.
- Flood resistant route required as PTH 75 often closed with flood events.

Landing Strips

- Glider landing strip west of Starbuck (Southern Loop).

4.3.4 Additional KPI Information

- A representative of Dairy Farmers of Manitoba provided a map with exact locations of all dairy farms near the proposed project. The map is included in Appendix B2.
- A representative of Aerial Applicators drew locations of all aerial applicators on a rough map, highlighting those who would be most affected by the new transmission line. Aerial applicators

wanted power transmission line routes to be located east of the areas of productive agricultural land in southern Manitoba.

5 Public Open Houses

5.1 Purpose

The purpose of the Public Open Houses was to inform the public about the project and obtain input from Stakeholder Groups, landowners and members of the public regarding their criteria for transmission line routing and preferences.

Two key approaches to obtaining information from attendees included:

1. Comment Sheets

   The Open House Comment Sheets provided opportunities for respondents to describe general and specific issues and concerns; suggest mitigation approaches and siting criteria, and also to provide specific location data.

2. Map Stations

   Map Stations allowed attendees to show the specific locations of potentially affected properties or features, and to specify the perceived impacts of a transmission line.

5.2 Methodology

5.2.1 Advertising and Notification

5.2.1.1 Newspaper and Newsletter Advertising

Newspaper advertising for the Public Open House events was printed in the *Winnipeg Free Pr*ess and *Winnipeg Sun* the weekend before the start of the Public Open House events on the following dates: November 2, 2013, November 3, 2013, November 30, 2013 and December 8, 2013.

Public Open House advertising was also printed in the francophone *La Liberte* on October 30, 2013, as well as in a number of weekly newspapers, as indicated below.

- Manitoba Co-operator October 31, 2013
- Morden Times October 31, 2013
- Winkler Times October 31, 2013
- Winkler-Morden Voice October 31, 2013
- Altona Red River Valley Echo October 31, 2013
- Steinbach Carillon October 31, 2013
- Emerson Southeast Journal November 2, 2013
- Grassroots News November 5, 2013
- Baldur-Glenboro Gazette November 26 and December 10, 2013

Ads were typically in the range of 6.875” x 9”, with the smallest being 5.083” x 7” and the largest, 7.6489” x 10.25”.

5.2.1.2 Postcards

Manitoba Hydro also produced postcards informing people about upcoming MMTP Open Houses. A mail drop on October 22, 2013 included 26,583 postcards. An additional 410 postcards were sent out to landowners in early October about the open house in the Glenboro area.

5.2.1.3 Landowner Letters and Newsletter

Manitoba Hydro produced a four page newsletter describing the Alternative Routes proposed for the MMTP (Appendix D1). The newsletter described the transmission line routing and Environmental Assessment Processes, and Engagement Process, as well as showing the Alternative Routes and describing the Southern Loop Transmission Corridor. Local homeowners were sent the newsletter by direct mail, along with information about upcoming Public Open Houses. A total of 7,933 letters were sent on October 22, 2013 regarding 10 of the 11 Public Open House events; 70 were sent out earlier in the month regarding the one (1) Public Open House event held in Glenboro.

5.2.2 Public Open House Venues

Eleven Public Open House (POH) events were held, typically from 4 p.m. to 8 p.m. (4 hrs.), in the following locations. A total of 326 people attended the Public Open House events.

1. **Headingley** – Tuesday, November 12, 2013, at the Headingley Community Centre, 5353 Portage Avenue, Headingley, MB
2. **Headingley** – Wednesday, November 13, 2013, at the Headingley Community Centre, 5353 Portage Avenue, Headingley, MB
3. **Winnipeg** – Wednesday, November 13, 2013 (Workshop and Open House), at the Winakwa Community Centre: 980 Winakwa Road, Winnipeg, MB
4. **Ste**. **Anne** – Thursday, November 14, 2013, at the Seine River Banquet Centre: 80A Arena Road, Ste. Anne, MB.
5. **Steinbach** – Tuesday, November 19, 2013 (Workshop and Open House), at the Friedensfled Community Centre (Main hall), 32004 Road 35E, Steinbach, MB
6. **Vita** – Wednesday, November 20, 2013, at the Vita Community Hall, 209 Main Street North, Vita, MB
7. **Piney** – Thursday, November 21, 2013, at Piney Community Centre, Highway 89 (Main Street), Piney, MB
8. **Marchand** – Tuesday, November 26, 2013, at Marchand Community Club, Dobson Avenue, Marchand, MB
9. **Anola** – Wednesday, November 27, 2013, at Anola Over 50 Club, Wieser Crescent, Anola, MB
10. **Ile des Chenes** – Thursday, November 28, 2013, at the TransCanada Centre: 1 Rivard Street, Ile des Chenes, MB.
11. **Glenboro** – Wednesday December 4, 2013, Glenboro Community Hall: 900 Railway Avenue

5.3 Open House Process

5.3.1 Stations

The POH events were organized around a series of stations with presentation storyboards, large maps and PowerPoint presentations, intended to provide information about the Project and obtain information and feedback about attendees routing criteria and Alternative Routes and Border Crossing Areas. Attendees were provided with Comment Sheets (Appendix D3) upon entry to the Open Houses: of the 326 attendees, 144 completed Comment Sheets and returned them to AECOM by January 29, 2014.

5.3.1.1 Storyboards

AECOM worked with Manitoba Hydro to prepare storyboards describing the overall project and the work completed by consultants to date; these are found in Appendix D2.

- One set of storyboards provided an introduction to the Project, indicating what was included and why it was needed.
- One set of storyboards described the Environmental Assessment process, emphasizing that this was the principal reason for the consultation.
- One set of storyboards outlined the Transmission Line Routing Process.

5.3.1.2 Google Earth® Mapping Station

A Google Earth® Mapping Station allowed POH attendees to find their own or other properties on a large screen. Attendees were able to zoom in to see in more detail their locations relative to the proposed new Hydro transmission line.

5.3.1.3 Mapping Stations

Mapping Stations provided a means to obtaining detailed comments from landowners and other attendees. AECOM and Manitoba Hydro staff discussed issues and concerns, constraints and proposed realignments with attendees who visited the Mapping Stations.

Many POH attendees provided site specific information at the Mapping Stations. This is summarized in Appendix D5.

5.3.1.4 Handouts and Comment Sheets

Handouts at the POH included the following material, included in Appendix D3:

- Round 1 – Public Engagement - Alternative Routes & Potential Border Crossings Newsletter.
- Maps – Alternative Routes and Glenboro Station Expansion.
- Siting Transmission Lines Using the EPRI-GTC Siting Methodology.
- Manitoba Hydro brochure “The Hydro Province” about power generation in Manitoba.
- Alternating Current – Electric and Magnetic Fields.
- AC Lines and Electronic Devices.
- Stray Voltage on Dairy Farms – Symptoms and Solutions.
- Health Canada – Electric and Magnetic Fields from Power Lines and Electric Appliances.
- Bipole III – Alternating Current Electric and Magnetic Fields.

5.4 Summary of Results – Public Open Houses

Events were held in November 2013 and December 2013 (Glenboro) to advise of the p

5.4.1 Analysis of Open House Comment Sheets

POH Comment Sheets were analyzed using Survey Monkey. A summary of the 142 Comment Sheet results returned to AECOM by January 28, 2014 are reported in Appendix D4, including the comment sheet raw data. Two additional comment sheets were received on January 29, 2014.

5.4.2 Summary of Comment Sheet Reponses

POHs were held in the months of November and December (Glenboro) to advise the public on plans for the Project and to answer questions and address concerns that they may have.

5.4.2.1 Number of Responses

Table 5-1 below shows the number of Comment Sheets received (in-person, by mail, fax or email) from persons attending each POH event. Mail, email and fax Comment Sheets are included in the table until January 28, 2014. Note that no Comment Sheets were received from the Glenboro Public Open House, which was held on December 12, 2013.

Table 5-1: Open House Comment Sheets

Date	Number of Comment Sheets
12 November, 2013 – Headingly	9
13 November, 2013 – Winnipeg	8
14 November, 2013 – Ste. Anne	18
19 November, 2013 – Steinbach	18
20 November, 2013 – Vita	19
21 November, 2013 – Piney	11
22 November, 2013 – received via fax	4
25 November, 2013 – received via email or mail	1
26 November, 2013 – Marchand	22
28 November, 2013 – Ile des Chenes	18
29 November, 2013 – received via fax	2
03 December, 2013 – received via fax	1
04 December, 2013 – received via email or mail	4
05 December, 2013 – received via email or mail	1
13 December, 2013 – received via fax	1
19 December, 2013 – received via email or mail	2
30 December, 2013 – received via fax	2
31 December, 2013 – received via fax	1
Total	**142**

5.4.2.2 Profile of Respondents

Respondents were asked how they heard about the POH event that they attended.

- 60% of respondents said that they received a letter about the Open Houses, while 20% heard via word of mouth and 14% read about it in a newspaper. 9% indicated they had learned about the Open Houses through Manitoba Hydro postcards, only 2% mentioned the Manitoba Hydro website, the same number indicating they had learned about the events by reading road signs.
- An overwhelming majority of attendees said that they lived or worked near one of the Alternative Routes (81%), and when asked if they had any concerns about the Alternative Routes or Border Crossing areas over three quarters of respondents (78%) said that they did.

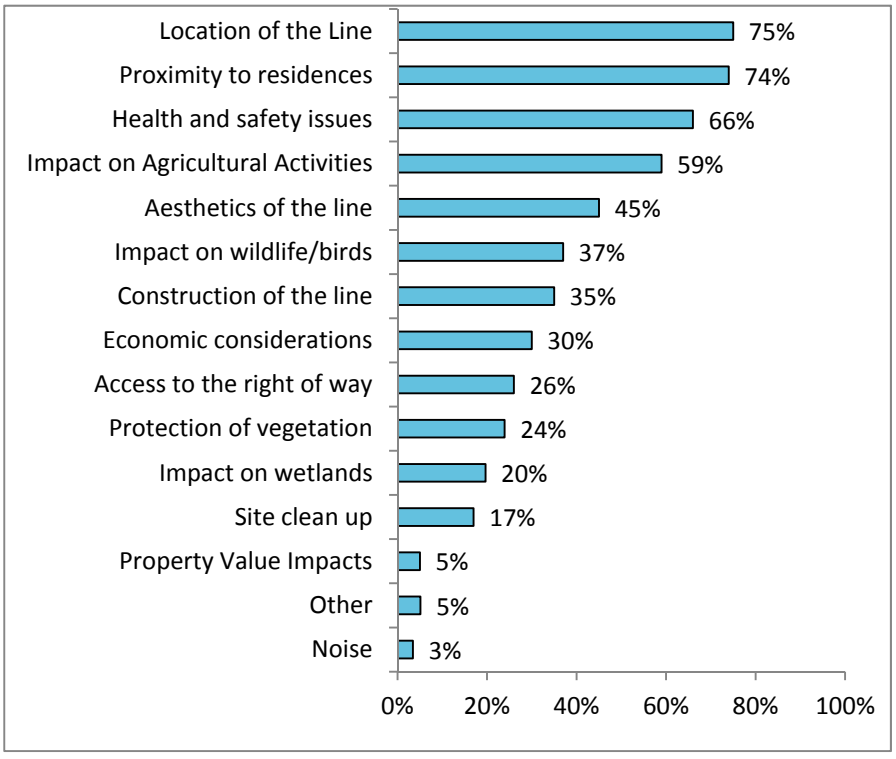
Note: Totals equal more than 100% as respondents could give more than one answer.

5.4.2.3 Predominant Concerns

Respondents were asked about their predominant concerns regarding the Project.

- 75% said that the location of the line was their main concern.
- A similar proportion (74%) said that the proximity to residences was a concern.
- 66% of respondents said that health and safety issues concerned them.
- 59% said that they were worried about potential impacts on agricultural activities.

Figure 5-1: Predominant Concerns from Open House Comment Sheets



5.4.2.4 Specific Sites and Constraints

86% percent of respondents said that there were specific sites that Manitoba Hydro should be concerned about along or near one of the Alternative Routes or near a Border Crossing. Common responses included:

- Community of Marchand.
- Community of Vita.
- Beekeepers along Alternative Route Segment 70.
- Any residential areas.
- Prime agricultural areas.
- Areas with species at risk.
- Lagoons/swamp areas.

Several respondents said that they thought the route should be located as far east as possible, in unoccupied Crown Lands.

5.4.2.5 Mitigation of Project Impacts

93% percent of respondents said that they had recommendations for Manitoba Hydro on minimizing/mitigating potential effects from the project. Common responses included:

- Keep line as far east as possible.
- Avoid farmland.
- Avoid new homes being built in Marchand.
- Avoid populated areas.
- Consider using Alternative Route Segment 63.
- Restrict access to Manitoba Hydro right-of-ways in order to avoid hunting, ATV use, etc.
- Keep the public informed of project developments.

5.4.2.6 Transmission Line Routing

Respondents were asked to rank various site factors for transmission lines on a scale of 1 to 5. The results were grouped into “Concerns” and “Preferences” categories. The first relates to the need to avoid various existing features, or concerns about costs and length of line; the second relates to the desire for co-location with various linear features, such as existing transmission lines, roads and drains.

Concerns:

- “Separation from residences and urban areas” clearly ranked as the most frequent “#1 Concern” of respondents, as well as the most frequently ranked routing factor.
- “Avoid agricultural lands” was the second most frequent “#1 Concern” and had the second highest overall frequency of responses.

Preferences:

- “Following existing transmission lines” ranked as the most frequent “#1 Preference” and the most frequently ranked Preference, as well as the third most frequently ranked routing factor.
- “Follow undeveloped roadways was the second most frequent “#1 Preference” and the second most frequently ranked Preference, as well as the fourth highest routing criteria in terms of overall frequency of responses.

“Following existing transmission lines”, “Roadway infrastructure” and “Undeveloped roadways” were most frequently ranked as #3 or #4.

Table 5-2: Criteria for Transmission Line Routing

Factor	Total #1 Ranks	Total #2 Ranks	Total #3 Ranks	Total #4 Ranks	Total #5 Ranks	Total All Ranks	Overall Ranking
Routing Criteria – Concerns							
Separation from residences and urban areas	57	30	10	2	7	106	**1**
Avoid agricultural lands	28	22	10	8	11	79	**2**
Avoid wetlands/marshes	7	10	11	8	8	44	**3**
Avoid forested/natural areas	11	6	7	7	12	43	**4**
Cost	7	6	8	7	14	42	**5**
Separation from heritage/cultural sites	9	4	9	11	6	39	**6**
Length of line	5	4	6	5	9	29	**7**
Routing Criteria – Preferences							
Follow existing transmission lines	17	12	20	11	15	75	**1**
Follow undeveloped roadways	7	7	17	13	7	51	**2**
Following existing highways or roadways	3	9	14	13	11	50	**3**
Follow existing drainage ditches	2	2	8	6	14	32	**4**
Other	5	3	0	0	4	12	**N/A**

Note: that the numbers in the table above are total responses, not numbers of respondents.

5.4.2.7 General Comments

Sample comments reflect the general concerns and preferences of Open House attendees:

> *"Use the route that goes furthest east, (through bush) Staying away from populated areas is our greatest priority."*
>
> *"The Eastern route appears to be the best option, less impact on farming operations, low population, and closer to the U.S. link-up and on non-productive land."*
>
> *"Agricultural land is our livelihood, not just a cosmetic piece of property! It is not only the land that the line is on that is affected."*
>
> *"Agriculture should be protected and promoted. I do not agree with any infringement on any and all agriculture."*
>
> *"By cutting across our land, not only will it hinder our farming operation, it will also allow the public to use this ROW with snowmobiles, ATV's, etc. Our land will then be invaded with trespassers and hunters. So, why not move it 1/2 mile and stay on Crown Land?"*
>
> *"Scary!"*
>
> *"Taking any potential funds/land away from the Marchand area could greatly impact the future of this small town. The town is currently rebuilding after our only store burning down. The development on this land will help to build and enhance the way of life in our area, where using this land for hydro lines will bring the growth of our community to a screaming halt. We work hard on our land to be where we are. We have plans for our family to live here and continue to develop during our lifetime."*

"I am concerned about the cost. That worries me. Are you really going to listen to our concerns?"

"I am concerned about the increased access to hunters and 4x4's and ATV's onto newly established hydro lines."

"Proposed line would be too close for safe operation of flight training and local flying."

"It makes me angry to say the least although the proposed route would not be too close to my house. I would support anybody who is close. You would spoil a pristine clean area with a growing population and destroy property values for some. Put the lines out of sight in the forest area. The rabbits and deer and squirrels know to stay the hell away from these already. The trees will stay well back too. The cost is unimportant. Raise the rates for the US. It's annoying they pay less than we do for our HYDRO!! Yet we would have to suffer!"

"Proposed line would be too close for safe operation of flight training and local flying."

"By cutting across our land, not only will it hinder our farming operation, it will also allow the public to use this ROW with snowmobiles, ATV's, etc. Our land will then be invaded with trespassers and hunters. So, why not move it 1/2 mile and stay on crown land?"

"It makes me angry to say the least although the proposed route would not be too close to my house. I would support anybody who is close. You would spoil a pristine clean area with a growing population and destroy property values for some. Put the lines out of sight in the forest area. The rabbits and deer and squirrels know to stay the hell away from these already. The trees will stay well back too. The cost is unimportant. Raise the rates for the US. It's annoying they pay less than we do for our HYDRO!! Yet we would have to suffer!"

"Choosing the eastern route through the bush would greatly benefit Manitobans. For one it would affect less farmland and hinder less farmers in their daily activities. The chances of accidents involving humans, livestock and equipment with power lines would be greatly reduced. The potential health risks to humans would be greatly reduced. Having a clear path through the bush would reduce the spread of wildfires, and would be greatly appreciated when battling wild fires."

"I believe MB Hydro should be responsible to its customers and take one of the eastern routes which has the least impact on Manitobans".

"Research on the WHO website clearly states that living within 2km of high voltage lines affects your health. Your routes come very close to my home (within 500 m) I have a 1 year old and 3 year old and according to WHO, living within that proximity of the lines would increase their chances of leukemia by 70%. How would you feel if that was your children?"

5.4.2.8 Key Word Analysis

The following words were found in respondents' comments on POH Comment Sheets. Note that some of the considerations are also dealt through the summary of specific questions.

Key words were grouped under Natural, Built - Agricultural, Built – Residential, and Economic and Public Engagement categories. Most frequently mentioned were: "easterly route" (20), "agricultural land" (17), "wildlife" (15), "bush loss" (15), "safety" (9) and "livestock" (8).

Table 5-3: Key Word Analysis Results

Key Word	Frequency of Mention
Natural	15
bush loss/loss of bush	15
wildlife	15
hunting	5
snowmobilers/Sno-Man/ Sno-riders	5
wilderness	2
wetlands	1
birds	0
lodge	0
stream crossings	0
Built – Agricultural	
easterly route/stay east	20
agricultural land	17
livestock	8
aerial applicator/application (aerial spraying)	3
airstrips /air fields (airport)	2
half-mile	2
bio-security	1
compensation / compensation percentage	1
dust (crop dusting)	1
manure application/ manure application equipment	1
farm equipment operation	0
shelterbelt	0
vegetation management	0
Built – Residential	
safety	9
EMF	6
view/ view-shed	6
subdivision/ subdivision potential	5
aesthetics	4

Key Word	Frequency of Mention
underground lines	4
heritage /heritage sites	2
magnetic fields	2
cell phone/cell phone reception	1
noise(a number of noise mentions were coded into the original document so it could be quantified)	
property development	0
well/contamination	0
Economic and Public Engagement	
Bipole III/ Bipole	5
economics	2
border crossing	1
export of power	1
transparency	1

5.4.3 Open House Location Specific Concerns

Table 5-4 identifies concerns and constraints obtained from the POH Comment Sheets related to Alternative Route Segments.

Table 5-4: Location Specific Concerns in Comment Sheets

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
Ste. Anne #23	Alternative Route Segment 23	By cutting across our land not only will it hinder our farming operation, it will also allow the public to use this ROW with snowmobiles, ATV's. Our land will then be invaded with trespassers and hunters. So, why not move it 1/2 mile and stay on Crown Land?	If (Alternative Route) Segment 23 would keep on going straight, it would avoid going on our land. Stay on Crown Land.
Ste. Anne - #48 and 49	Live under 1/2 mile from proposed Alternative Route Segment 49 in the RM of Tache. Very concerned regarding health effects and property values.	There are many residences along both (Alternative Route Segments) 48 and 49. Why would Hydro consider building along such a populated route? Why isn't the more easterly route, away from more densely populated areas, automatically chosen?	Considering the impact on health and land values take a less densely populated route.
Ste. Anne #50	New development very close to Alternative Route Segment 50 - 16 properties.		Use (Alternative Route) Segments 3, 5, 6, 18, 19, 20, 21, 23, instead.
Ste. Anne #70	Avoid due to Lorette Lagoon expansion and future development.		Use the following (Alternative Route) Segments: 3, 5 , 6, 17, 18, 19, 20, 21 and 23, through Piney, east.
Ste. Anne #70	Lorette, lagoon.	RM of Tache lagoon has issue with proposed route restricting ability to expand.	Stay as far as possible away from residences.
Ste. Anne #70	Lorette, lagoon.		Avoid (Alternative Route) Segment 70 due to Lorette lagoon expansion.
Ste. Anne #70	Avoid Lorette Lagoon.		Use (Alternative Route) Segments 3, 5, 6, 18, 19, 20, 21,23 to Piney, east.
Ste. Anne Assume #71, 73, 74 and 51	The Alternative Routes that would travel to Ste. Anne and south through La Broquerie are a major concern for me as this would place towers across from my house.	Placement of towers away from residential areas is very important. They are loud and unsafe for families.	Place towers in unpopulated areas where the least amount of impact can be done to people, wildlife and the environment in the marshy area furthest east in MB seems to span the least amount of towers.

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
Steinbach #50, 51 and 74		Proposed (Alternative Route) Segments 50, 51 and 74 would limit use of agriculture land, which is already in short supply.	
Steinbach #52 and 53	Agricultural land on west quarter-section.	Prime agricultural land.	My preference is to place the Hydro lines as far east as possible.
Steinbach #46, 47, 48, 49, 50, 70, 71, 72, 73, 74	Lot on Dawson Road.	(Alternative) Route Segments 46, 47, 48, 49, 50, 70, 71, 72, 73, 74 through residential areas are not preferred. Affected by segments 49, 70 and 72. (Alternative Route) Segments 49 and 72 run behind and beside my home. Concerned for my family's health and value of my property.	Go through segments 7 and 6 in the Sandilands would not affect people and their property.
Steinbach #46, 47, 48, 49, 50, 70, 71, 72, 73, 74	Alternative Route Segments 46, 47, 48, 49, 50, 70, 71, 72, 73, 74 are through residential areas.		Go through Sandilands and less populated areas, use (Alternative Route) Segments 6 and 7.
Steinbach #70	Alternative Route Segment 70.	Prime agricultural land.	There is some land other than Class A agricultural land that is still not dense bush land that would have way less economic impact.
Steinbach #49 and 72,	49 and 72, Mile 48; Lilac Resort (a site with hundreds of permanent campsites).		
Vita #34	Concerned about Alternative Route Segment 34. Location of route is too close to our property. Concerned about wildlife and our business that we are building.	Cemetery located on (Alternative) Route Segment 34	Keep wildlife and our forest protected from the adverse effects of building this line.

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
Vita #34	Alternative Route Segment 34.	(Alternative) Route Segment is too close to where we live, and will affect the wildlife (wolves, cougars, bears) that already comes into our property. This line is also really close to a cemetery. We have a berry farm, the noise, site (aesthetics), health risks (to customers), and more predators will affect our future financial position as well as our land value.	
Vita #61 and 62	The Alternative Route Segment just west of Vita.	Would be very close to the Shevchenko School.	Route passing through the Caliento area would be preferable to the one west of Vita as it is less densely populated.
Vita #61 and 62	The Alternative Route Segment just west of Vita.	Would surround Shevchenko School.	Route segment through Caliento would be more feasible, or the routes farther to the east.
Vita #63	Three sections along Alternative Route Segment.	Concern	
Vita	Caliento	If going by Vita, keep as far as possible from Tourn.	
Vita #62	Vita Segment.	One (Alternative) Route Segment is too close to school.	
Vita #62	Alternate Route Segment 62.	Wildlife concern if vegetation is disturbed.	Caliento route segment should be considered because there is more swamp land and doesn't interfere with agriculture, wildlife and residents.
Vita #62	Alternative Route Segment 62.	Too near residences.	(Alternative) Route Segment 63 appears better alternative; not near residences.
Vita #62	Two quarter- sections; and hay/pasture land to the south of their location.	People and livestock.	Consider (Alternative) Route Segment 63; not as much of an intrusion on people and livestock. Go through Crown Land and not farm land: least amount of people and livestock.

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
Vita #62	Two quarter-sections.	Avoid farmland and pasture land.	Consider Alternative Route Segment 63; would not interfere with agriculture as much - Crown Lands.
Piney #8 and 19	Alternative Route Segment 8 crosses the St. Labre Bog.	This would have high construction costs and high maintenance costs. This bog does not freeze all winter.	Alternative Route Segment 19 has less bog and is the better option than Segment 8, which crosses the St. Labre Bog.
Piney #34	Swamp from west of Piney to Sundown is breeding area for Sandhill Cranes.	(Alternative) Route Segment 34 runs through swamp.	Routes close to Piney preferred.
Piney #20 and 30	Piney area	Alternative Route Segment 20, residences; Alternative Route Segment 30, possibility of interfering with retirement homes. Piney border area, US side has pricey farmland.	
Marchand #30	Alternative Route Segment 30.	One of the proposed routes would be far too close to residential populations.	Farthest east route (Segments 19 and 8) would be preferred.
Marchand #30	The part that run parallel to Marchard Road.		New houses going up west of Marchand; avoid this area.
Marchand #30	RM of Reynolds.	We want to build very close to where you want to put your line. There are better places just south of (Alternative) Route Segment 30.	Use the far east route. Very few homes or people to lose their properties.
Marchand #30	Alternative Route Segment runs through family land, impacting way of life. Many of these places are homesteads and historical landmarks. It would greatly impact the heritage of the area.	The Alternative Route going through the Marchand area impacts many families who live off the land. Manitoba Hydro would be taking money and food away from these families.	
Unclear which segment. Possibly #50	Portion of the Alternative Route running along PR 302 north of Ste. Anne behind Road 48N.	Large number of residences along 48N. Many have pastures with horses and other livestock. A large number of families in the area have young children (under the age of 6); therefore, long term health issues associated with living by these lines is a top concern. Additionally the proposed route runs very close to the	Choose an alternative route with fewer residences directly impacted. Choosing the alternative route that runs along Hwy 15 would be further from private homes. The PR 302 route is in very densely populated areas and

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
		road and through private yards which isn't visually appealing at all! Also many farmers have agricultural land along this route.	doesn't consider families living here.
Marchand #51	Alternative Route Segment (La Broquerie) is close to my house (500 m).	(Alternative) Route Segment goes through our development.	Locate transmission line as far east as possible.
Marchand #51	Alternative Route Segment 51, east of La Verendrye golf course.	Proposed route segment would be right over proposed house location.	Should follow existing street or wood line or natural gas line!
Marchand #51	La Verendrye Golf Course; just east of the course.	House being built!	Go as far east as possible (swamp - build in the winter) less impact on everything. Wildlife will recover.
Marchand #51, 52, 53	Concerned about Alternative Route Segments 51, 52, and 53 as it will be going on my land.	Alternative Route Segment on land.	East side would be better option not only because it doesn't affect my land, but also because it doesn't affect agricultural land in the surrounding area or as many residences.
Marchand #51,52, 53	Concerned about Alternative Route Segments 51, 52, and 53.	I strongly believe that if the line goes east it would have less impact, not only on farmland but also residential areas. The proposed line will in the view in front of my house, and will also impact farmland. Concerned about its impact on our health. The lines will buzz and that will be a concern for our family. It could affect an autistic child as they're very sensitive to sound.	
Marchand #51, 52, 53	Concerned about Alternative Route Segments 51, 52, 53.	Should pass on the east side of the province-where there are less residential property and less farmland. Proposed segments are near our residential property and family farmland.	
Marchand #51, 52, 53	Concerned about Alternative Route Segments 51, 52, 53.	East would be better because it wouldn't affect agricultural land and houses, and residential development areas. Concerned that transmission line will be too much in view and about the buzzing noise. Located too close to town, golf course and residential areas, as well as new developing areas.	
Marchand Assume #52, 53 and 54	Close proximity to the towns of La Broquerie and Marchand.	Some residences within 100 feet of lines or underneath them. Alternative Route Segments cross new subdivisions; which Hydro indicated that they were not aware of. Too near recreational	

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
		facilities. Noise problems during high humidity conditions. Definitely health concerns for people too close, which are well-documented wherever one looks (brain cancer, birth defects, etc.). Flora and fauna does not grow very well under these lines.	
Marchand #54	Concerned about Alternative Route Segment.	This could potentially affect landowner's income. Clients may not want horses boarded close to transmission line. Also affects value of house and land.	
Marchand #54	Residence near Alternative Route Segment.	Could potentially affect our income. Close enough to see the transmission line. Landowner boards horses; clients may be nervous to leave horses so close to power lines, also has concerns related to property values.	
#6	Residence at SW corner of Section; existing power line runs adjacent to the north property boundary of my property. Alternate Route Segment 6 is adjacent to existing power line. My home is located between two existing power lines, one on the north property boundary of my property (500 feet from my house) and the other about 500 feet to the south of my property.	Concerned about close proximity of lines to residences, and possible long term health issues that may be compounded with the addition of a third line in an already concentrated area. There has been no weed control under the line to the north of my property in the past 20 years while I have lived there. Canada thistle is a huge problem; Manitoba Hydro mowed down the buffer strip of trees that was a visual barrier and which I thought also prevented some of the thistle seeds from blowing onto my property. At the very least I would like the buffer strip re-established but Hydro won't provide replacement trees, and neighbour to the east of mows down seedlings that establish themselves along my north fence line, on the Hydro ROW.	
#51 and 74	The two most westerly routes cross through heavily populated areas that are extensively cropped with row crops requiring multiple crossing during a crop year; this would affect aerial spraying of these crops and drag manure spreading.	Alternative Route Segments 74 and 51 cut across two parcels of land we crop north to south on the mile and down one of the other parcels we crop. At this time there is no encumbrance to the pieces 74 would cut. Segment 50 would cut across the only part of this section that is crop-able making it vastly depreciated in value.	The routes farthest to the east would by-pass the more heavily populated and cropped areas as much of the farthest side is Crown Land already. A good part coming out of Riel would be on already Hydro ROW.

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
#60	Three quarter-sections near Alternative Route Segment 60.	We do not believe that this Hydro project is a benefit for Manitoba. At a 4% increase annually for 18 years, our Hydro bills will be more than double in amount. I believe that living near such large hydro lines is a hazard to our family, and I do not feel comfortable with that risk to us, our children and our grandchildren. Please read the enclosed newspaper article regarding our concerns over the cost issue. [copy of newspaper article is saved with the hard copy of this survey.	
#70	Quarter-section	We have a dairy farm and are very worried about stray voltage. Our pasture management being split up by towers, the distance of towers to our buildings and our fields being split to the north of our farm (Alternative Route Segment 70). We have been planning to install pivot irrigation to promote grass growth and increase our grazing season; these towers would make that impossible.	Every dairy farm should be avoided by minimum of 5 miles. The line should be placed in areas with minimal residences and agriculture activities. So, keep it along PTH 1 and go south in the bush.
Ile des Chenes #70	Alternative Route Segment 70.	Proximity to population/safety issue regarding tower climbing, flood area (land flooded in 1997 due to overland flooding). Devaluing of property based on this meeting.	Put the line in the most direct route, rather than zig-zagging around farms: east through the forested area where there are less people.
Ile des Chenes #70		Too close to population, there are a lot of houses and people in the area of Alternative Route Segment 70.	They should put in the line in the most direct route. Head east and go through the forested area.
Ile des Chenes #70	I am opposed to having Alternative Route Segment 70. I live a half mile from it. Also concerned about the bee keepers in a nearby quarter section, and the farmers in another.	We are close to two other lines coming through and near our sections. The humming of the lines is a concern. My house has already devalued just knowing about the proposed plan. Impact on bees.	Would like to see this go in a less populated area.
Ile des Chenes #70	Opposed to Alternative Route Segment 70.	There is a bee keeper on the southeast corner of quarter section along the route segment. This bee keeper is dependent on the income from his operation for his livelihood. This would go through an agricultural corridor that is highly populated on either side. There are significant concerns for health issues, aesthetics and safety of children that would be enticed to climb towers. There are already enough hydro lines through our area.	Yes, plan to have the line run through the least populated areas. Avoid splitting agricultural lands to reduce costs to farmers for extra mileage going around the lines.

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
Ile des Chenes #70	Alternative Route Segment 70.	Close to residences, possible EMF health effects, aesthetics, lots of agriculture here, devaluation of property value. Alternative Route Segment 70 goes past honey bee farm, EMP possibly affects honey bees.	Going along a Section where there is an existing line would minimize new effects.
Ile des Chenes #42 and 70, and #11	Alternative Route Segments 70 and 42. To a lesser extent Segment 11.		If there is already an existing transmission line along 3 and 5 (and 6), then Hydro should follow that route. There should be less resistance if an existing line already has a path through. Hydro should follow Alternative Route Segments 1, 2, 3, 5 and 6.
Ile des Chenes #70	Mapped on iPad.	Near our property (and on our property) is generally flooded each spring as the property is along a major drainage ditch. Also feel it would affect property value in the future.	It seems (on a map) to make sense to run the lines to the east and avoid more homes; agriculture land and the need to have less "large junction poles" during construction.
Ile des Chenes #70	Half mile from my house and 1/4 miles from neighbour's house and business.	Too close to residences.	This project will cost Manitobans and I see no benefit to us.
Ile des Chenes #70	In particular, Alternative Route Segment 70 is less than 1/2 mile from our house and the subdivided land for our sons.	Too close to residences. This area is becoming highly populated as the City (of Winnipeg) is moving closer. There is a St. Vital Letellier project, as well, so we have more than our share of power lines. Already have Hydro lines 1/2 mile away.	I want to know why we are sending power to Minnesota when they have all the cheap gas, they are fracking! Why not follow existing corridors along Alternative Route Segments 3, 5, 6.
Ile des Chenes #70	Urban Residential Land Uses.	Close to urban centre.	
Ile des Chenes #70	Town of Ile des Chenes is my main concern.	IDC dump, Lorette dump, IDC lagoon.	Would it be at all possible to go underground with all the transmission lines?
Comment Sheets Emailed/Mailed #52, 53 and 54	Agricultural and Residential Land Uses.	The line runs through our land for two miles. This includes the west side of our home quarter and the land in four other quarters. (First of two similar Comment Sheets)	

Alternative Route Segments	Specific Location of Concern or Constraint	Concerns with Specific Sites Along or Near the Alternative Routes or Border Crossings Areas	Public Recommendations for Minimizing/Mitigating Potential Effects of the Project
Comment Sheet Emailed/Mailed #52, 53 and 54	Agricultural and Residential Land Uses.	The line runs through our land for two miles. This includes the west side of our home quarter and the land in four other quarters. (Second of two similar Comment Sheets)	
Comment Sheet Emailed/Mailed #42	Agricultural and Residential Land Uses.	One of the proposed Alternative Routes (south to Grande Point and then east across the TransCanada) is a major concern. The proposed track severs large farm acreages increasing the dislocation to farmers, but more importantly the path passes immediately beside a number of residences (two) and along Heatherdale Road. It cuts in half a semi-urban area (Prairie Grove) and is in close proximity to many homes and proposed new subdivisions.	
Comment Sheet Emailed/Mailed #70 1/29/2014		Farm a section, and according to the proposed Alternative Route, the line will make a right turn on the NW part of the section, then go east, crossing two existing power lines; VJ50 an DVL63.	
Comment Sheet Emailed/Mailed #60, 62 1/29/2014		Seven quarter-sections of land owned/rented along proposed line. There is a church and a cemetery located near the proposed line, going south of Caliento. The roads in this area are not capable of supporting traffic by heavy equipment required for construction.	

5.4.4 Open House Mapping Stations

Appendix D5 provides detailed information from the Open House Mapping Stations. GIS maps capture the locations of each of the issue and concerns, and constraints identified by Open House attendees. Note that numbers shown with each set of issues and concerns relate to the number of locations identified on the plans, using numbered dots, not the number of people reporting.

Table 5-5 provides specific comments regarding siting criteria and impacts on properties and features.

Table 5-5: Overall Comments by Route Segment, from Mapping Stations

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
Headingly 11/12/2013	0	EMF near existing lines.	House	Family has cancer.	Medium
Headingly 11/12/2013	0	Could structures be staggered to avoid visual impacts.	House		
Headingly 11/12/2013	0	Towers should line up; prefer one tower per Section.	Resource/ Land Use	Soybean crop in 2014.	
Headingly 11/12/2013	0		Resource/ Land Use		
Headingly 11/12/2013	0		Resource/ Land Use		
	1				
Winnipeg, 11/13/2013	2	Sightlines and EMF.	House		Medium
Winnipeg, 11/13/2013	2	EMF	House		Low
Winnipeg, 11/13/2013	2	1.25 miles from ROW. Would not see the line as the home faces east.	House		
Winnipeg, 11/13/2013	2	Private homeowner. Aesthetics, lower property values, health and EMF concerns.	House		Medium
	3				
Ste. Anne 11/14/2013	4			Preferred	
	5				
Anola 11/27/2013	6	Location of the line is 0.2 miles away.	House		Medium
Anola 11/27/2013	6		House	Did not receive notification.	
Winnipeg 11/13/2013	7	Outfitter allocation area; 10 kilometre radius.	Resource/ Land Use		
Ste. Anne 11/14/2013	7	Preference for most easterly route (LUD of Richer).	Resource/ Land Use		
	8				
Winnipeg 11/13/2013	9	Cottage; concerned about opening up the bush to ATVs and hunters.	House		
Anola 11/27/2013	9	Go 2 miles west to avoid private land.	Alignment/ Property		Medium
	10				
Winnipeg, 11/13/2013	11	1.25 miles from ROW. Would not see the line as the home faces east.	House		
	12				
	13				
	14				
	15				

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
Anola 11/27/2013	16	Recently built house; location not on aerial photos.	House		High
	17				
Winnipeg 11/13/2013	18	Outfitter allocation area; 10 kilometre radius.	Resource/ Land Use		
	19				
Steinbach 11/19/2013	20	Move 1.5 miles east to avoid agricultural spraying.	Agriculture/ proposed realignment		Medium
Steinbach 11/19/2013	20	Landowner relies on aerial spraying.	Agriculture/ proposed realignment	Move 2 miles east.	
	21				
	22				
Piney 11/21/2013	23	Concern about public access to right-of-way via his property.	House	Put transmission line on Crown Land.	
NA	24-29				
Steinbach 11/19/2013	30	New residential development in this area.	House		
	31				
	32				
	33				
Piney 11/21/2013	34	Residence	House		
Vita 11/20/2013	34	Cemetery	Infrastructure		
Vita 11/20/2013	34	Proximity to home site, 700 m SE of line. Land value and EMF concerns.	House		
Winnipeg 11/13/2013	34	Outfitter allocation area – 10 km radius for bear and deer.	Resource/ Land Use		
Winnipeg 11/13/2013	34	Outfitter allocation area – 10 km radius for bear and deer.	Resource/ Land Use		
Vita 11/20/2013	34	Wildlife including cougar, bear and wolf. Do not want predators to follow the right-of-way.	Resource/ Land Use		High
Vita 11/20/2013	34	Wildlife including cougar, bear and wolf. Do not encourage predators to follow the right-of-way.	Resource/ Land Use		High
Vita 11/20/2013	34	Segment crosses property close to house; concerned about EMF, health and hindrance to occupation.	House		
	35				
NA	36-39				
Ile des Chenes 11/28/2013	40	Concerns about health, property values, aesthetics and farming.	House/ Resource/ Land Use	Includes Alternative Route Segments 40,41,42 and 43.	High
Ile des Chenes 11/28/2013	40	Agricultural land impacted.	Resource/ Agriculture	Already impacted by St. Vital to Letellier transmission line.	High
Ile des Chenes 11/28/2013	40	Agricultural land impacted.	Resource/ Agriculture	Use existing rights-of-way; reduce costs	High

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
				and impacts on landowners.	
Ile des Chenes 11/28/2013	41	Concerns about health, property values, aesthetics and farming.	House	Includes Alternative Route Segments 40,41,42 and 43.	High
Ile des Chenes 11/28/2013	41	Agricultural land impacted.	Resource/ Agriculture		High
Ile des Chenes 11/28/2013	41	Grain lands; aerial applications annually; splits management unit. Noise and arcing concerns.	Resource/ Agriculture	Follow Alternative Route Segments 3, 5, 6 into the bush.	High
Winnipeg 11/13/2013	42	Not immediately affected. Moved there to be away from transmission lines. Concerned about future development and neighbourhood aesthetics.	House		
Ile des Chenes 11/28/2013	42	Residence - 900 yd. from route segment; and agricultural land.	House and Resource/ Agriculture		High
Anola 11/27/2013	42	Concerned about addition of routes.	House	Property ownership and Hydro corridor width.	
Ile des Chenes 11/28/2013	42	Concerns about health, property values, aesthetics and farming.	House	Includes Alternative Route Segments 40,41,42 and 43.	High
Winnipeg 11/13/2013	42	Location on the half-mile line will impede farming.	House; Resource/ Agriculture		
Ile des Chenes 11/28/2013	42	Grain lands; aerial applications annually; splits management unit. Noise and arcing concerns.	Resource/ Agriculture	Follow Alternative Route Segments 3, 5, 6 into the bush.	High
Ste. Anne 11/14/2013	42	Segment will pass by residence and split farm. Routing on the half-mile is bigger disruption to farming operations.	House/ Agriculture	Alternative Route Segments 4 is preferred.	
Winnipeg, 11/13/2013	43	1.25 miles from ROW. Would not see the line as the home faces east.	House		
Ile des Chenes 11/28/2013	43	Agricultural land impacted.	Resource/ Agriculture		High
Winnipeg 11/13/2013	43	1 ¼ miles east; would not see the line.			
Ile des Chenes	44	1/8 to ¼ mile from house; aesthetics and property values.	House	St. Vital Transmission	

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
11/28/2013				Line	
Ste. Anne 11/14/2013	45	Ditch developed by landowner and Colony, concerned about impacts.	Infrastructure		
Ste. Anne 11/14/2013	45	Management unit of 400 acres would be split.	Resource/ Agriculture		
Ste. Anne 11/14/2013	46	Ditch developed by landowner and Colony, concerned about impacts.	Infrastructure		
Ste. Anne 11/14/2013	47	Owns and rents out Quarter Section.	Resource/ Agriculture		
Winnipeg 11/13/2013	47	Splitting farm on half-mile; aerial spraying and seeding; compensation too low; EMF.	House; Resource/ Agriculture	Bipole III	High
Steinbach 11/19/2013	47	East side is bare. Segment is 97 m from property line. Transmission line on the half mile. EMF and other health concerns. Concerned with view shed and property value.	House	Bipole is one mile west.	High
Ste. Anne 11/14/2013	47	Drainage ditch – would not be able to place transmission line on the half-mile.	Infrastructure		
Ste. Anne 11/14/2013	47	Management unit of 400 acres would be split.	Resource/ Agriculture		
Ste. Anne 11/14/2013	47	North facing, east side semi-open; will be looking at Bipole III.	House		
Ste. Anne 11/14/2013	47	Proximity to Bipole III.	House		
Ste. Anne 11/14/2013	47	Management unit will be split.	Resource/ Agriculture		
Ste. Anne 11/14/2013	47	Segment will be very close, but treed.	House		
Steinbach 11/19/2013	48	MH building on agricultural land.	House/ Agriculture	Use land that has no purpose.	
Ste. Anne 11/14/2013	48	Segment is very close to home.	House	Consider routes north and east.	
Ste. Anne 11/14/2013	48	Should go through the woods not prime farmland, consider the cost.	Agriculture		
Ste. Anne 11/14/2013	48	View shed issues, only moderate shelterbelt.	House		
Steinbach 11/19/2013	49	Future subdivision development; 4 family homes and 4 being developed. Concerned about kids and grandkids. Other developments in the area; 14 existing and 12 planned.	Infrastructure/ Houses		High
Ste. Anne 11/14/2013	49	Alternative Route Segment located ½ mile from residence; a lot of people live in the area.	House		
Ste. Anne 11/14/2013	49	Concerned about any Alternative Route Segment within 2 Km due to EMF – WHO information.	House		
Winnipeg 11/13/2013	50	Some homes along the road; homeowner has no concerns.	House		
Ste. Anne 11/14/2013	50	Health concern	Resource/ Land Use		
Ste. Anne 11/14/2013	50	Purchased land further south to extend grass airstrip.	Infrastructure		
Ste. Anne 11/14/2013	50	Alternative Route Segment runs through property. Very concerned about health effects.	Resource/ Land Use	Did not receive letter or postcard.	

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
Ste. Anne 11/14/2013	50	Already has line on east side and doesn't want line on north.	Resource/ Land Use	Use Alternative Route Segments 3, 5, 6, and easterly.	
Steinbach 11/19/2013	50	Concerned about effects on agriculture - restrictions on land with towers.	Resource/ Agriculture	Far east is preference.	
Steinbach 11/19/2013	51	Concerned about effects on agriculture - restrictions on land with towers.	Resource/ Agriculture	Far east is preference.	
Steinbach 11/19/2013	51	Proximity to residential development; treed in summer, not winter. View-shed	House		
Steinbach 11/19/2013	52	Proximity to residential development; avoid agriculture and residential development.	Resource/ Agriculture	Sole owner of land in Alternative Route Segments #52 and 53.	
Steinbach 11/19/2013	53	Impacts on neighbour's farm.	Resource/ Agriculture		
Steinbach 11/19/2013	53	Proximity to residential development; avoid agriculture and residential development.	Resource/ Agriculture	Sole owner of land in Alternative Route Segments #52 and 53.	
Headingly 11/12/013	54	Grass airstrip	Constraint		High
Steinbach 11/19/2013	54	Not opposed to segment, works land as a whole.	Resource/ Agriculture		
Marchand 11/26/2013	54	Homeowners do not want route in proximity due to nuisance, view-shed, health, wildlife. Located both sides of route segment.	House		
Marchand 11/26/2013	55	Homeowners do not want route in proximity due to nuisance, view-shed, health, wildlife. Located both sides of route segment.	House		
Steinbach 11/19/2013	55	Homeowners			
Steinbach 11/19/2013	55	Feeder barn and rotational cattle grazing.	Agriculture		
Steinbach 11/19/2013	55	HyLife Farms - manure application.	Agriculture Constraint		
Steinbach 11/19/2013	56	HyLife Farms – calving operation and hog barns; manure application.	Agriculture Constraint		
Steinbach 11/19/2013	57	HyLife Farms.	Agriculture Constraint		
Steinbach 11/19/2013	58	HyLife Farms.	Agriculture Constraint		
Steinbach 11/19/2013	58	HyLife Farms – adjacent to hog barns; manure application.	Agriculture Constraint		
	59				
Winnipeg 11/13/2013	60		Resource/ Land Use		
Vita 11/20/2013	60	Run down road allowance. Likes that it would open more land for housing.	Alignment of Route		

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
			Segment		
Vita 11/20/2013	60	House	House		
Vita 11/20/2013	60	Shop	Infrastructure		
Vita 11/20/2013	61	Vet Clinic, lots of animals, concerned about health risks.	Resource/ Land Use		
Steinbach 11/19/2013	61	HyLife Farms	Agriculture Constraint		
Vita 11/20/2013	62	Proximity to route segment.	House		High
Vita 11/20/2013	62	Four acre lot; proximity to Alternative Route Segment.	House		High
Vita 11/20/2013	62	Home in proximity to Alternative Route Segment.	House		High
Vita 11/20/2013	62	Church in proximity.	Infrastructure		High
Vita 11/20/2013	62	Pasture for 70 head of cattle.	Resource/ Land Use		Medium
Vita 11/20/2013	62	Many birds of prey in the area; seen lynx and other animals.	Sensitive Site		Low
Vita 11/20/2013	62	Parallel road not middle of the field.	Agricultural		
Vita 11/20/2013	62	Concerned - a lot of farming.	Agricultural	Sandilands preferred.	
Vita 11/20/2013	62	Aesthetic concerns.	House	60 preferred.	
Vita 11/20/2013	63	Proximity to house.	House		High
Vita 11/20/2013	63	Proximity to house.	House		High
Vita 11/20/2013	63	Gardenton Floodway.	Constraint		Low
Vita 11/20/2013	63	Access to dyke recreation area (kayaking and skiing). Communications and health concerns. Don't want to deter wildlife.	Resource/ Land Use		
Vita 11/20/2013	63	Many birds of prey in the area; seen lynx and other animals.	Sensitive Site		Low
Vita 11/20/2013	63	Aesthetic concerns.	House	60 preferred.	
NA	64-69				
Steinbach 11/19/2013	70	Route will add to the impact of other projects. GPS and aerial application concerns.	Resource/ Land Use	House and barn on property.	
Steinbach 11/19/2013	70	Landowner opposed.	House	Opposed to Bipole III.	High
Steinbach 11/19/2013	70	Opposed to MMTP.	House	Opposed to Bipole III.	High
Ile des Chenes 11/28/2013	70	Livestock operation, stray voltage concern.	Resource/ Agriculture		High
Ile des Chenes 11/28/2013	70	Health, aesthetics, property value.	House		High
Ile des Chenes 11/28/2013	70	Proximity, property value, capability to subdivide, view-shed, trees and aesthetics, EMF.	House	Too dense an area for a line.	High
Ile des Chenes	70	Proximity to house. View-shed; property value, EMF.	House		

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
11/28/2013					
Ile des Chenes 11/28/2013	70	Density of existing and proposed transmission lines.	House	Use existing transmission line corridors.	
Ile des Chenes 11/28/2013	70	Bee keeping site.	Sensitive Site/ Agriculture		
Ile des Chenes 11/28/2013	70	Closeness to home; noise from the line and health concerns; aesthetics of the line; wildlife; property value.	House	Like to see Hydro rates decrease due to export sales.	High
Ile des Chenes 11/28/2013	70	Property values; health, safety and noise; wildlife.	House		High
Ile des Chenes 11/28/2013	70	Health concerns.	House	Go far east to avoid homes and agricultural land.	
Ile des Chenes 11/28/2013	70	590 m from house.	House		Low
Ile des Chenes 11/28/2013	70	Residence; route segment is splitting up land that is worked.	House/Agriculture	Too many lines in this area.	High
Ile des Chenes 11/28/2013	70		House	Density of transmission lines in area.	
Steinbach 11/19/2013	70	Dairy farm operation.	Agriculture		Medium
Ste. Anne 11/14/2013	70	Possible expansion of lagoon south of Lorette.	Infrastructure		
Ste. Anne 11/14/2013	70	Residence treed in and main view southward.	House		
Ste. Anne 11/14/2013	70	Along old PTH 12 – future industrial development may go north of town, near the old highway.	Resource/ Land Use		
Ste. Anne 11/14/2013	70	Future area for residential development north of the river.	House		
Ste. Anne 11/14/2013	70	Substantial tree buffer.	House		
Steinbach 11/19/2013	71		House		
Ste. Anne 11/14/2013	71	New house, view concern 0.8 miles to the east.	House	Just built to avoid Bipole III.	
Ste. Anne 11/14/2013	71	Renter concerned.	House		
Ste. Anne 11/14/2013	71	Avoid agricultural lands and residential areas; highly subdivided area - health concerns, humming noise.	Agriculture/ Land Use		High
Ste. Anne 11/14/2013	71	Excellent farmland already split by rail line.	Resource/Agriculture		
Ste. Anne 11/14/2013	71	No concerns	House		
Ste. Anne 11/14/2013	71	Proximity to residence, concerns about health and property values.	House	Segment 50 is preferred.	

Location and Date	Route Segment	Description of Concerns	Issues and Concerns	Notes	Ranking (by respondent)
		Neighbour considering subdivision to the north.			
Ste. Anne 11/14/2013	71	Segment is not acceptable. Has 80 acres. Leave all agricultural lands alone – makes it too hard for farmers.	Agriculture/ Land Use	Segment 50 is preferred. Further east is best.	
Steinbach 11/19/2013	72	Campground of Lilac Resort. It's like a small town.	Infrastructure/ Land Use		High
Ste. Anne 11/14/2013	72	Do not use segment, health concern.	Resource/ Land Use		
Ste. Anne 11/14/2013	72	Lilac Resort – prefer route through landowners River Lot.	House		High
Steinbach 11/19/2013	73		House		
Steinbach 11/19/2013	73	Yard site, facing west.	House		
Steinbach 11/19/2013	73	Already a small site; triangle to start with, more obstructions.	Resource/Agriculture		High
Steinbach 11/19/2013	73	Only clear view is down the driveway; (towers) are ugly.	House		
Ste. Anne 11/14/2013	73	Excellent farmland already split by rail line.	Resource/ Agriculture		
Ste. Anne 11/14/2013	73	Uses temporary electric fencing. Is this a concern?	Resource/ Agriculture	Grazes cattle on 90 acre river lot.	
Ste. Anne 11/14/2013	73	Alternative Route Segment is not acceptable. Has 80 acres. Leave all agricultural lands alone – makes it too hard for farmers.	Agriculture/ Land Use	Alternative Route Segment 50 is preferred. Further east is best.	
Steinbach 11/19/2013	74		Resource/Agriculture		
Steinbach 11/19/2013	?	Concerned about effects on agriculture - restrictions on land with towers.	Resource/Agriculture	Far east is preference.	
Ile des Chenes	General		Alignment information	Final Bipole III route.	

5.4.5 Summary of Issues and Concerns

The following summary includes location-related comments from the POH Comment Sheets and the Map Stations. Since comments may come from the same sources, two numbers are typically provided, the first from the Comment Sheets, the second from the Map Station information. Some respondents had multiple issues and concerns and theses were noted individually. For example, typically issues related to the proximity of an Alternative Route Segment to a house would also relate to issues of health, EMF, safety, views and property values.

Issues and concerns included:

5.4.5.1 Urban Centre and Residential Issues and Concerns

- Concerns about the proximity to residences or to highly populated areas, such as towns and villages, along one or more of the Alternative Route Segments for the MMTP transmission line (36 and 31 comments). Some respondents noted that they were intending to build on land in proximity to one of the Alternative Route Segments, or subdivide (2, Map Station comments). Some were

concerned about impact on future development "expanding commercial and residential" (4, Map Station comments) and the overall economic future of a community. The Lilac Resort was noted to be "like a small town" (2, Map Station comments).

- Concerns about health and safety (18, Comment Sheets, and 18, Map Stations comments) were primarily related to Alternative Route Segments' proximity to residences. EMF issues were noted a number of times (11, Map Station comments), as well as safety concerns (2, Map Station comments), such as farm machinery operation and the potential for children climbing towers. Owners of the Lilac Resort with "hundreds of permanent campsites" as well as permanent residences were very concerned about health and safety issues and asserted they had a right "not to be put in harm's way".
- Noise or "humming of the lines" (6, Comment Sheets, and 3, Map Station comments) included one respondent concerned about proximity to a horse boarding operation. Another respondent was concerned about the impact of transmission line noise on an autistic child.
- Concerns about property values or devaluation of properties in proximity to a transmission line (15, Comment Sheets, and 11, Map Station comments). Two additional comments related to loss of property that was primarily bush land. A number of respondents suggested that their properties had been devalued if they wanted to sell because they would have to divulge the fact that a Hydro line might be constructed nearby. One asked about monetary compensation to landowners.
- Concerns about views or aesthetics (6, Comment Sheets, and 20, Map Station comments), typically linked, included one respondent concerned about proximity of the transmission line to a horse boarding operation.
- Use of underground lines was suggested by two respondents in Comment Sheets and one for the Map Stations.

5.4.5.2 Other Land Use Issues and Concerns

- Concerns about municipal infrastructure included: proximity to landfills (Lorette, Ile des Chenes), existing lagoons (Lorette and Ile des Chenes) or proposed lagoon expansions (6), including the Kleefeld lagoon.
- Other Land Use concerns included: proximity to a school (Shevchenko School, 3, Comment Sheets); church (1, Map Station comment) and a cemetery (2, Comment Sheets, and 1, Map Station comment), Gardenton Floodway (2, Map Station comments) and drainage ditch (2, Map Station comments).
- Also noted as potential issues and concerns in the Map Stations (1 each) were: a shop, veterinary clinic, and dike recreation area in the Vita area, and a grass airstrip on the Southern Loop.

5.4.5.3 Agricultural Issues and Concerns

- Concerns about keeping the alternative routes away from prime farmland/agricultural land (26, Comment Sheets, and 37, Map Station comments). This included people opposed to having a transmission line on their land. Respondents also mentioned a beekeeper (1, Map Station comment), berry farm and livestock in this context. One respondent noted that it was difficult to operate agricultural equipment around Hydro towers. Another said: "Avoid splitting agricultural lands to reduce costs to farmers going around the lines". Only one Map Station comment related to GPS use.
- There were concerns at the Map Stations about livestock and stray voltage (1), proximity of a route segment to a dairy operation (1), and multiple concerns from HyLife Farms (for various Alternative Route Segments) about a feeder barn, calving operation, cattle grazing, hog barn, and manure application.
- Informants suggested that the transmission line should stay on more marginal land, particularly as far east as possible, and in Crown Land, forest and wetland areas. Comments included "stay east

of Piney", "forested and natural land". Staying to the east was mentioned 22 times in Comment Sheets, and 7 times in Map Station comments; staying in marginal areas, 10 in Comment Sheets, including "Go through the Sandilands", and one in Map Stations, and Crown Land (5, Comment Sheets and 1, Map Station comment). One respondent noted that wildlife would find it easier to migrate than humans.

- Aerial spraying was noted by two informants in POH Comment Sheets and 7 at Map Stations. One said that "inability to use aerial applicators can wipe out our crop".
- One person noted concerns about overland flooding in a Comment Sheet; three indicated concerns along a drainage ditch and the Gardenton Floodway at Map Stations.
- There was a concern at a Map Station that "compensation is low".

5.4.5.4 Infrastructure

- Informants thought transmission lines should parallel existing Hydro or natural gas lines (6, Comment Sheets, and 2, Map Station comments), be in straight lines "most direct route" (2 Comment Sheets), or parallel road rights-of-way or major highways (2, Comment Sheets, and 1, Map Station comment).
- Two informants (Comment Sheets) wanted the transmission line to stay along mile roads or did not like half-mile alignments. Fifteen people at Map Stations were concerned about alignments on the half-mile, particularly concerns with impacts to agricultural operations.
- One informant (Comment Sheet) indicated that they would be "sandwiched" between two major lines, including Bipole III (4 comments at Map Stations). Five people at Map Stations were concerned about multiple transmission lines on or near their properties, including the proposed St. Vital Station to Letellier Station transmission line.

5.4.5.5 Natural Environment and Recreational Issues and Concerns

- Concerns were expressed about public access to the transmission line corridor, particularly by four by fours, ATVs and snowmobilers by informants (5, Comment Sheets, and 3, Map Station comments), who were also concerned about hunting. Informants included lodge owners, two landowners and a cottager.
- Concerns were expressed about protection of "the large tract of highly productive" wilderness between the TransCanada Highway and PTH 15, and wildlife, including birds of prey and large predators (6, Comment Sheets, and 10, Map Station comments). There was concern about a linear corridor fragmenting forest lands and impacts on Black Bear and White-tailed Deer populations. One informant said: "Do not adversely affect the boreal forest as Sandilands is known for endangered species". Another suggested: "Need protocols to reduce right-of-way impacts on forests and wildlife". "MLOA would prefer that Manitoba Hydro construct the transmission line west through more built-up areas." "Mitigation for any transmission line construction in the area would need to include access restrictions to ensure the transmission line corridor does not become an ATV and off-road corridor or local hunting ground. These activities scatter wildlife. Once built, provide mitigation measures to restrict access" Two Map Station comments from outfitters indicated that there should be a 10 kilometer radius around lodges.
- One informant said to avoid waterways and rivers as much as possible.
- One informant said "routes that go furthest east go through some of the remotest and most pristine wilderness in southeast Manitoba".

5.4.5.6 Economic Issues and Concerns

- There were a number of comments about the economic benefits of the proposed transmission line:

  - The project will bring employment to local people and revenue to the Province, and it will assist Manitoba Hydro to maintain low hydroelectric rates in comparison with other areas of Canada.
  - Agree with developing more electricity for sale.
  - This is a good project for Manitoba.
  - Waiting for more information in 2014.
- Other respondents were unhappy with the project:
  - It is criminal to recklessly spend dollars on a project without a market, independent funding or public support.
  - Project will cost Manitobans and I see no benefit to us. Don't believe it is proven that there is a sale after Manitobans have spent so much on this project.
  - Long-term viability of hydro-electric power exports.
  - Don't build it if you don't need it.
  - Why are we sending power to Minnesota with all the cheap gas they are fracking?
  - What does it matter! You've made up your mind.
  - Cost impacts Manitobans for a considerable length of time. Choices made today should be made with care. Bottom line should be protection of humans and environment we live in. Please do not sacrifice the health of future generations for monetary ends.
  - Do not feel comfortable with the project due to historical background of Hydro in dealing with communities – hope concerns taken seriously.
- Other issues noted along proposed Alternative Route Segments included:
  - Recreational areas – Sandilands Ski Trails.
  - Many places are *homesteads and historical landmarks*, a transmission line would "greatly impact the heritage of the area".
  - Minimize AC line losses.

5.4.5.7 Realignment Requests and Preferred Routes

Map Stations

- Suggested that Alternative Route Segment 20 be realigned 2 kilometers to the west.
- Suggested that Alternative Route Segment 23 be straightened.
- Alternative Route Segments 4 and 60 were mentioned twice as preferred, and Segment 6 was mentioned as preferred once, alone, and once in conjunction with Segments 3 and 5.

Comment Sheets

- Three informants suggested complete routes to the east using Alternative Route Segments 3, 5, 6, 17 (once), 18, 19, 20, 21, and 23.

6 Manitoba Hydro Email and Telephone Line

6.1 Summary of Round 1

As summarized in Table E-1 in Appendix E, 74 emails and telephone calls were received by/or sent out by Manitoba Hydro between June 29, 2013 and January 27, 2014.

Many of the telephone calls were requests for specific project/route information, although some callers expressed strong opposition to the project or to the locations of specific Alternative Route Segments

6.1.1 Location Specific Comments

The following location-specific comments were derived from the records of email and telephone communications between members of the public and Manitoba Hydro staff. Note that emails and calls from Stakeholder Groups are included in the Section 3.

Table 6-1: Location Specific Comments from Email and Telephone Communications

Method of Contact	Alternative Route Segment	Location Specific Comments
Email	10	In 1979/80 a 500 kV line was run through his Quarter Section north of Sprague taking 17 acres. Should he be worried about this one? [Approx. 4.5 miles from Alternative Route Segment 10].
Phone	70	Lives on PTH 59. Would prefer no agricultural interference as it is a hassle to work around. Wanted to know type of towers to be used and average span. Discussed the compensation policy for landowners.
Email	70	Landowner on Oak Grove Road concerned where the power line will be located and if towers would be going on his land. From what he can see on the map provided by Manitoba Hydro it is going to run right through his house. Hydro response: in relation to Oak Grove Road, one of the alternatives will be located 1/2 mile north of the road and will travel towards "23 Rd" and then south, east of that road. The alternatives are preliminary and will be further refined based on feedback to progress to a preferred route.
Phone	50	Wanted information of the Project. He owns land north of Richer. The current route alignments do not affect his parcel. Alternative Route Segments follow the existing transmission line in his area. No concerns were raised.
Email	n/a	Transmission line should follow a route that goes straight east to the Ontario border then south: don't need more farmland and family homes impacted.
Email	61	Landowner 4 miles south of Zhoda requested more details as to where the line would run. It appears the line would run down Wells Road South. Requested a better map indicating where it would run; he has 80 acres just west of Wells Road South. Hydro provided the landowner a snap shot of the area from Google Earth near Zhoda, where there are currently two alternatives. Landowner would object to the line running so close to his house, as it would cause the value of his home to drop drastically. This is a new home and he will be forced to relocate if this line goes through his property.
Phone	30	Wanted to know where the proposed line was in relation to Woodridge. It appears to be located 3.5 miles from her homestead. Noted there is cancer in her family and she does not like transmission lines. Discussed EMF and the process to determine a preferred route.
Phone	n/a	Lives on Forbes Road and wanted to know how close the line would be. Indicated that for both St. Vital and MMTP the lines would be just under a mile south of his home.
Email	70	Property in Grande Pointe is affected by route proposed for the St. Vital Transmission Complex. Oppose this plan as it would devalue our property. Neighbour is also impacted and very concerned.
Phone	0	Wanted to meet to discuss the project. Own the land which the 2 lines are going in relation to Oak Bluff. She was not upset but noted she owned a quarter-section and has two lines already. Noted it would be easement but she stated it may be better to purchase. She will follow up with times.
Phone	See above	Emailed earlier and was sent a map of his parcel in relation to Zhoda. He is concerned with how close this would be in relation to his home (280m). He believes it would devalue his home. He sent a follow up email also stating the above.

Method of Contact	Alternative Route Segment	Location Specific Comments
Phone	54	Caller cannot be near any magnetic interference: can pass under but cannot be in proximity for any length of time due to an ICD, which is sensitive to magnetic fields. He was really worried about how this would affect him; he would have to move. He would accept the proposed location of the line if Manitoba Hydro bought his home, and he would then gladly leave.
Phone	n/a	Caller lives in proximity to Whitemouth Lake Road. Wanted to know where the line is located in relation to the road. The route should avoid agricultural lands where possible.
Email	63	Request to be kept up to date regarding project. Owns a half section of land that the proposed line may be going through located south of Vita. The Arbakka dam is located on this property. The Roseau River divides at this location.
Email	51, 52, 53	Owns a large portion of land identified on the Alternative Route Segment. Crop land, involves praying for weed control and manure pumping practices. Does not accept the proposed segment.
Email	60	Section has been in the family since February 4, 1942. Owner does not want some ugly Hydro Transmission line running through our property for the following reasons: 1) It affects the property value. Who wants to purchase a piece of land, (if he decides to sell) that has huge, ugly towers running through it? 2) It affects farming practices and operations. Large amounts of electricity have been known in the past to affect crops and vegetation growth near and around the high voltage power lines, cutting yields and income. 3) He would sustain future lost revenue from wood sales if those lines required the bush on the property to be cut down. 4) He is proposing to build a small “get away” cottage on that property in the future that is “off the grid”. Transmission lines would have a negative impact on those plans. 5) Having Transmission Towers affects aerial crop spraying. There would be no way that could be continued, affecting crop yields, in turn affecting income. With all that being said, run the transmission line on an alternative route.
Email	2, 41, 42	I am writing to express my concerns over several of the proposed/alternate routes. Being a resident of the Hamlet of Prairie Grove, I am obviously concerned with the two routes passing in close proximity to my community. I presume that most concerns expressed during the recent rounds of public meetings are from residents concerned about the lines passing close to their homes and communities. I don't hold my home or community higher in value or priority than any other. I would simply request that the transmission lines pass through areas with the least amount of interference with communities and personal residences. When consulting the Alternative Routs map, it would appear that several options are available which give a wide berth of major population areas (i.e. The more North and Eastern Alternative Routes). I also realize that cost and accessibility are major factors but ask that in whatever route is eventually chosen, the impact on homes and communities be given priority over other financial considerations.
Email	8, 9, 19, 20	The routes proposed east of Woodridge and St. Labre are unacceptable. There are already two transmission lines passing between St. Labre and Woodridge that litter the landscape with huge towers, cut huge paths through the forests, as well as cancer causing EMR emanating from these unsightly disgusting lines we have to look at every time we go home. The lines you are proposing come dangerously close to where I live and I will not for one second let you pass these landscape destroying, cancer causing, forest destroying hydro lines anywhere near my property. I am appalled at the fact that Manitoba Hydro keeps selling all our resources to the U.S.A. telling us it will lower our rates when in fact they keep going up.

7 Summary of Round 1 Public Engagement Process Feedback

7.1 Profiles of Participants

Participants in Stakeholder Group Workshops (7) and POHs (313), along with feedback from KPIs (34) totalled 364 people, although some may have been double counted because they attended more than one event/activity (e.g. KPI and Workshop, or Workshop and Open House). On the other hand, newspaper advertising, newsletters and other advertising, as well as the Manitoba Hydro Website reached thousands more people to inform them about the project (see Sections 3.2.1 and 5.2.1).

7.2 General Comments on Effects of Transmission Line Construction and Operation

7.2.1 Agricultural

A significant number of concerns about the transmission line were related to agriculture. Many comments included discussion of potential adverse effects of transmission towers and lines on agricultural land use and operations, including:

- Loss of valuable land for agricultural production.
- Operating farm equipment around towers.
- Aerial spraying of crops.
- Manure spreading.
- Impacts on livestock, particularly horses and dairy cattle.
- Impacts on beekeeping.
- Impacts on GPS units used in farming.

7.2.2 Built Environmental

Impacts on the built environment related to impacts on urban centres (cities, towns and villages), rural residential clusters, and individual houses. Concerns included:

- Proximity to residences, related primarily to impacts on property values.
- Proximity to residences, related to health, safety and noise.
- Aesthetics of towers close to residential development, impact on view-shed.
- Proximity to future residential and commercial development areas.
- Proximity to landfills and lagoons.
- Proximity to schools.
- Proximity to cemeteries.

7.2.3 Natural Environmental

There was concern about the impact of the project on a range of environmental aspects, including:

- Natural forest areas, particularly wilderness areas with significant wildlife species.
- Access along transmission line corridors allowing hunters, ATV users, skiers and others to disrupt forest ecosystems.
- Birds, including notes about impacts on wildfowl staging.
- Endangered species.
- Preservation of private woodlots.

7.2.4 Health – EMF

The majority of health concerns expressed were regarding EMF affecting humans. There was also concern about EMF impacts on farm animals, particularly horses.

7.2.5 Heritage

Heritage issues were noted but did not appear to be of significant concern. The Winnipeg Ridge was noted as a potential archaeological zone, and heritage farms were mentioned.

7.2.6 Socio-economic

City, Municipal and Business and Industry Stakeholder Groups, in particular, noted the beneficial effects of a more secure power supply on their operations, and growth.

Impacts on wilderness habitats supporting outfitters were also noted as a concern.

Power sales to the USA were viewed both positively and negatively.

7.3 Potential Mitigation Measures and Management Strategies

Participants were asked to identify potential mitigation strategies to minimize potential effects of the Project. Strategies proposed by KPI and Workshop participants, and POH attendees, emphasized avoidance, particularly of urban centres and residences. Potential mitigation strategies brought forward for consideration included:

- Avoid urban centres and rural residential development and future residential and agri-industrial areas.
- Minimize impact on agricultural land through co-location with existing Manitoba Hydro rights-of-way, and locating transmission line corridor in non-productive areas.
- Follow existing transmission line corridors.
- Follow existing highways and roadways, and undeveloped right-of-way.
- Reclamation should use native species.
- Use bird diverters in specific area and establish clear space further from the line.
- Avoid livestock, particularly dairy farm operations.
- Control access to transmission line rights-of-way in wilderness areas.
- Work with municipalities to determine impacts on municipal roads.

Management strategies recommended by the public included addressing noxious weeds through a potential management strategy that would meet requirements by the *Noxious Weeds Act* for weed control.

7.4 Summary of Public Engagement Feedback by Segment

AECOM quantified Public Engagement input to assist in the development of a framework for evaluation of public feedback as it related to the Transmission Line Routing Process, using a 1 to 3 (Best to Good) ranking system.

Feedback collected through the PEP blends information related to issues and concerns, constraints and opportunities, and preferences obtained from KPI summaries, Stakeholder Group Workshops, POH events, emails and telephone calls.

7.4.1 Data Related to Transmission Line Routing

Following a review of methodologies used in similar types of projects in Ontario and BC, AECOM decided to use only those concerns and/or preferences that were explicitly indicated as applying to particular Alternative Route Segments, using all sources of Stakeholder Groups and public feedback. For each Alternative Route Segment, including additional segments proposed by Public Engagement participants, information was tabulated related to the following:

- Location, existing or new segment designation.
- Issues and concerns, with a high, medium or low rating.
- Constraints, with a high, medium or low rating.

The following criteria were used to address multiple variables in the Public Engagement data using a common approach or scale. The criteria emphasize the following:

- Overall numbers of positive or negative responses received for each Alternative Route Segment (preferences).
- Scale, or importance of the issues and concerns identified, sorting for larger and/or more strategic concerns.
- Consideration of mitigation potential.

7.4.2 Ranking Scale

Ranking was based on a scale of 1 to 3, as described in Table 7-1.

Table 7-1: Ranking Scale

Rank	Criteria
0	Minimal Concerns – Very Preferred
1 Low	Positive Congruence – Preferred • A majority of the Stakeholder Groups and public responses regarding the Alternative Route Segment were positive, indicating a preference for that segment • Few concerns were expressed, and those were generally only at a local (e.g. individual property) level; very few Medium level concerns • Concerns could be easily mitigated
2 Medium	Mixed Perspectives – Potential • Perspectives about the Alternative Route Segment were mixed, with a significant number of Low or Medium level concerns, generally at the local level, or • Moderate number of High level concerns, related to issues of a broader importance or higher significance • Most concerns identified could be mitigated at a moderate level of difficulty or cost
3 High	Multiple Concerns – Not Preferred • Majority of responses were concerns, with a large number of Medium scale issues expressed, or • A significant number of High level, major, strategic concerns were expressed • Most concerns identified could only be mitigated by incurring substantial difficulties and costs
3.5 Very High	Multiple/Significant Concerns - Least Preference • At least one concern defines the Alternative Route Segment as one of “Least Preference” or a very large number of High level concerns were expressed • Due to legislated or other specific requirements the segment should not be used for construction of a power transmission line • Mitigation would include abandoning or relocating the Alternative Route Segment

7.4.3 Thresholds and Rankings

For some of the Route Segments there was a good correspondence between the different data sources, providing either a strong positive or negative correlation; for others there was minimal correspondence or congruency.

Table 7-1: Ranking Scale provides a summary of rankings obtained from the various Stakeholder Groups and public engagement venues. Each Segment is given a cumulative ranking of 1, 2, 3 or 3.5 (Preferred, Potential, Not Preferred or Least Preferred) depending on their aggregate "score". Rankings were based on consideration of both the numbers and levels of importance for the issues and concerns identified in various PEP activities. In order to prioritize the 59 Alternative Route Segments the following thresholds were set relating to the criticality and frequency of the concerns.

Table 7-2: Thresholds

Ranking	Minimum Thresholds (frequency of mention) = OR >	Overall Rating
Area of Least Preference	Overriding Concern	**3.5**
High Level Concerns	20+ H Concerns	
High Level Concerns	6+ H Concerns	**3**
High and Medium Level Concerns	5 H+ 3M Concerns	
High, Medium and Low Level Concerns	4H + 2M + 4L	
High and Low Level Concerns	5H + 12L Concerns	
Medium Level Concerns	24M Concerns	
Medium and Low concerns	9M + 12L Concerns	
High level concerns	5H Concerns	**2**
High and Medium level concerns	4H + 3M Concerns	
High and Low level concerns	4H + 12L Concerns	
High, Medium and Low level concerns	3H + 3M + 4L	
Medium level concerns	15M Concerns	
Medium and Low level concerns	14M + 4L Concerns	
Low level concerns	20L	
High level concerns	1H to 2H	**1**
High and Medium level concerns	1H + 3M	
High and Low level concerns	2H + 2L	
High and Low level concerns	1H + 12L	
Medium level concerns	8M	
Medium and Low level concerns	7M + 4L	
Low level concerns	19L	
Medium level concerns	1M	**0**
Low level concerns	3L	
No concerns	-	

7.4.4 Potential Issues and Concerns, and Mitigation Factors

KPI, Workshop/Meeting and Public Open House participants had various ideas as to what constituted significant issues and concerns related to Manitoba Hydro transmission line locations. Some participants explicitly ranked issues and concerns as Low, Medium and High. Potential mitigation measures, relating to the transmission line or the environment, identified by the public, KPIs, and Stakeholder Groups included:

- Avoidance.
- Relocation.
- Engineering.
- Environmental.
- Compensation.
- Relocation.

Table 7-3 was developed to assist in evaluating comments related to alternative route segments based on Stakeholder Groups and public comments (including issues, concerns and suggested mitigation), as well as the ranking scale in Table 7-1 interests of the public.

Table 7-3: Potential Issues and Concerns, and Mitigation

Level of Concern	ID	Issues and Concerns	Suggested Public and Stakeholder Group Mitigation	Additional Notes
VERY HIGH (3.5) Least Preference	VH1	Wildlife Management Areas, existing or potential Protected Areas /Ecological Reserves.	Avoid because Manitoba Hydro transmission infrastructure is prohibited by statute.	Stakeholder Group meetings and briefs from PAI and Provincial Wildlife, Parks and Natural Areas, Forestry Branches.
	VH 2	Land Claim areas.	Avoid Federal Lands.	KPI
	VH3	Crossing and paralleling TransCanada Pipelines pipeline.	Avoid where possible.	Stakeholder Group input from TransCanada Pipeline.
HIGH (3) Significant frequency/ number of concerns **and/or** Costly relocation or avoidance is primary mitigation approach	H1	Close proximity to an urban centre (city, town, village), subdivision (including seasonal residential, rural residential), or close to a cluster of three or more residences.	Avoid/minimize alignments near residential development areas. Maintain min. distance of 75m from such development.	KPI, Workshops, and POH Map Stations; 106 rankings in POH Comment Sheets, 57 noted as #1 concern (Table 5-2).
	H2	Close proximity to livestock operations; tingle voltage concerns.	Avoid /minimize extent of alignments near dairy farms. Maintain distance of 100m from dairy farms (farmers desire 5 miles or 8 km).	KPI, Workshops, Comment Sheets and Map Stations.
	H3	Aerial applicator landing strip location.	Avoid aerial applicator landing strips by at least one mile or 1.6 km. Avoid alignments crossing landing strip glide paths.	KPI, 2 notes in POH Comment Sheets and 7 at Map Stations.

Level of Concern	ID	Issues and Concerns	Suggested Public and Stakeholder Group Mitigation	Additional Notes
	H4	Other major constraints • School • Day Care • Veterinary Clinic • Shops	Avoid these features.	Workshops, POH Comment Sheets and Map Stations. Veterinary Clinic consistent with H2. Others with H1.
	H5	Crown Land with Forestry Sample Plots.	Avoid. Forestry requires no net loss.	Forestry meeting and comments.
MEDIUM (2) Mixed Perspectives Avoid if possible; mitigation, including relocation, is less costly	M1	Prime agricultural land taken out of production; loss of land value.	Minimize footprint of transmission lines on agricultural land. Follow half-mile or Quarter-section line.	KPI, 79 rankings in POH Comment Sheets, 28 at #1 (Table 5-2); 37 Map Station notes.
	M2	Agricultural operations; minimize splitting farmer's lands; aerial spraying concerns, pivot irrigation concerns.	Minimize transmission lines in areas of aerial application. Minimize transmission line alignments in areas with productive agricultural land. Use free-standing towers in agricultural areas.	KPI, Relates to M1, above.
	M3	Manure management considerations; Manure application.	Avoid areas with manure spreading. Minimize tower locations in manure management areas.	KPI, POH Map Stations (Relates to M1, above).
	M4	Close proximity to a (single) residence; human health concerns / EMF; humming noise.	Avoid or relocate residence. Minimize lengths of lines in proximity to residences.	KPI (Relates to H1, above), POH Comment Sheets, 37 mentions, plus 18 Health and Safety; POH Map Stations, 31 mentions, plus 18 Health and Safety.
	M5	Farmstead locations.	Avoid or relocate farmsteads. Minimize lengths of lines in proximity.	(Relates to M4, above)
	M6	Many corners (in route segments), more land impacted.	Avoid right-angle turns in lines.	Length has 29 and Cost, 42 rankings in POH Comment Sheets (Table 5-2).
	M7	Municipal infrastructure locations, including landfills and lagoons.	Avoid municipal landfills and lagoons. Minimize lengths in proximity to these features.	KPI, Workshops, POH Comment Sheets and Map Stations.
	M8	Endangered species habitat / WMA /Protected Areas.	Avoid /minimize alignments near Eco-reserves, WMA or Protected Areas.; stay 1 mile (1.6 km) away. Work with provincial agencies and NGOs to determine appropriate routing in areas proposed as areas for habitat/species protection.	Letters from PAI and Parks and Protected Areas. Meetings with Manitoba Conservation and Water Stewardship and Nature Conservancy.
	M9	Impact on native plant species and wildlife/wildfowl habitat, including wetlands, bogs and forest.	Avoid ecological and protected areas Minimize alignments in near protected areas.	Wildfowl has 41 and Wetlands, 44 rankings from POH Comment Sheets (Table 5-2), also 15 concerns mentioned about wildlife and 15 for bush loss; 10 concerns at POH Map Stations.

Level of Concern	ID	Issues and Concerns	Suggested Public and Stakeholder Group Mitigation	Additional Notes
	M 10	Century farms and historic sites, churches and cemeteries.	Avoid historic sites, churches and cemeteries.	39 rankings in POH Comment Sheets regarding Historic Sites (Table 5-2).
	M 11	Avoid resorts.	Where possible route away from resort areas.	Workshops and Comment Sheets. Resorts can include all-year round residences.
	M 12	MIT rights-of-way may be constrained by roads and utilities expansion plans.	Avoid or minimize lines along PTH 75. MIT to complete functional study of PTH 59 and 52. Minimum paralleling of existing Provincial Roads and Highways.	Workshops
	M 13	Pasture land.	Avoid if possible; concerns about disease.	POH Comment Sheets; MAFRD.
	M 14	Pipeline crossing.	AC studies and mitigation required.	Stakeholder Group email.
	M 15	Municipal roads.	Minimize construction traffic..	Stakeholder Group Meetings/Comment Sheets.
LOW (1) Avoid if possible; various approaches to mitigation	L1	Loss of woodlots.	Minimize locations impacting private woodlots.	Workshops (2);email and telephone communications.
	L2	Impacts on waterfowl.	Use bird diverters in specific areas; provide more clearance to the line. Avoid east-west alignment of towers.	KPI
	L3	Concerns about views and aesthetics, particularly residential.	Locate lines to minimize exposure to residential, heritage and recreational areas.	KPI, Workshops, Comment Sheets – 6 and 4 mentions.
	L4	Transmission line alignment should be in a straight line/ parallel rights-of-way.	Parallel linear infrastructure alignments Minimize turns.	Parallel existing transmission lines - 75; Length - 29, and Cost - 42 rankings in POH Comment Sheets (Table 5-2), also KPI and Workshops.
	L5	Concerns with highway crossings.	Minimize highway crossings.	Workshops
	L6	Noxious weeds/invasive species in transmission line right-of-way; bio-security issues.	Follow Noxious Weeds Act for control of weeds.	KPI.
	L8	GPS impacts, affects farm practices.	Avoid if possible.	KPI.
	L9	Access for ATVs and hunters.	Signage and other controls.	POH Comment Sheets.
	L 10	Other • Future subdivision/development • Future landfill • Lagoon expansion. •	Avoid if possible.	POH Comment Sheets.

Level of Concern	ID	Issues and Concerns	Suggested Public and Stakeholder Group Mitigation	Additional Notes
PREFER-RED (-1)	P1	Existing Transmission Line Corridors.	Follow if possible.	KPI. Workshops, Open Houses; 75 rankings in POH Comment Sheets (Table 5-2), 16 as #1.
	P2	Existing Undeveloped Roadways.	Follow if possible.	KPI. Workshops, Open Houses; 51 rankings in POH Comment Sheets (Table 5-2), 7 as #1.
	P3	Existing Highways or Roads.	Follow if possible.	KPI, Workshops, Open Houses; 50 rankings in POH Comment Sheets (Table 5-2), 3 as #1.
	P4	Existing Drainage Ditches.	Follow if possible.	KPI. Workshops, Open Houses; 32 rankings in POH Comment Sheets(Table 5-2), 2 as #1.

7.4.5 Potential Opportunities and Benefits

Another metric, used to offset minor or medium level issues and concerns, was whether the route provided benefits to the surrounding community, over and above improved capacity and reliability of electric power supply.

Benefits identified included:

- Potential bike path or trail (such as the Trans Canada Trail, Crow Wing Trail).
- Reduced footprint on agricultural land due to co-location with Municipal or Provincial Roads, or Highways.

7.4.6 Summary of PEP Route Segment Rankings

The distribution of rankings based on the thresholds defined in Table 7-4 is shown below:

Table 7-4: Distribution of Rankings Based on Thresholds

Ranking	Number in Rank
0	14
1	12
2	13
3	9
3.5	11
Total	**59**

Table 7-5 is organized by Alternative Route Segment numbers and provides a cumulative ranking for each of the 59 Alternative Route Segments on a scale of “0”, best – typically with only Preferences, to “3”, good. A “3.5” - “do not use” - ranking was also used for those segments with one or more Very High concerns. The table provides information on the numbers of comments received in Workshops/Meetings (including

mail in comments), Open House Map Stations, Open House Comment Sheets and Email and Telephone Communications and the associated rankings applied.

Note that, although the numbering for Alternative Route Segments is 0 to 74, there are actually only 59 Segments. Alternative Route Segments numbered 24 to 29, 36 to 39 and 64 to 69 did not exist..

Table 7-5: Route Segment Ranking Based on PEP Comments

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
0	VH	0				0	7 M - Proximity to house, EMF; agricultural operations. 4 L – Views.	1
	H					0		
	M	3	3		1	7		
	L	2	2			4		
	P	0				0		
1	VH					0		0
	H					0		
	M					0		
	L					0		
	P	1		1		2		
2	VH					0	1 H – Hamlet of Prairie Grove. 5 M – Proximity to house, health, MF, property value, lagoon setback. 1 L – Aesthetics.	2
	H			1		1		
	M	2	3			5		
	L		1			1		
	P	1		1		2		
3	VH					0	1 L – Relocated homes.	0
	H					0		
	M					0		
	L	1				1		
	P	3		1		4		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
4	VH					0		0
	H					0		
	M					0		
	L					0		
	P	1	1			2		
5	VH					0		0
	H					0		
	M					0		
	L					0		
	P	3		5		8		
6	VH	1				1	1 VH – Overlaps proposed Nourse Bog Protected Area. 2 H – Forestry; rural residential area. 3 M – Proximity to residence. Preference for existing transmission line corridor. Transmission line to be min. 1.6 km from boundary of Protected Area.	3.5
	H				2	2		
	M		2	1		3		
	L					0		
	P	2		9		11		
7	VH	2				2	2 VH – Overlaps proposed Nourse Bog Protected Area. 2 H – Forestry. 1 M – Crossing pipeline. 2 L – Outfitter area. Transmission line to be min. 1.6 km from boundary of Protected Area. AC study at pipeline crossing.	3.5
	H	2				2		
	M	1				1		
	L		2			2		
	P	2		2		4		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
8	VH	2				2	2 VH – Overlaps proposed Labre Bog Protected Area. 1 H – Forestry. 3 M – Forest and wetland habitats, proximity to home/EMF. 1 L – Views/aesthetics.	3.5
	H	1				1		
	M	1			2	3		
	L				1	1		
	P					0		
9	VH					0	2 H – Forestry; habitat. 2 M – Proximity to residence/EMF, forest and wetland habitat. 2 L – Opening the bush for ATVs and hunters, views and aesthetics.	1
	H	2				2		
	M				2	2		
	L		1		1	2		
	P	1				1		
10	VH					0	1 H – Forestry. 3 M – Special Area under consideration, agriculture.	1
	H	1				1		
	M	2			1	3		
	L					0		
	P	1				1		
11	VH					0	1 M – Cultural site.	0
	H					0		
	M	1				1		
	L					0		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
12	VH					0	No Concerns.	0
	H					0		
	M					0		
	L					0		
	P					0		
13	VH					0	No Concerns.	0
	H					0		
	M					0		
	L					0		
	P					0		
14	VH					0	1 L – Proximity to homes.	0
	H					0		
	M					0		
	L	1				1		
	P	1				1		
15	VH					0	No Concerns.	0
	H					0		
	M					0		
	L					0		
	P	2				2		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
16	VH	2				2	2 VH – Overlaps proposed Nourse Bog Protected Area. 1 H – Forestry. 3 M – Proximity to residence. Transmission line to be min. 1.6 km from boundary of Protected Area.	3.5
	H	1				1		
	M	2	1			3		
	L					0		
	P	1	1	1		3		
17	VH	1				1	1 VH – Overlaps proposed Nourse Bog Protected Area. 1 H – Forestry. Transmission line to be min. 1.6 km from boundary of Protected Area.	3.5
	H	1				1		
	M					0		
	L					0		
	P	2		2		4		
18	VH	2				2	2 VH – Overlaps proposed Cedar Bog Protected Area. 1 H – Forestry. 1 M – Crossing pipeline. 1 L – Outfitter area. Existing transmission line corridor. Transmission line to be min. 1.6 km from boundary of Protected Area. AC study at pipeline crossing	3.5
	H	1				1		
	M	1				1		
	L		1			1		
	P	3		4		7		
19	VH	1		1		2	2 VH – Overlaps proposed Labre Bog Protected Area 1 H – Forestry 3 M – Special areas, forest and wetland habitats 1L –Views/aesthetics Existing transmission line corridor. Transmission line to be min. 1.6 km from boundary of Protected Area.	3.5
	H	1				1		
	M	1			2	3		
	L				1	1		
	P	2		5		7		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
20	VH	3				3	3 VH – Overlaps proposed Badger Protected Area; overlaps Woodridge Ecological Reserve. 1 H – Forestry. 6 M – Proximity to residences/EMF, agricultural operations, aerial spraying, forest and wetland habitats. 1 L - Views/aesthetics. Transmission line to be min. 1.6 km from boundary of Ecological Reserve.	3.5
	H	1				1		
	M	1	2	1	2	6		
	L				1	1		
	P	1		2	1	4		
21	VH					0	1H – Forestry 1M – Habitat	1
	H	1				1		
	M	1				1		
	L					0		
	P	1		2		3		
22	VH					0	1 H – Forestry 1 M - Habitat	1
	H	1				1		
	M	1				1		
	L					0		
	P	1				1		
23	VH					0	1 H – Forestry 2 M – Agricultural operations; access for ATVs /habitat impact.	1
	H	1				1		
	M	1		1		2		
	L			2		2		
	P	1		2		3		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
30	VH					0	7 H – Forestry; proximity to retirement homes, 200 lots. 3 M – Proximity to house, EMF; forest habitat; adjacent to Watson P Davidson WMA. 1 L - Relocated house. Transmission line to be 1.6 km from boundary of WMA.	3
	H	2	1	4		7		
	M	2			1	3		
	L	1				1		
	P					0		
31	VH					0	1 H - Forestry 1 M – Proximity to Piney Ecological Reserve. Transmission line to be 1.6 km from boundary of Ecological Reserve.	1
	H	1				1		
	M	1				1		
	L					0		
	P					0		
32	VH					0	2 H – Hutterite Colony; Forestry. 2 M – Agricultural land; proximity to Piney Ecological Reserve. Transmission line to be 1.6 km from boundary of Ecological Reserve.	2
	H	2				2		
	M	2				2		
	L					0		
	P	1				1		
33	VH					0	1 H - Forestry	1
	H	1				1		
	M					0		
	L					0		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
34	VH	1				1	1 VH - Overlaps proposed Caliento Bog Protected Area. 3 H - Cemetery 12 M – Proximity to residence, EMF; wildlife; endangered species; berry farm; adjacent to Watson P Davidson WMA. 2 L – Outfitter area. Transmission line to be 1.6 km from boundary of Protected Area. Transmission line to be 1.6 km from boundary of WMA.	3.5
	H	1		2		3		
	M	1	6	5		12		
	L		2			2		
	P	1				1		
35	VH	1				1	1 VH - Overlaps proposed Piney Ecological Reserve. 1 M - Agricultural land. Transmission line to be 1.6 km from boundary of Ecological Reserve.	3.5
	H					0		
	M	1				1		
	L					0		
	P	1				1		
40	VH					0	3 M – proximity to house, health and property value; agricultural land	1
	H					0		
	M		3			3		
	L					0		
	P					0		
41	VH					0	1H - Proximity to Hamlet of Prairie Grove. 3 M – Proximity to residential, health and property value; agricultural, aerial spraying annually.	1
	H				1	1		
	M		3			3		
	L					0		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
42	VH					0	3 H – Residential area (numerous residences)/semi-urban. 7 M – Agricultural operations; adjacent to Watson P Davidson WMA. 2 L – View-shed. Transmission line to be 1.6 km from boundary of WMA.	2
	H	1		1	1	3		
	M		3	2	2	7		
	L		2			2		
	P					0		
43	VH					0	1 M – Agricultural land. 1L – House, views.	0
	H					0		
	M		1			1		
	L		1			1		
	P					0		
44	VH					0	1 M – Proximity to house/aesthetics/ property value.	0
	H					0		
	M		1			1		
	L					0		
	P					0		
45	VH					0	1 M – Agricultural operations. 1L – Drainage ditch.	0
	H					0		
	M		1			1		
	L		1			1		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
46	VH					0	2 H – Residential areas (many residences). 1 L – Drainage ditch.	1
	H			2		2		
	M					0		
	L		1			1		
	P	1				1		
47	VH					0	2 H – Residential area. 3 M – Agricultural land is divided; aerial spraying and seeding. 3 L – View-shed and property values.	2
	H			2		2		
	M		3			3		
	L		3			3		
	P					0		
48	VH					0	4 H – Residential area. 3 M – Proximity to house; agricultural land. 1 L – View-shed.	2
	H			4		4		
	M		3			3		
	L		1			1		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
49	VH					0	6 H – Rural residential area. 2 M – Lilac Resort. 1 L – Future residence.	3
	H		2	4		6		
	M		2			2		
	L		1			1		
	P	1				1		
50	VH					0	4H – Grass airstrip; new development, 16 properties. 7 M – Proximity to Balsam Willow Ecological Reserve; agricultural operations/land use; crossing pipeline. 1 L – Other transmission line on one side already. Transmission line to be 1.6 km from boundary of ecological reserve. AC study at pipeline crossing.	3
	H		1	3		4		
	M	2	4	1		7		
	L		1			1		
	P					0		
51	VH					0	1 H – Residential cluster. 15 M – Agricultural operations, aerial spraying, manure spreading; proximity to existing and proposed residences. 2 L – View-shed, residential expansion area.	3
	H		1			1		
	M	1	1	12	1	15		
	L	1				2		
	P	1				1		
52	VH					0	9 H – Residential area, existing and proposed house locations; EMF, noise. 5 M – Agricultural land; agricultural operations, spraying and manure management. 3 L – View-shed.	3
	H		2	7		9		
	M			3	2	5		
	L		1		2	3		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
53	VH					0	8 H - New subdivision: existing and proposed residential. 5 M – Proximity to house, noise - autistic child; agricultural land; agricultural operations, spraying and manure. 2L – View shed.	3
	H		1	7		8		
	M		2	1	2	5		
	L				2	2		
	P					0		
54	VH					0	1 H – Proximity to grass airstrip. 9 M – Proximity to residence, EMF; horses boarded; wildlife. 3 L – Views and aesthetics.	2
	H		1			1		
	M		2	4	3	9		
	L			1	2	3		
	P	1				1		
55	VH					0	2 H - Livestock feeder barn. 2 M – Proximity to house.	2
	H		2			2		
	M		2			2		
	L					0		
	P					0		
56	VH					0	1 H – livestock calving operation 2 M – manure application; proximity to Watson P Davidson WMA Transmission line to be 1.6 km from boundary of WMA	1
	H		1			1		
	M	1	1			2		
	L					0		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
57	VH					0	1 M – agriculture	0
	H					0		
	M		1			1		
	L					0		
	P					0		
58	VH					0	2 M – Agriculture	1
	H					0		
	M		2			2		
	L					0		
	P					0		
59	VH					0	2 M – Proximity to Watson P Davidson WMA. Transmission line to be 1.6 km from boundary of WMA	1
	H					0		
	M	2				2		
	L					0		
	P					0		
60	VH					0	9 M – Proximity to residence and shop; agricultural operations (EMF/aerial spraying); tall grass prairie, church and cemetery, roads not capable of supporting heavy equipment. 3 L – Productive woodlot (income); views and aesthetics; future development.	2
	H					0		
	M	4	3	1	1	9		
	L				3	3		
	P		1			1		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
61	VH					0	2 H - Close to school; close to house. 4 M – Agriculture; elk habitat.	2
	H			2		2		
	M	1	2		1	4		
	L					0		
	P					0		
62	VH					0	5 H - Residential area; Shevchenko School. 15 M - Wildlife habitat; agricultural operations and pasture; proximity to residential; church and cemetery, roads not capable of supporting heavy equipment. 1 L – Aesthetic concerns.	3
	H			5		5		
	M	1	7	7		15		
	L		1			1		
	P					0		
63	VH					0	7 M - Proximity to residence; wildlife; recreation area, agricultural. 2 L – Aesthetics; floodway.	1
	H					0		
	M	1	5	1		7		
	L		2			2		
	P			3		3		
70	VH	1				1	1VH – Crossing and paralleling pipeline. 23 H – Residential area/ business; dairy farm/stray voltage; beekeeper. 11 M - Prime agricultural land/operations; pivot irrigation; municipal lagoon expansion. 9 L - Residential – aesthetics, multiple corners. Paralleling pipeline not acceptable to TransCanada Pipelines.	3.5
	H		9	14		23		
	M	1	1	6	3	11		
	L		6	3		9		
	P					0		

Segment	Rank	Number of Concerns by Source of Comment					Concerns, Preferences and Notes on Segment	Cumulative Ranking
		Workshop or Stakeholder Group Meeting	Open House Mapping	Open House Comment Sheets	Email, Telephone or Meeting	Sum of Concerns		
71	VH					0	5 H - Residential areas. 7 M – Health, noise, house, property values; agricultural operations.	3
	H	1		4		5		
	M		7			7		
	L					0		
	P					0		
72	VH					0	7 H – Residential areas. 1 M – Lilac Resort.	3
	H	2	2	3		7		
	M		1			1		
	L					0		
	P	1				1		
73	VH					0	3 H - Residential area. 5 M – Agriculture, aerial spraying and manure application. 1 L - Views	2
	H			3		3		
	M		4	1		5		
	L		1			1		
	P	1				1		
74	VH					0	3 H - Residential area. 5 M – Agricultural operations, aerial spraying and manure application.	2
	H			3		3		
	M		1	4		5		
	L					0		
	P	1				1		

7.5 Summary of Key Issues

Table 7-6 summarizes key issues brought forward by the general public, stakeholder groups and landowners related to the MMTP. Manitoba Hydro provided information handouts to address concerns during engagement activities and provided responses to address comment.

Following a review of key issues from Round 1 of the PEP, Manitoba Hydro developed additional information handouts to assist the public in understanding Environmental Assessment activities, the Transmission Line Routing Process, and other key issues.

Table 7-6: Summary of Key Issues

Comment/Concern	How Comments Were Addressed
Routing Issues	
Proximity to cities, towns, villages and rural residential.	Locations of urban centres and rural residential areas are a major consideration in refining routes.
Proximity to individual residences and farmsteads.	Throughout the transmission line routing process, transmission line corridors aim to avoid residences to the greatest extent possible. A voluntary buy-out policy has been developed for residences within 75m of the transmission line.
Perceived health effects due to electric and magnetic fields (EMF).	Informational sources, including Health Canada, the World Health Organization and other international health entities state that no scientific evidence suggests that exposure to EMF will cause any negative health effects on humans, vegetation and wild or domestic animals. Manitoba Hydro will design and maintain exposure levels from the transmission lines within the guidelines set forth by the International Commission on Non-Ionizing Radiation Protection which have been adopted by the World Health Organization and Health Canada. Manitoba Hydro also retained experts in this field and has undertaken modeling and assisted in the development of material to assist in the assessment and to share information with the public regarding EMF.
Aesthetics of towers.	Where new transmission lines are placed adjacent to an existing line, Manitoba Hydro attempts to construct towers with similar spacing and heights when possible. Installation underground is cost prohibitive for high voltage lines and is therefore not a feasible option for the Project.
Loss of high-quality farm land.	To reduce the potential effects on agriculture, the preference is to align the route along the half-mile (quarter-section). Self-supporting towers with a smaller footprint are used in agricultural areas to lessen the effects to agriculture. Alignments along road rights-of-ways require offsets due to the height of the 500 kV towers and the requirement that the transmission line right-of-way cannot overlap the road right-of-way.
Impacts to farm equipment operation, and manure application.	Half-mile (Quarter-section) alignments are preferred due to the size of the 500 kV towers. Towers located in non-agricultural areas typically use guyed wires. Towers in agricultural areas are self-supporting in order to eliminate the hazard guyed wires would create for farmers.
Avoid aerial applicator airstrips.	Locations of airstrips were identified in the early planning phases and will be avoided where possible in transmission line routing. Manitoba Hydro has been in discussions with the Manitoba Aerial Applicators Association regarding the Project.

Comment/Concern	How Comments Were Addressed
Potential effect to livestock, particularly dairy cattle (tingle voltage).	Tingle voltage tends to occur with faulted distribution lines, as opposed to major transmission lines. Livestock operators are encouraged to contact Manitoba Hydro if they have noticed occurrences in order to allow for identification of the source.
Potential bio-security issues particularly related to construction in pasture lands.	Manitoba Hydro has an existing Agricultural Biosecurity Policy that creates standard operating procedures that assess potential biosecurity risks, considering factors such as soil conditions and time of year, and prescribes actions to manage potential risks. Manitoba Hydro employees and contractors working on private agricultural land are trained and aware of these procedures. The Policy indicates that if the affected livestock operator's personal/corporate Policy is more stringent than Manitoba Hydro's Policy, Manitoba Hydro will abide by their protocols.
Compensation for private landowners.	A Land Compensation Policy has been developed for land required for the transmission line right-of-way. The policy offers landowners 150 percent of the current market value for the easement and additional structure payments for agricultural lands.
Avoidance of heritage sites, including Centennial Farms and areas used for the religious practices (Praznik).	Heritage resources, including archaeological resources, were identified during the Routing Process and were avoided where possible. This information will continue to be collected and considered as project planning proceeds.
Parallel existing transmission lines.	Paralleling of transmission lines was considered as part of transmission line routing. The alternative routes utilize paralleling options where possible.
Concerns related to the use of herbicides during clearing and maintenance activities.	Manitoba Hydro does not use herbicides for right-of-way clearing. For maintenance of the right-of-way, an Integrated Vegetation Management Program will be developed to reduce the amount of herbicide required.
Stream crossings can impact riparian habitat.	Vegetation buffer zones are established at watercourse crossing areas to protect fish habitats in riparian zones of streams and rivers.
Potential effects on wildlife habitat and use located within private properties.	The Environmental Assessment process identified potential sensitivities and has recommended appropriate mitigation measures for various species. Field studies conducted as part of the assessment, including private lands when permitted, were used to locate species and assess potential effects. Field studies included winter track surveys, trail cameras, elk breeding surveys and bear bait monitoring.
Potential impact on endangered plant species and natural areas.	The Environmental Impact Statement identifies potential environmental sensitivities and the Environmental Protection Plan prescribes appropriate mitigation measures.
Environmental degradation and reduced opportunities for hunting, trapping, and gathering of berries and medicinal plants as well as potential impacts to culturally significant areas.	The Environmental Assessment and Public Engagement Process identified potential sensitivities. Manitoba Hydro will identify sensitive sites and will consider mitigation or construction scheduling to lessen potential effects.
Increased access to private lands and increased access to hunting in wilderness areas.	Manitoba Hydro will work with local authorities to manage access along the right-of-way once a final route has been approved and will work with landowners who wish to implement measures to limit access to the right-of-way. To minimize the potential increase in access existing trails, roads and cut lines will be used as access routes whenever possible.
Avoid landfills, lagoons and cemeteries.	Locations of landfills, lagoon and cemeteries are noted. Structure placement generally tries to avoid crossing these features; however, there is sometimes a preference to route near these locations to minimize effects on farms and residences.

Comment/Concern	How Comments Were Addressed
Transmission lines in proximity to Wildlife Management Areas, Ecological Reserves and Protected Areas, or proposed Reserves and Protected Areas.	Manitoba Hydro has consulted with provincial agencies and NGOs such as Manitoba Protected Areas Initiative, Parks and Protected Areas and the Nature Conservancy regarding existing and proposed ecological reserves. Electric power transmission infrastructure is not permitted in WMAs or Protected Areas, and is recommended to be 1.6 kilometres (one mile) away from their boundaries. Transmission line routing has also minimized impacts to areas with identified rare species habitat.
Construction affects trapping activities due to disruption to fur bearing animals.	Environmental characterization conducted as part of the environmental assessment process identifies potential sensitivities related to fur bearing animals and prescribes appropriate mitigation measures, such as modifications to construction scheduling.
Potential damages to municipal roads resulting from MMTP construction and maintenance activities.	Damages incurred as a result of construction, maintenance or repair work for the transmission line, would be repaired by Manitoba Hydro, where appropriate.
Noise and dust, and disruption of traffic, particularly related to emergency services, during constructions.	Line noise is typically perceived in close proximity to the towers. Manitoba Hydro seeks to avoid development in close proximity to residences where possible. Manitoba Hydro abides by guidelines set forth by the province related to noise. Construction operations follow best practices for mitigation of noise and dust. Construction traffic routes and any detours will be identified and made available to local police, fire and emergency services.
Long-term impacts on municipal roads.	Manitoba Hydro works with local municipalities to address long-term impacts of their maintenance operations on municipal infrastructure.
Routing Preferences	
Locate transmission lines within existing Manitoba Hydro transmission line corridors.	Part of the line is in an existing Hydro corridor known as the Southern Loop Transmission Corridor. There is also potential to parallel existing lines running east of the City of Winnipeg. For reliability reasons paralleling is not always possible or desirable.
Where possible, locate transmission line infrastructure adjacent to other linear infrastructure, including highways, roads and ditches, to reduce land requirements.	Alignments with other linear features were identified as potential routing opportunities in the transmission line Routing Process and were taken advantage of where possible. In agricultural zones, a 500 kV transmission line must be placed in-field so to ensure the entire right-of-way width does not overlap any road rights-of-way, for reliability reasons. Therefore, a preferred option for many in intensive agricultural areas is routing along the half-mile to reduce in-field presence of a transmission line.
Benefits of Electrical Transmission Lines	
City, municipal, and business and industry Stakeholder Groups, in particular, noted beneficial effects of a more secure power supply on their operations, and growth. Agricultural Stakeholder Groups also noted that they are impacted by electrical power system reliability.	Development of the new transmission line will improve long-term power system reliability and capacity.

8 Round 1 Feedback and the Transmission Line Routing Process

Feedback was collected related to the segments presented during Round 1 of the PEP. Factors considered by Manitoba Hydro based on the information gathered from the engagement activities were considered into the transmission line routing process.

Feedback varied for all segments, as summarized in Section 7.4 Summary of Public Engagement Feedback by Segment. The segment identifiers assisted in understanding localized topics. Issues commonly discussed included:

- Increase proximity from residential developments.
- Avoid areas containing existing or proposed ecological reserves.
- Increase proximity from the Watson P. Davidson Wildlife Management Area.
- Reduce potential impact to large bog areas.
- Reduce disturbance on the natural landscape

Information brought forward was utilized in developing the framework for evaluating public feedback in the Transmission Line Routing Process. The framework generally considered the following principles:

- The overall number of concerns relating to each segment. The type of concern related to the segment.
- Whether mitigation would lessen potential impacts of the concern.