

Manitoba Hydro

## Manitoba-Minnesota Transmission Project Summary of Round 2 Public Engagement Process

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## Executive Summary

### A. Manitoba Minnesota Transmission Project, Round 2

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

The MMTP will include construction of a 500 kV alternating current (AC) transmission line, and upgrades to Manitoba Hydro's Dorsey, Riel, and Glenboro Converter Stations. Originating at the Dorsey Converter Station northwest of Winnipeg, the transmission line will follow a dedicated transmission corridor with multiple transmission lines, around Winnipeg, reducing the number of separate rights-of-way. The new transmission line will then run southeast to a border crossing on the Manitoba-Minnesota border, and connect to the Great Northern Transmission Line constructed by Minnesota Power, terminating at Iron Range Station located northwest of Duluth, Minnesota.

Anticipated in-service date for the Manitoba-Minnesota Transmission Project is 2020.

### B. Purpose of Round 2 Public Engagement Process

The purpose of the MMTP Public Engagement Process (PEP) has been to assist the environmental assessment and routing work being undertaken by Manitoba Hydro and its consultants.

During Round 1 of the MMTP PEP, three (3) Alternative Border Crossing Areas and 59 Alternative Route Segments linking them to Dorsey Station were assessed by a panel of Manitoba Hydro and consultant specialists. Based on feedback from the engagement and environmental assessment processes and using a process based on the EPRI-GTC methodology, the alternatives were refined to provide a limited number of routing alternatives to the second of the three border crossing areas.

The purpose of the Round 2 PEP was to provide the discipline specialists with public feedback that assisted in further identification of Valued Components, as well as to receive information on the potential effects of MMTP Alternative Route Segments, including related concerns, preferences, constraints, and mitigation recommendations from a broad cross-section of Stakeholder Groups, local landowners and members of the public to assist the environmental assessment and transmission line routing. Stakeholder Groups included provincial government departments, municipalities and specific interest groups, as well as landowners.

Valued Components are components of the natural and human environment considered by the proponent, public, First Nations groups, Metis, scientists and other technical specialists and government agencies involved in the assessment process to have scientific, ecological, economic, social, cultural, archaeological, historical, or other importance.

### C. Report

Section Two (2) to Four (4) of this report describes Round 2 of the PEP, including the approaches used to engage Stakeholder Groups and members of the public, numbers of participants involved, and feedback obtained.

Between the tabulation of data from various engagement mechanisms and the presentation of concerns and preferences related to the environmental assessment, AECOM developed a uniform coding protocol for all PEP data, which is described in Section 5 of the Report.

Transmission line routing and environmental assessment considerations are dealt with in Section 6 and Section 7, respectively. Section 8 of this Report identifies issues to be addressed in the next round (Round 3) of public engagement.

## D. Public Engagement Results

Public engagement feedback from Stakeholder Groups, landowners and members of the public was collected through:

1. Information recorded at Stakeholder Group Meetings.
2. Completed Comment Sheets from Public Open House events.
3. Completed Comment Sheets in digital format based on information on the Manitoba Hydro Website.
4. Map Station inputs at Public Open Houses.
5. Records of email and telephone communications.

Information was tabulated by specific Alternative Route Segments wherever possible.

Public engagement feedback will inform both the selection process for determining a Preferred Route and the evaluation of Valued Components related to the environmental assessment process.

### D.1 Round 2 Notifications of Engagement Opportunities

Newspaper advertising, newsletters, postcards, telephone calls and the Manitoba Hydro website were used to provide the public with information about the Project. Emails and telephone calls were also employed to contact potential Stakeholder Groups. The following table summarizes types and numbers of notifications.

**Table D1: Notification of Public Engagement Opportunities**

Type of Notification	Number of Items/ Contacts	Source	Notes
Email and Telephone Notifications (Stakeholder Groups)	172	AECOM	Stakeholder Groups were contacted to notify them of the Round 2 PEP, including opportunities to attend POHs or schedule meetings. In all, 82 were provided with opportunity to contact Manitoba Hydro to schedule a meeting, 51 received meeting request from Manitoba Hydro (based on past preferences), 4 received updates related to the Glenboro Expansion and 5 letters were sent to conservation offices.
Telephone Notification (Landowners)	96	Manitoba Hydro	Calls made to all past POH participants that provided their contact information for future Project related updates.
Postcard	26,320	Manitoba Hydro	Informing the public about POH Events.
Newspaper Ad - Published	13	Manitoba Hydro	Typically advertising started two weeks in advance of POH Events, and often continued in at least one additional issue.
Poster	109	Manitoba Hydro	POH Notifications in 17 different communities.

Type of Notification	Number of Items/ Contacts	Source	Notes
Letter Notification (Landowners)	9514	Manitoba Hydro	Included 1,582 letters to residents in the area of Ste. Genevieve.
Email Campaigns	7	Manitoba Hydro	Email Campaign notifications were sent out by Manitoba Hydro throughout Round 2, the emails provided updates regarding the project. The notifications were sent to all people that signed up on the Manitoba Hydro website or at open houses. Notification went to over 400 email addresses provided for future notification regarding the Project.

## D.2 Round 2 Engagement Opportunities

The Round 2 PEP incorporated a range of different engagement opportunities, and ultimately obtained feedback from over 1,000 participants. The following table summarizes PEP events and participation.

**Table D2: Involvement in Public Engagement Program Events for MMTP Round 2**

Engagement Strategy	Number of Events	Timing	Number of Participants	Notes
Stakeholder Group Meetings Scheduled	25	April to September 2014	115+	Included Provincial Depts., municipalities and various interest groups and landowners.
Public Open Houses	11	April 2014 to June 2014	658	
Email and Telephone Communications		April 2014 to October 2014	317	Including 211 email correspondences and 106 telephone conversations between members of the public and Manitoba Hydro staff.
<b>TOTAL</b>	<b>36</b>		<b>1090+</b>	

Sections 2 to Section 4 of this report provide details about each of the approaches used to obtain Stakeholder Groups and public feedback. The following items summarize the key processes.

## E. Public Engagement Process for MMTP Round 2

Sections 2 to 4 of this Report provide descriptions of the four main components of the PEP: Stakeholder Group Meetings, POH events, email and telephone communications, and the project website. AECOM worked closely with Manitoba Hydro Licensing & Environmental Assessment Department staff to develop the PEP for Round 2 of the MMTP.

## F. Stakeholder Groups Meetings

To share project information and to gather feedback from interested organizations and individuals, Manitoba Hydro held Stakeholder Group Meetings at their offices, various municipal offices and other venues made accessible to the public. At each of these meetings Manitoba Hydro:

- Introduced Round 2 of the MMTP, including the Alternative Routes and Preferred Border Crossing Area.
- Shared project timelines.
- Shared information regarding the PEP and environmental assessment process.

- Outlined the Transmission Line Routing Process, and ways that groups could become involved in identifying a Preferred Route and shared transmission line routing criteria for consideration and feedback.
- Responded to Stakeholder Group questions, and discussed concerns/opportunities with regards to the Alternative Routes.

Information related to specific environmental considerations, as well as concerns and preferences related to specific Alternative Route Segments were received at Stakeholder Group Meetings.

The Master Stakeholder List of contacts from Round 1 of the MMTP PEP indicated that 66 Stakeholder Groups wanted to be informed of future meetings via email, while 61 Stakeholder Groups only wanted to receive future information about the Project. A total of 25 Stakeholder Group Meetings were held between approximately April 1, 2014 and September 10, 2014, some involving multiple Stakeholder Groups. Six additional Stakeholder Groups or individual landowners were later identified, as well as three others related to the Glenboro Station expansion.

## **G. Public Open House Events**

Project information was shared with attendees at 11 Public POH events in communities from Headingly to Piney between early April and mid-June 2014.

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

At each POH event, Manitoba Hydro:

- Presented project information in storyboards, and discussion with participants.
- Identified the Alternative Routes and the Preferred Border Crossing area.
- Obtained input related to Valued Components through the Comment Sheets.
- Determined concerns and preferences related to Alternative Route Segments through discussions with participants, feedback received in Comment Sheets, and from maps and Landowner Information Forms.
- Determined specific sites of interest or concern through feedback from Comment Sheets and Map Stations.
- Discussed recommendations for minimizing potential negative effects or enhancing positive effects through discussion with participants and feedback from Comment Sheets.
- Provided participants with Information Sheets related to a range of issues around transmission lines including: transmission line tower design, health and Electro-Magnetic Fields (EMF); maps, and other information such as the Transmission Line Routing Process.

Information received from the POH Comment Sheets and Map Logs were utilized to identify public concerns and preferences related to general routing, and specific site constraints along each of the Alternative Route Segments.

POH participants were encouraged to complete Comment Sheets and drop them off at the POH events, or complete them online. Comment Sheets and Open House presentation material were also available on the MMTP website.

A total of 442 Comment Sheets were returned to Manitoba Hydro, including 235 received online.

A total of 22 Landowner Information Forms were also completed.

## H. Email and Telephone Communications

Manitoba Hydro contacted (or contacted by) people who were involved in various Public Engagement forums and responded to their questions and concerns. Information sheets related to transmission line tower design and EMF; maps, and other information were sent out to individuals based on their specific interests and concerns.

Email and telephone communications helped Manitoba Hydro engage individuals, address their concerns, and provide information clarifying the intent of the project, potential impacts and approaches to mitigation. This was particularly useful to those who were unable to meet with Manitoba Hydro staff in person.

## I. Project Website

The Project's website ([www.hydro.mb.ca/mmtp](http://www.hydro.mb.ca/mmtp)) provided information to assist interested parties in understanding the Alternative Routes and Preferred Border Crossing Area under consideration in Round 2 of the MMTP process. GIS files and mapping and POH materials were available in the document library.

As noted above, a significant number of respondents (235) completed Comment Sheets online. Results for this component of the PEP are found in Section 3.

## J. Identification of Valued Components

Valued Components (VC) were initially organized by the PEP Team into five natural environment categories, seven human environment categories, and four resource categories. The Human Environment and Resource VC categories both address Socio-economic considerations. These were included in the POH Comment Sheets, with space for identification of additional VCs. For ease of comparison, all of the concerns and preferences obtained through the different PEP processes were organized according to these categories (see Table K1).

## K. Summary of Concerns and Preferences Considering Valued Components

The following table, (Table K1) shows the frequency of mention of the Valued Components (VC) relative to all Alternative Route Segments, by PEP engagement method. Data on Concerns and Preferences was obtained from the summaries of Stakeholder Group Meetings, POH Comment Sheets and Mapping, and Email and Telephone Communications, as well as Website responses. The table indicates which VCs were common to most segments, versus VC specific to only a limited number of segments. All values are based on a maximum of 12 (for Alternative Route Segments 200 to 211), with asterisks indicating General Comments not attributed to a particular segment.

Note that Table K1 differs from later environmental assessment (EA) summaries, which employ the environmental assessment Data Coding system.

The most frequently mentioned VCs were: first, Property and Residential Development; second, Public Safety and Human Health, and Vegetation and Wetlands (both ranked second in frequency), and third, Wildlife.

This information is graphed in Figure K1. Note that the summary is not route specific and only addresses overall numbers of Concerns and Preferences according to sources of Stakeholder Groups and public feedback. The figure does indicate the most frequently mentioned VC relative to all routes.

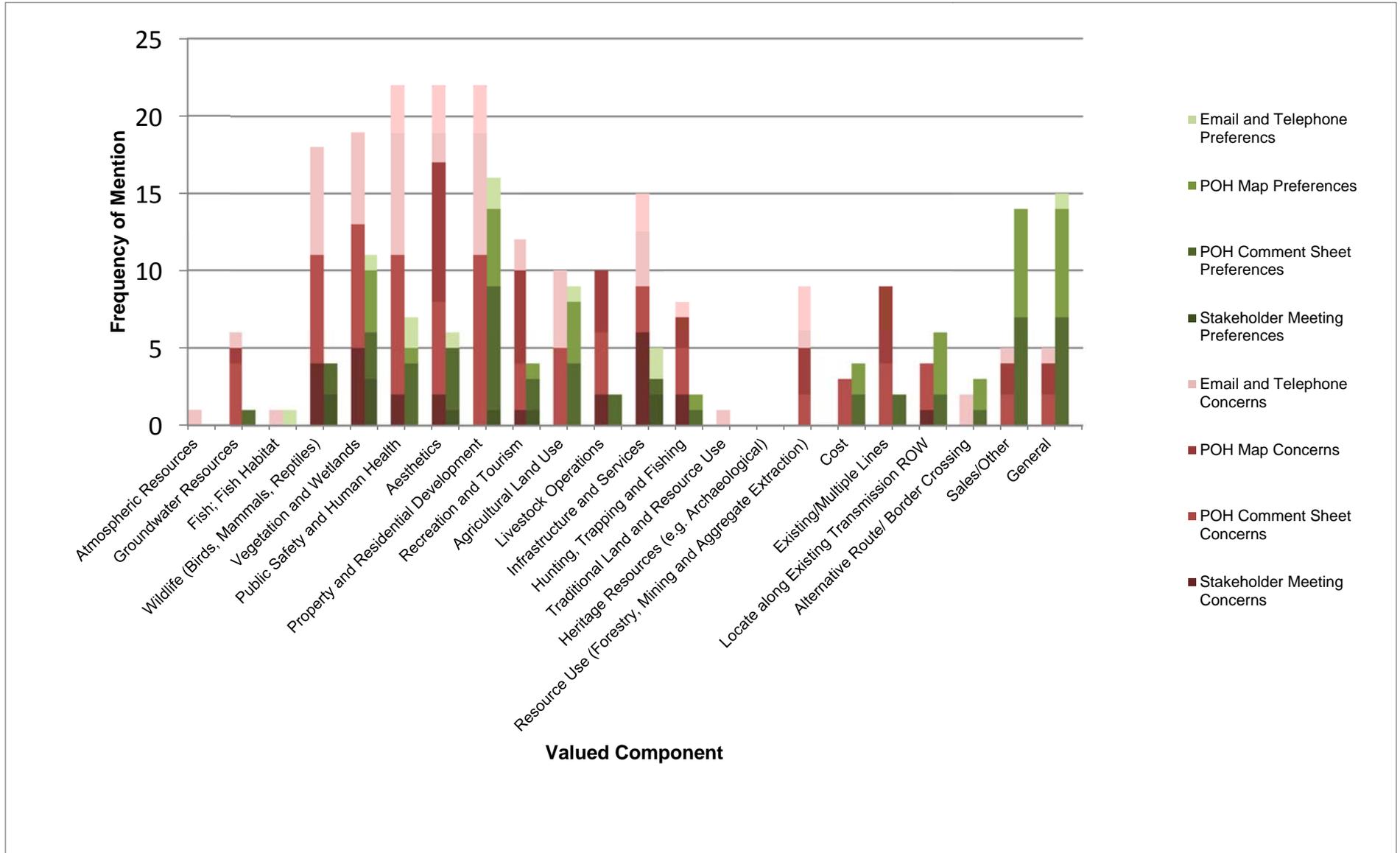
Table K1: Valued Components – Frequency of Mention

Rank	Valued Component (VC)	Number of Segments Referenced by Feedback Method (12 Segments Total)							
		Stakeholder Group Meetings		POH Comment Sheets		POH Maps		Email and Telephone	
		Concern	Preference	Concern	Preference	Concern	Preference	Preference	Preference
	<b>Natural Environment VC</b>								
	A. Atmospheric Resources	0	0	0	0	4*	0	1	0
	B. Groundwater Resources	0	0	4	1	1	0	1	0
	C. Fish; Fish Habitat	0	0	0	0	0	0	1	1
4	D. Wildlife (Birds, Mammals, Reptiles)	4	2	7	2	10*	0	7	0
3	E. Vegetation and Wetlands	5	3	8	3	7*	4	6	1
	<b>Human Environment VCs</b>								
2	F. Public Safety and Human Health	2	0	9	4	11*	1	11	2
	G. Aesthetics	2	1	6	4	9	0	5	1
1	H. Property and Residential Development	7*	1	11	8	12*	5	11	2
	I. Recreation and Tourism	1	1	3	2	6	1	2	0
	J. Agricultural Land Use	2*	0	5	4	5*	4	5	1
	K. Livestock Operations	2	0	4	2	4	0	0	0
	L. Infrastructure and Services (Lagoons, Roads, Landfills)	6	2	3	1	8*	0	6	2
	<b>Resource VC</b>								
	M. Hunting, Trapping and Fishing	2	0	3	1	2	1	1	0

Rank	Valued Component (VC)	Number of Segments Referenced by Feedback Method (12 Segments Total)							
		Stakeholder Group Meetings		POH Comment Sheets		POH Maps		Email and Telephone	
		Concern	Preference	Concern	Preference	Concern	Preference	Preference	Preference
	N. Traditional Land and Resource Use	0	0	0	0	0	0	1	0
	O. Heritage Resources (e.g. Archaeological)	0	0	0	0	0	0	0	0
	P. Resource Use (Forestry, Mining and Aggregate Extraction)	1*	0	2	0	3	0	4	0
<b>Additional - Engineering and Cost VC</b>									
	Q. Cost	2*	0	3	2	2*	2	0	0
	R. Existing/Multiple Lines	0	0	4	2	5	0	0	0
	S. Locate along Existing Transmission ROW	1	0	3	2	0	4	0	0
	T. Alternative Route/Border Crossing	0	0	0	1	0	2	2	0
	U. Sales/Other	0	0	2	7	2	7	1	0
	V. General	0	0	2	7	2	7	1	1

\* All values are based on a maximum of 12 (for Alternative Route Segments 200 to 211), with asterisks indicating General Comments not attributed to a particular segment.

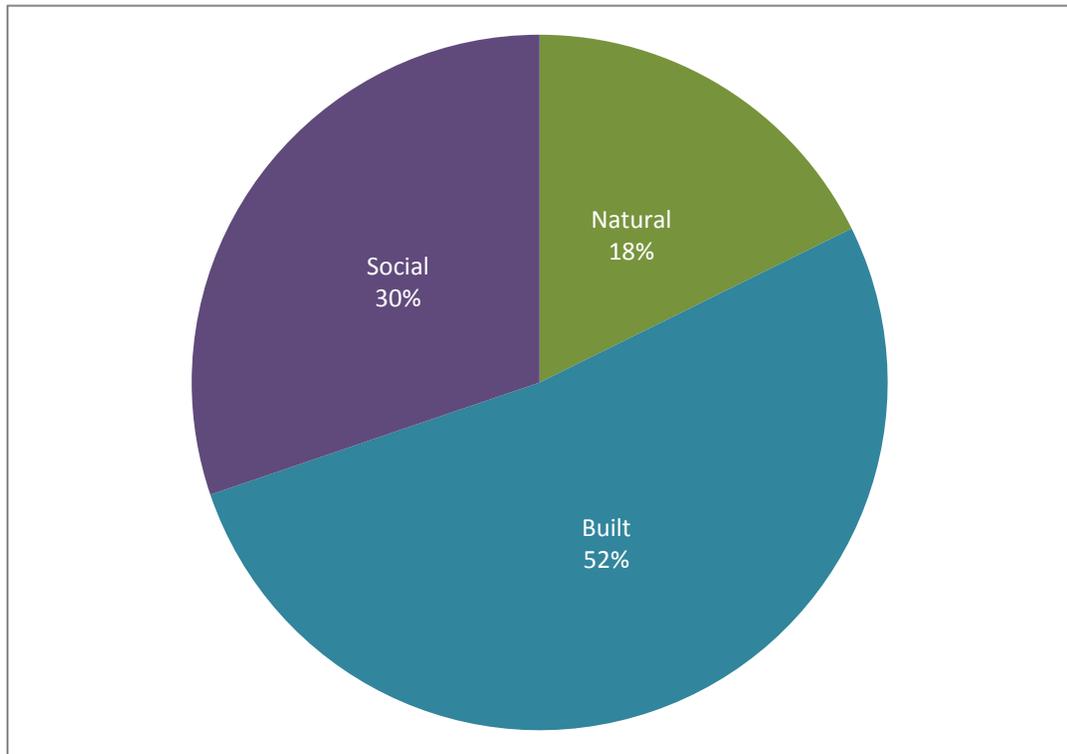
**Figure K1: Summary of Public Engagement Process Results**



## L. EA Data Coding

AECOM classified the combined data from Stakeholder Group Meetings, POH and email and telephone communications, as well as Website data, into three Categories specifically identified for use in the environmental assessment. This is described further in Section 7. The pie chart below, (Figure L1) indicates the combined frequency of all Concerns and Preferences occurring in the three key Categories used in the EA Data Coding: Natural Environment, Built Environment and Social Environment.

**Figure L1: Public Feedback by Environmental Assessment Data Category**



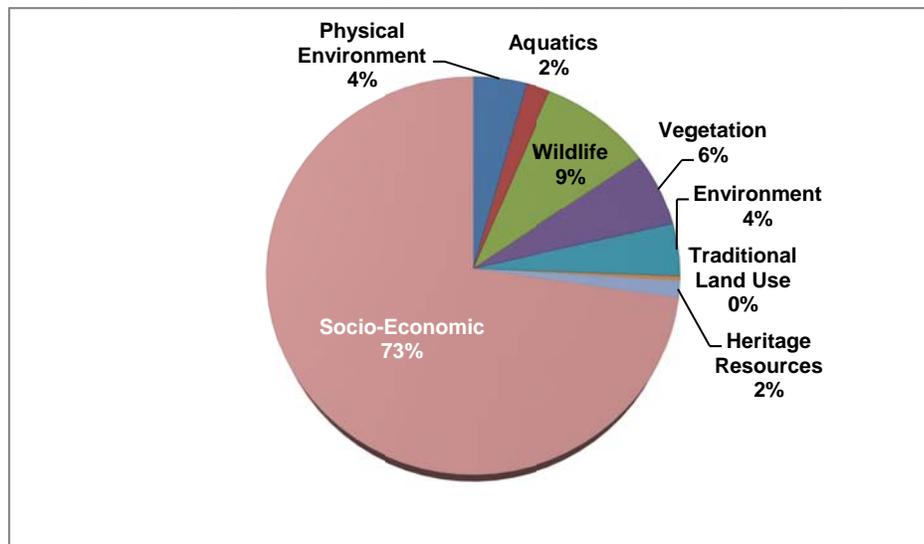
Many of the sub-categories used in the Built Environment and Social Environment Categories were combined as Socio-economic considerations. Together, these represented almost three-quarters of all EA Data responses. The breakdown of categories included in the Environmental Assessment (EA) Data Coding categories is included in Table L1 included:

**Table L1: Public Feedback by EA Data Category**

EA Data Category	Topics Within Category
Built	<ul style="list-style-type: none"> <li>• Traditional Land Use</li> <li>• Heritage Resources</li> <li>• Infrastructure and Services</li> <li>• Property and Residential</li> <li>• Non-Agricultural Land Use</li> <li>• Livestock Operations</li> <li>• Access</li> </ul>
Natural	<ul style="list-style-type: none"> <li>• Physical Environment</li> <li>• Aquatics</li> <li>• Wildlife</li> <li>• Vegetation</li> <li>• Environment</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Employment and Economy</li> <li>• Resource Use</li> <li>• Health</li> <li>• Aesthetics</li> <li>• Safety</li> <li>• Noise</li> <li>• Property Value</li> <li>• Recreation and Tourism</li> </ul>

Figure L2 identifies the frequency of mention of Concerns and Preferences in the overall PEP database.

**Figure L2: Breakdown of Issues Related to Environmental Assessment**



As the pie chart indicates, nearly 75% of all concerns and preferences were related to socio-economic factors.

## **M. Transmission Line Routing**

For Round 2 of MMTP, Manitoba Hydro developed 12 Alternative Route Segments leading to a Preferred Border Crossing Area on the Manitoba-Minnesota border, considering Built Environment, Natural Environment, and Engineering features. The Alternative Route Segments and Preferred Border Crossing Area were based on the results of the MMTP Round 1 Transmission Line Routing Selection process.

Stakeholder Groups and members of the public were encouraged to participate in the Round 2 Public Engagement Process in order to provide further input regarding appropriate Valued Components, criteria for transmission line routing, concerns and preferences, and potential mitigation approaches related to the Alternative Route Segments. This will help to define a Preferred Route for the new transmission line, and to confirm the Preferred Border Crossing location.

### **M.1 Descriptions of Alternative Route Segments**

Figure M1 illustrates the 12 Alternative Routes presented during Round 2 of the PEP. As well, Table M1 describes the 12 Alternative Route Segments identified at the end of Round 1 for evaluation as part of the Round 2 Public Engagement Process.

The column on the right side of the table identifies corresponding Alternative Route Segments from Round 1, as well as those Alternative Route Segments developed to address specific concerns with Round 1 segments, called Round 1 Evaluation Alternative Segments.

### Project Infrastructure

- Converter Station (Existing)
- 200 Round 2 Alternative Route and Segment Number

### Infrastructure

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

### Assessment Area

- Route Planning Area

### Landbase

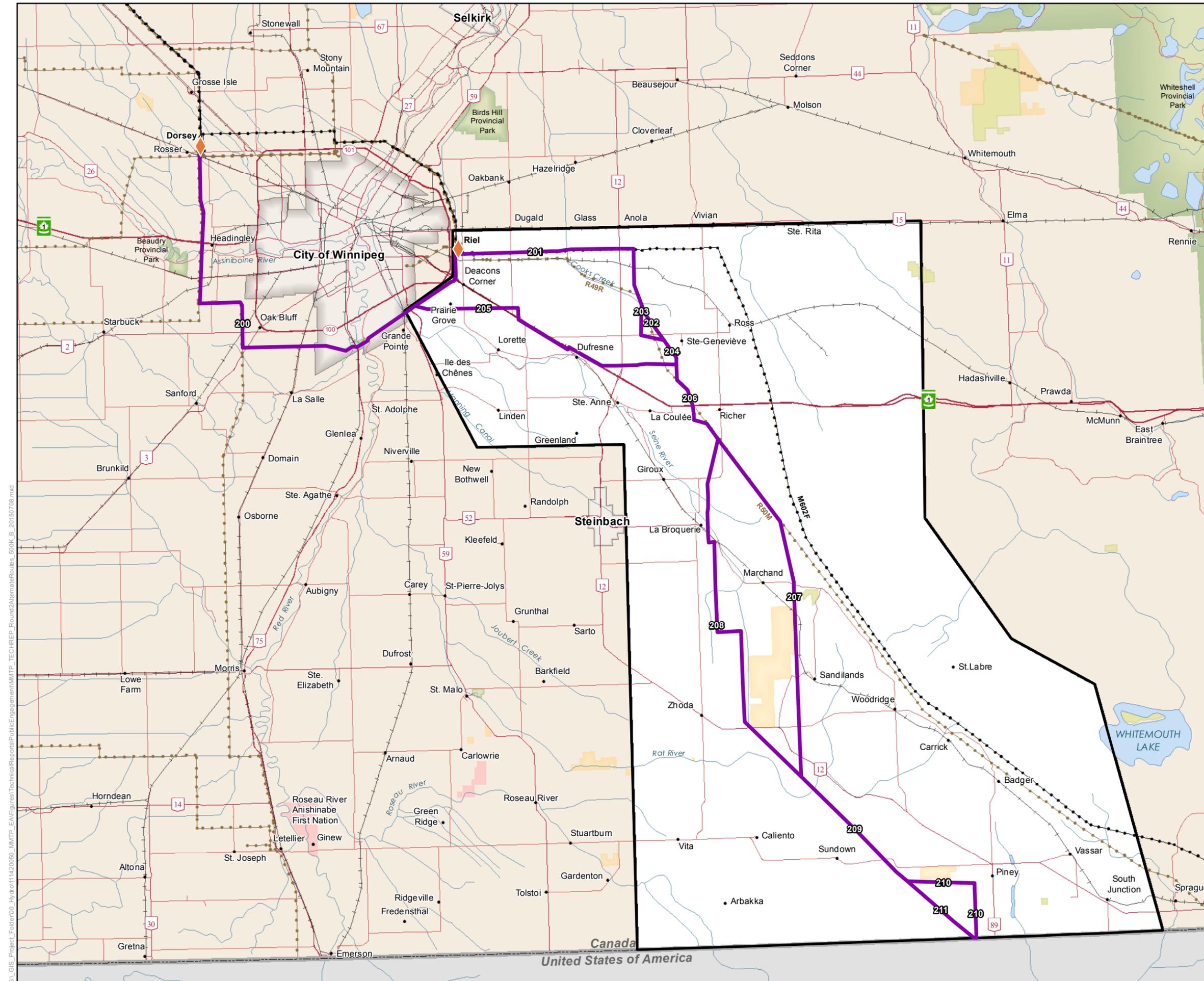
- Community
- Railway
- Trans Canada
- Provincial Highway
- Provincial Road
- City
- First Nation Lands
- Ecological Reserve
- Wildlife Management Area
- Provincial Park

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



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## Round 2 Alternative Routes



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**Table M1: Round 2 Route Segments Summary**

<b>Round 2 Route Segment</b>	<b>Segment Description</b>	<b>Corresponding Round 1 Route Segment(s)</b>
200	Starts near the Dorsey Converter Station; continues to the La Verendrye Station, then extends south around the City of Winnipeg, adjacent to the Floodway. Segment 200 ends south of the Riel Converter Station and connects to Segments 201 and 205.	1
201	Begins south of the Riel Converter Station and continues east, while remaining parallel to the D602F Transmission Line through the RM of Springfield. South of Anola, Segment 201 swings south to terminate in the RM of Tache, where it connects with Segments 202 and 203.	5, 6
202	Connects Segments 201 and 204. All of Segment 202 is located within the RM of Tache. Segment 202 is partially adjacent to an existing 230kV transmission line, but separates from this existing alignment upon crossing PR 501. Segment 202 was developed and presented to the public during Round 2 PEP, based on a review of the feedback collected during Round 1.	Round 1 Mitigative Segment
203	Connects Segments 201 and 204. All of Segment 203 is located within the RM of Tache, east of the intersection of PTH12 and PR501. This alternative segment was also developed and presented to the public during Round 2 PEP, based on a review of the feedback collected during Round 1.	Round 1 Mitigative Segment
204	Located within the RM of Tache, east of the existing 230kV line, this Alternative Route Segment was developed and presented to the public during Round 2 PEP, based on a review of the feedback collected during Round 1.	Round 1 Mitigative Segment
205	Near the southeast corner of Winnipeg and runs southeast through the RM of Ritchot and RM of Tache along portions of the Trans-Canada Highway. Segment 205 connects to Segment 206 northeast of the communities of Ste. Anne and La Coulee.	40, 41, 42, 48, 49, 50
206	In the southern portion of the RM of Tache, running southeast through the RM of Ste. Anne and terminating south of Richer. This segment was presented during Round 1 PEP. There are no routing alternatives to Segment 206.	50
207	Running southeast around the Watson P. Davidson Wildlife Management Area, west of Sandilands, Alternative Route Segment 207 is located within the RMs of Ste. Anne, La Broquerie, Piney and Stuartburn. The northern portion of the segment was developed and presented to the public during Round 2 PEP, based on a review of the feedback collected during Round 1. Parts of the southern portion of Segment 207 were presented during the Round 1 PEP.	30
208	Running southwest of the Watson P. Davidson Wildlife Management Area, this alternative segment located within the RMs of Ste. Anne, La Broquerie and Stuartburn and was presented during Round 1.	50, 51, 53, 54, 55, 56, 59, 34
209	Running diagonally from southeast of the Watson P. Davidson Wildlife Management Area, to an area southwest of the Spur Woods Wildlife Management Area. Segment 209 is located within the RMs of Stuartburn and Piney. The segment was presented during Round 1 PEP. There are no routing alternatives.	34
210	Located in the RM of Piney, and terminating at the Preferred Border Crossing, west of PTH 89, this alternative segment runs parallel to the Spur Woods Management Area, and then south towards the border. Alternative Route Segment 210 was developed and presented to the public during Round 2 PEP, based on a review of the feedback collected during Round 1.	Round 1 Mitigative Segment
211	Running diagonally southeast to the Preferred Border Crossing in the RM of Piney, this alternative segment was presented during Round 1 PEP.	34

A number of Evaluative Route Segments were proposed to address specific concerns with the original 12 Alternative Route Segments described above. These are noted below in Table M2.

**Table M2: Proposed Route Modifications Brought Forward For Round 2 Route Evaluations from Public Engagement Specialists**

Round 2 Proposed Route Modifications	Public Feedback Concerns, & Routing Recommendations	Proposed Mitigative Route(s) Comments	Proposed Mitigative Segment(s)
205	Proximity to homes near the Trans-Canada Highway (north of Lorette).	A proposed Evaluative Alternative would be to avoid crossing over the Trans-Canada Highway and homes in the area near PTH 206.	358
202/203	Proximity to homes: residents were concerned about lack of notification for proposed route changes, especially because of the close proximity to homes.	Multiple Evaluative Alternatives are proposed, which would avoid existing residences and remain near 202 and 203, or be more easterly than 202 and 203. Some segments are near existing alternatives and the remainder are east of PR 302.	302, 303, 308, 331, 332, 333, 334, 337, 341, 344, 343, 348, 349, 363.
209	A local cemetery was identified along this segment, which is visited on a regular basis by community members; concerns identified in Round 2 PEP.	A proposed Evaluative Alternatives is located slightly farther from the cemetery located along 402 <sup>nd</sup> Road (north of Sundown).	311
210/211	Potential effects on an airport at the Canada-US International border. Route may affect proposed expansion.	Proposed Evaluative Alternatives have been added east of PTH 89, within the overall proposed border crossing area, to avoid airport expansion plans and meet the needs of Minnesota Power. These segments would connect with an Alternative Border Crossing location, which was not identified during Round 2, although similar options were presented during Round 1 (Segment 32).	315, 316, 320-329, 367, 399

A detailed map of the Alternative Route Segments and Preferred Border Crossing can be found in Appendix F.

## N. Summary of Results for Transmission Line Routing

Figure N1 (Combined Preferences and Concerns by Alternative Route Segment) provides cumulative numbers of Concerns and Preferences obtained throughout the PEP from all data sources, comparing each Alternative Route Segment to all others. The height of each bar indicates the total number of responses from Stakeholder Groups and public engagement activities. The figure also shows the relative numbers of Concerns versus Preferences, represented by the green and red portions of the bars, respectively. For example, Alternative Route Segments 207 and 208 both have high levels of Stakeholder Groups and public responses, but Segment 208 has a significantly higher number of Concerns than Preferences, while Segment 207 has the reverse.

PEP data was looked at from the perspectives of both Valued Components and EA data categories. The results are consistent for most Alternative Route Segments.

Section 6 presents a summary of data from the PEP, in both written and graphic form, addressing each of the Alternative Route Segments. A summary bar chart is provided, which separately indicates the Concerns and Preferences for each segment. Four separate bar charts allow for independent review of Preferences and Concerns in the Natural, Built and Social Categories, as well as a combination of all

three. This provides an “at-a-glance” comparison of the segments. The best Alternative Route Segments in each Category were identified but the categories were not weighted relative to one another.

**Figure N1: Combined Preferences and Concerns by Alternative Route Segment**



**O. Summary of Results for Environmental Assessment**

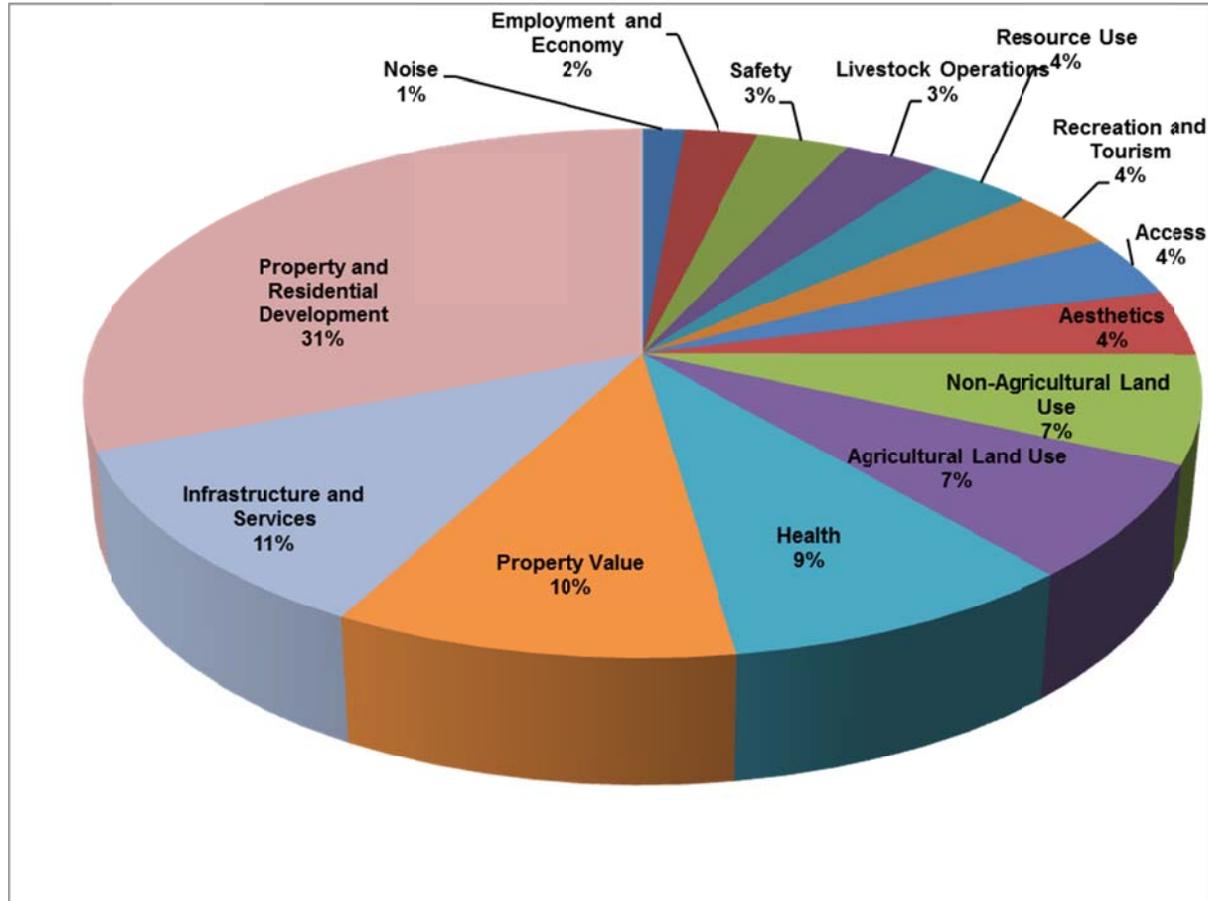
In Section 7 the relative numbers of Concerns and Preferences are presented first by Environmental assessment Categories, and then by sub-categories, representing more detailed information for each of the Alternative Route Segments. This allows an overview comparison of the segments. Other bar charts provide additional information regarding the breakdown of Socio-economic topics.

**O.1 Socio-economic Benefits and Costs**

As noted, Socio-economic Concerns and Preferences far outweighed others in the feedback obtained, particularly from municipalities, landowners and public participants attending the Stakeholder Group Meetings and POH events, or responding on the Manitoba Hydro website. The summary of data relating to the environmental assessment recognizes this with detailed charts related to a range of socio-economic variables.

Figure O1 illustrates the frequency of responses by PEP Stakeholder Groups and public informants relative to various socio-economic considerations based on the EA Data Analysis described in Section 5.

Property and Residential Development (31%), was the most frequently used sub-category, followed by Infrastructure and Services (11%); Property Value (10%), and Health (9%). Note that in the Valued Components analysis of PEP information the Property and Residential VC included “Property Value” and “Access” (totaling approximately 45% of the results) and the Public Safety and Human Health VC included “Safety” and “Health” (totaling approximately 12%).

**Figure O1: Relative Frequency of Various Socio-economic Considerations**

Key socio-economic benefits recognized by Stakeholder Groups and the public participants were:

- Greater power reliability and security.
- Potential benefits of power sales in maintaining low Hydro rates.
- Some improved recreational opportunities related to trails.
- Mitigation of forest fires due to creation of cleared zones.

Concerns included:

- Physical disruption and reduced property values.
- Relocation of houses.
- Impacts on property values.
- Impacts on health, such as perceptions about EMF causing increased health risks.
- Impacts on future land development.
- Safety considerations, including security issues resulting from increased access.
- Impacts on agricultural land uses, including aerial spraying and loss of productive farmland.
- Aesthetic concerns.
- Impacts on livestock operations, bio-security and tingle voltage.
- Impacts on hunting.
- Noise concerns.

## O.2 Environmental Impacts and Mitigation

Environmental impacts identified by the participants in the PEP included:

- Impacts on natural environment, including riparian and wetland habitats.
- Impacts on wildlife in general and endangered species in particular impact of access for ATV use and hunting on wilderness areas.
- Noxious weed impacts.

Mitigation recommendations typically started with avoidance. Other approaches included:

- Compensation for loss of forest.
- Modification of construction schedule to avoid sensitive stages of wildlife and biota.

## P. Issues Identification for Round 3 of MMTP

Manitoba Hydro provided a number of different information handouts at the Public Open Houses and Stakeholder Groups Meetings, which addressed Stakeholder Groups and public concerns about a range of issues, including health, EMF and property issues.

Despite the availability of such resource materials, some POH participants indicated on Comment Sheets that information they received from PEP facilitators was inconsistent, and/or did not fully address specific questions or concerns.

The following Table P1 summarizes Stakeholder Group and public issues outlined in Section 8, which should be addressed fully and consistently in the Round 3 PEP. Key information for some of these issues already exists, as is demonstrated in the list of handouts and resource materials in Section 3, and is identified in the table. The Issues are organized according to the frequency of Concerns and Preferences from the most frequent to the least.

**Table P1: Issues Identified Related to Alternative Route Segments**

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
1	Atmospheric Resources		
1.1	Concerns about interference with radio, TV, internet and cellphone devices, and GPS.	<i>AC Lines and Electronic Devices</i> – Prepared by Exponent Engineering and Scientific Consulting, this provided information on EMF interference with electronic devices, including GPS, wireless internet and signal blocking/reflection.	Towers in agricultural areas are self-supporting towers in order to eliminate the hazard guyed wires could create for agricultural producers. Manitoba Hydro routes along half-mile (quarter-section) alignments, when possible, to lessen potential impacts on individual producers.  Radio noise from an AC transmission line will not directly affect GPS receivers used for agricultural or other operations from receiving GPS signals or the satellite- or antenna- based correction signals.
1.2	Concerns about noise, dust and air quality issues related to construction of a new transmission line.		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.
2	Groundwater Resources		
2.1	Concerns about aquifer pollution related to construction of towers and herbicide use.	<i>Transmission Right of Way Tree Clearing and Maintenance</i> – This handout provided an overview of the process Manitoba Hydro uses when managing vegetation near transmission power lines, including tree removal, safety and herbicide application.	Manitoba Hydro does not use herbicides for right-of-way clearing. For right-of-way maintenance, an Integrated Vegetation Management Program will be developed to reduce the amount of herbicide required.
3	Fish and Fish Habitat		
3.1	Concerns about disruption from tower construction and pollution from herbicide use.	<i>Transmission Right of Way Tree Clearing and Maintenance</i> – This handout provided an overview of the process Manitoba Hydro uses when managing vegetation near transmission power lines, including tree removal, safety and herbicide application.	Vegetation buffer zones are established at watercourse crossing areas to protect fish habitats in riparian zones of streams and rivers.  For right-of-way maintenance, an Integrated Vegetation Management Program will be developed to reduce the amount of herbicide required.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
4	Wildlife (Birds, Mammals and Reptiles)		
4.1	Reduction in habitat; disruption related to fragmentation of habitat, including potential impact on wildlife (birds, mammals and reptiles).		The Environmental Assessment process identifies potential sensitivities and has recommended appropriate mitigation measures for various species. Field studies conducted as part of the assessment, including private lands when permitted, are used to locate species and assess potential effects. Field studies included winter track surveys, trail cameras, elk breeding surveys and bear bait monitoring.
5	Vegetation and Wetlands		
5.1	Impacts to riparian habitat from stream crossings.		Vegetation buffer zones are established at watercourse crossing areas to protect fish habitats in riparian zones of streams and rivers.
5.2	Potential impact on endangered plant species and natural areas.		Environmental characterization conducted as part of the environmental assessment process identifies potential environmental sensitivities and prescribes appropriate mitigation measures.
5.3	Transmission lines in proximity to Wildlife Management Areas, Ecological Reserves and Protected Areas, or proposed Reserves and Protected Areas	<i>Transmission Right of Way Tree Clearing and Maintenance</i>	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.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
6	Public Safety and Human Health		
6.1	Perceived health effects due electric and magnetic fields (EMF).	<p><i>Electric and Magnetic Fields – It's Your Health:</i> Information brochure prepared by Health Canada which summarizes EMF and existing literature on the subject which supports Health Canada's understanding of the topic.</p> <p><i>Alternating Current - Electric Magnetic Fields:</i> Brochure created for Manitoba Hydro by epidemiologists and biological scientists to provide a summary response to common questions related to EMF exposure from AC transmission lines.</p>	<p>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.</p> <p>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.</p>
7	Aesthetics		
7.1	Aesthetics of towers.	<p><i>Manitoba-Minnesota Transmission Project – Round 2 – Preferred Border Crossing and Refined Alternative Routes:</i> This newsletter was prepared and distributed to all attendees of POHs, and included the project timeline, tower design, a map of Alternative Routes and Preferred Border Crossing, and a summary of the general comments and concerns heard to date from Stakeholder Groups and the public.</p>	<p>Where new transmission lines are placed adjacent to 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.</p>
8	Property & Residential Development		
8.1	Proximity of transmission lines to cities, towns, villages and rural residential development, as well as agro-industrial development.		<p>Locations of urban centres and rural residential areas are a major consideration in refining routes and avoided where possible.</p>
8.2	Reduced property values due to transmission line development, including construction.		<p>The Environmental Assessment has assessed potential for impact on property values. Current research suggests that property values will not be impacted by the presence of the transmission line.</p> <p>A Land Compensation Policy has been developed for land required for the transmission line right-of-way. The policy offers landowners 150% of the current market value for the easement and additional structure payments for agricultural lands.</p>

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
8.3	Proximity to individual residences and farmsteads.	<i>Manitoba-Minnesota Transmission Project Landowner Compensation Information</i> – This handout summarized the four types of compensation available to landowners by Manitoba Hydro (land, construction damage, structure impact and ancillary damage compensation).	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.
9	Recreation and Tourism		
9.1	Use of Manitoba Hydro ROW for trails.		<p>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.</p> <p>To minimize the potential increase in access existing trails, roads and cut lines will be used as access routes whenever possible.</p>
10	Agricultural Land Use		
10.1	Loss of high quality farm land.	<i>Manitoba-Minnesota Transmission Project Landowner Compensation Information</i>	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.
10.2	Impacts to farm equipment operation and manure application.	<i>AC Lines and Electronic Devices</i>	Towers in agricultural areas are self-supporting towers in order to eliminate the hazard guyed wires could create for agricultural producers. Manitoba Hydro routes along half-mile (quarter-section) alignments, when possible, to lessen potential impacts on individual producers.
10.3	Transmission line rights-of-way become areas for growth of noxious weeds.	<i>Transmission Right of Way Tree Clearing and Maintenance</i>	For right-of-way maintenance, an Integrated Vegetation Management Program will be developed.
10.4	Transmission lines interfere with aerial application.		Locations of airstrips were identified in the early planning phases and were avoided where possible in transmission line routing. Manitoba Hydro has been in discussions with the Manitoba Aerial Applicators Association regarding the Project.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
11	<b>Livestock Operations</b>		
11.1	Potential effect on livestock, particularly dairy cattle (tingle voltage).	<i>Stray Voltage on Dairy Farms – Symptoms and Solutions</i> – This reference document, prepared by Manitoba Hydro, included worksheets to assist landowners with determining stray voltage in their livestock operations.	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.
11.2	Potential bio-security issues particularly related to construction in pasture lands.	<i>Transmission Right of Way Tree Clearing and Maintenance</i>	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.
12	<b>Infrastructure and Services (Lagoons, Landfills)</b>		
12.1	Avoid landfills and 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.
13	<b>Traditional Land and Resource Use</b>		
13.1	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.
13.2	Potential effects of construction and operation of the MMTP on mining and aggregate extraction.		Locations of mines and aggregate sites were identified in the early planning phases and were avoided when possible during the transmission line routing process. Manitoba Hydro worked with Landowners and Stakeholder Groups to identify and understand concerns and potential mitigation measures (routing and compensation) for construction, operation and maintenance near mining and aggregate sites, where possible.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
14	Heritage Resources (Archaeology)		
14.1	Avoidance of heritage sites, including Centennial Farms and areas used for the religious practices (Praznik).		Heritage resources, including archaeological resources, were identified during the Transmission Line Routing Process and were avoided where possible. As feedback was received, it was considered in decision-making processes.
15	Other Land Uses		
15.1	Proximity to school and daycare sites (perceived health concerns).	<i>Alternating Current – Electric and Magnetic Fields</i> and <i>Health Canada – Electric and Magnetic Fields from Power Lines and Electrical Appliances</i>	Known locations of school and daycare sites were considered in the transmission line routing process.  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.
16	Transmission Line Routing		
16.1	Determining Alternative Routes.	<i>Siting Transmission Lines Using the EPRI-GTC Siting Methodology</i> – This pamphlet was provided to show the general methodology, which has been adapted and used in the MMTP project.  <i>Manitoba-Minnesota Transmission Project – Route Selection Process</i> – This handout presented the methodology used in transmission line routing, including the criteria and progress of the project.	Once a border crossing was selected, the information gained during Round 1 from a variety of Stakeholder Groups, open houses and the environmental assessment process was used to help route planners to refine or eliminate existing routes and develop potential new route alternatives to the border crossing near Piney, MB. In some cases, the route segments that were considered in Round 1 were determined to effectively balance the three perspectives in routing (natural, built, engineering), and were retained. In some cases they did not and were eliminated. New segments and refinements to existing segments were added to provide alternatives that achieve the routing objective of connecting the start and end point of the project.
16.2	Where possible, locate transmission lines within existing Hydro transmission line corridors or existing linear corridors.	<i>Manitoba-Minnesota Transmission Project – Route Selection Process</i>	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.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
16.3	Where possible, locate transmission line infrastructure adjacent to linear infrastructure such as Provincial and municipal highways, roads and drains in order 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.
16.4	Maintain straight transmission lines, with few angles.		Shorter and straighter lines typically suggest lower costs. There are extra costs associated with direction changes due to heavier tower construction to accommodate greater stresses. When possible angles are avoided during routing.

## **Q. Public Engagement Program Best Practice**

The Public Engagement Process provided multiple opportunities for Stakeholder Groups and the public to receive information about and provide input to be considered in the Transmission Line Routing Process to determine a Preferred Route for the Project, and the related Environmental Assessment.

The engagement approach was based on standards developed by the International Association for Public Participation's (IAP2) Core Values<sup>1</sup>, The Canadian Environmental Assessment Agencies' Key Elements of Meaningful Public Participation, and the International Association for Impact Assessment's (IAIA) Principles of Best Practices.

The range of opportunities provided and the efforts made to contact Stakeholder Groups and public alike, as well as the multiple rounds of engagement, reflect best practices in public engagement identified where those impacted by the infrastructure project are notified, informed, engaged, heard and provided with further feedback.

## **R. Recommendations for Public Engagement**

Upon evaluation of the Round 2 activities and feedback received from the public, the following recommendations for Round 3 public engagement activities were made:

- Registered mail should be used to notify affected landowners of project information.
- Continue to provide updates to the public throughout the project.
- Recommendation to use additional venues, in different communities.

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<sup>1</sup> <http://iap2canada.ca/page-994361>

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# 1. Public Engagement Process

## 1.1 Manitoba-Minnesota Transmission Project

### 1.1.1 Project Description

The Manitoba-Minnesota Transmission Project (MMTP) involves an environmental assessment for the construction of a 500 kilovolt (kV) transmission line in southern Manitoba and upgrades to Manitoba Hydro's Dorsey, Riel, and Glenboro Stations. Originating at the Dorsey Converter Station northwest of Winnipeg, the transmission line will travel south around Winnipeg, prior to running south to a border crossing on the Manitoba-Minnesota border. At the border the transmission line will connect to the Great Northern Transmission Line constructed by Minnesota Power, which will terminate at Blackberry Station, northwest of Duluth, Minnesota.

The anticipated in-service date for the project is 2020.

### 1.1.2 Project Need

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 megawatt (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 500-kV line to support provincial needs if required.

Adding a second 500-kV interconnection will also increase Manitoba Hydro's ability to import electricity, strengthening the reliability of the province's electricity supply. In times of extreme drought or an unforeseen outage, transmission interconnections to other utilities provide access to electricity needed to meet demand in Manitoba.

### 1.1.3 Required Regulatory Approvals

Regulatory approvals include the following considerations:

- *National Energy Board Act* and *Canadian Environmental Assessment Act* (2012).
- Manitoba Conservation and Water Stewardship (MCWS).
- Manitoba's Clean Environment Commission (CEC) 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 MMTP 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 and the environmental assessment.
- Assessment of potential environmental and socio-economic effects.
- Assessment of potential cumulative effects of the transmission line.
- Mitigation measures and monitoring plans developed for the Project.
- An environmental protection program.

#### 1.1.4 Overall Public Engagement Process

The overall process of public engagement for MMTP will involve three Rounds:

##### **Round 1 (October to November 2013)**

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

##### **Round 2 (April to August 2014)**

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

##### **Round 3 (January to May 2015)**

- Preferred Route to Border Crossing presented.

This report will summarize the results of the Round 2 PEP.

## **1.2 Purpose, Goals and Objectives of the Public Engagement Process**

The purpose of the PEP was to facilitate the exchange of information between members of the public, and the Manitoba Hydro site selection and Environmental assessment teams regarding the construction of the proposed transmission line. During the transmission line routing and environmental assessment process, Manitoba Hydro sought input from local landowners, First Nations, the Manitoba Métis Federation (MMF), local municipalities, Stakeholder Groups, government departments and the general public. Opportunities for participation include open houses, meetings, workshops and Manitoba Hydro's website.

The public engagement goals for MMTP were as follows:

- To share project information.
- To obtain feedback for use in the transmission line routing and environmental assessment process.
- To gather and understand local interests and concerns.
- To integrate interests and concerns into the routing and assessment processes.
- To review potential mitigation measures.

Manitoba Hydro's objectives in meeting these goals were as follows:

- To involve the public throughout the transmission line routing and environmental assessment processes.
- To provide clear, timely and relevant information and responses.
- To deliver a public engagement process that is adaptive and inclusive.
- To informing the public of how their feedback influenced the project.
- To document and report on feedback received.

Information collected as a result of the Round 2 PEP informed two principal aspects of the project:

- Transmission line routing, particularly criteria for site selection, identification of a Preferred Route for the transmission line and confirmation of the Preferred Border Crossing area.
- Environmental assessment, particularly Socio-economic considerations.

Information collected through the PEP included biophysical, socio-economic, and heritage data, as well as information on issues and concerns, preferences, and constraints related to 12 Alternative Route Segments.

### **1.3 Components of Public Engagement Process**

#### **1.3.1 Integrated Delivery**

The PEP was developed in cooperation with Manitoba Hydro and their project consultants, AECOM and Stantec. The PEP involved close collaboration between Manitoba Hydro staff and AECOM staff, in particular. AECOM assisted Manitoba Hydro in the delivery and recording of Stakeholder Groups Meetings and POH events, as well as email and telephone communications with Stakeholder Groups and public participants.

#### **1.3.2 Principal Components of the Round 2 PEP**

Data sources related to site location concerns and preferences, physical features/constraints and mitigation of potential effects included:

- Stakeholder Groups Meetings (Meetings).
- POH events – Comment Sheets and Map records.
- Email and telephone communications (Communications) with landowners and other interested parties.
- Media outreach and information venues, e.g. mail-outs and Manitoba Hydro Website.

### **1.4 Relation to Round 1 Transmission Line Routing Process**

In Round 1 of the PEP, three Alternative Border Crossing Areas and 59 Alternative Route Segments linking the potential border crossings to Dorsey Station were assessed by a panel of Manitoba Hydro and consultant specialists. Based on Stakeholder Groups and public comments and an Expert Judgment process, the alternatives were refined to provide a limited number of routing alternatives to one of the three border crossing areas.

For Round 2 of the PEP, Manitoba Hydro developed 12 Alternative Route Segments leading to a Preferred Border Crossing Area on the Manitoba-Minnesota border, considering Built Environment, Natural Environment, and Engineering features. The Alternative Route Segments and Preferred Border Crossing Area were based on the results of the Round 1 Transmission Line Routing Process.

Stakeholder Groups and members of the public were encouraged to participate in the Round 2 PEP in order to provide further input regarding appropriate Valued Components for the environmental assessment, criteria for transmission line routing, concerns and preferences, and potential mitigation approaches related to the Alternative Route Segments. Input from Round 2 will help to define a Preferred Route for the proposed transmission line.

Stakeholder Groups and public input to the Round 2 Transmission Line Routing Process included the following:

- POH Comment Sheets, and Maps, which permitted members of the public, particularly local landowners and leasers, to indicate specific issues and concerns, preferences, constraints, and mitigation associated with the Alternative Route Segments.
- Stakeholder Group Meetings were information sessions with Manitoba Hydro staff, which provided question and answer opportunities for Stakeholder Groups, typically representatives of government departments, municipalities, special interest groups, as well as landowner organizations and individuals.
- Many respondents emailed, telephoned or wrote to Manitoba Hydro to provide a range of comments, some of which were specific to Alternative Route Segments and the Preferred Border Crossing.
- Comment Sheets were also provided on the Manitoba Hydro Project Website, along with the information provided at the POHs (53% of Comment Sheets were submitted on-line).

## **1.5 Round 2 Report Organization**

The following subsections summarize the general organization of this report. Sections 2 to 4 describe the PEP through summaries of Stakeholder Group Meetings, POH events, Communications, summarizing processes and results. Section 5 describes the overall EA data summary. Sections 6 and 7 present data in written and graphic form to assist in the Transmission Line Routing Process and Environmental Assessment, respectively. Section 7 discussing environmental assessment data also summarizes Socio-economic Concerns and Preferences (negative and positive impacts). Chapter 8 discusses Issues Identification for Round 3.

Detailed summaries of the Stakeholder Groups and public feedback, and materials used in the PEP are included in the report appendices.

## 2. Stakeholder Group Meetings

### 2.1 Identification of Stakeholder Groups

A Master Stakeholder Group List (MSL), based on Round 1 of the MMTP PEP, was maintained and utilized for Round 2. The MSL recorded the following information:

- Individuals who participated in Round 1.
- Individuals interested in receiving project information.
- Individuals interested in attending a Stakeholder Group Workshop.
- Individuals interested in attending a POH.
- Individuals interested in meeting with Manitoba Hydro representatives.
- Email or hard copy correspondence preference.
- Name.
- Company/Group.
- Address.
- Telephone, fax, email contact information.
- Comments from pre-engagement survey.
- Letter or email types sent in Round 1 and preferences for Round 2 communications.

In May 2014, there were a total of 154 Stakeholder Groups in the MSL, including several names added on the recommendation of other Stakeholder Groups and Aboriginal representatives.

#### 2.1.1 Notification for Stakeholder Groups

Manitoba Hydro notified all Stakeholder Groups regarding the Round 2 Alternative Routes and Preferred Border Crossings. On April 1, 2014 letters were sent to all Stakeholder Groups identified in the Round 2 MSL. Four different versions of the letter were sent out, based on preferences for communication Stakeholder Groups identified during Round 1. The categories of letters were as follows:

- Letter A: Project notification, based on Stakeholder Groups preference for "Information Only".
- Letter B: Request for meeting with Stakeholder Groups.
- Letter C: Project information for Stakeholder Groups specific to Glenboro expansion.
- Letter D: Request for meeting with multiple Stakeholder Groups within same organization.

Following delivery of the email and/or hard copy of the letters, attempts were made to contact all recipients of Letter B or Letter D to confirm receipt of the letter and attempt to schedule a meeting. Stakeholder Groups were initially contacted via telephone to determine whether they were interested in being interviewed regarding the Round 2 engagement (as per the email), and interview times were scheduled. A minimum of three attempts were made to contact all Letter B and D recipients. After three unsuccessful attempts, Manitoba Hydro identified the Stakeholder Groups as being "not available" for an interview.

A copy of Letters A-D can be found in Appendix G.

#### 2.1.2 Stakeholder Groups – Informed of Round 2 PEP

Letter C was sent out only to Stakeholder Groups with potential interest in the Glenboro expansion. The letter was sent to the following Stakeholder Groups:

- Village of Glenboro.
- RM of South Cypress.
- Assiniboine Hills Conservation District.

The MSL included 61 Stakeholder Groups from the following 52 organizations that received a copy of Letter A (Information Only):

- 50 by '30
- All-Terrain Vehicles of Manitoba Inc.
- Boreal Forest Network
- Canadian Pacific Railway
- Canadian Parks and Wilderness Society
- City of Winnipeg
- CN Rail - Business Development & Real Estate
- Consumers Association of Canada
- Cooks Creek Conservation District
- Ducks Unlimited
- Ducks Unlimited Native Plant Solutions
- Green Party of Manitoba
- Local Urban District of Richer, Committee Member-Chairperson
- Macdonald-Ritchot Planning District
- Manitoba Agriculture, Food and Rural Development (Land Use)
- Manitoba Agriculture, Food and Rural Development (Rural Development)
- Manitoba Association of Cottage Owners
- Manitoba Conservation & Water Stewardship Departments:
  - Aboriginal Relations
  - Air Quality
  - Climate Change
  - Ground Water Management
  - Office of Drinking Water
  - Water Use Licensing
  - Crown Lands
- Manitoba Culture, Heritage and Tourism
- Manitoba Eco Network
- Manitoba Floodway Authority
- Manitoba Habitat Heritage Corporation
- Manitoba Infrastructure & Transportation (Materials Engineering)
- Manitoba Innovation Energy & Mines (Energy Dev)
- Manitoba Lodges and Outfitters
- Manitoba Naturalists Society
- Manitoba Wilderness Committee
- Manitoba Wildlife Federation
- Manitoba Wildlife Society
- Mining Association of Manitoba
- Orchid Society
- Portage la Prairie Community Planning Services
- RM of De Salaberry
- RM of Franklin
- Sierra Club (Prairie Chapter Manitoba)
- Sno-Man Inc
- Southeast Sno-riders
- St. Norbert Ward - Winnipeg
- St. Vital Ward - Winnipeg
- Town of St. Pierre Jolys
- Trails Manitoba
- TransCanada Pipelines Limited
- Travel Manitoba
- University of Manitoba
- Village of Glenboro

### 2.1.3 Stakeholder Groups – Requested Round 2 PEP Meetings

Based on the letters sent to Stakeholder Groups identified in the MSL, the following groups/companies received a Round 2 meeting request letter (Letter B and Letter D). A total of 66 people from the 48 organizations listed below were contacted to request meetings:

- Manitoba Conservation & Water Stewardship (Regional Director)
- Beausejour Community Planning Services
- Bird Atlas
- City of Steinbach
- Green Action Centre
- HyLife
- Integrated Resource Management Team
- KC's Outfitting
- Keystone Agricultural Producers
- Manitoba Aerial Applicators
- Manitoba Agriculture Food and Rural Initiatives
- Manitoba Chamber of Commerce
- Manitoba Conservation & Water Services (Water Control Works and Drainage Licensing)
- Manitoba Conservation & Water Stewardship:
  - Fisheries
  - Parks
  - Protected Areas Initiative
  - Water Quality Management
  - Wildlife
  - Forestry
- Manitoba Culture, Heritage, Tourism
- Manitoba Forestry Association
- Manitoba Health (Environmental Health Unit)
- Manitoba Infrastructure and Transportation
- Manitoba Infrastructure and Transportation (Planning and Design)
- Manitoba Innovation Energy & Mines (Mines)
- Manitoba Labour & Immigration (Office of Fire Commissioner)
- Manitoba Trappers Association
- Manitoba Wildlands
- Manitoba Woodlot Association
- Nature Conservancy
- Organic Producers Association of Manitoba Co-Operative Inc.
- RM of Hanover
- RM of Headingley
- RM of La Broquerie
- RM of MacDonald
- RM of Piney
- RM of Reynolds
- RM of Ritchot
- RM of Rosser
- RM of Springfield
- RM of Ste. Anne
- RM of Stuartburn
- RM of Tache
- Ruth Marr Consulting
- Seine-Rat River Conservation District

- Steinbach Community Planning Services
- Steinbach Office Local Government Planners
- Town of Ste. Anne

Stakeholder Groups which requested meetings were contacted three (3) times following the initial meeting request letter to schedule meetings. A total of 19 meetings were scheduled/held in April and May of 2014, some meetings included attendees from multiple Stakeholder Groups.

The following Stakeholder Groups were added during Round 2. The Stakeholder Groups were not part of the initial Round 2 MSL and were met with between April 2014 and September 10, 2014:

- Sundown Coalition
- Tache Coalition
- Southeast Trappers Association
- Ste. Genevieve Landowner Reps.
- Two individual landowners

## 2.2 Stakeholder Groups and Landowner Meetings

During the PEP a total of 25 meetings with Stakeholder Groups and landowners were convened. Manitoba Hydro representatives met with over 115 Stakeholder Groups and landowner representatives at these meetings.

Summaries of the Stakeholder Groups/Landowner Meetings were recorded by Manitoba Hydro staff in attendance. Appendix A1 contains edited summaries of the following meetings.

**Table 2-1: Summary of Round 2 Stakeholder Group and Landowner Meetings**

Stakeholder Group Meetings		Meeting Date
1.	Manitoba Conservation and Water Stewardship – Mammal Studies	April 11, 2014
2.	Manitoba Culture, Heritage and Tourism	April 22, 2014
3.	RM of Piney	April 23, 2014
4.	RM of La Broquerie, RM of Hanover and Seine-Rat River Conservation District  <i>(Note: The RM of La Broquerie subsequently provided a letter to Manitoba Hydro, on May 16, 2014, including a RM Council Resolution 172-14: "...whereas the Council of the Rural Municipality of La Broquerie has serious concerns and objections to refined alternative route (Segment) #208", "and whereas the Council is of the opinion that (Refined Alternative) route (Segment) #207 offers the least disruptive and economical route for citizens and Manitoba Hydro"; "Therefore be it resolve that the Council of the RM of La Broquerie on behalf of its citizens, strongly urge Manitoba Hydro to consider alternative route #207 as the logical alternative for this project.)</i>	April 24, 2014
5.	HyLife Limited	April 24, 2014
6.	Manitoba Conservation and Water Stewardship (Water Control Works & Drainage Licensing)	April 25, 2014
7.	IRMT	April 28, 2014
8.	Keystone Agricultural Producers	May 1, 2014
9.	Manitoba Infrastructure and Transportation	May 5, 2014
10.	RM of Ritchot	May 6, 2014
11.	Manitoba Conservation and Water Stewardship (Wildlife, Parks and PAI), Bird Atlas	May 7, 2014

Stakeholder Group Meetings		Meeting Date
12.	KC's Outfitting	May 8, 2015
13.	Manitoba Chamber of Commerce	May 8, 2014
14.	Manitoba Mineral Resources (Mines Branch)	May 12, 2014
15.	RM of Rosser	May 13, 2014
16.	Town of Ste. Anne	May 13, 2014
17.	RM of Ste. Anne	May 14, 2014
18.	Landowner (St. Genevieve Landowner Representatives)	May 20, 2015
19.	Nature Conservancy	May 20, 2014
20.	RM of Tache <i>(Note: On September 10, 2014 a petition was presented to Manitoba Hydro from the landowners in the RM of Tache. A copy is attached in Appendix A2. In total 117 individuals signed the petition, which stated that "We the undersigned oppose the construction of the proposed Manitoba Minnesota Transmission Line and the siting of the line along the recently added routes, namely segments 202-203, 204. The siting of the line on these routes would be devastating to everyone on and around these segments".)</i>	May 20, 2014
21.	Landowner (V)	May 21, 2014
22.	RM of Stuartburn	May 22, 2014
23.	RM of Reynolds	May 27, 2014
24.	Landowner (R)	June 6, 2014
25.	Landowner and RM Councillor (H)	July 3, 2014
26.	Landowner (Sundown Coalition Meeting)	July 16, 2014
27.	Landowner (Tache Landowner Coalition)	September 10, 2014
28.	Manitoba Conservation and Water Stewardship (Parks and Wildlife)	September 25, 2014
29.	Southeast Trappers Association	October 6, 2014

### 2.3 Summaries of Concerns and Preferences from Stakeholder Group Meetings

Table 2-2 provides a list of Concerns identified in Stakeholder Group Meetings. The table is organized by Alternative Route Segments and Valued Components, with detailed Concerns for each component organized by key words.

**Table 2-2: Summary of Stakeholder Groups Concerns by Alternative Route Segment**

Alternative Route Segment	VC	Number	Detailed Concerns	Number
200	Infrastructure and Services	2	New Highway By-pass construction (Headingley and St. Norbert areas) and spacing of towers.	
201	N/A	0		
202	Property & Residential Development	1	Many properties, split acreages and subdivisions, limiting potential development for some parcels.	1
202	Public Safety and Human Health	1	Access – ATVs use existing transmission line ROW to access quarry. Trapping occurs along the line, garbage and potential for fires from smokers.	1
202	Aesthetics	1	Impact on community character.	1

Alternative Route Segment	VC	Number	Detailed Concerns	Number
202	Wildlife	1	Valuable wildlife habitat – Golden-winged warbler Impact on community character.	1
	<b>Total</b>	<b>4</b>		
203	Property & Residential Development	1	Many properties, split acreages and subdivisions, limiting potential development for some parcels.	1
203	Public Safety and Human Health	1	Access – ATVs use existing transmission line ROW to access quarry. Trapping occurs along the line, garbage and potential for fires from smokers.	1
203	Aesthetics	1	Impact on community character.	1
203	Wildlife	1	Valuable wildlife habitat – Golden-winged warbler Impact on community character.	1
	<b>Total</b>	<b>4</b>		
204	N/A	0	No Comments Recorded.	
205	Property & Residential Development	2	Future commercial development on PTH #1. Proximity to existing residence and new development.	2
205	Infrastructure and Services	1	TransCanada Highway is already highly developed and there are future plans for additional development along the highway.	1
	<b>Total</b>	<b>3</b>		
206	Property & Residential Development	1	Future subdivision south of the Trans-Canada Highway near jog "Country Route Lane".	1
206	Vegetation and Wetlands	1	MCWS - concern about proximity to Balsam Ecological Reserve (Sensitive Site Declaration).	1
206	Infrastructure and Services	1	Rail line would also parallel highway, creating too many parallel rights-of-way.	1
	<b>Total</b>	<b>3</b>		
207	Property & Residential Development	1	One home potentially in right-of-way.	1
207	Heritage Resources	1	High potential for heritage sites on Bedford Ridge.	1
207	Vegetation and Wetlands	1	Proximity to Watson P. Davidson Wildlife Management Area.	1
207	Recreation and Tourism	1	Concern about impact on golf course.	1
	<b>Total</b>	<b>4</b>		
208	Property & Residential Development	1	a) Too close to Town of La Broquerie. b) Concern about impact on golf course.	1
208	Livestock Operations	1	Easement 300 m from cattle barn; Segment would impact HyLife operations.	1
208	Cost	1	Swamp land – concerns about access and construction.	1
	<b>Total</b>	<b>3</b>		
209	Agricultural Land Use	1	Private Property – berry farmer.	1

Alternative Route Segment	VC	Number	Detailed Concerns	Number
209	Heritage Resources	2	Cemetery – grave of a little girl. High potential heritage area at Rat River crossing.	2
209	Wildlife	2	Relatively intact habitat polygons. Concern by RM of Stuartburn.	2
209	Hunting, Trapping and Fishing	1	Bear bait locations; KCs Outfitting.	1
209	Infrastructure and Services	1	Control structure on Horseshoe Lake /Sundown Lake.	1
	<b>Total</b>	<b>7</b>		
210	Infrastructure and Services	1	RM of Piney partner in airstrip. Runway expansion near Piney. Concern about glide path interference.	1
210	Vegetation and Wetlands	2	Bog complex west of Segment has a high ecological value. Concern by RM of Stuartburn.	2
	<b>Total</b>	<b>3</b>		
211	Vegetation and Wetland	1	Bog straddling the international border.	1
211	Wildlife	3	Relatively intact habitat polygons; avoid due to wildlife.	3
211	Infrastructure and Servicing	1	Do not interfere with Piney Airport (2.5 miles from edge of ROW).	1
	<b>Total</b>	<b>5</b>		
211	Other	1	Why is this route even being considered?	
General	Agricultural Land Use	1	Aerial applicator concerns in agricultural areas.	1
	Livestock Operations	1	EMF effects on dairy farms/health impacts on cattle.	1
	Property & Residential Development	1	Impact of the transmission line on property values.	1
	Resource Use	1	Mines Branch would evaluate claims on a case-by-case basis.	1
	Cost	2	Payback time for the transmission line. Viability of the MMTP, export sales.	2
	<b>Total</b>	<b>6</b>		

The same Stakeholder Group Meetings data set was also used to identify Stakeholder Group Preferences.

Table 2-3: Summary of Stakeholder Groups Preferences by Alternative Route Segment

Alternative Route Segment	VC	Number	Detailed Preferences	Number
200	N/A			
201	Aesthetics	1	Manitoba Conservation, Tourism, Heritage preferred Segment 201 vs 205 due to views on Trans-Canada Highway.	1
201	Infrastructure and Services	1	MIT prefer over Segment 205.	1
	<b>Total</b>	<b>2</b>		

Alternative Route Segment	VC	Number	Detailed Preferences	Number
202	Infrastructure and Services	1	MIT preferred over Segment 205.	1
	<b>Total</b>	<b>1</b>		
203	N/A	0		
204	NA	0		
205	Vegetation and Wetlands	1	MCWS preferred this Segment over 201 from a wildlife perspective.	1
		1	Seine-Rat River Conservation District preferred this Segment to 202, 203 and 204.	
	<b>Total</b>	<b>2</b>		
206	N/A	0		
207	Property & Residential Development	1	RM of La Broquerie preferred this Segment to 208 - least impact on citizens.	1
	<b>Total</b>	<b>1</b>		
208	Infrastructure and Services	1	RM of Piney preferred this Segment to 207.	1
208	Tourism and Recreation	1	Manitoba Culture, Heritage and Tourism – preferred this Segment to 207.	1
208	Wildlife	1	MCWS - preferred this Segment to 207. Preference of Wildlife.	1
208	Vegetation and Wetlands	2	MCWS - preferred this Segment to 207. Preference of Protected Areas Initiative and Parks.	2
	<b>Total</b>	<b>5</b>		
209	N/A	0		
210	Wildlife	1	MCWS Mammal Studies prefers this Segment.	1
	<b>Total</b>	<b>1</b>		
211	N/A	0		
General	Follow Existing Infrastructure	2	Parallel other transmission lines Parallel existing D602F line.	2
	<b>Total</b>	<b>2</b>		

### 2.3.1 Review of Stakeholder Group Concerns and Preferences for Alternative Route Segments

There were distinct differences between Stakeholder Group Concerns and Preferences for most of the Alternative Route Segments.

- Segment 200: concerns from MIT about new highway by-passes and location of towers.
- Segment 201: was preferred over Segment 205 by Manitoba Culture Heritage and Tourism due to aesthetic considerations.

- Segments 202, 203 and 204 versus 205: the first three segments were preferred by Manitoba Conservation and Water Stewardship (MCWS), Mammal Studies due to habitat concerns with Segment 205; local landowners also had Property & Residential Development concerns related to Segment 205; however, Segment 205 was preferred by the Seine-Rat River Conservation District related to vegetation and wetland considerations.
- Segment 206: MCWS had concerns related to its proximity to the Balsam Ecological Reserve.
- Segment 207: preferred by representatives of the RM of La Broquerie, HyLife and KCs Outfitting, while Segment 208 was strongly preferred by the two government departments (MCHT and MCWS) and the RM of Piney.
- Segment 210: MCWS and KCs Outfitting preferred, but the RM of Piney was concerned about an airstrip, of which they were joint owners, near Segments 210 and 211.
- Segment 211: Concern by the RM of Piney and others about impacts on existing habitat along.

## 3. Public Open Houses

### 3.1 Purpose

The purpose of the POH events were to understand local concerns, collect feedback, and to identify interests, opportunities and constraints that would be considered for the environmental assessment and Transmission Line Routing Process. This involved informing the public about the project, and obtaining feedback from Stakeholder Groups, landowners and members of the public regarding their criteria for environmental assessment and transmission line routing, and their transmission line routing preferences.

Key approaches to obtaining information from attendees included:

1. Comment Sheets: The POH Comment Sheets provided opportunities for respondents to describe general and specific concerns and preferences; provide specific location data for sites that Manitoba Hydro should take into account in their transmission line construction, and to suggest mitigation approaches and siting criteria.
2. Maps: Allowed attendees to show Manitoba Hydro the specific locations of potentially affected properties or features, and to specify the perceived impacts of the transmission line.
3. Landowner Information Forms: The Landowner Information Forms (LIF) provided opportunities for respondents to describe their property in detail, including site specific data. The forms were made available throughout Round 2 at the POH venues.

Information obtained through each of these POH information gathering techniques is analyzed in separate sections below.

### 3.2 Methodology

#### 3.2.1 Advertising and Notification

##### 3.2.1.1 Newspaper and Newsletter Advertising

Newspaper advertising for the POH events was printed in the *Winnipeg Free Press* and *Winnipeg Sun*, including a Free Press article on April 9, 2014 prior to the start of the 10 POH events. Advertisements were also placed in the *Winnipeg Free Press* on April 5, 2014 and April 26, 2014, and in the *Winnipeg Sun* on April 6, 2014 and April 27, 2014.

French-language POH advertising was printed in the francophone *La Liberte* on April 2, 9 and 16, Advertisements also appeared in a number of weekly newspapers, as indicated below.

- *Beausejour Clipper* Thursday, April 24, 2014
- *Canstar Weeklies (Sou'wester and The Lance)* Wednesday, April 16 and 22, 2014
- *Dawson Trail Dispatch* (monthly paper) Wednesday, April 2, 2014
- *Manitoba Co-operator* Thursday, April 3, 10 and 17, 2014
- *Steinbach Carillon* Thursday, April 3, 10 and 17, 2014
- *Headingly Headliner* Friday, May 2, 2014
- *Grassroots News* (Aboriginal) Thursday, April 8 and 22, 2014

Ads were typically in the range of 7" x 9", with the smallest being 5" x 7" and the largest, 7.5" x 10".

A radio station (NCI-FM) also carried advertising related to the POH events for Round 2.

NCI-FM, on Metis Hour, Saturdays April 12 and 19, 2014; and three times daily Monday to Friday between 6:00 a.m. and 7:00 p.m. from April 7 to 25, 2014.

An additional round of advertising was undertaken in advance of the second Ste. Anne open house, held June 18, 2014. French-language Public Open House advertising was printed in the francophone *La Liberté* on Wednesday, June 11, 2014. The ads were placed as follows.

- |                              |                         |
|------------------------------|-------------------------|
| • <i>Winnipeg Free Press</i> | Saturday, June 14, 2014 |
| • <i>Winnipeg Sun</i>        | Sunday, June 15, 2014   |
| • <i>Steinbach Carillon</i>  | Thursday, June 12, 2014 |
| • <i>Beausejour Clipper</i>  | Thursday, June 12, 2014 |

Samples of the advertisements are included in Appendix B.

### 3.2.1.2 Postcard Notifications

Manitoba Hydro also produced short postcards informing people about upcoming Round 2 MMTP POHs. A mail drop on March 18, 2014 included 24,520 postcards with a map showing the Alternative Routes. An additional 1,800 postcards were sent out in March, 31, 2014 regarding the first 10 of 11 POH events.

Postcards described the Transmission Line Routing and Environmental Assessment Processes, and Engagement Process; provided a map showing the Alternative Routes and Preferred Border Crossing area, and described the Southern Loop Transmission Corridor.

### 3.2.1.3 Telephone Call Notifications

Manitoba Hydro representatives contacted members of the public by telephone in advance of events, if requested. During Round 1, attendees at public events were asked if they would like to be contacted by telephone or email to stay informed on upcoming events. If attendees indicated telephone notifications, their contact information was added.

In total, 96 phone calls were made directly to residents to inform them of the Round 2 Open Houses.

### 3.2.1.4 Manitoba Hydro Project Website

The MMTP Project page was developed and maintained by Manitoba Hydro. The website includes links to all materials presented at open houses, project status updates, advertisements and regulatory information.

Public feedback is collected on the website and the public is provided with links to the project-specific email address ([MMTP@hydro.mb.ca](mailto:MMTP@hydro.mb.ca)), telephone numbers and mailing address. A link is also provided for those interested in signing up for the project related email notifications.

During Round 2 of engagement, an electronic version of the comment sheet was also made available on the website from April 1, 2014 to August 15, 2014.

### 3.2.1.5 Manitoba Hydro Email Campaign

A total of 120 email addresses were obtained from POH Sign-in Sheets/Comment Sheets, and additional email addresses were obtained from on-line respondents. Email Campaign notifications were sent out as reminders of upcoming POH on the following dates:

**Table 3-1: Summary of Manitoba Hydro Email Campaigns**

<b>Email Campaign Notification Date</b>	<b>Number of Email Addresses Notified</b>
April 1, 2014	203
May 21, 2014	398
June 6, 2014	383
July 21, 2014	393
August 8, 2014	419
August 18, 2014	417
October 28, 2014	435

### 3.2.1.6 Posters

A total of 64 posters were posted in 17 communities in well-frequented locations, including: post office box locations, credit unions, grocery stores, pharmacies, motels, restaurants and bars, liquor commissions, gas stations, and community bulletin boards.

Communities included: Anola, Dugald, Giroux, Iles des Chenes, La Broquerie, Lorette, Marchand, Piney, Richer, Ste. Anne, Ste. Genevieve, Sandilands, South Junction, Sprague, Sundown, Vita and Wood Ridge.

An additional 45 posters were posted in 8 communities in advance of the second POH held in Ste. Anne on June 18<sup>th</sup>, 2014. A list of poster locations is included in Appendix B.

### 3.2.2 Public Open House Venues and Dates

**Table 3-2: List of Public Open House Venues and Dates**

<b>Location</b>	<b>Venue</b>	<b>Date and Hours</b>
Ste. Anne, MB	Seine River Banquet Centre, 80A Arena Road	Tuesday, April 15, 2014 4:00 pm to 8:00 pm
Richer, MB	Richer Young at Heart Community Club, Dawson Road at Highway 302	Wednesday, April 16, 2014 4:00 pm to 8:00 pm
Vita, MB	Vita Community Hall, 209 Main Street North	Tuesday, April 22, 2014 4:00 pm to 8:00 pm
Piney, MB	Piney Community Centre, Highway No. 89 (Main Street)	Wednesday, April 23, 2014 4:00 pm to 8:00 pm
La Broquerie, MB	La Broquerie Arena, 35 Normandeau Bay	Thursday, April 24, 2014 4:00 pm to 8:00 pm
Dugald, MB	Dugald Community Club, 554 Holland Street	Tuesday, April 29, 2014 4:00 pm to 8:00 pm
Marchand, MB	Marchand Community Club, Dobson Avenue	Wednesday, April 30, 2014 4:00 pm to 8:00 pm
Lorette, MB	Lorette Community Complex, 1420 Dawson Road	Tuesday, May 6, 2014 4:00 pm to 8:00 pm
Headingley, MB	Headingley Community Centre, 5353 Portage Avenue	Wednesday, May 7, 2014 4:00 pm to 8:00 pm
Winnipeg, MB	Holiday Inn Winnipeg South, 1330 Pembina Highway	Thursday, May 8, 2014 4:00 pm to 8:00 pm
Ste. Anne, MB	Seine River Banquet Centre, 80A Arena Road	Wednesday, June 18, 2014 4:00 pm to 8:00 pm

### 3.2.3 POH Information Stations

The POH events were organized around a series of presentation storyboards, large maps and a GIS map station, all intended to provide information about the proposed transmission line, and obtain information and feedback about attendees' routing criteria and preferences related to an Alternative Route and Preferred Border Crossing. Manitoba Hydro and consultant staff members at the information stations addressed concerns and answered questions from the public.

#### 3.2.1.1 Storyboards

Manitoba Hydro prepared storyboards describing the overall project and the work completed by the project team to date; copies of these are found in Appendix C1. Each POH included three sets of storyboards as follows:

- One set of storyboards provided an introduction to the MMTP, indicating what was included and why it was needed: electric power sales; reliability and import capacity and access to additional USA markets. Additional information included; transmission line tower design alternatives and station improvements.
- One set of storyboards described the environmental assessment process, emphasizing that this was the principal focus of the PEP. One board discussed the regulatory requirements for the transmission line; another provided information on Study Area Characterization
- One set of storyboards outlined the Transmission Line Routing approach, including evaluation criteria.

#### 3.2.1.2 iPad Map Stations

iPad Map Stations at each POH provided a means for obtaining location-specific, detailed transmission line comments from landowners and other attendees. AECOM and Manitoba Hydro staff discussed issues and concerns, constraints and proposed realignments with attendees who visited the Map Stations.

Many POH attendees provided site specific information as annotations on Maps.

#### 3.2.1.3 Handouts and Comment Sheets

Handouts at the POH included the following materials.

##### MMTP Project Specific

- *Manitoba-Minnesota Transmission Project – Round 2 – Preferred Border Crossing and Refined Alternative Routes*: This newsletter was prepared and provided to attendees of the Public Open Houses, and included the project timeline, tower design, a map of the Alternative Routes and Preferred Border Crossing, and a summary of the general comments and concerns heard in Round 1 from Stakeholder Groups and the public.
- *Manitoba-Minnesota Transmission Project Comment Sheet (April 2014)* – The Comment Sheet included nine questions regarding the following: respondent background information and general feedback about the engagement process; levels of concern about project Valued Components (VCs); preferences, concerns or constraints related to the Alternative Route Segments, and other considerations or recommendations related to the project. The on-line version of the Comment Sheet did not include the request for respondent information.
- *Manitoba-Minnesota Transmission Project Quick Facts* – This brochure was prepared as a high-level overview of the project and the review process.

- *Manitoba-Minnesota Transmission Project – Route Selection Process* – This handout presented the methodology used in transmission line routing, including the criteria and progress of the project.
- *Manitoba-Minnesota Transmission Project Landowner Compensation Information* – This handout summarized the four types of compensation available to landowners by Manitoba Hydro (land, construction damage, structure impact and ancillary damage compensation).
- *Manitoba-Minnesota Transmission Project – Round 1 Public Engagement Alternative Routes & Potential Border Crossings* – The Round 1 brochure prepared for the previous POH was also available at the Round 2 POH. The brochure provided background information on the project, including the need, location and proposed export plans.

### General Information

- *Alternating Current – Electric and Magnetic Fields* – Prepared by Exponent Engineering and Scientific Consulting for Manitoba Hydro this handout provided an overview of AC electric and magnetic fields, health information related to EMF and audible noise from EMF.
- *AC Lines and Electronic Devices* – Prepared by Exponent Engineering and Scientific Consulting, this provided information on EMF interference with electronic devices including GPS, wireless internet and signal blocking/reflection.
- *Health Canada – Electric and Magnetic Fields from Power Lines and Electrical Appliances* – Information prepared by Health Canada was made available at the Public Open Houses, which discussed exposure to EMF, reducing risk and Canada's role in monitoring EMF, and provided links to other agency reports.
- *Information for Proposed Pipeline or Power Line Projects that Do Not Involve a Hearing* – This handout from the National Energy Board (NEB) outlined the general information requirements and processes involved for facilities applications, including ways in which the public should be engaged.
- *Transmission Right of Way Tree Clearing and Maintenance* – This handout provided an overview of the process Manitoba Hydro uses when managing vegetation near transmission power lines, including tree removal, safety and herbicide application.
- *Manitoba Hydro's "Seven things you should know about Manitoba's energy future"* – This brochure highlighted Manitoba Hydro's Development Plan and provided facts about the corporation.
- *Siting Transmission Lines Using the EPRI-GTC Siting Methodology* – This pamphlet provided the general methodology, which was adapted and used in the MMTP project.
- *Stray Voltage on Dairy Farms – Symptoms and Solutions* – This reference document, prepared by Manitoba Hydro, included worksheets to assist landowners with determining stray voltage in their livestock operations.

### Information on Manitoba Hydro Career Opportunities

The following Career Development and Training brochures were made available at the POHs to highlight some of the careers available through Manitoba Hydro.

- Trades and Technology Programs.
- Business Commerce Career Development Program.
- Aboriginal Pre-Placement Training Program.
- Engineering Engineer-in-Training Program.
- Information Technology IT Career Development Program.
- Aboriginal Line Trades Pre-Placement Training Program.
- Customer Support Representative Customer Contact Centre.
- Manitoba Hydro Employment Line Business Card.

### 3.3 Summary of Results – Public Open Houses

Attendees were provided with Comment Sheets (a copy of a Comment Sheet is provided in Appendix C2) upon entry to the POH: of 658 attendees at the 11 POH, 207 completed Comment Sheets and returned them to Manitoba Hydro. In addition 235 Comment Sheets were completed online by August 15, 2014, which may have included feedback from some of those who attended POH events.

#### 3.3.1 Analysis of Comment Sheets

POH Comment Sheets were analyzed using a MS Excel database. The report in Appendix C3 summarizes the Comment Sheets returned to Manitoba Hydro by August 15, 2014 and Appendix C4 includes the raw Comment Sheet data.

#### 3.3.2 Review of Results

The following subsections summarize responses to each of the Comment Sheet questions. Analysis associated with this section is related to Comment Sheet data only.

##### 3.3.2.1 Number of Responses

Table 3-3 below summarizes the number of attendees and the number of Comment Sheets returned at each POH event, as well as by mail and email to June 18, 2014. The total of 205 provides a response rate of 31% of attendees. Note that Comment Sheets returned later by mail could include attendees, other family members, friends and neighbours. Similarly some of the on-line comment sheets could have been completed by POH attendees. The overall total of Comment Sheets received from all sources was 442. Only 59 respondents said they had attended a least one POH; 52 said they had not, and 292 did not respond.

**Table 3-3: Comment Sheets Returned**

No.	Location	Date	Number of Attendees	Comment Sheets Returned	Comment Sheets Completed On-line
1	Ste. Anne	April 15th	90	24	-
2	Richer	April 16th	38	13	-
3	Vita	April 22nd	30	12	-
4	Piney	April 23rd	31	12	-
5	La Broquerie	April 24th	69	23	-
6	Dugald	April 29th	86	22	-
7	Marchand	April 30th	48	21	-
8	Lorette	May 6th	91	26	-
9	Headingley	May 7th	14	6	-
10	Winnipeg	May 8th	30	9	-
11	Ste. Anne	June 18th	131	28	-
12	Emailed	To July 18	-	11	-
13	Online	To August 15	-	-	235
	<b>TOTAL</b>		<b>658</b>	<b>207</b>	<b>235</b>

**Note:** The timing of POH events was typically 4:00 pm to 8:00 pm, although some ran longer.

### 3.3.2.2 How Respondents Were Informed of Events

Respondents were asked how they heard about the POH event that they attended (by postcard, letter, newspaper, website, phone and/or other).

- 38 received postcards.
- 75 saw newspaper advertising.
- 8 saw posters.
- 22 saw information on the Manitoba Hydro website.
- 22 received telephone calls.
- 157 received a letter from Manitoba Hydro.
- 55 respondents said they had not seen or received a notice of the POH.

*Note: Individual respondents could give more than one answer. There were 377 responses from the 207 Comment Sheets returned.*

### 3.3.2.3 Comments on Notification and Improving Notification

A total of 120 comments regarding notification about Public Open House events were provided. The most frequent responses were concerned with the methods of contact and timing of notification.

Method of Receiving Information (53 Total):

- Letter on Comment Sheet (7 responses)
- Also received letter in mail (13 responses)
- Neighbour (18 responses)
- Other (10 responses)
- Municipal Councillor/RM contacted (2 responses)
- Other: [Hydro] bill /flyer (2 responses)
- Informed by Consumer Association MB (1 response)

Recommendations on Method of Contact (32 total)

- Registered letter /letter (10 responses)
- Email (7 responses)
- Personal contact/Go door to door especially to the landowners (5 responses)
- Telephone calls (2 responses)
- Website /Steinbach on line (2 responses)
- Notices direct to homes (2 responses)
- La Broquerie area, the Carillion News (Steinbach), contacting the Mayor's office, public bulletins/posters at the post office in La Broquerie. Not enough notice through local sources. (11 responses)
- TV exposure (commercial-like info) (22 responses)
- Send them out with monthly bill (1 response)

Timing of Notification (12 total)

- Send letters earlier

Information Provided (9 Total)

- Map not detailed enough
- Accuracy on the cost to rate payers in Manitoba
- More informative letter

Like the Engagement Process (9 total)

- I am happy with the engagement process
- Well-advertised

Other (4 total)

- Engagement process could improve if it was less political/faster

#### 3.3.2.4 Respondents' Locations

Respondents to the hard copy Comment Sheets were asked if they lived or worked near one of the Alternative Routes. This "optional" question was not included in the on-line survey. In total, 180 of the 207 comment sheets had this question completed. Of the Comment Sheets with responses included, 151 indicated that they lived/worked near one of the alternative routes, 31 indicated they did not, and 25 did not have a response.

#### 3.3.2.5 Public Engagement Process

A number of questions were directed to determining how participants viewed the Public Engagement Process.

1. Respondents were asked what Manitoba Hydro could do to improve the Public Open House events.

A number of people had concerns about the Public Open House advertising (type and timing) and communication (knowledge of staff and information) in particular. Generalized comments included:

- Better Communication and More Qualified Staff (18 responses)
- More/Better Information (7 responses)
- Have Group Discussions (6 responses)
- Use Better Advertising (18 responses)
- Timing of Notification (13 responses)
- Dates /Duration of POH (5 responses)
- Routing Recommendations (12 responses), including:
  - Use a route that has little to no population
  - Keep off my property
  - Already have one (transmission) line going through.
  - New segments were introduced in Round 2, which affect property now. New segments should not be added after alternatives were presented.
  - If not buried, put Hydro on bush land
  - Place poles or towers on Government Road Allowances
  - Build in areas that are not prime subdivision land
  - Go with (Segment) 207
  - Avoid wildlife
- Interested in Further Information (4 responses)
- Satisfactory (20 responses)
- Further Notes Provided (2 responses)
- Bipole III and Other Political/Economic (14 responses)

A total of 314 people did not answer this question.

2. Respondents were asked if the Manitoba Hydro project team provided them with enough information to allow them to participate as they would like.

Only 36 respondents said they had received enough information from the Project Team to participate as they would like; 59 said they had not, and 347 did not respond.

3. Asked what other information they would like to have related to the project, respondents had the following comments:

- More Detailed Information (14 responses)
- Better Location and Map Information (5 responses)
- Financial and Cost Information (3 responses)
- Information on Compensation (4 responses)
- EMF/Health Information (1 responses)
- Information from Overall Public Feedback (3 responses)
- Updates (3 responses)
- Notes/Concerns about Public Engagement Process (10 responses)
- Other (8 responses)

In total, 389 respondents had no comments regarding the need for other/additional information. Only 291 respondents completely filled out Comment Sheets. The remaining 112 submitted partially completed sheets, or had partial sheets completed by Manitoba Hydro and consultant staff members.

#### 3.3.2.6 Notification of Project Updates

Respondents were prompted to sign up for email updates on the project (optional). (See Section 3.2.1.3 for further details.)

#### 3.3.2.7 Valued Components (VC)

Table 3-4 indicates how respondents rated their levels of concern regarding various VC, including their own additions to the original list of 16 Valued Components (15 in the hard copy Comment Sheets).

Categories of Valued Components were identified by the Project Team in advance of the Round 2 POH events, based on issues identified by Stakeholder Groups and the public in Round 1, and general environmental assessment considerations.

For comparative purposes the Comparative Ranking column considers the total score for each VC, considering only the top 10 in levels of concern, with the lowest numerical "Comparative Ranking" indicating the highest level of concern, and the highest numerical ranking, the lowest level of concern. To determine the Comparative Ranking for each VC, responses in the "High", "Medium" and "Low" columns were weighted by factors of 3, 2 and 1, respectively. The weighting for "No Concern" was "0". For example, the VC with the highest level of concern, and therefore, a Comparative Ranking or score of 1, was "Public Safety and Human Health" with a total weighted level of concern of 878, while the VC category with a score of 10, "Recreation and Tourism" had a significantly lower weighted level of concern at 566. "Resource Use" with the very highest Comparative Ranking was 467.

Note that the on-line Comment Sheets included one additional VC, indicated in Table 3-4 as "A. Atmospheric Resources". Results for this VC are therefore based on 235 responses rather than the overall total of 442 responses. This VC could be considered to have a score in the top ten.

**Table 3-4: Evaluation of Valued Components (from Comment Sheets)  
(Total of 442 Responses)**

Categories of Valued Components				Number of Responses – Level of Concern				Comparative Ranking (Top 10)
				No Concern	Low (x1)	Medium (x2)	High (x3)	
<b>Natural Environment</b>								
A.	Atmospheric Resources*	NR 12	24	27	35	109	*	
B.	Groundwater Resources	NR 96	76	63	63	144	8	
C.	Fish; Fish Habitat	NR 95	84	93	78	92		
D.	Wildlife (Birds, Mammals, Reptiles)	NR 86	51	50	80	175	5	
E.	Vegetation and Wetlands	NR 97	50	55	84	156	6	
<b>Built Environment</b>								
F.	Public Safety and Human Health	NR 94	25	21	49	253	1	
G.	Aesthetics	NR 109	33	42	68	190	3	
H.	Property and Residential Development	NR 94	27	25	56	240	2	
I.	Recreation and Tourism	NR 114	61	74	87	106	10	
J.	Agricultural Land Use	NR 100	32	63	68	179	4	
K.	Livestock Operations	NR 105	47	67	68	155	7	
L.	Infrastructure and Services (Lagoons, Roads, Landfills)	NR 115	53	84	90	100		
<b>(Resource, part of Built)</b>								
M.	Hunting, Trapping and Fishing	NR 116	75	76	78	97		
N.	Traditional Land and Resource Use	NR 121	53	65	85	118	9	
O.	Heritage Resources (e.g. Archaeological)	NR 119	72	91	84	76		
P.	Resource Use (Forestry, Mining and Aggregate Extraction)	NR 120	80	92	75	75		
<b>Other:</b>								
Q.	(No items identified)						NA	

\*Based on 235 web survey responses.

### 3.3.2.7.1 Principal Concerns

The top 10 VC, those with the highest levels of concern, fell primarily into the Built Environment category, particularly related to concerns related to residential and agricultural land uses, as follows:

#### Built Environment

1. Public Safety and Human Health
2. Property and Residential Development
3. Aesthetics
4. Agricultural Land Use
7. Livestock Operations
10. Recreation and Tourism

The number of comments related to atmospheric resources may be more significant than noted since it was only based on 235 versus 442 responses. Natural Environment generally rated second place to the Built Environment. It should be noted that the overall rating for “Wildlife” was very close to the rating for “Agriculture”. The relative response frequency of the VC is graphically indicated in Figure 3-1.

#### Natural Environment

Atmospheric Resources – note that even with a smaller number of respondents this still rated fairly highly overall.

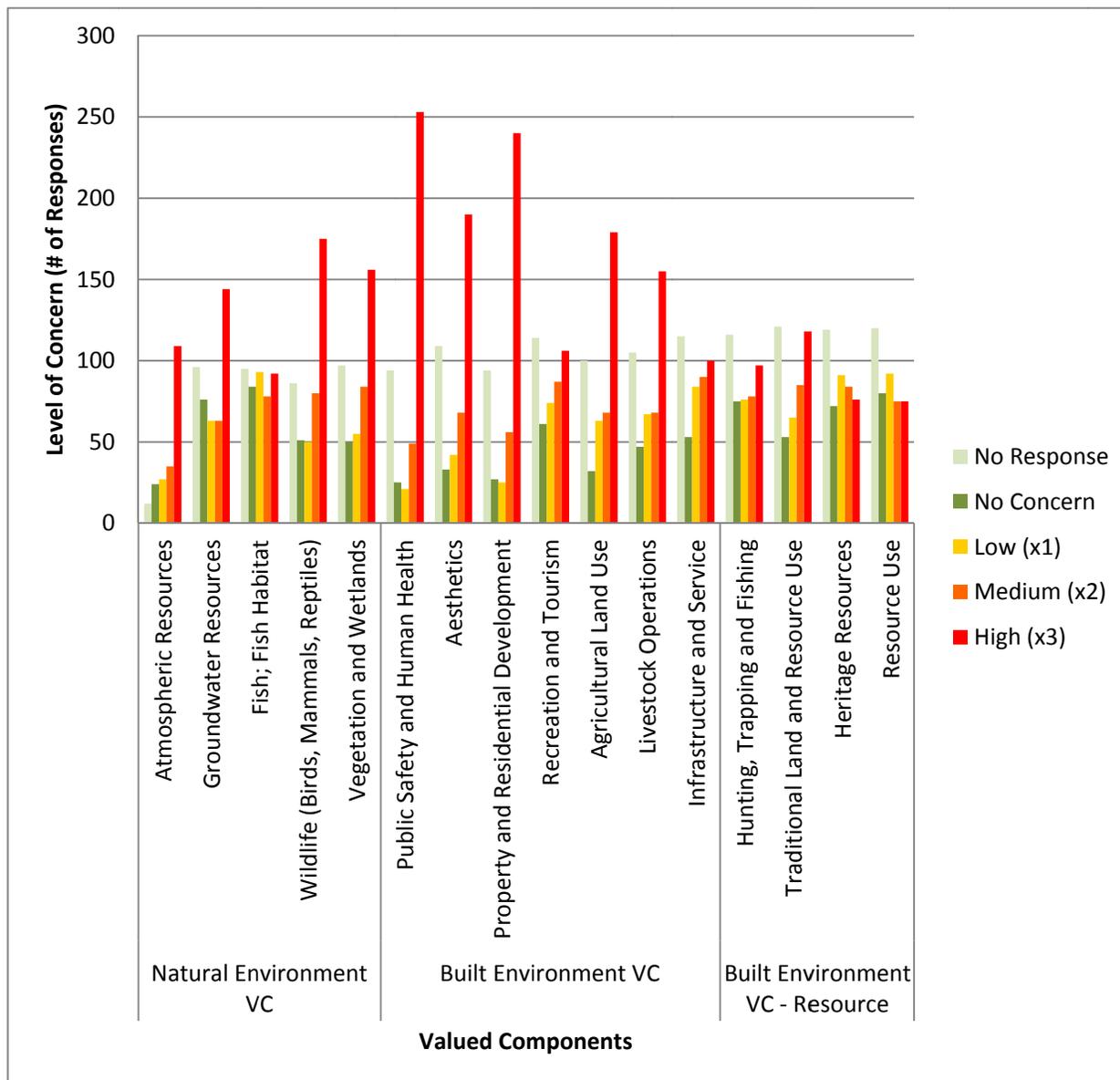
5. Wildlife (Birds, Mammals, Reptiles)
6. Vegetation and Wetlands
8. Groundwater Resources

#### Resource

9. Traditional Land and Resource Use

Resource Use (Forestry, Mining and Aggregate Extraction) had the lowest level of concern and would rank 16<sup>th</sup>.

**Figure 3-1: Relative Response Frequency in Valued Component Categories**



3.3.2.8 Summary of Concerns

Table 3-5 provides information on the VC categories and the specific kinds of Concerns related to each, as identified for each of the Alternative Route Segments.

VCs are those identified in the Comment Sheets. In addition, a number of additional categories relate to Comment Sheet responses that addressed Engineering and Cost considerations, such as co-location with existing transmission lines.

3.3.2.8.1 Specific Concerns

Specific Concerns related to each Alternative Route Segment are provided in the table below. The following Table 3-5 provides a summary of VC and Concerns for the entire project.

**Table 3-5: VC and Specific Concerns by Alternative Route Segment**

Route Segment	VC	# of VC Concerns	Concerns Details	# of Specific Concerns
200	Property & Residential Development	2	Proximity to residences/property	2
200	Public Safety and Human Health	2	Family health risks	1
			Pipeline – potential for rupture and fire	1
200	Use Existing Corridor	1	Follow existing transmission line	1
	<b>Total - Segment 200</b>	<b>5</b>		
<b>Segment 201</b>				
201	Property & Residential Development	7	Proximity to residences	7
201	Public Safety and Human Health	1	EMF	1
201	Vegetation and Wetlands	2	Pristine wilderness lot	2
201	Wildlife	1	Disruption to nature and wildlife	1
201	Recreation and Tourism	1	Affects area used for bicycling and walking	1
201	Use Existing Corridor	2	Use existing corridor	2
201	General	5	(Specific concerns not noted)	5
201	Multiple Existing Lines	2	High concentration of power lines	2
	<b>Total - Segment 201</b>	<b>21</b>		
<b>Segment 202</b>				
202	Property & Residential Development	22	Removes/splits property/affects property	6
			Prevents future development/subdivision	6
			Proximity to residences	4
			Property value	6
202	Public Safety and Human Health	8	EMF and health	2
			Herbicides and health	1
			Potential for fires	1
			Impacts (on people and property) from natural disasters	1
			ATV access and vandalism	3
202	Vegetation and Wetlands	4	Pristine wilderness lot	2
			Cutting forest	1
			Herbicides adverse impacts on ecosystem	1
202	Aesthetics	4	Destroys frontage aesthetics and property value	3
			Park-like yard	1
202	Wildlife	2	Disruptive to nature and wildlife	2
202	Hunting, Trapping and Fishing	1	Hunting	1
202	Groundwater Resources	1	Potential for aquifer contamination in anchoring structure	1
202	Agricultural Land Use	3	Interferes with farming operations	3
202	Livestock Operation	1	Livestock operation	1

Route Segment	VC	# of VC Concerns	Concerns Details	# of Specific Concerns
202	General Concern	1		1
202	Existing/Multiple Lines	3		3
	<b>Total - Segment 202</b>	<b>50</b>		
203	Property & Residential Development	31	Decrease in property value; compensation	10
			Close to residence	8
			Quality of life: destroying what we moved out of the city for; privacy	4
			Splits property/Property affected	12
			Affects frontages, going to subdivide	2
203	Public Safety and Human Health	12	EMF and health	2
			Effect on human health	5
			Potential for fire	2
			Herbicides and human health	1
			Vandalism due to increased traffic	1
			Noise	1
203	Vegetation and Wetlands	7	Rare species of plants	1
			Evergreens	2
			Cuts through too much forest	2
			Private nature preserve	1
			Herbicides affect local ecosystems	1
203	Wildlife	4	Access by ATVs and hunters Impacts from hunting	3
			Effect on animals	1
203	Groundwater Resources	1	Aquifer damage due to anchoring of towers	1
203	Aesthetics	2	Eyesore, affects value	2
203	Agricultural Land Uses	1	Loss of acreage	1
203	Livestock Operations	3	Middle of pasture; livestock	3
203	Hunting, Trapping and Fishing	1	Hunting	1
203	Existing/Multiple Lines	3	Already power line nearby	3
	<b>Total - Segment 203</b>	<b>65</b>		
204	Property & Residential Development	6	Proximity to property	4
			Property values (compensation)	2
204	Aesthetics	1	Visually unappealing	1
204	Public Safety and Human Health	3	Health concerns for children	1
			Safety related to large machinery	1
			Low ground; flooding and fire concerns	1
204	Agricultural Land Use	1	Organic farm; ATV trespassing concerns	1
204	Vegetation and Wetlands	1	Should not encroach on wetland wildlife habitat	1
204	Hunting, Trapping and Fishing	1	Value prime hunting land	1
204	Existing/Multiple Lines	1	Already have a power line	1
	<b>Total - Segment 204</b>	<b>14</b>		

Route Segment	VC	# of VC Concerns	Concerns Details	# of Specific Concerns
205	Property & Residential Development	39	Too close to residential/ Affects many families	18
			Too close to town	2
			Interferes with existing subdivision/residential expansion	7
			Affects value of property	7
			Runs through property	3
			Close to business	1
			Disrupts lifestyle	1
205	Aesthetics	11	Jumble of lines criss-crossing PTH #1	4
			Aesthetic concerns	7
205	Public Safety and Human Health	12	Health concerns for children/residents of Prairie Grove	9
			Interference with pets	2
			Public safety	1
205	Agricultural Land Use	4	Interference with excellent agricultural land	3
			Don't want near farm and home	1
205	Livestock Operations	4	Interference with livestock operations	3
			Concerns about stray voltage	1
205	Vegetation and Wetlands	2	Natural environmental impacts	2
205	Wildlife	2	Interference with animals	2
205	Recreation and Tourism		Future development (camper trailers)	1
			Area used for bicycles and walking	1
205	Infrastructure and Services	2	PTH #1 – avoid transmission line crossings on highway	1
			Crossing PTH #1 and major rail line 3 times	1
205	Routing	1	Follow existing Hydro line	1
	<b>Total - Segment 205</b>	<b>78</b>		
206	Property & Residential Development	6	Subdivision	3
			Too close to buildings	1
			Private land values	1
			Yard	1
206	Resource Use	1	Peat plant	1
206	Vegetation and Wetlands	2	Changing the natural environment	1
			Wetland wildlife habitats	1
206	Cost	1	Cost of line	1
	<b>Total - Segment 206</b>	<b>9</b>		
207	Property & Residential Development	2	Further away from populated areas	2
207	Public Safety and Human Health	3	Health concern	1
			Forest fire concern	1
			ATV encroachment	1
207	Vegetation and Wetlands/ Fish and Fish Habitat	1	Too close to Pocock Lake ER	1
207	Wildlife	1	Wildlife area	1

Route Segment	VC	# of VC Concerns	Concerns Details	# of Specific Concerns
207	Groundwater Resources	1	Herbicide use in an areas where there are many natural springs	1
	<b>Total - Segment 207</b>	<b>8</b>		
208	Property & Residential Development	23	Too close to Town of La Broquerie, schools and residential	11
			Too close to many residences/ Too densely populated between Ste. Anne and La Coulee	7
			Too close to home	4
			Using my property as a corridor	1
			Affects future subdivisions	2
			Property value	2
208	Aesthetics	1	Eyesore for new development	1
208	Recreation and Tourism	1	Golf course (La Broquerie)	1
208	Wildlife	1	Interferes with animals	1
208	Vegetation and Wetlands	2	Interferes with natural environment (bog)	2
208	Public Safety and Human Health	8	Negative impact on human life/Health concerns	4
			EMF and health	1
			Noise from lines	1
			Safety concern for children	1
			ATV encroachment	1
208	Agricultural Land Uses	5	Will take away valuable farmland	3
			Crosses land	1
			Aerial spraying and farmland	1
208	Livestock Operations	1	Interference with pets and livestock	1
208	Groundwater Resources	1	Over Sandilands Aquifer	1
208	Infrastructure and Services	1	Not close to PR 302	
	<b>Total - Segment 208</b>	<b>44</b>		
209	Property & Residential Development	1	Bisects property	1
209	Public Safety and Human Health	1	Fencing and ATV access	1
209	Resource Use	2	Quarry operation and quarry rights	1
			Loss of cordage (woodlot)	1
209	Infrastructure and Servicing	1	Close to community cemetery	1
209	Wildlife	1	Wildlife in bogs and marshes	1
209	Groundwater Resources	1	Over Sandilands Aquifer	1
	<b>Total - Segment 209</b>	<b>7</b>		
210	Property & Residential Development	4	Too close	4
210	Aesthetics	1	Want greater visual separation	1
210	Cost	2	Construct a direct route - keep the line straight	2
	<b>Total - Segment 210</b>	<b>7</b>		
211	Cost	1	Make route a straight line	1
	<b>Total - Segment 211</b>	<b>1</b>		

3.3.2.9 Summary of Preferences

Table 3-6, below, provides information on the specific types of Preferences, organized by VC categories, for each of the Alternative Route Segments.

**Table 3-6: VC and Specific Preferences by Alternative Route Segment**

Alternative Route Segment	VC	Number	Specific Preferences	Number
200	<b>Total - Segment 200</b>	<b>0</b>		
201	Property & Residential Development	13	Less people, least number of homes on route	8
			Not as close to my home and property	3
			Does not interfere with residential development	2
201	Aesthetics	4	With existing lines, less visual impact	2
			Not next to main highway; limits PTH crossings	2
201	Public Safety and Human Health	4	Less human health concerns/Further from our home	4
201	Recreation and Tourism	1	Further from recreational trails in Prairie Grove	1
201	Agriculture	2	Does not interfere with agriculture	2
201	Livestock Operations	2	Further from dairy farm/animals	1
201	Vegetation and Wetlands	1	Land along highways does not require clearing	1
201	Follows Existing Lines	2	Follows existing lines	2
201	General	10	Prefer/No concerns	10
201	Adjust	1	Extend further east to Vivian	1
	<b>Total - Segment 201</b>	<b>40</b>		
202	Property and Residential Development	5	Proximity to property	1
			Property values	1
			Least number of homes affected	3
202	Public Safety and Human Health	1	Health	1
202	Aesthetics	2	Property on highway	2
202	Agricultural Land Uses	1	No interference with agriculture	1
202	General	2	Generally prefer	2
202	Existing/Multiple Lines	2	Follow existing line more closely	2
	<b>Total - Segment 202</b>	<b>13</b>		
203	Property and Residential Development	4	Not where building house	1
			Does not run through subdivision	2
			Covers more agricultural land	1
203	General	1	Preference	1
	<b>Total - Segment 203</b>	<b>5</b>		
204	Property and Residential Development	1	Takes it away from my property	1
204	Livestock Operations	1	Takes it away from my livestock	1

Alternative Route Segment	VC	Number	Specific Preferences	Number
204	General	1	Preference	1
	<b>Total - Segment 204</b>	<b>3</b>		
205	Property and Residential Development	13	Affects fewer homeowners	3
			Won't interfere with future subdivision	3
			Impacts community least	2
			Doesn't cross property	3
			Property values	2
205	Infrastructure and Servicing	11	Crown Land along highway	2
			Follows existing infrastructure	6
			Easier access for repair and maintenance	2
			Cheaper to build, less land to clear	1
205	Vegetation and Wetlands	4	Less environmental impact; less interruption of forest	4
205	Wildlife	1	Bird and animal habitat	1
205	Follow Existing Infrastructure	1	Follows PTH# 1, already cleared	1
205	Cost	1	Shorter route	1
205	General	2	Prefer	2
	<b>Total - Segment 205</b>	<b>33</b>		
206	Property and Residential Development	1	Fewer residents	1
206	General	1	Prefer	1
206	Other	1	Prefer previous alignments (Round 1)	1
	<b>Total - Segment 206</b>	<b>3</b>		
207	Property and Residential Development	32	Passes through less populated areas	14
			Further from residence/land	3
			Less effect on Town of La Broquerie (vs Segment 208)	5
			Won't affect subdivision	4
			Avoids reducing property values	2
			Not close to school and golf course	3
			Put it where there are trees	1
207	Aesthetics	2	Won't have visual impact	2
207	Public Safety and Human Health	7	Doesn't affect human life, health	3
			Avoids EMF concerns	1
			Safety concern for children	1
			Buzzing noise	1
			Keeps quad traffic out of residential area	1
207	Agricultural Land Use	10	Doesn't interfere with aerial spraying operations	2
			Doesn't interfere with farmland use	8
207	Livestock	3	Won't affect health of cattle	1
			Does not interfere with livestock	2
207	Recreation and Tourism	2	Will create recreation routes for bikers, cyclists, ATVs	2

Alternative Route Segment	VC	Number	Specific Preferences	Number
207	Existing Multiple Lines	1	Closer to existing lines	1
207	Other	7	Prefer	7
	<b>Total - Segment 207</b>	<b>64</b>		
208	Vegetation and Wetland	7	Use developed area versus wilderness; further from Watson P Davidson Wildlife Reserve and Pocock Lake ER; less forest removal	7
208	Wildlife	3	Fewer trails for ATVs and hunters	3
208	Groundwater Resources	1	Concerned about herbicide use: area with many natural springs	1
208	Property and Residential Development	1	Further away from property	1
208	General	1	Located farther away	1
	<b>Total - Segment 208</b>	<b>13</b>		
209	<b>Total - Segment 209</b>	<b>0</b>		
210	Hunting, Trapping and Fishing	1	Hunting	1
210	Public Safety and Human Health	1	Ground patrol	1
210	General	1	Further east	1
	<b>Total - Segment 210</b>	<b>3</b>		
211	Property and Residential Development	3	Keeps the line away from private lands on uninhabited Crown Land	2
			More west	1
211	Aesthetics	1	Greater visual separation	1
211	Agricultural Land Use	1	No agriculture, impacts on spraying operations	1
211	General (Cost)	1	More direct route	1
	<b>Total - Segment 211</b>	<b>6</b>		

The following table summarizes all Preferences according to Valued Components and detailed Preferences from Comment Sheets. Typically the list of Preferences is somewhat the reverse of Concerns.

The following table summarizes all Concerns according to Valued Component Categories and detailed concerns from Comment Sheets.

**Table 3-7: Summary of Concerns and Preferences by VC Category**

Valued Components	Detailed Concerns	Number of Concerns	Detailed Preferences	Number of Preferences
<b>Natural Environment</b>				
A. Atmospheric Resources*	None		None	
B. Groundwater Resources	B1. Tower Anchoring: Effect on Aquifer	2	B1. Herbicide Use in Area with Many Natural Springs (Other Segment)	1

Valued Components	Detailed Concerns	Number of Concerns	Detailed Preferences	Number of Preferences
	B2. Herbicide Use in an Area with Many Natural Springs	1		
	B3. Over Sandilands Aquifer	2		
C. Fish; Fish Habitat	C1. Pocock Lake ER	1	C1. Pocock Lake ER	1
D. Wildlife (Birds, Mammals, Reptiles)	D1. Access (Hunters and ATVs) and Wildlife Impacts	3	D1. Less Disruptive to Wildlife Impacts/Fewer ATV Trails	3
	D2. Disruption of Wildlife	9		
E. Vegetation and Wetlands	E1. Disruption of Wilderness/Evergreens (2) /Natural Environment/Wetlands/Cutting Forest (3)	11	E1. Less Disruption of Wilderness /Natural Environment/Wetlands	3
	E2. Impacts of Herbicides on Natural Ecosystems	2	E2. Use Developed Areas versus Wilderness Environmental Reserve	7
	E3. Impacts on Rare/ Endangered Plant Species	1		
	E4. Wild Growth Area*	1		
	E5. Pristine Natural Lot	5		
<b>Built Environment</b>				
F. Public Safety and Human Health	F1. EMF and Health	6	F1. Avoids EMF	1
	F2. Family /Children's Health Affects	22	F2. Fewer Health Concerns	8
	F3. Pipeline Crossing (potential rupture)	1	F3. Avoids Buzzing Noise	1
	F4. Potential effects of Herbicides on Human Health	2	F4. Makes Sense for Ground Patrol	1
	F5. Potential for Forest Fires	5	F5 Safety concern for kids	1
	F6. Impacts on People and Property with Natural Disasters	1	F6. Less Quad/ATV Traffic in Residential Areas	2
	F7. ATV Access and Vandalism	6		
	F8. Constant Buzzing Noise	2		
	F9. Safety with Large Machinery	1		
	F10. Public Safety	1		
	F11 Pets Health	2		
G. Aesthetics	G1. Park-like Yard	1	G1. Less Visual Impact/Pollution	4
	G2. Impact on Perception of Prairie Landscape: PTH #1	4	G2. Not Next to PTH #1	4
	G3. Eyesore / Want Greater Visual Separation	6	G3. Want Greater Visual Separation	1
	G4. Aesthetic Concerns	7		

Valued Components	Detailed Concerns	Number of Concerns	Detailed Preferences	Number of Preferences
H. Property and Residential Development	H1. Proximity to Residences	50	H1. Less People/ Least Homes Affected/Unpopulated Wooded Area/Crown Land/Put Where There Are More Trees Than Houses/More Agricultural Than Residential	30
	H2. Proximity to Town/Community/Populated Areas	14	H2. Less Impact on My Home/Property	8
	H3. Proximity to Business	1	H2. Proximity to La Broquerie	5
	H4. Impact on Property Values (Compensation)	27	H3. Not Close to School/Golf Course	3
	H5. Affects Quality of Life/Lifestyle	5	H4. Less Impact on Property Values	3
	H6. Splits Property	10	H5. Less Impact on Existing/Future Residential Development	8
	H7. Prevents Future Development/ Residential Expansion	22		
	H8. Affects Many Families/Dense Population	14		
I. Recreation and Tourism	I1. Areas for Cycling and Walking	2	I1. Further from Recreational Trails	1
	I2. Interferes with Future Recreational Development	1	I2. Will Create Recreational Trails for Bikers, ATVs and Cyclists	2
	I3. Crosses Golf Course	1		
J. Agricultural Land Use	J1. Interferes with Farming Operations	4	J1. Crown Lands/ Avoids Agriculture /Does Not Interfere with Agriculture	11
	J2. Reduces Area for Cultivation on Valuable Agricultural Land	6	J2. Avoids Aerial Application Concerns	3
	J3. Organic Farming Impacted by ATV Access	1		
	J4. Aerial Application	1		
K. Livestock Operations	K1. Livestock Operations	3	K1. Further from Dairy Farm	1
	K2. Pasture	3		
	K3. Dairy Farm	1		
	K4. Runs Through Cattle Pens	1		
	K5. Stray Voltage Concerns	1		
L. Infrastructure and Services (Lagoons, Roads, Landfills)	L1. Don't Want Line Close to PR 302	1	L1. Travels Along Existing Man-made Infrastructure/Cheaper to Build, Less Clearing/Easier to Repair and Maintain	9
	L2. Crosses Highway and Rail Line	1	L2. Crown Land/Prairie Along Highway	2
	L3. Avoid Crossing PTH #1	1		
	L4. Crosses Cemetery	1		

Valued Components	Detailed Concerns	Number of Concerns	Detailed Preferences	Number of Preferences
<b>Resource</b>				
M. Hunting, Trapping and Fishing	M1. Value Prime Hunting Land	3	M1. Not in Bog	1
N. Traditional Land and Resource Use	None		None	
O. Heritage Resources (e.g. Archaeological)	None		None	
P. Resource Use (Forestry, Mining and Aggregate Extraction)	P1. Runs Through Quarry Lands	1	None	
	P2. Peat Plant	1		
	P3. Loss of Cordage	1		
<b>Engineering and Cost</b>				
Q. Follow Existing Transmission Line Corridor	Q1. Follow Existing Manitoba Hydro Corridor	4	Q1. Follow Existing Manitoba Hydro Corridor	3
R. High Concentration of Power Lines	R1. Multiple Manitoba Hydro Transmission Lines Existing and Planned	9	R1. Closer to Existing Line	1
S. Cost	S.1 Maintain Straight Line	4	S.1 Shorter Route	3
T. Adjust Alignment			T1. Go Further East/Previous (Round 1) Alignment	2
U. General - This Alternative Route Segment		6	Note Segment 201 (10) and 207 (7)	26
<b>Total</b>		<b>315</b>		<b>159</b>

*\*Note: Public feedback provided is related to the St. Vital Transmission Complex and is not associated with the MMTP Alternative Route Segment(s).*

Overall, approximately half as many Preferences were received as Concerns.

### 3.3.2.9.1 Concerns and Preferences for Alternative Route Segments

Respondent concerns and preferences regarding the 12 Alternative Route Segments proposed for the Manitoba-Minnesota Transmission Project were categorized into VC consistent with those in Table 3.2. The frequencies of VC and numbers of related Concerns and Preferences are shown below for each of the Alternative Route Segments.

The overall Ranking for Level of Concerns set thresholds for low, medium, high and very high. Concerns were not weighted.

- Low                    0 to 20 Concerns
- Medium              21 to 45
- High                  46 to 70
- Very High            71+

### 3.3.2.9.2 Total Number of Concerns by Alternative Route Segment

Route Segment	No. of VC Categories	No. of Specific Concerns (VC)	No. of Other Concerns	Ranking (Level of Concern)
200	2	4	1	Low
201	5	12	9	Medium
202	9	46	4	High
203	9	62	3	High
204	6	13	1	Low
205	9	79	1	Very High
206	3	9	1	Low
207	5	8	0	Low
208	10	44	0	Medium
209	6	7	0	Low
210	2	5	2	Low
211	0	0	1	Low

The Alternative Route Segment with the highest number of Concerns was Segment 205, followed by Segments 203 and 202.

The overall Ranking for Level of Preferences set thresholds for low, medium, high and very high. Preferences were not weighted.

- Very Low 0
- Low 1 to 10 Preferences
- Medium 11 to 25
- High 26 to 50
- Very High 51+

### 3.3.2.9.3 Total Number of Preferences by Alternative Route Segment

**Table 3-8: Number of Preferences by Route Segment**

Route Segment	No. of VC Categories	No. of Specific Preferences (VC)	No. of Other Preferences	Ranking (Level of Preference)
200	0	0	0	Very Low
201	7	27	13	High
202	4	9	4	Medium
203	1	4	1	Low
204	2	2	1	Low
205	4	29	4	High
206	1	1	2	Low
207	6	56	8	Very High
208	5	12	1	Medium
209	0	0	0	Very Low
210	2	2	1	Low
211	3	5	1	Low

The Alternative Route Segment with the highest number of Preferences was Segment 207, followed by Segments 201 and 205.

The total Concerns and Preferences for each Alternative Route Segment are compared in Table 3-9 below.

**Table 3-9: Alternative Route Segment Scores from Comment Sheets**

Alternative Route Segment	Total Concerns	Total Preferences	Score	Notes/Interpretation
200	5 - Low	0 – Very Low	-5	Minimal concern
201	21 - Medium	40 - High	+19	Preference
202	50 - High	13 - Medium	-37	Moderate concern
203	65 - High	5 - Low	-60	High concern - Good correlation
204	14 - Medium	3 – Low	-11	Concern
205	80 – Very High	33 -High	-47	Moderate to high concern
206	10 - Low	3 - Low	-7	Minimal concern
207	8 - Low	64 – Very High	+56	High preference - Good correlation
208	43 - Medium	14 - Medium	-29	Moderate concern (207 preferred)
209	7 - Low	0 – Very Low	-7	Minimal concern
210	7 - Low	3 – Low	-4	Minimal concern
211	1 – Low	6 - Low	+5	Minimal preference

Interpretation of results was based on the following thresholds (number of Preferences minus number of Concerns):

- Minimal Concern                      Low /Low or Very Low with negative score less than -10
- Concern                                    Medium/Low with a negative score of -10 to -25
- Moderate Concern                      Medium/Medium or High/ Medium with score more than -25
- Moderate to High Concern            Very High/High
- High Concern                            High/ Low with a score more than -50
- Minimal Preference                    Low/Low with positive score with a score of less than +10
- Preference                                Medium/High with a score from +10 to +25
- High Preference                        Low/Very High with a score of more than +25

Based on a review of the above thresholds:

- One obvious result suggested by the above comparison would be to use Alternative Route Segment 207 instead of Segment 208.
- The choice between routes using Segments 202 and 203 versus those using Segment 205 are less clear, since both alternatives have a significant number of Concerns.
- Segment 201 has a good score overall but this is based on having the second highest preferences despite a medium level of concern.
- Segment 206 has a low level of concern.
- There seems to be a preference for Alternative Route Segment 211 over Segment 210, although the latter has a low level of concerns.
- Generally Segments 200, 209 and 211 have minimal concerns or are preferred.

### 3.3.2.10 Specific Sites and Constraints

Respondents were asked about any specific sites that Manitoba Hydro should be aware of along each of the Alternative Route Segments.

The sites identified for each Alternative Route Segment are described below. Particular issues were as follows (as noted by respondents):

- Residential property constraints on various segments
- Subdivisions along Segments 201 and 205, and 208
- Forest and wetlands along Segments 201
- Endangered wildlife including Sandhill Cranes along Segments 201, 202 and 203
- Wildlife along Segments 202 and 203
- Seine River Conservation District Project along Segment 203
- Maintained walking trails along Segment 203
- Goose staging area along Segment 205
- Heritage tree along Segment 205
- Old cemetery along Segment 205; community cemetery on Segment 208
- Business along Segment 205
- Farmland with aerial spraying along Segment 205
- Groundwater concerns along Segment 207
- Watson P. Davidson Wildlife Refuge along Segment 207
- La Verendrye Golf Course along Segment 208
- La Broquerie along Segment 208
- Schools (2) along Segment 208
- Airstrip on Segment 208/Runway along Segment 211
- Deer, turtle, bird habitat on Segment 209

**Table 3-10:** Alternative Route Segment Scores from Comment Sheets

Alternative Route Segment Number	Sites	VC	Constraints	No. of Responses	Segment Total
200				0	0
201	South portion of Segment 201	Wildlife	Endangered Sandhill cranes nest here.	2	5
201		Property & Residential Development	Many private residences. People do not want a large transmission line running through their yards.	2	
201*	Along PTH #1	Infrastructure and Services Public Safety and Human Health	Railway along PTH #1: concern if the railway and a transmission line connect.	1	
202	Segments not shown on the old aerial map on Hydro website.	Property & Residential Development	Segment 202 significantly damages our residential property.	3	9

Alternative Route Segment Number	Sites	VC	Constraints	No. of Responses	Segment Total
202	SW 22-9-7E	Property & Residential Development	Subdivision with four 5000 sq. ft. homes.	1	
202	All along this Segment	Vegetation and Wetlands Wildlife	Wetlands, forests and wildlife.	2	
202	Along the south portion of Segment	Wildlife	Endangered Sandhill cranes nest here.	3	
<b>203</b>					
203	1-9-6E RM of Tache	Property & Residential Development	Segment significantly damages our residential property.	3	16
203		Recreation and Tourism	Maintained walking trails.	2	
203	NE-20-9-7E	Vegetation and Wetlands	Property owner is guardian of his land: keeping it as pristine as possible.	1	
203		Vegetation and Wetlands	Wetlands and forests all along this route.	3	
203	NE-17-9-7E	Vegetation and Wetlands	Seine-Rat River Conservation District has ongoing project.	2	
203	Fish Creek	Fish and Fish Habitat	Seine-Rat River Conservation District has ongoing project /Creek with surrounding forested areas.	3	
203		Wildlife	Home to vast wildlife.	3	
203		Wildlife	Endangered species in the area.	1	
<b>204</b>					
204				0	
<b>205</b>					
205	SW 32-95E (2)	Property & Residential Land Uses	Property	1	13
205	Just 1/4 mile north of Segment, Corner of Prairie Grove Road and Dawson Road	Infrastructure and Services	Old cemetery	1	
205	Corner of Prairie Grove Rd. and Dawson Rd.	Recreation and Tourism	Community park for children.	1	
205	1/2 mile north of PTH #1 on PR 206 on west side	Heritage Resources	Heritage tree: would not like to lose it.	1	

Alternative Route Segment Number	Sites	VC	Constraints	No. of Responses	Segment Total
205	East of PR 206 to Dugald and to Rd 29 on south side of railway tracks, South of PTH #1.	Agricultural Land Use	Farmer grows sunflowers; aerial spraying is used.	1	
205	Section 1-9-6E RM of Tache	Property & Residential Land Uses	Home and property.	1	
205	Line between NW-35-94E and SW-35-94-E (east of Dawson Rd.)	Livestock Operations	Cattle property.	1	
205	Line between NW-35-94E and SW-35-94-E (east of Dawson Rd.)	Wildlife	Resting area for migratory geese.	1	
205	Line between NW-35-94E and SW-35-94-E (east of Dawson Rd.)	Vegetation and Wetlands	Wetland that isn't farmed.	1	
205	Section 26-9-4E lot 1	Property & Residential Land Uses	Single family dwelling.	1	
205		Vegetation and Wetlands	Continue to green land.	1	
205	Section 3-9-6-E, (where Bipole III is planned!)	Property & Residential Land Uses	Segment runs very close to our business.	1	
205	Section 34-9-4E	Property & Residential Land Uses	Residential development.	1	
206				0	
207	Near railway between Marchand and Sandilands	Groundwater Resources	Concerned about herbicide use in an area where there are many springs.	3	
207	Wildlife Refuge	Wildlife	Will pass very close to the Watson P Davidson Wildlife Refuge.	1	

Alternative Route Segment Number	Sites	VC	Constraints	No. of Responses	Segment Total
208	On Gosselin and Quintro Roads	Recreation and Tourism	La Verendrye Golf Course.	3	18
208 (+)	Town of La Broquerie; north of the golf course	Property & Residential Land Uses	Too close to development in the Town of La Broquerie.	5	
208	Lot on NE-17-6-8-E.	Property & Residential Land Uses	Want to build my retirement home but Segment 208 will remove half of my evergreens and my fish pond. My property will be devalued.	1	
	Lot on NE-17-6-8-E.	Public Safety and Human Health	My house will be too close to the magnetic field.	1	
208	Town of La Broquerie	Public Safety and Human Health	Two schools within a mile of this segment. Safety for our children. Children are curious and no matter what they still may think of climbing.	1	
208	Town of La Broquerie;	Agricultural Land Use	Valuable farm land around there.	2	
208		Agricultural Land Uses	I will have to avoid 4 pylons.	1	
208		Fish and Fish Habitat	Small creek running through our property /Seine River runs through segment.	2	
208	East of Segment 208; exact location not known.	Infrastructure and Services	Airstrip	1	
209		Wildlife	Deer, turtle, bird habitat.	1	2
209		Infrastructure and Services	Ridgeland Community Cemetery.	1	
210		Property & Residential Land Uses	People live right in that spot.	1	2
210		Vegetation and Wetlands	Spruce woods.	1	
211		Infrastructure and Services	Runway.	1	2
211	NE-9-1-11-E, west of Piney	Property & Residential Land Uses	Segment runs through property.	1	
General		Economic	The east versus the west side of Lake Winnipeg, the cost for Manitobans will be much too high. I believe the US will produce their own power in the future and will not need us so we will be stuck with the high cost of electricity.	1	

Alternative Route Segment Number	Sites	VC	Constraints	No. of Responses	Segment Total
General		Property & Residential Land Uses	Homes and lives that will be affected by this project along the entire route.	1	

3.3.2.11 Mitigation of Potential Effects

Respondents were asked if they had any recommendations for Manitoba Hydro regarding minimizing any potential negative effects or enhancing positive effects of the Project.

Key strategies proposed for mitigation, generally, included the following:

- Relocate the transmission line/Alternative Route Segment to new alignment
- Prefer/Use this Segment (versus Alternative Segment)
- Use an Alternative Segment (Round 2)
- Use an Alternative Route Segment that was formerly proposed in Round 1
- Relocate to Crown Land
- Relocate line away from pipeline corridor
- Relocation line away from community
- Relocation line to municipal land
- Line should run in unpopulated areas away from PTH #1
- Bury or relocate line
- Avoid being close to homes
- Avoid farmland
- Buy out/compensation
- Use large farmland
- Avoid having multiple lines in a small area
- Follow existing hydro line(s)
- Line should not run diagonally
- Straight line
- Shorter route
- Stay away from wooded areas
- Avoid forest and natural lands/Ecological Areas
- Size of towers close to the height of existing towers

Table 3-11 provides a summary of mitigation recommendations from POH Comment Sheets by Alternative Route Segment.

**Table 3-11: Mitigation Approaches**

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
200	Size of Towers Infrastructure and Services	Oak Bluff. As long as the new infrastructure is relatively close in size and specifications to existing infrastructure there shouldn't be any issues.	6
200	Relocate Line Away from Community	Move the line further west/south of the community of Oak Bluff, especially the school.	

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
	Property & Residential Land Uses		
200	Relocate Line Away from TCP Corridor  Infrastructure and Services	Move the line away from the TransCanada Pipeline corridor.	
200	Follow Existing Hydro Line	This segment should follow the existing high voltage line that already travels through the region. (3 Comments)	
201	Follow Existing Hydro Line  Property & Residential Land Uses	Use this segment and follow existing transmission lines. Put it where Hydro already owns the land! Instead of Segment 205, Hydro owns the land and existing towers. Least disruptive to land owners. (4 Comments)	8
201	Relocate Line Where Crossing the City of Winnipeg's Aqueduct  Property & Residential Land Uses	Move Segment 200 metres east where it crosses the City of Winnipeg's aqueduct to avoid crossing my land and instead travel down the municipal land on the adjacent Quarter.	
201	Relocate Segment  Property & Residential Land Uses  Agricultural Land Uses	Run further east and then turning south where there is no risk of going through private homes/yards/farms. Follow Segment 201 and let it go into the dotted line section. (2 Comments)	
201	Prefer Segment	Recommend using Segment 201 as the way to go for MMTP.	
202	Follow Existing Hydro Line  Property & Residential Land Uses	Follow the existing line closely to minimize further disruption to other properties. (2 Comments)	9
202	Relocate Line  Infrastructure and Services  Property & Residential Land Uses	Run the line down the West side of PTH #12. This will avoid over 50 residential properties. There are only 3 residential properties between Richland Rd and PTH #1. Towers will affect farmland only. Farmers still have use of the land and get paid a reasonable amount for the use of their land.	
202	Use Alternative Routes from Round 1	Alternative routes need to be considered as Segments 202 and 203 destroy numerous private lands and residences. Moving east, with routes as discussed in	

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
	Property & Residential Land Uses	previous Round 1 would significantly decrease the impact of residential properties. (2 Comments)	
202	Line Should Not Run Diagonally	Should not run diagonally through the property.	
202	Avoid Multiple Lines in Small Area	This segment should not create a triangle with so many Hydro lines within a small area to minimize potential effects.	
202	Relocate to Crown Land  Property & Residential Land Uses	More it to Crown Land, east.	
202	Stay away from wooded areas.  Vegetation and Wetlands	Stay away from wooded areas.	
203	Avoid being close to homes  Property & Residential Land Uses	Run the line where it is not within 2-3 miles of homes.	13
203	Use Farmland  Property & Residential Land Uses	Put the line where it is away from people. Use farm land that is already open. We have farmland. (2 Comments)	
203	Use Alternative Segment  Property & Residential Land Uses	Go down Segment 205. Affecting many less homes and lives.	
203	Relocate Segment for Access  Property & Residential Land Uses	The segment could at least go at the rear of my property (maybe a 100 foot difference) so you are not cutting off access to even more of my property than needed if this segment is chosen.	
203	Use Alternative Segment	Continue on Segment 201 east along existing line.	
203	Relocate Segment  Property & Residential Land Uses	Run the line down the West side of PTH #12. This will avoid over 50 residential properties. There are only 3 residential properties between Richland Rd and PTH #1. Towers will affect farmland only. Farmers still have use of the land and get paid a reasonable amount for the use of their land.	
203	Develop Alternative Route	Alternative routes need to be considered for this area so as to not destroy and depreciate residential homes and private land. Alternative routes need to be considered as Segments 202 and 203 destroy	

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
	Property & Residential Land Uses	numerous private lands and residences. The alternative route to the north east of Segment 202 and 203 would not affect landowners and residential areas so drastically. (2 Comments)	
203	Straight Line Property & Residential Land Uses	Power lines should continue in a straight line, rather than detouring east, and then north (directly over our house and property), and then heading west to rejoin the initial route.	
203	Avoid Multiple Lines in Small Area	This segment should not create a triangle with so many hydro lines within a small area to minimize potential effects.	
203	Stay Away from Wooded Areas. Vegetation and Wetlands	Stay away from wooded areas.	
203	Prefer Other Segment	Prefer Segment on the east side of road east of 203.	
204	Relocate Line	Move the segment farther east on the chain of ridges.	1
205	Follow Existing Highway/ Straight Line Property & Residential Land Uses	This segment should follow number PTH #1 instead of doing a jog through residential property north of the highway. Loss of 9 sq. m. per pole; highway access, open, few problems or concerns about theft, no extra traffic /Parallel existing highways. Try to route along a straight line. (4 Comments)	16
205	Keep Line in Unpopulated Areas and Away from PTH #! Property & Residential Land Uses Aesthetics (Highway)	This segment should be as far away from residential areas - should be in unpopulated areas i.e. swamps/fields. This segment should not even be placed along PTH #1 for aesthetics.	
205*	Bury or Re-route Line Property & Residential Land Uses	Bury proposed lines through Sage Creek community or re-route around it.	
205	Use Open Land	Open land can build quickly. Open area to develop; great access.	
205	Use Alternative Segment – Follow Existing Hydro Line Property & Residential Land Uses	This segment would not be anywhere near other lines and would diminish the country feel of our community. Segment 201 (at points) follows existing lines, so would be less disturbing.	

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
205	Straight Line Property & Residential Land Uses	Power lines should continue in a straight line, rather than detouring east, and then north (directly over our house and property), and then heading west to rejoin the initial route.	
205	Straight Line/ Relocate Line	You could run the line straight southwards from the west side of Winnipeg. Avoid Morris and go to an angle to the south border.	
205	Buy-out/ Compensation	Buy out the neighbour on the segment; rather not have a jog in the line just to avoid my property. Should get compensation if within a certain radius.	
205	Use Alternative Segment	I strongly believe because of the concerns stated previously, that the best route would be Segment 201. Push the alternative route for Segment 205 (which runs, for a large portion, a mile east of Poirier Rd) to another couple of miles east. (2 Comments)	
205	Shorter Route	Shorter route.	
205	Avoid Segment 205 Property & Residential Land Uses Aesthetics	Segment 205 is NOT suitable as it will be near all kinds of homes, businesses and roads. Aesthetically poor also.	
205	Follow Existing Hydro Line Vegetation and Wetlands	Hydro should use existing Hydro easements wherever possible and minimize disturbance to forested areas.	
206	Use Alternative Route Segment	Use Segment 207 instead.	4
206	Relocate Segment Property & Residential Land Uses	This segment should follow the West section boundary of SW 2-9-7 E, instead of running through the middle; west part is marginal land and farther from homes; affects fewer property owners /Go further east of this new development. (3 Comments)	
207	Prefer This Segment	Follow this route. /Less human impact on this segment. /We recommend this segment. /Segment 207 is a good alternative to Segment 208. (4 Comments)	13
207	Avoid Populated Areas Follow Existing Transmission Lines Property & Residential Land Uses	Go even further from the high density population and follow where previous power lines have went.	

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
207	Use of Transmission Line Corridor For Trails  Recreation and Tourism	Allow ATV and snow mobile association to use /Work with snowmobile association to make this a sno-pass trail. (2 Comments)	
207	Follow Existing Hydro Line  Avoid Residential Areas  Property & Residential Land Uses  Public Safety and Human Health	The line should continue to run alongside the existing transmission line instead of running through a new area. It would protect hundreds of homes from being constantly radiated with EMF's from this new line since you wouldn't be building it in areas which are highly developed and already have a substantial population. The further away from communities/towns, the better for our children.	
207	Follow Existing Hydro Line  Avoid Forest and Natural Lands/ Ecological Areas  Vegetation and Wetlands	The line should continue to run alongside the existing transmission line instead of running through a new area (between the Wildlife Management Area and PR 404), where trees have to be cut down and new roads have to be made in order to make it accessible. It would then prevent any damages or potential adverse effects to the Watson P Davidson Wildlife Management Area and the Pocock Lake Ecological Reserve. It would save money, and trees and natural wildlife habitats because the roads are already established from the existing lines; so it would minimize the impact on the environment and save tremendous costs./ Try their best to avoid the forest and natural lands. (2 Comments)	
207	Prefer This Segment – Uses Crown Land  Recreation and Tourism  Hunting, Trapping and Fishing	Route 207 is far better and cheaper because it goes through mostly Crown Land; it becomes a recreational access to Crown Land and hunting. (2 Comments)	
207	New Location  Property & Residential Land Uses	Construct the line where nobody has land or houses that would be affected.	
208	Relocate Line  Property & Residential Land Uses	Whole segment should just be moved away from the higher populated areas/ Not pass near la Broquerie as too near schools, farms, over housing developments. (2 Comments)	6
208	Low Land/Fire Hazard	Some low land and fire (hazard) - peat moss.	
208	Prefer Alternative Segment	Instead of Segment 208, which passes too close to La Broquerie; use 207, which is away from homes.	

Alternative Route Segment Number	Notes/Category	Mitigation Approaches	Total Responses
	Property & Residential Land Uses		
208	Prefer Alternative Segment  Agricultural Land Uses	Also goes through farm land. This route would devalue the land. /Use Segment 207; building on farmland creates long term losses for the farmer. (2 Comments)	
208	Prefer This Segment  Property & Residential Land Uses	Segment 208 would be preferable because the potential effects to humans would be minimal.	
209			0
210			0
211	Prefer This Segment	Put it here if you really have to build this line. Like this segment/ Best route. (2 Comments)	3
211	Prefer This Segment  Property & Residential Land Uses	The line should not follow Segment 210 as it is too near residents.	

*\*Note: Public feedback provided is related to the St. Vital Transmission Complex and is not associated with the MMTP Alternative Route Segment(s).*

### 3.3.2.12 General Concerns or Issues

Other general issues identified were as follows:

- Property & Residential Development
  - Use Crown Land; stay off private property; don't do the project.
  - "Get away from my land."
- Economic
  - Don't go through with this project at all. The compensation Manitobans might receive will never be enough.

### 3.3.2.13 General Comments

The General Comments below provide a synopsis of the principal comments expressed by POH attendees, both positive and negative. Comments addressed the PEP as well as common concerns and route preferences. A total of 166 of the 442 respondents did not provide any general comments.

A number of respondents provided contact information and wished to be contacted about Manitoba Hydro's future plans. Some also provided letters.

Information from the General Comments question on the Comment Sheets was sorted into the following categories:

- Positive comments about the engagement process

- Concerns and recommendations about the engagement process
- Negative comments about the MMTP process
- More information desired
- No issues
- Recommendations and preferences
- Common issues (general)
- Routing preferences and concerns
- Hydro rates/project costs

Many of the comments overlap different groupings. See Appendix C3 for detailed comments.

Comments are grouped according to common themes, as noted below. Where comments deal with specific Alternative Route Segments they are summarized in more detail.

### 3.3.2.13.1 Themes and Notes

#### Positive about the engagement process (17 Comments):

Seventeen (17) respondents were pleased with information links provided, or had no concerns.

#### Concerns and recommendations about the engagement process (24 Comments):

Respondents had a wide range of concerns about the engagement process, including:

- POH notifications
- Quality of maps
- Lack of cost estimates
- Number of public engagement events
- Qualifications of staff facilitating the meetings

#### Negative about the MMTP process (7 Comments):

- Comments were generally summed up by: "It doesn't matter what we say."

#### More information desired (20 Comments):

In general, respondents wanted more frequent updates on progress of the planning, or particular information, such as a detailed map (showing their property in relation to the Alternative Route Segments).

#### No issues (9 Comments)

#### Routing recommendations and preferences (16 Comments):

A number of recommendations and preferences were noted, as follows:

- Temporary site for construction materials, if needed, in La Broquerie or Marchand. Buy Local!
- Towers without guy-wires are preferred.
- Avoid active farming operations: go through wetlands or non-productive land.
- When going through farmland/pasture land, fewer standing towers would be preferable. No guy-wires to interfere with heavy machinery/cattle grazing.
- Place poles or towers on government road allowances, in the ditches.
- Follow existing agricultural land where possible.

- Minimize line-of-sight from residences.
- Parallel agricultural lands rather than having diagonals, to reduce negatives for farming (tilling, aerial spraying).
- Locate transmission line as far as possible from residential areas. Use Crown Land whenever possible.
- Location close to existing high voltage line.
- Go between Richer and Hadashville, down to Piney and cross over at the Blackberry Station.
- Locate east of the RM of Tache.

### 3.3.2.13.2 Common Issues (60 Comments):

Common issues identified by respondents (all Comment Sheets) are grouped as follows:

#### Groundwater Resources

- Negative effect on water tables.

#### Property and Residential Development

- Proximity to home.
- Resale/property value.
- The cost of one property for pay outs, relative to other landowners.
- Property sale.
- Not able to build.
- Consider subdivision projects in process.
- Heavily populated areas.

#### Aesthetics

- Aesthetics.

#### Public Safety and Human Health

- Health affects (physical and mental).
- Children's health in outdoor recreational activities.
- Childhood leukemia.
- Humming noise.
- Use of herbicides.
- Spills and clean up.
- Access, theft, trespassing.
- Other hunters coming on our private property.
- Well-being / destroying peace and tranquility.

#### Agricultural Land Use

- Agricultural land and operations.

#### Livestock Operations

- Livestock grazing.
- Livestock health and fencing being broken.

#### Vegetation and Wetlands

- Lady Slippers, large Pink Slippers, Pitcher plants being removed.
- Line maintenance and potential for Canadian thistle.

- Minimize forest removal; loss of forestry.
- Impact on woodlot.

#### Recreation and Tourism

- Recreational traffic, trespassers.

#### Wildlife

- Wildlife, rare or endangered species and potential electro magnetism effects on animals.

#### Hunting, Trapping and Fishing

- Hunting.

#### Heritage Resources

- Heritage land.

#### Other

- Concentrations of power lines.
- Reduced cost of hydro for land owners.
- Bury the line.
- Eastern routes left out because of environmental and wildlife over people.
- Project is solely for power requirements of POLYMET Mining (nickel / copper) in Minnesota.
- Flooding of land at the (northern) dam site.
- Down-stream pollution to Hudson Bay.
- Disruption of First Nations' rights to use the land for hunting or trapping.

#### Routing preferences and concerns:

##### **Preferences (18):**

- Prefer Segment 201 over Segment 205.
- Upset that proposed route crosses very close to our house. There is vacant municipal land directly east of our property on which you could route your line if you decide to use Segment 201.
- Prefer Segment 201, farther from property and recreation paths on Heatherdale Road, Prairie Grove Rd, and Station Rd.
- Continue Segment 201 east to east of Vivian, south as shown on dotted line, east side St. Labre, east side of Badger, east side Piney to Blackberry Station.
- Follow Segment 201 east and south to stay away from this area.
- Prefer 201, 203, 204, 206, 207, 209, and 211.
- From a high level, Segments 201, 202 and 204 will affect least amount of people.
- Prefer you take another direction and stay away from our property. Follow Segment 205. This property will be willed to my grandson who would be building a new home in the near future.
- OK with Segment 205: will come within 400-600 feet of their front window, closer to their house.
- Choose Segment 207 to avoid future expansion in the RM of La Broquerie. La Broquerie is a growing RM and the installation of Hydro towers will negatively affect growth.
- My preference would be Segment 207, as it is further from large development and the major population of the town and surrounding developments.
- Prefer Segment 207.
- Prefer Segment 207. We live half a mile from Segment 208.
- Segment 207 would be my preferred route.

- Segment 207 is preferred as it will not affect agriculture and humans. I'm aware of the effect on animals but we have rights.
- Segment 208 is a half mile northeast - will be treed in.
- Segment 211 is more favorable because it goes mostly through Crown Land, which is mostly uninhabited.
- I like the idea overall. Good for exports and good environmentally. Our area does not have many obstacles, especially with the Segment 211.

#### Concerns (28):

- Prospective routes (Segments) 202 and 203 will greatly and negatively affect my family and our right to enjoy our residential property.
- Located between Segments 202 and 203. Opposed to eastern portion of the triangle - why wasn't it introduced in the first Round? Concerns regarding future option to subdivide land for profit. Area is a low economic area. Concern regarding increased access. Neighbour was assaulted and died in a confrontation that was linked to an access-related issue related to swimming in ponds near his home. Concerned regarding unauthorized access on his land and transmission line related fires.
- Located between Segment 202 and 203. Moved to the area for the wilderness. Concerned about the disturbance and creating increased access for ATVs. Has seen bears and wolves on his property.
- Resident 1 mile from Segment 202.
- Proximity of Segment 202 to house - many negative effects if this were to go through.
- Why was Segment 203 added? It was not there last Round. People live in the bush to be private, "let us be". Wild animals will be disturbed. Hunters will feel free to shoot. Dirt bikes, 4 wheelers will mess up everything. They already use Hydro lines for fun. This will just add more miles for them. We see it up the road from us. The more bush you opened up, the worse things happen. Leave our privacy intact!
- Lorette Segment (205): concerned about tourism, view when driving on PTH #1. Rail on one side - rail and Hydro running side by side could cause trouble if an accident were to happen. Had flea beetles this year in a wet crop. If the poles and wire run along my side of PTH #1, I couldn't use aerial spraying. The attractiveness of my property might decrease, as well as value.
- Segment 205 is too close and unappealing; have health and noise concerns. Use existing power lines although we were told that this could be a reliability issue. You can't put a price on health!
- Just bought a house on Pine Ridge Road because of the peaceful and healthy environment. Concerned that the project could impacted our health, environment and cause depreciation of the property values in our area should Segment 205 be chosen.
- Segment 205 is shown on my property line. The line is on land used for crops and livestock, would be very disruptive. Towers would interfere with aerial spraying, GPS and livestock pens.
- Is Segment 205 to free up space for future lines east of Riel?
- Is Segment 205 politically motivated to avoid stirring the pot in an already impacted RM of Springfield?
- Route (Segment) 205 is a poor choice due to the overlapping of Bipole III. It will become a cluster of metals that will interfere with too many aspects affecting the public. Since Bipole III is already planned to wrap around our business location and affects numerous agricultural land areas, it would be wise to separate the two in order to give the public visual ease and less aggravation to work around or look at.
- Our home, we do not want towers going through our property. We were told that Segment 205 was suggested due to the chance of a tornado would knock out all the lines. Tornadoes are a rare occurrence in Manitoba and the lines are only a few miles apart. Very weak reasoning! Residents should know cost estimates for both routes during this process.

- Segments should run on land where there is little to no disturbance to animals, environment and homes. They should run where there is no land clearing needed. In order to do Segment 205, you will need to clear a lot of the land to build and maintain it, which will greatly affect the people, environment, and animals living there. Also, you will need to use pesticides to clear and maintain, which raises even more alarm bells in regards to health and environment concerns.
- Do not run the line in Segments 205 and 208. Avoid the forest area as much as possible. It is not good for humans and animals. Run the line straight south from the west side of Winnipeg. Avoid Morris and run at a southeast angle, then run it along the USA and Canada border. I know you cannot avoid towns and cities. Is it possible to run the transmission line along already established routes by adding an extra line or two?
- What is the problem with Alternative Route Segment 207 instead of 208, which has more people?
- Segment 207 will pass through bogs, presenting issues with summer access. Segment 208 would pass along existing roads for ease of access.
- (40 acre property - 5 miles west of Segment 208) Concerns regarding potential effects of transmission line on pacemaker. Indicated that they would be providing a letter from doctor. Have Tiger swallowtails, small blue butterflies on their untilled pastureland. They have also seen Sandhill cranes, wild turkey, deer, bear and coyote near/on their land. They offered their land for the study team to come and do a wildlife assessment.
- Don't like Segment 208 because of health and safety issues, especially with large machinery on farms these days.
- Not Segment 208, use Segment 207.
- Segment 208 should not be considered as a possible route.
- Against Segment 208. Would bring a "quad trail" (along the hydro line) right through a farm/residential area. Segment 207 would join existing quad/snowmobile trails. Segment 208 also crosses the Seine River, tributaries.
- Dairy Farm: main farm location, owns additional section. Alfalfa, corn. Approx. 2 miles east of Segment 208.
- Why is Segment 208 so close to a populated area like La Broquerie when there is so much room farther east, away from valuable farm land and people. The health effects of EMF should be taken seriously and serious health effects (from international studies) should be made known.
- Segment 208 would greatly affect me. I would lose half my evergreens, fish pond, value, aesthetics. Building my retirement home will be problematic. My lot will lose aesthetic and monetary value.
- Segment 208 will affect most of my land. Extremely concerned about the buzz these lines will create.
- Many concerns about Segment 208: houses, agriculture, health, noise that the line will make. Would prefer not having to see lines from my house. Concerned about future property value.
- Segment 208 is too close to our house and will be a possible health risk and an eye sore. The line is not going to be on our property so we will not get any compensation, and we will have increased hydro rates to fund this project. There will also be a noise concern with the line being that close to our property.

#### Hydro rates/project cost (10 Comments)

##### Letter

Letter received with concerns about the Prairie Grove/TransCanada Route, versus following PTH #75.

### 3.3.3 Open House Mapping Stations

Mapping Stations obtained detailed map-oriented location information from the POH participants.

IPad data was sorted into the following categories, organized by Alternative Route Segment number:

- All Data
- Concerns
- Preferences
- General Information

### 3.3.3.1 Summaries of Concerns and Preferences

The following table summarizes concerns from Mapping Stations, organized by Alternative Route Segments and Valued Components.

In the Map Station data base, any items that were italicized in the “Site Comments” column were transferred into either the “Concerns” or “Preferences” column if segment data was mentioned. If the coordinates (latitude and longitude) were provided but no segment indicated, then the geographic information was cross-referenced with Manitoba Hydro’s Orientis Map Viewer to identify the Alternative Route Segment that was most applicable (generally the closest).

**Table 3-12: Summary of Concerns from POH Mapping Stations**

Alternative Route Segment	VC	Number	Detailed Concerns	Number
200	Public Safety and Human Health	1	Heavy truck traffic on local roads	1
200	Livestock Operations	1	Line maintenance impacts on pasture	1
	<b>Total Segment 200</b>	<b>2</b>		
<b>Segment 201</b>				
201	Property & Residential Development	4	Property value	2
			Proximity to residences	1
			Too many people affected	1
201	Aesthetics	1	View	1
201	Public Safety and Human Health	3	Health concerns	1
			Noise	1
			Control access to quarry swimming hole	1
201	Resource Use	1	Clearing and retention of timber	1
201	Existing/ Multiple Hydro Lines	2	Existing line	2
	<b>Total Segment 201</b>	<b>11</b>		
<b>Segment 202</b>				
202	Property & Residential Development	19	Property value and compensation	7
			New development	3
			Existing level of development	1
			Proximity to residence	2
			Splits property	2
			Proximity to town/community (St. Germaine)	1
			Loss of lifestyle/use of property - hard to compensate	2
			Want horses on property	1
202	Public Safety and Human Health	12	EMF	3
			Noise	3
			Health concerns	2
			Access and security – break-ins	3

Alternative Route Segment	VC	Number	Detailed Concerns	Number
			Traffic on PR 206	1
202	Aesthetics	2	View-shed/loss of privacy due to clearing	2
202	Infrastructure and Services	3	Train tracks	1
			Future municipal yard	1
			Adjacent to church	1
202	Wildlife	2	Wildlife values	1
			Access by ATVs - hunters	1
202	Recreational Use	1	Snowmobiling	1
202	Atmospheric	2	Interference with electrical devices at home/with satellite TV, cell phone, internet	2
202	Resource Use	1	Unused quarry	1
202	Livestock Operation	1	Fence issues – cow pasture	1
202	Existing Multiple Lines	4	Existing line	4
202	General Concern	2	Concern	2
	<b>Total Segment 202</b>	<b>49</b>		
203	Property & Residential Development	18	Property value and compensation	5
			New development/ plans to subdivide	5
			Density of development	2
			Proximity to residence	2
			Through front yard	1
			Proximity to town/community (St. Germaine)	1
			Loss of lifestyle/use of property - hard to compensate	1
			Want horses on property	1
203	Public Safety and Human Health	10	EMF	1
			Noise	3
			Family health concerns	2
			Access and security – trespassing/ opening areas	2
			Chemicals used in ROW cleaning	2
203	Aesthetics	3	View-shed/loss of privacy due to clearing	3
203	Agricultural Land Use	2	Avoid agricultural land/ Organic grain farm	2
203	Vegetation and Wetlands	1	Lady's Slipper	1
203	Wildlife	2	Wildlife values/otter, deer, bear	2
203	Hunting, Trapping and Fishing	1	Affects hunting	1
203	Fish and Fish Habitat	1	Fish Creek	1
203	Recreational Use	1	Snowmobiling	1
203	Atmospheric	2	Interference with satellite TV, cell phone, internet /radio	2
203	Existing Multiple Lines	4	Existing line	
	<b>Total Segment 203</b>	<b>44</b>		
204	Property & Residential Development	4	Too close to town, community (St. Genevieve)	1
			Many residences	1
			Land as investment for subdivision	1
			Property values	1

Alternative Route Segment	VC	Number	Detailed Concerns	Number
204	Aesthetics	1	View-shed	1
204	Public Safety and Human Health	4	Heavy traffic / potential for industrial accidents	2
			Fire hazard	1
			Noise	1
204	Atmospheric	1	Radio reception	1
204	Resource Use	1	Aggregate mining potential	1
204	Existing/Multiple Lines	2	Existing line	2
	<b>Total Segment 204</b>	<b>13</b>		
205	Property & Residential Development	26	Proximity to residence	12
			Property values	8
			Future development/subdivisions	5
			Purchased land to build residence – too small for agricultural use	1
205	Aesthetics	3	Aesthetics	3
205	Public Safety and Human Health	20	Family health	8
			EMF	8
			Safety concerns with large machinery	2
			Noise will scare horses/horses and dog	2
205	Agricultural Land Use	6	Splits fields - concern for row crops	1
			Disruption to farming/lower yields	2
			Aerial application	1
			Irrigation on land	1
			GPS use	1
205	Livestock Operations	7	Impact on livestock/cattle operations	5
			Tingle voltage	1
			Static charge on fence line	1
205	Resource Use	1	Harvesting existing trees	1
205	Wildlife	1	Wildlife	1
205	Recreation and Tourism	1	Activities passing under line	1
205	Infrastructure and Services	4	Airstrip/Parachute Training	3
			Number of TransCanada Highway crossings	1
205	Zoning	1	Agricultural land	1
205	ROW	1	ROW width and maintenance	1
205	Cost	1	Cost and need for project	1
	<b>Total Segment 205</b>	<b>72</b>		
206	Property & Residential Development	3	Proximity to residences	1
			Subdivision	1
			Lot values for resale	1
206	Public Safety and Human Health	2	EMF	1
			Health affects	1
206	Aesthetics	1	Clearing - views	1
206	Wildlife	1	Wildlife habitat	1

Alternative Route Segment	VC	Number	Detailed Concerns	Number
206	Vegetation and Wetlands	1	Impact on natural landscape	1
206	Hunting, Trapping and Fishing	1	Used for hunting	1
206	Infrastructure and Services	1	Salmon Lake used as pickup by water bombers in fire season	1
206	General	1	Concern	
	<b>Total Segment 206</b>	<b>11</b>		
207	Property & Residential Development	3	Proximity to house	2
			Resale value	1
207	Public Safety and Human Health	1	Potential effects of lines on people	1
207	Recreation and Tourism	2	Sandilands ski trails	2
207	Vegetation and Wetlands	4	Fragmentation due to ATV access to remote areas	2
			Rare orchids	2
207	Wildlife	2	Endangered birds – Great Grey Owl	1
			Increase in hunting	1
207	Aesthetics	2	Sandilands Ridge – more visible/views	2
207	Agricultural Land Use	4	Aerial spraying	1
			Dairy farm	1
			Segments pasture	1
			Weeds	1
207	Infrastructure and Services	2	Cemetery	2
207	Existing Hydro Line	1	Existing towers	1
207	Power Sales	1	Disagrees with power sales	1
	<b>Total Segment 207</b>	<b>22</b>		
208	Property & Residential Development	42	Proximity to residence	11
			Construction/proposed construction of house	5
			Future subdivision plans	5
			Too close to developing community/subdivisions (La Broquerie)	15
			Decrease in property value/compensation	6
208	Aesthetics	2	Beautiful Quarter with family farm	1
			Don't want to see the line	1
208	Recreation and Tourism	2	Proximity to golf course – brings people from city	2
208	Wildlife	1	Moose in the area	1
208	Vegetation and Wetlands	1	Through Piney bog	1
208	Public Safety and Human Health	19	Health affects	4
			EMF	5
			Noise	4
			Safe distance from line /safety of children accessing ROW	6

Alternative Route Segment	VC	Number	Detailed Concerns	Number
208	Agricultural Land Uses	8	Loss of farmland	1
			Don't want to work around the line	1
			Aerial spraying	2
			Easement value and potential use	2
			Plans to clear farmland	1
			Weed control by owner	1
208	Livestock Operations	15	Cattle farm /Pasture land	2
			Dairy operation	4
			Stray voltage and livestock	3
			Health of cattle	1
			Obstacles to manure spreading	5
208	Infrastructure and Services	5	Potentially active airstrip/Runway	2
			Aerial applicator	1
			Too close to school	1
			Automotive business	1
<b>Total Segment 208</b>		<b>95</b>		
209	Property & Residential Development	3	View-shed	1
			Noise	1
			Snowmobile traffic	1
209	Public Safety and Human Health	2	Concern about fire risk – homes near lake in overgrown bush	1
			EMF	1
209	Groundwater Resources	2	Impacts Sandilands Aquifer –shallow aquifer	1
			Dugout	1
209	Vegetation and Wetlands	1	Tree clearing in right-of-way	1
209	Fish and Fish Habitat	1	Horseshoe Lake - protected area	1
209	Wildlife	3	Concerned about increased predation along corridor	1
			Increased hunting pressure	1
			Impact of floating magnetic fields on small animals	1
209	Infrastructure and Servicing	2	Cemetery/Tombstones	2
209	Financial	1	Financial strain/Hydro rates – impact of power sales	1
209	Other	1	Coronal discharge	1
<b>Total Segment 209</b>		<b>16</b>		
210	Property & Residential Development	2	Close to house	1
			Lots of people along segment	1
210	Public Safety and Human Health	1	Health concerns	1
210	Recreation and Tourism	2	Proximity to area of recreational camping	1
			Snowmobiling in bog	1
210	Vegetation and Wetlands	2	Stay away from Spur Wood WMA	1
			Shelterbelt of over 1000 trees protecting 80 acres	1
210	Wildlife	2	A lot of wolves in area	1
			Close to waterfowl management area in US	1

Alternative Route Segment	VC	Number	Detailed Concerns	Number
210	Infrastructure and Services	2	International Landing Strip/used for customs and emergency medical services	2
	<b>Total Segment 210</b>	<b>11</b>		
211	Wildlife	1	Elk have been seen in the area (8 years ago)	1
211	Property & Residential Development	1	Cabin location	1
211	Cost	1	Construction in bog will be difficult	1
	<b>Total Segment 211</b>	<b>3</b>		
General	Atmospheric	1	Interference with telephone service	1
	Property & Residential Development	2	Proximity to residence/Line directly over house/business	1
			Property value	1
	Public Safety and Human Health	3	Health	1
			Noise	1
			EMF	1
	Agricultural Land Use	1	Hog barns – want to know effect on cattle	1
	Vegetation and Wetlands	1	Alignment is near Watson P Davidson WMA	1
	Wildlife	1	Hunting and poaching - deer	1
	Infrastructure and Servicing	2	Private airstrip	2
	Costs	1	Costs and politics	1
	<b>Total General</b>	<b>18</b>		

Table 3-13 similarly identifies Mapping Station Preferences related to each of the Alternative Route Segments.

**Table 3-13: Summary of Preferences from POH Mapping Stations**

Alternative Route Segment	VC	Number	Detailed Preferences	Number
200	General	6	Prefer	6
201	Agricultural Land Use	2	Less agricultural land – not interfere with aerial application	1
			Rent from farmer – lease back	1
201	Property & Residential Development	3	Less people affected/farther away	3
201	Follow Existing Hydro Line	2	Parallel existing line	2
201	General	5	Prefer	5
201	Alternative Alignment	1	Go along Floodway	1
	<b>Total Segment 201</b>	<b>13</b>		

Alternative Route Segment	VC	Number	Detailed Preferences	Number
202	Vegetation and Wetland	1	No clearing required	
202	Follow Existing Hydro Line	1	Prefer	
	<b>Total Segment 202</b>	<b>2</b>		
203	N/A			
204	Property & Residential Development	1	Less populated area	1
204	Follow Existing Hydro Line	2	Follow existing 230 kV line	
	<b>Total Segment 204</b>	<b>3</b>		
205	Property & Residential Development	2	Away from planned development/less people	2
205	Vegetation and Wetlands	2	Less clearing required/Closer to PTH #1	2
205	Alternative Routes	3	Eastern routes preferred	3
	<b>Total Segment 205</b>	<b>7</b>		
206	General	4	Prefer	4
207	Property & Residential Development	16	Fewer residences/no one lives there/less density	12
			Away from town/by-passes La Broquerie and Marchand	2
			Away from future subdivisions/not impede development	1
			Makes more sense –stays off private land	1
207	Public Safety and Human Health	4	Farther away for safety	1
			Liability of collision is less	1
			Creates fireguard – ability to get equipment in sooner	2
207	Agricultural Land Use	3	No farmland/less agriculture	3
207	Follow Existing Hydro Line	5	Follow existing line	5
207	General	15	Prefer	15
	<b>Total Segment 207</b>	<b>43</b>		
208	Vegetation and Wetlands	3	Less forest/land already disturbed/against deforestation	3
208	Agricultural Land Uses	2	Less agriculture /pastureland	2
208	General	3	Prefer	3
208	Cost	1	Fewer corners	1
	<b>Total Segment 208</b>	<b>9</b>		
209	Agricultural Land Use	1	Through bog not agricultural land	1
	<b>Total Segment 209</b>	<b>1</b>		
210	Recreation and Tourism	1	Trails closer to residence	1

Alternative Route Segment	VC	Number	Detailed Preferences	Number
210	Hunting, Trapping and Fishing	1	Opens up hunting	1
210	Vegetation and Wetlands	1	Less disruptive of bog	1
210	Cost	2	More sense to be out of bog	2
	<b>Total Segment 210</b>	<b>5</b>		
211	Property & Residential Development	1	Stays away from people	1
211	General	2	Prefer/makes more sense	2
	<b>Total Segment 211</b>	<b>3</b>		

Table 3-14 summarizes the Concerns and Preferences identified for the Alternative Routes at the Public Open House Map Stations.

**Table 3-14: Alternative Route Segment Scores from POH Mapping Stations**

Alternative Route Segment	Total Concerns (C)	Total Preferences (P)	Score = (P) – (C)	Notes/Interpretation
200	2	6	+4	General preferences
201	11	14	+3	General preferences. Route with second highest preference level.
202	49	2	-47	Property and health concerns
203	44	0	-44	Property and health concerns
204	13	3	-10	
205	72	7	-65	Property and health concerns. Route with second highest level of concerns
206	11	4	-7	
207	22	43	21	Avoiding private land and following existing Hydro line. Route with greatest preferences.
208	95	9	-86	Property and health concerns. Route with greatest number of concerns.
209	16	1	-15	
210	11	5	-6	
211	2	3	1	
General	12	0	-12	
<b>TOTAL</b>	<b>360</b>	<b>97</b>	<b>-263</b>	

Note: "Comparative Rating" measures the number of preferences versus concerns for each Alternative Route Segment.

### 3.4 Landowner Information Forms

Landowner Information Forms (LIF) were made available during the Round 2 POHs and were completed by a number of participants at the June 18, 2014 POH in Ste. Anne. The following Table 3-15 summarizes data received for this POH only, with an emphasis on Alternative Route Segments in the Ste. Anne and Ste. Genevieve area. Twenty-one different entries were recorded on LIF. Some of the

information provided was indicated as applying to more than one Alternative Route Segment. A copy of the LIF along with a summary of comments is included in Appendix D.

**Table 3-15: Summary of LIF Results**

Alternative Route Segment	VC	Number	Detailed Preferences	Number
200		0		
201	Property & Residential Development	5	Future development	1
201	Public Safety and Human Health	1	Access	1
201	Agricultural Land Use	2	Interference with farming	1
			Difficulty spraying	1
201	Livestock Operations	1	Livestock	1
201	Bipole III	1	Ditches	1
	<b>Total Segment 201</b>	<b>5</b>		
202	Atmospheric Resources	1	Cellular service	1
202	Property & Residential Development	7	Future development / Potential subdivision	4
			Home location	1
			Future use/ taking most useable part of land	1
			Property value	1
202	Aesthetics	2	Aesthetics	2
202	Public Safety and Human Health	7	Access ATVs	3
			Health due to herbicide spraying /Leukemia	1
			EMF	2
			Noise	1
202	Livestock Operations	4	Livestock / Rents pasture/Gardens and pens	3
			Animal health	1
202	Vegetation and Wetlands	1	Forest destruction	1
202	Wildlife	3	Corridors make game uneasy	1
			Wildlife habitat/Deer, bear, turkey, cranes, woodpeckers and frogs	2
202	Resource Use	1	Mineral rights	1
202	Hydro Access	1	Damage	1
202	PEP	1	Perception - no say in process	1
	<b>Total Segment 202</b>	<b>25</b>		
203	Atmospheric Resources	1	Cellular service	1
203	Property & Residential Development	2	Potential for development	1
			Future use/ taking most useable part of land	1
203	Aesthetics	1	Aesthetics	1

Alternative Route Segment	VC	Number	Detailed Preferences	Number
203	Public Safety and Human Health	7	Access ATVs /Security threat	3
			Health /Leukemia	1
			EMF	2
			Noise	1
203	Livestock Operations	1	Rents pasture	1
203	Wildlife	2	Corridors make game uneasy	1
			Wildlife habitat/Beaver, otter, mink	1
203	Hunting, Trapping and Fishing	1	Hunting allowed with permission	1
203	Resource Use	2	Mineral rights	1
			Gravel extraction: height of gravel stockpile 50 ft., and equipment movements	1
203	Existing Hydro Line	1	Two lines criss-cross property	
	<b>Total Segment 203</b>			
204	Property & Residential Development	4	Disrupts potential for development/Future subdivision	3
			Property value	1
204	Aesthetics	1	Aesthetics	1
204	Public Safety and Human Health	2	Access ATVs	2
204	Vegetation and Wetlands	1	Forest destruction	1
204	Wildlife	1	Wildlife habitat, deer, bear, birds and frogs	1
204	Agricultural Land Use	1	Organic farming	1
204	Alternative Energy	1	Alternative energy	1
	<b>Total Segment 204</b>	<b>10</b>		
205	Atmospheric Resources	1	Interfere with TV and internet signals	1
205	Groundwater Resources	1	Water table concern - construction	1
205	Property & Residential Development	11	Plans to build/subdivide	3
			Disruption of current use	1
			Development south of Prairie Grove/64 lots/too close to Dufresne	3
			Too close to house	3
			Property value	1
205	Aesthetics	1	Aesthetics	1
205	Public Safety and Human Health	7	Access ATVs	2
			Public safety/children playing	2
			EMF	3
205	Agricultural Land Use	1	Cutting into agricultural land	1
205	Livestock Operations	2	Pasture/ Livestock	2
205	Vegetation and Wetlands	1	Trees beside line	1
205	Wildlife	1	No hunting sign	1

Alternative Route Segment	VC	Number	Detailed Preferences	Number
205	Resource Use	1	Woodlot – use wood for heat	1
205	Hydro Corridor Maintenance	1	Sprayers by poles/maintenance	1
205	Bipole III	1	Bipole	1
205	Cost	1	Cost	1
205	Other Land Use	1	Shop	1
	<b>Total Segment 205</b>	<b>31</b>		
206	Property & Residential Development	4	Disrupts future use/Subdivision potential	2
			Subdivision to south – compensation/loss of income	1
			Close to house	1
206	Public Safety and Human Health	1	Access ATVs	1
206	PEP	1	Desire registered letter	1
	<b>Total Segment 205</b>	<b>6</b>		
207 to 211			No comments	

## 4. Manitoba Hydro Email and Telephone Line

### 4.1 Summary of Round 2 PEP Email and Telephone Contacts

Table 4-1 indicates that 215 emails and 106 telephone calls were received by Manitoba Hydro between March, 2014 and August, 2014.

Many of the telephone calls recorded by Manitoba Hydro 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.

Many of the emails received by Manitoba Hydro were related to map request follow-ups or additional information requests, including meetings.

**Table 4-1: Email and Telephone Calls Received by Manitoba Hydro by Type**

Comment Type	Telephone Calls	Emails
Concern	17	38
Preference	4	5
Site Specific Data	6	0
Recommendation	1	8
General Feedback	35	23
Map Request	14	46
Project Information Requests	29	95
<b>Totals</b>	<b>106</b>	<b>215</b>

#### 4.1.1 Comments

##### 4.1.1.1 *General Comments/Queries*

Inquiries and comments obtained through email and telephone communications with landowners and the general public are found in Appendix E. General comments and queries placed through the telephone and email communications included:

- Map requests (detailed maps for landowners and updated data if available).
- Meeting requests.
- General Project information requests (pamphlets, links on project website, etc.)
- General comments related to:
  - Potential health effects, including EMF and mental health changes.
  - Potential effects on property value due to the loss of ability to subdivide property
  - Project compensation for landowners.
  - Location of property in relation to residences.
  - Deforestation and loss of vegetation/biodiversity.
- Regulatory process for environmental assessments, including public involvement throughout the process, general objection to the project and alternatives to the project.
- Engagement Process, including methods of notification and open house locations.

#### 4.1.1.2 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 summary logs of emails and calls received from specific Stakeholder Groups are included in the Appendix C.

Segment specific comments received in emails and telephone calls are included in Table 4-2. The table also summarizes the number of preferences and concerns for each Alternative Route Segment as recorded in email and telephone communications, along with the topics of Concerns and Preferences. When multiple email or telephone conversations were related to the same topic for a segment, the number of related responses is included in brackets.

**Table 4-2: Summary of Site Specific Concerns and Preferences (Email and Telephone Calls Received by Manitoba Hydro)**

Segment	VC	# of Concerns	Concerns	# of Preferences	Preferences
200		0		0	
201	Property & Residential Development	3 1 3	Proximity to residence Plans approved for subdivision Property value	2	Property and residential
201	Public Safety and Human Health	2	Health	1	Health
201	Aesthetics	1	Aesthetics	1	Aesthetics
201	Vegetation and Wetlands	3	Vegetation/ Invasive thistle, related to right-of-way maintenance	1	Vegetation
201	Wildlife	2	Sandhill Crane nesting areas.		
201	Agricultural Land Use			1	Agricultural Land Use
201	Infrastructure and Services			2	Infrastructure? Non-agricultural land uses?
201	Resource Use	1	General		
201	General	1		2	Preferred route in Lorette and Marchand areas
	<b>Total Segment 201</b>	<b>19</b>		<b>10</b>	
202	Property & Residential Development	5 4	Proximity to Residence Property value		
202	Public Safety and Human Health	4	Health/Emotional and psychological impact on family		
202	Fish and Fish Habitat			1	Seine-Rat River Conservation District preference because of existing project on Fish Creek.
202	Vegetation and Wetlands	2	Environmental degradation		
202	Wildlife	3	Sandhill Cranes nesting area.		

Segment	VC	# of Concerns	Concerns	# of Preferences	Preferences
202	Hunting, Trapping and Fishing	1	Big game hunting habitat loss		
202	Resource Use	1	Wood		
202	Infrastructure and Services	2	Non-agricultural land use		
	<b>Total Segment 202</b>	<b>22</b>		<b>1</b>	
203	Property & Residential Development	7 5	Property and residential development Loss of property value	1	Residence
203	Public Safety and Human Health	4 1 1	Health/Emotional and psychological impact on family EMF Safety		
203	Aesthetics	1	Aesthetics		
203	Vegetation and Wetlands	2 1	Seine-Rat River Conservation District Projects Environmental degradation		
203	Wildlife	3 1	Bird species including Whip-poor-will and Sandhill Cranes. Project on private property coordinated with the efforts of Ducks Unlimited.		
203	Groundwater Resources	1	High water table in the area, artisan wells		
203	Resource Use	1 1	Gravel pits in the area Resource		
203	Agricultural Land Use	1	Agriculture		
	<b>Total Segment 203</b>	<b>30</b>		<b>1</b>	
204	Property & Residential Development	2 1	Property and Residential Development Property Values		
204	Public Safety and Human Health	2	Health		
204	Vegetation and Wetlands	1	Wild plant species	1	Vegetation
204	Wildlife	1	Wildlife		
204	Infrastructure and Services			1	Infrastructure and Services Non-Agricultural Land Use
	<b>Total Segment 204</b>	<b>7</b>		<b>2</b>	
205	Property & Residential Development	11 6 1	Proximity to residential Property value RM of Tache Resolution No. 522-2014		
205	Public Safety and Human Health	4 1	Health Access to property in un-monitored areas		
205	Vegetation and	1	Use of chemicals to clear the Right-		

Segment	VC	# of Concerns	Concerns	# of Preferences	Preferences
	Wetlands	2	of-Way Overall environmental concerns		
205	Wildlife	2	Migratory bird routes, nesting and breeding sites.		
205	Fish and Fish Habitat	2	Seine-Rat River Conservation District Retention Project		
205	Agricultural Land Use	1	Land fragmentation, impact on agricultural land.		
205	Recreation and Tourism	1	Recreation		
205	Atmospheric Resources	1	Interference with existing data networks		
205	Use Crown Land	1			Use Crown Land
	<b>Total Segment 205</b>	<b>34</b>			
<hr/>					
206	Property & Residential Development:	2 1	Plan for three-phase subdivision provided, indicating that Phase 1 has already been completed Location of acreage	1	Prefer
206	Public Safety and Human Health	1	EMF/Health		
206	Vegetation and Wetlands			1	Vegetation
206	Infrastructure and Services			1	Non-Agricultural Land Use
	<b>Total Segment 206</b>	<b>4</b>		<b>3</b>	
<hr/>					
207	Property & Residential Development			1	RM of La Broquerie Resolution No. 172-2014, supporting Route Segment 207.
207	Public Safety and Human Health	1	EMF		
207	General			2	Preferred route/ Lorette and Marchand areas
	<b>Total Segment 207</b>	<b>1</b>		<b>3</b>	
<hr/>					
208	Property & Residential Development	1 2	Line runs through property Property value		
208	Public Safety and Human Health	1	Safety	1	
208	Aesthetics	1	Aesthetics		
	<b>Total Segment 208</b>	<b>5</b>		<b>1</b>	
<hr/>					
209	Property & Residential Development	2 1	Property and residential development Compensation		

Segment	VC	# of Concerns	Concerns	# of Preferences	Preferences
209	Public Safety and Human Health	1	Safety (RM of Piney)		
209	Agricultural Land Use	1	Agricultural		
209	Recreation and Tourism	1	Walking/Hiking trails, canoe along the ridge during wet seasons.		
209	Traditional Use	1	Collection of mushrooms and firewood		
209	Resource Use	1	Mineral rights included in title for property.		
209	Infrastructure and Services	1	Distance from airport, RM of Piney		
209	Alternative Route	1	Routing recommendation		
		1	Border crossing location		
	<b>Total Segment 209</b>	<b>11</b>		<b>0</b>	
210	Property & Residential Development:	1	Large number of residences near segment (US resident)		
		1	Proximity and compensation for the project		
210	Public Safety and Human Health	1	EMF		
210	Aesthetics	1	Tower height and placement		
210	Agricultural Land Use	1	Prime agricultural land near segment		
210	Infrastructure and Services	2	International (Canada-US) Airport has plans to construct an east-west runway approximately 1.5 miles west of Highway 89. Plans confirmed by MN resident.		
210	Wildlife	1	Near the largest Migratory Management Area in Minnesota.		
210	Border Crossing	1	Border crossing location		
	<b>Total Segment 210</b>	<b>8</b>		<b>0</b>	
211	Property & Residential Development:	1	Large number of residences near segment (US resident)		
		1	Proximity and compensation for the project		
	Public Safety and Human Health	1	EMF		
	Aesthetics	1	Tower height and placement		
	Agricultural Land Use	1	Prime agricultural land near segment		
	Infrastructure and Services	2	International (Canada-US) Airport has plans to construct an east-west runway approximately 1.5 miles west of Highway 89. Plans confirmed by Minnesota resident/Distance from airport		

Segment	VC	# of Concerns	Concerns	# of Preferences	Preferences
211	Wildlife	1	Near the largest Migratory Management Area in Minnesota.		
211	Border Crossing	1	Border crossing location		
	<b>Total Segment 211</b>	<b>9</b>		<b>0</b>	

In addition to overall comments on route segments, project Stakeholder Groups and landowners were invited to share route re-alignments and route recommendations in areas they were aware of along the Alternative Route Segments. Table 4-3 includes a summary of recommendations regarding Alternative Route Segments received by Manitoba Hydro through the MMTP telephone and email contacts:

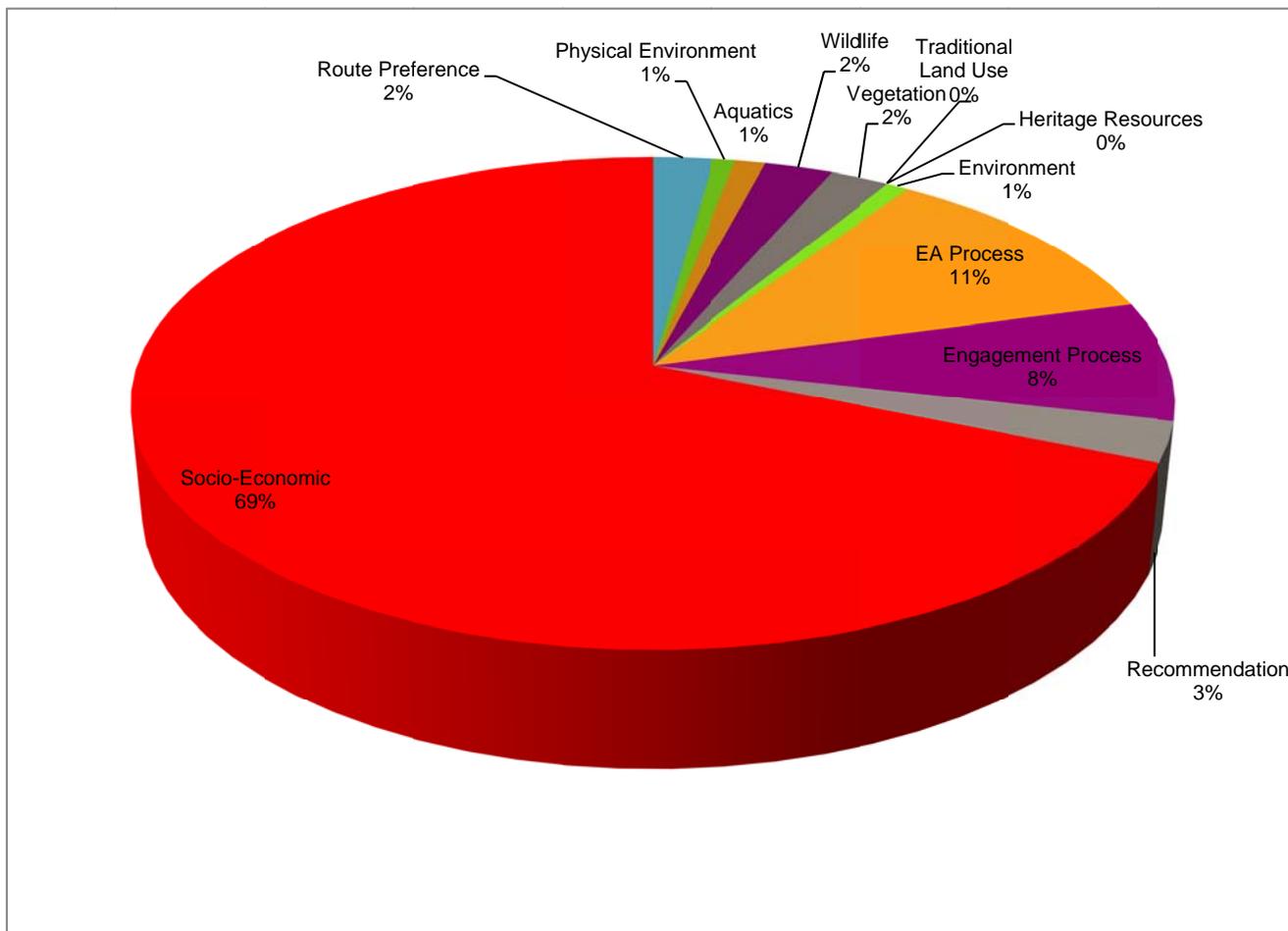
**Table 4-3: Summary of Route Segment Recommendations (Email and Telephone)**

Route Segment	Source of Recommendation	Summary of Recommendation
N/A (Round 1 Routes)	RM of Reynolds	Recommendation to use the alternative route segments presented during Round 1 through the RM of Reynolds. It was indicated that these segments would use Crown Land and could follow the existing 500 kV line for ease of access and maintenance.
202/203	RM of Tache Councillor	Follow two existing lines north of Mission Rd. to 29-10-8. At west side of sec. 29 begin a diagonal beginning through the SW corner of 29, the NE corner of 20 and come out at the ½ mile on the south edge of 16-10-8. Go straight south for 2 miles entering 33-9-8 at the ½ mile of its north boundary and exiting at its SE corner. Go SE for 2 ½ miles exiting from 25-9-8 at about the midway point of its southern boundary and then head south and slightly east to the SE corner of 1-9-8 (Map originally included).
201	Landowner	Should follow Municipal land east of private property (NW 17-10-7-E1).
206/207/208/209/211	The Wildlife Society – Manitoba Chapter	Recommendation for avoidance of the following areas: <ul style="list-style-type: none"> <li>• Balsam Willows Proposed Ecological Reserve</li> <li>• Boutang Area of Special Interest</li> <li>• Earl's Block Area of Special Interest</li> <li>• Lone Sand Area of Special Interest</li> <li>• Mensino Ridge Area of Special Interest</li> <li>• Pocock Lake Ecological Reserve</li> <li>• Somme Area of Special Interest</li> <li>• Spur Woods Wildlife Management Area</li> <li>• Watson P. Davidson Wildlife Management Area.</li> </ul>

4.1.1.3 Summary of Telephone and Email Communication

The majority of comments received by email and telephone were related to socio-economic topics. Figure 4-1 illustrates the general distribution of comments within the ten (10) coding criteria used for comments related to the overall project process, site specific segment data and routing recommendations.

**Figure 4-1: Email and Telephone Communications – Topics**

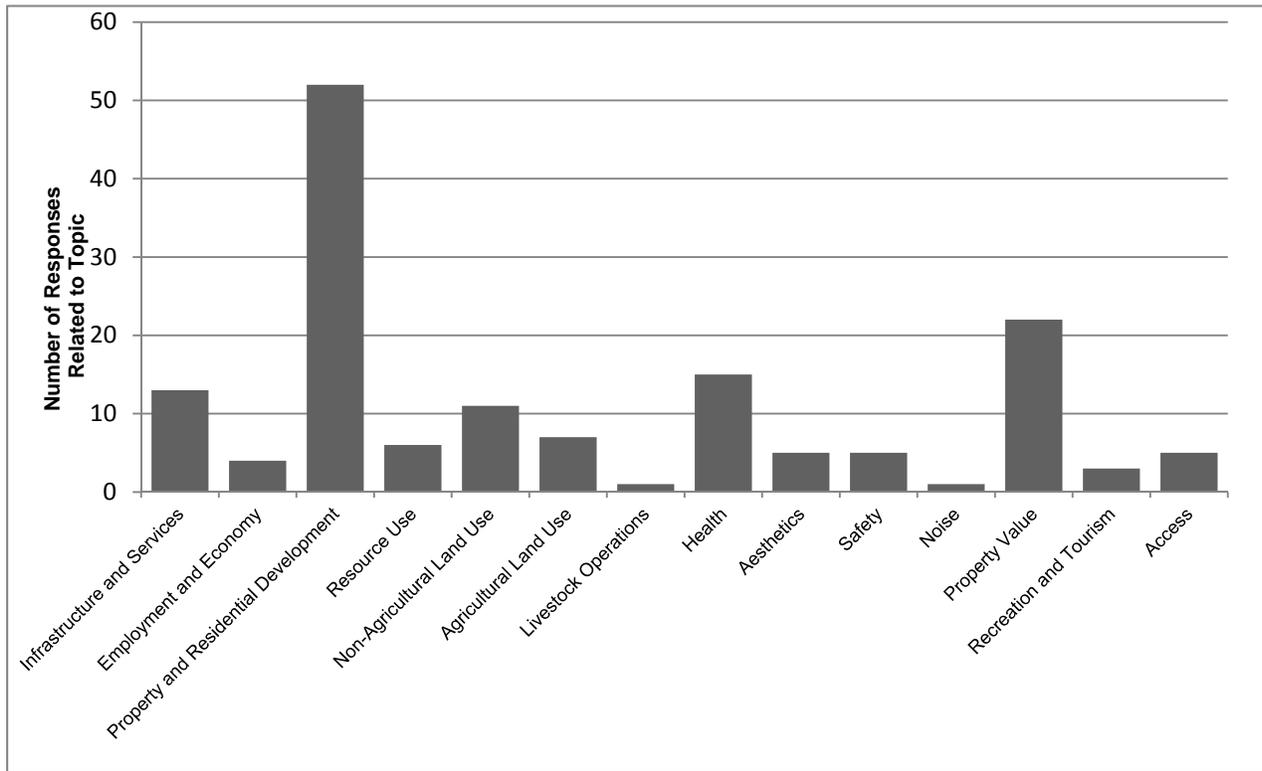


As the majority of responses were related to Socio-economic topics, an additional breakdown was created. The socio-economic coding criteria and results are illustrated in Figure 4-2.

Consistent with summary of POH Comment Sheets and Map Stations, the most frequent socio-economic topics related to “Property and Residential Development”, and the closely related “Property Value”. “Health” topics were second. Note that in the Table 3-4 “Evaluation of Valued Components”, “Public Safety and Human Health” ranked first and “Property & Residential Development” ranked second.

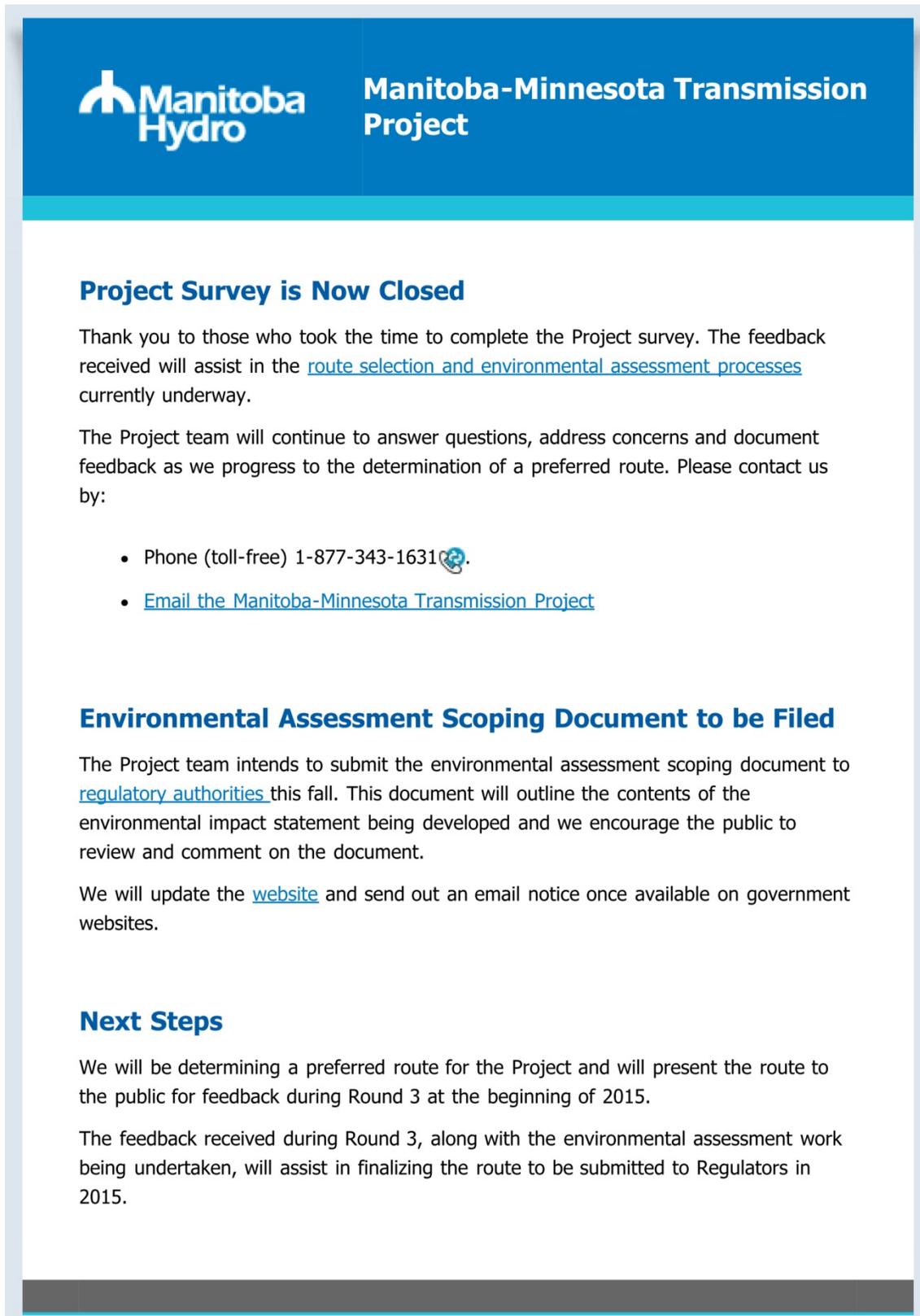
“Infrastructure and Services” was the fourth most frequent socio-economic factor. More information related to the data coding used in Figure 4-1 is provided in Chapter 5.

**Figure 4-2: Socio-economic Topics from Email and Telephone Logs**



**4.1.2 Follow-up**

Manitoba Hydro sent emails to individuals who had either signed in at the POH events, completed Comment Sheets or contacted Manitoba Hydro online. Figure 4.3 shows an example of the information email campaign delivered August 8, 2014.

The graphic is a sample email notification for the Manitoba-Minnesota Transmission Project. It features a blue header with the Manitoba Hydro logo and the project name. The main content is white with blue section headers and text. The first section is titled 'Project Survey is Now Closed' and thanks recipients for completing a survey. The second section is titled 'Environmental Assessment Scoping Document to be Filed' and informs recipients that a scoping document will be submitted to regulatory authorities. The third section is titled 'Next Steps' and outlines the determination of a preferred route and the finalization of the route for regulators. The graphic is framed by a light blue border.

**Manitoba Hydro** **Manitoba-Minnesota Transmission Project**

### Project Survey is Now Closed

Thank you to those who took the time to complete the Project survey. The feedback received will assist in the [route selection and environmental assessment processes](#) currently underway.

The Project team will continue to answer questions, address concerns and document feedback as we progress to the determination of a preferred route. Please contact us by:

- Phone (toll-free) 1-877-343-1631 .
- [Email the Manitoba-Minnesota Transmission Project](#)

### Environmental Assessment Scoping Document to be Filed

The Project team intends to submit the environmental assessment scoping document to [regulatory authorities](#) this fall. This document will outline the contents of the environmental impact statement being developed and we encourage the public to review and comment on the document.

We will update the [website](#) and send out an email notice once available on government websites.

### Next Steps

We will be determining a preferred route for the Project and will present the route to the public for feedback during Round 3 at the beginning of 2015.

The feedback received during Round 3, along with the environmental assessment work being undertaken, will assist in finalizing the route to be submitted to Regulators in 2015.

**Figure 4-3: Sample MMTTP Email Notification**

## 5. Environmental Assessment Data Coding

### 5.1 Methodology

AECOM established a methodology for recording Stakeholder Groups and public feedback and communications including Stakeholder Group Meetings, Comment Sheets (hardcopy and electronic), Mapping, and Landowner Information Forms, Website and mapping station data, Email and Telephone Communications and Website entries collected during the Round 2 PEP. The following section provides additional details for each of AECOM's approach to processing and evaluating public feedback.

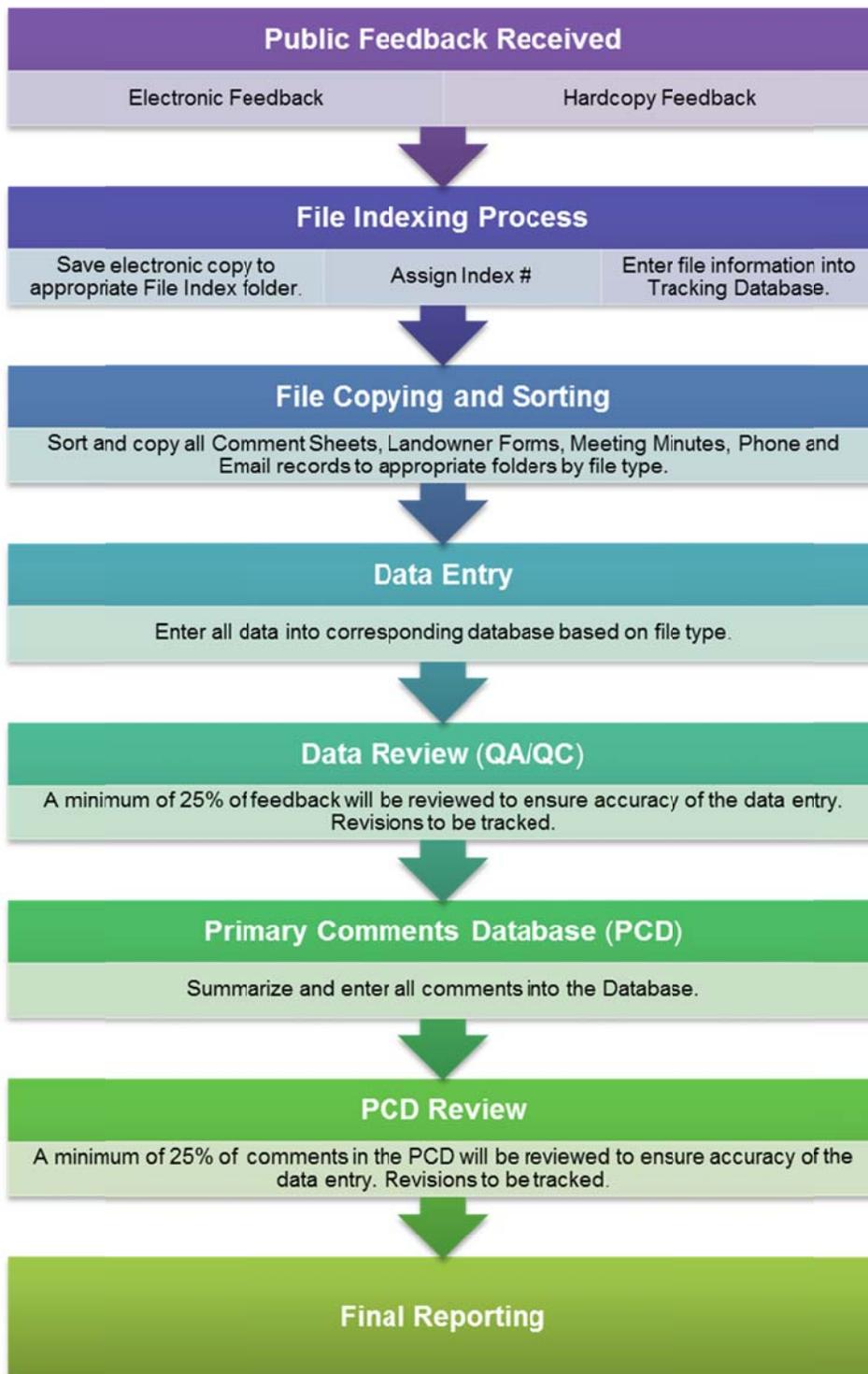
#### 5.1.1 Received Files

All materials received from Stakeholder Groups, landowners and public participants were saved and recorded in a Master Database. The database was designed to accommodate a file naming structure, providing segment data and key information received, including Concerns and Preferences.

All data was entered into databases corresponding to the initial data sources, as follows:

- Stakeholder Groups Meeting Minutes –PDF copies of all meeting minutes, as recorded by Manitoba Hydro staff.
- POH Comment Sheets – hardcopies were stored electronically and entered into Manitoba Hydro's online survey system
- Website Online Responses – original copies of the online version of the Comment Sheets were stored electronically as part of Manitoba Hydro's online survey database
- Mapping Data – data originally collected in iPads at Public Open House events was downloaded into a Microsoft Excel file.
- Landowner Information Form – hardcopies completed at POH events were entered into Microsoft InfoPath Database and responses were stored in Microsoft Excel file.
- Email Correspondence – emails sent to the project email address were summarized and recorded in a Microsoft Excel database.
- Telephone Correspondence – recorded by Manitoba Hydro from the project telephone line in a Microsoft Excel database.

All data was then added to the Primary Concerns Database, used to support this report. Figure 5-1: Process for Management of Public Feedback Data provides an overview of the process AECOM employed to manage public feedback received.



**Figure 5-1: Process for Management of Public Feedback Data**

As noted in Figure 5-1: Process for Management of Public Feedback Data, the database entry protocol also included a data quality and control component to ensure reviews were continuously being conducted. A minimum of 25% of all information received and recorded in the database was reviewed for consistency and accuracy.

All files received were saved electronically and assigned a specified naming convention (AECOM Index Number). The AECOM Index Numbers were generated to ensure all data was captured and easily accessible. The index number contained three primary components:

- Round 2 Identifier
- File Type
- File #

This excluded online survey responses, each entry of which automatically received a unique “Survey ID”.

Index numbers assigned to Comment Sheets and LIF contained an additional identifier used to indicate the POH location where the original was received by Manitoba Hydro. The identifier was designed to ensure all responses could be identified based on the Open House venue or whether the information was received after the POH had ended. All files were numbered in sequential order as they were received /processed. Table 5-1 provides further explanation of the naming structure.

**Table 5-1: AECOM Index Number Structure**

<b>Round # Identifier</b>	<b>File Type (Abbreviation)</b>	<b>File Number (0-999)</b>	<b>Open House Identifier (If Applicable)</b>	<b>Sample Naming Structure</b>
R2	Email (E)	000-999	-	R2-E###
R2	Phone Call (P)	000-999	-	R2-P###
R2	Comment Sheets (C)	000-999	A – Received by mail after OHs S – Ste. Anne (April 15, 2014) S2 – Ste. Anne (June 18, 2014) R – Richer V – Vita P – Piney LB – La Broquerie D – Dugald M – Marchand LO – Lorette H – Headingley W – Winnipeg	R2-CS###A
R2	iPad (I)	000-999	-	R2-I###
R2	Landowner Form (L)	000-999	A – Received by mail after OHs S – Ste. Anne (April 15, 2014) S2 – Ste. Anne (June 18, 2014) R – Richer V – Vita P – Piney LB – La Broquerie D – Dugald M – Marchand LO – Lorette H – Headingley W – Winnipeg	
R2	Meeting Minutes (MM)	000-999		R2-MM###

### 5.1.2 Data Level Coding and Public Comments Database

All public feedback was coded for inclusion in the Public Comments Database (PCD). The PCD was designed to allow for analysis of feedback by source, comment type, Alternative Route Segment number and discipline level topic/ coding. Sources of feedback included in the PCD included POH Comment Sheets, online surveys, emails, and telephone and Stakeholder Group Meeting minutes.

Data entered into the PCD was linked to the AECOM Index Number assigned at time of receipt. The Index Number was applied to all feedback for that entry. In some cases one index number may have been repeated multiple times within the PCD because more than one comment was from the index number assigned. An example would be a Comment Sheet that was completed and had all sections containing information. For the purpose of the PCD, all sections of the Comment Sheet were entered and analyzed separately to ensure all feedback was collected and evaluated consistently.

When site specific data was provided (e.g. Legal Land Description) without reference to a segment, the site specific data was reviewed in a mapping program to identify the segment referenced in the comment.

Once all the data was collected and logged, each entry was given an identifier for comment type as shown in the table below.

**Table 5-2: AECOM Comment Type Identifier**

Comment	Comment Type	Description of Comment Types
C	Concern	Concern about any portion of the project. May be applied to any data and not always for segment specific feedback.
P	Preference	Applied to comments that indicated preference to a route segment, proposed component of the project or process. May be applied to any data and not always for segment specific feedback.
S	Site Specific	Any comments that contained detailed site specific data but did not indicate any preferences or concerns.
R	Recommendation	Related to comments which provided general recommendations for the Project, including avoidance or routing suggestions.
G	General Comments	The general comments category was used for any comment that did not readily fit into the other categories as defined. Topics may have included information not directly pertaining to the MMTP process or comments that were related to the overall engagement process.
M	Map Request	Any map requests for Manitoba Hydro to complete.
I	Information Request (Project, meeting and general requests)	Follow-up items identified by the public/Stakeholder Groups that required further action by Manitoba Hydro.

### 5.1.3 Environmental Assessment Related Coding

Upon completion of the comment categorization, additional coding was applied to further relate all feedback to general Environmental Assessment (EA) areas. The EA areas were developed as an organizational tool related to the key EA disciplines. All feedback (entries) from meeting minutes, comment sheets and online surveys, iPads, emails, telephone conversations, were coded to the following Discipline Level Codes indicated in Table 5-3:

**Table 5-3: Environmental Assessment Sub-categories for Data Coding**

Sub-Categories for Coding	
Physical Environment	EA Process
Aquatics	Engagement Process
Wildlife	Socio-Economic
Vegetation	Route Preference
Traditional Land Use	Contact
Heritage Resources	Other
Recommendation	Not Applicable

Multiple codes were applied to entries as necessary due to the amount of overlap often seen between topics. Based on the high volume of responses categorized as “socio-economic”, the following additional sub-categories were generated to further filter the socio-economic data for evaluation.

- Infrastructure and Services
- Employment and Economy
- Property and Residential Development
- Resource Use
- Non-Agricultural Land Use
- Agricultural Land Use
- Livestock Operations
- Health
- Aesthetics
- Safety
- Noise
- Property Value
- Recreation and Tourism
- Access

#### 5.1.4 Description of General Coding Sub-categories

A number of codes related to the types of data being collected, if they were not specifically linked to Concerns and Preferences about the Alternative Routes.

##### Recommendation

The Recommendation code refers to any route alignment/adjustment discussed in the entries along with tower placement. These Recommendations can be very specific to a particular Segment ID and be very general such as “follow existing infrastructure,” “use crown land/agricultural land,” and move the transmission lines further east or west. These comments were evaluated by Manitoba Hydro and recommendations were brought forward during route evaluation (See Section 6)

##### Environmental Assessment (EA) Process

EA Process includes discussions regarding the EA Process such as project timing, transmission line routing and regulatory process. This also includes project methodology and/or any discussions regarding Community Development Initiatives (CDIs).

##### Engagement Process

This includes entries discussing the “lack of communication,” and/or “not being consulted.” Engagement Process also includes discussions regarding open houses and the need for “more public consultation.”

Other: Comments that were not related to a project discipline or process, such as general comments, reference to other projects, map requests, etc.

Not Applicable: Comments that could not be applied to any of the other categories or were incomplete responses. Examples may include entries that only stated “no” or incomplete sentences/phrases such as “Disregard 200 preference”.

#### Route Preference

When a preferred route is discussed in the entry it can either be very specific to a Segment ID number and/or general (i.e. would prefer the route 1 Mile east of current Segment ID number).

#### Contact

When contact information was provided for the individual, which may include mailing address, section/township/range, email address, phone number, etc.

### 5.1.5 Concerns and Preferences for Evaluation of Alternative Route Segments

For the purpose of evaluation for Alternative Route Segments, all comments defined as Concerns and Preferences were further evaluated using a categorization under three broad perspectives. The perspectives considered were developed based on the EPRI-GTC methodology and included Natural Environment, Built Environment and Social Environment.

#### 5.1.5.1 *Natural Environment Category*

The Natural Environment Category is generally related to comments regarding the biophysical environment. Topics included were as follows:

Physical Environment: This included the surrounding terrain (i.e. bogs, wetlands, etc.), soils (including condition and thickness) and groundwater (i.e. aquifers, depth, groundwater, etc.). An example of a comment coded to this topic was: *“I am concerned about the groundwater resources/wetlands located by the 208 route. How will they be disturbed/ruined/effected by the transmission line?”*

Aquatics: Aquatics included all fish and aquatic habitat (i.e. rivers, creeks, lakes etc.). Also, entries indicating wetlands and/or bogs, were also coded as Aquatics. An example of a comment coded to Aquatics was: *“The English River runs right by my land, and there are fish, otters, mink, beaver, and other animals in it....”*

Wildlife: The Wildlife code included all comments that mentioned mammals, birds, amphibians and reptiles. Also, if any entries include species at risk (i.e. Sandhill Crane), conservation districts, and/or wildlife management areas, they were also classified as Wildlife. Beekeepers were also coded under Wildlife. An example of a comment coded to Wildlife was: *“Concerns about birding. General area home to some endangered bird species as well as great grey owl. Worried about timing of construction and impact on bird species.”*

Vegetation: Vegetation includes any entries discussing forest/forestry, wooded areas, wildlife habitat, and/or tree removal. This also includes conservation districts, wildlife management areas and species at risk (i.e. Lady Slippers). An example of a vegetation coded comment is: *“The destruction of mature woodlands home to a plethora of wildlife including protected fowl species. The close proximity of dangerous structures and materials to residential homes.”*

Environment: A code used for general comments related to the environment and no specific information was given. An example of a comment coded to this topic was: *“205 is a shorter route and less environmental disruption.”*

#### 5.1.5.2 Built Environment Category

The Built Environment Category is generally related to existing infrastructure and land uses. Topics included were as follows:

Heritage Resources: The Heritage Resources code included any entry discussing archeological sites, heritage sites, and/or century farm. This also includes “grave site” in the event the entry does not discuss cemetery. Heritage Resources also includes any entries discussing “blessed cemetery.” A comment coded as Heritage Resources is: *“A participant expresses her preference for segment 208 over 207 from a heritage perspective.”*

Infrastructure and Services: This included any personal services provided to a household including television, satellite, cell phone services, etc. Any discussions regarding existing transmission lines/towers and/or the construction of the transmission lines were coded as Infrastructure and Services. Any reference to BiPole III was also coded as Infrastructure and Services. An example of a comment coded to this topic was: *“Concerns about heavy trucks and the quality of the road”.*

Property and Residential Development: If entries indicated “my property,” “private property” and/or “my land/home”, they were coded as Property and Residential Development. This also included residential development either as occurring right now or planned in the future. An example of a comment coded to this topic was: *“New Development - New homes are being developed and they are doing some clearing for more development.”*

Non-Agricultural Land Use: This included any discussions regarding Crown land, conservation sites, protected areas, forested area, woodlots, and/or cemeteries. An example of a comment coded to this topic was: *“Prefer route 207 because it passes through crown land and will make recreational routes.”*

Agricultural Land Use: Farm land, farms, crops (including berries), and pastures were all coded as Agricultural Land Use. An example of a comment coded to Agricultural Land Use was: *“I would prefer MB Hydro to use the easterly route i.e. 207. It has less interference with agricultural land and residential areas.”*

Livestock Operations: Livestock Operations included any discussions regarding “farm animals” and/or specific farms animals including dairy farms and hog operations. Any discussions regarding tingle voltage, stray voltage, health risks to farm animals, and biosecurity were also coded as Livestock Operations. An example of a comment coded to Livestock Operations is: *“We are concerned about livestock grazing under power lines and property re-sale.”*

Traditional Land Use: This included any entries related to First Nations, Treaty lands and/or Aboriginal communities. An example of a comment coded to this topic was: *“Re traditional land use: I have learned about edible wild plants and use my land for foraging.”*

Access: This coded access to both private and public lands. Access included discussion regarding right-of-way access, trespassing, construction access, and creating “easy access corridors.” A sample of a comment that was coded under access is: *“This segment allows for easier access to the line for repair or maintenance and much of it follows the #1 highway.”*

### 5.1.5.3 Social Environment Category

During the PEP, many topics were included under the Socio-economic Category. In addition to related Built Environment considerations in this category, the following codes were included as part of the Social Environment:

Employment and Economy: This code includes any discussions regarding Manitoba Hydro rate increases, impacts to the economy as a result of the project, the total cost of the project and/or increases in daily living costs such as an increase in livestock feeding costs and employment opportunities related to the project. A sample of a comment coded to this topic is: *"I am not thrilled that the ratepayers are paying \$353 million for additional "pipeline" in Minnesota, which is more than they actually want to buy from us. My understanding is that there is not a guarantee that hydro will be able to use that extra capacity to sell to other states."*

Resource Use: Any discussion regarding mineral rights, quarry leases, woodlots and/or hunting/trapping/fishing were coded as Resource Use. A sample of the comment coded to Resource Use includes: *"Makes their land useless because of the existing line. Going through their property because we're trying to save quarry."*

Health: This category included any human health discussions such as EMF, cancer and/or pacemaker/heart problems. It also included general and/or emotional well-being (i.e. stress, anxiety, etc.). An example of a comment coded as Health is: *"Too close to the village of La Broquerie. It is over houses, the golf course and valuable farmland. It will lower land values, take away valuable farm land and the EMF health effects are a concern."*

Aesthetics: This included discussions regarding property aesthetics such as privacy, "an eye sore," visually un-appealing, and providing a sense of comfort (i.e. peace and quiet, tranquility, etc.). This also included infrastructure aesthetics (i.e. tower types, placement, etc.). An example of an Aesthetics coded comment is: *"It's farther from our home (health concerns) and eventually joins with currently-existing power lines, so there is less of an impact visibly to our area and roads (e.g. Trans-Canada Highway) where we frequently travel."*

Safety: Safety included discussions regarding safety on both private land and non-private lands. This included break-ins, vandalism, and/or traffic accidents. It also included potential oil and/or gas spills, pipeline ruptures and fires (both forest fires and providing a buffer along transmission lines for forest fires). An example of a Safety coded comment is: *"Too close to a developing community. 1.6 km from parcel. Safety concern with kids accessing the ROW."*

Noise: Noise included the humming/buzzing noise of the transmission lines and noise generated during construction and maintenance of the transmission lines. An example of a noise comment is: *"Impact on human life. Health hazards. Constant buzzing noises. Property value."*

Property Values: Any discussions regarding depreciation of property values, re-sale values of the properties, compensation, and expropriation were coded as Property Values. A comment coded for property values was: *"Concerned with existing level of development, train tracks, future municipal yard, adjacent church. Concern around property value being negatively affected. Have lived here since 1973. Heavy traffic along 206 south, frequent accident. Traffic levels in general on PTH #1 are high."*

Recreation and Tourism: Recreation and Tourism included discussions regarding walking trails, ATVs/snowmobiles/quads/cyclists, golf courses, community parks/sports areas, and natural recreation areas. An example of a comment coded for Recreation and Tourism is: *"Maintains cross country ski trails in the area. Concerns are related to increased access to remote areas by ATVs that disturb the land."*

## 5.2 Comparison of VC and EA Coding

The following Table 5.4 indicates the Categories and sub-categories used to organize data, particularly Concerns and Preferences, in both the Valued Components system referenced in the description of the Public Engagement Process in Section 2 to Section 4, and the EA Data Coding described above. The table also shows how different EA Sub-categories are organized relative to the three encompassing Natural, Built and Social Environment Categories.

**Table 5-4: Comparison of EA Sub-categories and Valued Component Categories**

EA Data Coding	VC Categories	Notes
<b>Natural Environment Category</b>		
	Atmospheric Resources	Interference with radio, TV, cell services
<b>Physical Environment</b>		
Surrounding terrain (i.e. bogs, wetlands, etc.)	Vegetation and Wetlands	
Soils (i.e. condition, thickness, etc.)	N/A	
Groundwater (i.e. depth to groundwater, aquifers, etc.)	Groundwater Resources	
<b>Aquatics</b>		
Fish and fish habitat (i.e. river, creeks, lakes, etc.)	Fish and Fish Habitat	*(Also listed under Physical Environment)
Wetlands*	Vegetation and Wetlands	
<b>Wildlife</b>		
Mammals (i.e. deer, bear, elk, etc.)	Wildlife	
Birds	Wildlife	
Amphibians and reptiles	Wildlife	
Species at risk (i.e. Sandhill Crane)	Wildlife	
Conservation District	Vegetation and Wetlands	
Wildlife Management Area	Vegetation and Wetlands	
Beekeeper	Agricultural Land Use	
<b>Vegetation</b>		
Forest/forestry	Vegetation and Wetlands	
Conservation District**	Vegetation and Wetlands	** (Also in Wildlife)
Wooded areas	Vegetation and Wetlands	
Wildlife Management Area**	Vegetation and Wetlands	** (Also in Wildlife) May be related to Property & Residential Development/Aesthetics
Tree removal	Vegetation and Wetlands	
Wildlife habitat	Vegetation and Wetlands	
Species at risk (i.e. Lady's Slipper)	Vegetation and Wetlands	

EA Data Coding	VC Categories	Notes
<b>Built Environment Category</b>		
Traditional Land Use		
First Nations	Traditional Land Use	Also picking mushrooms cutting wood etc.
Treaty lands	Traditional Land Use	
Aboriginal communities	Traditional Land Use	
Heritage Resources		
Century farm	Heritage Resources	
Grave site	Heritage Resources	
Heritage site	Heritage Resources	
Archeological site	Heritage Resources	
Blessed cemetery	Infrastructure and Services	
Recommendation		
Route alignment/adjustment	Alternative Route or Route Alignment	
Tower placement	Aesthetics	Typically a visual concern
Follow existing infrastructure	Follow Existing Hydro Line	
Move farther east or west	Alternative Route Alignment	Dealt with in other sections
Use Crown Land/agricultural land	Crown Land	
Process		
Project timing	N/A	Information useful in improving the EA and engagement process but dealt with in other sections. Not part of VC identification.
Community Development Initiative (CDI)	N/A	These were not used in Data Coding for Concerns and Preferences
Transmission Line Routing	N/A	
Open Houses	N/A	
Regulatory process	N/A	
Methodology	N/A	
Engagement Process		
Not consulted	N/A	Information useful in improving the PEP but dealt with in other sections. Not part of VC identification.
Open houses	N/A	These were not used in Data Coding for Concerns and Preferences
Lack of communication	N/A	
More public consultation	N/A	

EA Data Coding	VC Categories	Notes
<b>Social Category</b>		
Infrastructure and Services		
Personal services (i.e. TV, satellite, cell, etc.)	Atmospheric	
Existing transmission lines/towers	Property & Residential Development	Typically indicating impact on residential land use
Aerial spraying/crop dusters	Agricultural Land Use	
Construction of the transmission lines	Existing Transmission Lines	
Bipole III	Existing Transmission Lines	
<b>Employment and Economy</b>		
Rate increase	Other	
Cost of the project	Cost	
Livestock feeding costs increase	Agricultural Land Use	
<b>Property and Residential Development</b>		
"my property"	Property & Residential Development	
Private property	Property & Residential Development	
My land/home	Property and Residential Development	
<b>Resource Use</b>		
Quarry	Resource Use	
Mineral rights	Property & Residential Development	Typically related to property concerns
Hunting/trapping/fishing	Hunting, Trapping and Fishing	
Woodlot	Resource Use	
<b>Non-Agricultural Land Use</b>		
Crown land	Crown Land	
Forested/Woodlot	Vegetation and Wetlands	
Cemetery***	Infrastructure and Services	***Not distinguished from other cemetery
Conservation sites	Vegetation and Wetland	Repeated in other categories
Protected Areas	Vegetation and Wetland	
Marginal land	N/A	
<b>Agricultural Land Use</b>		
Farm land	Agricultural Land Use	
Farms	Agricultural Land Use	
Crop including berries	Agricultural Land Use	
Pasture	Livestock Operations	

EA Data Coding	VC Categories	Notes
<b>Livestock Operations</b>		
Farm animals	Livestock Operations	
Specific farm animals (i.e. cattle, hogs, horses, etc.)	Livestock Operations	
Dairy farm	Livestock Operations	
Tingle voltage	Livestock Operations	
Stray voltage	Livestock Operations	
Health risks to cattle	Livestock Operations	
Biosecurity	Livestock Operations	
<b>Health</b>		
Human health (i.e. EMF, cancer, pacemaker/heart problems)	Public Safety and Human Health	
Well-being (i.e. stress)	Public Safety and Human Health	
<b>Aesthetics</b>		
Privacy	Aesthetics	
Eye sore	Aesthetics	
Infrastructure aesthetics	Aesthetics	
Visually un-appealing	Aesthetics	
Sense of comfort (i.e. peace and quiet, peaceful, tranquil, etc.)	Aesthetics	
<b>Safety</b>		
Break ins	Public Safety and Human Health	
Fires including a buffer for fires	Public Safety and Human Health	
Vandalism	Public Safety and Human Health	
Traffic accidents	Public Safety and Human Health	
Spills (i.e. oil and gas)	Public Safety and Human Health	
Pipe line rupture	Public Safety and Human Health	
<b>Noise</b>		
During construction and maintenance	Public Safety and Human Health	
Humming/bussing noise of transmission lines	Public Safety and Human Health	
<b>Property Values</b>		
Compensation	Property & Residential Development	
Re-sale value	Property & Residential Development	
Expropriation	Property & Residential Development	
Depreciation	Property & Residential Development	

EA Data Coding	VC Categories	Notes
<b>Recreation and Tourism</b>		
Golf course	Recreation and Tourism	
Walking trails	Recreation and Tourism	May also related to Public Safety and Human Health
ATVs/snowmobiles/quads/cyclists	Recreation and Tourism	May relate to Hunting, Trapping and Fishing, or Recreation and Tourism
Recreation routes/paths/trails	Recreation and Tourism	
Community park/sports area	Recreation and Tourism	
Natural recreation	Recreation and Tourism	
<b>Access</b>		
Right-of-way	Property & Residential Development	
Trespassing	Public Safety and Human Health	
Creating easy access corridor	Public Safety and Human Health	May also relate to Recreation and Tourism, May also related to Public Safety and Human Health
Construction access	Property & Residential Development	

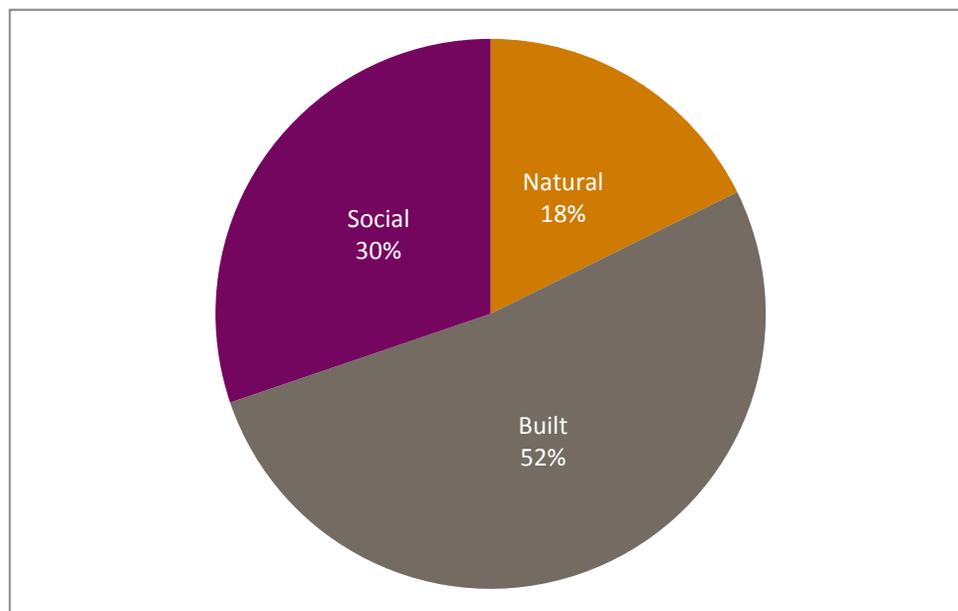
## 6. Summary of Results for Transmission Line Routing

### 6.1 Approach

Section 6 presents a summary of all the data from the PEP, in both written and graphic form, for each of the Alternative Route Segments. Data is grouped into Natural Environment, Built Environment and Social Categories. Data used for all EA summaries was the EA Sub-category information based on all PEP sources.

Figure 6-1 indicates the relative weighting of responses based on combined numbers of Concerns and Preferences in each general EA Data Category.

**Figure 6-1: Relative Numbers of Responses in Each Data Category**

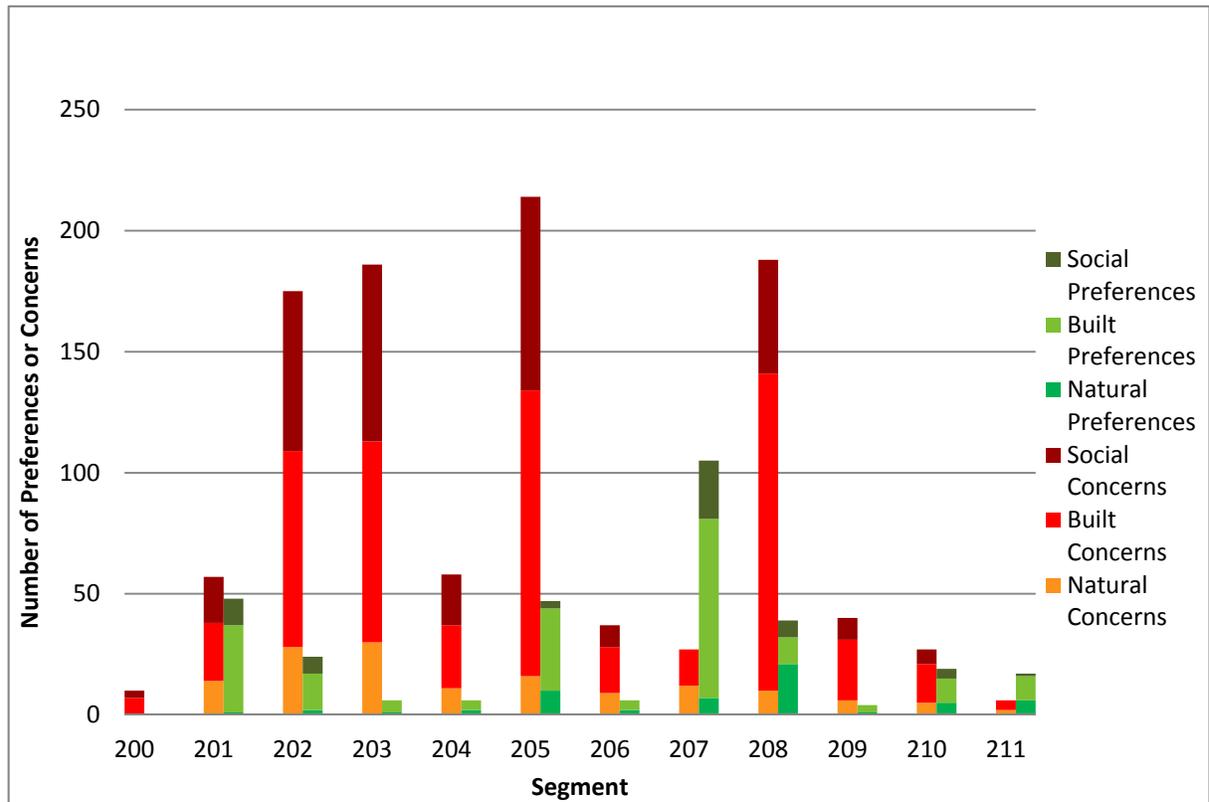


The pie chart indicates the overall breakdown of responses in the Natural, Built and Social Environment Categories. Built and Social Environment Categories together total 82%, with Concerns and Preferences in the Natural Environment Category totalling only 18%.

Figure 6-2 provides an “at-a-glance” comparison of the 12 Alternative Route Segments by general EA Category. As shown in Figure 6-2:

- Segments 205, 208, 203 and 202 have relatively high numbers of Concerns, while Segments 200 and 211 have fewer Concerns.
- Segment 207 has a relatively high number of Preferences and few Concerns.
- Segments 211 and 201 have fairly balanced numbers of Concerns and Preferences and few to moderate total Concerns overall.

**Figure 6-2: Overall Summary of Concerns and Preferences by Alternative Route Segment**

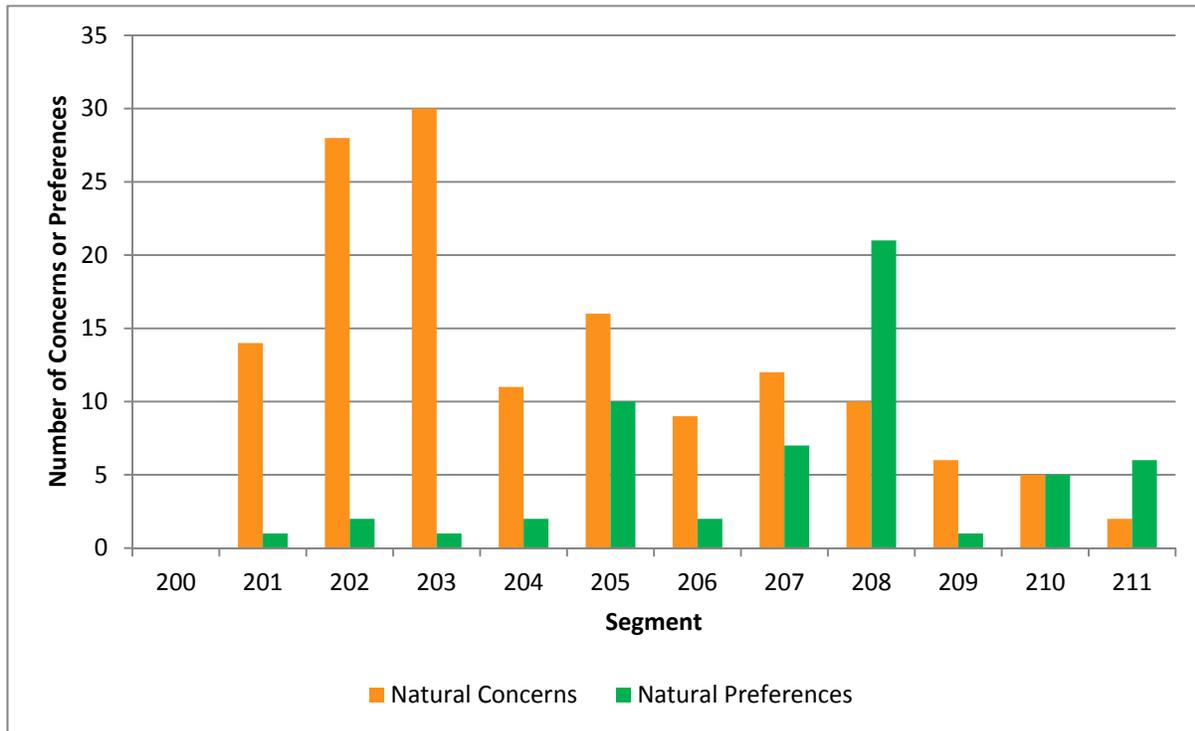


**6.2 Natural Environment Category Routing Concerns and Preferences by Route Segment**

Figure 6-3 below provides the frequency of Concerns and Preferences for the Natural Environment Category and indicates that the highest numbers of Concerns in this category were related to Alternative Route Segments 203, 202 and 205. The highest numbers of Preferences were in Segments 208 and 205.

Note that the overall number of responses (Concerns and Preferences) for any Alternative Route Segment did not exceed 32, while the average number was less than 20.

**Figure 6-3: Natural Environment Category - Frequency of Concerns and Preferences**

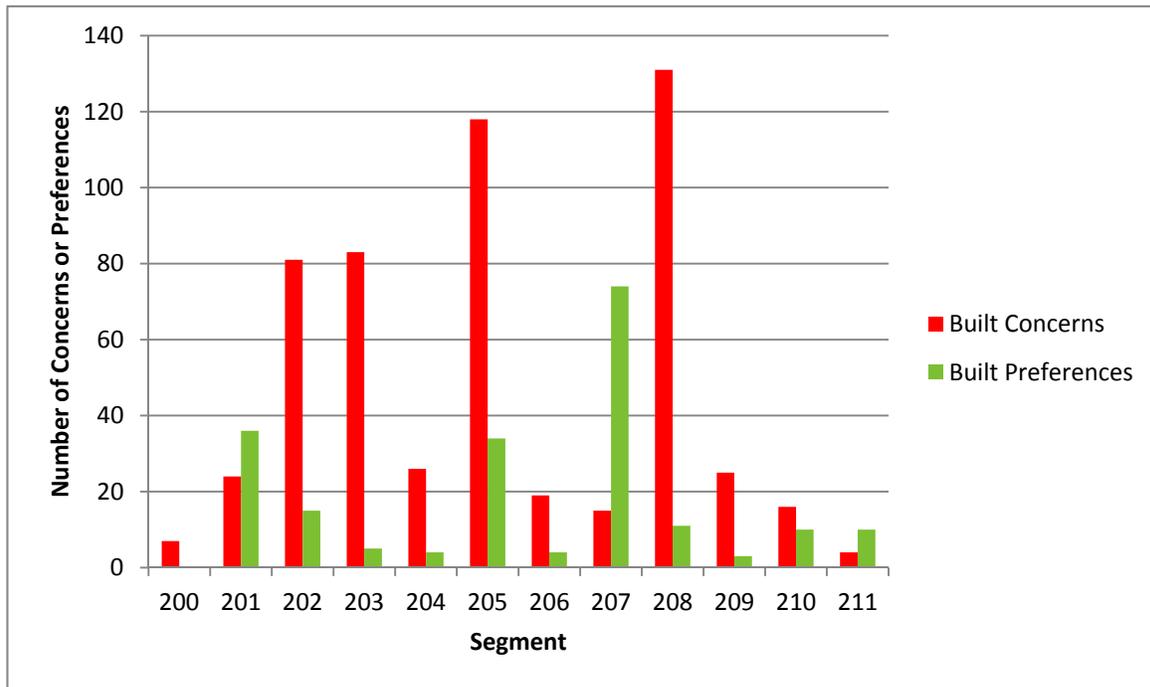


**6.3 Built Environment Category Concerns and Preferences by Route Segment**

Figure 6-4 indicates the frequency of Concerns and Preferences for the Built Environment Category and indicates that the highest numbers of Concerns in this category were related to Alternative Route Segments 208, 205, 203 and 202. The highest numbers of Preferences for Built Environment were in Segments 207, 201 and 205, although the latter had between three and four times as many Concerns as Preferences overall. Segment 211 had very few responses but the number of Preferences was more than double the number of Concerns. Segment 201 also had considerably more Preferences than Concerns although few responses overall.

This Category had the highest overall number of responses for Concerns and Preferences combined, exceeding 140 responses for some Alternative Route Segments.

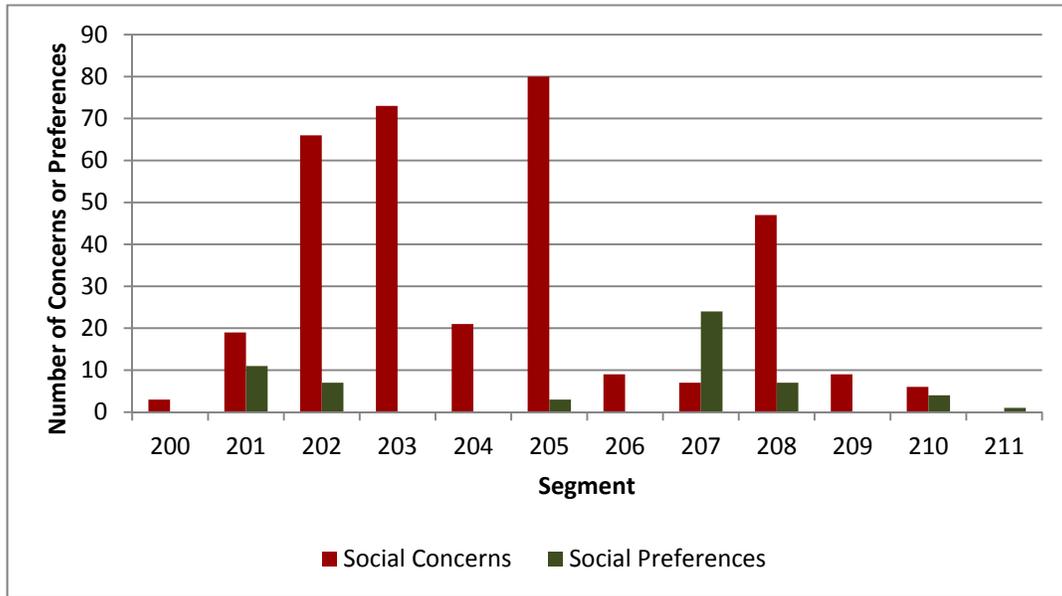
**Figure 6-4: Built Environment Category - Frequency of Concerns and Preferences**



**6.4 Social Category Concerns and Preferences by Route Segment**

Figure 6-5 indicates the frequency of Concerns and Preferences for the Social Category and indicates that the highest numbers of Concerns in this category were related to Alternative Route Segments 205, 203, 202 and 208. The highest number of Preferences for Social was in Segment 207. Segment 211 had very few responses but no Concerns. Segments 210 and 201 had only somewhat more Concerns than Preferences, although few responses overall.

This Category had a moderate level of responses for Concerns and Preferences combined, exceeding 80 responses for some Alternative Route Segments.

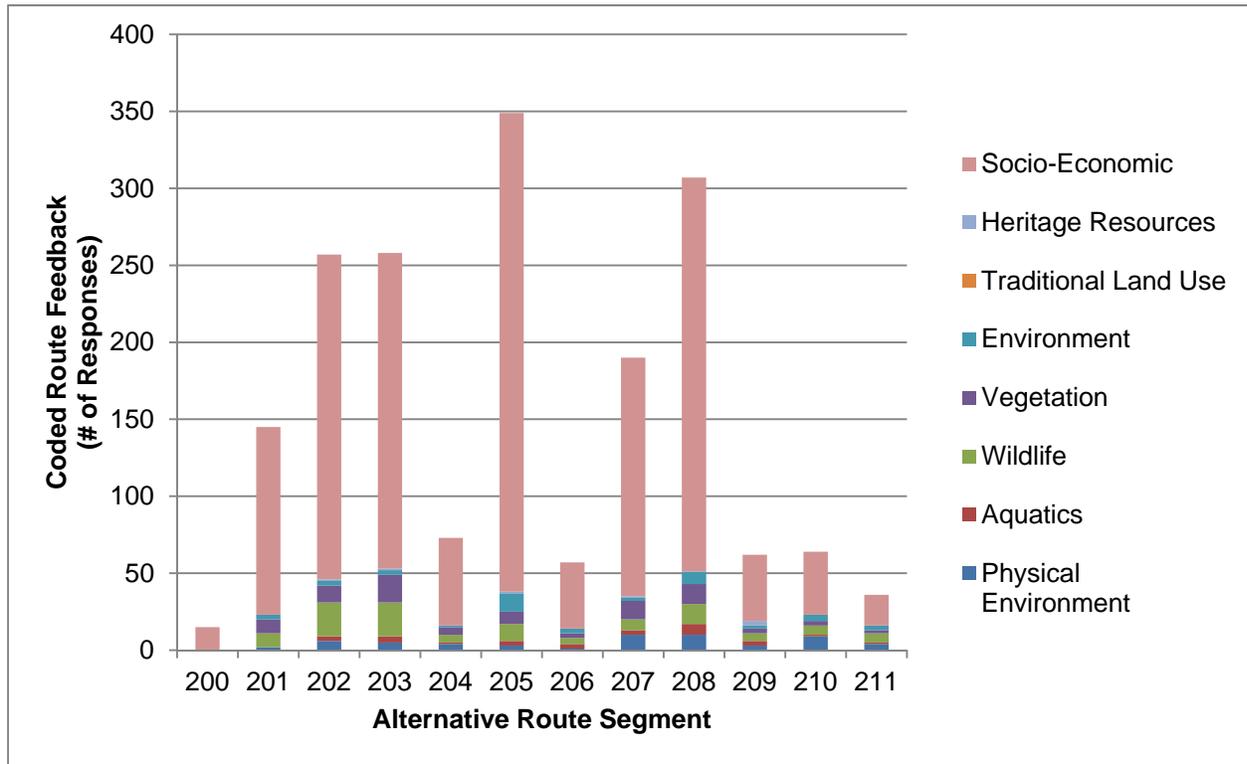


**Figure 6-5: Social Environment Category - Frequency of Concerns and Preferences**

### 6.5 Detailed Responses by Alternative Route Segment

Figure 6-6 provides a more detailed Stakeholder Groups and Public Feedback by General Categories for Alternative Route Segments Stakeholder Groups and Public Feedback by General Categories for Alternative Route Segments understanding of issues within the Natural, Built and Social Environment Categories. Socio-economic considerations were by far the most prevalent in the overall data set and included both Built Environment and Social Environment sub-categories.

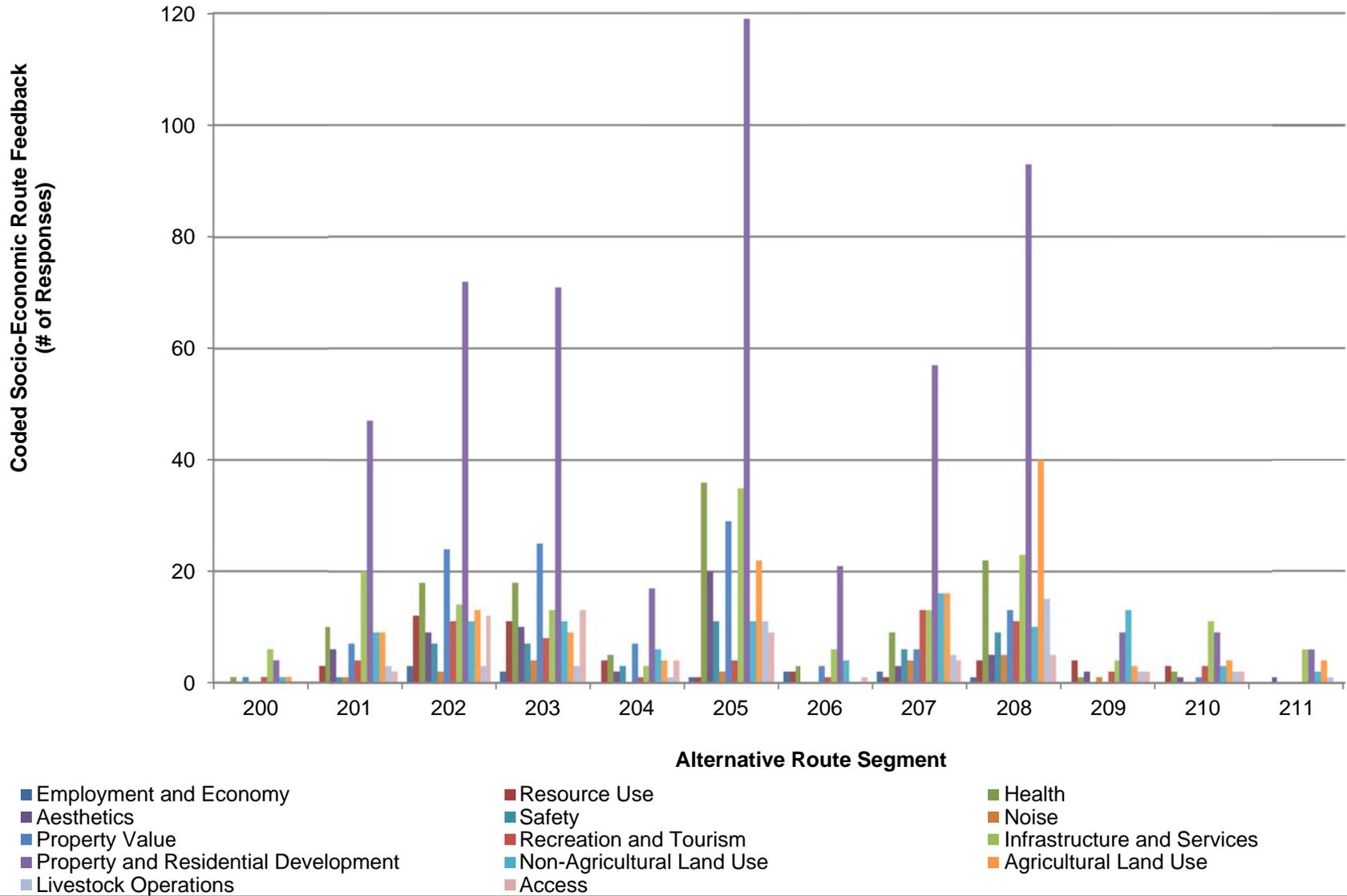
**Figure 6-6: Stakeholder Groups and Public Feedback by General Categories for Alternative Route Segments**



**6.6 Socio-economic Responses by Alternative Route Segment**

Figure 6-7 provides more detail on the components of Socio-economics data for each of the Alternative Route Segments.

Property and Residential Development considerations strongly outweighed all others in Segments 205, 208, 202, 203, 207 and 201, although it should be noted that this included both Concerns and Preferences. The same was true of Segments 206 and 204, although they had significantly fewer issues overall. Total Property and Residential Development considerations for Alternative Route Segment 205 totalled almost 120, for Segment 208 they were over 90, while for Segment 206 the total was 21.



**Figure 6-7: Socio-economic Considerations by Alternative Route**

Non-agricultural Land Uses was the most frequently mentioned consideration for Alternative Route Segment 209, and Infrastructure and Services for Segments 210, 211 and 200.

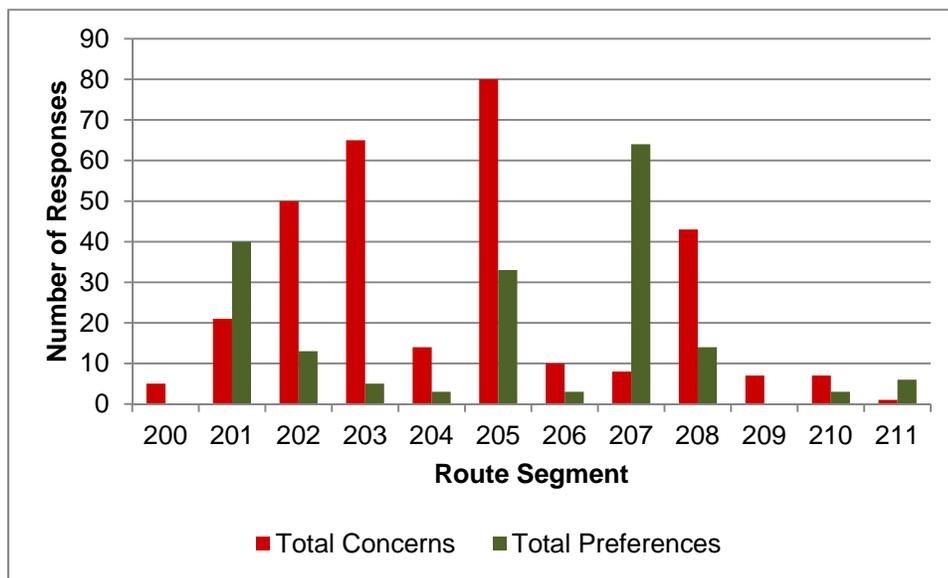
Agricultural Land Use considerations were substantial in Segments 208 and 205, and also in Segments 207, 202, 203 and 201.

### 6.7 VC and EA Sub-categories Comparison

Figure 3-1 on page 25, based on information obtained from POH Comment Sheets, provides another view of the PEP results. The following bar chart,

Figure 6-8, illustrates the frequency of Valued Components identified in Table 3-7 comparing Concerns and Preferences from Comment Sheets (Chapter 3).

Although there are differences in detail between these results and results based on the EA Data Sub-categories, the same overall patterns are evident when comparing the 12 Alternative Route Segments.



**Figure 6-8: Comparison of Concerns and Preferences from Valued Components**

Based on different overall numbers of responses, and a slightly different organization of data categories,

Figure 6-8, demonstrates the analysis of Valued Components from POH Comment Sheets alone, is generally consistent with the trends evident in Figure 6-2, Figure 6-6 and Figure 6-7, which derive from overall Concerns and Preferences related to EA Sub-categories (Figure 6-2), as well as the frequency of information related to General Considerations (Figure 6-6), or only Socio-economic considerations (Figure 6-7).

In all cases, Alternative Route Segments 205, 203, 202 and 208 have the highest frequencies of Concerns, and highest overall numbers of responses for the data sets; although for the complete PEP data organized by EA Sub-categories the order provided would be slightly different than the VC analysis, as Segments 205, 208, 203 and 202. The VC analysis,

Figure 6-8 shows Segments 207 and 201 with the highest total Preferences, with Segment 207 rating 5<sup>th</sup> in frequency of responses overall; this is also consistent with the EA Sub-categories data.

On the other hand, based on the VC data set, Preferences for Alternative Route Segments 201 and 205 show higher response rates than those for the EA Sub-categories data.

## 7. Summary of Results for Environmental Assessment Data

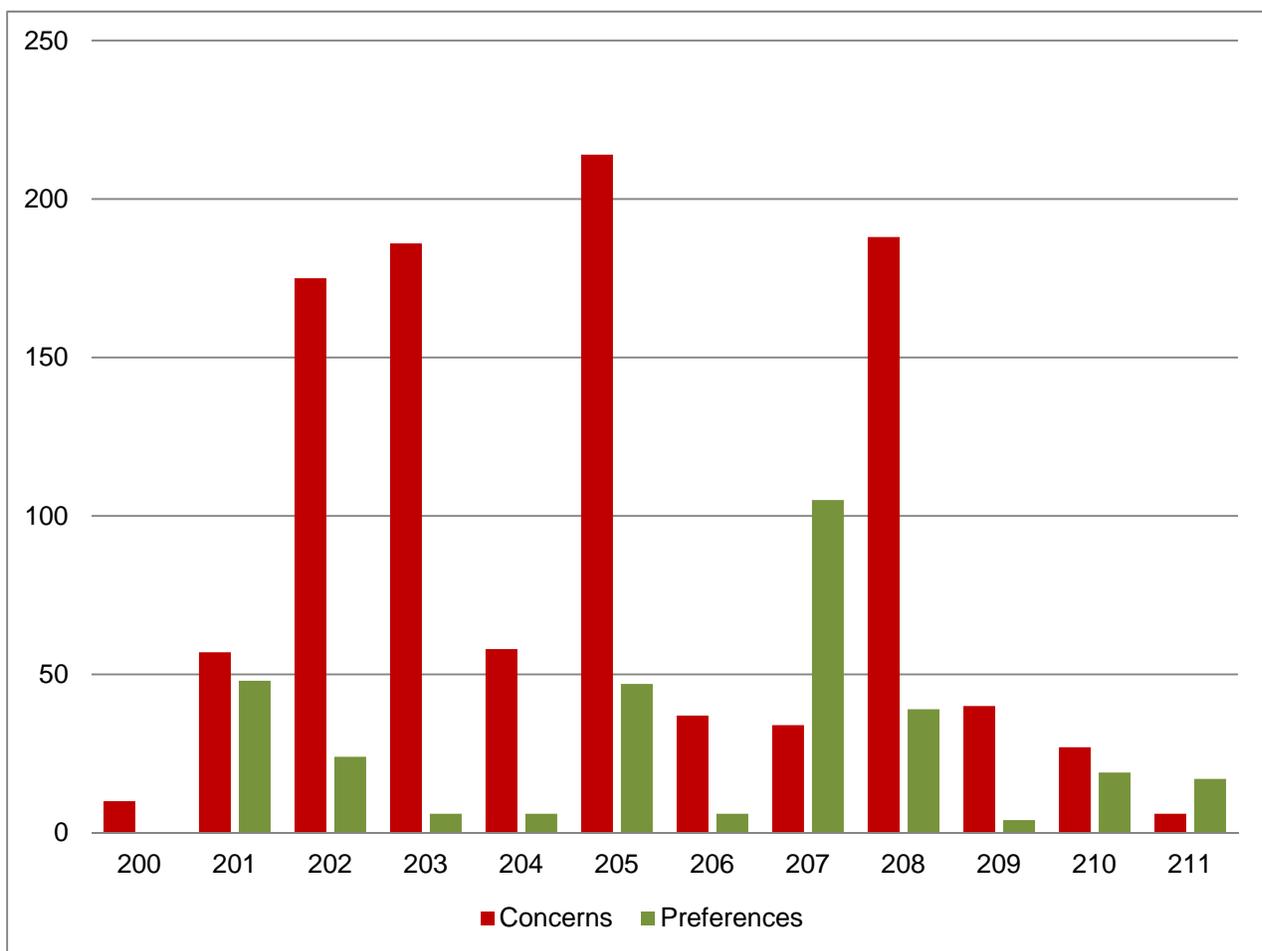
### 7.1 Summary by General Concerns versus Preferences

Public engagement feedback was coded based on Sub-categories identified for use in the environmental assessment process in meetings at the beginning of Round 2.

In this chapter, bar charts for the Alternative Route Segments indicate the proportion of responses falling into each of the Categories, by Concerns and Preferences. This provides an overview comparison of the issues for each of the segments. A more detailed bar chart showing the Alternative Route Segments provides additional information regarding the breakdown of socio-economic topics.

Figure 7-1 indicates the numbers of Concerns versus the numbers of Preferences for each of the Alternative Route Segments based on the Environmental Assessment Data Coding. This provides a quick overview to identify segments having the most Concerns, such as Segments 205 and 208; those with the least, such as Segments 211 and 200, and those having the most Preferences, such as Segments 207, or least, such as Segments 200 and 209.

**Figure 7-1: Overview of Environmental assessment Sub-categories Concerns versus Preferences**



## 7.2 Summary by EA Data Category

Figure 7-2 to Figure 7-4 indicate the results of data specific to Natural Environment, Built Environment, and Social Data Categories, respectively, for each of the Alternative Route Segments; while Figure 7-5 presents Combined Data for all of the Categories.

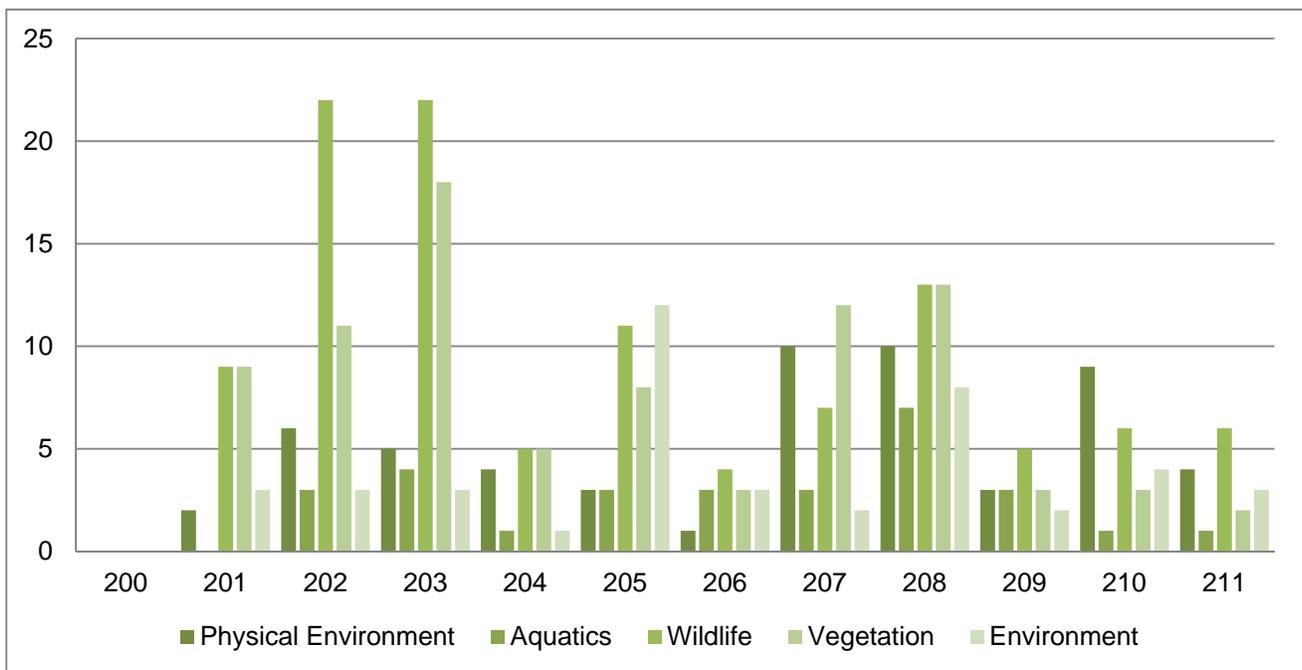
Note that the scaling of figures for various Categories is different: for example the Natural Environment Category has 25 as the maximum number of responses, while the Built Environment Category has 120, almost five times as many. The Social Environment Category scale shows 40 as the maximum number of responses. The concerns and preferences related to the built environment were therefore almost five times as important to Stakeholder Groups and public participants in the PEP as those related to the natural environment, and three times as important as the social environment.

### 7.2.1 Natural Environment Category Data

Data received, for both Concerns and Preferences in the Natural Environment Category is illustrated in Figure 7-2, below. Note again that this category received the least overall number of responses from Stakeholder Groups/ landowners, and members of the public.

The figure indicates that Wildlife considerations were of greatest interest for respondents for Alternative Route Segments 202 and 203, and also for Segments 208 and 205. Vegetation somewhat followed the results for Wildlife and was most frequently mentioned for Segments 203, 208, 207 and 202. The lowest numbers of responses in this Category were in Segments 200 (none), 206, 204 and 209. Aquatics were the least mentioned Natural Environment Category.

**Figure 7-2: Natural Environment Category by Alternative Route Segment**

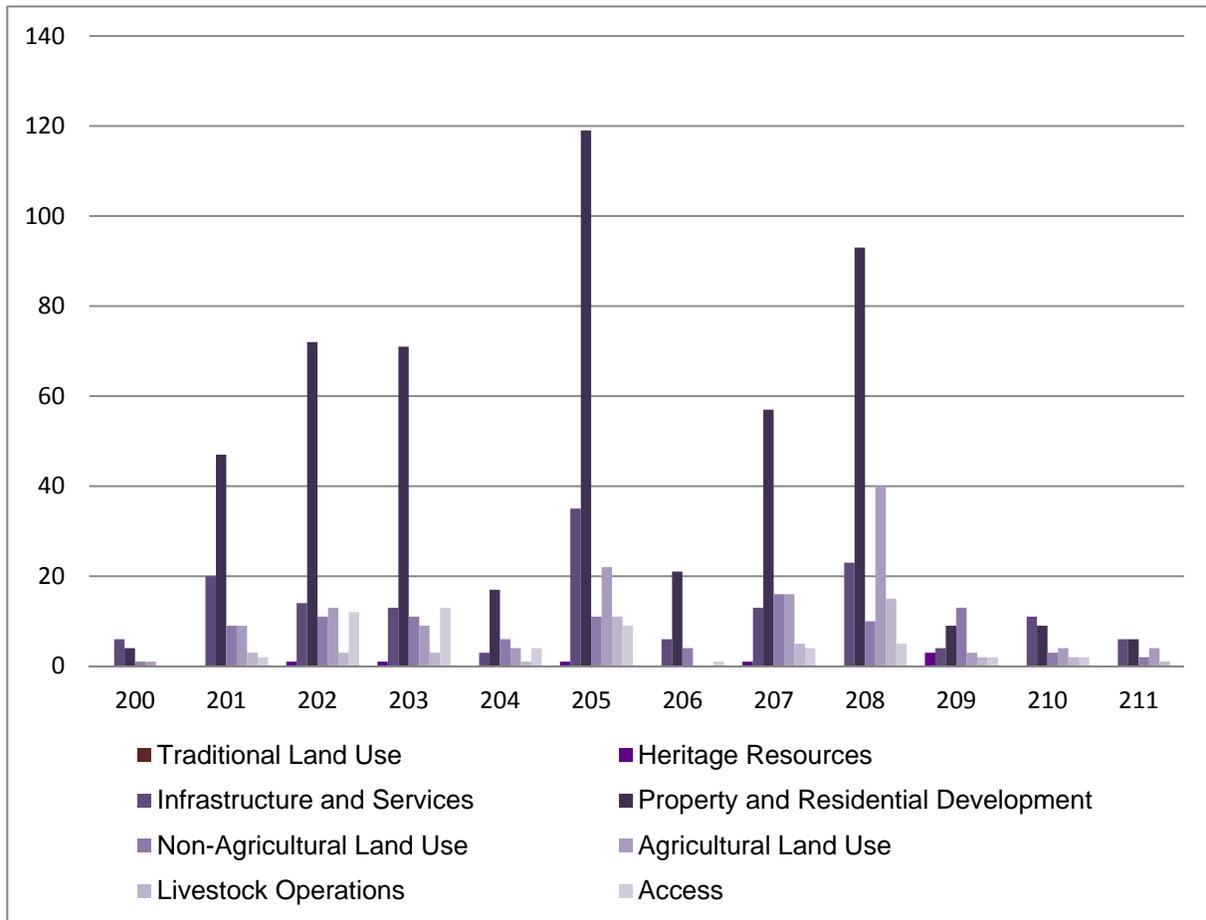


### 7.2.2 Built Environment Category Data

The Built Environment Category had by far the largest overall response rate.

Property and Residential Development was by far the most frequent sub-category, and was very prominent for Alternative Route Segments 205, 208, 202 and 203, based on Concerns. As noted previously, Segment 207, also with a high number of responses was strongly preferential.

Agricultural considerations were second most frequently mentioned but the one with the highest number of responses was still less than half of the Property and Residential Development sub-category for the same Alternative Route Segment.



**Figure 7-3: Built Environment Category by Alternative Route Segment**

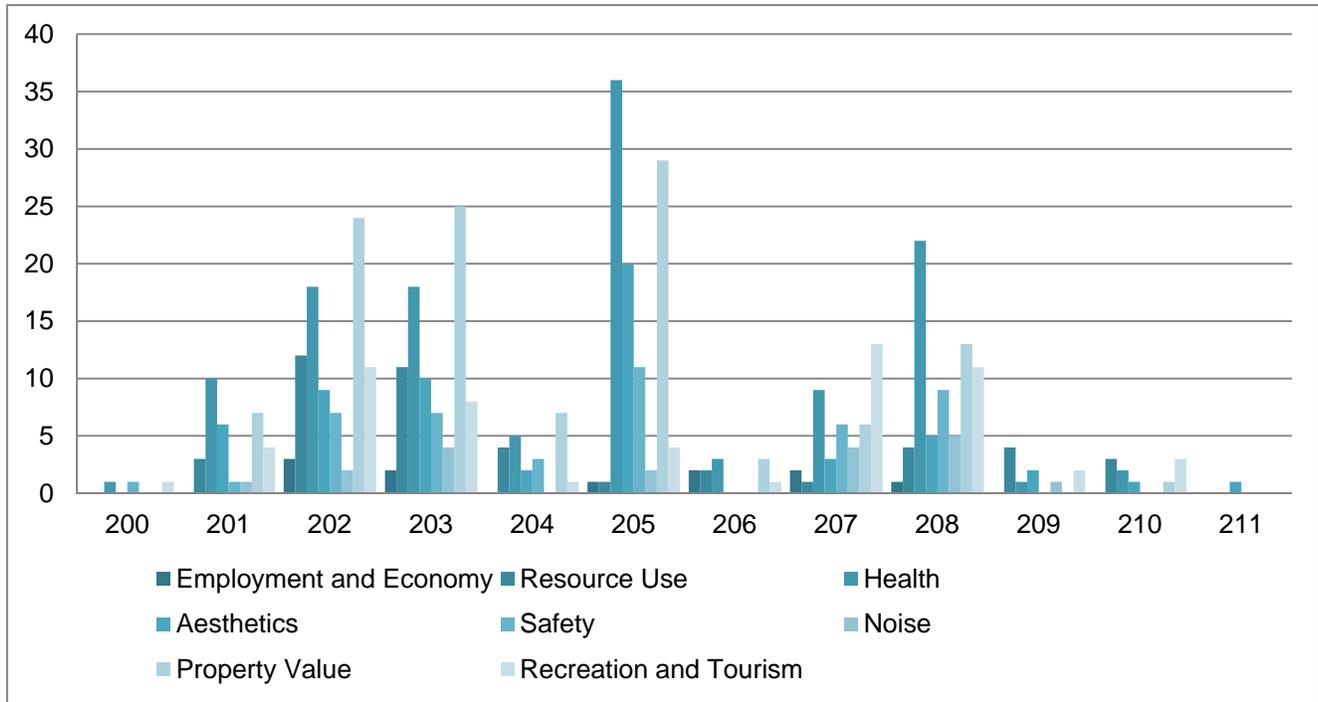
### 7.2.3 Social Environment Category

The Social Environment Category had a moderate response rate overall. Socio-economic considerations included health, safety and noise (grouped together as Public Safety and Human Health in the VC analysis), aesthetics and property values (which were grouped with Property and Residential Development in the VC analysis). Additional components were Employment and Economy, Resource Use, and Recreation and Tourism.

The two most important indicators were Health and Property Value, which made the Social Environment results very consistent with the results for the Built Environment Category. Alternative Route Segments 205, 203, 202 and 208 had the highest numbers of responses related to these indicators.

Segment 207 was highest for Recreation and Tourism; Segments 204 and 209 were highest for Employment and Economy.

**Figure 7-4: Social Environment Category by Alternative Route Segment**

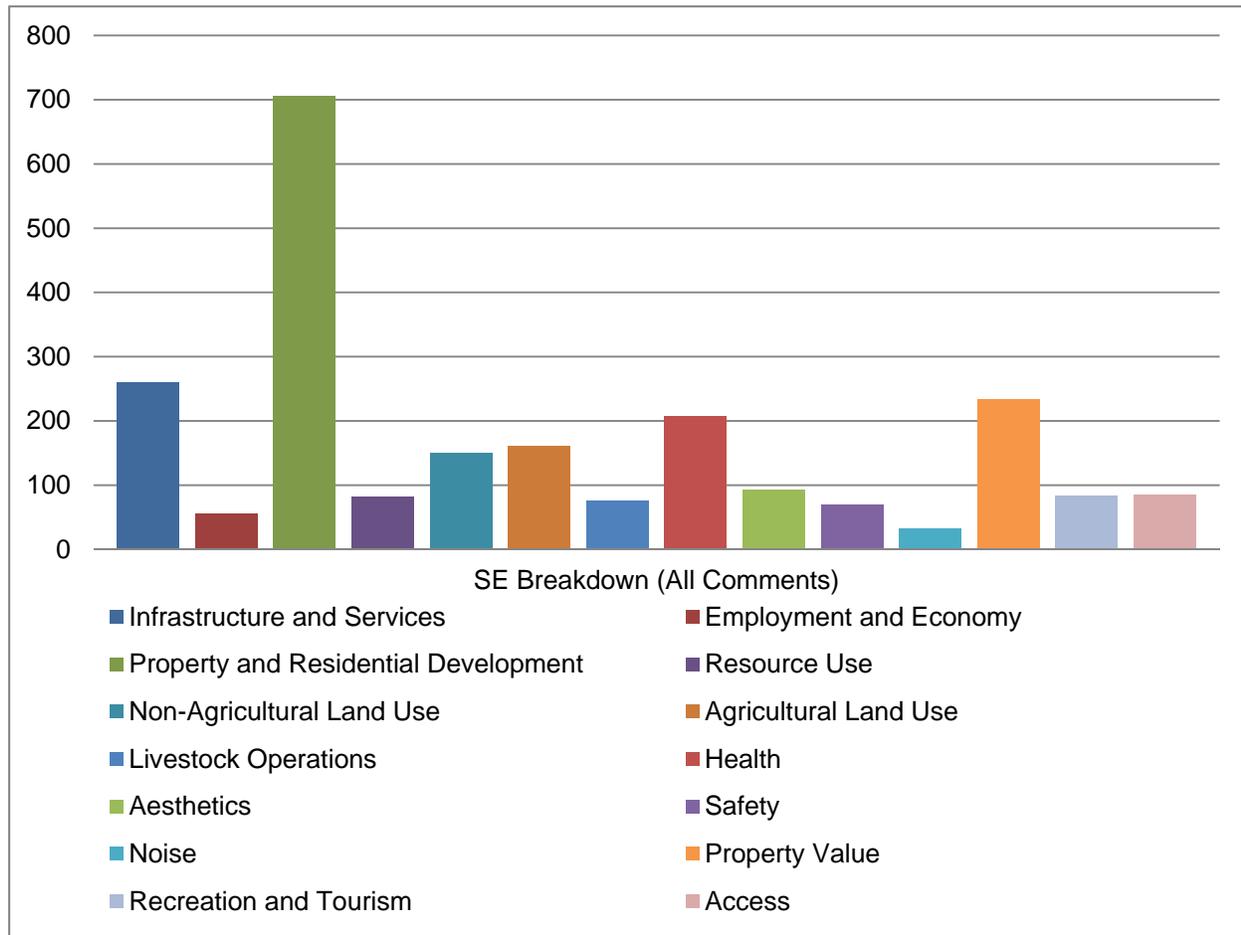


### 7.3 Socio-Economic Data Sets

Socio-economic considerations, shown in Figure 7-5, combined many of the Sub-categories in the Built Environment and Social Environment Categories. They include the following (in order of frequency of responses):

- Property and Residential Development
- Infrastructure and Services
- Property Value
- Health
- Agricultural Land Use
- Non-agricultural Land Use
- Aesthetics
- Access
- Recreation and Tourism
- Resource Use
- Livestock Operations
- Safety
- Employment and Economy
- Noise

**Figure 7-5: Frequency of Socio-economic Considerations for All Alternative Route Segments**



Considerations related to Property and Residential Development significantly outweighed all other considerations at 706 comments. A distant second was Infrastructure and Services at 260 comments, fairly close to Property Value (also related to Property and Residential) at 233. Health had 207 comments and Safety, and Noise, 70 and 32 respectively. Agricultural Land Use had 161 comments. Considerations related to Non-agricultural Land Use are also somewhat related to property and urban development and were mentioned 150 times.

**7.4 EA Data Sources**

**7.4.1 Profiles of Participants**

Participants in Stakeholder Group Meetings and POH events, as well as individuals communicating through emails and telephone calls totalled over 1000 people, although some may have been double counted because they attended more than one event/activity (e.g. Meeting and Open House).

Newspaper advertising, newsletters and other advertising, as well as the Manitoba Hydro Website reached thousands more people to inform them about the project.

## 8. Issues Identified

Table 8-1 summarizes key issues, concerns and feedback brought forward by the public and stakeholder groups during Round 2.

Where sufficient information does not already exist in materials such as handouts for dissemination at Public Open Houses or on the Manitoba Hydro Website, information will be developed in Round 3 of the MMTP Environmental Assessment Process.

Table 8-1: Issues Identified

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
1	Atmospheric Resources		
1.1	Concerns about interference with radio, TV, internet and cellphone devices, and GPS.	<i>AC Lines and Electronic Devices</i> – Prepared by Exponent Engineering and Scientific Consulting, this provided information on EMF interference with electronic devices, including GPS, wireless internet and signal blocking/reflection.	Towers in agricultural areas are self-supporting towers in order to eliminate the hazard guyed wires could create for agricultural producers. Manitoba Hydro routes along half-mile (quarter-section) alignments, when possible, to lessen potential impacts on individual producers.  Radio noise from an AC transmission line will not directly affect GPS receivers used for agricultural or other operations from receiving GPS signals or the satellite- or antenna- based correction signals.
1.2	Concerns about noise, dust and air quality issues related to construction of a new transmission line.		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.
2	Groundwater Resources		
2.1	Concerns about aquifer pollution related to construction of towers and herbicide use.	<i>Transmission Right of Way Tree Clearing and Maintenance</i> – This handout provided an overview of the process Manitoba Hydro uses when managing vegetation near transmission power lines, including tree removal, safety and herbicide application.	Manitoba Hydro does not use herbicides for right-of-way clearing. For right-of-way maintenance, an Integrated Vegetation Management Program will be developed to reduce the amount of herbicide required.
3	Fish and Fish Habitat		
3.1	Concerns about disruption from tower construction and pollution from herbicide use.	<i>Transmission Right of Way Tree Clearing and Maintenance</i> – This handout provided an overview of the process Manitoba Hydro uses when managing vegetation near transmission power lines, including tree removal, safety and herbicide application.	Vegetation buffer zones are established at watercourse crossing areas to protect fish habitats in riparian zones of streams and rivers.  For right-of-way maintenance, an Integrated Vegetation Management Program will be developed to reduce the amount of herbicide required.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
4	Wildlife (Birds, Mammals and Reptiles)		
4.1	Reduction in habitat; disruption related to fragmentation of habitat, including potential impact on wildlife (birds, mammals and reptiles).		The Environmental Assessment process identifies potential sensitivities and has recommended appropriate mitigation measures for various species. Field studies conducted as part of the assessment, including private lands when permitted, are used to locate species and assess potential effects. Field studies included winter track surveys, trail cameras, elk breeding surveys and bear bait monitoring.
5	Vegetation and Wetlands		
5.1	Impacts to riparian habitat from stream crossings.		Vegetation buffer zones are established at watercourse crossing areas to protect fish habitats in riparian zones of streams and rivers.
5.2	Potential impact on endangered plant species and natural areas.		Environmental characterization conducted as part of the environmental assessment process identifies potential environmental sensitivities and prescribes appropriate mitigation measures.
5.3	Transmission lines in proximity to Wildlife Management Areas, Ecological Reserves and Protected Areas, or proposed Reserves and Protected Areas	<i>Transmission Right of Way Tree Clearing and Maintenance</i>	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.
6	Public Safety and Human Health		
6.1	Perceived health effects due electric and magnetic fields (EMF).	<p><i>Electric and Magnetic Fields – It's Your Health:</i> Information brochure prepared by Health Canada which summarizes EMF and existing literature on the subject which supports Health Canada's understanding of the topic.</p> <p><i>Alternating Current - Electric Magnetic Fields:</i> Brochure created for Manitoba Hydro by epidemiologists and biological scientists to provide a summary response to common questions related to EMF exposure from AC transmission lines.</p>	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.

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
7	Aesthetics		
7.1	Aesthetics of towers.	<p><i>Manitoba-Minnesota Transmission Project – Round 2 – Preferred Border Crossing and Refined Alternative Routes:</i> This newsletter was prepared and distributed to all attendees of the Public Open Houses, and included the project timeline, tower design, a map of Alternative Routes and Preferred Border Crossing, and a summary of the general comments and concerns heard to date from Stakeholder Groups and the public.</p>	<p>Where new transmission lines are placed adjacent to 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.</p>
8	Property & Residential Development		
8.1	Proximity of transmission lines to cities, towns, villages and rural residential development, as well as agro-industrial development.		<p>Locations of urban centres and rural residential areas are a major consideration in refining routes and avoided where possible.</p>
8.2	Reduced property values due to transmission line development, including construction.		<p>The Environmental Assessment has assessed potential for impact on property values. Current research suggests that property values will not be impacted by the presence of the transmission line.</p> <p>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.</p>
8.3	Proximity to individual residences and farmsteads.	<p><i>Manitoba-Minnesota Transmission Project Landowner Compensation Information –</i> This handout summarized the four types of compensation available to landowners by Manitoba Hydro (land, construction damage, structure impact and ancillary damage compensation).</p>	<p>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.</p>
9	Recreation and Tourism		
9.1	Use of Manitoba Hydro ROW for trails.		<p>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.</p> <p>To minimize the potential increase in access existing trails, roads and cut lines will be used as access routes whenever possible.</p>

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
10	Agricultural Land Use		
10.1	Loss of high quality farm land.	<i>Manitoba-Minnesota Transmission Project Landowner Compensation Information</i>	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.
10.2	Impacts to farm equipment operation and manure application.	<i>AC Lines and Electronic Devices</i>	Towers in agricultural areas are self-supporting towers in order to eliminate the hazard guyed wires could create for agricultural producers. Manitoba Hydro routes along half-mile (quarter-section) alignments, when possible, to lessen potential impacts on individual producers.
10.3	Transmission line rights-of-way become areas for growth of noxious weeds.	<i>Transmission Right of Way Tree Clearing and Maintenance</i>	For right-of-way maintenance, an Integrated Vegetation Management Program will be developed.
10.4	Transmission lines interfere with aerial application.		Locations of airstrips were identified in the early planning phases and were avoided where possible in transmission line routing. Manitoba Hydro has been in discussions with the Manitoba Aerial Applicators Association regarding the Project.
11	Livestock Operations		
11.1	Potential effect on livestock, particularly dairy cattle (tingle voltage).	<i>Stray Voltage on Dairy Farms – Symptoms and Solutions</i> – This reference document, prepared by Manitoba Hydro, included worksheets to assist landowners with determining stray voltage in their livestock operations.	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.
11.2	Potential bio-security issues particularly related to construction in pasture lands.	<i>Transmission Right of Way Tree Clearing and Maintenance</i>	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.
12	Infrastructure and Services (Lagoons, Landfills)		

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
12.1	Avoid landfills and 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.
13	Traditional Land and Resource Use		
13.1	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.
13.2	Potential effects of construction and operation of the MMTP on mining and aggregate extraction.		Locations of mines and aggregate sites were identified in the early planning phases and were avoided when possible during the Transmission Line Routing Process. Manitoba Hydro worked with Landowners and Stakeholder Groups to identify and understand concerns and potential mitigation measures (routing and compensation) for construction, operation and maintenance near mining and aggregate sites, where possible.
14	Heritage Resources (Archaeology)		
14.1	Avoidance of heritage sites, including Centennial Farms and areas used for the religious practices (Praznik).		Heritage resources, including archaeological resources, were identified during the Transmission Line Routing Process and were avoided where possible. As feedback was received, it was considered in decision-making processes.
15	Other Land Uses		
15.1	Proximity to school and daycare sites (perceived health concerns).	<i>Alternating Current – Electric and Magnetic Fields and Health Canada – Electric and Magnetic Fields from Power Lines and Electrical Appliances</i>	<p>Known locations of school and daycare sites were considered in the Transmission Line Routing Process.</p> <p>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.</p> <p>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.</p>

Item	Key Issues from Round 2	Related Handouts and Resource Materials (If Applicable)	Manitoba Hydro Response
16	Transmission Line Routing		
16.1	Determining Alternative Routes.	<p><i>Siting Transmission Lines Using the EPRI-GTC Siting Methodology</i> – This pamphlet was provided to show the general methodology, which has been adapted and used in the MMTP project.</p> <p><i>Manitoba-Minnesota Transmission Project – Route Selection Process</i> – This handout presented the methodology used in transmission line routing, including the criteria and progress of the project.</p>	Once a border crossing was selected, the information gained during Round 1 from a variety of Stakeholder Groups, open houses and the environmental assessment process was used to help route planners to refine or eliminate existing routes and develop potential new route alternatives to the border crossing near Piney, MB. In some cases, the route segments that were considered in Round 1 were determined to effectively balance the three perspectives in routing (natural, built, engineering), and were retained. In some cases they did not and were eliminated. New segments and refinements to existing segments were added to provide alternatives that achieve the routing objective of connecting the start and end point of the project.
16.2	Where possible, locate transmission lines within existing Hydro transmission line corridors or existing linear corridors.	<i>Manitoba-Minnesota Transmission Project – Route Selection Process</i>	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.
16.3	Where possible, locate transmission line infrastructure adjacent to linear infrastructure such as Provincial and municipal highways, roads and drains in order 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 intensive agricultural areas is routing along the half-mile to reduce in-field presence of a transmission line.
16.4	Maintain straight transmission lines, with few angles.		Shorter and straighter lines typically suggest lower costs. There are extra costs associated with direction changes due to heavier tower construction to accommodate greater stresses. When possible angles are avoided during routing.

## 9. Round 2 Feedback and the Transmission Line Routing Process

Feedback varied for all segments, as summarized in Section 7. The segment identifiers assisted in understanding localized topics. Issues commonly discussed related to the segment identifiers are summarized in Table 9-1.

**Table 9-1: Summary of Feedback Considered in the Transmission Line Routing Process**

Segment	Summary of Feedback for Segment
200	Local residents indicated concerns regarding the southern loop transmission corridor, including proximity of the Project to developed areas near Headingley and south of St. Norbert. As well, concerns related to the Red River Floodway and the potential impact to flood protection were provided.
201	The area was generally viewed positively as it would parallel existing infrastructure. It was often preferred over Segment 205 as it was viewed to have fewer potential impacts on residential and commercial development.
202/203/204	These segments were viewed by local residents as being detrimental to the community of Ste. Genevieve and proposed residential expansion within the area. Access and property damage were concerns identified by residents in the area. As well, the local municipality indicated a concern regarding the municipal quarry that is important for the economy of the municipality
205	Concerns were raised regarding the number of times the segment crosses the highway, the crossing of Bipole III and the potential impacts to future development (residential and commercial) along this segment
206	The concerns raised regarding this segment were focused on the potential impact to a current residential development.
207	Segment 207 was noted as a preferred routing option by the public and the RM, as it paralleled an existing transmission line and was in less populated areas.
208	Residents and local government of La Broquerie viewed this segment negatively as they believed the segment would impact the community's ability to expand and develop. A resolution was provided to the project team from the RM of La Broquerie stating that Segment 207 would have fewer effects on the residents of the municipality.
209	Concerns related to this segment were focused on the proximity to the Ridgeland cemetery, potential impact to bear bait site locations, and wildlife habitat.
210	Concerns received regarding this segment were focused on the Piney/Pine Creek airport and the potential interference with expansion plans and gliding paths for aircrafts.
211	Concerns raised regarding this segment were focused on the large intact bog along the Manitoba-Minnesota border and should be avoided due to wildlife concerns. Participants also noted that there may be concerns with the potential expansion or development of an east/west landing strip at the Piney/Pine Creek airport.

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.