



BURNSIDE



# Peer Review Report

## Infrastructure Baseline and Feasibility Study Report (I22)

Municipality of South Bruce

June 27, 2022

# Executive Summary

The Nuclear Waste Management Organization (NWMO) has been engaged in a multi-year, community-driven process to identify a site where Canada's used nuclear fuel can be safely contained. The site selection process involves nine steps, with the process currently at Step 3 (Phase 2). The NWMO is now in its final screening process, and the two remaining siting areas currently being assessed under Step 3, Phase 2, are the Municipality of South Bruce (MSB) and the Township of Ignace, and their surrounding areas. The NWMO plans to complete all preliminary assessment work and to select one community/area to host the Adaptive Phased Management (APM) Project (Project) by 2023.

Building on previous work, engagement completed to-date, and MSB's 36 Guiding Principles, NWMO and MSB are working together to prepare a suite of studies which will be shared broadly with the community. The studies are being undertaken by NWMO or MSB, with some being joint efforts. The MSB has retained consultants (R.J. Burnside & Associates Limited, Deloitte, Tract Consulting) to develop a number of studies and to peer review others (GHD Limited [GHD] team) developed by NWMO and their consultants (DPRA Canada [DPRA] team). The information acquired through the studies is expected to aid MSB make informed decisions about whether the APM Project is suitable for their community, and if they are willing to consider hosting it and under what circumstances and terms.

The Infrastructure Baseline and Feasibility Study (I22) is one of the studies being carried out by NWMO with the overall objective to identify the existing and planned infrastructure in the MSB and the incremental change if the use of the municipal infrastructure was a feasible option to service the project. The Infrastructure Baseline and Feasibility Study Draft Report was peer reviewed by Subject Matter Experts (SME) at R.J. Burnside & Associates Limited (R.J. Burnside) in combination with GHD Leadership's Team (Peer Review Team [PRT]) in accordance with the Peer Review Protocol process established jointly by MSB and NWMO. The PRT considered several documents and information in the peer review of the Infrastructure Baseline and Feasibility Study Draft Report to aid in their understanding, focus the peer review, and develop their findings. The PRT findings and resolution of those findings are outlined in this Peer Review Report.

The PRT is of the view that the Infrastructure Baseline and Feasibility Study has met the intent of the finalized Work Plan by providing a detailed description of existing conditions and identified the existing and planned infrastructure improvements within MSB. The Study has focused on housing / population growth as the metric for establishing the need for expansion of the MSB infrastructure. The PRT is also of the view that the impact of the Project on Industrial, Commercial and Institutional (IC&I) growth within MSB is also an important metric for monitoring the need for infrastructure expansion and is recommended for further Study.

The Study has identified the incremental change to infrastructure within MSB expected as a result of the Project and provides a preliminary analysis of the options for servicing the Project site with municipal water and sanitary services. The PRT recommends that further study be carried out on the feasibility and benefits of servicing the Project Site and the adjacent lands to the Project Site with municipal potable water.

The PRT has found that the Study informs Guiding Principles 10, 18, 27, 29, and 32. The PRT's findings and recommendations are provided herein.

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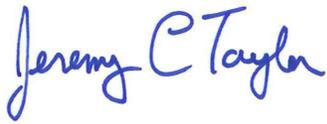
## Acronyms

APM	Adaptive Phased Management
CNSC	Canadian Nuclear Safety Commission
CWB	Community well-being
DGR	Deep Geological Repository
DPRA	DPRA Canada
GHD	GHD Limited
IC&I	Industrial, Commercial and Institutional
MH	Morrison Hershfield
MSB	Municipality of South Bruce
NWMO	Nuclear Waste Management Organization
PRT	Peer Review Team
SME	Subject Matter Expert

## Scope and limitations

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**Respectfully submitted by:**



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Jeremy Taylor, P.Eng.  
Regional Manager, R.J. Burnside & Associated Limited



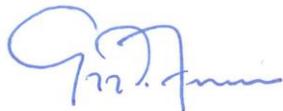
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Henry Centen, P.Eng.  
Project Engineer, R.J. Burnside & Associated Limited



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Ian Dobrindt, MCIP, RPP, EP  
Social-Economic Lead, GHD Leadership Team



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Gregory D. Ferraro, P. Eng.  
Project Manager, GHD Leadership Team

# 1. Introduction

This report documents the peer review undertaken of the Infrastructure Baseline and Feasibility Study (I22) prepared by Morrison Hershfield dated May 20, 2022 (Final Draft). The Nuclear Waste Management Organization (NWMO) has been engaged in a multiyear, community driven process to identify a site where Canada's used nuclear fuel can be safely contained. The site selection process involves nine steps, with the process currently at Step 3 (Phase 2). Step 3 is defined by two phases of preliminary assessments for each interested community. Phase 1 involved primarily desktop studies documenting the current socioeconomic conditions in the communities and then considering what might be the possible implications of the Adaptive Phased Management (APM) Project on community wellbeing (CWB) for each community and the wider area. For interested communities that successfully completed the initial screening in Phase 1, Phase 2 (the current phase) involves additional work to support conducting a preliminary assessment of potential suitability and narrowing the number of communities that have expressed an interest in partnering with NWMO.

The NWMO is now in its final screening process, and the two remaining siting areas currently being assessed under Step 3, Phase 2, are the Municipality of South Bruce (MSB) and the Township of Ignace, and their surrounding areas. The NWMO plans to complete all preliminary assessment work and to select one community/area to host the APM project by 2023, which then marks the beginning of the fourth step of APM implementation<sup>1</sup>. The selection of a final site will trigger the regulatory approvals phase of the APM project. Federal approval under the *Impact Assessment Act* and licensing by the Canadian Nuclear Safety Commission (CNSC) under the *Nuclear Safety and Control Act* will be required. Meeting federal regulatory standards is imperative to achieve approval, and to withstand intense public and regulatory scrutiny.

Building on previous work, engagement completed to-date, and MSB's 36 Guiding Principles, NWMO and MSB are working together to prepare a suite of studies which will be shared broadly with the community. The list of studies is included in **Appendix A** grouped by similar topic area (MSB led, environment, infrastructure, and socio-economic). The studies are being undertaken by NWMO or MSB, with some being joint efforts. The MSB has retained consultants (R.J. Burnside, Deloitte, Tract Consulting) to develop a number of studies and to peer review others (GHD Limited [GHD] team) developed by NWMO and their consultants (DPRA Canada [DPRA] team). The information acquired through the studies is expected to aid MSB to make informed decisions about whether the APM Project is suitable for their community, and if they are willing to consider hosting it and under what circumstances and terms.

The Infrastructure Baseline and Feasibility Study (Study) is one of the socio-economic studies being carried out by NWMO with the overall objective to identify the existing and planned infrastructure in the MSB and the incremental change if the use of the municipal infrastructure was a feasible option to service the project. The Study was peer reviewed by Subject Matter Experts (SME) at R.J. Burnside & Associates Limited (R.J. Burnside; Jeremy Taylor and Henry Centen) in combination with the GHD Leadership Team (Greg Ferraro and Ian Dobrindt) (Peer Review Team [PRT]) in accordance with the Peer Review Protocol process established jointly by MSB and NWMO. **Section 2** elaborates on the Peer Review Protocol process followed including the steps specifically followed and discussions held with NWMO and the DPRA team. As described in **Section 3**, the PRT considered several documents and information in the peer review of the Infrastructure Baseline and Feasibility Study to aid in their understanding, focus the peer review, and develop their findings.

The results and resolution of the PRT findings are outlined in **Section 4** starting with how the Final Draft Report has been revised to address the PRT comments on the Draft Report. We note that to the extent possible most of the PRT comments have been addressed where information was available at the time of completing the Study. This is followed by a review of how the Study complies with the approved Work Plan and how the Study informs the applicable Guiding Principles.

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1. Nuclear Waste Management Organization, 2020. Moving Towards Partnership - Triennial Report 2017 to 2019.

The PRT has found that the Study informs Guiding Principles 10, 18, 27, 29, and 32. The PRT’s findings and recommendations are provided herein.

## 2. Peer Review Protocol

### 2.1 Objectives and Overview of the Peer Review Protocol Process

As mentioned, the peer review of the Infrastructure Baseline and Feasibility Study Draft Report was undertaken in accordance with the Peer Review Protocol established jointly by the MSB and the NWMO. The Peer Review Protocol had the following established objectives:

1. To provide the community of the MSB with an independent review by qualified SMEs
2. To complete a peer review of NWMO’s assessment of potential impacts and proposed benefits of locating the APM Project in MSB in comparison to existing conditions
3. To review how the potential impacts and proposed benefits adhere to the 36 principles that will guide the MSB’s assessment of willingness to host the APM Project

With these objectives in mind, the Peer Review was conducted in a collaborative manner between the NWMO/DPRA team and the MSB/GHD team while maintaining independence during the process. **Appendix B** includes the Peer Review Protocol established in June 2021 and **Figure 2.1** summarizes the process followed.

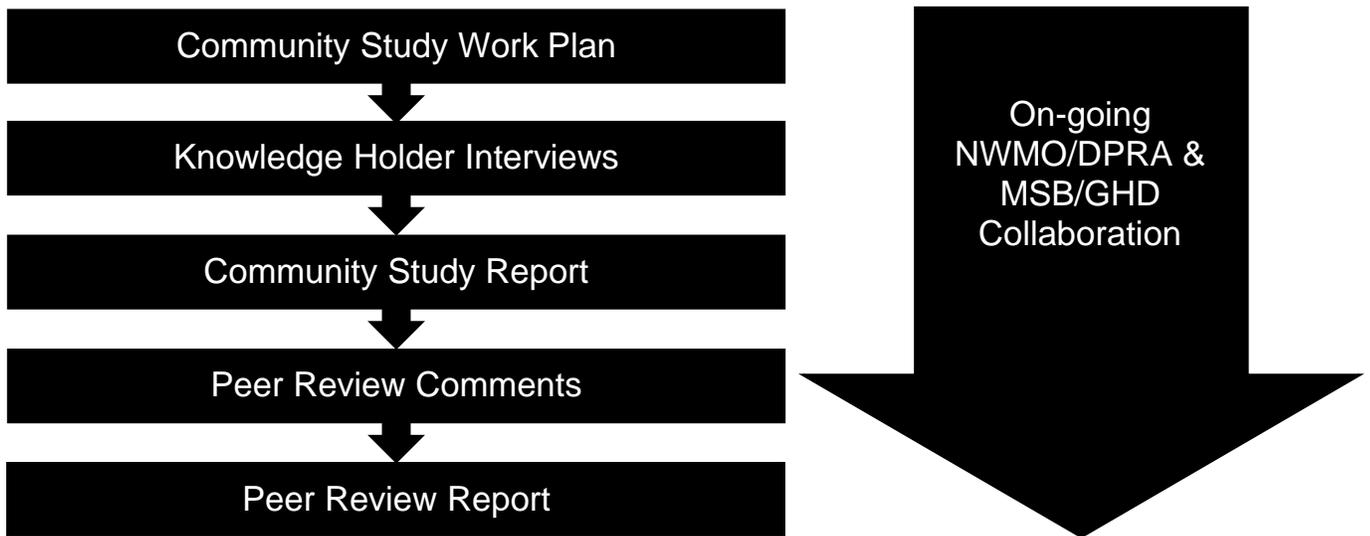


Figure 2.1 The Peer Review Protocol Process

With **Figure 2.1** in mind, the following identifies the primary activities carried out by the PRT:

#### Community Study Work Plan

- Review the Statement of Work associated with the Community Study (CS) prepared by MSB (May 2021) to better understand the stated objectives
- Gain a greater understanding of the APM Project and area conditions including reviewing and providing comments on NWMO’s Project design reports and considering responses received from NWMO
- Hold on-going discussions as required with the NWMO/DPRA team providing input where appropriate (e.g., data sources to be reviewed, study area boundaries, knowledge holders to be interviewed, etc.)

- Review and provide comments on the draft Work Plan associated with the CS prepared by the NWMO/DPRA team and consider responses received from the NWMO/DPRA team as part of them finalizing the Work Plan before its implementation

### **Knowledge Holder Interviews**

- Attend Knowledge Holder interviews organized by NWMO to listen firsthand, ask questions, and seek clarifications. Review and provide comments on draft meeting minutes prepared by NWMO.
- Hold on-going discussions as required with the GHD Leadership Team (e.g., receive Project updates and information, ask questions, seek clarification, etc.)

### **Community Study Report**

- Attend CS Draft Report Status Update Meetings organized by the NWMO/DPRA team
- Review the CS Draft Report prepared by the NWMO/DPRA team
- Review the CS Final Report prepared by the NWMO/DPRA team

### **Peer Review Comments**

- Develop a preliminary list of comments including initial impressions, observations, and any potential issues and/or concerns with the CS Draft Report based on several documents and information as described in **Section 3**
- Attend a CS Draft Report Check-in Meeting with the GHD Leadership Team and MSB to discuss the preliminary list of comments and confirm those to be provided to the NWMO/DPRA team
- Provide the preliminary list of comments on the CS Draft Report to the NWMO/DPRA team for their understanding of the PRT’s initial impressions, observations, and any potential issues and/or concerns
- Attend a CS Draft Report Working Session with the NWMO/DPRA team to discuss the preliminary list of comments and work through them collectively in a collaborative manner. Through the Working Session some comments were determined not to be applicable to the CS based on the clarifying discussions. In addition, through the Working Session it was agreed that those comments associated with the Draft Report’s structure, or to such items like how sources or exhibits are referenced, or spelling and grammar, would be excluded and the focus would be more on content and substance as it related to the final Work Plan.
- In some situations, it was agreed to between the GHD Leadership Team/MSB and the NWMO/DPRA team that certain sections of the CS Draft Report or the entire document itself should be revised and resubmitted for review because of the nature and extent of the preliminary comments provided. In the situations of the entire document, the formal set of comments were held pending receipt of the revised CS Draft Report. Upon receipt, the revised CS Draft Report was reviewed, the preliminary comments updated accordingly for submission, and further discussions were held between the GHD Leadership Team/MSB and the NWMO/DPRA team prior to formal comments being submitted.
- Submit the formal set of comments on the CS Draft or revised Draft Report to the NWMO/DPRA team for their review and responses
- Review the responses from the NWMO/DPRA team to the formal set of comments and ensure there were no significant outstanding issues and/or concerns

### **Peer Review Report**

- Prepare the draft Peer Review Report and submit to MSB for review
- Finalize the draft Peer Review Report based on any comments received and provide to MSB

## 2.2 Key Activities Associated with the Peer Review of the Infrastructure Baseline and Feasibility Study

With the preceding process in mind, **Table 2.1** lists the key activities associated with the Peer Review carried out by the PRT comprising the SMEs at R.J. Burnside (Jeremy Taylor and Henry Centen) in combination with the GHD Leadership Team (Greg Ferraro and Ian Dobrindt) for the Infrastructure Baseline and Feasibility Study prepared by Morrison Hershfield. The Infrastructure Baseline and Feasibility Study was initiated by Morrison Hershfield following finalization of the Work Plan in October 2021 and culminated in the Final Draft Report being submitted to GHD on May 20, 2022.

**Table 2.1** Key Activities Associated with the Peer Review of the Infrastructure Baseline and Feasibility Study

Key Activities	Date	Parties Involved
Interviews with Public Works, Utilities (Bruce Telecom, Wightman, Epcor, Hydro One)	September 1, 2021 – February 11, 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt), Morrison Hershfield (James Fookes)
Review of the Draft Southwestern Ontario Infrastructure Baseline and Feasibility Study Work Plan (I22) issued by DPRA (August 11, 2021)	August 2021 – October 2021	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)
Issuance of the Peer Review Team comment disposition table on the Draft Work Plan	September 14, 2021	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)
Review of the Final Southwestern Ontario Infrastructure Baseline and Feasibility Study Work Plan (I22) issued by DPRA (October 7, 2021)	October 2021 – May 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)
Peer Review Team and DPRA Project Status Update Meeting for the Aggregate Resources, Infrastructure, Roads and Traffic Studies	October 28, 2021, December 13, 2021, January 28, 2022, February 2, 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt), NWMO (Charlene Easton), DPRA (Vicki McCulloch), Morrison Hershfield (James Fookes)
Review of Infrastructure Baseline and Feasibility Study Report (I22) Draft – Southwestern Ontario Community Study issued by Morrison Hershfield (March 7, 2022)	March 2022 – May 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)
Peer Review Team Check-in Meeting to review/confirm preliminary comments	March 22, 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt), MSB (Catherine Simpson)
Issuance of the Peer Review Team preliminary comment disposition table on the Draft Report to DPRA	March 24, 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)
Peer Review Team and DPRA Project Update Meeting to discuss/understand the preliminary comments	March 25, 2022, March 29, 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt), MSB (Catherine Simpson), NWMO (Charlene Easton), DPRA (Vicki McCulloch), Morrison Hershfield (James Fookes)
Issuance of the Peer Review Team formal comments disposition table on the Draft Report	May 26, 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)

Key Activities	Date	Parties Involved
Review of the Infrastructure Baseline and Feasibility Study Report Final Draft – Southwestern Ontario Community Study issued by Morrison Hershfield (May 20, 2022)	May 2022 – June 2022	R.J. Burnside (Jeremy Taylor and Henry Centen), GHD (Greg Ferraro and Ian Dobrindt)

### 3. Key Documentation and Information Reviewed

As stated, several documents and information were considered by the PRT in carrying out the Peer Review Protocol. **Table 3.1** lists the key documents and information considered by the PRT in the review of the Infrastructure Baseline and Feasibility Study.

**Table 3.1** Key Documents and Information Considered in the Peer Review of the Infrastructure Baseline and Feasibility Study

Document Name/Information	Author/Source/Date	Description/Application
Implementing Adaptive Phased Management 2021 to 2025	Nuclear Waste Management Organization (NWMO) (March 2021)	Reviewed to understand the Project planning timelines. The PRT provided comments (November 18, 2021) for NWMO’s consideration and response (January 27, 2022).
Infrastructure Baseline and Feasibility Study - Statement of Work	Municipality of South Bruce (MSB) (May 2021)	Reviewed to understand the objectives and scope of work including inputs to the Infrastructure Baseline and Feasibility Study and its relationship to other Community Studies as envisioned by the MSB.
Knowledge Holder Interviews (MSB Public Works; Bruce Telecom; Hydro One Network Inc.; EPCOR; Wightman Telecom)	NWMO (September 2021 – February 2022)	Attended in-person to listen firsthand, ask questions, and seek clarifications as part of gaining an understanding of key knowledge holders’ perspectives on the Project. Reviewed and provided comments on draft meeting minutes prepared by NWMO prior to their issuance to meeting attendees.
Deep Geological Repository Conceptual Design Report – Crystalline / Sedimentary Rock (APM-REP-00440-0211-R000)	NWMO (September 2021)	All members of the PRT reviewed the Executive Summary to obtain an understanding of the below ground facility. Subsequently, additional sections of the Report were reviewed, by certain members of the PRT as appropriate, to obtain a greater level of understanding specific to their areas of study (e.g., Facility Design and Operation, Aggregate Resources Study, Local Traffic Effects Study, Waste Management, etc.). The PRT provided comments (November 18, 2021) for NWMO’s consideration and response (January 27, 2022).

Document Name/Information	Author/Source/Date	Description/Application
Deep Geological Repository Transportation System Conceptual Design Report - Crystalline / Sedimentary Rock (APM-REP-00440-0209-R001)	NWMO (September 2021)	Reviewed if the transportation of used fuel was applicable to the areas of study (e.g., Aggregate Resources Study, Local Traffic Effects Study, etc.). The PRT provided comments (November 18, 2021) for NWMO's consideration and response (January 27, 2022).
APM 2021 DGR Lifecycle Cost Estimate Update Summary Report (NWMO-TR-2021-11 R001)	NWMO (September 2021)	Reviewed to better understand the scope and magnitude of the Project components. The PRT provided comments (November 18, 2021) for NWMO's consideration and response (January 27, 2022).
Southwestern Ontario Infrastructure Baseline and Feasibility Study Work Plan (I22)	DPRA Canada Inc. (October 7, 2021)	Reviewed to understand the purpose and outcome of the Infrastructure Baseline and Feasibility Study including its linkages to other Community Studies, scope and assumptions, approach, and key information sources/data collection.
Community Studies Planning Assumptions	NWMO (October 18, 2021)	Reviewed to understand certain parameters for the Project. The PRT provided comments (November 18, 2021) for NWMO's consideration and response (January 27, 2022).
South Bruce and Area Growth Expectations Memo	metroeconomics (February 7, 2022)	Reviewed to understand the assessment of the potential for economic and demographic growth over the period from 2022 to 2046 of the Core Study Area including MSB both from the perspectives of growth independent of the Project as well as the result of the Project.
Infrastructure Baseline and Feasibility Study Report (I22) Draft – Southwestern Ontario Community Study	Morrison Hershfield (March 7, 2022)	The draft output/deliverable from completing the final Work Plan for review by the PRT.
Infrastructure Baseline and Feasibility Study Report (I22) Draft – Southwestern Ontario Community Study Revision 1	Morrison Hershfield (May 20, 2022)	The revised draft output/deliverable from completing the final Work Plan for review by the PRT.

## 4. Peer Review Findings and Resolution

### 4.1 Comments on the Infrastructure Baseline and Feasibility Study

The PRT provided their formal comments to NWMO/DPRA team on May 26, 2022, in the form of a memo and comment disposition table (**Appendix C**). As per on-going discussions between the PRT and the NWMO/DPRA team, the focus of the peer review and resolution of comments was to be on those of a more substantive nature. As a result, while **Appendix C** lists all the formal comments on the Infrastructure Baseline and Feasibility Study, **Table 4.1 (3<sup>rd</sup> column)** lists only those comments of a more substantive nature in the Comment Disposition Table. In reply, NWMO/DPRA provided a documented response describing how and where the formal comments were to be addressed in the Final Draft Report (**Table 4.1, 4<sup>th</sup> column**). Upon receipt, the PRT reviewed the Final Draft Report to ensure the documented responses were, in fact, incorporated into the Infrastructure Baseline and Feasibility Study (**Table 4.1, 5<sup>th</sup> column**).

Upon completion of the first draft report dated March 7, 2022 the PRT provided comments to DPRA and Morrison Hershfield with regards to the report structure and the content within the report. The PRT provided the comments in the Comment Disposition table and also met with the DPRA / MH team to review. Subsequently DPRA and MH provided a revised report dated May 20, 2022 that addressed a number of the comments and a reorganization of the initial report to improve the presentation of technical assessment. As such a number of the initial comments have been addressed and amended list of comments have been provided on **Table 4.1**.

The primary comments for future follow up studies by the NWMO include:

- Further study to assess and summarize an approach to monitoring the need for infrastructure expansion beyond simple monitoring of population/housing growth. As a result of the Project, direct, indirect and induced jobs will locate to MSB even though workers may not choose to reside in the community. The growth in employment within MSB will increase the developed lands and will increase the required capacity of the infrastructure for potable water, wastewater treatment, solid waste management and stormwater management.
- Further analysis is required to better evaluate the feasibility and the potential benefits of municipal water and sanitary wastewater servicing for the Project site

**Table 4.1** *Infrastructure Baseline and Feasibility Study Draft Report Comment Disposition Table*

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRA comments
1	General	<p>Comments on the workplan from Oct 2021 there is no indication that the potential commercial and industrial growth within MSB has been considered within this report. It is recommended to confirm if there is flexibility in the servicing to also accommodate ICI growth and make projections regarding such growth.</p> <p><b>Following Revision 1:</b> Comment has not been adequately addressed.</p>	<p>Refer to Section 4.1 (Project-associated Population Growth) and Section 7.2 (Conclusions).</p> <p>Discussion specific to potential IC&amp;I growth will be added to the report, with references to other applicable studies (e.g., potential activities to encourage 'spin-off' growth).</p> <p>The need for future study will be identified.</p>	<p>Comment appears to be satisfactorily addressed with future study recommended.</p>
5	4.3.3 Table 4-5	<p>It would be beneficial to explain what is meant by potable water compared to service water. It would also be beneficial to include statement that process water is recycled and not part of the site sanitary sewage water.</p> <p><b>Following Revision 1:</b> Section 5.3.4 indicates that process wastewater may be conveyed to Teeswater WWTP.</p>	<p>Refer to Section 5.2.3 and Section 5.3.4. Explanation expanded to ensure accurate use of terms, alignment with Conceptual Design Report, and to include discussion of existing sewer use by-laws which define sewer influent standards and have been used when establishing sewer use agreements with other industrial facilities in the municipality. Potential requirement for pre-treatment added to Section 5.2.3.</p>	<p>Comment expected to be addressed by final report.</p>
6	5.1.3 Page 28	<p>It is recommended that the statement regarding the growth of IC&amp;I would not have an impact as long as it was not disproportionate to population growth be reconsidered as the Project is anticipated to create more growth than just dwelling / population in MSB.</p>	<p>Refer to Section 5.1.3. Statement reworded, consistent with response to comment 1 above.</p>	<p>Comment appears to be satisfactorily addressed with future study recommended.</p>
7	5.2.3	<p>It is recommended that the DGR servicing comments be together. It would be beneficial to further consider the opportunity of providing water servicing to the DGR site with municipal infrastructure as it may be beneficial to MSB.</p> <p><b>Following Revision 1:</b> Completed – Consider some additional comments with regards to Guiding Principle #10 with respect to water servicing.</p>	<p>Refer to Section 5.3.</p> <p>Commentary regarding Guiding Principle #10 added.</p>	<p>Comment satisfactorily addressed.</p>

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRA comments
8	5.2.4	It would be beneficial to quantify the amount of capital investment required for the upgrades. <b>Following Revision 1:</b> Completed only at a preliminary level.	N/A	Response noted.
9	6.1.1.	It would be beneficial to reference Principle #29 within the statement that there are opportunities to implement strategies for the expected Project and Baseline growth. <b>Following Revision 1:</b> Partially Completed.	Refer to Section 6.1. Reference to Principle #29 added.	Comment satisfactorily addressed.
10	6.2.3	It is recommended that further analysis be provided with regards to a municipal water supply of the site. A summary table indicating the benefits of on-site versus Municipal supplied including options for partial supply of potable water only, cost alternatives, operational considerations as well as treatment regulation requirements should be provided. It is recommended that the challenges to both options be further explained as well as potential benefits to MSB be considered. It is recommended that the benefits beyond lowest cost, such as technical simplicity or perceived safety be considered in the analysis. <b>Following Revision 1:</b> Partially completed. Recommend that further assessment of options is required as part of future studies.	Refer to Section 7.2. Text revised to conclude that water servicing from Teeswater is feasible as an alternative to on-site water production, and that further studies will be required to assess these options.	Comment appears to be satisfactorily addressed with future study recommended. Include in the future study the provision of municipal water supply to lands adjacent to the Project site to better inform Guiding Principle #10
13	7.2	It is recommended that the conclusions on DGR site servicing be reconsidered to reflect that that report is preliminary and additional studies are required before final decisions on DGR site servicing are completed. Specifically, the comments on the watermain and sanitary forcemain for the DGR site require further studies similar to an EA process.	Refer to Section 7.2. Text revised as indicated in response to comment 10.	Comment appears to be satisfactorily addressed with future study recommended.

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRA comments
14	7.2	The comparison of base case to impact case only considers the change in dwelling / population. The impact of the Project within the area is expected to generate jobs in the community. Additional Industry, Commercial and Institutional (IC&I) growth that has not been accounted for. Recommended that the conclusions reflect this and consider that the Project will have a larger impact than just a percentage of population and housing growth on infrastructure.	Refer to Section 7.2. Conclusion reworded, consistent with response to comment 1 above.	Comment appears to be satisfactorily addressed with future study recommended.
15	7.2	It is noted in the conclusions that there is significant population growth expected regardless of the project. The report has indicated that the % of growth from the Project is small compared to the background growth. It is recommended to conclude that the Project will influence the timing and demand for background growth beyond the simple increase in population and that this influence should be considered as MSB and NWMO work together to optimize and mitigate the Project effects with anticipated development.	Refer to Section 7.2. Conclusion reworded, to emphasize the need for MSB and NWMO to work together to optimize and mitigate Project effects, as the scale of anticipated development evolves.	Comment satisfactorily addressed.

## 4.2 Comments on Adherence to the Work Plan

The Infrastructure Baseline and Feasibility Study largely complies with the approved Work Plan with a few noted exceptions as indicated in **Table 4.2**. The PRT understands that the Infrastructure Baseline and Feasibility Study is a preliminary analysis of the infrastructure and the impact of the Project to the Municipality. Further studies are required to evaluate the site servicing options as well as the impact of IC&I growth to the community.

*Table 4.2 Adherence to the Work Plan*

Step #	Step	Description of Activities	Peer Review Comments	How and Where Comments Addressed?
Step 1	Data Collection – Secondary/ Primary; updated Project assumptions; information	a. Background review and assembly of available infrastructure data from MSB, Bruce County and electrical, telecommunications and gas utilities	Background data was collected, revised during peer review and assembled in the report.	Reflected in sections 1, 2 and 3.

Step #	Step	Description of Activities	Peer Review Comments	How and Where Comments Addressed?
	from other related community studies	<ul style="list-style-type: none"> <li>b. Telephone interviews with key knowledge holders</li> <li>c. Complete description of existing infrastructure in terms of municipal water, municipal sewer, waste management, storm drainage, electrical distribution, gas distribution, and telecommunications</li> <li>d. Complete description of existing plans for municipal (or utility company) expansion of infrastructure</li> </ul>		
Step 2	Provide Inputs to and take Outputs from Other Studies	<ul style="list-style-type: none"> <li>a. Share data and findings with other community studies</li> <li>b. Take into considerations data and findings from other studies that are pertinent to the subject study</li> </ul>	Report included Metroeconomics report for forecasted population growth.	Reflected in sections 2 and 3.
Step 3	Analysis and assessment, identification of effects management options	<ul style="list-style-type: none"> <li>a. Analysis of data</li> <li>b. Develop potential effects management options based on identified potential Project effects; options could include mitigation/enhancement measures, management options or other possibilities.</li> </ul>	<p>Report evaluated the impact of population growth on infrastructure.</p> <p>Some mitigation measures were identified to be considered in future studies.</p>	Reflected in sections 3 and 5.
Step 4	Observations and Conclusions	<ul style="list-style-type: none"> <li>a. Outline the impact of the project on the baseline infrastructure</li> <li>b. Summarize findings</li> <li>c. Set out observations and conclusions</li> </ul>	<p>The report evaluated the impact of population growth due to the project and the options of Municipal water and sanitary services to the site. Recommended that conclusions on site servicing are premature since analysis was preliminary and further studies are required.</p> <p>Further studies regarding IC&amp;I growth and the impact the Project will have on the timing of population growth and subsequent infrastructure needs are recommended.</p>	Will be incorporated into discussion of future study needs in the revised report.

### 4.3 Municipality of South Bruce’s Guiding Principles

The Infrastructure Baseline and Feasibility Study informs select principles of the 36 guiding principles established by MSB. The Municipality published a Project Visioning report based on community workshops held in January 2020 that identified areas of community concern and opportunities. Based on the Project Visioning report and further public consultation, MSB passed a Council resolution endorsing the 36 principles that will guide their assessment of willingness to host the APM Project. In light of their importance to MSB, the principles have been individually linked to each of the studies as appropriate to ensure that they were fully considered or accounted for in completing the work (Appendix D).

Five of the 36 principles are linked to the Infrastructure Baseline and Feasibility Study: numbers 10, 18, 27, 29, and 32. Table 4.3 lists the five principles and how the Infrastructure Baseline and Feasibility Study informs those principles.

Table 4.3 The Principles Associated with the Infrastructure Baseline and Feasibility Study

Principle # and Description	Consideration of the Principle in the Study
<p>10. The NWMO will identify the potential for any positive and negative socio-economic impacts of the Project on South Bruce and surrounding communities and what community benefits it will contribute to mitigate any potential risks.</p>	<p>The Infrastructure Study informs Guiding Principle #10 by identifying the impact to infrastructure and the level of Municipal and Utility services the residents currently receive and how the project would affect those services. Specifically, the report indicates the impact that population growth will have on the existing infrastructure and where expansion of services is required. The report identified strength, weakness and opportunities to be considered in future studies that would help to mitigate potential risks in Section 5.4 of the report. In Section 6 the report also indicates some options to be considered on how to mitigate the risks to infrastructure demand requirements with proposed population expansion in conjunction with the impact of the Project on the community. The options identified are noted to be under the control of MSB.</p>
<p>18. The NWMO will commit to relocate the working location of a majority of its employees to South Bruce as soon as it is reasonably practicable to do so after the completion of the site selection process.</p>	<p>The Infrastructure Study informs Guiding Principle #18 by referencing the Metroeconomics report with respect to expected baseline and Project related population growth. The impact to infrastructure for this population growth is noted within the report which partially aligns with Principle #18 and the increase in workforce within the area. Additional impact of the Project from the increase in population and additional jobs is not clearly indicated within the report, but anticipated as a result of the growth in population.</p>
<p>27. The NWMO will fund the Municipality’s preparation of a housing plan to ensure that the residents of South Bruce have access to a sufficient supply of safe, secure, affordable and well-maintained homes.</p>	<p>The Infrastructure Study partially informs on Guiding Principle #27 by outlining the current and future demand on infrastructure components, specifically water, wastewater, solid waste as a result of the anticipated increase in population growth. Further studies in conjunction with Land Use Planning and Housing should consider the impact to the infrastructure required for servicing. In Section 6 of the report a number of opportunities for to mitigate the risk are identified.</p>
<p>29. The NWMO will prepare an infrastructure strategy that addresses any municipal infrastructure requirements for the Project and will commit to providing appropriate funding for any required upgrades to municipal infrastructure required to host the Project in South Bruce.</p>	<p>The Infrastructure Study informs on Guiding Principle #29 by providing a summary of the existing capacity and the impact of the expected population growth both background and Project related. A preliminary analysis of the options of Site Servicing has also been completed as part of the report. To better meet this Guiding Principle, it is recommended that future studies be completed to further evaluate the feasibility of site servicing. As well, additional study should be completed to evaluate the timing of the expansion of population within MSB as well as consideration to the impact to IC&amp;I growth on the municipal infrastructure.</p>

Principle # and Description	Consideration of the Principle in the Study
<p>32. The NWMO, in consultation with the Municipality and other local and regional partners, will prepare strategy to ensure there are sufficient community services and amenities, including health, child-care, educational and recreational facilities, to accommodate the expected population growth associated with hosting the Project in South Bruce.</p>	<p>The Infrastructure Study has informed on Guiding Principle #32 by summarizing the impact of the population growth for dwelling services only. Further inputs with regards to IC&amp;I growth are recommended to be considered in future studies.</p>

## 4.4 Conclusions of the Peer Review

The PRT is of the view that the Infrastructure Baseline and Feasibility Study was completed in general accordance with the Work Plan. The projected population growth, both baseline and Project related, has been identified within the report. The study has provided an initial assessment of the existing infrastructure within MSB and the current projects underway for infrastructure improvements and expansion works. The projected impact of the population growth on the existing infrastructure has been summarized within the report. The study identifies the need to mitigate risks by early engagement with utilities to allow for proper planning and expansion of services.

The infrastructure requirements for Project site servicing have also been identified. Options for water and sanitary site servicing from the Municipality have been identified and assessed at a preliminary level.

The PRT's primary comments for future follow up studies by the NWMO include:

- Further study is recommended with respect to the timing of the baseline population growth and the timing of further infrastructure expansion within MSB to meet Guiding Principle #29
- Further study to assess and summarize the effect the Project will have on IC&I growth and an approach to monitoring the need for infrastructure expansion beyond simple monitoring of population/housing growth. As a result of the Project, direct, indirect and induced jobs will locate to MSB even though workers may not choose to reside in the community. The growth in employment within MSB will increase the developed lands and will increase the required capacity of the infrastructure for potable water, wastewater treatment, solid waste management, gas and power and stormwater management.
- Further analysis is also required to better evaluate the feasibility and the potential benefits of municipal water and sanitary wastewater servicing for the Project site. The evaluation should also include the feasibility and potential benefits of providing municipal water supply to lands adjacent to the Project site.

The PRT has found that the Study informs Guiding Principles 10, 18, 27, 29, and 32. The PRT's findings and recommendations are provided herein.

The PRT recommends that further evaluation on the feasibility and potential benefits of servicing the Project Site with municipal potable water and sanitary wastewater be carried out which would include assessing the benefit of providing lands adjacent to the Project site with municipal water supply.

# Appendices

# **Appendix A**

**List of Socio-Economic Community Studies**

## Appendix A. List of Socio-Economic Community Studies

ID	Study Name	Study Proponent	Lead Consultant
E01	Local Economic Development Study & Strategy	MSB	Deloitte
E02	Economic Development Program - Youth	MSB	Deloitte
E03	Local Hiring Effects Study & Strategy	MSB	Deloitte
E04	Demographics	MSB	Keir Corp.
E05	Agricultural Task Force/Agricultural Business Impact Study	MSB	Deloitte
E06	Fiscal Impact and Public Finance	MSB	Watson & Associates Economists
E07	Tourism Industry Effects & Strategy	MSB	Deloitte
E08	Housing Needs and Demand Analysis Study	NWMO, MSB	Keir Corp.
E09	Labour Baseline Study	NWMO	Keir Corp.
E10	Workforce Development Study	NWMO	Keir Corp.
E11	Regional Economic Development Study	NWMO	Keir Corp.
E12	Property Value Monitoring Program		
I21	Aggregate Resources Study	NWMO, MSB	Keir Corp.
I22	Infrastructure Baseline and Feasibility Study	NWMO	Morrison Hershfield
I23	Local Traffic Effects Study	NWMO	Morrison Hershfield
I24	Road Conditions Effects Study	NWMO	Morrison Hershfield
S13	Effects on Recreational Resources	MSB	Tract Consulting
S14	Local/Regional Education Study	NWMO, MSB	DPRA
S15	Land Use Study	NWMO, MSB	DPRA
S16	Social Programs Study	NWMO, MSB	DPRA
S17	Emergency Services Study	NWMO	DPRA
S18	Vulnerable Populations Baseline and Effects Study	NWMO	DPRA
S19	Effects on Community Safety		
S20	Community Health Programs and Health Infrastructure Study	NWMO	DPRA

# **Appendix B**

## **Peer Review Protocol**

## **South Bruce Consultants Peer Review Protocol**

### **Protocol for Peer Review Process**

1. The scope of the peer review is variable for each NWMO study (Study). The scope and objective of each Study is variable. The Study may include development of information, data and documents in the form of a:

- Statement of Work
- Work plan
- Baseline conditions
- Modeling/prediction/forecast of future conditions
- An assessment of impact/benefits

Not all NWMO studies will include each of the above listed elements. While a collaborative peer review approach is to be used, it is important to maintain independence during the peer review process.

2. Develop an initial understanding of NWMO inputs to conducting the Study including timing, availability and sources of information.
3. Meet with NWMO and their consultants to
  - compile a list of information/documents that will need to be reviewed as part of the Peer Review
  - compile a list of parties/agencies providing information for use in preparing the Study
  - identify additional information/sources that may be pertinent to the Study
4. Undertake an initial review of the information/documents assembled and developed for the Study
  - Peer review of the SoW will include information and data pertaining to some or all of the following elements:
    - i.) Statement of Work (SoW)
    - ii.) Work plan
    - iii.) Baseline conditions
  - Provide questions/comments to NWMO on the available information/documents and ensure they have been adequately addressed with the community in mind.
5. Conduct peer review of the Study findings as they are developed which may include the following:
  - i.) Project design(s)
  - ii.) Modeling of future conditions
  - iii.) Impact assessment approach
  - iv.) Impact assessment findings
  - v.) Analysis of reliability
  - If warranted, work with NWMO and their consultants to conduct a site visit
6. Meet with NWMO and their consultants to:
  - Seek clarifications of the information/documents reviewed
  - Ensure a full understanding of the assessment approach and findings
  - Present the preliminary peer review findings (concurrences and concerns)



- Provide questions/comments and peer review findings and ensure they have been adequately addressed with the community in mind.
7. Review NWMO draft reports
    - Complete a detailed review of the draft reports
    - Identify omissions and/or inconsistencies if they occur with SOW and Work Plan
  8. Prepare draft Peer Review Report for submission to South Bruce for comments.
    - Include a summary of peer review observations, findings, and comments
  9. South Bruce will review with RedBrick for communications to public
  10. Finalize and present the Peer Review Report to South Bruce and NWMO
  11. Each consultant will need to provide a presentation of the findings of the peer reviews to the CLC.

## **Table of Contents for Peer Review Report**

1. Introduction
  - a. State the purpose of the Peer Review Report (Report)
  - b. Provide capsule summary of the proposed Project
  - c. Identify the NWMO Study that is being peer reviewed
  - d. Identify the NWMO Statement of Work for completing the Study (i.e., SOW from EOI or update)
  - e. Identify participants involved in conducting the Study
  - f. Identify the time period the Study work and Peer Review was carried out
2. Peer Review Objectives and Process
  - a. State objectives for conducting the Peer Review which include
    - i. To provide the community of SB with independent review by qualified subject matter experts
    - ii. To complete a peer review of the NWMO Assessment of potential impacts and proposed benefits in comparison to existing conditions
    - iii. To review how the potential impacts and proposed benefits adhere to the 36 principles that will guide the assessment of willingness to host the Project.
  - b. Describe the Peer Review Process Undertaken
    - i. Describe the Peer Review process that was carried out.
    - ii. List activities completed (e.g., site visits, work plan review, data review, report review, meetings, etc.)
3. Documentation and Information Reviewed
  - a. List NWMO study specific information reviewed which may include:
    - i. Scope of work
    - ii. Detailed work plan
    - iii. Baseline Conditions
    - iv. Assessment Approach
    - v. Assessment Findings
  - b. List parties/agencies involved in providing information into the study
  - c. List all documents/meetings/data/additional information and include a short summary of each
4. Peer Review Findings and Resolution
  - a. Baseline Conditions Report (concurrences and concerns and resolution)

- b. Impact Assessment (IA) Report
    - i. IA approach (concurrences and concerns and resolution)
    - ii. IA findings (concurrences and concerns and resolution)
  - c. Conclusions of peer review
  - d. Adherence to the 36 principles which are pertinent to the study
5. Summary

# **Appendix C**

**Peer Review Comments Memo**



# Memorandum

May 26, 2022 – updated June 6, 2022

<b>To</b>	Dave Rushton/Catherine Simpson, Municipality of South Bruce		
<b>Copy to</b>			
<b>From</b>	Greg Ferraro and Ian Dobrindt/AD/mm	<b>Tel</b>	+1 519 884 0510
<b>Subject</b>	Infrastructure Baseline and Feasibility Study (I22) Draft Report – Peer Review Comments	<b>Project no.</b>	11224152-MEM-25

## 1. Introduction

This memo provides the Municipality of South Bruce (South Bruce) peer review team’s comments on the Infrastructure Baseline and Feasibility Study (I22) Draft Report (Draft Report) prepared by Morrison Hershfield (March 7, 2022; Revision 1 - May 20, 2022) for your consideration and internal circulation as per the South Bruce Nuclear Exploration Project joint study review flow process. In addition, the memo will be submitted to the Nuclear Waste Management Organization (NWMO) and their consultants (DPRA Canada, Morrison Hershfield) by GHD Limited (GHD) as per the peer review protocol process.

## 2. Peer review approach

The peer review of the Draft Report was carried out by R.J. Burnside and GHD. The peer review process was completed in alignment with the peer review protocol that was developed to support a collaborative approach between NWMO and South Bruce while maintaining independence during the process. In accordance with the peer review protocol process, R.J. Burnside (Subject Matter Expert) and GHD (Lead Consultant) considered the following information during our individual reviews of the Infrastructure Baseline and Feasibility Study Draft Report:

- Infrastructure Baseline and Feasibility Study - Statement of Work (May 2021)
- Southwestern Ontario Infrastructure Baseline and Feasibility Study Work Plan (I22), prepared by DPRA Canada inc. (October 7, 2021)
- Knowledge holder interviews
- Peer review comments on NWMO’s draft project description for South Bruce community studies memo prepared by GHD Limited (November 18, 2021) and responded to by NWMO (January 27, 2022)
- South Bruce and area growth expectations memo prepared by metro economics (February 7, 2022)

Both R.J. Burnside and GHD reviewed the Draft Report having the following questions in mind:

- Are there any significant concerns, issues, and/or omissions with the Draft Report?
- What are our initial observations/impressions on the Draft Report?
  - Has the work plan been complied with?

- Has pertinent information gained from knowledge holder interviews been included?
- Has a previous NMWO response of deferring a peer review team comment to the Draft Report task been complied with?
- Have peer review comments made during the community study workshops been addressed?
- Does the Draft Report reflect the most current information available?

R.J. Burnside and GHD discussed our initial observations and confirmed our combined preliminary comments on the Draft Report at our 10-day peer review check-in meeting. Following this, R.J. Burnside and GHD shared our initial observations/preliminary comments with NWMO and their consultant during a discussion on March 25, 2022, where questions were asked, clarifications were sought, and suggestions were offered. Following this discussion, our substantive comments were finalized as listed in the Comment Disposition Table (**Table 1**).

### 3. Peer review comments

As stated above, the comment disposition table (**Table 1**) lists our combined comments on the Draft Report. It is understood that NWMO and their consultants will provide responses to these comments and address each comment where appropriate as part of finalizing the report.

Based on completion of the peer review and follow up discussions with NWMO and their consultants, the study inputs presented in the Draft Report are found to support the overall objective to identify the existing and planned infrastructure in South Bruce and the incremental change that would be needed if the use of the municipal infrastructure was a feasible option to service the Project. It is recommended the Study further assess and summarize an approach to monitoring the need for infrastructure expansion beyond simple population/housing growth. As a result of the Project, direct, indirect and induced jobs will locate to MSB even though workers may not choose to reside in the community.

In general, it is the PRT's view that the study as described in the Draft Report substantially complies with the work plan in terms of study areas and information developed and included. **Table 2** summarizes the peer review's assessment of compliance with the Work Plan.

Table 1 Infrastructure Baseline and Feasibility Study Draft Report Comment Disposition Table

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRA comments
1	General	<p>Comments on the workplan from Oct 2021 there is no indication that the potential commercial and industrial growth within MSB has been considered within this report. It is recommended to confirm if there is flexibility in the servicing to also accommodate ICI growth and make projections regarding such growth.</p> <p><b>Following Revision 1:</b> Comment has not been adequately addressed.</p>	<p>Refer to Section 4.1 (Project-associated Population Growth) and Section 7.2 (Conclusions).</p> <p>Discussion specific to potential IC&amp;I growth will be added to the report, with references to other applicable studies (e.g., potential activities to encourage 'spin-off' growth).</p> <p>The need for future study will be identified.</p>	Comment appears to be satisfactorily addressed with future study recommended.
2	3.1	It is recommended that Table 3.2 reference the Land Use and Housing studies.	The breakdown of housing supply by community presented in Table 3.2 does not appear in the Land Use and Housing studies. The Land Use and Housing studies deal with housing supply at a Municipality level, and with discussion of specific parcels currently under development. Therefore, it is not appropriate to reference the Land Use and Housing studies in Table 3.2.	Response noted.
3	3.1.2 3.1.3	<p>It would be beneficial to include a figure of the watermain and sanitary system components for each of Teeswater, Formosa and Mildmay for reference including key component locations as well as distribution and collection systems. Exhibit 1 indicates the location of some of the infrastructure, but additional detail and reference to it would be beneficial.</p> <p><b>Following Revision 1:</b> Not completed, but not required.</p>	N/A	Response noted.
4	3.2.3 Page 18	Section 3.2.32 is referenced but does not appear in document. Similar reference noted on page 19	Refer to Section 3.2.4. Reference corrected to 3.2.3.	Comment satisfactorily addressed.
5	4.3.3 Table 4-5	It would be beneficial to explain what is meant by potable water compared to service water. It would also be beneficial to	Refer to Section 5.2.3 and Section 5.3.4. Explanation expanded to ensure accurate use of terms, alignment with Conceptual	Comment expected to be addressed by final report.

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRAs comments
		include statement that process water is recycled and not part of the site sanitary sewage water. <b>Following Revision 1:</b> Section 5.3.4 indicates that process wastewater may be conveyed to Teeswater WWTP.	Design Report, and to include discussion of existing sewer use by-laws which define sewer influent standards and have been used when establishing sewer use agreements with other industrial facilities in the municipality. Potential requirement for pre-treatment added to Section 5.2.3.	
6	5.1.3 Page 28	It is recommended that the statement regarding the growth of IC&I would not have an impact as long as it was not disproportionate to population growth be reconsidered as the Project is anticipated to create more growth than just dwelling / population in MSB.	Refer to Section 5.1.3. Statement reworded, consistent with response to comment 1 above.	Comment appears to be satisfactorily addressed with future study recommended.
7	5.2.3	It is recommended that the DGR servicing comments be together. It would be beneficial to further consider the opportunity of providing water servicing to the DGR site with municipal infrastructure as it may be beneficial to MSB. <b>Following Revision 1:</b> Completed – Consider some additional comments with regards to Guiding Principle #10 with respect to water servicing.	Refer to Section 5.3. Commentary regarding Guiding Principle #10 added.	Comment satisfactorily addressed.
8	5.2.4	It would be beneficial to quantify the amount of capital investment required for the upgrades. <b>Following Revision 1:</b> Completed only at a preliminary level.	N/A	Response noted.
9	6.1.1.	It would be beneficial to reference Principle #29 within the statement that there are opportunities to implement strategies for the expected Project and Baseline growth. <b>Following Revision 1:</b> Partially Completed.	Refer to Section 6.1. Reference to Principle #29 added.	Comment satisfactorily addressed.
10	6.2.3	It is recommended that further analysis be provided with regards to a municipal water supply of the site. A summary table indicating the benefits of on-site versus	Refer to Section 7.2. Text revised to conclude that water servicing from Teeswater is feasible as an	Comment appears to be satisfactorily addressed with future study recommended. Include in the future study the provision of municipal water supply to lands adjacent to

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRA comments
		<p>Municipal supplied including options for partial supply of potable water only, cost alternatives, operational considerations as well as treatment regulation requirements should be provided. It is recommended that the challenges to both options be further explained as well as potential benefits to MSB be considered. It is recommended that the benefits beyond lowest cost, such as technical simplicity or perceived safety be considered in the analysis.</p> <p><b>Following Revision 1:</b> Partially completed. Recommend that further assessment of options is required as part of future studies.</p>	alternative to on-site water production, and that further studies will be required to assess these options.	the Project site to better inform Guiding Principle #10
11	7.2 Page 47	Reference to Section 1.1 should be Section 6.	Refer to Section 7.2. Reference corrected.	Comment satisfactorily addressed.
12	7.2	Recommend that any road improvements be coordinated with infrastructure improvements.	Refer to Section 7.2. Statement added.	Comment satisfactorily addressed.
13	7.2	It is recommended that the conclusions on DGR site servicing be reconsidered to reflect that that report is preliminary and additional studies are required before final decisions on DGR site servicing are completed. Specifically, the comments on the watermain and sanitary forcemain for the DGR site require further studies similar to an EA process.	Refer to Section 7.2. Text revised as indicated in response to comment 10.	Comment appears to be satisfactorily addressed with future study recommended.
14	7.2	The comparison of base case to impact case only considers the change in dwelling / population. The impact of the Project within the area is expected to generate jobs in the community. Additional Industry, Commercial and Institutional (IC&I) growth that has not been accounted for. Recommended that the conclusions reflect this and consider that the Project will have a larger impact than	Refer to Section 7.2. Conclusion reworded, consistent with response to comment 1 above.	Comment appears to be satisfactorily addressed with future study recommended.

Comment number	Report section reference	Comments from peer review	How and where comments are addressed	Peer review responses to DPRA comments
		just a percentage of population and housing growth on infrastructure.		
15	7.2	It is noted in the conclusions that there is significant population growth expected regardless of the project. The report has indicated that the % of growth from the Project is small compared to the background growth. It is recommended to conclude that the Project will influence the timing and demand for background growth beyond the simple increase in population and that this influence should be considered as MSB and NWMO work together to optimize and mitigate the Project effects with anticipated development.	Refer to Section 7.2. Conclusion reworded, to emphasize the need for MSB and NWMO to work together to optimize and mitigate Project effects, as the scale of anticipated development evolves.	Comment satisfactorily addressed.

**Table 2** Assessment of the study work plan – Table 1. Infrastructure Baseline and Feasibility Study Approach

Step #	Description of Activities	Peer Review Comments	How and Where Comments Addressed?
Step 1	<ul style="list-style-type: none"> <li>a. Background review and assembly of available infrastructure data from MSB, Bruce County and electrical, telecommunications and gas utilities</li> <li>b. Telephone interviews with key knowledge holders</li> <li>c. Complete description of existing infrastructure in terms of municipal water, municipal sewer, waste management, storm drainage, electrical distribution, gas distribution, and telecommunications</li> <li>d. Complete description of existing plans for municipal (or utility company) expansion of infrastructure</li> </ul>	Background data was collected, revised during peer review and assembled in the report.	Reflected in sections 1, 2 and 3.
Step 2	<ul style="list-style-type: none"> <li>a. Share data and findings with other community studies</li> <li>b. Take into considerations data and findings from other studies that are pertinent to the subject study</li> </ul>	Report included Metroeconomics report for forecasted population growth.	Reflected in sections 2 and 3.
Step 3	<ul style="list-style-type: none"> <li>a. Analysis of data</li> <li>b. Develop potential effects management options based on identified potential Project effects; options could include mitigation/enhancement measures, management options or other possibilities.</li> </ul>	<p>Report evaluated the impact of population growth on infrastructure.</p> <p>Some mitigation measures were identified to be considered in future studies.</p>	Reflected in sections 3 and 5.
Step 4	<ul style="list-style-type: none"> <li>a. Outline the impact of the project on the baseline infrastructure</li> <li>b. Summarize findings</li> <li>c. Set out observations and conclusions</li> </ul>	<p>The report evaluated the impact of population growth due to the project and the options of Municipal water and sanitary services to the site. Recommended that conclusions on site servicing are premature since analysis was preliminary and further studies are required.</p> <p>Further studies regarding IC&amp;I growth and the impact the Project will have on the timing of population growth and subsequent infrastructure needs are recommended.</p>	Will be incorporated into discussion of future study needs in the revised report.

# **Appendix D**

**36 Guiding Principles**

# South Bruce Guiding Principles for NWMO's Site Selection Process

The Nuclear Waste Management Organization (NWMO) is seeking an informed and willing host for a deep geologic repository (DGR) to safely store Canada's used nuclear fuel, and a Centre for Expertise. To guide its work, South Bruce held a comprehensive visioning process in 2019 and 2020 to get input on what people cared about most in relation to the Project. The process, in addition to other community input and feedback resulted in the creation of 36 Guiding Principles which focus on safety for people and the environment, ensuring the Project brings meaningful benefits to the community, and ensuring the municipality has a voice in decision-making.

The principles were adopted by Council resolution and they have guided municipal activities and engagement related to the Project. South Bruce is seeking NWMO commitments on how it would meet or address these 36 expectations and aspirations for the Project. This is a key step in determining whether the Project is right for the community and will help people make an informed decision when a public referendum is held to measure willingness to be a host community.

## Safety and the Natural Environment

1. The NWMO must demonstrate to the satisfaction of the Municipality that the Project will be subject to the highest standards of safety across its lifespan of construction, operation and into the distant future.
2. The NWMO must demonstrate to the satisfaction of the Municipality that sufficient measures will be in place to ensure the natural environment will be protected, including the community's precious waters, land and air, throughout the Project's lifespan of construction, operation and into the distant future.
3. The NWMO must demonstrate to the satisfaction of the Municipality that used nuclear fuel can be safely and securely transported to the repository site.
4. The NWMO will ensure that the repository site will not host any nuclear waste generated by other countries.
5. The NWMO must commit to implementing the Project in a manner consistent with the unique natural and agricultural character of the community of South Bruce.
6. The NWMO will minimize the footprint of the repository's surface facilities to the extent it is possible to do so and ensure that public access to the Teeswater River is maintained, subject to meeting regulatory requirements for the repository.
7. The NWMO must commit to preparing construction management and operation plans that detail the measures the NWMO will implement to mitigate the impacts of construction and operation of the Project.

## People, Community and Culture

8. The NWMO must demonstrate to the satisfaction of the Municipality that it has built broad support for the Project within the community of South Bruce.
  9. The Municipality will, in collaboration with community members, develop and establish an open and transparent process that will allow the community to express its level of willingness to host the Project.
  10. The NWMO will identify the potential for any positive and negative socio-economic impacts of the Project on South Bruce and surrounding communities and what community benefits it will contribute to mitigate any potential risks.
  11. The NWMO, in consultation with the Municipality, will establish a property value protection program to compensate property owners in the event that property values are adversely affected by the NWMO's site selection process and the development, construction and/or operation of the Project.
  12. The NWMO, in consultation with the Municipality, will establish a program to mitigate losses to business owners in the event that their business is adversely affected by the NWMO's site selection process and the development, construction and/or operation of the Project.
  13. The NWMO, in partnership with the Municipality, will develop a strategy and fund a program to promote the agriculture of South Bruce and the surrounding communities.
  14. The NWMO, in partnership with the Municipality, will develop a strategy and fund a program to promote tourism in South Bruce and the surrounding communities.
  15. The NWMO, in partnership with the Municipality, will commit to implement programs to engage with and provide opportunities for youth in the community, including investments in education and the provision of scholarships, bursaries and other incentives for youth to remain in or return to the community.
  16. The NWMO will implement the Project in a manner that promotes diversity, equality and inclusion.
  17. The Municipality recognizes the important historic and contemporary roles Indigenous peoples have and continue to play in the stewardship of the lands we all call home and will, in the spirit of Reconciliation, work with the NWMO and local Indigenous peoples to build mutually respectful relationships regarding the Project.
  18. The NWMO will commit to relocate the working location of a majority of its employees to South Bruce as soon as it is reasonably practicable to do so after the completion of the site selection process.
  19. The NWMO will, in consultation with the Municipality, establish a Centre of Expertise at a location within South Bruce to be developed in conjunction with the Project.
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## Economics and Finance

20. The NWMO, in consultation with the Municipality, will commit to implementing a local employment and training strategy with the objective of ensuring that the majority of employees for the Project are located within South Bruce and surrounding communities.
21. The NWMO, in consultation with the Municipality, will commit to implementing a business opportunities strategy that will provide opportunities for qualified local businesses to secure agreements that support the Project and that requires the NWMO to take all reasonable steps to create opportunities for qualified local businesses to benefit from the Project.
22. The NWMO will commit to implementing a procurement strategy for the Project that gives preference to the selection of suppliers who can demonstrate economic benefit to South Bruce and surrounding communities.
23. The NWMO will enter into an agreement with the Municipality providing for community benefit payments to the Municipality.
24. The NWMO will cover the costs incurred by the Municipality in assessing community well-being and willingness to host the Project.
25. The NWMO will fund the engagement of subject matter experts by the Municipality to undertake peer reviews of Project reports and independent assessments of the Project's potential impacts on and benefits for the community as determined necessary by the Municipality.
26. The NWMO agrees to cover the costs of the Municipality's preparation for and participation in the Project's regulatory approval processes, including the Canadian Nuclear Safety Commission's licencing process and the assessment of the Project under the Impact Assessment Act (or other similar legislation), that are not otherwise covered by available participant funding.
27. The NWMO will fund the Municipality's preparation of a housing plan to ensure that the residents of South Bruce have access to a sufficient supply of safe, secure, affordable and well-maintained homes.
28. The NWMO will prepare a review of the existing emergency services in South Bruce and provide appropriate funding for any additional emergency services required to host the Project in South Bruce.
29. The NWMO will prepare an infrastructure strategy that addresses any municipal infrastructure requirements for the Project and will commit to providing appropriate funding for any required upgrades to municipal infrastructure required to host the Project in South Bruce.

## Capacity Building

24. The NWMO will cover the costs incurred by the Municipality in assessing community well-being and willingness to host the Project.
25. The NWMO will fund the engagement of subject matter experts by the Municipality to undertake peer reviews of Project reports and independent assessments of the Project's potential impacts on and benefits for the community as determined necessary by the Municipality.
30. The NWMO will prepare a review of the existing and projected capacity of South Bruce's road network and will commit to providing appropriate funding for any required upgrades to the road network.
31. The NWMO will enter into a road use agreement with the Municipality that identifies approved transportation routes during construction and operation of the Project and ensures proper funding for maintenance and repair of municipal roads and bridges used for the Project.

## Capacity Building (continued)

32. The NWMO, in consultation with the Municipality and other local and regional partners, will prepare a strategy to ensure there are sufficient community services and amenities, including health, child-care, educational and recreational facilities, to accommodate the expected population growth associated with hosting the Project in South Bruce.
33. The NWMO will comply with the Municipal Official Plan and zoning by-law and seek amendments to the Official Plan and zoning by-law as necessary to implement the Project.

## Regional Benefits

36. The NWMO must demonstrate to the satisfaction of the Municipality that the Project will benefit the broader region outside of the community of South Bruce, including local Indigenous communities.

## Governance and Community Engagement

34. The NWMO will provide the Municipality with an ongoing and active role in the governance of the Project during the construction and operation phases of the Project.
35. The NWMO will continue to engage with community members and key stakeholders to gather input on community vision, expectations and principles, including concerns, related to the Project.

Reach out anytime with your questions, comments, concerns, or if you are seeking more information. We would be happy to hear from you!

 South Bruce Nuclear Exploration Team:  
Morgan Hickling, CLC Project Coordinator  
[sbclc@southbruce.ca](mailto:sbclc@southbruce.ca)  
Dave Rushton, Project Manager  
[drushton@southbruce.ca](mailto:drushton@southbruce.ca)  
Catherine Simpson, Community Engagement Officer  
[csimpson@southbruce.ca](mailto:csimpson@southbruce.ca)  
Steve Travale, Communications/  
Public Relations Officer  
[stravale@southbruce.ca](mailto:stravale@southbruce.ca)

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Municipality of South Bruce  
PO Box 540 | 21 Gordon St. E  
Teeswater, Ontario N0G 2S0  
Phone: 519-392-6623  
Fax: 519-392-6266



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