

PROJECT UPDATE

In late 2023 Grey Highlands engaged GEI (formerly GM BluePlan) to prepare an update to the 2017 Master Servicing Plan (2017 MSP). Two Public Open Houses were held, and one presentation was made to Council to gather input into the proposed municipal water and wastewater servicing for the communities of Markdale, Flesherton, Kimberley-Amik-Talisman, Beaver Valley, Eugenia and Eugenia Lake.

The feedback received at Public Information Center #2 on September 24th, 2024 highlighted the public's desire and need for more alternative solutions to be reviewed and mechanisms necessary to implement the preferred alternative, predominately related to accommodating development driven growth.

Regardless of how development progresses, capacity and condition assessment and documentation of the existing systems can assist in infrastructure renewal and aligns with Asset Management Plans, Planning, Economic Development and other Strategies. Alternatives that capture this sentiment have also been clarified.

This memo presents an expanded list of alternatives beyond what was presented at the Public Open House (PIC No.2) and/or Council meeting that are now proposed to be evaluated and presented in the final report with a recommendation.

1.0 Markdale

The majority of the recommendations in the 2017 MSP have been implemented, including expansion of the Water Tower, optimization of the lagoon system and a Class EA for the Expansion of the Wastewater Treatment System is currently underway. There is capacity in the water supply system to accommodate the existing population, plus committed developments and additional capacity beyond that for potential future development. The water tower however requires 560m³ additional volume to meet the requirements of the committed developments. The previously recommended extension of services to West Grey remains outstanding. Council provided support to continue with this recommendation, and so it remains in the alternatives presented below. There are two separate sets of alternatives to enable review of the water system and tower expansion within Markdale separately from the expansion of services into West Grey. The Markdale systems should continue to incorporate the West Grey service areas in their demand/capacity numbers.

Table 1: Markdale Original Alternatives Presented

Option 1: Do Nothing
a) Proceed with the detailed design and construction for the extension to West Grey.
b) Monitor water flows as developments are constructed and brought on-line to determine Water Supply Storage expansion timing.
Option 2: Undergo Class EA for Storage Expansion

Table 2: Revised Alternative: Markdale Overall Water Supply System

Alternative 1: Do Nothing
Alternative 2: Continued Monitoring and Assessment Monitor water flows as developments are constructed and brought on-line to determine Water Supply Storage expansion timing.
Alternative 3: Water Storage Expansion Study Initiate a Water Storage Expansion Study

Alternative 2 for the Markdale Water Supply system entails adding to the spreadsheet that staff currently use to apply capacity to development applications such that it can flag when the amount of storage volume available is at the point that planning for expansion of water storage is prudent whereas Alternative 3 would see the study commence immediately.

Table 3: Revised Alternative: Expansion to West Grey

Alternative 1: Do Nothing
Alternative 2: Initiate Planning for Water and Wastewater Initiate the process for design and construction for the extension to West Grey, including rate payer consultation.
Alternative 3: Initiate Planning for Water Only Initiate the process for design and construction for the extension to West Grey, including rate payer consultation.
Alternative 4: Initiate Planning for Wastewater Only Initiate the process for design and construction for the extension to West Grey, including rate payer consultation.

2.0 Flesherton

Flesherton remains very much the same as it was in 2017. The community is partially serviced with wastewater (sanitary sewers), some units have committed capacity assigned, are constructed but not connected to the system. Municipal water services are not currently provided. Public input indicated a concern that installing municipal water services would increase development pressures on the community and change the rural culture. In 2024 Council supported deferring further investigation into providing a municipal water supply system to align with the next Official Plan update.

Table 4: Flesherton Original Alternatives Presented (Water System)

Option 1: Do Nothing
a) Monitor local aquifer and assess its ability to continue supporting private systems versus communal systems (quantity and quality).
b) Review again in 2029 Master Servicing Plan Update.
Option 2: Undergo a Water and Wastewater Master Plan specific to Flesherton in conjunction with the next Official Plan update
a) Study includes areas external to the current sanitary service areas.
Option 3. Undergo a Class EA Study to service the lots within the sanitary serviced areas

Table 5: Flesherton Revised Alternatives (Water System)

Alternative 1: Do Nothing
Alternative 2: Monitor and Assess Local Aquifer Monitor local aquifer and assess its ability to continue supporting private systems versus communal systems (quantity and quality).
Alternative 3: Water and Wastewater Master Plan for Flesherton Initiate a Water and Wastewater Master Plan specific to Flesherton in conjunction with the next Official Plan update.
Alternative 4: Water Supply Study – Existing Sanitary Serviced Areas Initiate a Municipal Water Supply Study to service the lots within the sanitary serviced areas.
Alternative 5: Water Supply Study – Flesherton Initiate a Municipal Water Supply Study and include the developable areas outside the current sanitary service area.

Table 6: Flesherton Original Alternatives Presented (Wastewater System)

Option 1: Do Nothing
Option 2: Review collection system for capacity and ability to connect to existing commitments.
Option 3: Undergo a Water and Wastewater Master Plan specific to Flesherton in conjunction with the next Official Plan update.
Option 4: Undergo a Class EA now and include the areas outside the current sanitary service area.

Table 7: Flesherton Revised Alternatives (Wastewater System)

Alternative 1: Do Nothing
Alternative 2: Capacity Assessment – Existing Development and Commitments Review the existing collection system for capacity and ability to connect to existing commitments.
Alternative 3: Water and Wastewater Master Plan for Flesherton Initiate a Water and Wastewater Master Plan specific to Flesherton in conjunction with the next Official Plan update
Alternative 4: Service Area Expansion Study - Flesherton Initiate a Service Area Expansion Study and include the developable areas outside the current sanitary service area.

Council had supported deferring further study of providing a municipal water supply within Flesherton to align with the next update to the Official Plan. Currently there are lots within the service area that have paid commitments to connect to the wastewater system but are unable to do so due to potential downstream system restrictions. An alternative has been added to bridge the gap between the study with the new OP and the Do nothing Alternative to investigate the existing wastewater system's capacity.

3.0 Kimberley-Amik-Talisman (KAT), including Beaver Valley

The existing water supply system is aging, and new development proposals have been received for the areas that could be potentially serviced by this system. As part of the Master Plan, reviewing the current environment is required, and incorporates aspects of age, development growth, and systematic efficiencies to guide projects for the planning period. Public comments heavily related to development/growth were received and therefore multiple servicing Alternatives were prepared after the discretionary Public Meeting No.2 to assess additional Alternatives related to servicing growth, including the Alternative to not provide services.

Carry-over alternatives from the 2017 MSP are also included as Alternatives for expansion between Kimberley and Markdale.

Table 8: KAT Original Alternatives Presented (Water System)

Option 1: Do Nothing
Option 1a) Undergo a plant Optimization Study/Condition Assessment for improvements to plant operations.
Option 2: Undergo Class EA for Plant Expansion
Option 2a) Study includes Beaver Valley Development Group Plan of Subdivision at full build out and Kimberley infill.
Option 2b) Study includes Beaver Valley Development Group Plan of Subdivision at full build out, and the servicing of the Beaver Valley Ski Club, including residences along the alignment.

Table 9: KAT Revised Alternatives (Water System) - Post PIC #2

Alternative 1: Do Nothing
Alternative 2: Water Plant Optimization Study and Condition Assessment Initiate a plant Optimization Study/Condition Assessment for improvements to plant operations looking to determine available capacity through plant operational improvements that can be applied to growth.
Alternative 3: Water System Expansion Study - Grey County Growth Projections Initiate a Water System Expansion Study that lays out a plan in alignment with population growth projections aligning with the County of Grey's projections only, that lays out improvements necessary and at which population levels they are required.
Alternative 4: Water System Expansion Study – Not Including Areas South of Kimberley Initiate a Water System Expansion Study that lays out a plan in alignment with the staging required to accommodate the staging of the existing (currently known) active planning applications within the vicinity of the system and County background growth rates but not expansion south of Kimberley.
Alternative 5: Water System Expansion Study – Include Areas South of Kimberley & BVSC Initiate a Water System Expansion Study that lays out a plan in alignment with population growth projections aligning with the County of Grey's projections only, that lays out improvements necessary and at which population levels they are required including expansion of the services to south of Kimberley and surrounding the Beaver Valley Ski Club.
Alternative 6: Water System Expansion Study – Evaluation of Staged Approach Initiate a Water System Expansion Study that lays out a plan in alignment with the staging required to accommodate the staging of the existing (currently known) active planning applications within the potential service areas, County background growth rates including expansion south of Kimberley to the Beaver Valley Ski Club and surrounding area.
Note: Funding for Water System Expansion Study may be obtained through Development Charges, User Rate Fees, direct Developer Contributions, municipal operations budget or a combination.

Table 10: KAT Original Alternatives Presented (Wastewater System)

Option 1: Do Nothing
a) Undergo a plant optimization study for improvements to plant operations.
Option 2: Update to MECP Approved Modifications
a) Review plant and proposed modifications, update for system needs and reapply for same rated capacity.
Option 3: Undergo Class EA Study for Plant Expansion
Option 3a) Study includes Beaver Valley Development Group Plan of Subdivision at full build out
Option 3b) Study includes Beaver Valley Development Group Plan of Subdivision at full build out, and the servicing of the Beaver Valley Ski Club, including residences along the alignment.

Table 11: KAT Revised Alternatives (Wastewater System) - Post PIC #2

Alternative 1: Do Nothing
Alternative 2: Wastewater Plant Optimization Study and Condition Assessment Initiate a plant Optimization Study/Condition Assessment for improvements to plant operations looking to determine available capacity through plant operational improvements that can be applied to growth.
Alternative 3: Wastewater System Expansion Study - Grey County Growth Projections Initiate a Wastewater System Expansion Study that lays out a plan in alignment with population growth projections aligning with the County of Grey's projections only, that lays out improvements necessary and at which population levels they are required.
Alternative 4: Wastewater System Expansion Study – Not Including Areas South of Kimberley Initiate a Wastewater System Expansion Study that lays out a plan in alignment with the staging required to accommodate the staging of the existing (currently known) active planning applications within the vicinity of the system and County background growth rates but not expansion south of Kimberley.
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Alternative 6: Wastewater System Expansion Study - Evaluation of Staged Approach Initiate a Wastewater System Expansion Study that lays out a plan in alignment with the staging required to accommodate the staging of the existing (currently known) active planning applications within the potential service areas, County background growth rates including expansion south of Kimberley to the Beaver Valley Ski Club and surrounding area.
Note: Funding for Water System Expansion Study may be obtained through Development Charges, User Rate Fees, direct Developer Contributions, municipal operations budget or a combination.

All Master Servicing Plans must review growth in order to provide recommendations on the system within the planning period of the study. Growth can be reviewed by projecting the County's growth rate over the planning period but can also be 'ground truthed' by referencing known development applications. The Alternatives presented herein separate these two methods to review expanding the systems for growth. These Alternatives are compared to the Do Nothing Alternative as well as the Alternative to extend further into the Beaver Valley area as service areas, as proposed or presented in the 2017 Master Servicing Plan.

The difference in the Alternatives is related to how the infrastructure is expanded in conjunction with growth. This means that the infrastructure can either be installed in advance of the demand from developments or that developments need to wait until the infrastructure is available. How the studies are funded as well as the funding of the infrastructure work would be determined at the time of study and could be done through Development Charges, Direct Developer Contributions, User Rates, Taxation, grants of any combination. How the capacity is committed to the developments would also be determined in conjunction with the development approval process, municipal by-law or policy.

4.0 Eugenia and Eugenia Lake

At the presentation made to Council, alternatives were not presented for Eugenia and Eugenia Lake. Residents were interested in why not. At the June 26, 2024 Committee of the Whole meeting it was recommended that review of the alternatives for Eugenia and Eugenia Lake be deferred until the next update to the Master Servicing Plan. The alternatives were the same for water and for wastewater and included:

1. Do Nothing
2. Expand municipal services from Flesherton
3. Expand municipal services from Kimberley-Amik-Talisman

Alternative Analysis

Attendees at the September 2024 Open House (i.e., PIC No.2) also requested further clarification on the aspects considered in the alternative analysis. A more fulsome description of the "environments" will be contained in the Final Report, however how these alternatives will be compared in relation to the presented "environments" is described below.

Natural Environment

Considerations for the natural environment generally include the proximity of a potential project to watercourses, valley lands, conservation authority and NEC areas, source water protection areas, species at risk, significant woodlands, wildlife habitat, aquatic resources and fisheries. The assessment generally considers the potential impacts a project may have on the natural environment and the potential for mitigative measures.

Cultural Environment

The cultural environment includes both pre-settlement archaeological resources and historical built heritage resources, which generally are inventoried by the County. The MSP assessment generally considers that each alternative has the potential to affect the cultural environment and that more project-specific investigation may be required to assess potential for mitigative measures, including alternative methods to deliver the servicing needs.

Social Environment

The social environment includes the interests of directly and indirectly affected public members (i.e., residents and Council of Grey Highlands) in the usage of land and of built facilities. It applies Planning, Economic Development and other Municipal Strategies to the alternative evaluation.

Technical Environment

The technical environment includes consideration of level of service, design standards and constructability. Maintenance and asset ownership may also be considered.

Economic (Financial) Environment

The economic environment generally includes capital costs associated with construction, and operation and maintenance (O&M) costs. Other project related costs, such as land acquisition, utility relocation (i.e., hydro poles) and legal costs, are not usually included.

Once completed, a draft report will be presented to the public and Council, as well as circulated to Agencies. After the review period, the plan will be brought back to Council for direction such that the work can be implemented.