Appendix B Community Engagement

Appendix B-1 Community Engagement Plan



H A R D Y STEVENSON AND ASSOCIATES

Wastewater Treatment and Biosolids Master Plan

Community Engagement and Communication Plan

DRAFT Rev. | 3

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City of Guelph





Guelph Wastewater and Biosolids Master Plan

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Contents

1.	Introduction	1
2.	Commitment to the Community	1
3.	Background	2
3.1	Project Goals	2
3.2	Areas of Engagement	2
3.3	Regulated Requirements to Engage	3
3.4	Community Engagement History	3
3.5	Coordination with Other City Projects	4
3.6	Preliminary List of Issues and Concerns	4
4.	Key Messaging	5
4.1	Overview	5
4.2	Message Focus	5
5.	Communication and Engagement Strategies	6
5.1	Level of Community Engagement	6
5.2	Communications and Engagement Strategies	7
5.2.1	Project Branding	7
5.2.2	Project Notices	7
5.2.3	Project Web Page and Online Engagement	7
5.2.4	Public Open Houses	8
5.2.5	Comment/Response Summaries	8
5.2.6	Project NewslettersError! Bookmark not de	fined.
5.2.7	Community Liaison Group	8
5.2.8	Special Interest Groups Meetings	9
5.2.9	Communication with Review Agencies	9
5.2.10	Communication with Elected Officials	10
5.2.11	Communication with First Nations, Indigenous, and Métis Peoples	10
5.2.12	Community Inclusion Strategy	10
5.2.13	Communication with Media	11
6.	Project Team Roles	12
6.1	Project Team	12
6.1.1	City of Guelph	12
6.1.2	Jacobs Team	12
6.2	Communications Tracking	12
7.	Summary of Project Engagement and Communications Activities and Timelines	14
Appen	dix A. Agency Contact List	

List of Tables

Table 1.	Level of Community Engagement for Each Phase of Master Plan	6
Table 2.	Community Inclusion Strategy	11
Table 3.	Summary of Communication Activities and Preliminary Timeline	14

1. Introduction

Jacobs Engineering Group (as the legal entity CH2M Hill Canada Limited) was retained by the City of Guelph to complete a Wastewater Treatment and Biosolids Master Plan, which includes stakeholder and community engagement and communications. Hardy Stevenson and Associates Limited (HSAL) is the communications consultant on the Jacobs team.

Primary contacts for the project are as follows:

City of Guelph Tim Robertson Wastewater Services, Environmental Services 1 Carden Street Guelph ON N1H 3A1 519-822-1260 x 2284 phil.mcintyre@guelph.ca

Jacobs Engineering Group Deborah Ross, Project Manager <u>deborah.ross@jacobs.com</u>

Mike Newbigging, Project Manager (until June 30, 2021) 72 Victoria Street South, Suite 300 Kitchener ON N2G 4Y9 519-514-1642 <u>mike.newbigging@jacobs.com</u>

Hardy Stevenson and Associates Limited

Danya Braun, Community Engagement and Communication Lead 374 Walmer Road Toronto ON M5R 2Y4 416-944-8444 x 223 <u>danyabraun@hardystevenson.com</u>

2. Commitment to the Community

On behalf of the City of Guelph ("the City"), the project team will implement the City's Guiding Principles¹ for Community Engagement:

- **Inclusive**: The City encourages participation by those who will be affected by a decision. The City builds relationships with stakeholders by using a range of tools to engage varied audiences.
- **Early Involvement**: The City involves the community as early as possible in the engagement process, so stakeholders have time to learn about the project and actively participate.
- Access to Decision Making: The City designs processes that will give participants the opportunity to influence decisions.
- **Coordinated Approach:** The City coordinates community engagement activities to effectively use community and City resources.
- **Transparent and Accountable:** The City designs engagement processes so that stakeholders understand their role, the level of engagement and the outcome of the process.
- **Open and Timely Communication:** The City provides information that is timely, accurate, objective, easily understood, accessible, and balanced.
- **Mutual Trust and Respect:** The City engages the community in an equitable and respectful way that fosters understanding between diverse views, values, and interests.
- **Evaluation and Continuous Improvement:** The City evaluates engagement activities and uses findings to maintain effective engagement processes.

¹ The City of Guelph. Guiding Principles for Community Engagement. Accessed Online, January, 2020: https://guelph.ca/cityhall/communicate/community-engagement/

3. Background

3.1 Project Goals

The City initiated a Municipal Class Environmental Assessment (EA) study to develop a Master Plan (MP) for wastewater treatment and biosolids management in the City. The MP will recommend a long-term sustainable plan to support growth consistent with the City's Official Plan. The MP will review and update the City's 2009 Wastewater and 2006 Biosolids MPs to reflect the latest projections for development and growth, local initiatives and studies, climate change initiatives, Official Plan amendments, and legislation and guidelines. The outcome of the MP will be recommended projects and a phased implementation schedule to achieve the City's objectives for wastewater treatment and biosolids management for the next 20 years.

Wastewater and wastewater residuals treatment are currently provided at the Guelph Wastewater Treatment Plant (WWTP), located on Wellington Road at the Hanlon Parkway (Highway 6). Treated effluent from the WWTP is discharged to the Speed River. Residual solids from the treatment process, referred to as biosolids, are further treated and hauled off-site for beneficial land application as a certified fertilizer product.

Due to the nature of this MP project and issues raised by members of the community and other stakeholders during the 2009 MP, community interest is anticipated for this project. It is in the City's best interest to carefully manage input in a strategic, organized and steadfast manner, so that issues or concerns are identified and considered during the MP development.

This Community Engagement and Communications Plan establishes a strategy for the project team to provide meaningful information about the project to all identified audiences and to give engagement opportunities to stakeholders over the course of the MP development. This will enable the project team to capture, understand and manage input, and use input to influence decisions, in a way that does not interfere with the project schedule.

The Community Engagement and Communication Plan focuses on two major components, as follows:

- **Communications**: The distribution of factual and topical information by the project team and the City to project stakeholders.
- Engagement: The process of seeking and receiving comments from the project stakeholders.

The engagement and communications materials will be coordinated with other water related Master Planning processes at the City. This Community Engagement Plan is a living document and will be revised as required to meet the communications goals outlined in **Section 2.0**.

3.2 Areas of Engagement

Areas for project engagement for this project include the following:

- Community members including residents, businesses and organizations (such as ratepayer and other special interest groups) in the community
- Indigenous peoples First Nations Indigenous, and Métis
- Municipal staff and elected officials (The City, Guelph-Eramosa Township, Puslinch Township)
- Review agencies

3.3 Regulated Requirements to Engage

The scope of community engagement and communication will exceed the requirements for Master Plans and outline in the Municipal Engineers Association (MEA) Class EA document (October 2000, as amended in 2007, 2011, 2015 and 2019). The MEA Class EA document stresses the importance of effective consultation: "Consultation early in and throughout the process is a key feature of environmental assessment planning".

The Municipal Class EA Master Planning process includes the following points of contact:

- One (1) discretionary consultation point early in the project to notify stakeholders and enable their involvement
- One (1) mandatory point of contact with stakeholders to enable their review and to obtain their input on the preliminary preferred solution
- One (1) stakeholder review period, once the Master Plan is completed, to provide opportunity for Stakeholders to review the Master Plan and resolve any outstanding concerns with the project team

The communication and consultation approach for this MP project will include two (2) public meetings, to be held at key points during the study.

This Class EA was initiated in 2020 as a Schedule B Master Plan Class EA. In 2021, the project team determined a Schedule C Class EA was required. Therefore another public meeting will be conducted to notify the public and obtain feedback on the proposed implementation plan.

3.4 Community Engagement History

The Guelph community has a historic of active participation in City planning processes, with high attendance at public events that are generally relatively high. For the previous Wastewater Master plan Public Information Centres (PICs), attendance was 30 and 18 for the two PICs. Moreover, participation from Indigenous peoples is often prevalent through formal consultation.

Public engagement was an important component of the 2009 MP. Two PICs were held over the course of the planning process. A Public Advisory (PAC) and a Steering Committee (SC) were formed to provide advice and feedback to the project team at key milestones during the project. Communication and engagement activities with these groups included four (4) meetings and a workshop with the PAC. The communication and engagement approaches used in the 2009 project provided the City with an opportunity to identify issues and concerns related to the project, that may be relevant to the current MP.

Topics and issues raised in 2009 MP included the following:

- **Project Mission and Vision:** Suggested that a broad context for the MP be adopted to recognize the linkages to other City initiatives and the need for a coordinated approach to the City's infrastructure planning.
- Long-term Radar Screen: Encouraged the on-going consideration and assessment of technology
 alternatives that require further study or particular "triggers" to make them feasible or attractive to the City
 for implementation at some point in the future.
- **Sensitivity Analyses:** Contributed to sensitivity scenarios that were used in the evaluation of alternatives to determine if there would be any changes in the evaluation outcome.
- Climate Change and Energy Adaptation: Identified the need to include and address the potential impacts of climate changes on the performance of alternative technologies and initiatives in the future implementation phases.

3.5 Coordination with Other City Projects

There are several on-going City projects that require community engagement, and there is an opportunity to reach out to additional stakeholders by holding events that focus on more than one (1) project. The goal is to avoid stakeholder fatigue and to bolster support by bringing stakeholders together that may be interested of this MP, as well as other aspects of water and wastewater system planning process for the City.

3.6 Preliminary List of Issues and Concerns

The communications for this MP will reflect the City's commitment to providing reliable wastewater treatment and biosolids management capacity to the existing population and planned growth, consistent with the City's sustainability goals and Strategic Plan. In addition, the communications will be developed in anticipation of stakeholder issues and concerns, and to address the need for a clear decision-making process that demonstrates how issues and concerns will be considered in developing recommendations.

Potential considerations specific to the project may include:

- Climate change
- Effects on water resources and quality
- Odour, noise and truck traffic impacts
- Air quality impacts
- Aesthetics and footprint of the WWTP
- General environmental, ecological and community impacts associated with off-site biosolids management, including haulage and land application of the end material
- Capital and operating costs.

Other stakeholder considerations will be identified as the project progresses.

4. Key Messaging

4.1 Overview

This Community Engagement and Communications Plan has been developed to obtain meaningful input from community stakeholders, so that issues of importance are considered in the decision-making and development of recommendations, and the City has stakeholder support for the implementation of the recommendations. The key objectives of the engagement and communications strategy are as follows:

- To inform community stakeholders about the project, providing information that is timely and factual.
- To facilitate and communicate opportunities for stakeholder engagement and input, and to provide feedback, in a way that stakeholders feel that their input is valued and can influence project decisions.
- To tailor communications and engagement approaches to the specific needs of the various stakeholder groups.

4.2 Message Focus

Consistent messaging about the City Wastewater Treatment and Biosolids Management Master Plan is important to achieve community understanding and trust in the City's project team delivering the project. Messages will be formulated with the following objectives:

- To resonate with community stakeholders, elected officials and other target audiences.
- To provide sufficient information such that community stakeholders understand the project and why it is required, and have the ability to reach their own conclusions. While providing unbiased information on alternative solutions, including benefits and impacts.
- To achieve stakeholder trust that the overall goal of the project is through the direction of improving benefits to the community (e.g., sustainability) while minimizing impacts.

Messages to achieve the above objectives will be formulated using the following approaches to build public trust and confidence:

- Focusing on the similarity of the mutual values of the City's project team and the community stakeholders, to assure the stakeholders that transparency throughout the decision-making process of the project.
- Creating public understanding that the project team is technically competent, such that community stakeholders will trust that the project team will listen to input and make the right decisions.
- Achieving stakeholder understanding that the Master Planning process is fair and unbiased, through transparency and honesty.
- Communicating that the MP is not only focused on solving a problem, but represents an opportunity to realize community benefits, for example, through sustainability and cost-effectiveness.
- Reinforcing the need for this project to make decisions to provide reliable wastewater treatment and biosolids management into the future.

5. Communication and Engagement Strategies

5.1 Level of Community Engagement

The City's Community Engagement Framework provides guidance for customizing engagement plans to each specific project. The Framework was referenced to define the level of community stakeholder engagement for each step of the Master Plan, as laid out in **Table 1**. The following sections provide more detail on activities identified in the table.

Project Steps	Communications and Consultation
Define the Problem or Opportunity	Background information and rationale for project are provided to the public, initial Project Contact List (identified stakeholders and review agencies) through Notice of Project Commencement and project web page.
Gather Information	Project web page, eHQ site request input from community stakeholders on factors that are important to project decisions.
Establish Decision Criteria	Decision-making process is developed by project team, informed by input from stakeholders through Community Liaison Group (CLG) Meeting No. 1 and Public Open House No. 1, project web page and eHQ site.
Develop Alternatives	Benefits and impacts of alternative wastewater treatment and biosolids management solutions are developed by project team, and mitigation strategies are identified, as informed by input from stakeholders through CLG Meeting No. 1, Public Open House No. 1, project web page and eHQ site, and contact with review agencies.
Evaluate Alternatives	Alternative wastewater treatment and biosolids management solutions are evaluated by the project team using the decision-making process. Input on the evaluation process, potential impacts and mitigation requirements provided by stakeholders through CLG Meeting No. 2 and Public Open House No. 2, as well as through project web page and eHQ site. Project team uses input from consultation to inform final decisions on preferred solutions and mitigation strategies, and to develop implementation plan.
Final Decision	Additional input will be requested through CLG Meeting No. 3, and Public Open House No. 3, as well as through the project web paged and eHQ site, the Notice of Project Completion and the 30-day review period. Input will be considered in finalizing the Master Plan (ESR).

Table 1. Level of Community Engagement for Each Phase of Master Plan

5.2 Communications and Engagement Strategies

5.2.1 Project Branding

As part of the communication approach, the City will develop a unique brand for this project to establish a project identity and promote consistent messaging. The branding will create a visible distinction between this MP project and other ongoing City projects, and will be used on all project materials sent out to the public, including project notices, display boards, brochures, etc.

5.2.2 Project Notices

The following notices will be prepared:

- Notice of Study Commencement
- Notices of Open Houses
- Notice of Study Completion

All notices will be published in the local newspaper (The Guelph Mercury) in two (2) consecutive publications. Notices will also be posted on the City's website and emailed to all stakeholders on the Project Contact List. Due to changes in consultation over the course of the project due to the COVID-19 pandemic, distribution of notices also included digital advertisements and social media (through the City's twitter and Facebook accounts).

The Notice of Project Commencement will:

- Provide a clear overview of the Master Plan rationale and objectives
- Describe the Class EA and Master Planning process
- Advise stakeholders to look for future project updates regarding public open houses and website postings
- Invite community stakeholders to be on the Project Contact List
- Provide direct contact information for the project team contacts

Notices of Public Open Houses will include the same information described above, as well as the information on the topic, location, time and date for the upcoming Public open house. Due to limitations on in-person gatherings during the COVID-19 pandemic Public Open Houses will be conducted virtually and made available through the City's eHQ website for approximately 3-4 weeks with notices published ahead of, and throughout the POH timeframe.

The Notice of Study Completion will be published to advertise that the Draft Final Report has been completed and provide dates for a minimum 30-day review period. The Notice will indicate where and when the Draft Final Report will be available for review and how to provide comment. The Draft Final Report will be available for review on the City's project webpage.

5.2.3 Project Web Page and Online Engagement

A project web page will be developed as part of the City's website that will be launched with when the Notice of Project Commencement is issued. The following details will be posted on the project web page:

- A brief description of the project
- Current progress, project milestones and schedule of upcoming Public Open Houses (and other events)
- Direction on how to submit comments or get onto the Project Contact List

 All Notices, Public Open House information and Surveys (per Section 5.2.4), and Comment/Response Summaries (per Section 5.2.5), and Project Newsletters (per Section 5.2.6)

The City uses online engagement platforms to enable the public to provide input through the use of surveys. The project team will prepare key messaging for use with the eHQ platform as well as survey questions about the project, that will be considered during the project and in developing Public Open House materials.

Jacobs

5.2.4 Public Open Houses

Public Open Houses will be held using a drop-in format to communicate detailed study information to stakeholders and seek input on the project and decision-making process. Public Open houses will include:

- A sign-in sheet, which will offer opportunity for attendees to request to be on the Project Contact List
- A series of story-boards, that provide information on the project
- A Comment Sheet in survey format, which will ask specific questions related to content of the Public Open House and will provide opportunity for attendees to provide input and ask questions.

The content for each open house is as follows:

- Public Open House No. 1: Materials will introduce the MP including project background, rationale and objectives, present the preliminary decision-making process including evaluation criteria, and present preliminary alternative solutions.
- **Public Open House No. 2:** Materials will present information on the alternative solutions evaluated, the evaluation process and recommended solutions and the proposed mitigation measures.
- Public Open House No. 3: This Open House is being completed with the decision to complete the Master Plan as a Schedule C Class EA. Material will present a notice of change in Class EA Schedule (from B to C) and present the proposed implementation plan.

Due to the COVID-19, planned in-person Open Houses will be completed virtually through the City's eHQ webpage. Participants will be asked to sign in, if they would like to be added to the mailing list, and provided an opportunity to complete a survey to solicit feedback on the POH materials.

Project team members at the Open House will also log comments and questions from the meeting. All of the comments received during the Open House, either by phone or email, or submitted after the meeting via web site, will be logged in the Engagement Log.

5.2.5 Comment/Response Summaries

All comments received via the POH Surveys and web page, up to two (2) weeks after the Open House, will be grouped into common topic areas, and the project team will prepare responses. Responses will be documented in the Public Open House Consultation Reports and posted on the City's eHQ project page.

5.2.6 Community Liaison Group

A Community Liaison Group (CLG) will be formed at the onset of the project, to include representation from key stakeholder groups, with a goal of creating an environment with two-way interactions that facilitates input on the project. The objective is for the CLG members to transfer information about the project to the broader stakeholder groups that they represent.

The proposed CLG will include representatives from the community (ex. business, developers, agriculture, etc.), special interest groups, agencies such as the Grand River Conservation Authority (GRCA) and Ministry of

Environment, Conservation and Parks (MECP), adjacent municipalities (i.e., Townships of Guelph/Eramosa and Puslinch) and representative members of the public. In addition to directly targeted groups and agencies identified by the City, invitations to participate in the CLG will be posted on the City's web page and advertised with the Notice of Project Commencement.

The Terms of Reference for the CLG includes the role of the CLG in this project, the list of invitees to participate in the CLG, the expected level of participation of the CLG members, the roles and responsibilities of the project team and CLG members. The draft Terms of Reference for the CLG are included in **Appendix B**.

It is anticipated that there will be a minimum of three (3) meetings with the CLG. Each meeting will include a presentation to inform participants about the project phase being discussed, and a facilitated discussion to encourage input from the GLC members. In addition, there is potential for a tour of the Guelph WWTP so that CLG members gain a better understanding of the process.

The topics for each meeting are described as follows:

- CLG Meeting No.1: The first meeting will be to be held prior to Open House No.1. The purpose of this
 meeting is to introduce the project, background and rationale, and decision-making approach to the
 participants, and preliminary solutions, and to request input on issues and factors that can influence Master
 Plan decisions, important to the groups they represent. The draft Open House No. 1 display boards will be
 presented at this meeting for review and discussion.
- CLG Meeting No.2 The second meeting will be held prior to Open House No. 2. The purpose of this
 meeting is to present a summary of stakeholder input to date, and to review the benefits and impacts of
 alternative wastewater treatment and biosolids management solutions and results of the evaluation, and to
 facilitate input on the findings. The draft Open House No. 2 display boards will be presented at this meeting
 for review and discussion.
- CLG Meeting No.3 The purpose of this meeting is to notify the change of Class EA Schedule (from Schedule B to C) and to present the Open House No. 3 Material, including the material to be presented in the draft Master Plan report.

Meeting notes will be prepared by the project team and distributed to members of the CLG following each meeting. The preferred communication channels (e.g., via emails, City's website or regular mail) will be established in consultation with the CLG.

5.2.7 Special Interest Groups Meetings

Separate meetings with special interest groups will take place at the request of the groups themselves.

Meeting notes will be prepared by the project team and distributed to participants after each meeting.

5.2.8 Communication with Review Agencies

Several federal and provincial agencies, conservation authorities and environmental groups will be included in the MP project contact list. A preliminary list of review agencies is included in **Appendix C**. The list will be modified as the project develops based the initial response to the Notice of Project Commencement, and additional communications throughout the MP.

The purpose of review agency consultation is to confirm information about legislative or policies that must be considered in developing the MP, including those that will need to be considered in subsequent Class Environmental or implementation phases. Through consultation with the agencies, the project team will confirm information required by the agencies to complete the MP.

The need to hold individual meetings with specific agencies will be identified as the project evolves.

The Draft MP Report will be submitted to the MECP District Office for review and comment before the report is finalized and made available for the 30-day Public Review Period.

5.2.9 Communication with Elected Officials

Project updates will be provided directly to City Councillors, and Open House materials will be provided for review by Committee of the Whole and City Council prior to being displayed at Public Open Houses.

5.2.10 Communication with First Nations, Indigenous, and Métis Peoples

First Nations and Métis groups in the local area may have an interest in the Guelph Wastewater and Biosolids Master Plan. These groups include (i.e. List to be Confirmed/Updated as needed):

- Six Nations of the Grand River
- Mississauga's of the New Credit
- Association of Iroquois and Allied Indians
- Métis Nation of Ontario

Communication with the First Nations and Métis groups will follow City's policy for communication for Class EA projects. In addition, Indigenous and Northern Affairs Canada will be notified of the project and requested to provide advice regarding additional First Nations and Métis groups to be included on the Project Contact List.

The City's engagement and communications with First Nations, Indigenous, and Métis Peoples is evolving since the commencement of this Master Plan. The 2020 Provincial Policy Statement requires proponents complete meaningful engagement and coordination with Indigenous communities on planning matters. In the spirit of building a constructive and cooperative relationship with local Indigenous and First Nations communities the City has taken early steps toward relationship building.

As one of the first steps the City has reached out to First Nations for engagement if requested on this and the other ongoing Master Plans. The City's Policy and Intergovernmental Relations Strategy, Innovation and Intergovernmental Services, Office of the Chief Administrative Officer (Leslie Muñoz) is responsible for engagement and these initiatives will be supported by Jacobs.

A detailed log of communications with First Nations, Indigenous, and Métis Peoples will be maintained for the project jointly by the City and the Jacobs project team.

At a minimum, copies of all project notices, under formal cover letters, will be mailed to the above identified First Nations, Indigenous, and Métis groups. Individual meetings with groups will be held if requested by the group in a format of their choosing.

5.2.11 Community Inclusion Strategy

Some stakeholders are harder to reach or require different engagement tactics or outreach to encourage participation. **Table 2** describes these hard to reach groups and the proposed engagement activities that will be conducted for inclusivity.

5.2.12 Communication with Media

In anticipation of the interest of media or other influential social media leaders in the community, a City project team spokesperson will proactively arrange briefings these community influencers and key points in the project, to provide clear messages about the project, upcoming events and status. The City project team will respond quickly to any 'negative press', with a goal to maintain trust and public confidence in the project team.

Table 2.	Community	Inclusion Str	ategy
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Group	Stakeholder Group
Seniors	Seniors groups who have participated in past City Master Planning processes will be included on the Project Contact List. Project team will continue to publish notices in local publications commonly available to seniors.
Youth	Youth may be engaged through the City's pop-up booth events in high traffic areas such as malls and community centres.
New Canadians	Organizations such as Welcome Wagon Guelph as well as the Guelph Newcomers Club can be requested to provide Notices to new residents.
People living with physical or developmental disabilities	All events are held in accessible places that are able to be easily accessed by public transportation. All project materials will meet Accessibility for Ontarians with Disabilities Act (AODA) standards. Due to the COVID-19 pandemic engagement activities will occur virtually due to restrictions on public gatherings.
Indigenous People	Formal consultation can occur through the formal Duty to Consult routes. There is an opportunity to use informal meetings and build relationships with activity Indigenous communities to work towards gaining input and project support.
People living in poverty	Reaching people from all socio-economic conditions is challenging. To overcome this, the project team will schedule public engagement at varied times to accommodate various work schedules. Input can be provided online for those not able to make it to the open houses.

6. Project Team Roles

6.1 Project Team

Establishing clear lines of communication will keep all project team members up to date on the project information and project development and will promote consistent messaging from the project team to stakeholders. The City Master Plan team for this project includes:

- City staff
- Jacobs, with HSAL

6.1.1 City of Guelph

The City Project Manager and main contact person for the project is Mari MacNeil. All communication to the City from the Jacobs team will be directed to Mari, who will circulate to City team members. Mari will also have sole responsibility for communications with other City staff and elected officials. All media inquiries and information requests will be directed to Mari.

Mari will be identified as project contact on stakeholder communications materials. Official responses in the form of letters or emails provided to stakeholders will come directly from Mari.

The City project team members include:

- Phil McIntyre Project Manager
- Tim Robertson Senior Advisor
- Kelly Guthrie Corporate Community Engagement
- Brenna Birkin now Shelly Reed Corporate Communications
- Sumant Patel Technical Advisor

6.1.2 Jacobs Team

Mike Newbigging was initially the Project Manager and primary contact for the consulting team, moving forward Deborah Ross will be Project Manager as well as continue with QA/QC. Correspondence and deliverables to the City will be directed through Deborah or copied to her. Deborah will be identified as project contact on stakeholder communications materials moving forward.

Deborah will lead all consultation and communication activities with review agencies, with the technical support from other team members.

Danya Braun (HSAL) will assist Mike in coordinating stakeholder consultation and communication activities (except those related to review agencies) and will facilitate CLG meetings (refer to Section 5.2.6).

6.2 Communications Tracking

All correspondence received by any member of the project team from stakeholders will be directed to Phil McIntyre and Deborah Ross. Correspondence to be copied to Tim Robertson.

Thorough documentation of stakeholder input, project team responses and how issues were addressed through the development of the MP, are critical to the project. The Jacobs team will develop and maintain an Engagement Log to track the following:

- Issue Tracking Number (ID)
- Stakeholder Contact Name and Organization
- Description or comment or question, in addition to actual text
- Date Received
- Contact info (how to contact the respondent)
- Type of Communication e.g., email (e), letter (l), meeting (m), or phone (p)
- If response is required, assigned to/Responsible Person for addressing input and responding
- Response Actions
- Input to MP
- Status (e.g., New, Open, In Process, Resolved, Closed, Deferred, etc.)
- Comments

7. Summary of Project Engagement and Communications Activities and Timelines

Table 3 presents a summary of the engagement and communications activities planned for the City WastewaterTreatment and Biosolids Master Plan, and preliminary timelines.

Master Plan Phase	Activity	Preliminary Timeline
1 Problem and	Notice of Project Commencement	April 2020
Opportunity Statement	Initiation of project web page	April 2020
	CLG No. 1	May 2020
	Public Open House No. 1	May/June 2020
	Public Open House No. 1 Comments/Response Summary posted on web page	July 2020
2 Identification and	CLG No. 2	Spring 2021
Evaluation of Alternative	Public Open House No. 2	May 2021
	Public Open House No. 2 Comments/Response Summary posted on web page	December 2020
3 Implementation Plan	CLG No. 3	January 2022
	Public Open House No. 3	March 2022
	Public Open House No. 3 Comments/Response Summary posted on web page	April 2022
Master Plan (draft)	Submission to MECP	May 2022
Master Plan	Notice of Project Completion	June 2022
	30-day Public Review Period	June to July 2022

Table 3. Summary of Communication Activities and Preliminary Timeline



Appendix A. Agency Contact List

The full mailing list is available in ESR Appendix D.

Appendix B-2 Notices

Philpott, Jared

Cc: Subject: Newbigging, Mike/KWO; Schmitter, Jillian/KWO; Travis Pawlick; mari.macneil@guelph.ca Notice of Commencement - Guelph Wastewater Treatment and Biosolids Management Master Plan

Hello,

Please see the attached Notice of Commencement for the Guelph Wastewater Treatment and Biosolids Management Master Plan. The Master Plan is a long-term plan that will look at how the City is currently managing and treating wastewater at the Guelph Wastewater Treatment Plant and will guide how the City continues to meet the demands of the growing community over the next 30 years. The Master Plan will consider:

- Advances in treatment technologies;
- Changes in infrastructure needs and legislation
- Sustainable and cost efficient wastewater treatment concepts that mitigate climate change and contribute to reaching the City's goal of using 100 per cent renewable energy sources by 2050;
- Guelph's growing population and its impact on the wastewater treatment process and the Speed River's assimilative capacity and;
- How the Master Plan will contribute to achieving the strategic priorities set out through the City's Strategic Plan.

Project information is available and will continue to be updated at <u>http://www.guelph.ca/wastewater</u>. Should you have any questions or concerns regarding the Master Plan, please see the contact information included in the attached notice or reply to this email. Thank you for your participation.

Best regards,

Jared Philpott | Jacobs | Water Design Specialist O: 1.519.579.3500 x73224 | M: 905.520.8781 | jared.philpott@jacobs.com 72 Victoria Street South, Suite 300 | Kitchener, ON N2G 4Y9 | Canada

Public Notice



We're updating our plan for how we manage wastewater in Guelph

Notice of study commencement: City of Guelph Municipal Class Environmental Assessment for the Wastewater Treatment and Biosolids Management Master Plan

The City is updating its Wastewater Treatment and Biosolids Management Master Plan (Master Plan) to ensure the City's wastewater (everything flushed down your sinks, drains, and toilets) is managed in a way that is sustainable, protects our water ways and environment, and has capacity to handle the City's growing population.

The Master Plan is a long-term plan that will look at how the City is currently managing and treating wastewater at the Wastewater Treatment Plant and guides how we will continue to meet the demands of our growing community over the next 30 years. The Master Plan will consider:

- Advances in treatment technologies;
- changes in infrastructure needs and legislation;
- sustainable and cost efficient wastewater treatment concepts that mitigate climate change and contribute to reaching the City's goal of using <u>100 per cent renewable energy</u> sources by 2050
- Guelph's growing population and it's impact on the wastewater treatment process and the Speed River's capacity and;
- how it will contribute to achieving the strategic priorities set out through the City's <u>Strategic</u> <u>Plan</u>.

After our Master Plan is updated, reviewed by the Guelph community and approved by Council—we'll have identified constraints and opportunities related to our existing wastewater treatment facility. We'll also have recommendations and prioritized projects for advancing the wastewater treatment processes and an associated budget.

We want to hear from you

How we manage wastewater affects you. It also affects the Speed River and our environment. Your feedback is an important part of the master planning process.

- Stay up to date and let us know what you think. You can read about our progress and find opportunities to have your say by visiting <u>guelph.ca/wastewater.</u>
- Join our mailing list. <u>Send us your name</u> and let us know how you'd like to be contacted (e.g. email or post mail) and we'll keep you informed.
- Follow the conversation on <u>Twitter</u> and <u>Facebook</u> using hashtag #guelphwastewater.

The process

The Master Plan will be carried out according to the Municipal Engineers Association Municipal Class Environmental Assessment (2015, as amended), which is an approved Class of Environmental Assessment under the Environmental Assessment Act. Results from this Master Plan will be documented in an environmental assessment that will be made available for public review. At that time, residents, businesses, Indigenous communities and other interested persons or groups will be informed of when and where the environmental assessment can be reviewed.

About the City's different master plans

The City's <u>master plans</u> assess the infrastructure we have to support today's services and decide what we'll need as our community grows. Our master plans build on the goals and policies from the Official Plan to integrate existing and future land use plans, and define long-term objectives. Looking at the city as a whole helps to evaluate options, consider a variety of perspectives, understand different outcomes, and make better decisions for a future ready Guelph.

For more information

Visit <u>guelph.ca/wastewater</u> for project information and updates.

To provide your comments, request more information, or if you require this notice to be provided in an alternative format as per the Accessibility for Ontarians with Disabilities Act (2005), please contact:

Mari MacNeil, Manager Technical Services Wastewater Services, Environmental Services 519-822-1260 extension 2284 <u>mari.macneil@guelph.ca</u>

Mr. Mike Newbigging, Project Manager Jacobs Engineering Group 519-514-1642 <u>mike.newbigging@jacobs.com</u>

This notice was first issued on July 22, 2020.

Philpott, Jared

From:	Philpott, Jared/KWO
Sent:	Monday, November 2, 2020 9:43 AM
Cc:	Newbigging, Mike/KWO; Schmitter, Jillian/KWO; Mari MacNeil; Travis Pawlick
Subject:	Notice of Virtual Community Open House #1 - Guelph Wastewater Treatment and Biosolids Management Master Plan
Attachments:	FINAL_WaterMasterPlanJOINTNotice.pdf

Hello,

Please see the attached Notice of Virtual Community Open House #1 for the Guelph Wastewater Treatment and Biosolids Management Master Plan. The notice is also located on the City of Guelph website at https://guelph.ca/2020/10/have-your-say-on-how-the-city-manages-all-things-water-in-guelph/. The first open house provides details regarding the existing conditions and future projections at the Guelph Wastewater Treatment Plant, as well as the proposed framework for evaluating the alternative solutions for the needs identified during this Master Plan. You are invited to answer survey questions, ask your own questions and share your ideas about the Master Plan by accessing the open house at http://www.guelphwtbmmp-virtualopenhouse.com/. The open house will be available online until November 30th. An accessible version of the open house boards is available under the "Resources" heading at https://guelph.ca/plans-and-strategies/wastewater-treatment-and-biosolids-management-master-plan/.

Project information is available and will continue to be updated at <u>http://www.guelph.ca/wastewater</u>. You are also able to submit questions regarding the Master Plan at any time at <u>https://www.haveyoursay.guelph.ca/waste-water-treatment-and-biosolids-management-master-plan</u>. Should you have any questions or concerns regarding the Master Plan, please see the contact information included in the attached notice or reply to this email. Thank you for your participation.

Best regards,

Jared Philpott, EIT | Jacobs | Water Design Specialist O: 1.519.579.3500 x73224 | M: 905.520.8781 | jared.philpott@jacobs.com 72 Victoria Street South, Suite 300 | Kitchener, ON N2G 4Y9 | Canada

Public Notice



Have your say on how the City manages all things water in Guelph

Join the conversation to help guide Guelph's four water-related master plans

October 28, 2020 – Guelph is a growing community and how the City manages water, in all its forms, is changing to adapt to our growing community. The City is updating four water-related master plans and invites Guelph residents to have their say through virtual community open houses, asking their questions, taking surveys and more starting today until November 30.

The water-related master plans cover:

- <u>Wastewater treatment and biosolids management</u>: how the City manages wastewater (what you flush down your sinks, drains and toilets) so it's sustainable, protects our waterways and the environment.
- <u>Stormwater management</u>: how the City manages stormwater run off (rain and melted snow) from your roofs and driveways, and from roads and sidewalks, to help prevent flooding and protect people and the environment.
- <u>Water and wastewater servicing</u>: how we build and take care of all the pipes that deliver your drinking water and take away what you flush.
- <u>Water supply</u>: where we get our drinking water. The Water Supply Master Plan received community feedback at an open house and survey which took place in February of 2020. Survey results and a master planning progress update is now available on the <u>project page</u>. A second virtual open house will be held in 2021.

Get involved

Have your say and help shape long-term plans for your community by:

- **Visiting the** <u>virtual open houses</u>: attend each master plan's virtual open house to learn what each master plan aims to do, what challenges the City is facing and how it impacts you and the rest of our community.
- **Taking online surveys, asking questions and more:** you can answer survey questions, ask your own questions and share your ideas about the master plans by November 30.
- **Staying up to date on the City's master planning work:** master planning updates are shared through our project pages at <u>haveyoursay.guelph.ca</u> and <u>guelph.ca/plans-and-strategies</u>. You can also get updates and hear about future opportunities to get involved by joining the mailing list for the master plans that interest you.
- Following the conversation on <u>Twitter</u> and <u>Facebook.</u>

The process

The Master Plans will be carried out according to the Municipal Engineers Association Municipal Class Environmental Assessment (2015, as amended), which is an approved Class of Environmental Assessment under the Environmental Assessment Act. Results from this Master Plan will be documented in an environmental assessment that will be made available for public review. At that time, residents, businesses, Indigenous communities and other interested persons or groups will be informed of when and where the environmental assessment can be reviewed.

About the City's different master plans

The City's <u>master plans</u> assess the infrastructure we have to support today's services and decide what we'll need as our community grows. Our master plans build on the goals and policies from the Official Plan to integrate existing and future land use plans, and define long-term objectives. Looking at the city as a whole helps to evaluate options, consider a variety of perspectives, understand different outcomes, and make better decisions for a future ready Guelph.

For more information

Wastewater Treatment and Biosolids Management Master Plan

Mari MacNeil, Manager of Technical Services Wastewater Services, Environmental Services 519-822-1260 extension 2284 <u>mari.macneil@guelph.ca</u>

Stormwater Management Master Plan and the Water and Wastewater Servicing Master Plan

Reg Russwurm, Manager Design and Construction Engineering and Transportation Services 519-822-1260 extension 2765 reg.russwrum@guelph.ca

Water Supply Master Plan

Dave Belanger, Water Supply Program Manager Water Services, Environmental Services 519-822-1260 extension 2186 Dave.Belanger@guelph.ca

Philpott, Jared

From:	Philpott, Jared/KWO
Sent:	Wednesday, May 12, 2021 4:30 PM
Cc:	Newbigging, Mike/KWO; Schmitter, Jillian/KWO; Mari MacNeil; Phil McIntyre
Subject:	Notice of Virtual Community Open House #2 - Guelph Wastewater Treatment and
	Biosolids Management Master Plan
Attachments:	FINAL_NOOH2_WastewaterBiosolidMP_2021.05.12.pdf

Hello,

Please see the attached Notice of Virtual Community Open House #2 for the Guelph Wastewater Treatment and Biosolids Management Master Plan. The notice is also located on the City of Guelph website at https://guelph.ca/2021/05/have-your-say-on-how-we-manage-wastewater-in-guelph/. The second open house provides details regarding the alternatives evaluation process and presents the preliminary preferred solution for this Master Plan. You are invited to answer survey questions, ask your own questions and share your ideas about the Master Plan by accessing the open house at http://www.guelphwtbmmp-virtualopenhouse.com/. The open house will be available online until June 11th. An accessible version of the open house boards is available under the "Resources" heading at https://guelph.ca/plans-and-strategies/wastewater-treatment-and-biosolids-management-master-plan/.

Project information is available and will continue to be updated at <u>http://www.guelph.ca/wastewater</u>. You are also able to submit questions regarding the Master Plan at any time at <u>https://www.haveyoursay.guelph.ca/waste-water-treatment-and-biosolids-management-master-plan</u>. Should you have any questions or concerns regarding the Master Plan, please see the contact information included in the attached notice or reply to this email. Thank you for your participation.

Best regards,

Jared Philpott, EIT | Jacobs | Water Design Specialist O: 1.519.579.3500 x73224 | M: 905.520.8781 | jared.philpott@jacobs.com 72 Victoria Street South, Suite 300 | Kitchener, ON N2G 4Y9 | Canada



Have your say on how we manage wastewater in Guelph

Guelph, Ont., May 12, 2021 - The City is updating its Wastewater Treatment and Biosolids Management Master Plan and invites Guelph residents to have their say through a second virtual open house and online survey starting today, May 12 until June 11.

The Master Plan is a long term plan that ensures the City manages wastewater (anything you flush down your sinks, drains and toilets) in a sustainable way that protects our waterways and the environment, and has the capacity to handle Guelph's growing population now until 2051.

Have your say

At the first <u>virtual open house</u> and online survey, the City presented and discussed what challenges Guelph is facing with regards to the wastewater treatment facility, proposed options for addressing challenges and what evaluation criteria will be used when making final decisions.

After hearing from Guelph residents and through careful assessment, the City is ready to present options for addressing Guelph's wastewater challenges and wants further input. Here's how you can get involved and help shape the Master Plan:

- Visit the <u>virtual open house</u>: attend the virtual open house to learn what the Master Plan aims to do, what challenges the City is facing and how it impacts you and the rest of our community.
- **Take the <u>online survey</u>**: answer survey questions by June 11 to share your feedback and ideas.
- Stay up to date: Master Plan updates are shared on <u>haveyoursay.guelph.ca</u> and <u>guelph.ca/wastewater</u>, or your can <u>send us your name</u> and email to join our project mailing list.
- Follow the conversation on <u>Twitter</u> and <u>Facebook.</u>

Next steps

After the Master Plan is updated, reviewed by the Guelph community and approved by Council—we'll have identified constraints and opportunities related to our existing wastewater treatment facility. We'll also have recommendations and prioritized projects for advancing the wastewater treatment processes and an associated budget.

About the City's different master plans

The City's **master plans** assess the infrastructure we have to support today's services and decide what we'll need as our community grows. The master plans build on the goals and policies from the Official Plan to integrate existing and future land use plans, and define long-term objectives. Looking at the city as a whole helps to evaluate options, consider a variety of perspectives, understand different outcomes, and make better decisions for a future ready Guelph.

The City is currently updating four water related master plans:

- <u>Wastewater treatment and biosolids management</u>: how the City manages what you flush down your sinks, drains and toilets.
- <u>Stormwater management</u>: how the City manages stormwater run off (rain and melted snow) from your roofs and driveways, and from roads and sidewalks, to help prevent flooding and protect people and the environment.
- <u>Water and wastewater servicing</u>: how we build and take care of all the pipes that deliver your drinking water and take away what you flush.
- **<u>Water supply</u>**: where we get our drinking water.

For more information

Mari MacNeil, Manager, Compliance & Performance Environmental Services 519-822-1260 extension 2284 <u>mari.macneil@guelph.ca</u>

Mike Newbigging, Project Manager Jacobs Engineering Group 519-514-1642 <u>mike.newbigging@jacobs.com</u>

This notice was first issued on May 12, 2021



Have your say on how we manage wastewater in Guelph

Guelph, Ont., March 14, 2022 - The City is updating its Wastewater Treatment and Biosolids Management Master Plan and invites Guelph residents to have their say through a third virtual open house and online survey starting today, March 14 until April 4.

The Master Plan is a long-term strategy of projects required for the City to continually maintain effective management of wastewater (anything you flush down your sinks, drains and toilets) in a sustainable way that protects our waterways and the environment. The Plan will define projects and implementation timing to provide capacity to manage wastewater from Guelph's growing population from now until 2051.

Class Environmental Assessment Schedule Change

The Wastewater Treatment and Biosolids Management Master Plan was originally initiated to satisfy the requirements of a Schedule B Class Environmental Assessment (EA). To complete the Class EA planning process for recommended projects needed in the short term, the Class EA scope has been expanded to fulfil the requirements of a Schedule C study. Following completion of a Schedule C Class EA study, projects are eligible for implementation through detailed design and construction.

For the Schedule C Class EA, Phases 1-4 of the Class EA process are being completed. This includes development of an implementation plan, a third community open house and documentation of the study in an Environmental Study Report (ESR).

Have your say

At the second virtual open house, the City presented the preliminary preferred solution for the Guelph Water Resource Recovery Centre (formerly the Guelph Wastewater Treatment Plant).

After hearing from Guelph residents and through careful assessment, the City has confirmed the preferred solution and has developed a preliminary implementation plan for recommended projects. The project team is seeking input from the public and stakeholders on the Class EA recommendations and implementation plan. Here's how you can get involved and help shape the Master Plan Class EA:

- Visit the <u>virtual open house</u>: attend the virtual open house to learn what the Master Plan aims to do, what challenges the City is facing and how it impacts you and the rest of our community.
- **Take the <u>online survey</u>**: answer survey questions by March 28 to share your feedback and ideas.
- Stay up to date: Master Plan Class EA updates are shared on <u>haveyoursay.guelph.ca</u> and <u>guelph.ca/wastewater</u>, or your can <u>send us your name</u> and email to join our project mailing list.
- Follow the conversation on <u>Twitter</u> and <u>Facebook</u>.

Next steps

Following this open house, the project team will consider input received in finalizing the recommendations and will document the Class EA study in the Environmental Study Report (ESR). The ESR will be made available for 30-day public review period. After this period, the City will have completed planning requirements and can proceed with implementing recommended projects through design and construction phases.

About the City's different master plans

The City's **master plans** assess the infrastructure we have to support today's services and decide what we'll need as our community grows. The master plans build on the goals and policies from the Official Plan to integrate existing and future land use plans, and define long-term objectives. Looking at the city as a whole helps to evaluate options, consider a variety of perspectives, understand different outcomes, and make better decisions for a future ready Guelph.

The City is currently updating four water related master plans:

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- **<u>Water supply</u>**: where we get our drinking water.

For more information

Tim Robertson Division Manager, Wastewater Services Environmental Services 519-822-1260 extension 2964 tim.robertson@guelph.ca

Deborah Ross, M.A.Sc., P.Eng. Project Manager Jacobs Engineering Group 416-499-0090 <u>deborah.ross@jacobs.com</u>

This notice was first issued on March 14, 2022.

Philpott, Jared

From:	Philpott, Jared/KWO
Sent:	Tuesday, March 15, 2022 9:18 AM
Cc:	Tim Robertson; Ross, Deborah/TOR; Schmitter, Jillian/KWO
Subject:	Guelph Wastewater Treatment and Biosolids Management Master Plan Class EA - Notice of Public Open House #3
Attachments:	FINAL_NOOH3_WastewaterBiosolidMP_2022.03.14.pdf

Hello,

Please see the attached Notice of Virtual Public Open House #3 for the Guelph Wastewater Treatment and Biosolids Management Master Plan Schedule C Class EA. The third open house provides an update on the Class EA schedule for this study and also provides details regarding implementation plan for the preferred solution. You are invited to answer survey questions, ask your own questions and share your ideas about this Class EA by accessing the open house at <u>http://www.guelphwtbmmp-virtualopenhouse.com/</u>. The open house will be available online until April 4th, 2022. An accessible version of the open house materials is available at <u>https://www.haveyoursay.guelph.ca/waste-water-treatment-and-biosolids-management-master-plan</u>.

Project information is available and will continue to be updated at http://www.guelph.ca/wastewater. You are also able to submit questions regarding this Class EA at any time at https://www.haveyoursay.guelph.ca/waste-water-treatment-and-biosolids-management-master-plan. Should you have any questions or concerns regarding this Class EA, please see the contact information included in the attached notice or reply to this email. Thank you for your participation.

Best regards,

Jared Philpott, EIT | Jacobs | Water/Wastewater Design Specialist O: 1.519.514.1624 | M: 905.520.8781 | jared.philpott@jacobs.com 72 Victoria Street South, Suite 300 | Kitchener, ON N2G 4Y9 | Canada



Have your say on how we manage wastewater in Guelph

Guelph, Ont., March 14, 2022 - The City is updating its Wastewater Treatment and Biosolids Management Master Plan and invites Guelph residents to have their say through a third virtual open house and online survey starting today, March 14 until April 4.

The Master Plan is a long-term strategy of projects required for the City to continually maintain effective management of wastewater (anything you flush down your sinks, drains and toilets) in a sustainable way that protects our waterways and the environment. The Plan will define projects and implementation timing to provide capacity to manage wastewater from Guelph's growing population from now until 2051.

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For the Schedule C Class EA, Phases 1-4 of the Class EA process are being completed. This includes development of an implementation plan, a third community open house and documentation of the study in an Environmental Study Report (ESR).

Have your say

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After hearing from Guelph residents and through careful assessment, the City has confirmed the preferred solution and has developed a preliminary implementation plan for recommended projects. The project team is seeking input from the public and stakeholders on the Class EA recommendations and implementation plan. Here's how you can get involved and help shape the Master Plan Class EA:

- Visit the <u>virtual open house</u>: attend the virtual open house to learn what the Master Plan aims to do, what challenges the City is facing and how it impacts you and the rest of our community.
- **Take the <u>online survey</u>**: answer survey questions by March 28 to share your feedback and ideas.
- **Stay up to date:** Master Plan Class EA updates are shared on <u>haveyoursay.guelph.ca</u> and <u>guelph.ca/wastewater</u>, or your can <u>send us your name</u> and email to join our project mailing list.
- Follow the conversation on <u>Twitter</u> and <u>Facebook</u>.
Next steps

Following this open house, the project team will consider input received in finalizing the recommendations and will document the Class EA study in the Environmental Study Report (ESR). The ESR will be made available for 30-day public review period. After this period, the City will have completed planning requirements and can proceed with implementing recommended projects through design and construction phases.

About the City's different master plans

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- <u>Water and wastewater servicing</u>: how we build and take care of all the pipes that deliver your drinking water and take away what you flush.
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For more information

Tim Robertson Division Manager, Wastewater Services Environmental Services 519-822-1260 extension 2964 tim.robertson@guelph.ca

Deborah Ross, M.A.Sc., P.Eng. Project Manager Jacobs Engineering Group 416-499-0090 <u>deborah.ross@jacobs.com</u>

This notice was first issued on March 14, 2022.

Appendix B-3 Community Liaison Group

Jacobs

Agenda

72 Victoria Street South, Third Floor Kitchener, Ontario N2G 4Y9 Canada T +1.519.579.3500

www.jacobs.com

Progress Meeting		
Wastewater Treatment and Biosolids Management Master Plan – CLG Meeting No.1		
October 19, 2020		
CE771800		
Mike Newbigging	Phone No.	519.514.1622
Guelph WWTP	Date/Time	2:00pm October 19, 2020
CLG Members Bryan Ho-Yan (BHY) Sheng Chang (SC) Corinne Taylor (CT) Barbara Slattery (BS) Harry Niemi (HN) Kevin Brousseau (KB) Mike Beswick (MB) Alex Chapman (AC) Hugh Whiteley (HW) Mark Anderson (MA)	City of (Tim Rol Mari Ma Travis P Jacobs , Dave Ha Mike Ne Jillian S Danya B Jared P	Guelph bertson (TR) acNeil (MM) Pawlick (TP) /Hardy Stevenson ardy (DH) ewbigging (MN) 5chmitter (JS) Braun (DB) hilpott (JP)
	Progress Meeting Wastewater Treatment and Biosolid October 19, 2020 CE771800 Mike Newbigging Guelph WWTP CLG Members Bryan Ho-Yan (BHY) Sheng Chang (SC) Corinne Taylor (CT) Barbara Slattery (BS) Harry Niemi (HN) Kevin Brousseau (KB) Mike Beswick (MB) Alex Chapman (AC) Hugh Whiteley (HW) Mark Anderson (MA)	Progress Meeting Wastewater Treatment and Biosolids Management Mathematical Stream (Stream) October 19, 2020 CE771800 Mike Newbigging Phone No. Guelph WWTP Date/Time CLG Members City of G Bryan Ho-Yan (BHY) Tim Rol Sheng Chang (SC) Mari Mathematical Maria Maria Mathematical Maria Mathematical Maria Mathematical Maria Mathematical Maria Mathematical Maria Maria Mathematical Maria Mathematical Maria Maria Mathematical Maria Maria Mathematical Maria Maria Maria Mathematical Maria Maria Maria Maria Maria Mathematical Maria Maria Mathematical Maria Maria Mathematical Maria Maria Maria Mathematical Maria Mar

Copies to

ltem		Presenter
1	Introductions	DH/MM
	City Introduction	
	Member Introductions	
	Review Terms of Reference	
	Agenda Review	
	Procedure for Virtual Input	
2	Project Background, Goals and Objectives	DH/MN
	Background	
	Project Goals and Objectives	
	Project Timelines	
3 Initial Evaluations		DH/MN
	Guelph WWTP Existing Condition	
	Future Needs (Population, flows, effluent limits)	

Jacobs

Agenda

Progress Meeting 2:00pm October 19, 2020

ltem		Presenter
	Evaluation Method and Criteria	
4	Upcoming First Community Open House (COH)COH Virtual meeting and content	All
5	Next Steps	All



Guelph Wastewater Treatment and Biosolids Management Master Plan

Community Liaison Group (CLG) Meeting No. 1 October 19, 2020 (2:00pm - 4:00pm)







Agenda

- Introductions, Meeting Objectives and Procedures
 - City Introduction
 - Member Introductions
 - Terms of Reference
 - Meeting Agenda
 - Procedure for Virtual Input
- Project Background, Goals and Objectives
- Initial Evaluations
 - Status of Guelph WWTP and Biosolids Management
 - Future Needs (Population, flows, effluent limits)
 - Evaluation Method and Criteria
- Upcoming First Community Open House (COH No. 1)
 - Virtual meeting and content
- Next Steps

Procedure for Virtual Meeting

- Dave Hardy Hardy Stevenson Associates (HSAL) will facilitate
- We would like to record meeting
- Please mute line, raise hand with questions/comments and unmute when identified

Problem/Opportunity Statement

- The City is updating its Wastewater Treatment and Biosolids Management Master Plan (Master Plan) to ensure the City's wastewater (everything flushed down your sinks, drains, and toilets) is managed in a way that is sustainable, protects our water ways and environment, and has capacity to handle the City's growing population.
- The Master Plan is a long-term plan that will look at how the City is currently managing and treating wastewater at the Wastewater Treatment Plant and guides how we will continue to meet the demands of our growing community over the next 30 years. The Master Plan will consider:
 - advances in treatment technologies;
 - changes in infrastructure needs and legislation;
 - sustainable and cost efficient wastewater treatment concepts that mitigate climate change and contribute to reaching the City's goal of using 100 per cent renewable energy sources by 2050
 - Guelph's growing population and it's impact on the wastewater treatment process and the Speed River's capacity and;
 - how it will contribute to achieving the strategic priorities set out through the City's Strategic Plan.

Background

- Objectives
 - Update both the wastewater treatment and biosolids management Master Plans to provide long term sustainable plan to support growth consistent with the City's Official Plan
 - The Master Plan is a long term roadmap for capital works and operational practices required to provide wastewater treatment and biosolids management for the City's growing community over the next 30 years

Background – Master Plan Objectives

- The Master Plan will be developed considering:
 - The condition and capacity status of existing infrastructure and effectiveness of current practices to identify servicing gaps for future needs
 - Alternatives to fill in gaps, considering:
 - Conventional and state-of-the-art treatment technologies
 - Changes in legislation
 - Sustainable and cost efficient solutions that mitigate climate change and contribute to reaching the City's goal of using 100 per cent renewable energy sources by 2050
 - Impacts on Speed River water quality (the receiving water for treated effluent)
 - Strategic priorities set out through the City's Strategic Plan.

Goals/Success Factors

- Provide long term plan to support growth in City
- Plan to be consistent with the City's Official Plan
- Integrated with other City plans (i.e., water supply, solid waste, water and wastewater servicing, and stormwater Master Plans)
- Build on current excellence in wastewater treatment and biosolids management
- Plan for future net zero carbon goals and climate change needs
- Provide excellent community engagement and communications
- Meet all aspects of Municipal Engineers Association Class Environmental Assessment process for Master Planning

Guelph WWTP

- Rated for average design flow of 64 ML/d (Mega-Litres per day)
- Five year average flow 55 ML/d or 86 % of rated capacity
- Processes
 - Physical, chemical and biological treatment, and disinfection, of wastewater
 - High quality treated wastewater which is discharged into the Speed River
 - Residual solids are biologically stabilized, dewatered and treated onsite or hauled for further processing into a fertilizer product by Lystek[™] (contractor)

Study Area

- Guelph WWTP collects and treats wastewater from:
 - City's urban boundaries
 - Village of Rockwood



Guelph WWTP

Guelph WWTP

- Located at Wellington Road, Hanlon Parkway and Speed River
- Additional property available to east towards Hanlon Parkway



Guelph WWTP Schematic



Project EA Process and Timelines

Class EA Process (five phases)



Phase three

Identification of alternative design concepts for the preferred solution Phase four

Completion of Environmental Study Report (ESR) followed by a 30-day public review period Phase five Implementation of the project

The Wastewater Treatment and Biosolids Master Plan will complete Phases 1 and 2 of the Class EA process

Project EA Process and Timelines

Timelines



Guelph WWTP Influent Flows (2017-2019)



Raw Wastewater or Influent



Effluent Quality



Effluent Quality



Current Sustainability Practices

- Effluent water reuse
 - A portion of treated effluent is reused for various processes within plant (avoiding the use of City water)
 - Used for tank and process cleaning throughout the plant
- Digester biogas energy recovery
 - Biogas containing methane is produced in the digestion of solids
 - Used to fuel boilers for building heating, and to generate electricity in cogeneration engine (heat from engine is recovered for digester process heating)
 - System operates at near capacity (6000 m³/d of biogas) generating 4,380,000 kWh/yr or about 26 % of plant's electricity usage
- Biosolids conversion to fertilizer product
 - Biosolids are treated by a chemical/thermal process (Lystek) and resulting product is registered as a fertilizer, which is spread to agricultural land
 - Guelph produced about 18,000 Wet tonnes of fertilizer in 2019

Status – Energy Use



Future Needs

- As the population in Guelph increases, so will wastewater volumes requiring treatment. To predict future wastewater flows, it is important to determine the current wastewater generation rate. Ten years' of data were analyzed to determine per capita flow rate.
- From 2010 to 2019, the average per capita flow rate was 390 litres per capita per day.



Future Needs

City of Guelph Population Projections to 2051

 Ontario's Growth Plan projects Guelph to have a population of 203,000 by the year 2051



Future Needs

Guelph WWTP Average Daily Flow Projections to 2051 Based on the per capita flow 90 rate of 390 80 litres per capita 70 per day, it is Flow (ML/d) 60 expected that 50 the treatment 40 plant will receive an 30 average flow 20 rate of 79.2 10 ML/d 0 2035 2040 2050 2020 2025 2030 2045 Rated capacity Date (Year) is predicted to -Flow Projections --85 percent of Rated Capacity Rated Capacity be exceeded by

approximately

2027

22

Future Design Basis

Future Design Criteria

Criteria	Va	alue
Population (2051)	203,000	
Per Capita Flow Rate, lpcd	390	
Peak Day Factor	1.86	
Peak Hour Factor	2.00	
Average Day Flow, ML/d	79.2	
	Annual Average	Maximum Month
Primary Sludge, kg/d	17,630	22,030
Secondary Sludge, kg/d	6,110	8,690
TWAS, kg/d	5,200	7,380
Combined Sludge to Digestion, kg/d	22,820	29,410
Digested Biosolids, kg/d	14,150	18,200
Dewatered Cake, dry kg/d	13,020	16,750

Capacity Gaps for Future Servicing

- Based on the projected flow rate, the following processes will not have sufficient treatment capacity:
 - Grit removal
 - Secondary treatment
 - Tertiary treatment
 - Waste activated sludge thickening
 - Digestion
 - Cogeneration
 - Biosolids Management (conveyance, storage etc.)

Future Effluent Limits

- Stream assimilative capacity project ongoing
- Results expected this fall
- Current effluent limits based on Ministry feedback and previous work (similar to maintaining effluent loadings)
- Scenarios for modeling
 - 64.0 ML/d current capacity
 - 69.0 ML/d
 - 73.3 ML/d 2041
 - 74.5 ML/d
 - 79.2 ML/d 2051
 - 83.0 ML/d

Potential Effluent Objectives

26

Proposed Guelph WWTP Future Effluent Objectives to be used for Alternative Development

Effluent Parameter	Effluent Objective Concentrations		
	68.0 ML/d ª	73.3 ML/d ^b	79.2 ML/d
BOD₅ April 1 to October 31	20.7 mg/L	15.0 mg/L	13.9 mg/L
cBOD₅ November 1 to March 31	3.0 mg/L	2.5 mg/L	2.3 mg/L
TSS	5.0 mg/L	4.0 mg/L	3.7 mg/L
TP April 1 to October 31 November 1 to March 31	0.20 mg/L 0.50 mg/L	0.20 mg/L 0.40 mg/L	0.19 mg/L 0.37 mg/L
TAN November 1 to March 31 Notes:	1.5 mg/L	1.0 mg/L	0.9 mg/L

a. Based on MECP response to interim re-rating at 68 ML/d

b. Based on the 2005 Guelph WWTP Class EA Update Receiving Water Assessment Review

Evaluation Method and Criteria

- Develop alternative solutions as feasible ways of solving an identified problem (deficiency) or addressing an opportunity
- A long-list of alternative solutions will be developed
- To select the preferred solutions, the long-list of alternative solutions will be evaluated against a set of "must meet" criteria
- Shortlisted alternatives evaluated based on detailed evaluation



Evaluation Method and Criteria

Alternative Solutions and Evaluation Framework

"Must-meet" criteria

These criteria represent broad project objectives. Technologies and strategies that do not meet all identified "must-meet" criteria are removed from further consideration.

Performance

 Ability to reliably meet regulated performance objectives and criteria for wastewater effluent and biosolids

Proven technology

• Full-scale experience in North America and history of application in municipal wastewater

Reliance/reliability

 Vendor or market dependency of technology, consumables and ability to manage final products

Detailed evaluation criteria categories and examples



Technical environment

- Meets effluent objectives
- Constructability



Natural environment

- Water quality
- Natural heritage system

Social and cultural environment

- Archaeology
- Cultural heritage resources



Economic environment

- Capital cost
- Operation and maintenance costs

Evaluation Method and Criteria



Proposed Criteria – Natural Environment

Criterion	Definition
Greenhouse Gas (GHG) Emissions	Minimize any increase in GHG emissions
Ground Water Quality and Quantity	Impact sensitive groundwater resources and protect overall groundwater quality and quantity.
Terrestrial Habitats and Corridors	Impacts to terrestrial habitats and corridors.
Aquatic Habitats and Fisheries	Protect or enhance aquatic habitats and fisheries.
Flood Plain	Impacts to existing flood plain and reduction of flood volume capacity in the Speed River.
Surface Water Quality	Impact to contaminant loadings in the Speed River.
Wetlands	Protect and maintain wetlands

Proposed Criteria – Social/Cultural Environment

Criterion	Definition
Capacity to Service Growth	Service short-, medium-, and long-term community growth needs
Community Health and Safety	Minimize risk to community health and safety
Occupational Health and Safety	Minimize risks to occupational health and safety (operations, maintenance and during construction)
Smart Cities Circular Food Economy	Align with the City's Smart Cities Circular Food Economy initiative
Noise	Occurrence of noise events.
Odour	Occurrence of odour events.
Community Perception	Community support for wastewater treatment and biosolids management
Transportation	Avoid increased demands on the transportation systems (patterns, volumes, and infrastructure requirements)
Aesthetics	Support the City's design standards and community aesthetics

Proposed Criteria – Technical Environment

Criterion	Definition
Performance Record	Providing reliability and predictability in both process operations and effluent quality.
Ability to Meet Treatment Capacity Requirements (short-term, medium- term, & long-term)	Provide the wastewater treatment requirements for short-, medium-, and/or long-term needs.
Ease of Implementation (Constructability)	Minimize disruption to existing wastewater treatment operations during implementation; minimal need to require system modifications.
Energy Requirements	The energy required from all sources (electricity, natural gas, fuel)
Regulatory Constraints	The ability of the alternative to be approved with minimal, if any, conditions.
Operational Compatibility	Current existing process operations and its ability to integrate within the existing site.
Chemical consumption	Requirements for chemical usage.
Proposed Criteria – Economic Environment

Criterion	Definition
Capital Costs	The relative costs of land, equipment, and facilities when compared to other alternatives
O&M Costs	The relative Operations and Maintenance when compared to other alternatives
Life Cycle Cost	The relative lifecycle when compared to other alternatives
Funding Availability	The potential for the alternative to be eligible for funding from provincial or federal programs

First Community Open House

- Virtual event
 - Open October 28, 2020
 - Available for 30-days
 - Ability to sign-in and conduct survey
- Example format
 - <u>https://www.youtube.com/watch?v=t46GhxV1Zas&feature=youtu.be</u>
 - http://www.i270corridorimprovements.com/
- Review of Community Open House Slides

City Website and Survey

- City website
 - <u>https://guelph.ca/plans-and-strategies/wastewater-treatment-and-biosolids-management-master-plan/</u>
 - Have your say
- Survey

Survov	 Rate your support of the following statements as: 5-strongly support, 4-somewhat support, 3-neutral, 2-somewhat oppose, 1-strongly oppose 				
Julvey	a) Impacts to the Speed River should be reduced 5 4 3 as much as possible regardless of cost	2 1			
IntroductionFirst half	 b) Energy efficiencies and opportunities for Net 5 4 3 Zero targets should be a long term vision in the master plan. 	2 1			
	 c) The master plan should contain the strategy to 5 4 3 continue to beneficially re-use all biosolids to be 100% diverted from landfills. 	2 1			
	d) Greenhouse gas emissions need to be reduced 5 4 3 throughout the city.	2 1			

- 2. Which 3 criteria do you feel are most important in evaluating wastewater treatment alternatives for future needs in the City of Guelph?
 - a. Value for cost and affordability
 - b. Health of the Speed River
 - c. City leading innovation
 - d. Water reuse
 - e. Energy efficiency
 - f. Infrastructure longevity
- 3. Which 3 criteria do you feel are most important in evaluating biosolids management alternatives for future needs in the City of Guelph?
 - a. Value for cost and affordability
 - b. Beneficial re-Use
 - c. City leading innovation
 - d. Energy generation
 - e. Sustainability

Survey

Second half

- 1. Which 3 criteria do you feel are most important in terms of the evaluation of upgrades at the existing Guelph wastewater treatment plant?
 - a. Noise
 - b. Odour
 - c. Traffic
 - d. Environmental impacts
 - e. Land use
 - f. Value for cost and affordability
- 2. What is the best means to communicate this Master Plan to you and other the residents of Guelph?
 - a. Newspaper ads
 - b. City Website Guelph.ca
 - c. Haveyoursay.guelph.ca
 - d. Facebook
 - e. Twitter
 - f. Radio
 - g. Other _____
- 3. Please tell us anything else you think we should know.

Other Items

- Other Business
- Next Steps Meeting notes, website and virtual COH live Oct 28
- Next CLG Meeting Spring 2021

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City of Guelph

Wastewater Treatment and Biosolids Management Master Plan

Community Liaison Group Meeting No.1

October 19, 2020,

Virtual meeting held on Microsoft Teams 2.00 to 4.00 pm

Participants

CLG Members Bryan Ho-Yan (BHY) Sheng Chang (SC) Barbara Slattery (BS) Kevin Brousseau (KB) Mike Beswick (MB) Alex Chapman (AC) Hugh Whiteley (HW) Mark Anderson (MA) City of Guelph (City) Tim Robertson (TR) Mari MacNeil (MM) Travis Pawlick (TP) Jacobs/Hardy Stevenson Dave Hardy (DH) (Chair/Meeting Facilitator) Mike Newbigging (MN) Jillian Schmitter (JS) Danya Braun (DB) (Note Taker) Jared Philpott (JP) Deborah Ross (DB)

Dave Hardy from Hardy Stevenson and Associates Limited (HSAL) introduced himself as Chair and as a professional facilitator. He invited Mari MacNeil (City of Guelph) to welcome Community Liaison Group (CLG) members and to provide an introductory statement on the project. MM thanked the participants for attending. She stated that the City values the varied perspectives from industry, institutional and Non-Governmental Organizations (NGO) representatives making up the Community Liaison Group. She said she looked forward to the collaborative process. She introduced Tim Robertson and Travis Pawlick (City of Guelph). He invited participants to introduce themselves.

DH noted that all the participants received an agenda in advance. DH asked if there any additions for the agenda and received none. Dave noted that the CLG Terms of Reference (ToR) had been sent to all the participants in advance. He reviewed the elements of the ToR and confirmed that there were no clarifications.

DH stated that the purpose of the meeting was to receive comments and advice on the Wastewater Treatment and Biosolids Management Master Plan (Master Plan) process and for participants to share their comments on the upcoming Virtual Open House. He stated that, during the meeting it will be particularly important to hear participant comments on how the evaluation process will work, how each criterion is defined and whether some criteria are more important that other criteria.

DH asked Mike Newbigging as Project Manager (Jacobs) to present the elements of the Wastewater Treatment and Biosolids Management Master Plan.

MN provided an overview of the Problem and Opportunity Statement, the Project Background, Master Plan Objectives and Goals/Success Factors, (please see the attached Power Point Slides). DH asked if the participants felt that the Problem and Opportunity Statement was defined in an appropriate manner and if there were any additional Goals and Objectives that needed to be considered. AC noted that the City of Guelph's practices were innovative, and that the Province may provide funding and benefits to the community. However, he stated that innovation needs to be weighed against the potential of putting the environment at risk.

MN provided an overview of the Guelph Wastewater Treatment Plant (WWTP) study area and a schematic that helped to describe how the WWTP functions. DH invited the participants to provide comments on whether the study area had been appropriately defined. AC asked if the Guelph WWTP received effluent from the Gazer-Mooney Subdivision or if it lies outside of the Study Area. DH asked if this constituted a change in the Study Area. MN stated that no changes would need to be made since the subdivision will be serviced by the Guelph WWTP.

Noting the requirements of the Canadian Food Inspection Agency (CFIA), HW asked what the City had done to deal with the limitation on disposal methods for treated residual solids caused by metal concentrations in the end product as identified in the 2008 Wastewater Master Plan. TR stated that the metal content was more of an issue in relation to composting and the Lystek process does not have an issue with metal content. As a result, the resultant product from the biosolids process does not need to address metals.

MN provided an overview of the Project EA process and timelines. DH asked if the participants could conclude that that the study process was appropriately designed. DH also asked if there were any questions on the timeline of EA process. No comments were provided.

MN provided an overview of the existing conditions including the influent flows and quality, effluent quality, sustainability practices and energy use. DH asked if the participants wished to share any observations, comments or questions. HW asked if there was an option in the water and wastewater planning over the next 30 years for the adoption of a potable water filtration system that, in size, would be somewhere between a bench scale and a moderate sized unit. HW added that the production of potable water was a widely used practice in the United States. MN stated that the City has undertaken a study to use effluent water for uses within WWTP and the City and is looking at the next steps to have a filling station to provide effluent water for City use at this time (e.g. sewer flushing). Additional options will be considered, but would require additional study or project, in terms of using water for street cleaning, parks and irrigation, etc. DR pointed out that a parallel Water Master Plan is underway and would be addressing potable water.

AC asked about the available benchmarks for energy usage for the WWTP compared to comparable plants in other communities. MN stated that the WWTP uses 850 kWh/ML of wastewater treated, which

is slightly below the national average, and the power is used within the WWTP. MA added that the benchmarking study completed by the Grand River Conservation Authority (GRCA) on flows and loading regarding influent for the last several years, in which the City is participating, indicates that Guelph is on par with comparable plants in the area in regards to influent loading per capita. MN stated that there is an ongoing project to look at assimilative capacity for the Speed River.

SC noted the effluent quality of the current system in relation to nitrification and asked if there are plans to remove nitrates. MN noted that denitrification is not anticipated to be required in the future. However, we will look at whether we can enhance the process and provide partial denitrification.

SC noted that, for energy recovery, 26 percent recovery is impressive. He asked if there are any plans to increase energy recovery for the biosolids for future developments. DR added that energy recovery and efficiency as well as denitrification will be important for the future, as denitrification is a method for recovering aeration power usage and alkalinity.

AC asked whether estimates for potential thermal energy recovery have been estimated to extract heat to ensure that it is does not negatively affect the process. MN stated that, this can also be part of the evaluation process and often involves review heat recovery from the WWTP effluent.

MA noted that in relation to potable water, the challenge in the City is the chloride content of the effluent. Reverse osmosis is needed for potable water but it generates wastes that may go back into the Speed River. In relation to the study of nitrate assimilative capacity, the City project is being undertaken by Hutchison Environmental Services, who is engaging with GRCA on this project. Nitrate content is a substantial issue in the Speed River and the City has an impact on the system.

MN provided an overview on the future needs as population increases in the City.

KB noted that the 390 litres per capita per day seems extremely conservative compared to the Region of Waterloo which is lower due to low flush toilets and other water conservation practices. He asked if this figure is consistent with the City's standards. MN stated that it includes a blended value that accounts for all sources including industrial and commercial and infiltration/inflow into the system (including water conservation activities) and it is not an exact value. KB added that Waterloo reduced this figure to 325 litres per capita and other communities have used 275 litres per capita. MA added that the GRCA is collecting data across the watershed and the number is consistent at 320 to 350 litres per capita for residential, industrial, commercial and institutional, so that is only a little higher. The per capita flows are assumed constant, but may drop in response to conservation efforts. The City has been a leader in this area and it may decrease as a result. DR added that with new houses, residences will be equipped with new efficiency features, so the study is taking a conservative approach and the City can decide to adjust the timelines accordingly for a comparable flow rate.

HW stated that it is important to coordinate the Wastewater Treatment and Biosolids Management Master Plan with the Water Supply Master Plan. The water supply relates to demand management and changes in behavior in terms of water use. It would be inconsistent to assume larger flows than those

being supplied. MN noted that the Wastewater Treatment and Biosolids Management Master Plan process is coordinated with the Water Supply Master Plan process.

MN presented the design basis and capacity gaps for future servicing, future effluent limits, and potential effluent objectives. DH asked if the participants had any comments at this time. There were no comments provided.

The evaluation method and criteria, the alternative solutions and evaluation framework as well as the proposed criteria for the natural environment were presented. DH asked if the participants could accept the evaluation process.

Natural Environment: HW noted that the Natural Environment indicator for greenhouse gasses misses the current situation. There are WWTPs in the US that are looking to be net carbon zero and it would be preferable to strive for large reductions in greenhouse gas emissions – so the criterion need to be altered to go further than minimizing greenhouse gas emissions. Deborah asked for clarification from HW if he was suggesting net zero carbon. HW clarified that minimizing emissions is a general target and it is more realistic to aim directly at net zero and start by reducing greenhouse gases using that target. AC stated that in a Puerto Rican case study, a WWTP have achieved net positive emissions and they over produce (WWTP would be a net generator of electricity), so net zero is not as low as you can achieve. DR stated that there are benefits if heat is removed from the effluent.

AC asked if the surface water quality criterion needs to be expanded to address other contaminants (e.g. estrogen, pharmaceuticals and microplastics). MN agreed this is important, but there are limited processes that can accomplish this that are commercially available.

MB asked if there was an interest in adding resource recovery such as energy or fertilizer and what the best means to maximizing the criteria for the WWTP would entail. BHY stated that resource recovery in soils and land reuse is noteworthy. DR stated that reducing chemicals and recovering nutrients form the biosolids have benefits and are also mentioned in the technical environment criteria.

BHY stated that there is a need to analyze groundwater and surface water quality. HW stated that surface water needs protection against contamination entry and can be added to the surface water quality criteria with special attention to emerging contaminants. MN noted that the criteria and definitions shown have been truncated, and these suggestions can be added.

Social/ Cultural: MN provided an overview of the Social and Cultural environment proposed criteria. AC asked if there was an opportunity to incorporate entrepreneurial activities e.g., people are using propane for heating decks and if they have the option to use renewable natural gas, the public may pay a premium for it. DR stated that the WWTP already uses its excess biogas to generate heat for the digester process, so recovering the energy for the excess gas may be more expensive.

HW stated that community acceptance is an important criterion, and there may be strong community support for a project that goes beyond the requirements of the Province. MN noted that this criterion can be weighted higher.

Technical: MN presented the Technical Environment proposed criteria. AC asked if the energy requirement criterion entailed a heat recovery opportunity. There is significant surface area at the WWTP, and there may be opportunities to install solar panels in ways that have collateral benefits for the process. MN noted that caution needs to be exercised for some parts of the WWTP. E.g., solar panels over tanks. MN noted that they cannot cover all tanks, such as aeration tanks (would make maintenance difficult), but solar panels may be useful in other areas.

BHY asked about energy requirements and returned to the matter of water reuse e.g. how potable water consumption can be addressed. HW added that there are examples in the United States where water has been reused from wastewater recovery plants and there is a big shift in proven technology for potable water that has to be taken into account. MN stated that there is a need to meet limits with proven technology.

JS added that the Water Supply Master Plan would consider the potential for effluent reuse. DR clarified that the Wastewater Treatment and Biosolids Management Master Plan will focus on the reuse of effluent to reduce potable water use and look at other opportunities, rather than using the effluent. MM added that this team would have ongoing conversations with the Water Supply Master Plan team and will discuss the topic of water reuse as well as bring any updates back to the CLG.

Economics/ Cost: MN provided an overview of the economic/ cost criteria. No comment was provided.

DH asked the participants for their guidance and advice on what criteria are more important based on the comments provided so far (e.g. energy and potable water, effects on the Speed River, etc). MB noted that in relation to the different criteria, technical feasibility should be determined prior to evaluation. Efforts should not be wasted on discussing options that are not feasible at this stage of the evaluation process. JS stated that the long list of technologies is delineated by process, and the shortlisted technologies are grouped by process unit. When the detailed criteria are considered, all remaining solutions are considered feasible alternatives. In this way, we are not spending time evaluating alternatives that will not work. MB was satisfied with the response provided.

MA stated that from the perspective of the GRCA, the Guelph WWTP is a fairly large component of the flow in the Speed River. Thirty percent of the water in the Speed River is from the WWTP during summer, low flow periods and Guelph has always been a leader in environmental protection of the Speed River. Moreover, technical feasibility and environmental factors are important.

MN provided an overview of the virtual open house. He noted that the virtual option enables the City to keep the engagement process open for a longer period of time. KB asked how the public would have access to technical experts as is commonly done with an in-person meeting. MN noted that the questions will be posted through the City's "Have Your Say" webpage and will be answered within the 30 days in which the open house will be accessible. MN added that participants would also be able to participate in a survey in which will also be monitored by the consultant and City staff. Contact information will be provided but there will not be a live question and answer process. DR noted that there is the opportunity to post all the questions and answers to be made available for all participants to

see what is being asked by the public. KB was satisfied with this approach and noted that it was beneficial to have the virtual process documented in this manner. BHY asked how AODA compliance would be addressed. MN noted that there will be an AODA compliant version of the materials available on the City's project webpage. AC suggested that the City use social media to advertise the open house and drive traffic to the webpage. JS noted that the project team is coordinating with City of Guelph Communications and if participants subscribe to the "Have Your Say" mailing list, they will receive updates on the Virtual Open House.

HW stated that Guelph has received positive attention for its stewardship of the Speed River. MN noted that the Virtual Open House survey will ask participants to rate various considerations including stewardship of the Speed River.

AC noted that local environmental groups have a high profile on social media and can help to generate public input on the Virtual Open House event.

DH thanked the participants for their time and asked if there were any final comments.

AC stated that his organization would like to help raise the profile for the Wastewater Treatment and Biosolids Management Master Plan Project as it is a factor in the success of the community and Municipality.

SC stated that there needs to be research on containments and chemical in the effluent and biosolids which will determine the use of technology required for the long-term management of biosolids in the City. This comment is noted and would be good for future research.

HW stated that proceeding with a fixed per capita development for capacity projects is not adequate. By way of comparison, the Water Supply Master Plan had three different management options and a choice was made from those options before capacity was assessed. There needs to be more than just a single projection of per capita flows. We need to determine which is achievable. MN noted that the project team would review the approach from the WSMP. Any changes may result in a shift of the timeline. DR reiterated this sentiment and noted that if we have the right growth numbers, it is acceptable to use the projections, even if conservative and even if conservation reduces flows to the WWTP, the loadings will not reduce and many of the processes are sized based on loading.

DH asked the participants if there was any outstanding business that should be addressed. AC stated that he appreciated the good time management of this meeting. MM closed the meeting by thanking participants for their attendance and input and noted that the door is open for communication with the project team beyond this meeting.

The meeting adjourned at 4.00 pm.

Jacobs

Agenda

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Subject	Progress Meeting		
Project	Wastewater Treatment and Bio	solids Management	Master Plan – CLG Meeting No.2
Date	April 27, 2021		
Project No.	CE771800		
Prepared by	Mike Newbigging	Phone No.	519.514.1622
Location	Teams Conference Call	Date/Time	9:00am April 27, 2021
Participants	CLG Members Bryan Ho-Yan (BHY) Sheng Chang (SC) Corinne Taylor (CT) Joan Del Villar Cuicas (JC) Harry Niemi (HN) Kevin Brousseau (KB) Mike Beswick (MB) Alex Chapman (AC) Hugh Whiteley (HW)	City Tim I Mari Phil I Jaco Dave Debo Mike Jillia Dany	of Guelph Robertson (TR) MacNeil (MM) McIntyre (PM) bs/Hardy Stevenson e Hardy (DH) orah Ross (DR) Newbigging (MN) n Schmitter (JS) ya Braun (DB)
	Mark Anderson (MA)	Jareo	d Philpott (JP)

Copies to

ltem		Presenter
1	Introductions	DH/MM
	Review members	
	Review Terms of Reference	
	Agenda Review	
	Procedure for Virtual Input	
2	Project Background, Goals and Objectives	DH/MN
	Background	
	Project Goals and Objectives	
	Project Timelines	
3	CLG and Public Engagement Activities	MN
	 Summary of CLG#1 and followup items 	
	Summary of VOH#1	
	Results of Survey	
		1

Jacobs

Agenda

Progress Meeting 9:00am April 27, 2021

ltem		Presenter
	Questions and Answers	
4	Alternatives Review and Evaluations	DH/MN
	Review Previous	
	 Guelph WWTP Existing Condition and Future Needs 	
	 Evaluation Method and Criteria 	
	Alternative Review	
	 Short-listed alternatives and technologies 	
	 Evaluation of short-listed alternatives 	
	 Liquid Train 	
	 Solids Train 	
	 Summary of evaluation results 	
5	Upcoming Second Community Open House (COH)	All
	COH Virtual meeting and content	
6	Next Steps	All



Guelph Wastewater Treatment and Biosolids Management Master Plan

Community Liaison Group (CLG) Meeting No. 2 - Review May 10th, 2021 (3:15pm – 4:15pm)







Agenda

- Introductions, Meeting Objectives and Procedures
 - Review members
 - Terms of Reference
 - Meeting Agenda
 - Procedure for Virtual Input
- Project Background, Goals and Objectives
 - Background
 - Project Goals and Objectives
 - Project timelines
- CLG and Public Engagement Activities
 - Summary of CLG#1 and follow-up Items
 - Summary of VOH#1, Results of Survey / Questions and Answers
- Alternatives Review and Evaluations
 - Review Previous
 - Alternatives Review
 - Rationale and benefits of Preferred Alternatives
- Upcoming First Community Open House (COH No. 2)
 - Virtual meeting and content
- Next Steps

Background – Master Plan Objectives

- The Master Plan is being developed considering:
 - The condition and capacity status of existing infrastructure and effectiveness of current practices to identify servicing gaps for future needs
 - Alternatives to fill in gaps, considering:
 - Conventional and state-of-the-art treatment technologies
 - Changes in legislation
 - Sustainable and cost-efficient solutions that mitigate climate change and contribute to reaching the City's goal of using 100 per cent renewable energy sources by 2050
 - Impacts on Speed River water quality (the receiving water for treated effluent)
 - Strategic priorities set out through the City's Strategic Plan.

Guelph WWTP

- Located at Wellington Road, Hanlon Parkway and Speed River
- Additional property available to east towards Hanlon Parkway



Guelph WWTP Schematic



- Changes on meeting notes:
 - On page 4 of the notes, I would request the words "AC stated that in Puerto Rican case studies, WWTPs have achieved net positive emissions..." with "AC stated that in a Puerto Rican case study, a WWTP achieved net positive energy..."
 - On page 2, line 19 suggested change :
 - ... asked what the City had done to deal with the limitation on disposal methods for treated residual solids caused by metal concentrations in the end product as identified in the 2008 Wastewater Master Plan. TR stated......
 - Other Items raised included:
 - Assimilative capacity results
 - Denitrification needs
 - Chloride concentrations
 - Emerging contaminants

Results discussed Literature Sources HW to provide

- Overview of per capita flow
- Based on review of wastewater flows from Waterloo Region's larger plants, max year 430, average 350 L/capita/d.

Current Trends – HW to followup



Note:

- From Waterloo Annual Monitoring Report 1.
- Larger plants being Kitchener, Waterloo, Galt and Preston 2.



Criteria added/altered based on feedback from the first meeting

Criteria	Definition	Scoring Regime
Greenhouse Gas (GHG) Emissions	The potential for the alternative to	10 – The alternative will make a significant contribution to the City's goal to reduce GHG emissions, with the potential to provide a net positive contribution
	minimize GHG emissions	5 – The alternative will make a modest contribution to the City's goal to reduce GHG emissions.
		1 – The alternative will not make a measurable contribution to the City's goal to reduce GHG emissions.
Soil Quality	The potential impact to soil as a result of biosolids end-use.	10 – The alternative has the potential to improve the quality and/or productivity of the soil 5 – The alternative provides for similar quality or productivity of the soil 0 – The alternative has the potential to reduce the quality and/or productivity of the soil
Ability to Treat Emerging	The ability of the alternative to treat	10 – The alternative has a high removal efficiency for emerging contaminants of concern relative to the current technologies at the plant.
Contaminants of Concern	emerging contaminants of concern.	5 – The alternative has the same removal efficiency for emerging contaminants of concern relative to the current technologies at the plant.
		1 – The alternative has a poor removal efficiency for emerging contaminants of concern relative to the current technologies at the plant.

Criteria added/removed since the first meeting

Criteria Added	Definition	Scoring Regime
Maintenance Complexity	The degree of maintenance complexity associated with implementation of the alternative	10 – The alternative will result in minor or no increase in maintenance complexity compared to the existing processes.
		5 – The alternative will result in a moderate increase in maintenance complexity compared to the existing processes.
		1 – The alternative will result in a significant increase maintenance complexity when compared to the existing processes.

Criteria Removed	Definition	Scoring Regime
Capacity to Service Growth	Provide in-time capacity to service short- , medium-, and long-term community growth needs	 10 - The alternative can be in service to meet short-, medium-, and long-term scheduling requirements. 5 - The alternative can be in service to meet short- and medium-term scheduling requirement but may not meet short-term service schedule requirements. 1 - The alternative may only meet short-term servicing requirements.

Website Status

- Status/Usage
 - 168 Visits/ 16 surveys complete
- Survey
 - 53 visitors 16 submitted
 - Questions/Feedback
 - 16 visited
 - 1 completed

Website Status		0	5	1	0 15	Stro	ng Supp	ort	30
- Survey	Impacts to the Speed River should be reduced	2	4	5		16	\bigcirc		
	Energy efficiencies and opportunities for Net Zero targets should be a long- term vision	3		11			13		
	The Master Plan should contain a strategy to continue to beneficially re-use all biosolids	12	7	7		17			
	Greenhouse gas emission need to be reduced through the City	12		12			12	/	
11									
11	somewhat oppose 🖉 neutral 🧧	somewha	t support	stron 🗖	gly support			©Jaco	DS 2020

Website Status - Survey

- Most important for evaluating WWTP alternatives
 - Health of Speed River
 - Longevity and Energy Efficiency₁₁



Website Status - Survey

- Most important for evaluating Biosolids management alternatives
 - Sustainability
 - Beneficial use
 - Energy generation
 - Value

Which 3 criteria do you feel are most important in evaluating biosolids management alternatives for future needs in the City of Guelph?



Which 3 criteria do you feel are most important in terms of the evaluation of upgrades at the existing Guelph wastewater treatment plant?

Website Status - Survey

- Most important for evaluating upgrades at WWTP
 - Environmental impacts²⁰
 - Value
 - Land use
 - Odours



Project EA Process and Timelines

Project Timeline



Future Needs

- Ontario's Growth Plan projects Guelph to have a population of 203,000 by the year 2051. Based on the per capita flow rate of 390 litres per capita per day, it is expected that the treatment plant will receive an average flow rate of 79.2 million litres per day.
- The following processes are projected to require upgrades in the planning period, either due to capacity limitations or condition:

Future Needs				
Capacity-Based	Condition-Based			
Screening	Grit Removal			
Grit Removal	Tertiary Treatment			
Secondary Treatment	Disinfection			
Tertiary Treatment	Cogeneration			
Waste Activated Sludge Thickening	Dewatering			
Digestion				
Cogeneration				
Biosolids Management				

Future Needs – Wastewater Treatment





Evaluation Method and Criteria

- Develop alternative solutions as feasible ways of solving an identified problem (deficiency) or addressing an opportunity
- A long-list of alternative solutions was developed and each was evaluated against the must meet criteria to confirm feasibility
- Shortlisted alternatives received a 2-stage detailed evaluation



Shortlisted Alternative Solutions

- Shortlisted alternative solutions were subjected to a 2-stage detailed evaluation.
- In the first stage, alternatives were evaluated against the non-economic (natural, social/cultural and technical) criteria, presenting the "benefit score" for each alternative.
- Those alternatives that received significantly lower benefit scores than others were eliminated from consideration, as they clearly did not provide any advantage over other alternatives.



Shortlisted Wastewater Treatment Alternatives for Stage 2 Evaluation

	Llandwayle	Primary, Secondary Trea	Primary, Secondary Treatment and Tertiary Nitrification		Disinfection	
	neadworks	Alternative Solution 1	Alternative Solution 3	Tertiary Filtration	Disinfection	
Feasible Solution	New Headworks to replace existing	Decommission and remove Rotating Biological Contactors; Expand Plant 2 secondary clarifiers; New Plant 5	Decommission and remove Rotating Biological Contactors; Expand Plant 2 secondary clarifiers; Retrofitting one or more existing plants	Filter expansion	New disinfection facility to replace existing	
Screened Technologies Carried Forward for Costing	 Technology to be compatible with downstream secondary treatment 	 New Plant 5 Primary Treatment: Conventional Primary Clarifiers Chemically Enhanced Primary Treatment Secondary Treatment: Conventional Activated Sludge with Biological Nutrient Removal Enhanced Biological Phosphorous Removal Physical Selection Membrane Aerated Biofilm Reactor Membrane Bioreactor 	 Plants 1-4 Primary Treatment: Conventional Primary Clarifiers (existing) Chemically Enhanced Primary Treatment (reducing secondary solids loading) Secondary Treatment: Nitrifying Conventional Activated Sludge (existing; de-rating Plants 1-3) In-situ bioaugmentation (Plants 1-3) Physical Selection Membrane Aerated Biofilm Reactor 	 Sand Filters Disk filters 	 Chlorine Contact Tank UV Disinfection 	
Shortlisted Biosolids Management Alternatives for Stage 2 Evaluation

	Sludge Treatment/Stabilization			Dewatering	Biosolids	Biogas Utilization
	Alternative 1	Alternative 2	Alternative 3		Management	
Feasible Solution	Digester Expansion	Sludge Thickening	Thermal Hydrolysis Pre-treatment	New Dewatering Facility	Expand Biosolids Management Capacity	Expand Biogas Utilization Capacity
Screened Technologies Carried Forward for Costing	 Digester Expansion WAS thickening expansion 	 Primary Sludge Thickening WAS thickening expansion 	 Thermal Hydrolysis Pretreatment Thermal Hydrolysis Pretreatment with co-digestion 	 Belt Filter Presses Centrifuges 	 Renew Lystek contract and expand process Thermal drying Composting Contracted Hauling 	Cogeneration

Detailed Alternatives Evaluation

- Alternatives that passed the first detailed evaluation stage were then subjected to detailed concept development and costing.
- Economic criteria scoring was completed and combined with the natural, social/cultural and technical criteria scores to provide an overall score for each alternative solution.
- Sensitivity analyses were completed by adjusting the criteria weighting.
- The wastewater treatment and biosolids management alternative solution that received the highest scores were selected as the preferred solutions.



Detailed Alternatives Evaluation - Headworks

- Firm screening capacity is projected to be exceeded in 2039
- Firm grit removal capacity is projected to be exceeded in 2021. Equipment also nearing the end of useful life
- To maintain treatment during construction, a new headworks building is the feasible solution
- New building will also provide the opportunity to address any hydraulic constraints
- Technology to be compatible with downstream processes



*The Headworks concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future.

Detailed Alternatives Evaluation - Primary Treatment, Secondary Treatment and Tertiary Nitrification

- Adequate primary treatment capacity for 2051 flow (79.2 ML/d). Current nitrification capacity limited by RBC for Plants 1/2/3, existing capacity (64 ML/d) projected to be exceeded by 2029
- Two integrated liquid treatment alternatives shortlisted. Common elements include:
 - Plant 2 secondary clarifier expansion
 - RBC decommissioned
- Existing plants would be retrofitted with WAS hydrocyclones and MABR

	Constructing New Plant 5	Retrofitting Existing Plants
	Alternative Solution 1	Alternative Solution 3
Removing RBC	Plant 5 (new) (17.7 ML/d) Plant 4 (22 ML/d) Plant 2 (19 ML/d) Plant 1 (18.5 ML/d) Plan	Plant 4 (22 ML/d) Plant 3 (13 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 2 (19 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 2 (19 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 2 (19 ML/d) Plant 1 (18.5 ML/d) Plant 1 (18.5 ML/d) Plant 2 (19 ML/d) Plant 3 (13 ML/d) Plant 1 (18.5 ML/d) Plant 2 (19 ML/d) Plant 3 (18 ML/d) Plant 3 (18 ML/d) Plant 3 (18 ML/d) Plant 4 (18 ML/d) Plant 4 (18 ML/d) Plant 5 (18 ML/d) Pl

25 RBC: rotating biological contactor

*The Plant 5 concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future.

Detailed Alternatives Evaluation - Primary Treatment, Secondary Treatment and Tertiary Nitrification

- Adequate primary treatment capacity for 2051 flow (79.2 ML/d)
- Current nitrification capacity limited by RBC for Plants 1/2/3, existing capacity (64 ML/d) projected to be exceeded by 2029
 MBR and MABR –
- Two integrated liquid treatment alternatives shortlisted
- Existing plants would be retrofitted with WAS hydrocyclones and MABR



26 RBC: rotating biological contactor

*The Plant 5 concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future.

Discussed

Detailed Alternatives Evaluation - Primary Treatment, Secondary Treatment and Tertiary Nitrification

Rationale for Preferred Solution

- Maximizes the potential of existing infrastructure
- Significantly lower lifecycle cost
- Does not require additional footprint



Detailed Alternatives Evaluation – Tertiary Filtration

- Insufficient firm capacity at current flows
- East-West building is also nearing the end of its useful life, requires major rehabilitation and filter media replacement
- Cannot retrofit alternative technologies into existing building to increase capacity while maintaining
 operation. Feasible solution is filter expansion



*The filter concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future

Detailed Alternatives Evaluation – Tertiary Filtration

Rationale for Preferred Solution

- Lower lifecycle cost
- Significantly smaller footprint



Detailed Alternatives Evaluation - Disinfection

- Currently relies on chlorine dosing upstream of the filters to achieve the required contact time
- Chlorine contact tank (CCT) is nearing the end of its useful life (GM BluePlan, 2019)
- Feasible solution is the construction of a new disinfection facility
- 2 technologies shortlisted Chlorine (new CCTs with redundancy) and UV disinfection



*The disinfection concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future

Detailed Alternatives Evaluation - Disinfection

Rationale for Preferred Solution

- Less risk/better protection for the Speed River
- Smaller footprint
- Less chemical usage



Detailed Alternatives Evaluation – Sludge Treatment and Stabilization

- WAS Thickening: No redundancy; only 1 RDT
- Digestion: Insufficient firm digester capacity (one out of service) projected in the near future
- Dewatering: Building and equipment (BFPs) at end of service life
- Biogas CHP: Expansion planned by City
- 3 integrated sludge treatment solutions shortlisted:



Α	lternative Solution 1 (Base Case)		Alternative Solution 2		Alternative Solution 3
• • •	WAS thickening expansion Digester expansion CHP expansion New dewatering facility	• • •	WAS thickening expansion Primary sludge thickening CHP expansion New dewatering facility	• •	Full THP with pre-dewatering CHP expansion New dewatering facility

*The sludge treatment concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future

Detailed Alternatives Evaluation – Sludge Treatment and Stabilization

Rationale for Preferred Solution

- Significantly lower lifecycle cost
- Less complex O&M
- Eliminates the need for additional digesters
- Less complex implementation



Detailed Alternatives Evaluation – Biosolids Management

- HVAC issues for current Lystek process. Biosolids are frequently trucked to Dundalk
- Contract with Lystek expires in 2028 other alternatives to follow 2028
- Lystek has provided proposals for a facility expansion and product storage
- 4 biosolids management strategies shortlisted:
 - Lystek expansion
 - Thermal drying
 - Composting
 - Contracted haulage for land application
- Overall results comparable for detailed evaluation
- Contracted haulage for land application poses the highest cost risk to the City
 - Because the cost for haulage is expected to increase with Carbon Tax and loss of farmland
- Lystek expansion has the lowest risk
 - City already familiar with technology
 - Well-established relationship with Lystek
 - Well-established market for LystekGro fertilizer in Ontario

Preferred Solution

Stream Assimilative and GHG Emissions inclusion in MP



*The preferred solution concept is presented for illustration purposes only, final alternative design concept layouts will be determined in the future

35

Community Open Houses

- Virtual event
 - VOH#1 Open October 28, 2020 through December 10
 - VOH#2 Open May 12, 2020
 - Available for 30-days
 - Ability to sign-in and conduct survey
- Example format
 - <u>https://www.youtube.com/watch?v=t46GhxV1Zas&feature=youtu.be</u>
 - http://www.i270corridorimprovements.com/
- Review of Community Open House Slides

City Website and Survey

- City website
 - <u>https://guelph.ca/plans-and-strategies/wastewater-treatment-and-biosolids-management-master-plan/</u>
 - Have your say
- Survey

Other Items

- Other Business
- Next Steps Meeting notes, website and virtual COH live May 12
- Next CLG Meeting Late Summer 2021
 - Presentation of the implementation plan

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City of Guelph

Wastewater Treatment and Biosolids Management Master Plan

Community Liaison Group Meeting No.2

April 27, 2021

Virtual meeting held on Microsoft Teams 9am to 11am

Particinants	CLG Members	City of Guelph
rancipants	Sheng Chang (SC)	Tim Robertson (TR)
	Corinne Taylor (CT)	Mari MacNeil (MM)
	Joan Del Villar Cuicas (JD)	Phil McIntyre (PM)
	Harry Niemi (HN)	Jacobs/Hardy Stevenson
	Kevin Brousseau (KB)	Dave Hardy (DH) (Chair/Meeting Facilitator)
	Mike Beswick (MB)	Mike Newbigging (MN)
	Alex Chapman (AC)	Jillian Schmitter (JS)
	Hugh Whiteley (HW)	Danya Braun (DB) (Note Taker)
	Mark Anderson (MA)	Jared Philpott (JP)
		Deborah Ross (DR)
Regrets	Bryan Ho-Yan	

Dave Hardy (DH) from Hardy Stevenson and Associates Limited (HSAL) introduced himself as the meeting Chair and as a professional facilitator. He noted his independent role in the project and that everyone would have an opportunity to share their view. He invited Mari MacNeil (MM) (City of Guelph) to welcome Community Liaison Group (CLG) members and to provide an introductory statement on the project. MM thanked the participants for attending. She stated that Guelph has reached a milestone regarding the future technologies in the Master Plan process and thanked Jacobs for taking the City this far. She thanked the participants for their time and noted that the City appreciates the CLG's comments.

DH noted that all participants should have received the meeting agenda and invited the attendees to introduce themselves to the group again as there are some new members. DH reminded the group of the CLG's Terms of Reference and that meeting notes as well as the PowerPoint presentation would be distributed after the meeting. He went through the presentation outline and asked if anyone would like to add to the agenda. No additions were provided. DH noted that if anyone had links to share with the group, they could put them in the chat function. He asked if it was okay if the Project Team recorded the session. There were no objections. DH noted that this meeting would incorporate the use of Microsoft Teams polling throughout the session to determine if there were any questions during the presentation.

Mike Newbigging (MN) began the technical presentation. He reviewed the project opportunity statement, background, study area, and WWTP schematic. DH asked if there are any areas of clarification or comments on the project objectives. AC noted that he would be able to provide input from Bryan Ho-Yan's perspective during the meeting in his absence, as he previously held the same role at the City as Bryan.

MN described the CLG status and updates on the meeting notes from comments received from the participants. He noted the Waterloo Region per capita flows as well as the criteria that had been amended based on feedback from the first CLG meeting. He reviewed the website status and survey comments and questions received.

AC asked how the project team incorporated heat recovery from incoming sewage following the previous CLG meeting: *"Have we discussed the potential for heat recovery as another energy story? I can't recall I was referring to heat recovery from the sewage itself. To summarize my point to facilitate note-taking, I'm interested in seeing some provision for future low-grade heat recovery from incoming wastewater, as a heat source for a future district heating network. (I recognize the plant would not have a requirement for this heat and it would not be cost effective to include this at present - my interest is in keeping the technical door open for such capability in the future.)"*

MN stated that the Project Team looked at heat recovery from biogas and the heat used for preconditioning sludge and buildings, which has been incorporated into the evaluation. JP added that the Project Team did not believe it was feasible to incorporate sewage heat recovery at the plant due to the associated costs. DR stated for it to be cost effective to use the heat from sewage, there would have to be demand. The nearby community does not currently have demand for district energy provided by the plant. AC stated that he agreed with this assessment. District energy is a low grade of heat and not useful for space heating. If the plant has provisions for later upgrades to be able to incorporate district energy in the future, it may be beneficial and would be an attractive feature. MN added that the Project Team has investigated water conservation technologies/strategies that may not be incorporated now, but could be in the future and the same can be done regarding heat recovery.

To facilitate further discussion, DH asked the participants if the clarification and discussion on future per capita flows or the criteria needed was sufficient.

HW stated that in relation to the per capita flow of 390 litres per capita per day for future needs, he has looked at details in the variation per capita discharges in the Region of Waterloo and Guelph. The main finding of his review was that for about ten years, the City of Guelph and Region of Waterloo's discharges were declining in parallel. In 2012, the Region of Waterloo's figures continued to decline. For the last five years, Guelph's figures started to go up. This is an important variation that needs to be explained and accounted for. There is something that is happening in Guelph that should be taken into account in the MP process. HW will send his analysis to the Project Team. {post meeting note – analysis provided}.

HW added that in regards to chloride, there is a large publication that discusses the topic of freshwater salinization syndrome. The most recent paper described it as a global problem with the same significance as climate change. A paper from this year identified the contributions of sodium chloride within sewage treatment plant effluent from high effluent plants in Virginia. This was a major source of sodium chloride contributing to freshwater salinization syndrome effects. Plant contributions for sodium chloride content need to be identified. HW expects these matters to be covered further in the MP. HW will send this information to the Project Team. {post meeting note – information provided to Project Team}

HN asked if the per capita figures take into account ICI or is if this figure is a blended amount. MN stated that it is based on the last five years of data and flows and therefore include individual, industrial, commercial and institutional (ICI) sources as a pooled amount. There is no separate consideration of ICI. HN stated that Rockwood's figures are lower because there is no inclusion of ICI. MN stated that without the inclusion of ICI, the figures would be lower.

MN presented the Project EA timelines, future needs for wastewater treatment and biosolids management. JP presented the evaluation method and criteria, shortlisted wastewater treatment and biosolids alternatives. He also provided an overview of the detailed alternatives evaluation and rationale for each preferred solution. The preferred solution concept location was presented for illustrative purposes only.

AC asked how the energy requirements of the two options for disinfection compare: "How do the energy requirements of these two options compare? UV offers the possibility of on-site energy generation, whereas my understanding is that chlorine would have to be shipped in. Does the CHP expansion plan include biogas storage?" JP stated that the UV disinfection technology requires more energy but the two alternatives are pretty close. UV technology has improved over recent years and the energy requirements have gone down.

AC asked if the CHP expansion plant included biogas storage. MN stated this was not part of evaluation for this process, as the Master Plan is high-level.. DR stated that this would be considered later for the conceptual or detailed design process, but was not part of the EA technology evaluation.

SC asked how the Project Team compared MBR (Membrane Bioreactor) and MABR (Membrane Aerated Biofilm Reactor) in the evaluation. DR stated that MBR is the high-level treatment process that produces high-quality effluent. MABR uses membranes to improve oxygen transfer and is implemented for energy efficiency, achieving process intensification. The two processes perform different functions. MBR is expensive relative to other technologies evaluated and cannot be rationalized at this time. It does not use less space than standard treatment process. MABR is something that could be considered in the future. The technology is relatively new but growing because of energy efficiency. When future upgrades are required, MABR will be considered for reduced energy use.

JP noted that in relation to the site footprint, there would be complexities in integrating MBR currently. While MBRs would replace the existing secondary clarifiers, the secondary clarifiers must remain in

service during construction, making constructability very complex. SC stated that MBR has more impacts on the whole plant treatment processbecause it provides nutrient removal, not only nitrification, which improves the quality of water and increases the removal of emerging contaminants. SC indicated that the MBR process can replace tertiary processes and provide disinfection credits, reducing the chemical costs for disinfection. [It should be noted that MBR in replace of disinfection has not been accepted by the MECP at the current time] MABR improves nitrification processes with high oxygen transfer. With the evaluation of technology, there is a need to look at the impact of both processes on the whole treatment process downstream with nutrient removal and disinfection. DR stated that during the evaluation, the impacts of MBR on tertiary treatment requirements and on effluent quality were considered. During the economic evaluation, it was not as cost effective as the recommended approach. JP added that the Project Team developed the overall cost for the facility, taking into account the reduced costs for tertiary treatment if MBR was implemented. JP stated that there are differences in the number of membranes required for each technology.

HW asked about the membrane technology in Hespeler: "What membrane technology is being installed in the Hespeler WRRF to replace the existing process?" MA responded that "Hespeler is currently implementing a MABR following a successful pilot test." MA provided the following reference paper from the Waterword publication: "Largest MABR site in Canada employs SUEZ technology Zeelung installed at the Hespeler Wastewater Treatment Plant."¹

DH asked the group how well the team captured future needs, if there was other additional information to inform the alternatives evaluation, and if there were any comments on the preferred solution.

MB stated that in relation to solids management, when we Lystek drafted the proposal to expand the existing capacity, we proposed the expansion within the existing building. He asked if there was consideration for the Lystek expansion to be in the new dewatering facility, since an entirely new building will be designed. Switching over from the old process to the new process may pose challenges in maintaining operations, so both the new and old process could be used following installation of the new process. MN stated that this can be considered in the implementation as integrating the two would have benefits.

MA stated that it is good to see an emphasis on reusing the existing infrastructure and relocating the components at the end-of-life stage. In relation to salinization, it is an emerging concern in the Speed River as chloride levels exceed the Canadian Council of Ministers of the Environment (CCME) guidelines for chronic impacts on aquatic life, which includes sources such as sewage and road salt. Most of the chloride comes into the plant from residential water softeners, however, moving towards UV disinfection would reduce the sodium chloride burden. MN stated that the source HW cited may provide information regarding influent and effluent chloride concentrations, indicating the portion of chlorides that are directly contributed by WWTPs. MA stated that water softening is a standard process for most

¹ <u>https://www.waterworld.com/technologies/filtration/article/14181776/largest-mabr-site-in-canada-employs-suez-technology</u>

of our communities because of hard groundwater. So, we use water softeners that utilize sodium chloride.

AC stated that regarding water softeners, there are programs offered through the potable water department related to rainwater harvesting as a tool for reducing potable water requirements. There is a benefit where people are using these systems and there is a reduction in water softener salt. This would this represent a benefit for the wastewater treatment plant to enhance the business case for a similar water softener program. MN stated that if captured, this would be able to reduce the amount of water in homes that needed to be softened, and it could reduce influent chloride concentrations. This may be worthwhile to consider in the incentive programs.

MN presented the slides on the next virtual Community Open House (COH) and the timelines for input through the project website. He went through the COH panels and described how the virtual medium would be enacted. He also provided an overview of the second survey.

HW indicated that the public would be interested in carbon release data. There is general tendency to put an emphasis on carbon reductions, so when a new forecast is made, many people want to know what that does for the City's net zero carbon target. HW indicated: *"The public would be interested in a comparison of the overall annual carbon release from the existing WRRF in 2020 and an estimate of the annual carbon release from the VRRF in 2051 with the preferred alternatives in place."*

HW also stated that: "Another comparison of interest would be a measure of water quality in the Speed River now and what is forecast to be the case in 2051." Similar to carbon effects, the Speed River's water quality and potential improvement from treatment would build public support. MN stated that an assimilative capacity study is being completed by Hutchison Environmental Sciences, which will provide this information.

DH closed the meeting by thanking participants for their valuable input. MM expressed her appreciation for the questions and feedback and thoughtfulness from the CLG. TR echoed this sentiment and thanked the group.

The meeting adjourned at 11.00am.

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Agenda

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CLG Meeting No. 3			
Wastewater Treatment and Biosolids Management Master Plan – CLG Meeting No.3			
January 19 th , 2022			
CE771800			
Jared Philpott	Phone No.	519.514.1624	
Teams Conference Call	Date/Time	2:00pm January 19 th , 2022	
CLG Members Bryan Ho-Yan (BHY) Sheng Chang (SC) Corinne Taylor (CT) Joan Del Villar Cuicas (JC) Harry Niemi (HN) Kevin Brousseau (KB) Mike Beswick (MB) Hugh Whiteley (HW) Mark Anderson (MA)	City of Tim Ro Phil M Sumar Jacobs Dave H Debor Jillian Danya Jared	City of Guelph Tim Robertson (TR) Phil McIntyre (PM) Sumant Patel (SM) Jacobs/Hardy Stevenson Dave Hardy (DH) Deborah Ross (DR) Jillian Schmitter (JS) Danya Braun (DB) Jared Philpott (JP)	
	CLG Meeting No. 3 Wastewater Treatment and Biosolic January 19 th , 2022 CE771800 Jared Philpott Teams Conference Call CLG Members Bryan Ho-Yan (BHY) Sheng Chang (SC) Corinne Taylor (CT) Joan Del Villar Cuicas (JC) Harry Niemi (HN) Kevin Brousseau (KB) Mike Beswick (MB) Hugh Whiteley (HW) Mark Anderson (MA)	CLG Meeting No. 3 Wastewater Treatment and Biosolids Management M January 19 th , 2022 CE771800 Jared Philpott Phone No. Teams Conference Call Date/Time CLG Members City of Bryan Ho-Yan (BHY) Tim Re Sheng Chang (SC) Phil M Corinne Taylor (CT) Sumar Joan Del Villar Cuicas (JC) Jacob Harry Niemi (HN) Dave H Kevin Brousseau (KB) Jillian Hugh Whiteley (HW) Danya Mark Anderson (MA) Jared	

Copies to

ltem		Presenter
1	Introductions	DH/TR/DR
	Review members	
	Review Terms of Reference	
	Agenda Review	
	Procedure for Virtual Input	
	 Problem/Opportunity Statement 	
	Class EA Schedule Change and Impacts	
2	Progress Update – Community Engagement Items	DH/DR
3	Master Plan Recap To-Date	DH/JP
	 Background/Existing Conditions 	
	Future Needs	
	Evaluation Methodology	

Jacobs

Agenda

CLG Meeting No. 3 2:00pm January 19th, 2022

ltem		Presenter
	Summary of Preferred Solution	
4	Implementation Plan	DH/DR
	Plant Expansion Phases	
	 Implementation Plan for Wastewater Treatment Upgrades 	
	 Implementation Plan for Biosolids Management Upgrades 	
	Future Energy Consumption and Greenhouse Gas Emissions	
5	Mitigation Measures	
	Master Plan Themes	
	Assimilative Capacity Study	
6	Next Steps	All
7	Closing Statements	All



Guelph Wastewater Treatment and Biosolids Management Master Plan

Community Liaison Group (CLG) Meeting No. 3 January 19th, 2022 – 2:00 pm to 4:00 pm







Agenda

- Introductions, Meeting Objectives and Procedures
- Progress Update Community Engagement Items
- Master Plan Recap To-Date
- Implementation Plan
- Mitigation Measures
- Next Steps
- Closing Statements

Meeting Objectives

- To review Master Plan progress to date
- To provide an update on the status of the Master Plan
- To present the implementation plan for the preferred solution
- To obtain CLG member input on the recommendations for this Master Plan
- To present mitigation measures for the overall themes of the Master Plan

Procedure for Virtual Meeting

- Dave Hardy Hardy Stevenson Associates (HSAL) will facilitate
- Meeting will be recorded
- Please mute line, raise hand with questions/comments and unmute when identified

MS Teams Tools for Meeting

- Participants can provide input throughout the meeting
- Questions can be asked in the chat, or participants can "put their hand up"
- Microsoft Forms will be used to ask questions and see if any additional comments
- Polls will appear in the chat as below:



Test poll



Problem/Opportunity Statement

- The goal of the Wastewater Treatment and Biosolids Management Master Plan is to plan for the future of wastewater treatment and biosolids management to provide capacity for growth, in a manner that is sustainable, and protects surface water and the environment.
- The Master Plan is a long-term plan that guides how the City will continue to meet the demands of its growing community over the next 30 years. The Master Plan decisions are driven by goals for:
 - Infrastructure reliability
 - Legislation
 - Sustainability
 - Climate change mitigation
 - City's goal to use 100 percent renewable energy sources by 2050
 - Minimizing impacts on Speed River
 - Meeting priorities set out through the City's Strategic Plan.

Class EA Schedule Change

- The Master Plan was originally initiated to satisfy the requirements of a Schedule B Class EA Master Plan
- Several of the recommended projects identified throughout the detailed evaluation phase will require completion of a Schedule C Class EA, which is required to plan for a capacity expansion at the Guelph WWTP.
- Following completion of a Schedule C Class EA, projects are eligible for implementation through detailed design and construction
- Some of the projects are required in a relatively short timeframe to provide capacity for the projected growth

Class EA Schedule Change

- If the Master Plan were completed as a Schedule B Class EA, then a separate Schedule C Class EA would need to be initiated. To reduce minimize the duration of the projects, the Master Plan scope was extended to meet the requirements of a Schedule C Class EA.
- Requirements include an additional public open house and integration of the assimilative capacity study into the Master Plan recommendations
- Technical memoranda and the consultation process will be consolidated into an Environmental Study Report (ESR)

Revised Project EA Process

Class EA Process (five phases)



The Wastewater Treatment and Biosolids Master Plan will complete Phases 1-4 of the Class EA process

Pause for Discussion

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Progress Update – Community Engagement Items

- CLG Meeting #2 was held on April 27th, 2021
- Following CLG Meeting #2, Public Open House (POH) #2 was held virtually from May 12th, 2021 to June 22nd, 2021. 177 users attended
- POH #2 presented the alternatives evaluation and preferred solutions for the Master Plan
- Feedback from the public was generally positive, with most participants agreeing with the preferred solutions
- General themes from public comments included:
 - Biogas production, renewable energy and resource recovery
 - Emerging contaminants of concern
 - Impacts to the Speed River
Pause for Discussion

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Guelph WWTP

- The Guelph WWTP is a conventional activated sludge (CAS) plant with tertiary treatment that is currently rated to treat an average daily flow of 64 ML/d
- Flow is treated in four separate CAS plants
 - Plants 1-3 designed for partial nitrification
 - Plant 4 designed for full nitrification
- Located at Wellington Road, Hanlon Parkway and Speed River



Study Area

- The Guelph WWTP collects and treats wastewater from:
 - City's urban boundaries
 - Village of Rockwood
 - Gazer-Mooney subdivision



Guelph WWTP Schematic



Future Needs

- Ontario's Growth Plan projects Guelph to have a population of 203,000 by the year 2051. Based on the per capita flow rate of 390 litres per capita per day, it is expected that the treatment plant will receive an average flow rate of 79.2 million litres per day.
- The following processes are projected to require upgrades in the planning period, either due to capacity limitations or condition:

Future Needs			
Capacity-Based	Condition-Based		
Screening	Grit Removal		
Grit Removal	Tertiary Treatment		
Secondary Treatment	Disinfection		
Tertiary Treatment	Cogeneration		
Waste Activated Sludge Thickening	Dewatering		
Digestion			
Cogeneration			
Biosolids Management			

Evaluation Method and Criteria

- Develop alternative solutions as feasible ways of solving an identified problem (deficiency) or addressing an opportunity
- A long-list of alternative solutions was developed and each was evaluated against the must meet criteria to confirm feasibility
- Shortlisted alternatives received a 2-stage detailed evaluation



Summary of Preferred Solution – Wastewater Treatment

Upgrade requirements to 2051

Process	Preferred Solution	Year Required	Driver
Headworks	Headworks Expansion	Screening – 2039 Grit – Near-term	Capacity Capacity/Condition
Primary Treatment, Secondary Treatment and Tertiary	Two new secondary clarifiers in Plant 2 Remove RBCs and operate plants as nitrifying CAS	2027	Capacity
Nitrification	If pilot testing is successful: WAS hydrocyclones and Plant 1 MABR retrofit	2038	Capacity
	If pilot testing is unsuccessful: new Plant 5	2038	Capacity
Tertiary Filtration	Expansion with disk filters Decommission East-West Filter Building	Near-term	Capacity/Condition (E/W)
Disinfection	New UV disinfection facility Decommission CCT	Near-term	Capacity/Condition

Summary of Preferred Solution – Biosolids Management

Upgrade requirements to 2051

Process	Preferred Solution	Year Required	Driver
Sludge Treatment/Stabilization and Biogas Utilization	Integrated Primary Sludge and WAS Thickening Facility	Near-term	Capacity
	CHP Expansion (800 kW)	Under Design	Capacity
	New Dewatering Facility	Near-term	Condition
Biosolids Management	Lystek expansion/contract renewal	2028 (Renewal)	Contract Renewal

Pause for Discussion

Guelph WWTP Expansion Phases

- Plant expansion phases were developed based on secondary treatment capacity
- The current rated capacity of the Guelph WWTP (64 ML/d) is projected to be exceeded by 2027
- By constructing two new secondary clarifiers in Plant 2, removing the RBCs and operating all plants as nitrifying CAS, the total secondary treatment capacity will be increased to 72.5 ML/d
- Flows are projected to exceed 72.5 ML/d by 2038. To expand plant capacity beyond 72.5 ML/d, a new treatment train or process intensification with one or more of the existing trains is required
- Two expansion phases:
 - Phase 1: Expansion from 64 ML/d to 72.5 ML/d
 - Phase 2: Expansion from 72.5 ML/d to 79.2 ML/d or higher, depending on capacity needs closer to the time of expansion

Phase 1 – Expansion to 72.5 ML/d

 The first phase of upgrades, increasing the plant's capacity from 64 ML/d to 72.5 ML/d, is required by 2027

Area	Project	Cost
Wastewater Treatment	Grit tank rehabilitation and expansion	\$6.0 M
	• 2 new secondary clarifiers in Plant 2, remove RBCs and operate all plant as CAS	\$12.2 M
	 Expansion of tertiary treatment with disk filters, decommission East-West filter building 	\$33.3 M
	New UV Facility, decommission the CCT	\$14.4 M
Solids/Biosolids	 New Dewatering Facility and Storage, decommission the existing dewatering facility 	\$16.1 M
	New Primary Sludge and WAS Thickening Building, remove existing RDT	\$23.1 M
	Lystek expansion and/or contract renewal	\$28.4 M
	Total	\$105.2 M

Phase 2 – Expansion to 79.2 ML/d or Beyond

- The second phase of upgrades, increasing the plant's capacity from 72.5 ML/d to 79.2 ML/d or beyond, is required by 2038
- It is recommended that the Master Plan be re-visited prior to these upgrades; preferred technologies for secondary treatment may change

Area	Project	Cost
Wastewater Treatment	Screening Upgrades	\$14.1 M
	 If pilot testing is successful: Install WAS hydrocyclones in all plants and retrofit Plant 1 with MABR 	\$13.4 M
	If pilot testing is unsuccessful: Construct a new Plant 5	\$34.2 M
	Total if Pilot Testing is Successful	\$27.5 M
	Total if Pilot Testing is Unsuccessful	\$48.3 M

Guelph WWTP Future Site Plan

 Preliminary concept for the projected site plan in 2051 if pilot testing for WAS hydrocyclones and MABR is successful



Guelph WWTP Future Site Plan

- Preliminary concept for the projected site plan in 2051 if pilot testing for WAS hydrocyclones and MABR is not successful
- Plant 5 footprint is based on conventional activated sludge; recommendations may change in the



future

Pause for Discussion

Energy Usage – Present vs Future

- Per ML electricity usage reduced due to:
 - Blower upgrades: Multi-Stage blowers to be replaced with High-Speed Turbo Blowers in 2022
 - Installation of new, more energy efficient processes



Greenhouse Gas Emissions – Present vs Future

- Net GHG emissions to decrease significantly, primarily due to increase GHG offsets from the solids handling processes
- Implementing Primary Sludge Thickening will:
 - Increase biogas production, which will increase heat and power production from the cogeneration system
 - Reduce the digester heating demand significantly



Benefits of Master Plan Recommendations for the Guelph WWTP

- Capacity to service growth to 2051 will be provided.
- Use of existing infrastructure will be maximized to avoid expansion where possible and reduce capital cost.
- Overall reliability will be improved by replacing infrastructure that is not reliable due to age and condition.
- Energy use is reduced due to selection of newer technologies, and energy recovery from biogas is maximized; both reducing GHG emissions.
- Resource (nutrient and organics) recovery from biosolids will be maximized by continuing to use Lystek for management of biosolids as a fertilizer product on agricultural land.

Impact Mitigation Measures at the Guelph WWTP

- Odour: A new odour control facility will be constructed to mitigate potential odours from the new solids handling area.
- Speed River: An assimilative capacity study was completed to develop new contaminant loading limits that will maintain the health of the Speed River with increased effluent flows. Technologies were selected for implementation that will allow the Guelph WWTP to continue to perform better than its effluent objectives in the future.
- Noise: The technologies that were selected for upgrades are not expected to cause any noise-related issues at the plant and for the surrounding community, and measures will be taken during construction to minimize noise.
- Traffic: Implementing primary sludge thickening will reduce the volume of sludge produced, reducing biosolids trucking requirements.

Assimilative Capacity Study Results

Effluent Parameter	Current ECA Limits/Objectives		Future Recommended Limits/Objectives		
	Concentration Limit	Concentration Objective	Concentration Limit	Concentration Objective	
BOD ₅	22 mg/L (April 1 st to October 31 st)	19.8 mg/L (April 1 st to October 31 st)	-	-	
cBOD₅	7.4 mg/L (November 1 st to March 31 st	6.7 mg/L (November 1 st to March 31 st	5 mg/L	3 mg/L	
TSS	10 mg/L	7 mg/L	5 mg/L	3 mg/L	
TP	0.38 mg/L (April 1 st to October 31 st) 0.7 mg/L (November 1 st to March 31st)	0.34 mg/L (April 1 st to October 31 st) 0.63 mg/L (November 1 st to March 31st)	0.3 mg/L	0.2 mg/L	
TAN	3.4 mg/L (November 1 st to March 31 st)	3.0 mg/L (November 1 st to March 31 st)	1 mg/L (June 1 st to September 30 th) 3 mg/L (October 1 st to May 30 th)	0.75 mg/L (June 1 st to September 30 th) 2 mg/L (October 1 st to May 30 th)	

Pause for Discussion

Next Steps

- Public Open House #3 is planned for February-March 2022
- The format will be similar to POH #1 and POH #2
- Following POH #3, the EA process will be documented in an Environmental Study Report (ESR)
- The Notice of Completion is expected to be issued in May 2022 prior to 30-day public review of the ESR

Looking Ahead

- MASTER PLANS LOOK AHEAD AND RESULT IN A PICTURE OF WHAT THE FUTURE HOLDS
- EXAMINATION OF EXISTING AND FUTURE WASTEWATER MANAGEMENT IN THE CITY TRIGGERED ANOTHER LINE OF THOUGHT
- AT PRESENT THE WASTEWATER TREATMENT PLANT YIELDS :
 - A high-quality effluent
 - A CFIA approved fertilizer product
 - A renewable energy source through the digester gas collected and used in cogens
- LOOKING AHEAD THE ABOVE WILL BE FURTHER ENHANCED AS WELL AS INVESTIGATING ADDITIONAL BENEFITS SUCH AS:
 - Phosphorus farming
 - Water re-use
- HOW CAN WE EMPHASIZE A FOCUS AND COMMITMENT ON THE PRODUCTS AND BENEFITS OF WASTEWATER RATHER THAN THE WASTE ?



Water Resource Recovery Centre

- THE NAME OF THE WASTEWATER TREATMENT PLANT HAS BEEN UPDATED
- THIS NEW NAME APPROPRIATLEY PLACES A FOCUS ON THE BENEFITS OF WASTEWATER
- THIS NEW NAME ALSO SUPPORTS THE CITY'S FUTURE READY STRATEGIC PLAN
- WORKING TOGETHER FOR OUR FUTURE



Making a Difference



Guelph WW Treatment and Biosolids Management Master Plan





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City of Guelph

Wastewater Treatment and Biosolids Management Master Plan

Community Liaison Group (CLG) Meeting No.3

January 19, 2022

Virtual meeting held on Microsoft Teams 2pm to 4pm

Particinants	CLG Members	City of Guelph
i al ticipanto	Sheng Chang (SC)	Tim Robertson (TR)
	Corinne Taylor (CT)	Sumant Patel (SP)
	Mike Beswick (MB)	Jacobs/Hardy Stevenson
	Hugh Whiteley (HW)	Dave Hardy (DH) (Chair/Meeting Facilitator)
	Mark Anderson (MA)	Jillian Schmitter (JS)
	Bryan Ho-Yan (BH)	Danya Braun (DB) (Note Taker)
		Jared Philpott (JP)
		Deborah Ross (DR)
Apologies	Harry Niemi Kevin Brousseau Joan Del Villar Cuicas	

1. Introductions

Dave Hardy (DH) from Hardy Stevenson and Associates Limited (HSAL) introduced himself as the meeting Chair and as a professional facilitator. DH noted his independent role in the project and that everyone would have an opportunity to share their view. DH invited Tim Robertson (TR) (City of Guelph) to welcome Community Liaison Group (CLG) members and provide an introductory statement. TR thanked the participants for attending. No comments were received from the April 27, 2021 CLG meeting notes to report on.

DH noted that all participants should have received the meeting agenda and invited the attendees to introduce themselves to the group again because it had been a while since the last meeting. DH reminded the group of the CLG's Terms of Reference and that meeting notes as well as the PowerPoint presentation would be distributed after the meeting. DH went through the presentation outline and asked if anyone would like to add to the agenda. No additions were provided. DH noted that if anyone had questions or comments to share with the group, they could put them in the chat function. DH asked if it was okay if the Project Team recorded the session. There were no objections. DH noted that this meeting would incorporate the use of Microsoft Teams polling/forms function throughout the session.

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Deborah Ross (DR) (Jacobs) began the technical presentation. DR presented the problem and opportunity statement and revisited the Master Plan (MP) process. DR noted the overall goal and specific goals of the Class EA and MP process which include: infrastructure reliability, legislation, sustainability, climate change, renewable energy resources, minimizing impacts on the Speed River, and the priorities of the Strategic Plan. DR provided an overview of the Class EA schedule change. The Master Plan was initiated as a Schedule B Class EA but was increased to a Schedule C Class EA based on the future needs that were identified at the Guelph WWTP, particularly the need for a capacity expansion. The Environmental Study Report (ESR), required for a Schedule C Class EA, will expand on the original Master Plan Report by documenting Phase 4 of the Class EA, which is the implementation plan. Findings of the Assimilative Capacity Study will also be incorporated. The main driver for escalating this Master Plan to a Schedule C Class EA is to reduce the schedule for project implementation. DR provided an overview of the revised EA process. A Schedule C Class EA also requires a 3rd Public Open House (POH), which is planned to occur in mid to late-February.

DH asked the participants if they if they had any questions so far. There were no questions at this time. Jared Philpott (JP) (Jacobs) provided a poll that asked if the revised approach was clear. All participants responded yes, indicating the content presented was understood by the participants.

2. Progress Update – Community Engagement Items

Jillian Schmitter (JS) (Jacobs) provided an overview of the second Public Open House (POH) that occurred virtually from May 12 to June 22, 2021. 177 people logged in and viewed the virtual content. The second POH presented the alternatives evaluation and preliminary preferred solution. The feedback was generally positive and most participants agreed with the preferred solution. There were questions about biogas production, renewable energy and resource recovery. Concerns about emerging contaminants of concern and impacts to the Speed River will be addressed in the ESR by incorporating the Assimilative Capacity Study. All of the comments received through the online survey have been posted and the responses from the City of Guelph are available through the public engagement site. DH asked if Jacobs was happy with the feedback they had received from the public. JS stated yes, there was more involvement than they would typically receive in a Master Plan POH, especially in a virtual environment.

DH asked if the CLG had any questions. Bryan Ho-Yan (BH) asked if open house participants had commented on climate change adaptation or resilience, particularly large storm events that could negatively impact the Speed River. JS stated that this was not mentioned in public feedback. Resiliency was mentioned in relation to resource recovery and greenhouse emissions at the plant.

3. Master Plan Recap To-Date

JP presented an overview of the Guelph WWTP, including its location and existing treatment processes. The Plant's future needs were developed based on historical flows, population data and Ontario's growth plan (*A Place to Grow*). JP described the alternatives evaluation methodology. A summary of the

H A R D Y STEVENSON AND ASSOCIATES

preferred solutions for wastewater treatment and biosolids management, which were previously presented to the group at CLG Meeting No. 2, were also presented.

DH paused for discussion and asked the CLG members if they had any questions, comments or clarifications. No one had comments at this time. DH mentioned that participants could also provide any comments during the open discussion at the end of the session.

JP provided an overview of the Master Plan implementation plan. This included the Guelph WWTP expansion phases, upgrades required and associated capital costs. JP provided an overview of the future site plan for the Guelph WWTP under the two upgrade scenarios. The site plans were intended to show the facility's footprint, rather than the exact locations of the future upgrades. The exact locations will be determined during the design phase. In particular, the footprint for Plant 5 may decrease in the future if the preferred technology is changed.

DH paused for discussion and asked the CLG members if they had any questions, comments or clarifications. JP posted a poll: are the expansion phases clear? The group responded, yes, indicating that the participants understood the expansion phases presented.

Mike Beswick (MB) stated that the dewatering facility and the Lystek facility are across the road from one another in the site plan that was presented. He asked what the plan for biosolids conveyance entailed. JP stated that the location is not final and that the team is also investigating the potential to construct the new dewatering facility within the compost building. Conveyance will be investigated in more detail during the design phase. DR added that there has only been a high-level review of locating facilities on the site. Site optimization and process compatibility will be considered during the design phase.

Hugh Whiteley (HW) asked if the membrane aerated biofilm reactor (MABR) will occur early on during the Phase 2 expansion period. JP stated that a detailed schedule has been developed with MABR pilot testing planned following completion of the Phase 1 upgrades, which will provide the City with enough time to make a decision and implement Phase 2 upgrades by 2038. DR added that by optimizing the existing plant's treatment capacity (i.e., by increasing Plant 2's capacity with additional secondary clarifiers), the decision for the new technology can be deferred, and emerging technologies can be evaluated later on in the planning period. The City will also complete a Master Plan update prior to the Phase 2 upgrades, which may change future needs.

4. Implementation Plan

DR presented an overview of the current energy use at the plant versus the future energy use with the upgrades identified in this Master Plan implemented. DR noted that each stage of design looks to the future to optimize energy usage with new technology. DR reviewed the effects of the facility on greenhouse gas emissions for the present and future. Net emissions are to decrease significantly, primarily due to implementing a primary sludge thickening process.

5. Mitigation Measures

DR described the benefits of Master Plan recommendations for the Guelph WWTP. DR reviewed impact mitigation measures in relation to odour, the Speed River, noise and traffic. Other mitigation measures and comments from the public will be addressed and explained as part of the final solution and design concept. DR also provided an overview of Assimilative Capacity Study Results. The biggest change will be the reduction in ammonia. The plant must fully nitrify year-round, which it does currently. There will also be a reduction in phosphorous loading. There are no concerns in the future about the plant's ability to meet these new objectives.

DH paused for discussion and asked the CLG members if they had any questions, comments or clarifications.

HW asked if the Assimilative Capacity Study would be published as part of the Master Plan and circulated to the CLG beforehand. TR stated that the City of Guelph just received the final report this week, so it can be circulated once the report has been closed out.

HW stated that in relation to energy reduction and greenhouse gas emissions, the City of Edmonton is actively planning to be energy neutral by installing a 100-hectare solar array. He asked if the space occupied by the Guelph WWTP will be assessed for solar energy use. BH stated that the City is looking for opportunities to implement solar facilities city-wide. The City will need to use its current assets first as part of a broader strategy (e.g. snow melt facility just west of the WWTP). As an example, the City could implement a solar facility on the rooftop of the administrative building. There are downsides to ground mounted facilities due to the footprint required; the City must account for the impact to natural heritage and groundwater resources. From a corporate perspective, the City is targeting to 100 percent renewable energy use by 2050, as well as net zero carbon emissions.

HW stated that in the US there is increasing interest in technology that addresses the barriers to water reuse (e.g. chloride content). He requested that the City begin an initial investigation for what is needed for a chloride reduction policy starting with annual reporting as indication of the current situation and trends. In relation to operational reporting, the Region of Waterloo has completed annual reporting for wastewater treatment facilities, which provides helpful indications of the conditions in the region. TR stated that the City of Guelph completes annual reporting that is comparable, which can be provided. HW stated that he cannot find the annual reports on the City's website. TR stated that they always used to be posted, but since there was a transition on the website for AODA compliance, sections may have moved, TR will look into this and get back to HW.

DH asked if there are any other comments from the CLG. There were no more comments at this time.

6. Next Steps

JS summarized the Next Steps for the project. The City is planning a third POH for February/ March 2022. The format will be virtual, similar to the format used for the previous POHs, which were available virtually for 30 days and included a survey to seek feedback from the community. The EA process will be

H A R D Y STEVENSON AND ASSOCIATES

documented in an ESR. The Notice of Completion is expected to be issued in May 2022 prior to a 30-day public review of the ESR. A summary of this meeting will be sent for the CLG's comment. DH asked if the CLG meeting PowerPoint will be sent out with the meeting packages. JS confirmed that the PowerPoint will be sent out as per the previous meeting note packages.

MA stated that the Speed River has two issues in relation to water quality: 1) chloride and 2) nitrates. The Guelph WWTP is a point source for both of those. There is little information about chlorides but there are concentrations downstream in the Speed River from the WWTP. The City should keep this in mind as we move to long term planning in 2050.

HW stated that he wrote a memo for the City on inflow and infiltration. These issues do not fall under the scope of this Master Plan; inflow and infiltration falls under the Water and Wastewater Servicing Master Plan. HW stated that there should be a coordinated effort to reduce inflow and infiltration, as it impacts the WWTP. DR stated that inflow and infiltration mitigation measures will take many years to implement. In the near term there is a need for a treatment capacity expansion, which would not be impacted by inflow and infiltration mitigation. When the Master Plan is revisited (likely in 5-10 years), the City will be able to evaluate the impact of these mitigation measures (as well as water efficiency measures) and adjust future needs accordingly. Capital project implementation is not typically affected by peak flows. It is mainly related to secondary treatment capacity, which is limited by solids loadings. Even if peak flows are reduced, solids loadings are not expected to change. TR added that the Master Plan teams have been coordinating throughout the process to make sure that they are aligned. The City will continue to work collaboratively to address these inflow and infiltration impacts and mitigation measures in the future. HW stated that there is evidence that there is a substantial inflow of water that is reducing the efficacy of the current WWTP. It was noted that inflow and infiltration falls under the scope of the Water and Wastewater Servicing Master Plan. In the Region of Waterloo, monitoring is completed to identify areas with high inflow and infiltration and mitigation measures are put in place to reduce the flows to the plant. This Master Plan should have a recommendation to reduce infiltration.

DH asked if there is anyone who has not had a chance to provide comments. No further comments were provided.

7. Closing Statements

TR closed the meeting and thanked the participants for all their input during the course of the project. He stated that the existing WWTP provides value for the community. It has high quality effluent, the Lystek system returns nutrients to the land and renewable energy is generated through cogeneration of the biogas produced in the digesters. The City will also investigate water reuse via sanitary flushing with effluent. Therefore, the City is going to change the name of the Guelph WWTP to the Guelph Water Resource Recovery Centre (WRRC). The new name will resonate with the community. This is the first time that the new name has been shared with members of the public. The City is planning more communication activities with the general public. There is an open house planned for April 23rd 2022, which will be the formal opening of the plant with the new name. TR thanked the CLG for their support.



The meeting adjourned at 3.30pm

Appendix B-4 Public Open Houses

Jacobs

Guelph Wastewater Treatment and Biosolids Management Master Plan Summary and Consultation Report - Public Open House #1

CE771800-1A | Final February 25, 2021

City of Guelph



Guelph Wastewater Treatment and Biosolids Management Master Plan

Project No:	CE771800
Document Title:	Summary and Consultation Report - Public Open House #1
Document No.:	CE771800-1A
Revision:	Final
Date:	February 25, 2021
Client Name:	City of Guelph
Client No:	Client Reference
Project Manager:	Mike Newbigging, M.Eng., P.Eng.
Author:	Jared Philpott, EIT
	Jillian Schmitter, P.Eng.
	Mike Newbigging, M.Eng., P.Eng.
File Name:	CE771800_SummaryandConsultationReport_POH1_FINAL

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Revision	Date	Description	Author	Checked	Reviewed	Approved
0	2/17/2021	Draft Issued for Client Review	J. Philpott J. Schmitter	M. Newbigging	M. Newbigging	M. Newbigging
1	2/25/2021	Final – Client Comments Addressed	J. Philpott	M. Newbigging	M. Newbigging	M. Newbigging

Document history and status

Contents

1.	Introduction	1
2.	Preceding Public Consultation	2
3.	Overview of Public Open House #1	3
3.1	Public Open House #1	3
3.2	Notice	3
3.3	Survey	3
3.4	Webpage	3
3.5	Traditional Media	3
3.6	Social Media	3
4.	Summary of Feedback Received	4
4.1	Survey Responses	4
4.2	Survey Questions/Comments	8
4.3	- Other Question/Comment Submissions	12

Appendix A. Virtual Room Presentation Boards

Appendix B. Accessible Presentation Boards

- Appendix C. Notice of Public Open House #1
- Appendix D. Survey
- Appendix E. Guelph Mercury Tribune Advertisements
- Appendix F. Guelph Today Advertisements
- Appendix G. Facebook Advertisements
- Appendix H. Twitter Advertisements
- Appendix I. The Weather Network Advertisements
1. Introduction

In January 2020, the City of Guelph (City) contracted Jacobs to undertake a Wastewater Treatment and Biosolids Management Master Plan (WTBMMP) through the Municipal Engineers Association (MEA) Class Environmental Assessment (EA) process. The City previously completed a Wastewater Treatment Master Plan in 2009 and a Biosolids Management Master Plan in 2006. This WTBMMP will combine and update wastewater treatment and biosolids management recommendations and recommend a roadmap for future capital investment at the Guelph WWTP, enabling the City to service long-term growth while improving performance reliability, sustainability and resiliency in providing wastewater treatment and biosolids management services.

There are five phases in the Class EA process, as follows:

- Phase 1: Problem Definition
- Phase 2: Identification of Alternative Solutions and Public Consultation
- Phase 3: Identification of Alternative Design Concepts for the Preferred Solution
- Phase 4: Completion of an Environmental Study Report (ESR) followed by a 30-day Public Review Period
- Phase 5: Implementation of the Project

The WTBMMP will complete Phases 1 and 2 of the Class EA process. As outlined in the Community Engagement and Communication Plan (CECP), stakeholders include:

- Community members
- Indigenous peoples
- Municipal staff and elected officials (the City, Guelph-Eramosa Township, Puslinch Township)
- Review agencies

To represent key stakeholders, a Community Liaison Group (CLG) was formed at the onset of the project. The CLG includes representation from provincial agencies, academia, industry, builders/developers, neighbouring townships, energy groups and the Grand River Conservation Authority (GRCA). As part of the public consultation activities for this Master Plan, three CLG meetings were planned. One was held prior to the first Public Open House (POH), with the second scheduled to be held prior to the second POH and the third scheduled to be held following the completion of the draft Master Plan report. Beyond CLG meetings, the two POHs provide the community with an opportunity to provide feedback on both phases of the Class EA process that will be completed during this Master Plan.

POH #1 was held as part of Phase 1 of the Class EA process. Due to the COVID-19 pandemic, POH #1 was held virtually, accessible to the public for 30 days. POH #1 opened on October 28th, 2020 and was closed on December 10th, 2020. In Phase 2, alternative solutions will be identified to address the problem or opportunity. POH #2, which is the second of 2 POHs planned for this Master Plan, is planned for Spring 2021 and will present an initial evaluation of these alternative solutions, providing the opportunity for public feedback.

2. Preceding Public Consultation

Prior to the first POH, the first CLG meeting was held on October 19th, 2020 and was attended by Jacobs staff, Hardy Stevenson staff, City of Guelph staff and eight of the ten CLG members. The participants in this meeting are presented in Table 2-1.

Participant	Organization
Mike Newbigging	Jacobs
Deborah Ross	Jacobs
Jillian Schmitter	Jacobs
Jared Philpott	Jacobs
Dave Hardy	Hardy-Stevenson
Danya Braun	Hardy-Stevenson
Mari MacNeil	City of Guelph
Tim Robertson	City of Guelph
Travis Pawlick	City of Guelph
Bryan Ho-Yan	City of Guelph
Sheng Chang	University of Guelph
Barbara Slattery	Ministry of Environment, Conservation and Parks (MECP)
Kevin Brousseau	Guelph Home Builders Association
Mike Beswick	Lystek International
Alex Chapman	Our Energy Guelph
Hugh Whiteley	University of Guelph
Mark Anderson	GRCA

Table 2-1: CLG Meeting #1 Participants

A follow-up meeting was held on October 28th, 2020 with the two CLG members who were unable to attend the first CLG meeting (Harry Niemi – Township of Eramosa, Corinne Taylor – MECP).

In these meetings, the project background, the existing conditions at the Guelph WWTP and the projected future needs were presented to the CLG. The presentation boards for POH #1 were also presented. CLG members were given the opportunity to provide feedback on various aspects of the Master Plan completed to date.

3. Overview of Public Open House #1

A variety of strategies and tools were used to ensure widespread, accessible participation in the public engagement process for this Master Plan.

3.1 Public Open House #1

POH #1 was opened on October 28th, 2020 and was closed on December 10th, 2020. The POH was hosted online by Jacobs at guelphwtbmmp-virtualopenhouse.com in an interactive format, allowing visitors to navigate a virtual room that displayed the POH presentation boards in the same manner that they would be displayed in person. An accessible version of the presentation boards was available on the City's website and the Have Your Say Guelph website, which is the City's platform for public consultation on various projects. The version of the presentation boards that was used for the virtual room is presented in Appendix A, with the accessible version of the presentation boards presented in Appendix B. A total of 173 unique users visited the virtual POH website while it was open for viewing.

3.2 Notice

The notice of POH #1 was distributed to the project mailing list by email on November 2nd, 2020. Additionally, a public notice for the City's four water-related master plans (Wastewater Treatment and Biosolids Management, Stormwater Management, Water and Wastewater Servicing, Water Supply) was posted on the City's website on October 28th, 2020. A notification was also sent to those registered on the City's Have Your Say website. The notice is presented in Appendix C.

Indigenous communities also received a phone call to provide notice of the POH, in addition to email.

3.3 Survey

In the presentation boards, the user was directed to the City's Have Your Say website to complete a survey related to the Master Plan. The survey is presented in Appendix D and the results are discussed in Section 4. A total of 27 participants filled out the survey, which was available for the same duration as the POH presentation boards.

3.4 Webpage

Both the City website (guelph.ca/wastewater) and the City's Have Your Say website (haveyoursay.guelph.ca) advertised the POH and contained links to the POH website. The Have Your Say website served as the central online resource, hosting the survey and allowing participants to submit questions to the project team. The website also provided the presentation boards in an accessible format.

3.5 Traditional Media

Various traditional media channels were used to advertise the POH. Print advertisements were published in the Guelph Mercury Tribune and digital advertisements were placed with Guelph Mercury, GuelphToday and the Weather Network.

3.6 Social Media

Social media was used by City staff to raise awareness of the POH, with Twitter and Facebook being the main platforms. The City created posts for their Twitter and Facebook page and also paid for advertising on Facebook and Instagram. The POH was also promoted on social media by interested groups, including Our Energy Guelph.

4. Summary of Feedback Received

4.1 Survey Responses

Once they viewed the presentation boards, POH participants were able to complete a survey related to the WTBMMP on the City's Have Your Say website. They were also able to submit questions about the Master Plan to the project team. Of the 173 unique visitors to the virtual POH website, 27 completed surveys on the Have Your Say website. Responses to each question are as follows:

1. Rate your support of the following statements as:

- 5 Strongly Support,
- 4 Somewhat Support,
- 3 Neutral,
- 2 Somewhat Oppose,
- 1 Strongly Oppose.

a. Impacts to the Speed River should be reduced.

Of the 27 participants who responded, 16 strongly supported this statement, 5 somewhat supported this statement, 4 were neutral and 2 somewhat opposed this statement, as summarized in Table 4-1. This indicates strong community support for impacts to the Speed River being reduced

Answer	Number of Participant Responses	Percent of Total (%)
5 – Strongly Support	16	59
4 – Somewhat Support	5	19
3 – Neutral	4	15
2 – Somewhat Oppose	2	7
1 – Strongly Oppose	0	0

Table 4-1: Question Responses

b. Energy efficiencies and opportunities for net zero targets should be a long-term vision in the Master Plan.

Of the 27 participants who responded, 13 strongly supported this statement, 11 somewhat supported this statement and 3 were neutral, as summarized in Table 4-2. This indicates strong community support for energy efficiency and net zero targets as part of the long-term vision in the Master Plan.

Table 4-2: Question Responses

Answer	Number of Participant Responses	Percent of Total (%)
5 – Strongly Support	13	48
4 – Somewhat Support	11	41
3 – Neutral	3	11
2 – Somewhat Oppose	0	0
1 – Strongly Oppose	0	0

c. The Master Plan strategy should continue to beneficially reuse biosolids, with 100 percent diverted from the landfill.

Of the 27 participants who responded, 17 strongly supported this statement, 7 somewhat supported this statement, 2 were neutral and 1 somewhat opposed this statement, as summarized in Table 4-3.

Table 4-3: Question Responses

Answer	Number of Participant Responses	Percent of Total (%)
5 – Strongly Support	17	63
4 – Somewhat Support	7	26
3 – Neutral	2	7
2 – Somewhat Oppose	1	4
1 – Strongly Oppose	0	0

d. Greenhouse gas emissions need to be reduced throughout the City.

Of the 27 participants who responded, 12 strongly supported this statement, 12 somewhat supported this statement, 2 were neutral and 1 somewhat opposed this statement, as summarized in Table 4-4.

Table 4-4: Question Responses

Answer	Number of Participant Responses	Percent of Total (%)
5 – Strongly Support	12	44
4 – Somewhat Support	12	44
3 – Neutral	2	11
2 – Somewhat Oppose	1	0
1 – Strongly Oppose	0	0

2. Which three criteria do you feel are most important in evaluating wastewater treatment alternatives for future needs in the City of Guelph? Selection options are as follows:

Infrastructure Longevity

- Energy Efficiency
- Water Reuse
- City Leading Innovation
- Health of the Speed River
- Value for Cost and Affordability

Of these criteria, infrastructure longevity was selected 13 times, energy efficiency was selected 13 times, water reuse was selected 11 times, City leading innovation was selected 4 times, health of the Speed River was selected 18 times and value for cost and affordability was selected 11 times, as summarized in Table 4-5. While each criterion was selected as important by the community, responses indicated that the health of the Speed River is the most important criterion to the Guelph community.

Table 4-5: Criterion Selections as Most Important for Evaluating Wastewater Treatment Alternatives

Criterion	Number of Participant Selections
Infrastructure Longevity	13
Energy Efficiency	13
Water Reuse	11
City Leading Innovation	4
Health of the Speed River	18
Value for Cost and Affordability	11

- 3. Which three criteria do you feel are most important in evaluating biosolids management alternatives for future needs in the City of Guelph? Selection options are as follows:
 - Sustainability
 - Energy Generation
 - City Leading Innovation
 - Beneficial Reuse
 - Value for Cost and Affordability

Of these criteria, sustainability was selected 22 times, energy generation was selected 15 times, , City leading innovation was selected 3 times, beneficial reuse was selected 19 times and value for cost and affordability was selected 13 times, as summarized in Table 4-6. While each criterion was selected as important by the community, responses indicated that sustainability is the most important criterion to the Guelph community.

Criterion	Number of Participant Selections
Sustainability	22
Energy Generation	15
City Leading Innovation	3
Beneficial Reuse	19
Value for Cost and Affordability	13

Table 4-6: Criterion Selections as Most Important for Evaluating Biosolids Management Alternatives

4. Which three criteria do you feel are most important in evaluating upgrades at the existing Guelph Wastewater Treatment Plant? Selection options are as follows:

- Value for Cost and Affordability
- Land Use
- Environmental Impacts
- Traffic
- Odour
- Noise

Of these criteria, value for cost and affordability was selected 18 times, land use was selected 13 times, environmental impact was selected 24 times, traffic was selected 1 time, odour was selected 11 times and noise was selected 5 times, as summarized in Table 4-7. While each criterion was selected as important by the community, responses indicated that environmental impact is the most important criterion to the Guelph community.

Table 4-7: Criterion Selections as Most Important for Evaluating Upgrades to the Guelph WWTP

Criterion	Number of Participant Selections
Value for Cost and Affordability	18
Land Use	13
Environmental Impacts	24
Traffic	1
Odour	11
Noise	5

5. What is the best means to provide communications about this Master Plan to the residents of Guelph? Selection options are as follows:

Radio

- Twitter
- Facebook
- City Website guelph.ca
- Newspaper Ads
- Other

Of these options, Radio was selected 5 times, Twitter was selected 5 times, Facebook was selected 10 times, the City website was selected 17 times, newspaper ads were selected 13 times and other was selected 8 times, as summarized in Table 4-78. These communication methods are all currently being practiced during this Master Plan.

Table 4-8: Criterion Selections Best Means to Communicate this Master Plan to Residents of Guelph

Criterion	Number of Participant Selections
Newspaper Ads	13
City Website	17
Facebook	10
Twitter	5
Radio	5
Other	8

4.2 Survey Questions/Comments

At the end of the survey, users were provided with the opportunity to submit additional comments. These comments and if required, their responses are presented in Table 4-9.



Table 4-9: Survey Comments/Questions and Responses

No.	Survey Comment/Question	Response Required?	Response
1.	A couple of your survey questions say pick 3 answers but you can only select 2 questions you should not put 2 differing options in one question as it is hard to answer: question 1: Impacts to the Speed River should be reduced as much as possible regardless of cost, I agree impacts should be reduced, but what does regardless of cost mean? Kind of a ridiculous thing to say	Y	The City has noted your rec
2.	It would be nice to consider local reuse of resources, such as local farmers using biosolids from the WWTP on their fields. Closing the local nutrient loop etc. Long term cost and capacity to grow are also key items	Y	Thank you for sharing your 2019, 100 per cent of biosc beneficially reused by farme Treatment Plant using capt
3.	Analysis should consider the impact of water conservation	N – noted for information	The WWTP currently uses en effluent water for other City Part of the Water Supply Ma water more effectively. You https://guelph.ca/plans-an
4.	City should look into technology that cleans household water from showers and sinks and converts it into water used for toilets and outdoor taps. Watch a documentary called Brave Blue World. It is filed with various techniques that could be helpful for the City of Guelph.	N – noted for information	At this time, water reuse is b the WWTP and as part of the such as the implementation future for new housing deve The application of reused w such as incorporated into pu Plan.
5.	As Guelph's population grows and the wastewater facility exceeds capacity, would it be a consideration to build a second wastewater treatment facility in the south end of Guelph, or close to wherever the largest increase in growth is occurring? An additional treatment facility would take the pressure off of the plant on Wellington Road.	Υ	Thank you for your question at this time it is not necessa Province. Additionally, our v Guelph's projected populati If we identify this as a future associated expenses that co treatment plant versus expa environmental impacts and
6.	Couple of comments on the open house information: - Why assume future growth will be at 390 litres per person per day? If the City commits to overseeing new development construction to ensure low inflow and infiltration and if there is an increase in multi-unit residential, the 390 litres per person per day may be an overestimation. Water efficiency gains may also reduce the per capita sewage flow, but I understand the City already has a low per capita water use rate – I question "proven in North America" as a must meet criterion as it may limit options that are cost effective and meet other desired outcomes (e.g. energy generation/saving). The Ministry of Environment is always open to reasonable proposals.	Y	The per capita flow rate is b City. While it is likely this is a in water usage due to the la This per capita flow rate als users, such as the University loading rates rather than hy the loadings will likely stay per capita flow rate may be Should the City's per capita expenditures would be dela flow rates increase above the capital expenditure, which is

commendation and will be considered for future surveys.

feedback. We are happy to report that we are already doing this. In olids (3,700 tonnes) were treated using the Lystek process and ers as fertilizer. In addition, we partially power the Wastewater cured digester gas generated by the wastewater treatment process.

ffluent water to reduce potable water use and has reviewed using y uses, in particular, sewer flushing.

aster Plan includes taking into consideration ways we can conserve can find more information about this master plan here: nd-strategies/water-supply-master-plan/

being reviewed by the City in terms of wastewater effluent water at the City Water Supply Master Plan. Any policy recommendations of grey water treatment could potentially be implemented in the elopments.

vastewater effluent for the purposes of augmenting water supply urple pipe system may be considered in the Water Supply Master

n. While this may be up for consideration in future Master Planning, ary based on the City future population projections from the wastewater treatment plant currently has space to expand on ion growth.

e need, we would need to take into consideration things like: ome with building, operating and maintaining a second wastewater anding the existing plant. We also need to consider the I the capacity of the Speed River.

based on the previous 10 years of flow and population data in the a conservative estimate, it is difficult to estimate future reductions ack of data and information about future developments.

to includes flows from industrial, commercial and institutional y of Guelph. Also, the capacity of many processes is based on ydraulics. While the per capita flow rate may be reduced over time, the same, resulting in a higher strength influent wastewater. The a driver for some hydraulic upgrades later in the planning period.

I flow rate decrease, the consequence would be that capital ayed. This is a low-risk consequence. Should the City's per capita ne projected value, the consequence is an earlier than expected is higher risk to the City.



No.	Survey Comment/Question	Response Required?	Response
			The approach used is conser needs. Master Plans are upda and address changes in the O
			Regarding the must-meet cr technology vendors have a p required. For the various tech only one full-scale installation This way, the City will have co there is reliable supply and s
7.	City involvement means listening to community members not City staff!!!	N – noted for information	Getting feedback from our co One way we do this is throug evaluation criteria) when ide
8.	Current population growth is not sustainable. Until human population levels are stable and within the carrying capacity of the natural environment, wastewater treatment will not be sustainable.	Υ	A big function of the Master will impact our natural enviro The City is undertaking an as WWTP, which will ensure tha have a negative impact on the constituents that the Speed requirements required for the impacted.
9.	You should tell the general public the pit falls of the sanitary sewer discharges and the inability to rid the chemicals that are untreatable in the treatment facilities. The majority of residents are taking medications and urine and feces are discharged into our sanitary sewers along with commercial and industrial sewer wastes. Also, when will the sanitary sewer discharges from the Rockwood village area become of such a capacity that the Guelph treatment plant be unable to handle the discharge, the residents should be given a reality source of information and not a political response Have a good day	Υ	A big function of the Master will impact our natural enviro Plan we will also review treat like chemicals and medicatio The City is undertaking an as WWTP, which will ensure tha have a negative impact on th constituents that the Speed requirements required for the impacted. Currently, the Town of Rockw WWTP under its agreement projections, so there are no of future.
10.	Right now something doesn't smell right at the plant. My five year old grandson plugs his nose as we drive by and says stinky grandma! I am worried about the ability of the wastewater management plant to keep up with the growth of Guelph. That is my biggest concern and I believe the cost to build a larger facility should be added on to	Υ	We are aware that odours oc to know that we document o Part of the Master Plan will p WWTP, including evaluating we are prepared to handle of The Master Plan will contain will be completed to keep up Cost is one of the evaluation charged to future homes and funding sources.

rvative while seeing that solutions will address future loading lated on a 5 to 10 year basis, which will allow the City to adjust City's per capita flow rate in the future.

riteria, "proven in North America" was selected to ensure that the presence in this region should service and/or consumables be hnologies, if it was proven in Europe or elsewhere in the world, on was required in North America to meet the must-meet criteria. captured technologies that are proven worldwide and ensured that service for the technology in North America.

community is an important part of the master planning process. gh surveys like this one. We'll use your feedback, along with (enter entifying recommendations.

Plan is getting an understanding of how our population growth onment, like the capacity of the Speed River.

ssimilative capacity study of the Speed River downstream of the at the increase in flows resulting from population growth will not he Speed River. It will determine the loading rates of various River can assimilate, which will determine the treatment he Master Plan such that the natural environment is not negatively

Plan is getting an understanding of how our population growth conment, like the capacity of the Speed River. Through the Master tment processes that will address contaminants, including things ons.

ssimilative capacity study of the Speed River downstream of the at the increase in flows resulting from population growth will not he Speed River. It will determine the loading rates of various River can assimilate, which will determine the treatment he Master Plan such that the natural environment is not negatively

wood is allocated a maximum flow of 1,710 m³/day to the Guelph with the City. This has been factored into the Master Plan's future concerns that flows from Rockwood will become an issue in the

ccur occasionally, and we understand your concern. We want you odours and are evaluating this regularly.

provide us with recommendations for managing odours from the new technologies and an implementation plan that will ensure odours as our community grows.

an implementation plan to ensure that the necessary upgrades p with the population growth in Guelph into 2051.

n criteria for technology alternatives. Currently, development is d condos, although this Master Plan is not involved in evaluating



No.	Survey Comment/Question	Response Required?	Response
11.	As City builds up (more condos), organic waste from food ends up in landfill because bin collection isn't feasible in multi buildings. Yet our water treatment plant is capable of turning organic waste into biogas and fertilizer. We should reconsider our very old bylaw against in sink food waste disposers and recommend them for multi-res for an overall environmental benefit.	N – noted for information, outside of the scope of this MP	Thank you for your feedback Food waste is definitely a ch Solid Waste Management Ma have your say here: https://g master-plan/ Currently, the City is reviewin discharges into the Sanitary provide for the protection of information and opportunitie updating-the-sewer-use-byl
12. and 13.	Repeat of questions for question 12 and 13: Also, put an ad on bus shelters or on buses. Something memorable, like: "Waste happens. Check out Guelph.ca" (I'm not joking. A slightly irreverent catch-phrase would get people's attention. Sort of like how South Dakota's "Meth. We're on it." Slogan got people talking. Wastewater treatment is not on our mindsuntil there's a problem. If you want people to be engaged, you first need to get people's attention.) PLEASE don't mess up the Speed River. You can't put a price on an unpolluted river. If people complain about increased waste-water rates (and they will), then get the word out about how WASTEFUL our society is with regard to almost everything, especially water. Thank you.	Υ	Thank you for the feedback. outreach strategy. The City is undertaking an as WWTP, which will ensure tha have a negative impact on the constituents that the Speed requirements required for the impacted.
14.	Associated with Q5 on survey in terms of "best means to communicate this Master Plan to the residents of Guelph" Comment – other method to use – direct mailer.	Υ	Thank you for your feedback community"

۲.

hallenge we face and the City will be addressing this through the haster Plan. You can find more information and opportunities to guelph.ca/plans-and-strategies/solid-waste-management-

ng and modernizing the Sewer Use By-Law, which regulates Sewer and Storm Sewer systems of the City of Guelph, and to f these systems and the natural environment. You can find more ies to have your say here: <u>https://guelph.ca/2021/02/the-city-is-</u> <u>law-and-wants-your-input/</u>

This idea will be considered when determining the City's future

ssimilative capacity study of the Speed River downstream of the at the increase in flows resulting from population growth will not he Speed River. It will determine the loading rates of various River can assimilate, which will determine the treatment ne Master Plan such that the natural environment is not negatively

k. We'll keep this in mind when communicating with the

4.3 Other Question/Comment Submissions

Outside of the survey, users were able to submit general questions regarding the Master Plan to the project team. Two questions were received outside of the survey, as detailed in Table 4-10.



Table 4-10: Additional Comments/Questions and Responses

	No.	Comment/Question	Response Required?	Response
	1.	I understand that the assimilative capacity of the Speed River is the limiting factor on how much treated sewage can be returned to the river. If the math says we can return X litres of treated sewage per day to the river, do we then (for example) return X/3 litres per day?	Y	In the assessment of the ass Guelph WWTP, the City will limits for the WWTP. Rather improved downstream wate conditions under low and m
	2.	I am concerned with the number of water softeners installed in buildings throughout the city to combat the naturally occurring hard water. The issue then becomes the amount of salt that enters the water cycle by way of the water treatment plant. Ultimately, all that salt has to go somewhere cycling through the system and back into the Speed river. This must have detrimental effects on the integrity of the water quality downstream. I feel the overuse of salt in our buildings and on the roads is a huge problem that cities and municipalities are not addressing.	Υ	Many municipalities in Onta application through use of <i>N</i> Management Plans typically icing agents, reduce the am run-off that may be laden w continually update the salt
				The City is undertaking add pool backwashing and wate document the current cond
				This comment will also be p

similative capacity study of the Speed River downstream of the not be utilizing a dilution approach to determine the effluent r we will be determining effluent concentrations that will result in er quality from current Environmental Compliance Approval (ECA) noderate flow conditions.

ario, including the City, have taken steps to reduce road salt Municipal Salt Management Plans. The Municipal Salt ly provide guidance on methods to store salt, use alternative denount of salt applied, to identify measures for removal of snow and with salt, and to monitor salt usage and effectiveness and management plan to optimize effectiveness.

litional programs to reduce salt or chloride discharges, including er softeners alternatives. The City is increasing sampling to lition at the WWTP.

provided to the Water Supply Master Plan for their awareness.

Appendix A. Virtual Room Presentation Boards





Welcome to Virtual Community Open House #1

Please sign in.

The City is updating its Wastewater Treatment and Biosolids Management Master Plan, a long-term plan that will ensure Guelph's wastewater is managed in a way that is sustainable, protects our waterways and environment, and has the capacity to handle the City's growing population.

The Master Plan will look at how the City is currently managing and treating wastewater at the Guelph Wastewater Treatment Plant (WWTP) and guide how we will continue to meet the demands of our growing community now until 2051.

This is the first of two open houses that you will have the chance to have your say and help shape the Master Plan.





Master Plan Purpose Statement

The Wastewater Treatment and Biosolids Master Plan will review and revise the City's 2009 Wastewater Treatment and 2006 Biosolids Management Master Plans to reflect updates in development and growth, expansion and re-rating, local initiatives and studies, climate change initiatives and official plan amendments and legislation and guidelines.

Study Area

The Guelph WWTP collects and treats wastewater from within the urban boundaries of Guelph, as displayed in the figure. The Guelph WWTP also treats wastewater from the Gazer Mooney subdivision and the Village of Rockwood through a Memorandum of Understanding with the City of Guelph.







Class Environmental Assessment Process

The Class EA process consists of five phases as follows:







The City of Guelph wants to provide an opportunity to offer suggestions, comments and ideas for the Master Planning Process. The City is interested in feedback from the Community Liaison Group, City of Guelph staff, Guelph community members and neighbours, Indigenous communities and Provincial Agencies.

The Community Liaison Group involves local stakeholders who will meet three (3) times during the Master Plan process.

We will have two (2) virtual open houses during the Master Plan process. The next one is tentatively scheduled for Spring 2021 and will present the preferred alternatives of this Master Plan.

Virtual open houses meet the Class EA consultation requirements provided that they meet your needs as a stakeholder.

The City's "Have Your Say" website shares specific information about the Master Plan as well as invites comments, questions and advice from the community. The Have Your Say website can be accessed at: <u>https://www.haveyoursay.guelph.ca/</u>

Following the completion of the Master Plan Report, it will be posted to the project website for a 30-day public review.







Guelph WWTP

The Guelph WWTP has a current rated capacity to treat 64 million litres per day. This is equal to 26 Olympic-sized swimming pools per day.

Wastewater arriving at the Guelph WWTP undergoes multiple stages of treatment: preliminary, primary, secondary, tertiary, disinfection and dechlorination. The final treated effluent (high quality treated wastewater) is discharged into the Speed River.

Solids that are removed from the wastewater treatment processes undergo thickening, digestion, dewatering and are further stabilized through the Lystek process. The final product is a Canadian Food Inspection Agency (CFIA) approved fertilizer that is beneficially reused via land application.

To view the process flow diagram for the Guelph WWTP, please click the drop-down option.







Guelph WWTP Process Flow Diagram







Existing Conditions

Flows to the Guelph WWTP fluctuate from year to year. Over the past five years, the Guelph WWTP has treated an average of 55 million litres per day. This represents 85 percent of the Guelph WWTP's current rated capacity.

As the population in Guelph increases, so will wastewater volumes requiring treatment. To predict future wastewater flows, it is important to determine the current wastewater generation rate. Ten years' of data were analyzed to determine per capita flow rate.

From 2010 to 2019, the average per capita flow rate was 390 litres per capita per day.









Future Conditions

Ontario's Growth Plan projects Guelph to have a population of 203,000 by the year 2051. Based on the per capita flow rate of 390 litres per capita per day, it is expected that the treatment plant will receive an average flow rate of 79.2 million litres per day.

Based on the projected flow rate, the following processes will not have sufficient treatment capacity:

- Grit removal
- Secondary treatment
- Tertiary treatment
- Waste activated sludge thickening
- Digestion
- Cogeneration
- Biosolids management

City of Guelph Population Projections to 2051



Guelph WWTP Average Daily Flow Projections to 2051







Alternative Solutions and Evaluation Framework

The Municipal Engineers Association defines alternative solutions as feasible ways of solving an identified problem (deficiency) or addressing an opportunity, from which a preferred solution is selected (Municipal Class Environmental Assessment, 2015).

A long-list of alternative solutions will be developed for each deficiency and opportunity. To select the preferred solutions, the long-list of alternative solutions will be evaluated against a set of "must meet" criteria that are aligned with the City's goals and values. Alternatives that meet all criteria will be shortlisted for a further, detailed evaluation. For further information regarding the evaluation criteria, please click the drop-down option.







Alternative Solutions and Evaluation Framework

"Must-meet" criteria

These criteria represent broad project objectives. Technologies and strategies that do not meet all identified "must-meet" criteria are removed from further consideration.

Performance

 Ability to reliably meet regulated performance objectives and criteria for wastewater effluent and biosolids

Proven technology

• Full-scale experience in North America and history of application in municipal wastewater

Reliance/reliability

 Vendor or market dependency of technology, consumables and ability to manage final products

Detailed evaluation criteria categories and examples

Technical environment

- Meets effluent objectives
- Constructability

Natural environment

- Water quality
- Natural heritage system

Social and cultural environment

- Archaeology
- Cultural heritage resources

- Economic environment
- Capital cost
- Operation and maintenance costs



Project Timeline



Notice of Completion





Next Steps

Thank you for your interest in the City's Wastewater Treatment and Biosolids Management Master Plan.

Your feedback is an important part of the Master Plan process.

- Register, join the conversation and share your thoughts on the Have Your Say website at www.haveyoursay.guelph.ca
- Project information will continue to be updated on the Project website at <u>www.guelph.ca/wastewater</u>
- Join the project mailing list to receive project updates. Please provide your contact information (name and email) to the contacts below.
- · Follow the conversation on Twitter at www.twitter.com/cityofguelph and Facebook at www.facebook.com/cityofguelph

Please contact the project team with any additional comments or questions that you may have:

Mari MacNeil

Manager of Technical Services Wastewater Services Environmental Services City of Guelph 519-822-1260 extension 2284 mari.macneil@guelph.ca Mike Newbigging, P.Eng.

Project Manager Jacobs Engineering Group 519-514-1642 mike.newbigging@jacobs.com

Appendix B. Accessible Presentation Boards



City of Guelph Wastewater Treatment and **Biosolids Management Master Plan**

Virtual Open House #1









Welcome to Virtual Community Open House #1

Please sign in.

The City is updating its Wastewater Treatment and Biosolids Management Master Plan, a long-term plan that will ensure Guelph's wastewater is managed in a way that is sustainable, protects our waterways and environment, and has the capacity to handle the City's growing population.

The Master Plan will look at how the City is currently managing and treating wastewater at the Guelph Wastewater Treatment Plant and guide how we will continue to meet the demands of our growing community now until 2051.

This is the first of two open houses that you will have the chance to have your say and help shape the Master Plan.







Master Plan Purpose Statement

The Wastewater Treatment and Biosolids Master Plan will review and revise the City's 2009 Wastewater Treatment and 2006 Biosolids Management Master Plans to reflect updates in development and growth, expansion and re-rating, local initiatives and studies, climate change initiatives and official plan amendments and legislation and guidelines.

Study Area

The Guelph WWTP collects and treats wastewater from within the urban boundaries of Guelph, as displayed in the figure. The Guelph WWTP also treats wastewater from the Village of Rockwood through a Memorandum of Understanding with the City of Guelph.





Master Plan **Class Environmental Assessment Process** The Class Environmental Assessment process consists of five phases as follows: Phase two **Phase five** Phase one **Phase four Phase three** Implementation of Problem Identification of Completion of Identification of Environmental definition alternative the project alternative design solutions and concepts for the Study Report (ESR) followed by public preferred solution a 30-day public consultation review period The Wastewater Treatment and Biosolids Master Plan will complete Phases 1 and 2 of the Class EA process.







Public Consultation Plan

The City of Guelph wants to provide an opportunity to offer suggestions, comments and ideas for the Master Planning Process. The City is interested in feedback from the Community Liaison Group, City of Guelph staff, Guelph community members and neighbours, Indigenous communities and Provincial Agencies.

The Community Liaison Group involves local stakeholders who will meet three (3) times during the Master Plan process.

We will have two (2) virtual open houses during the Master Plan process. The next one is tentatively scheduled for Spring 2021 and will present the preferred alternatives of this Master Plan.

Virtual open houses meet the Class Environmental Assessment consultation requirements provided that they meet your needs as a stakeholder.

The City's "Have Your Say" website shares specific information about the Master Plan as well as invites comments, questions and advice from the community. The Have Your Say website can be accessed at: <u>https://www.haveyoursay.guelph.ca/</u>

Following the completion of the Master Plan Report, it will be posted to the project website for a 30-day public review.





Guelph Wastewater Treatment Plant

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Wastewater arriving at the Guelph Wastewater Treatment Plant undergoes multiple stages of treatment: preliminary, primary, secondary, tertiary, disinfection and dechlorination. The final treated effluent (high quality treated wastewater) is discharged into the Speed River.

Solids that are removed from the wastewater treatment processes undergo thickening, digestion, dewatering and are further stabilized through the Lystek process. The final product is a Canadian Food Inspection Agency approved fertilizer that is beneficially reused via land application.







Guelph Wastewater Treatment Plant Process Flow Diagram







Existing Conditions

Flows to the Guelph Wastewater Treatment Plant fluctuate from year to year. Over the past five years, the Guelph Wastewater Treatment Plant has treated an average of 55 million litres per day. This represents 85 percent of the Guelph Wastewater Treatment Plant's current rated capacity.

As the population in Guelph increases, so will wastewater volumes requiring treatment. To predict future wastewater flows, it is important to determine the current wastewater generation rate. Ten years' of data were analyzed to determine per capita flow rate.

From 2010 to 2019, the average per capita flow rate was 390 litres per capita per day.

City of Guelph Population from 2010 to 2019











Future Conditions

Ontario's Growth Plan projects Guelph to have a population of 203,000 by the year 2051. Based on the per capita flow rate of 390 litres per capita per day, it is expected that the Guelph Wastewater Treatment Plant will receive an average flow rate of 79.2 million litres per day.

Based on the projected flow rate, the following processes will not have sufficient treatment capacity:

- Grit removal •
- Secondary treatment
- Tertiary treatment
- Waste activated sludge thickening
- Digestion
- Cogeneration
- **Biosolids management**

City of Guelph Population Projections to 2051 250 200 sands) 150 (Thou 100 50 Ũ 2015 2020 2025

Guelph WWTP Average Daily Flow Projections to 2051





030 Date	2035 (Year)	2040	2045	2050




Alternative Solutions and Evaluation Framework

The Municipal Engineers Association defines alternative solutions as feasible ways of solving an identified problem (deficiency) or addressing an opportunity, from which a preferred solution is selected (Municipal Class Environmental Assessment, 2015).

A long-list of alternative solutions will be developed for each deficiency and opportunity. To select the preferred solutions, the long-list of alternative solutions will be evaluated against a set of "must meet" criteria that are aligned with the City's goals and values. Alternatives that meet all criteria will be shortlisted for a further, detailed evaluation.







Alternative Solutions and Evaluation Framework Criteria

"Must-meet" criteria

These criteria represent broad project objectives. Technologies and strategies that do not meet all identified "must-meet" criteria are removed from further consideration.

Performance

Ability to reliably meet regulated performance objectives and criteria for wastewater effluent and biosolids ٠

Proven technology

Full-scale experience in North America and history of application in municipal wastewater ٠

Reliance/reliability

Vendor or market dependency of technology, consumables and ability to manage final products •







Alternative Solutions and Evaluation Framework Criteria Continued

Detailed evaluation criteria categories and examples

Technical environment

- Meets effluent objectives ٠
- Constructability ٠

Natural environment

- Water quality ٠
- Natural heritage system ٠

Social and cultural environment

- Archaeology
- Cultural heritage resources

Economic environment

- Capital cost
- Operation and maintenance costs







Wastewater Treatment and Biosolids Management Master Plan

Project Timeline







Notice of Completion



Next Steps

Thank you for your interest in the City's Wastewater Treatment and Biosolids Management Master Plan.

Your feedback is an important part of the Master Plan process.

- Register, join the conversation and share your thoughts on the Have Your Say website at www.haveyoursay.guelph.ca ٠
- Project information will continue to be updated on the Project website at www.guelph.ca/wastewater ٠
- Join the project mailing list to receive project updates. Please provide your contact information (name and email) to the contacts below. ٠
- Follow the conversation on Twitter at <u>www.twitter.com/cityofguelph</u> and Facebook at <u>www.facebook.com/cityofguelph</u> ٠









Project Contacts

Please contact the project team with any additional comments or questions that you may have:

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Manager of Technical Services	Project Manager
Wastewater Services	Jacobs Engineering Group
Environmental Services	519-514-1642
City of Guelph	mike.newbigging@jacobs.com
519-822-1260 extension 2284	







Appendix C. Notice of Public Open House #1

The notice can be found in Appendix B-3: CLG Meeting 1.



Appendix D. Survey



Guelph Wastewater Treatment and Biosolids Management Master Plan

We want to hear your ideas, suggestions and opinions! This survey asks about our municipal wastewater treatment and biosolids management needs and priorities, from now until 2051. Your feedback will be considered in the development of recommendations about how our wastewater treatment and biosolids management system will be managed as Guelph grows.

Before you complete the survey, we encourage you to {link} that were presented at the first open house on October 28, 2020.

Your participation in this survey is voluntary. All individual responses will be kept confidential and will be used only for the purposes of helping to develop an updated growth management strategy for Guelph. Non-identifiable summaries of responses may be developed and shared publicly.

This survey will take approximately 10 to 15 minutes to complete and will be open until November 25, 2020.

1. Rate your support of the following statements as: 5-strongly support, 4-somewhat support, 3-neutral, 2-somewhat oppose, 1-strongly oppose

	· · · · · · · · · · · · · · · · · · ·					
a)	Impacts to the Speed River should be reduced	5	4	3	2	1
	as much as possible regardless of cost					
b)	Energy efficiencies and opportunities for Net	5	4	3	2	1
	Zero targets should be a long term vision in					
	the master plan.					
c)	The master plan should contain the strategy to	5	4	3	2	1
	continue to beneficially re-use all biosolids to					
	be 100% diverted from landfills.					
d)	Greenhouse gas emissions need to be reduced	5	4	3	2	1
	throughout the city.					

- 2. Which 3 criteria do you feel are most important in evaluating wastewater treatment alternatives for future needs in the City of Guelph?
 - a. Value for cost and affordability
 - b. Health of the Speed River
 - c. City leading innovation
 - d. Water reuse
 - e. Energy efficiency
 - f. Infrastructure longevity
- 3. Which 3 criteria do you feel are most important in evaluating biosolids management alternatives for future needs in the City of Guelph?
 - a. Value for cost and affordability
 - b. Beneficial re-Use
 - c. City leading innovation
 - d. Energy generation
 - e. Sustainability



- 4. Which 3 criteria do you feel are most important in terms of the evaluation of upgrades at the existing Guelph wastewater treatment plant?
 - a. Noise
 - b. Odour
 - c. Traffic
 - d. Environmental impacts
 - e. Land use
 - f. Value for cost and affordability
- 5. What is the best means to communicate this Master Plan to you and other the residents of Guelph?
 - a. Newspaper ads
 - b. City Website Guelph.ca
 - c. Haveyoursay.guelph.ca
 - d. Facebook
 - e. Twitter
 - f. Radio
 - g. Other ____
- 6. Please tell us anything else you think we should know.

Appendix E. Guelph Mercury Tribune Advertisements



Have your say on how the City manages water in all its forms.

Take the surveys today!

Guelph

Have your say on how the City manages water in all its forms.

Take the surveys today!



Appendix F. Guelph Today Advertisements



Have your say on how the City manages water in all its forms.

Take the surveys today!



Guelp

Have your say on how the City manages water in all its forms.

Take the surveys today!





Appendix G. Facebook Advertisements

The City of Guelph G

November 19, 2020 - 3

What comes to mind when you think of #water in Guelph? Rain and snowmelt? Drinking water? Rivers and streams? Water mains?

How we manage water in all its forms impacts you and our environment. We're updating four water-related master plans to ensure water in #Guelph is managed in a sustainable way now and into the future

Learn what water challenges we're facing today and share your thoughts and ideas with us here: http://ow.ly/oF4X50CIHo0 #GuelphWater #MasterPlan



9 Likes, Comments & Shares 4 0 On Shares 7 On Post Likes 1 Comments 0 1 On Post On Shares 0 1 On Post Shares On Shares 38 Post Clicks 2 6 Link Clicks 30 Photo Views Other Clicks # NEGATIVE FEEDBACK 1 Hide Post 0 Hide All Posts 0 Report as Spam O Unlike Page Reported stats may be delayed from what appears on posts

Performance for Your Post

2,401 People Reached

....

...



The City of Guelph G November 30, 2020 - 3

Today is the last day to have your say on all four water-related Master Plans

Help us plan for the future of water in #Guelph:

https://www.haveyoursay.guelph.ca/water-related-master-plans

O Lovleen Sharma, Alex Marson and Michelle Francine

Like

related #MasterPlans.

master-plans #Guelph #GuelphWater

G

The City of Guelph

November 23, 2020 3

Comment

You have one more week left to share your thoughts on all four water-

Don't miss your chance to let us know what you think about how we manage your pee and poop, how we get you your water, what we do when it floods and more: https://www.haveyoursay.guelph.ca/water-related-

A Share

G +

....



3 Likes, Comments & Shares 4 3 Likes 0 On Shares 3 On Post 0 Comments 0 On Post 0 On Shares 0 Shares 0 On Post 0 On Shares 20 Post Clicks 13 Link Clicks 6 Other Clicks 40 Photo Views NEGATIVE FEEDBACK 0 Hide Post O Hide All Posts 0 Report as Spam O Unlike Page

Reported stats may be delayed from what appears on posts

Performance for Your Post

Performance for Your Post

2,316 People Reached

2,332 People Re	ached	
3 Likes, Commente	s & Shares #	
3 Likes	3 On Post	0 On Shares
0 Comments	0 On Post	0 On Shares
0 Shares	0 On Post	0 On Shares
22 Post Clicks		
1 Photo Views	12 Link Clicks	9 Other Clicks //
NEGATIVE FEEDBACK		
1 Hide Post	0 Hide	All Posts
0 Report as Spam	0 Unli	ke Page

Reported stats may be delayed from what appears on posts

	12	-	.0
2,332 People Reached	25 Engagements	В	oost Po
C Lovleen Sharma, M	ari Vroom-Macnell and	Nathan Kasprzyk-H	leuff
n Like	C Comment	Share	G



Appendix H. Twitter Advertisements



Retweet 3 Libes

Appendix I. The Weather Network Advertisements

Have your say on how the City manages water in all its forms.

Take the surveys today!





Jacobs

Guelph Wastewater Treatment and Biosolids Management Master Plan Summary and Consultation Report - Public Open House #2

CE771800-1B | Draft Issued for Client Review November 5, 2021

City of Guelph



Guelph Wastewater Treatment and Biosolids Management Master Plan

Project No:	CE771800
Document Title:	Summary and Consultation Report - Public Open House #2
Document No.:	CE771800-1B
Revision:	Final
Date:	November 5, 2021
Client Name:	City of Guelph
Client No:	Client Reference
Project Manager:	Deborah Ross, M.A.Sc., P.Eng.
Author:	Jared Philpott, EIT
	Jillian Schmitter, P.Eng.
	Deborah Ross, M.A.Sc., P.Eng.
File Name:	CE771800_SummaryandConsultationReport_POH2_Final.docx

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Revision	Date	Description	Author	Checked	Reviewed	Approved
0	September 2, 2021	Draft Issued for Client Review	J. Philpott J. Schmitter	D. Ross	D. Ross	D. Ross
Final	November 5, 2021	Final	J. Schmitter	D. Ross	D. Ross	J. Schmitter

Document history and status

Contents

1.	Introduction	.1
2.	CLG Meeting #2 Attendance and Materials	.2
3.	Public Open House #2	.4
3.1	Overview	.4
3.2	Notification of POH #2	.4
3.3	Survey	.4
4.	Summary of Feedback	.5
4.1	Survey Responses	.5
4.2	Survey Questions/Comments	.9
4.3	Other Question/Comment Submissions	14

Appendix A. CLG Meeting #2 Presentation Slides

Appendix B. Virtual Room Presentation Boards

Appendix C. Accessible Presentation Boards

Appendix D. Notice of Public Open House #2

Appendix E. Guelph Today Advertisements

Appendix F. Facebook Advertisements

Appendix G. Twitter Advertisements

Appendix H. Survey

1. Introduction

In January 2020, the City of Guelph (City) contracted Jacobs to prepare a Wastewater Treatment and Biosolids Management Master Plan (WTBMMP) following the Municipal Engineers Association (MEA) Class Environmental Assessment (EA) process. The City last completed a Wastewater Treatment Master Plan in 2009 and a Biosolids Management Master Plan in 2006. This WTBMMP will consider and update wastewater treatment and biosolids management recommendations and recommend a roadmap for future capital investment at the Guelph WWTP, enabling the City to service long-term growth while improving performance reliability, sustainability and resiliency in providing wastewater treatment and biosolids management services.

There are five phases in the Class EA process, as follows:

- Phase 1: Problem Definition
- Phase 2: Identification of Alternative Solutions and Public Consultation
- Phase 3: Identification of Alternative Design Concepts for the Preferred Solution
- Phase 4: Completion of an Environmental Study Report (ESR) followed by a 30-day Public Review Period
- Phase 5: Implementation of the Project

The WTBMMP will represent Phases 1 and 2 of the Class EA process. The Community Engagement and Communication Plan (CECP) prepared at the start of the WTBMMP, identified approaches to consult with the following key stakeholders through the project development:

- Community members
- Municipal staff and elected officials (the City, Guelph-Eramosa Township, Puslinch Township)
- Review agencies.

The CECP also identified approaches to engage with Indigenous and First Nations communities through project development.

Two Public Open Houses POHs were held to give members of the community and stakeholders an opportunity to learn about and provide feedback on Phases 1 and 2 of the Master Plan, as follows:

- Public Open House (POH) #1 was held as part of Phase 1 of the Class EA process. Due to the COVID-19 pandemic, POH #1 was held virtually, accessible to the public for 30 days. POH #1 opened on October 28th, 2020 and closed (to comments) on December 10th, 2020.
- POH #2 was held as part of Phase 2 of the Class EA process. Due to the COVID-19 pandemic, POH #2 was held virtually, accessible to the public for 41 days. POH #2 opened on May 12th, 2021, and closed on June 22nd, 2021.

In addition to the POH, to provide a forum where representatives from key stakeholder groups could have opportunity to learn about the project and provide input on behalf of their group, a Community Liaison Group (CLG) was formed. The CLG includes representation from Provincial agencies, academia, industry, builders/developers, neighbouring townships, energy groups and the Grand River Conservation Authority (GRCA). CLG Meeting #1 was held prior to POH #1 and CLG Meeting #2 was held prior to POH #2. The final CLG (Meeting #3) is planned to be held following the completion of the draft Master Plan Report.

The purpose of this report is to present a summary of the engagement from POH #2, as week as to present initial feedback received at CLG Meeting #2. A previous report was prepared to present engagement from POH #1 and the feedback received at CLG Meeting #1.

2. CLG Meeting #2 Attendance and Materials

CLG Meeting #2 was held on April 27th, 2021, prior to POH #2, and was attended by project representatives from the City of Guelph, Jacobs and subconsultant Hardy Stevenson, and all ten of the CLG members. The participants in this meeting are listed in Table 2-1.

Participant	Organization
Mike Newbigging	Jacobs
Deborah Ross	Jacobs
Jillian Schmitter	Jacobs
Jared Philpott	Jacobs
Dave Hardy	Hardy-Stevenson
Danya Braun	Hardy-Stevenson
Mari MacNeil	City of Guelph
Tim Robertson	City of Guelph
Travis Pawlick	City of Guelph
Bryan Ho-Yan	City of Guelph
Sheng Chang	University of Guelph
Joan Del Villar Cuicas	Ministry of Environment, Conservation and Parks (MECP)
Corinne Taylor	MECP
Kevin Brousseau	Guelph Home Builders Association
Mike Beswick	Lystek International
Alex Chapman	Our Energy Guelph
Hugh Whiteley	University of Guelph
Mark Anderson	GRCA
Harry Niemi	Township of Guelph-Eramosa

Table 2-1: CLG Meeting #2 Participants

In these meetings, the projected future needs at the Guelph WWTP, the alternatives evaluation and the proposed preferred solution for this Master Plan were presented to the CLG. The presentation boards for POH #2 were also presented. CLG members were given the opportunity to provide feedback on various aspects of the Master Plan completed to date. The presentation slides from CLG Meeting #2 are presented in Appendix A. General points of discussion included:

- Heat recovery from effluent as a potential energy source
- Confirmation of the Guelph WWTP per capita flow rate
- Chloride concentrations in the Speed River and City initiatives to reduce chlorides
- Energy requirements for various wastewater treatment technologies

Overall, the CLG was in agreeance with the preferred solution.

3. Public Open House #2

3.1 Overview

A variety of strategies and tools were used to provide widespread notice and enable accessible participation in the public engagement process for this Master Plan.

POH #2 was made virtually available on May 12th, 2021 and was closed to comments on June 22nd, 2021. The POH was hosted online by Jacobs at *guelphwtbmmp-virtualopenhouse.com* in an interactive format, allowing visitors to navigate a virtual room that displayed presentation boards in the same manner that they would be displayed in person. An accessible version of the presentation boards was available on the City's website and the Have Your Say Guelph website, which is the City's platform used for public consultation on various projects.

The version of the presentation boards that was used for the virtual room is presented in Appendix B, with the accessible version of the presentation boards presented in Appendix C.

A total of 177 unique users visited the virtual POH website while it was open for viewing.

3.2 Notification of POH #2

The Notice of POH #2 was distributed to the project mailing list by email on May 12th, 2021. The Notice was also posted on the City's website and notification was sent to those registered on the City's Have Your Say website. The Notice is presented in Appendix D.

Both the City website (guelph.ca/wastewater) and the City's Have Your Say website (haveyoursay.guelph.ca) advertised the POH and contained links to the POH website. The Have Your Say website served as the central online resource, hosting the survey and allowing participants to submit questions to the project team. The website also provided the presentation boards in an accessible format.

Phone calls and follow-up emails were used to notify First Nations and Indigenous communities. The City's Policy and Intergovernmental Relations group has been in communication with Six Nations of the Grand River and held a separate consultation session on July 12th, 2021 to present progress from this Master Plan and the Water Supply Master Plan. The main questions raised during the meeting were about the age of infrastructure, biosolids management and future effluent limits. Six Nations requested a draft copy of the Master Plan before it is presented to City Council for approval.

Social media was used by City staff to raise awareness of the POH, with Twitter and Facebook being the main platforms. The City created posts for their Twitter and Facebook page and also paid for advertising on Facebook and Instagram. The POH was also advertised in GuelphToday. Advertisements are presented in Appendix E through Appendix G.

3.3 Survey

While viewing the presentation boards, the user was directed to the City's Have Your Say website to complete a survey related to the Master Plan. The survey is presented in Appendix H and the results are present in Section 4. A total of 18 participants filled out the survey, which was available for the same duration as the POH presentation boards.

4. Summary of Feedback

4.1 Survey Responses

Once they viewed the presentation boards, POH #2 participants were provided a link to complete a survey related to the WTBMMP on the City's Have Your Say website, and to submit questions about the Master Plan for the project team. Of the 177 unique visitors to the virtual POH website, 18 completed surveys on the Have Your Say website. Responses to each question are as follows:

1) Do you agree with the selection of the preliminary preferred solution for wastewater treatment?

- Agree
- Disagree
- Unsure
- No Answer

Of the 17 participants who responded, 13 agreed with this statement, 1 disagreed, 3 were unsure and 1 participant did not answer, as summarized in Table 4-1. This indicates strong community support for the preliminary preferred solution for wastewater treatment.

Table 4-1: Responses to	Question 1
-------------------------	------------

Answer	Number of Participant Responses	Percent of Total (%)
Agree	13	72
Disagree	1	6
Unsure	3	17
No Answer	1	6

2) Please provide your thoughts on the aspects of the preferred solution.

Most participants agreed with all preferred solution aspects, as presented in Table 4-2. Participants were also invited to leave comments, which are summarized in Section 4.2.

Table 4-2: Responses to Question 2

Preferred Solution Aspect	Agree	Disagree	Unsure	No Answer
New Headworks	13	0	3	2
Two New Secondary Clarifiers	12	3	1	2
Membrane Aerated Biofilm Reactor (MABR) Retrofit in Plant 1	12	2	2	2
WAS Hydrocyclones	12	0	3	3
Disk Filtration	12	0	3	3
UV Disinfection	14	0	1	3

3) Do you agree with the selection of the preliminary preferred solution for biosolids management?

Of the 15 participants who responded, 8 agreed with this statement, 3 disagreed, 4 were unsure and 3 participants did not answer, as summarized in Table 4-3. This indicates partial community support for the preliminary preferred solution for biosolids management.

Table 4-3: Responses to Question 3

Answer	Number of Participant Responses	Percent of Total (%)
Agree	8	44
Disagree	3	17
Unsure	4	22
No Answer	3	17

4) Please provide your thoughts on the aspects of the preferred solution

Most participants agreed with all preferred solution aspects, as presented in Table 4-4. This is in contrast with the responses to Question 3, where many participants were unsure or had no answer. Participants were also invited to leave comments, which are summarized in Section 4.2.

Preferred Solution Aspect	Agree	Disagree	Unsure	No Answer
Integrated Primary Sludge and WAS Thickening Facility	14	0	2	2
New Dewatering Facility	12	0	4	2
Expansion of the Lystek Process	11	2	3	2
Biosolids Storage	12	1	3	2
Odour Control	12	1	2	3

Table 4-4: Responses to Question 4

5) Is the presentation of the overall Wastewater Treatment and Biosolids Management Master Plan Class EA process in the Open House materials clear?

Of the 18 participants who responded, 10 agreed with this statement, 4 disagreed and 4 were unsure, as summarized in Table 4-5. Participants were also asked to comment on any components that are unclear, with these comments summarized in Section 4.2.

Table 4-5: Responses to Question 5

Answer	Number of Participant Responses	Percent of Total (%)
Agree	10	56
Disagree	4	22
Unsure	4	22
No Answer	0	0

6) Based on the evaluation and the resulting preliminary preferred solutions, do you understand how the preliminary preferred solutions were selected.

Of the 16 participants who responded, 9 participants understood the selection process, 7 did not understand the selection process, and 2 participants did not answer, as presented in Table 4-6. Participants were also asked to provide comments concerning the process, which are presented in Section 4.2.

Table 4-6: Responses to Question 6

Answer	Number of Participant Responses	Percent of Total (%)
Yes, I understand the selection process	9	50
Unsure	2	11
No, I do not understand the selection process	7	39

7) Was the information provided too technical, about right or not detailed enough?

Of the 18 participants who responded, 10 found it too technical, 4 found it about right and 4 found it not detailed enough, as summarized in Table 4-7.

Table 4-7: Responses to Question 7

Answer	Number of Participant Responses	Percent of Total (%)
Too technical	10	56
About right	4	22
Not detailed enough	4	22

8) Was the information provided helpful to you?

Of the 18 participants who responded, 9 found it helpful, 6 found it somewhat helpful, 2 found it not helpful, and 1 did not answer, as summarized in Table 4-8.

Table 4-8: Responses to Question 8

Answer	Number of Participant Responses	Percent of Total (%)
Helpful	9	50
Somewhat helpful	6	33
Not helpful	2	11
No answer	1	6

9) Community engagement is an important part of the EA process. Based on the information provided in this Open House, do you believe that the community engagement has been sufficient?

Of the 18 participants who responded to the survey, 8 responded yes, 4 responded no, 5 were unsure and 1 did not answer, as summarized in Table 4-9. Participants were also asked to provide suggestions to improve the engagement process, which are summarized in Section 4.2.

Table 4-9: Responses to Question 9

Answer	Number of Participant Responses	Percent of Total (%)
Yes	8	44
No	4	22
Unsure	5	28
No Answer	1	6

10) Have you been engaged in earlier phases of the project?

Of the 18 participants who responded to the survey, 4 responded yes, 13 responded no and 1 did not answer, as summarized in Table 4-10.

Table 4-10: Responses to Question 10

Answer	Number of Participant Responses	Percent of Total (%)
Yes	4	22
No	13	72
No answer	1	6

11) If yes, did you submit question(s) to the City during earlier phases of the project?

Of the 4 participants who responded yes to the previous question, all 4 responded no, as summarized in Table 4-11.

Table 4-11: Responses to Question 11

Answer	Number of Participant Responses	Percent of Total (%)
Yes	0	0
No	4	22
No answer	14	78

12) If yes, were your question(s) answered?

No participants answered yes to the previous question, so no responses were received for this question.

13) If No or Somewhat, what about your question(s) remain unanswered?

No participants answered the previous question, so no responses were received for this question.

4.2 Survey Questions/Comments

At the end of the survey, users were provided with the opportunity to submit additional comments. These comments and if required, their responses are presented in Table 4-12.

Jacobs

Table 4-12: Survey Comments/Questions and Responses

No.	Survey Comment/Question	Response
1.	Prefer expansion into fifth plant rather than rely on an aging infrastructure. Keep it simple and reliable.	Because we have proposed expanse additional secondary treatment cap evaluate newer technologies, which compared to conventional expansion retrofit of existing infrastructure using
2.	You do not want the MABR they clog incredibly easy and are very difficult to clean, not worth the trouble. square clarifiers are old and outdated. if you are going to build new you need to go with circular one. come on and modernize already!!! Guelph is decades behind.	Membrane aerated biofilm reactor future expansion. Since the expand monitor installations at other facilit implemented at the Guelph Wastew demonstrate performance. With regard to clarifiers, the wastew effectively, with no clear performan to optimize use of the site - that sar constructed at Guelph Wastewater
3.	I was surprised to not see biogas energy generation in this plan. This is not new technology and will become a renewable energy of the future.	The City has been recovering the e several years. We didn't include an because the City is currently in the sufficient capacity to utilize the biog currently use generates electricity a utility, and heat is used to heat the
4.	The water should be drinkable quality on return to the river.	The City takes the responsibility of this Master Plan. The Guelph Wast Environmental Compliance Approx Parks (MECP), which specifically d consider both minimum Provincial s River water quality. All standards a Surface Water Quality Objectives d the Guelph Wastewater Treatment and one of the key Master Plan crit requirements.
5.	I'm concerned about emerging contaminates. Do the preferred solutions address these? Was that taken into account? Very little information was provided on how future flows were derived, was grey water/water reuse factored in? The solution is very plant focused and does not seem to consider the bigger picture.	The ability of all wastewater treatm considered during the evaluation pro- contaminants of concern to a high of Information on future flow projection flow projections were reviewed and for the Water Supply Master Plan, w capacities of many plant processes hydraulic capacity (wastewater qua- plant flows, it would not reduce the would still be required.
6.	Would like to see the goal reached earlier than 2050	A phased implementation of Maste based on providing capacity and/or growth and/or address aging infras the Province of Ontario's "A Place to The City has been doing a great job Master Plan is to continue to meet

sion of the Plant 2 clarifiers by 2027, the City won't need bacity can be deferred to 2038. This will enable the City to h may offer benefits in terms of energy, land use and cost, on, and make a decision regarding a new process train (Plant 5) or ng current information closer to the time the expansion is required.

(MABR) is a newer technology that will be considered for the led capacity will not be required until 2038, there is opportunity to ties and identify operational issuses. In addition, MABR will only be water Treatment Plan following successful pilot testing to

vater industry has used both circular and rectangular designs nce distinction between the two. In general, the design is selected me consideration will be given for new clarifiers that will be Treatment Plant in the future.

energy from digester biogas using cogeneration technology for a evaluation of how we use biogas alternatives as part of this plan design phase for co-generation upgrades that will provide gas generated at the Guelph WWTP to 2051. The technology we and heat. Electricity generation offsets purchase from our hydro digestion process.

protecting the Speed River seriously and is a primary objective of tewater Treatment Plant is approved to operate by its val (ECA) issued by the Ministry of Environment, Conservation and defines effluent (treated water discharged into the river) quality that standards and site specific requirements to protect the Speed and requirements are specified with a goal to achieve Provincial downstream of the discharge point. While not drinkable quality, Plant has historically performed better than required in the ECA, teria is a requirement to perform reliably to meet future

nent alternatives to remove emerging contaminants of concern was rocess. Technologies that met the criteria to treat emerging degree received higher scores.

on development was provided in Public Open House #1. These I compared with the water supply projections that were developed which considers water reuse. It is also noted that the treatment are dependent on wastewater characteristics, rather than untity). While increased water reuse could result in a decrease in a projected contaminant loadings and the projected upgrades

er Plan recommendations is currently being developed, which is r major upgrades before they are needed to service population structure nearing end of life. Capacity requirements are based on to Grow" growth plan, which projects the City's population in 2051. b of meeting needs as the community has grown, the goal of this the needs of our growing community. This plan will see that the



No.	Survey Comment/Question	Response
		City builds the necessary treatment manner.
7.	These things should be implemented as soon as possible. I know Guelph is struggling to deal with their solids.	See the response to Question 6.
8.	Looks like a good start. Happy to see that we are looking to the future needs for the city of Guelph. I am unhappy that there will not be an anaerobic digestor onsite for the production of biogas and renewable energy generation - seems like a wasted opportunity	See the response to Question 3.
9.	A time sensitive plan for reaching each stage of development. Since Guelph continues to grow at a fast pace, an earlier date for completion might be considered	See the response to Question 6.
10.	I'm glad to see that this does not include plans for co-digestion of SSO or industrial, commercial and institutional (IC&I) food waste feedstocks at the WWTP. While notionally it sounds great to co-digest SSO or food waste at the WWTP, and to use our local resources to achieve our own net zero targets, in the case of a WWTP it needs to be approached cautiously and assessed on a full cost assessment basis compared to alternatives. Currently, and with new upcoming regulatory changes, commercial anaerobic digesters or farm-based digesters can accept food waste and SSO at relatively low tipping fee costs. The digestate can be land-applied as a liquid nutrient, or perhaps as a simply dewatered cake without expensive post-digestion treatment to produce a fertilizer product. Whereas, when codigestion with sewage occurs at a WWTP, the requirements within the City for odour control, for digestion suited to sewage solids, for post-digestion further treatment, for dewatering and pelletization, for creating a product that has the perceived down-sides of a sewage biosolid, and then for proper storage off-site, and ultimately use as a land-applied nutrient, likely result in significant added cost for taxpayers. It also still results in discharge of some nutrient-containing liquids to the Speed River. While the City does control our own SSO feedstock stream, putting the City in a position where it competes with other players in the digester market for other doelbased feedstocks is tricky, as the City likely does not have the nimbleness or business framework to compete effectively with other digester developers pursuing lucrative Renewable Natural Gas markets. All of that likely adds up to an over-priced codigestion project that notionally meets net zero goals, but needs a hard look to ensure it pencils out and is actually achievable in the future marketplace. Perhaps, with lots of life left in our compost facility, it's probably not a conversation for today. But I encourage strong caution as we see other municipalities trying	The potential for co-digestion of sou digesters at the Guelph WWTP was economically viable option at this tin future Master Plans, but co-digestion preferred solution.
11.	For someone that is not in wastewater treatment the presentation used language that most people are unfamiliar with. The only reason I kind of knew what was being presented was because of the Magic School Bus.	Thank you for the feedback. That is to make future materials as clear as project team for further discussion.
12.	The font was very small and there wasn't a lot of context provided before getting into preferred design solutions. Very little information was provided on social, environmental etc impacts and mitigation measures.	We will work to make future materia would like more information, please information will be provided about t public review.
13.	On a personal level, most of the terms used were not clearly defined.	We will work to make future materia to the project team for further discus
14.	If there was an anaerobic digestor on site less biosolid waste storage would be required and odor control would not been needed, since the biosolids would ferment in the digestor and thus would not have an odor.	The Guelph WWTP currently has 4 and producing biosolids. The odour cont new integrated primary sludge and N
15.	Not enough focus on environmental concerns	Environmental impacts will be clearl public review.
16.	Since understanding is unclear, is difficult to answer this question	We will work to make future materia to the project team for further discus
17.	Create a biosolids storage facility at wet dry, build an incinerator to meet the needs of both rubbish and wastewater biosolids that will create green energy. This approach will also secure Guelphs future needs when landfills become full in 2032.	The Lystek process has been used or fertilizer from biosolids since 2008 v measures in place to prevent a nega of this Master Plan but based on the economic criteria, it was not identifie Plant.

capacity so it is ready when it's needed in a fiscally responsible

urce separated organics (SSOs) using the existing anaerobic is investigated but as you have mentioned, it is not seen as an me. These opportunities will continue to be monitored during on of SSOs is not being recommended of this Master Plan's

one of our favourite episodes of Magic School Bus. We will work s possible. If you have any questions, please reach out to the

als as clear and reasable as possible. If you have any questions or e reach out to the project team for further discussion. More these aspects in the Master Plan report, which will be available for

als as clear as possible. If you have any questions, please reach out ussion.

maerobic digesters onsite that are used for sludge stabilization, trol facility is mainly to mitigate any potential odours from the WAS thickening facility and from the new dewatering facility.

ly outlined in the Master Plan report, which will be available for

als as clear as possible. If you have any questions, please reach out ussion.

In site at the Guelph Wastewater Treatment Plant to produce a with no spill-related incidents. There are many mitigation ative impact to the Speed River . Incineration was reviewed as part e natural environment, social/cultural environment, technical and ed as the preferred solution at the Guelph Wastewater Treatment



No.	Survey Comment/Question	Response
18.	It is a WWTP correct? why are you going to produce fertilizer on site? huge potential for a still right into the river, totally unnecessary risk. DON'T take the RISK!! haul off site and process it there or incinerate it, that's the way everything is going all garbage will have to be incinerated in the next decade. much cleaner and enviro friendly than burying it or spreading a plastic laden product on fields.	The Lystek process has been used on fertilizer from biosolids since 2008 w measures in place to prevent a negat of this Master Plan but based on the economic criteria, it was not identifie Plant.
19.	Will the biosolids generated through the Lystek process be sold, or will it be digested onsite? Will Guelph residents pay to have the biosolids transported offsite? What happens if we are unable to ship biosolid waste offsite - do we have to build more storage facilities?	Sludge is anaerobically digested on s the biosolids that are used to general product is considered in the biosolids which also includes transportation by Storage facilities are mainly required between November and April. A stora identified as part of the preferred sol biosolids, which would be more than
20.	They should be used to power the electricity in guelph.	Biogas generated in the anaerobic di generation, which is used to power so electricity.
21.	New Dewatering Facility to be ranked higher	We agree that dewatering is an impore expected to be one of the first project Plan.
22.	Information on proposed strategy put into terms that those who are not engineers can understand. Accurate feedback for this survey is difficult to impossible without some clarification.	Thank you for the feedback. We agre- technical. While we attempt to be as to make future materials as clear as p presented, please reach out to the pr clarification.
23.	Options for storage and odour control were unclear	Thank you for this feedback. To be cl flexibility at the Guelph WWTP during is not possible. Odour control was inc from the new solids handling.
24.	show on the survey how many have already taken it. other wise how would I know if anyone else was engaged?	Our question was intended to get participant. We appreciate that yo analytics too. This information wil the Master Plan. The report provid visited the web page and who con on www.haveyoursay.guelph.ca.
25.	Perhaps additional details about the eliminated long-list options, descriptions of the alternatives, costs, etc. could have been provided in a "handout"/ additional details link. Curious what additional First Nations engagement has been completed.	Regarding First Nations engagem and First Nations communities the The City is in the process of buildi with the goal of conducting mean
26.	Social media outreach	Thank you for the feedback. Social the City's Facebook and Twitter pasocial media to connnect with our
27.	The money being used to expand this facility will be Guelph Tax dollars. I am sure most people will be happy that the treatment plant is being expanded to handle a larger volume capacity. However, if this presentation was presented to the tax payers with all the options on the table - I am sure Guelph Tax payers would vote for a renewable energy option.	Energy efficiency and greenhouse alternative and considered in the minimize greenhouse gas emissio Guelph know that some compone positive impact on greenhouse ga

n site at the Guelph Wastewater Treatment Plant to produce a with no spill-related incidents. There are many mitigation ative impact to the Speed River . Incineration was reviewed as part e natural environment, social/cultural environment, technical and ed as the preferred solution at the Guelph Wastewater Treatment

site at the Guelph Wastewater Treatment Plant, which produces ate fertilizer through the Lystek process. The sale price of this ds management contract that the City currently has with Lystek, by Lystek.

d during the winter, as land application cannot be completed rage facility at the Guelph Wastewater Treatment Plant was olution. It would be large enough to store 6 months' worth of n sufficient if there were a temporary transportation issue. ligesters is currently used to generate electricity via cosome of the processes in the plant and offset the purchase of

ortant part of the Master Plan. The new dewatering facility is ects that will implemented following completion of this Master

ee that the Master Plan and related terms and langauge are highly s clear as possible, we hear that we need to do better. We will work possible. If you have any questions about the information project team and we will be glad to discuss further or provide

clear, biosolids storage was selected to provide operational ng the winter months when land application of the Lystek product included as a component to mitigate any potential odour impacts

t feedback about how the process was for you as a ou might want to know more about our engagement ill be presented in the public open house report, as part of ides detailed information on the number of people who mpleted the survey. All responses to comments are located

nent, the team has been engaged with impacted Indigenous nroughout the project, as required for the Class EA process. ling relationships with First Nations and Indigenous groups ningful engagement on projects such as this one.

ial media outreach to date has included frequent posts on pages during the open house period. We will continue to use ar community.

se gas generation projections were developed for each e evaluation. Alternatives that are more energy efficient and ons receive higher scores. We are proud to let the peope in ents of the preferred solution are projected to have a net gas emissions in the City. Summary and Consultation Report - Public Open House #2



No.	Survey Comment/Question	Response
28.	Post this on social media	
29.	Provide information in a less technical form	
30.	Incinerate the solids, and the Garbage from Guelph!!!!!! this will be the only option in the future, get on it now and be the leader not the follower!!!! you could make money from taking garbage from Kitchener and surrounding areas. and use the heat to produce power. That is the most environmentally friendly thing to do, power from waste!!!!! Guelph is so far behind in progress, this could be a way to catch up and not fall further behind	Group with Question 7
31.	Has an assimilative capacity study been done to determine water quality requirements at new capacity?	Yes, an assimilative capacity stud These findings were considered of solution was selected to meet the
32.	Investigate removal of microplastics from water using ferrofluids/magnets	Microplastic removal with ferrofl Plan, as the focus for wastewater installations at municipal wastew more prevalent in wastewater tre Master Plan updates.
33.	Biogas will be the way of the future in terms of renewable energy options. The plant already produces biogas, so why not harness this energy and contribute to the greener energy solutions for our future? You have the power and ability to make a real difference in renewable energy contributions that will help move us towards a cleaner energy future.	Group with Question 3
34.	Keep the speed river clean plz	The health of the Speed River wa and during the ongoing Master P
35.	Do like the concept of community engagement with regard to issues pertaining to Guelph. Elders would most likely contribute a great deal but many are not computer literate. Possible to engage local newspaper to explain this issue?	Newspaper advertisements have Public Open Houses and will be u engagement efforts have been in entirely online however our proje discussion with members of the p computers.

dy has been completed based on the future flow projections. during the alternatives evaluation process and the preferred be water quality requirements determined in this study. luids/magnets was not investigated as part of this Master r treatment technologies was on those that have full-scale water treatment plants. However, if this technology becomes eatment in the future, it could be investigated during future

as an important consideration during the evaluation process Plan development.

e been used to notify the public of Project Initiation and both used to notify the public of Project Completion. Our mpacted by the COVID-19 pandemic and have been offered ect team is happy to provide informaiton and have public who do not have access to, or comfort with,
4.3 Other Question/Comment Submissions

Outside of the survey, users were able to submit general questions regarding the Master Plan to the project team. No additional comments were received by the project team.

Appendix A. CLG Meeting #2 Presentation Slides

The presentation can be found in Appendix B-3: CLG Meeting 2.

Appendix B. Virtual Room Presentation Boards

Boards were made accessible, and are available in Appendix C of this report.

Appendix C. Accessible Presentation Boards



Wastewater Treatment and Biosolids Management Master Plan

City of Guelph Wastewater Treatment and **Biosolids Management Master Plan**

Virtual Open House #2









Welcome to Virtual Community Open House #2

Please sign in.

The City is updating its Wastewater Treatment and Biosolids Management Master Plan, a long-term plan that will ensure Guelph's wastewater is managed in a way that is sustainable, protects our waterways and environment, and has the capacity to handle the City's growing population.

The Master Plan will look at how the City is currently managing and treating wastewater at the Guelph Wastewater Treatment Plant (WWTP) and guide how we will continue to meet the demands of our growing community now until 2051.

This is the second of two open houses that you will have the chance to have your say and help shape the Master Plan.







Master Plan Purpose Statement

The Wastewater Treatment and Biosolids Master Plan will review and revise the City's 2009 Wastewater Treatment and 2006 Biosolids Management Master Plans to reflect updates in development and growth, expansion and re-rating, local initiatives and studies, climate change initiatives and official plan amendments and legislation and guidelines.

Study Area

The Guelph WWTP collects and treats wastewater from within the urban boundaries of Guelph, as displayed in the figure. The Guelph WWTP also treats wastewater from the Gazer Mooney subdivision and the Village of Rockwood through a Memorandum of Understanding with the City of Guelph.







Guelph Wastewater Treatment Plant

The Guelph Wastewater Treatment Plant has a current rated capacity to treat 64 million litres per day. This is equal to 26 Olympic-sized swimming pools per day.

Wastewater arriving at the Guelph Wastewater Treatment Plant undergoes multiple stages of treatment: preliminary, primary, secondary, tertiary, disinfection and dechlorination. The final treated and disinfected effluent is discharged into the Speed River.

Nutrient rich solids that are primarily organic are removed from the wastewater treatment processes undergo thickening, digestion, dewatering and are further stabilized through the Lystek process. The final product is a Canadian Food Inspection Agency approved fertilizer that is beneficially reused via land application.











Community Engagement Plan

The City of Guelph is seeking suggestions, comments and ideas for the Master Planning Process. The City is interested in feedback from the Community Liaison Group, City of Guelph staff, Guelph community members and neighbours, Indigenous communities and Provincial Agencies.

The Community Liaison Group involves local stakeholders who will meet three (3) times during the Master Plan process.

We will have two (2) virtual open houses during the Master Plan process. The first one was held during Fall 2020 and presented the existing conditions at the Guelph WWTP.

Virtual open houses meet the Class EA consultation requirements provided that they meet your needs as a stakeholder.

The City's "Have Your Say" website shares specific information about the Master Plan as well as invites comments, questions and advice from the community. The Have Your Say website can be accessed at: https://www.haveyoursay.guelph.ca/

Following the completion of the Master Plan Report, it will be posted to the project website for a 30-day public review.







Wastewater Treatment and Biosolids Management Master Plan

Future Needs

Ontario's Growth Plan projects Guelph to have a population of 203,000 by the year 2051. Based the per capita flow rate of 390 litres per capita per day, it is expected that the treatment plant will receive an average flow rate of 79.2 million litres per day.

The following processes are projected to require upgrades in the planning period, either due to capacity limitations or condition:

Future Needs	
Capacity-Based	Сог
Screening	G
Grit Removal	Terti
Secondary Treatment	Γ
Tertiary Treatment	C
Waste Activated Sludge Thickening	ſ
Digestion	
Cogeneration	
Biosolids Management	







ndition-Based

- Grit Removal
- iary Treatment
- Disinfection
- Cogeneration
- Dewatering



Future Needs – Wastewater Treatment







Wastewater Treatment and Biosolids Management Master Plan







2051 Projected Flow = 79.2 ML/d



Alternative Solutions and Evaluation Framework

The Municipal Engineers Association defines alternative solutions as feasible ways of solving an identified problem (deficiency) or addressing an opportunity (Municipal Class Environmental Assessment, 2015).

A long-list of alternative solutions was developed for each deficiency and opportunity. The long-list of alternative solutions was then evaluated against a set of "must meet" criteria that are aligned with the City's goals and values. The intention of must meet criteria evaluation was to eliminate the potential alternatives that are not feasible for the Guelph WWTP. The alternatives that met all must-meet criteria were shortlisted for a further, detailed evaluation.











Shortlisted Alternative Solutions

Shortlisted alternative solutions were subjected to a 2-stage detailed evaluation. In the first stage, alternatives were evaluated against the non-economic (natural, social/cultural and technical) criteria, presenting the "benefit score" for each alternative. Those alternatives that received significantly lower benefit scores than others were eliminated from consideration, as they clearly did not provide any advantage over other alternatives.









Detailed Alternatives Evaluation

Alternative solutions that passed the first detailed evaluation stage were then subjected to detailed concept development and costing. For each alternative solution, alternative technologies were evaluated. Economic criteria scoring was completed and combined with the natural, social/cultural and technical criteria scores to provide an overall score for each alternative solution. Sensitivity analyses were completed by adjusting the criteria weighting. The wastewater treatment and biosolids management alternative solution that received the highest scores were selected as the preferred solutions.











Detailed Alternatives Evaluation – Wastewater Treatment

The tables below present the ranking of shortlisted alternatives for each process unit. The number one ranked alternatives are the preferred solution for this Master Plan.

	Headworks		Tertia
Rank	Shortlisted Alternative	Rationale for Preferred Solution	100
1	New Headworks Facility	 Only feasible alternative solution. Technology will be selected at a later stage. 	80 60 40
	Tertiary Filtration		20
Rank	Shortlisted Alternative	Rationale for Preferred Solution	0 Sand Filtration
1	 Expansion with Disk Filters 	 Lower lifecycle cost 	Social/Cultural Environment 🗖 Natural E
2	 Expansion with Sand Filters 	 Significantly smaller footprint 	Disi
	Disinfection		80
Rank	Shortlisted Alternative	Rationale for Preferred Solution	60
1	Expansion with UV Disinfection	Better protection for the Speed RiverLess chemical usage	40
2	Expansion with Chlorine Contact Tanks		0 Chlorine Contact Tank Social/Cultural Environment Natural E







Detailed Alternatives Evaluation – Wastewater Treatment Continued

The tables below present the ranking of shortlisted alternatives for each process unit. The number one ranked alternatives are the preferred solution for this Master Plan.









Wastewater Treatment and Biosolids Management Master Plan

Detailed Alternatives Evaluation – Biosolids Management

The tables below present the ranking of shortlisted alternatives for each process unit. The number one ranked alternatives are the preferred solution for this Master Plan.

	Sludge Treatment/Stabilization		
Rank	Shortlisted Alternative	Rationale for Preferred Solution	Sludge
1	 New Primary Sludge Thickening and WAS Thickening Facility 	 g Significantly lower lifecycle cost Less complex operations and maintenance Less complex implementation 	80
2	 Digester Expansion, WAS Thickening Expansion 		60
3	 New Thermal Hydrolysis Pretreatment Facility 		40
	Dewatering		20
Rank	Shortlisted Alternative	Rationale for Preferred Solution	Digester Expansion
1	 New Dewatering Facility 	 Only feasible alternative solution. Technology will be selected at a later stage. 	Social/Cultural Environment
	Biogas Utilization		
Rank	Shortlisted Alternative	Rationale for Preferred Solution	
1	Expansion of Cogeneration System	 Design is underway for this expansion. 	









Detailed Alternatives Evaluation – Biosolids Management Continued

The tables below present the ranking of shortlisted alternatives for each process unit. The number one ranked alternatives are the preferred solution for this Master Plan.

It is noted that scoring did not provide a clear preferred solution. However, when considering the advantages and associated risk, expansion of the Lystek process was determined to be the preferred solution.

	Biosolids Management	
Rank	Shortlisted Alternative	Rationale for Preferred Solution
1	 Expansion of Lystek Process 	 Lowest cost risk The City has familiarity with the process The City has a well-established relationship with L There is an established market for the product in
2	 Contracted Haulage 	
3	 New Composting Facility 	
4	 New Thermal Drying Facility 	



ystek Ontario





Preferred Solution (For scale only, final process locations to be determined)







Preferred Solution – Initial Implementation Plan

The table below presents the initial timeline from the completion of this Master Plan for implementation of the preferred solution. This plan will be further refined in the next phase of this Master Plan.

Short Term	(0-10 vears)

- New Headworks Facility
- Construct 2 New Secondary Clarifiers in Plant 2
- **Tertiary Filter Expansion**
- **Disinfection Expansion**
- New Primary Sludge Thickening and WAS Thickening Facility
- New Dewatering Facility

Medium Term (10-20 years)

- Decommission and Remove the Rotating
- **Biological Contactors**
- Expansion of the Lystek Process
- Expansion of the Cogeneration Process





Long Term (20-30 years)

Retrofit Plant 1 with WAS Hydrocyclones and

Membrane Aerated Biofilm Reactors



Wastewater Treatment and Biosolids Management Master Plan

Project Timeline









Next Steps

Thank you for your interest in the City's Wastewater Treatment and Biosolids Management Master Plan. The next steps of this Master Plan are as follows:

- Phase 4: Implementation Plan
- Completion of the draft Master Plan in Fall 2021. Following City Council endorsement, the Master Plan will be available for 30-day public review. This is the next point of public contact.

Your feedback is an important part of the Master Plan process.

- Register, join the conversation and share your thoughts on the Have Your Say website at www.haveyoursay.guelph.ca
- Project information will continue to be updated on the Project website at www.guelph.ca/wastewater
- Join the project mailing list to receive project updates. Please provide your contact information (name and email) to the contacts below.
- Follow the conversation on Twitter at www.twitter.com/cityofquelph and Facebook at www.facebook.com/cityofquelph

Please contact the project team with any additional comments or questions that you may have:

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Appendix D. Notice of Public Open House #2

The notice can be found in Appendix B-3: CLG Meeting 2.

Appendix E. Guelph Today Advertisements



Wastewater Treatment and Biosolids Management Master Plan

Have your say on how the City plans to manage what's poured or flushed down your drains (wastewater) now and into the future.

Here's how:

- Join us through a virtual open house
- Take an online survey before June 11
- Ask us your questions

Visit haveyoursay.guelph.ca for more information.

Master Planning



Appendix F. Facebook Advertisements



Published by Bren Birkin 🛛 · May 27 · 🕄

Ever wonder what happens to your poop and pee after you flush it? Learn about Guelph's wastewater system and help us shape the Wastewater Treatment and Biosolids Management Master Plan by checking out the virtual open house and answering a few survey questions.

Follow the link for more info:

https://www.haveyoursay.guelph.ca/waste-water-treatment...





Let us know what you think about how we manage what's poured or flushed down drains in #Guelph by answering a few survey questions. Your input helps us plan how we will manage wastewater now and into the future as Guelph grows and will help shape the Wastewa... See More



The City of Guelph

🔰 Published by Bren Birkin 🛛 - May 12 - 🔇

We need your help!

...

Let us know what you think about how we manage what's poured or flushed down drains (wastewater) in #Guelph ?*.

Your input helps us plan how we will manage wastewater now and into the future as Guelph grows!

Learn more: https://guelph.ca/.../have-your-say-on-how-we-manage.../





...

The City of Guelph Published by Bren Birkin 🕲 · June 10 at 2:45 PM · 🕄

Tomorrow is your last chance to have your say on how we manage what's poured down drains and flushed down toilets. Join us for a virtual open house and answer a few survey questions for the Wastewater Treatment and Biosolids Management Master Plan https://www.haveyoursay.guelph.ca/waste-water-treatment...





Appendix G. Twitter Advertisements





Appendix H. Survey

Guelph WTBMMP - VOH#2 Survey Questions

Introduction. The Wastewater Treatment and Biosolids Management Master Plan evaluated the anticipated growth for the City of Guelph to 2051 and determined that upgrades to the existing treatment facility is required to meet future needs. The City hosted the first of two Public Open Houses in Fall 2020 which presented the needs identified for the City to meet anticipated growth. The City identified a range of alternative solutions to address future needs, evaluated the alternative solutions, and has identified the preliminary preferred solutions.

Purpose. The purpose of this Public Open House is to present the preferred recommended solutions, the decision-making process used to reach these recommendations, and to receive feedback on both the clarity and outcome of the process.

Part 1. Master Plan Recommendations Feedback

The purpose of this section of the survey is to receive feedback on the preliminary Master Plan recommendations.

- 1) Do you agree with the selection of the preliminary preferred solution for Wastewater Treatment?
 - i) Agree
 - ii) Disagree
 - iii) Unsure 3

Please provide your thoughts on the aspects of the preferred solution

Preferred Solution Aspects	Agree	Disagree	Unsure
New headworks	13	0	
Two new secondary clarifiers	12	3	
Membrane aerated biofilm reactor (MABR)	12	2	
retrofit at plant 1			
WAS hydrocylone	12	0	
Disk filtration	12	0	
UV Disinfection	14	0	

2) Please provide any comments or thoughts concerning the preferred solution for Wastewater Treatment or any aspects of it.

3. Do you agree with the selection of the preliminary preferred solution for Biosolids Management?

i) Agree 8

- ii) Disagree 3
- iii) Unsure 4 (0=3)

Please provide your thoughts on the aspects of the preferred solution

Preferred Solution Aspects	Agree	Disagree	Unsure
Integrated primary sludge and WAS thickening facility			
New dewatering facility			
Expansion of the Lystek process			
Biosolids Storage			
Odour control			

3) Please provide any comments or thoughts concerning the preferred solution for Biosolids Management or any aspects of it.

4) Do you have any comments on the Initial Implementation Plan for the Preferred Solution?

Part 2. Open House Process Feedback

The purpose of this section of the survey is to receive feedback on the open house process.

- 5) Is the presentation of the overall Wastewater Treatment and Biosolids Management Master Plan Class EA process in the Open House materials clear?
 - i) Agree
 - ii) Disagree
 - iii) Unsure

6) Is there any part of the process that is not clear?

- 7) Based on the evaluation and the resulting preliminary preferred solutions, do you understand how the preliminary preferred solutions were selected?
 - i) Yes, I understand the selection process
 - ii) Unsure
 - iii) No, I do not understand the selection process
- 8) Please provide any comments or thoughts concerning the process

- 9) Was the information provided:
 - i) Too technical
 - ii) About right
 - iii) Not detailed enough

10) Was the information provided helpful to you?

- i) Helpful
- ii) Somewhat helpful
- iii) Not Helpful
- 11)Community engagement is an important part of the EA process. Based on the information provided in this Open House, do you believe that the community engagement has been sufficient?
 - i) Yes
 - ii) The following steps would improve the engagement process:
- 12) Have you been engaged in earlier phases of the project?
 - a) Yes
 - b) No

13) If Yes, Did you submit question(s) to the City during earlier phases of the project?

- a) Yes
- b) No
- 14) If Yes, were your question(s) answered?
 - a) Yes
 - b) No
 - c) Somewhat

15) If No or Somewhat, What about your question(s) remain unanswered?

16) Please provide any additional thoughts you would like to share with the team

Please note that all correspondence will be maintained for reference throughout the project and will become part of the project record. Under the *Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)* and the *Environmental Assessment Act (EAA)*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this project and will be released, if requested, to any person.
Jacobs

Guelph Wastewater Treatment and Biosolids Management Master Plan Summary and Consultation Report - Public Open House #3

CE771800-1B | Final April 22, 2022

City of Guelph



Guelph Wastewater Treatment and Biosolids Management Master Plan

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Document history and status

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0	4/7/2022	Draft	EH	JS	JS	JS
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					JS	

Contents

1.	Introduction	3
2.	CLG Meeting #3 Attendance and Materials	5
3.	Public Open House #3	6
3.1	Overview	6
3.2	Notification of POH #3	6
3.3	Survey	6
4.	Summary of Feedback	7
4.1	Survey Responses	7
4.2	Other Question/Comment Submissions	7

Appendix A. CLG Meeting #3 Presentation Slides

Appendix B. Virtual Room Presentation Boards

Appendix C. Accessible Presentation Boards

Appendix D. Notice of Public Open House #3

Appendix E. City News Advertisements

Appendix F. Guelph Today Advertisement

Appendix G. Facebook Advertisements

Appendix H. Twitter Advertisements

Appendix I. Survey

1. Introduction

In January 2020, the City of Guelph (City) contracted Jacobs to prepare a Wastewater Treatment and Biosolids Management Master Plan (WTBMMP) following the Municipal Engineers Association (MEA) Class Environmental Assessment (EA) process. The City last completed a Wastewater Treatment Master Plan in 2009 and a Biosolids Management Master Plan in 2006. This WTBMMP will consider and update wastewater treatment and biosolids management recommendations and recommend a roadmap for future capital investment at the Guelph WWTP, enabling the City to service long-term growth while improving performance reliability, sustainability and resiliency in providing wastewater treatment and biosolids management services.

There are five phases in the Class EA process, as follows:

- Phase 1: Problem Definition
- Phase 2: Identification of Alternative Solutions and Public Consultation
- Phase 3: Identification of Alternative Design Concepts for the Preferred Solution
- Phase 4: Completion of an Environmental Study Report (ESR) followed by a 30-day Public Review Period
- Phase 5: Implementation of the Project

The WTBMMP was originally initiated to satisfy the requirements of a Schedule B Class Environmental Assessment (EA). To complete the Class EA planning process for recommended projects needed in the short term, the Class EA scope has been expanded to fulfil the requirements of a Schedule C study. Following completion of a Schedule C Class EA study, projects are eligible for implementation through detailed design and construction. For the Schedule C Class EA, Phases 1-4 of the Class EA process are being completed. This includes development of an implementation plan, a third Public Open House (POH) and documentation of the study in the ESR.

The Community Engagement and Communication Plan (CECP) prepared at the start of and updated throughout the WTBMMP, identified approaches to consult with the following key stakeholders through the project development:

- Community members
- Municipal staff and elected officials (the City, Guelph-Eramosa Township, Puslinch Township)
- Review agencies.

The CECP also identified approaches to engage with Indigenous communities throughout the project.

Three POHs were held to give members of the community and stakeholders an opportunity to learn about and provide feedback. Due to the COVID-19 pandemic, the POHs were held virtually, as follows:

- POH #1 was held as part of Phase 1 of the Class EA process and was accessible to the public for 30 days.
 POH #1 opened on October 28th, 2020 and closed (to comments) on December 10th, 2020.
- POH #2 was held as part of Phase 2 of the Class EA process and was accessible to the public for 41 days.
 POH #2 opened on May 12th, 2021 and closed on June 22nd, 2021.
- POH #3 was held as part of Phase 3 of the Class EA process and was accessible to the public for 22 days.
 POH #3 opened March 14th, 2022 and closed on April 4th, 2022.

In addition to the POH, to provide a forum where representatives from key stakeholder groups could have opportunity to learn about the project and provide input on behalf of their group, a Community Liaison Group

(CLG) was formed. The CLG includes representation from Provincial agencies, academia, industry, builders/developers, neighbouring townships, energy groups and the Grand River Conservation Authority (GRCA).

The purpose of this report is to present a summary of the engagement from POH #3, as well as to present initial feedback received at CLG Meeting #3. A previous report was prepared to present engagement from POH #1 and the feedback received at CLG Meeting #1 as well as POH #2 and the feedback received at CLG Meeting #2.

2. CLG Meeting #3 Attendance and Materials

CLG Meeting #3 was held on January 19th, 2022, prior to POH #3, and was attended by project representatives from the City of Guelph, Jacobs and subconsultant Hardy Stevenson, and six of the CLG members. The participants in this meeting are listed in Table 2-1.

Participant	Organization
Deborah Ross	Jacobs
Jillian Schmitter	Jacobs
Jared Philpott	Jacobs
Dave Hardy	Hardy-Stevenson
Danya Braun	Hardy-Stevenson
Tim Robertson	City of Guelph
Sumant Patel	City of Guelph
Bryan Ho-Yan	City of Guelph
Sheng Chang	University of Guelph
Corinne Taylor	Ministry of Environment, Conservation and Parks
Mike Beswick	Lystek International
Hugh Whiteley	University of Guelph
Mark Anderson	GRCA

Table 2-1: CLG Meeting #3 Participants

In this meeting, a progress update was provided regarding community engagement and Master Plan work completed, to date. The implementation plan and mitigation measures were presented to the CLG. The presentation boards for POH #3 were also presented. CLG members were given the opportunity to provide feedback on various aspects of the Master Plan completed to date. The presentation slides from CLG Meeting #2 are presented in Appendix A. General points of discussion included:

- Class EA Schedule Change and Revised Project EA Process
- Overview of the Assimilative Capacity Study results
- Energy Reduction and Greenhouse Gas Emissions
- Dewatering Facility Location
- Chloride reduction

Overall, the CLG was in agreeance with the Implementation Plan and mitigation measures presented.

3. Public Open House #3

3.1 Overview

A variety of strategies and tools were used to provide widespread notice and enable accessible participation in the public engagement process for this Master Plan.

POH #3 was made virtually available on March 14th, 2022 and was closed to comments on April 4th, 2022. The POH was hosted online by Jacobs at *guelphwtbmmp-virtualopenhouse.com* in an interactive format, allowing visitors to navigate a virtual room that displayed presentation boards in the same manner that they would be displayed in person. An accessible version of the presentation boards was available on the City's website and the Have Your Say Guelph website, which is the City's platform used for public consultation on various projects.

The version of the presentation boards that was used for the virtual room is presented in Appendix B, with the accessible version of the presentation boards presented in Appendix C.

A total of 33 unique users visited the virtual POH website while it was open for viewing.

3.2 Notification of POH #3

The Notice of POH #3 was distributed to the project mailing list by email on March 14, 2022. The Notice was also posted on the City's website and notification was sent to those registered on the City's Have Your Say website. The Notice is presented in Appendix D.

Both the City website (guelph.ca/wastewater) and the City's Have Your Say website (haveyoursay.guelph.ca) advertised the POH and contained links to the POH website. The Have Your Say website served as the central online resource, hosting the survey and allowing participants to submit questions to the project team. The website also provided the presentation boards in an accessible format.

Social media was used by City staff to raise awareness of the POH, with Twitter and Facebook being the main platforms. The City created posts for their Twitter and Facebook page. The POH was also advertised at the City of Guelph's City News website. Advertisements are presented in Appendix E through Appendix G.

3.3 Survey

While viewing the presentation boards, the user was directed to the City's Have Your Say website to complete a survey related to the Master Plan. The survey is presented in Appendix H. The survey was available for the same duration as the POH presentation boards.

4. Summary of Feedback

4.1 Survey Responses

Once they viewed the presentation boards, POH #3 participants were provided a link to complete a survey related to the WTBMMP on the City's Have Your Say website, and to submit questions about the Master Plan for the project team. There were 33 unique visitors to the virtual POH website.

No survey responses were received from the Have Your Say website. Survey questions are provided in Appendix H.

4.2 Other Question/Comment Submissions

Outside of the survey, users were able to submit general questions regarding the Master Plan to the project team.

To date, one additional question was received, as summarized in Table 4-1.

Table 4-1	Additional	Comments	Received
	radicionat	Commence	neccivea.

Source	Comment/Question	Response Required?	Response
<i>Have Your</i> Say Website	Does Guelph ban garburators?	Y	The City's sewer use bylaw does not permit the use of garburators. Organic material should be placed in the green bins for further processing at the Waste Resource Innovation Centre. <u>https://guelph.ca/living/environment/garbage-</u> and-recycling/

Appendix A. CLG Meeting #3 Presentation Slides

The presentation can be found in Appendix B-3: CLG Meeting 3.

Appendix B. Virtual Room Presentation Boards

Boards were made accessible, and are available in Appendix C of this report.

Appendix C. Accessible Presentation Boards



Welcome to Virtual Public Open House #3

Please sign in.

The City of Guelph initiated a project to update its Wastewater Treatment and Biosolids Management Master Plan, to established a strategy for providing capacity for the City's growing population to 2051, in a manner that is sustainable, and protective of our waterways and environment. The project scope was expanded to meet the requirements of Schedule C Class Environmental Assessment (Class EA), as described in Panel 5.

The purpose of this third virtual public open house is to provide a summary of the Class EA development presented in the first two open houses, and to present the implementation plan for recommended capital projects.

This your chance to have your say about the planning process and recommendations.







Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Class EA Purpose Statement

The study was initiated to identify a preferred strategy of wastewater treatment and biosolids management projects and when they are required to provide capacity for planned development and growth. Recommendations were developed in consideration of related initiatives and studies, including the City's Official Plan and amendments, climate change targets, legislation and guidelines. The study considered and built on the City's 2009 Wastewater Treatment and 2006 Biosolids Management Master Plans.

Study Area

Wastewater is collected and treated from within the urban boundaries of Guelph, as shown to the right. Wastewater is also collected and treated from the Gazer Mooney subdivision and the Village of Rockwood through an agreement with the City of Guelph.









Facility Name Update

The Guelph Wastewater Treatment Plant provides capacity to treat 64 million litres of wastewater every day and discharges treated and disinfected effluent to the Speed River. The treatment process generates residuals that have nutrient and energy value, both of which are recovered by current practices. The facility generates:

- High-quality treated effluent that protects the quality of the Speed River
- Biogas with energy value (from treatment of residuals in the anaerobic digesters), which is used to generate electricity and heat in a cogeneration process
- A Canadian Food Inspection Agency approved fertilizer (from treating residuals) that is beneficially reused via land application

To emphasize the City's focus on the resource recovery value of wastewater and commitment to continuing and maximizing resource recovery, the name of the wastewater treatment plant was recently updated to:

Guelph Water Resource Recovery Centre (WRRC)





Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Guelph Water Resource Recovery Centre

The Guelph WRRC has a rated capacity to treat 64 million litres per day (ML/d). This is equal to the volume in 26 Olympic-sized swimming pools per day.

Wastewater arriving at the Guelph WRRC undergoes multiple stages of treatment: preliminary, primary, secondary, tertiary, disinfection and dechlorination. The final treated and disinfected effluent is discharged into the Speed River.

Nutrient-rich solid residuals that are primarily organic are generated in the wastewater treatment process. These are treated by thickening, digestion and dewatering, and are further stabilized through the Lystek process. The final product is a fertilizer product that is approved by Canadian Food Inspection Agency for beneficial re-use via land application.









Class Environmental Assessment Schedule Change

The Wastewater Treatment and Biosolids Management Master Plan was originally initiated to satisfy the requirements of a Schedule B Class Environmental Assessment (EA). Several of the recommended projects identified throughout the detailed evaluation phase will require the expanded scope of a Schedule C Class EA, to plan for a capacity expansion at the Guelph WRRC. Some of the projects identified are required in a relatively short timeframe to provide capacity for the projected growth.

To effectively complete the Class EA requirements, the Master Plan scope was expanded to include additional activities included in a Schedule C Class EA. Following completion of a Schedule C Class EA, projects are eligible for implementation through detailed design and construction.

For the Schedule C Class EA, Phases 1-4 of the Class EA process are being completed. This includes development of an implementation plan, a third community open house and documentation of the study in an Environmental Study Report (ESR), which will be available for a 30-day public review.

Panel 6 presents an overview of the Schedule C Class EA process.







Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Class Environmental Assessment Process









Public Consultation Plan

The City of Guelph is seeking suggestions, comments and ideas about the Class EA study from the City community and neighbours, Indigenous communities, and municipal and provincial agencies.

A Community Liaison Group (CLG) was established for this project, whose member are representative local stakeholders. There have been three (3) CLG meetings held to date.

This is the final of three (3) virtual open houses for the study. The first one was held during Fall 2020 and presented the existing conditions at the Guelph WRRC. The second one was held during Spring 2021 and presented the future conditions, alternatives evaluation and preliminary preferred solution for the Class EA.

Virtual open houses meet the Class EA consultation requirements, provided that they meet your needs as a participant.

The City's "Have Your Say" website shares specific information about the project as well as invites comments, questions and input from the community. The Have Your Say website can be accessed at: https://www.haveyoursay.guelph.ca/

Following completion of the ESR, it will be posted to the project website for a 30-day public review period.





Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Summary of Preferred Solution – Wastewater Treatment

The preferred wastewater treatment solution was confirmed following the completion of the second virtual public open house. Key projects, drivers and their timing are shown on the site layout below.

Process: Screening **Preferred Solution: Expansion** Process: Grit Removal Required by: 2038 **Preferred Solution: Expansion** Driver: Capacity Required by: 2027 Process: Primary Treatment, Driver: Capacity/Condition Secondary Treatment and Tertiary Nitrification Preferred Solution: Expansion Required by: 2027 Driver: Capacity/Condition Process: Tertiary Filtration Process: Disinfection Preferred Solution: Expansion Preferred Solution: Expansion Required by: 2027 Required by: 2027 Driver: Capacity/Condition Driver: Capacity/Condition









Summary of Preferred Solution – Biosolids Management

The preferred residuals treatment and biosolids management solution was confirmed following the completion of the second virtual public open house. Key projects, drivers and their timing are shown on the site layout below.







Implementation Plan – Guelph WRRC Expansion Phases

The upgrades identified in this Class EA were separated into two expansion phases. The expansion phases were developed based on secondary treatment capacity.

The current rated capacity of the Guelph WRRC (64 ML/d) is projected to be exceeded by 2027. By constructing two new secondary clarifiers in Plant 2, removing the RBCs and operating all plants in a nitrifying conventional activated sludge mode, the total secondary treatment capacity will be increased to **72.5 ML/d.**

Flows are projected to exceed 72.5 ML/d by 2038. To expand plant capacity beyond 72.5 ML/d, process intensification within one or more of the existing trains and/or a new treatment train will be required. The Class EA study recommends that the expansion requirements and technology approach for the 2038 expansion be evaluated at a later update of the Guelph WRRC master plan. This will enable consideration of the latest state of technology advancements and the most recent capacity needs projections.







Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Phase 1 – Treatment Capacity Expansion to 72.5 ML/d

The first phase of upgrades, which would increase the plant's treatment capacity from 64 ML/d to 72.5 ML/d, are presented on this slide. These upgrades are required by 2027. Cost estimates are Class D cost estimates, which are developed at a preliminary stage and will be refined as the design progresses.

Pr	oject			
•	Grit tank rehabilitation and expansion			
•	2 new secondary clarifiers in Plant 2, remove the rotating biological contactors and operate all plant as conventional activated sludge			
•	Expansion of tertiary treatment with disk filters, decommission East-West filter building			
•	New Ultraviolet Disinfection Facility, decommission the existing chlorine contact tank and chemical systems			
•	New Dewatering Facility with Biosolids Storage, decommission the existing dewatering facility			
•	New Primary Sludge and Waste Activated Sludge Thickening Building, remove existing rotating drum thickener			
•	Enhanced treatment and beneficial re-use (on site or contracted out)			
	Total Capital Cost			





Capital Cost
\$6.0 M
\$12.2 M
\$33.3 M
\$14.4 M
\$16.1 M
\$23.1 M
\$28.4 M
\$105.2 M



Phase 2 – Treatment Capacity Expansion to 79.2 ML/d or Higher

The next expansion phase is predicted to be required by 2038. Since this is several years from now, it is recommended that the Guelph WRRC facility plan be revisited to update capacity needs and identify the best approach to providing capacity at that time. For the purposes of this Class EA, a planning budget of \$48.3 million is carried for this expansion phase.

Project		
•	Screening Upgrades	
•	Construct a new Plant 5	
	Total Capital Cost	





Ca	pital Cost
	\$14.1 M
	\$34.2 M
	\$48.3 M



Guelph WRRC Future Site Plan

This figure presents a preliminary concept for the projected site plan in 2051. It is noted that there is the potential for process intensification within the existing plants that could defer the need for a new Plant 5.









Future Energy Consumption

The figure on this slide presents the future energy usage resulting from the recommendations of this Class EA. The energy consumption at the Guelph WRRC in 2017 and 2018 was 810 kWh per million litres (ML) of wastewater treated. By 2051, it is expected to be reduced to 740 kWh per million litres of wastewater treated, which is approximately a 9 percent decrease. This is primarily due to the installation of new, more energy efficient processes.







Future Greenhouse Gas Emissions

The net greenhouse gas emissions at the Guelph WRRC are predicted to decrease significantly in the future. Implementing primary sludge thickening will increase biogas production in the anaerobic digesters, which will increase heat and power production from the cogeneration system and reduce the digester heating demand.









Assimilative Capacity Study Results

An assimilative capacity study was completed to identify future effluent concentration limits and objectives that will maintain or improve the health of the Speed River as the flows from the Guelph WRRC increase. These limits will be confirmed through further consultation with the Ministry of Environment, Conservation and Parks (MECP).

Effluent Parameter	Current Concentration Limit	Current Concentration Objective	Future Concentration Limit	F
BOD ₅	22 mg/L (April 1 st to October 31 st)	19.8 mg/L (April 1 st to October 31 st)	-	-
cBOD ₅	7.4 mg/L (November 1 st to March 31 st	6.7 mg/L (November 1 st to March 31 st	5 mg/L	3
TSS	10 mg/L	7 mg/L	5 mg/L	3
ТР	0.38 mg/L (April 1 st to October 31 st) 0.7 mg/L (November 1 st to March 31st)	0.34 mg/L (April 1 st to October 31 st) 0.63 mg/L (November 1 st to March 31st)	0.3 mg/L	0
TAN	3.4 mg/L (November 1 st to March 31 st)	3.0 mg/L (November 1 st to March 31 st)	1 mg/L (June 1 st to September 30 th) 3 mg/L (October 1 st to May 30 th)	0 3 2





uture Concentration Objective

mg/L

mg/L

.2 mg/L

.75 mg/L (June 1st to September 0th) mg/L (October 1st to May 30th)



Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Benefits of the Class EA Recommendations for the Guelph WRRC

The following are benefits from the recommended upgrades at the Guelph WRRC:

- Capacity to service growth to 2051 will be provided.
- Use of existing infrastructure will be maximized to avoid expansion where possible and reduce capital cost.
- Overall reliability will improve by replacing infrastructure that is nearing its end of life.
- Energy use will reduce due to selection of newer, more efficient technologies, and by maximizing energy recovery from biogas; both reducing GHG emissions.
- Resource (nutrient and organics) recovery from biosolids will be maximized by continuing beneficial re-use of biosolids as a fertilizer product.











Impact Mitigation Measures at the Guelph WRRC

The following measures will be taken to minimize impacts resulting from the Class EA recommendations:

- **Odour:** Existing odour control and treatment facilities will continue to operate, and a new odour control facility will be constructed to mitigate potential odours from the new solids handling area.
- **Speed River:** An assimilative capacity study was completed to identify recommended new treated effluent loading limits that will maintain the health of the Speed River with increased effluent flows. Treatment technologies were selected so that the Guelph WRRC effluent will continue to provide a high-quality effluent.
- **Noise:** The technologies that were selected for upgrades are not expected to result in off-site noise impacts on the surrounding community, and measures will be taken during construction to minimize noise.
- **Traffic:** In general, Guelph WRRC traffic has not been a notable issue given the location of the facility entrance off a main road (Wellington Road) near Highway 6.







Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Next Steps

Your feedback is an important part of the Class EA study process and will be considered in completing the Environmental Study Report. Here are the ways for you to participate:

- Register, join the conversation and share your thoughts on the Have Your Say website at www.haveyoursay.guelph.ca
- Project information will continue to be updated on the Project website at www.guelph.ca/wastewater
- Join the project mailing list to receive project updates. Please provide your contact information (name and email) to the contacts below.
- Follow the conversation on Twitter at www.twitter.com/cityofguelph and Facebook at www.facebook.com/cityofguelph

Please contact the project team with any additional comments or questions that you may have:

Tim Robertson

Division Manager Wastewater Services **Environmental Services** City of Guelph 519-822-1260 extension 2964 tim.robertson@quelph.ca

Deborah Ross, M.A.Sc., P.Eng.

Project Manager Jacobs Engineering Group 519-514-1642 deborah.ross@jacobs.com

Thank you for your interest in the City's Wastewater Treatment and Biosolids Management Master Plan Class EA. Following City Council endorsement, the ESR will be available for 30-day public review in spring 2022.





Appendix D. Notice of Public Open House #3

The notice can be found in Appendix B-3: CLG Meeting 3.



Appendix E. City News Advertisements

ity News



Thinking of running in the municipal election?

Attend a candidate information session

We're hosting two free information sessions to help potential candidates who may want to run for Mayor, City Councillor or School Board Trustee during the 2022 municipal election. The nomination period is open from May 2 to August 19, 2022.

Wednesday, March 30

1:30-3:30 p.m. Virtual session. Visit guelph.ca/events and select March 30 meeting to attend.

Tuesday, April 12

6-8 p.m.

Hybrid session (in-person or virtual option)

In-person location: Council Chambers, City Hall, 1 Carden Street, Guelph

Virtual: Visit guelph.ca/events and select April 12 meeting to attend.

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guelph.ca/vote

 roles and responsibilities fundraising advertising key dates rules around nominations
 • personal considerations and conflicts of interest • eligibility

For more information

guelphvotes@guelph.ca 519-837-5603

O/cityofguelph



guelph.ca/news

Get full event details and register at



Attend an open house

In-person open houses will take place on March 26, March 28, Imperson open nodes will be present to the second state to the second state to the second second state to the second s Visit guelph.ca/farestrategy for times and locations.

Visit haveyoursay.guelph.ca

Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessmen

Visit the third virtual open house and have your say on how we manage wastewater in Guelph.

Take the survey. haveyoursay.guelph.ca

Accessible formats available by calling 519-822-1260 or TTY 519-826-9771

The City will create an email distribution list to keep community

members and businesses informed. To be added to the York Road mailing list, email steven.dipietro@guelph.ca. The City of Guelph

appreciates your patience and understanding as we complete this

important infrastructure project. For more information about this

project, including updates, visit guelph.ca/construction.

stop between January 2023 to March 2023.

at the start of the project.

Stav Informed

To accommodate the underground water and

closed from Stevenson Street to Victoria Road

sewer pipes replacement, York Road will be



Appendix F. Guelph Today Advertisement



Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment

Have your say on how Guelph manages wastewater.





Appendix G. Facebook Advertisements
The City of Guelph ... ٦ Published by Shane Guadeloupe 2 · 4m · 3 Managing what's poured down drains and flushed down toilets is an important issue. Visit our third virtual open house to tell us what you think about our recommendations and implementation plan. It's all based on your feedback! Survey closes March 31. https://www.haveyoursay.guelph.ca/waste-water-treatment... Wastewater Treatment and Biosolids Management 80 Master Plan Class Environmental Assessment × Reach more people with this post You could reach up to 1,194 people daily by boosting your post for CA\$40. See Insights Boost post

B Like

Comment A Share The City of Guelph ٦ Published by Shane Guadeloupe O · March 16 at 2:30 PM · O Thanks for sharing your ideas on how we should manage what's poured down drains and flushed down toilets. We heard you - and now we have recommendations and a proposed implementation plan. Tell us what you think! Visit our third virtual open house and answer a few questions. https://www.haveyoursay.guelph.ca/waste-water-treatment... Wastewater Treatment and Biosolids Management Master Plan Class Environmental Assessment



...



Appendix H. Twitter Advertisements

G City of Guelph @cityofguelph 5 mins ago

Our plan to manage what's poured down drains and flushed down toilets is based on YOUR feedback! Tell us what you think about the plan before March 31 when the survey closes. #GuelphWater ow.ly/uBZE50IwryT



■ は * ● 団 * …

G City of Guelph @cityofguelph Mar 16

We have recommendations and a proposed implementation plan – based on YOUR feedback – for how we should manage what's poured down drains and flushed down toilets. Answer a few questions to tell us what you think. #GuelphWater ow.ly/Qlw950lk737





Appendix I. Survey

Guelph WTBMMP – VOH #3 Survey Questions

Introduction. A Class Environmental Assessment (EA) study is being completed to identify a preferred solution and implementation plan to provide reliable capacity for wastewater treatment and biosolids management to service the existing community and planned growth in the City of Guelph from today to 2051. The City hosted the second of three virtual Public Open Houses in Spring 2021 to present the preliminary preferred solution, consisting of upgrade and expansion projects to meet servicing needs over the planning period.

Purpose. The purpose of this Public Open House is to present the implementation plan for the recommended project identified in this Class EA.

Part 1. Master Plan Class EA Recommendations Feedback

The purpose of this section of the survey is to receive feedback on the preliminary implementation plan, benefits of the preferred solution and impact mitigation measures.

- 1) Please provide any comments or questions concerning the implementation plan for the recommendations from this Class EA.
- 2) Please provide any comments or questions concerning the benefits and/or mitigation measures identified for the recommendations at the Guelph WRRC.
- 3) Please provide any comments or questions concerning the assimilative capacity study (i.e., the study that identified future effluent requirements to protect the Speed River).

Part 2. Open House Process Feedback

The purpose of this section of the survey is to receive feedback on the open house process.

- 4) Is the presentation of the revised overall Wastewater Treatment and Biosolids Management Master Plan Class EA process in the Open House materials clear?
 - i) Agree
 - ii) Disagree
 - iii) Unsure
- 5) Is there any part of the process that is not clear?

- 6) Please provide any comments or thoughts concerning the process
- 7) Was the information provided:
 - i) Too technical
 - ii) About right
 - iii) Not detailed enough
- 8) Was the information provided helpful to you?
 - i) Helpful
 - ii) Somewhat helpful
 - iii) Not Helpful
- 9) Community engagement is an important part of the Class EA process. Based on the information provided in this Open House, do you believe that the community engagement has been sufficient?
 - i) Yes
 - ii) The following steps would improve the engagement process:

10) Have you been engaged in earlier phases of the project?

- a) Yes
- b) No

11) If Yes to 10), did you submit question(s) to the City during earlier phases of the project?

- a) Yes
- b) No

12) If Yes to 11), were your question(s) answered?

- a) Yes
- b) No
- c) Somewhat

13) If No or Somewhat, what about your question(s) remain unanswered?

14)Please provide any additional thoughts you would like to share with the team

Please note that all correspondence will be maintained for reference throughout the project and will become part of the project record. Under the *Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)* and the *Environmental Assessment Act (EAA)*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this project and will be released, if requested, to any person.