



**THE CORPORATION OF THE MUNICIPALITY OF LAMBTON SHORES
Grand Bend and Area Joint Sewage Board
AGENDA**

Meeting #: 01-2018
Date: Friday, April 27, 2018
Time: 9:30 a.m.
Location: South Huron Town Hall - Carling Room, Exeter

Pages

1. Call to Order

2. Declaration of Pecuniary Interest

3. Approval of the Agenda

THAT the agenda for the April 27, 2018 meeting of the Grand Bend and Area Joint Sewage Board be adopted as presented.

4. Minutes of Previous Meeting

4.1 Minutes of the November 23, 2017 Meeting for Approval

4 - 7

That the minutes of the Grand Bend and Area Joint Sewage Board meeting held on the 23rd of November, 2017 be adopted as presented.

5. Correspondence

There was no correspondence received.

6. Presentations & Delegations

6.1 Gail Koehler - BDO Canada LLP - 2017 Financial Statements

7. Staff Reports

7.1 TR-13-2018 GBAJSB Annual Audit Planning and Reporting

8 - 40

RECOMMENDATION:

THAT Report TR-13-2018 regarding Annual Audit Planning and Reporting be received; and

THAT the draft response to the Annual Audit Questionnaire be approved and forwarded to the municipal auditor.

7.2	TR-15/2018 GBAJSB 2017 Financial Statements	41 - 48
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RECOMMENDATION:

THAT Report TR-15-2018 regarding the 2017 Draft Audited Financial Statements be received; and

THAT the Draft 2017 Audited Financial Statements be approved.

7.3	STP-01-2018 2017 Year End Report	49 - 67
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RECOMMENDATION:

THAT Report STB 01-2018 regarding the “2017 Year-End Report” be received.

7.4	STP-02-2018 GBAJSB Quarter Report	68 - 72
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RECOMMENDATION:

THAT Report STB 02-2018 regarding the “2018 First Quarter Operations Report” be received.

7.5	STP-03-2018 Proposed 2018 Board Meeting Dates	73 - 74
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RECOMMENDATION:

THAT Report STB 03-2018 regarding the “2018 Proposed Board Meeting Dates” be received, and;

That the following dates be set for future Board meetings:

July 27, 2018

September 7, 2018 – Budget meeting

September 21, 2018 –Budget meeting (if required)

November 9, 2018

January 25, 2019

8. Notice of Motion

RECOMMENDATION:

THAT GBSTP Board provide direction to develop a communication policy

8.1	Notice of Motion from Member Cole regarding development of a communication policy	75
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9. Other Business

10. Closed Session

11. Adjournment



The Municipality of Lambton Shores

The Municipality of Lambton Shores Grand Bend and Area Joint Sewage Board Minutes

Thursday, November 23, 2017
9:30 a.m.

Member Present: Chair, Tom Tomes, South Huron
Member, Maureen Cole, South Huron
Member, Marissa Vaughan, South Huron
Member, Dave Maguire, Lambton Shores
Member Bill Weber

Staff Present: Steve McAuley, Director of Community Services, Lambton Shores
Jackie Mason, Administrative Assistant, Lambton Shores

1. Call to Order

Chair Tomes called the meeting to order at 9:30 a.m.

2. Declaration of Pecuniary Interest

The Chair asked members to declare any pecuniary interest that they might have with the business itemized on the agenda and none were declared.

3. Approval of the Agenda

Member Cole added an intent of motion regarding the development of a communication policy.

17-1123-01

Moved By: Member Maguire

Seconded By: Member Vaughan

THAT the agenda for the November 23, 2017 meeting of the Grand Bend and Area Joint Sewage Board be approved as amended.

Carried

4. Minutes of Previous Meeting

4.1 Minutes of the November 3, 2017 Meeting for Approval

17-1123-02

Moved By: Member Weber

Seconded By: Member Maguire

THAT the minutes of the Grand Bend and Area Joint Sewage Board meeting held on the 3rd of November, 2017 as presented, be adopted.

Carried

5. **Correspondence** – No correspondence items received.

6. **Presentations & Delegations**

6.1 **Presentation - Ernie Lane - Flow Calculations**

17-1123-03

Moved By: Member Cole

Seconded By: Member Maguire

That the presentation correspondence re: flow calculations be received.

Carried

7. **Staff Reports**

7.1 **Report 08-2017 - Quarterly Report Policy**

17-1123-04

Moved By: Member Weber

Seconded By: Member Cole

THAT Report STB 09-2017 regarding the “Quarterly Report Policy” be received; and

THAT the Quarterly Report Policy 01-2017 dated November 23, 2017 be adopted by the Board.

Carried

7.2 **Report 09-2017 - GBSB 3rd Quarter Report**

17-1123-05

Moved By: Member Weber

Seconded By: Member Maguire

THAT Report STB 09-2017 regarding the “2017 Third Quarter Operations Report” be received.

Carried

7.3 Report 10-2017 - 2018 Draft Budget

17-1123-06

Moved By: Member Maguire

Seconded By: Member Weber

THAT Report STB 10-2017 regarding the “2018 Budget” be received; and

THAT the Grand Bend Area Joint Sewage Board recommends that the 2018 Budget attached be forwarded to the Municipal Councils of Lambton Shores and South Huron for approval.

Defeated

Member Cole requested a recorded vote.

17-1123-07

Moved by: Member Cole

Seconded by: Member Vaughan

THAT \$20,000.00 be included in budget to address energy costs and efficiencies.

Defeated

In support: Members Cole and Vaughan

Opposed: Members Mcguire and Weber and Chair Tomes

17-1123-08

Moved By: Member Weber

Seconded By: Member Maguire

THAT resolution # 17-1103-04 be reconsidered.

Defeated

17-1123-09

Moved By: Member Maguire

Seconded By: Member Cole

THAT Report STB 10-2017 regarding the 2018 budget be received; and

THAT the Grand Bend Area Joint Sewage Board recommends that the 2018 budget attached be forwarded to the municipal councils of Lambton Shores and South Huron for approval; and

THAT financial breakdowns for each municipality be included for Sections A, B and C.

Carried

17-1123-10

Moved By: Member Weber

Seconded By: Member Maguire

THAT 2018 Budget not include the energy audit contribution of \$20,000.00.

Carried

8. Other Business

17-1123-11

Moved By: Member Weber

Seconded By: Member Vaughan

THAT a policy be developed within the next six months to clarify reserve allocations.

Carried

9. Adjournment

17-1123-12

Moved By: Member Weber

THAT the November 23, 2017 Grand Bend and Area Joint Sewage Board meeting adjourn at 11:25 a.m.

Carried

THE MUNICIPALITY OF LAMBTON SHORES

Report TR-13-2018

Board Meeting Date: April 27, 2018

TO: Chair Tomes and Board Members
FROM: Janet Ferguson, Treasurer
RE: Annual Audit Planning and Reporting
RECOMMENDATION:

THAT Report TR-13-2018 regarding Annual Audit Planning and Reporting be received; and

THAT the draft response to the Annual Audit Questionnaire be approved and forwarded to the municipal auditor.

SUMMARY

This report provides the Board with the Annual Audit Planning Report and Questionnaire for response.

BACKGROUND

Municipalities are required to conduct an annual audit by an outside person or firm licensed under the Public Accounting Act. BDO Canada LLP, Sarnia Branch, continues to be the Lambton Shores auditor and has started the 2017 audit.

BDO has prepared an Audit Planning Report for the Board outlining the scope of work and responsibilities for both the Municipality and the audit firm. (attachment 1) The document provides The Board with an overview of the audit procedures and strategies, materiality, risk and timing.

Auditors are required to provide comments on all aspects of the financial reporting for the municipality and this includes determining impacts of risk. In 2010 the Canadian Audit Standards were revised and included new requirements for fraud detection. Each year the Auditor provides a letter to the Mayor and Council with 3 questions pertaining to fraud and error and requests an answer from Council. A similar letter has been prepared for the Grand Bend Area Joint Sewer Board (GBA JSB). The 2017 audit letter is attached (attachment 2) as is a draft response similar to what was provided by Lambton Shores (attachment 3) for Information. This letter is required for the 2016 and 2017 years.

The Finance Department has internal policies and procedures to safeguard the municipality and the various operations throughout Lambton Shores. If fraud is suspected staff would report to the Department Head and subsequently to the Chief Administrative Officer (CAO) and follow up as required. The CAO would then provide Council or The Board with the pertinent information. I am pleased to report that staff is not aware of any fraud against Lambton Shores or the GBA JSB.

ALTERNATIVES TO CONSIDER

None

RECOMMENDED ACTIONS

That The Board receives the Audit Planning Report and provides the required responses to the Annual Audit Questionnaire. Pending any further input or identified concern from The Board, the Chair is authorized to respond as per the draft attached.

FINANCIAL IMPACT

There is no financial impact by accepting this report and further with no known fraud issues, there is no financial impact as a result of fraud. The annual audit costs were included in the approved 2017 Budget.

CONSULTATION

BDO Canada LLP

Attachment 1 – GBA JSB Audit Planning Report
Attachment 2 – GBA JSB Audit Questionnaire
Attachment 3 – Questionnaire Draft Response Letter



Grand Bend Area Joint Sewage Board

Planning Report to the Board of Directors

March 5, 2018



Tel: 519 336 9900
Fax: 519 332 4828
www.bdo.ca

BDO Canada LLP
Kenwick Place
250 Christina Street North
Sarnia, Ontario N7T 7V3 Canada

March 5, 2018

Members of the Board of Directors
Grand Bend Area Joint Sewage Board
4 Ontario Street
P.O. Box 340
Grand Bend, Ontario N0M 1T0

Dear Members of the Board of Directors:

We are pleased to present our audit plan for the audit of the financial statements of Grand Bend Area Joint Sewage Board [the "Organization"] for the year ended December 31, 2017.

Our report is designed to highlight and explain key issues which we believe to be relevant to the audit including audit risks, the nature, extent and timing of our audit work and the terms of our engagement. The audit planning report forms a significant part of our overall communication strategy with the Board of Directors and is designed to promote effective two-way communication throughout the audit process. It is important that we maintain effective two-way communication with the Board of Directors throughout the entire audit process so that we may both share timely information. The audit process will conclude with our final report to the Board of Directors.

This report has been prepared solely for the use of the Board of Directors and should not be distributed without our prior consent. Consequently, we accept no responsibility to a third party that uses this communication.

The Board of Directors plays an important part in the audit planning process. If there is anything you would like to discuss, please contact us.

Yours truly,

Pete Barnes, CPA, CA
Partner
BDO Canada LLP
Chartered Professional Accountants, Licensed Public Accountants

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TERMS OF REFERENCE

Our overall responsibility is to form and express an opinion on the financial statements. These financial statements are prepared by management, with oversight by those charged with governance. The audit of the financial statements does not relieve management or those charged with governance of their responsibilities. The scope of our work, as confirmed in our engagement letter (as set out in Appendix A), is set out below.

ENGAGEMENT OBJECTIVES

- Forming and expressing an audit opinion on the financial statements.
- Present significant findings to the Board of Directors including key audit and accounting issues, any significant deficiencies in internal control and any other significant matters arising from our work.
- Provide timely and constructive management letters. This will include deficiencies in internal control identified during our audit.
- Consult regarding accounting and reporting matters as requested throughout the year.
- Work with management towards the timely issuance of financial statements.

INDEPENDENCE

At the core of the provision of external audit services is the concept of independence. Canadian generally accepted auditing standards require us to communicate to the Board of Directors at least annually, all relationships between BDO Canada LLP and its related entities and Grand Bend Area Joint Sewage Board and its related entities, that, in our professional judgment, may reasonably be thought to bear on our independence for the forthcoming audit of the Organization. Refer to Appendix B.

AUDIT TEAM

In order to ensure effective communication between the Board of Directors and BDO Canada LLP, the contact details of the engagement team are outlined below.

Name	Role	Phone number	Email address
Pete Barnes	Engagement Partner	519-336-9900 ext. 7310	pbarnes@bdo.ca
Gail Koehler	Assurance Senior Manager	519-336-9900 ext. 7333	gkoehler@bdo.ca
Eric Hicks	Senior Staff Accountant	519-336-9900 ext. 4485	ehicks@bdo.ca
Taylor Woods	Intermediate Staff Accountant	519-336-9900 ext. 7335	twoods@bdo.ca

RESPONSIBILITIES

It is important for the Board of Directors to understand the responsibilities that rest with the Organization and its management, those that rest with the external auditor and the responsibilities of those charged with governance. BDO's responsibilities are outlined within the annual engagement letter attached as Appendix A to this letter. The oversight and financial reporting responsibilities of management and the Board of Directors are summarized below.

MANAGEMENT'S RESPONSIBILITIES

- Maintain adequate accounting records and maintain an appropriate system of internal control for the Organization.
- Select and consistently apply appropriate accounting policies.
- Safeguard the Organization's assets and take reasonable steps for the prevention and detection of fraud and other irregularities.
- Make available to us, as and when required, all of the Organization's accounting records and related financial information.

BOARD OF DIRECTORS'S RESPONSIBILITIES

- Oversee the work of the external auditor engaged for the purpose of issuing an independent auditor's report.
- Facilitate the resolution of disagreements between management and the external auditor regarding financial reporting matters.
- Pre-approve all non-audit services to be provided to the Organization or its subsidiaries by the external auditor.
- Review the financial statements and Annual Report before the Organization publicly discloses this information.

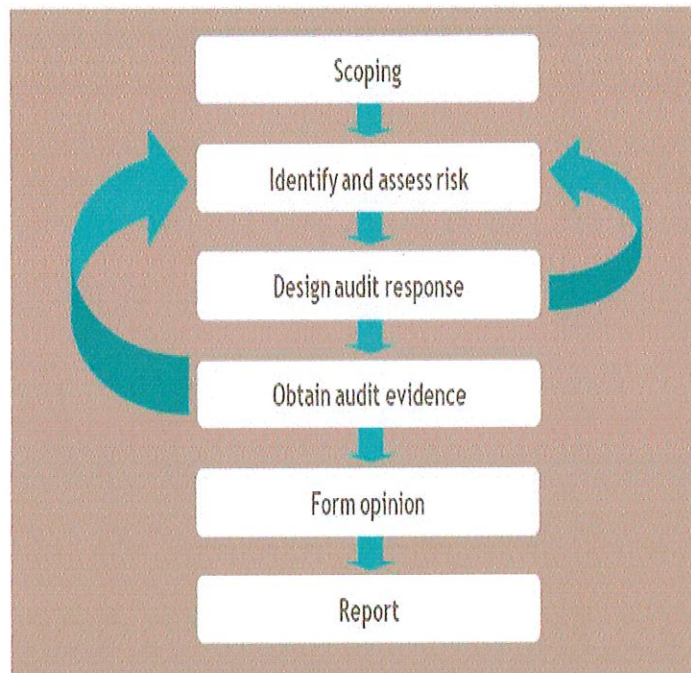
AUDIT STRATEGY

Our overall audit strategy involves extensive partner and manager involvement in all aspects of the planning and execution of the audit and is based on our overall understanding of the Organization.

We will perform a risk based audit which allows us to focus our audit effort on higher risk areas and other areas of concern for management and the Board of Directors.

To assess risk accurately, we need to gain a detailed understanding of the Organization's business and the environment it operates in. This allows us to identify, assess and respond to the risks of material misstatement.

To identify, assess and respond to risk, we obtain an understanding of the system of internal control in place in order to consider the adequacy of these controls as a basis for the preparation of the financial statements, to determine whether adequate accounting records have been maintained and to assess the adequacy of these controls and records as a basis upon which to design and undertake our audit testing.



Based on our risk assessment, we design an appropriate audit strategy to obtain sufficient assurance to enable us to report on the financial statements.

We choose audit procedures that we believe are the most effective and efficient to reduce audit risk to an acceptable low level. The procedures are a combination of testing the operating effectiveness of internal controls, substantive analytical procedures and other tests of detailed transactions.

Having planned our audit, we will perform audit procedures, maintaining an appropriate degree of professional skepticism, in order to collect evidence to support our audit opinion.

MATERIALITY

Misstatements, including omitted financial statement disclosures, are considered to be material if they, individually or in aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Judgments about materiality are made in light of surrounding circumstances and include an assessment of both quantitative and qualitative factors and can be affected by the size or nature of a misstatement, or a combination of both.

For purposes of our audit, we have set preliminary materiality at \$10,000 for the Organization.

	Materiality	Base
Grand Bend Area Joint Sewage Board	\$ 10,000	2% of estimated expenses

Our materiality calculation is based on the Organization's preliminary results. In the event that actual results vary significantly from those used to calculate preliminary materiality, we will communicate these changes to the Board of Directors as part of our year end communication.

We will communicate all corrected and uncorrected misstatements identified during our audit to the Board of Directors, other than those which we determine to be "clearly trivial". Misstatements are considered to be clearly trivial for purposes of the audit when they are inconsequential both individually and in aggregate.

We encourage management to correct any misstatements identified throughout the audit process.

RISKS AND PLANNED AUDIT RESPONSES

Based on our knowledge of the Organization's business, our past experience, and knowledge gained from management and the Board of Directors, we have identified the following significant risks; those risks of material misstatement that, in our judgment, require special audit consideration.

Significant risks arise mainly because of the complexity of the accounting rules, the extent of estimation and judgment involved in the valuation of these financial statement areas, and the existence of new accounting pronouncements that affect them. We request your input on the following significant risks and whether there are any other areas of concern that the Board of Directors has identified.

Management Override of Controls

Significant Risk

- Internal controls can be overridden by individuals and is considered a risk in most engagements.

Approach

- Our planned audit procedures include testing the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of financial statements.

FRAUD DISCUSSION

Canadian generally accepted auditing standards require us to discuss fraud risk with the Board of Directors on an annual basis. We have prepared the following comments to facilitate this discussion.

Required Discussion	BDO Response	Question to Board of Directors
Details of existing oversight processes with regards to fraud.	Through our planning process, we have developed an understanding of your oversight processes including: <ul style="list-style-type: none"> • Board of Directors charters; • Discussions at Board of Directors meetings; • Review of related party transactions; and • Consideration of tone at the top 	Are there any new processes or changes in existing processes relating to fraud that we should be aware of?
Knowledge of actual, suspected or alleged fraud.	Currently, we are not aware of any fraud.	Are you aware of any instances of actual, suspected or alleged fraud affecting the Organization?

AUDITORS' RESPONSIBILITIES FOR DETECTING FRAUD

We are responsible for planning and performing the audit to obtain reasonable assurance that the financial statements are free of material misstatements, whether caused by error or fraud, by:

- Identifying and assessing the risks of material misstatement due to fraud;
- Obtaining sufficient and appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate responses; and
- Responding appropriately to fraud or suspected fraud identified during the audit.

The likelihood of not detecting a material misstatement resulting from fraud is higher than the likelihood of not detecting a material misstatement resulting from error because fraud may involve collusion as well as sophisticated and carefully organized schemes designed to conceal it.

During the audit, we will perform risk assessment procedures and related activities to obtain an understanding of the entity and its environment, including the entity's internal control, to obtain information for use in identifying the risks of material misstatement due to fraud and will make inquiries of management regarding:

- Management's assessment of the risk that the financial statements may be materially misstated due to fraud, including the nature, extent and frequency of such assessments;
- Management's process for identifying and responding to the risks of fraud in the entity, including any specific risks of fraud that management has identified or that have been brought to its attention, or classes of transactions, account balances, or disclosures for which a risk of fraud is likely to exist;
- Management's communication, if any, to those charged with governance regarding its processes for identifying and responding to the risks of fraud in the entity; and
- Management's communication, if any, to employees regarding its view on business practices and ethical behaviour.

In response to our risk assessment and our inquiries of management, we will perform procedures to address the assessed risks, which may include:

- Inquire of management, the Board of Directors, and others related to any knowledge of fraud, suspected fraud or alleged fraud;
- Perform disaggregated analytical procedures and consider unusual or unexpected relationships identified in the planning of our audit;
- Incorporate an element of unpredictability in the selection of the nature, timing and extent of our audit procedures; and
- Perform additional required procedures to address the risk of management's override of controls including;
 - Testing internal controls designed to prevent and detect fraud;
 - Testing the appropriateness of a sample of adjusting journal entries and other adjustments for evidence of the possibility of material misstatement due to fraud;
 - Reviewing accounting estimates for biases that could result in material misstatements due to fraud, including a retrospective review of significant prior years' estimates; and
 - Evaluating the business rationale for significant unusual transactions.

AUDIT TIMING

The following schedule outlines the anticipated timing of the audit of the financial statements of the Organization.

Audit tasks and deliverables	Dates
Deliver audit planning report	March 5, 2018
Final audit fieldwork commences	March 5, 2018
Present final report to the Board of Directors	June 2018
Release of audit report	June 2018

As part of the year-end Board of Directors meeting, we will provide the Board of Directors with a copy of our draft audit opinion, discuss our findings, including significant estimates utilized by management, accounting policies, financial statement disclosures, and significant transactions completed during the year. We will also report any significant internal control deficiencies identified during our audit and reconfirm our independence.

- We, therefore, require that the following safeguards be put in place related to the above:
 - Management creates the source data for all the accounting entries.
 - Management develops any underlying assumptions required with respect to the accounting treatment and measurement of the entries.
 - Management reviews advice and comments provided and undertakes their own analysis considering the Organization's circumstances and generally accepted accounting principles.
 - Management will review and approve all journal entries prepared by us, as well as changes to financial statement presentation and disclosure.

We hereby confirm that we are independent with respect to the Organization within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Ontario as of March 5, 2018.

This letter is intended solely for the use of the Board of Directors, Management and others within the Organization and should not be used for any other purposes.

Yours truly,

A handwritten signature in blue ink, appearing to read "Pete Barnes", with a long horizontal flourish extending to the right.

Pete Barnes, CPA, CA
Partner
BDO Canada LLP
Chartered Professional Accountants, Licensed Public Accountants



BDO RESOURCES

BDO is one of Canada's largest accounting services firms providing assurance and accounting, taxation, financial advisory, risk advisory, financial recovery and consulting services to a variety of publicly traded and privately held companies.

BDO serves its clients through 105 offices across Canada. As a member firm of BDO International Limited, BDO serves its multinational clients through a global network of over 1,000 offices in more than 100 countries. Commitment to knowledge and best practice sharing ensures that expertise is easily shared across our global network and common methodologies and information technology ensures efficient and effective service delivery to our clients.

Outlined below is a summary of certain BDO resources which may be of interest to the Board of Directors.

PUBLICATIONS

See attached

TAX BULLETINS, ALERTS AND NEWSLETTERS

BDO's national tax department issues a number of bulletins, alerts and newsletters relating to corporate federal, personal, commodity, transfer pricing and international tax matters.

For additional information on tax matters and links to archived tax publications, please refer to the following link: <https://www.bdo.ca/en-ca/insights/advanced-search/?filter=1&cat=876>

APPENDIX A

Engagement Letter



Tel: (519) 336-9900
Fax: (519) 332-4828
Toll free:
www.bdo.ca

BDO Canada LLP
Kenwick Place, 250 Christina Street N
PO Box 730
Sarnia, ON N7T 7J7

Grand Bend Area Joint Sewage Board
4 Ontario Street
P.O. Box 340
Grand Bend, Ontario N0M 1T0

March 6, 2017

Dear Sirs/Mesdames:

We understand that you wish to appoint us as the auditors of Grand Bend Area Joint Sewage Board commencing with its fiscal year ended December 31, 2016.

We are pleased to accept appointment as your auditors subject to the terms and conditions of this Agreement, to which the attached Standard Terms and Conditions form an integral part. The definitions set out in the Standard Terms and Conditions are applicable throughout this Agreement. This Agreement will remain in place and fully effective for future years until varied or replaced by another relevant written agreement.

Pete Barnes, CPA, CA will be the Engagement Partner for all assurance work we perform for you. The Engagement Partner will call upon other individuals with specialized knowledge to assist in the performance of Services.

Our Role as Auditors

We will conduct our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements prepared in accordance with Canadian public sector accounting standards are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. Our audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by you, as well as evaluating the overall financial statement presentation.

Because of the inherent limitations of an audit, together with the inherent limitations of internal control, there is an unavoidable risk that some material misstatements, whether by fraud or error, may not be detected, even though the audit is properly planned and performed in accordance with Canadian generally accepted auditing standards.



In making our risk assessments, we consider internal control relevant to your preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of your internal controls. However, we will communicate to you concerning any significant deficiencies in internal controls relevant to the audit of the financial statements that we have identified during the audit.

We will also communicate matters required by professional standards, to the extent that such matters come to our attention, to you, those charged with governance and/or the board of directors.

To assist us in the planning of our initial audit engagement, you agree to authorize the previous auditors to allow us to review their working papers and to respond fully to our inquiries.

Reporting

Our audit will be conducted on the basis that the financial statements have been prepared in accordance with Canadian public sector accounting standards.

Our independent auditor's report will be substantially in the form set out in Canadian Auditing Standard (CAS) 700. The form and content of our report may need to be amended in the light of our audit findings. If we are unable to issue or decline to issue an audit report, we will discuss the reasons with you and seek to resolve any differences of view that may exist.

Role of Management and Those Charged with Governance

You acknowledge and understand that you have responsibility for:

- (a) the preparation and fair presentation of the financial statements in accordance with Canadian public sector accounting standards. The audit of the financial statements does not relieve you of your responsibilities;
- (b) such internal controls as you determine are necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; and
- (c) providing us with:
 - access, in a timely manner, to all information of which you are aware that is relevant to the preparation of the financial statements such as records, documentation and other matters;
 - additional information that we may request for the purpose of the audit;
 - unrestricted access to persons within the entity from whom we determine it is necessary to obtain audit evidence;
 - financial and non-financial information (other information) that will be included in document(s) containing financial statements and our audit report thereon prior to the



date of our auditor's report. If it is not possible to provide all the other information prior to the date of our auditor's report, you are responsible for provision of such other information as soon as practicable; and

- written confirmation concerning representations made to us in connection with the audit. If appropriate and adequate written representations are not provided to us, professional standards require that we disclaim an audit opinion.

Financial Statement Services

We will obtain your approval, if during the course of our engagement we:

- (a) prepare or change a journal entry; or
- (b) prepare or change an account code or a classification for a transaction.

As agreed, we will provide assistance in the preparation of the financial statements.

These services create a threat to our independence. We, therefore, require that the following safeguards be put into place:

- that you create the source data for all accounting entries;
- that you develop any underlying assumptions for the accounting treatment and measurement of entries; and
- that you review and approve the draft financial statements, including the notes to the financial statements.

Tax Services

Our audit is conducted primarily to enable us to express an opinion on the financial statements. The audit process is not designed to provide us with a full understanding of your tax situation and in particular, to allow us to determine whether the entity has specific tax compliance issues. We understand that you are not looking to BDO to provide you with any guidance or advice in regard to tax planning or compliance.

Additional Services

We are available to provide a wide range of services beyond those outlined in this Agreement. To the extent that any additional services that we provide to you that are not provided under a separate written engagement agreement, the provisions of this Agreement will apply to the services.

Standard Terms and Conditions

A copy of our Standard Terms and Conditions is attached as Appendix 1. You should ensure that you read and understand them. The Standard Terms and Conditions include clauses that limit our professional liability.



Please sign and return the attached copy of this Agreement to indicate your agreement with it. If you have any questions concerning this Agreement, please contact us before signing it.

It is a pleasure for us to be of service and we look forward to many future years of association with you.

Yours truly,

BDO Canada LLP

Chartered Professional Accountants, Licensed Public Accountants

Agreement of all the terms and conditions in this Agreement is hereby acknowledged by:

Grand Bend Area Joint Sewage Board

Bill Weber
Signature

Bill Weber
Name (please print)

Mayor
Position

Sept 28/17
Date

Signature

Name (please print)

Position

Date



Appendix 1

Standard Terms and Conditions

1. Overview and Interpretation

- 1.1 This Agreement sets forth the entire agreement between the parties in relation to Services and it supersedes all prior agreements, negotiations or understandings, whether oral or written, with respect to Services. To the extent that any of the provisions of the accompanying letter conflict with these Standard Terms and Conditions, these Standard Terms and Conditions shall prevail. This Agreement may not be changed, modified or waived in whole or part except by an instrument in writing signed by both parties.

- 1.2 In this agreement, the following words and expressions have the meanings set out below:

This Agreement - these Standard Terms and Conditions, the letter to which they are attached, and any supporting schedules or other appendices to the letter

Services - the services provided or to be provided under this Agreement

We, us, our, BDO - refer to BDO Canada LLP, a Canadian limited liability partnership organized under the laws of the Province of Ontario

You, your - the party or parties contracting with BDO under this agreement, including the party's or parties' management and those charged with corporate governance. You and your does not include BDO, its affiliates or BDO Member Firms

BDO Member Firm or Firms - any firm or firms that form part of the international network of independent firms that are members of BDO International Limited

Confidential Information - information that contains identifying features that can be attributed to you or individual personnel

2. BDO Network and Sole Recourse

- 2.1 BDO is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international network of independent member firms (i.e. BDO Member Firms), each of which is a separate legal entity.
- 2.2 We may use other BDO Member Firms or subcontractors to provide Services; however, we remain solely responsible for Services. You agree not to bring any claim or action against another BDO Member Firm (or their partners, members, directors, employees or subcontractors) or our subcontractors in respect of any liability relating to the provision of Services.
- 2.3 You agree that any of our affiliates, subcontractors, and other BDO Member Firms and any subcontractors thereof whom we directly or indirectly involve in providing Services have the right to rely on and enforce Section 2.2 above as if they were a party to this agreement.



3. *Respective Responsibilities*

- 3.1 We will use reasonable efforts to complete, within any agreed-upon time frame, the performance of Services.
- 3.2 You shall be responsible for your personnel's compliance with your obligations under this Agreement. We will not be responsible for any delays or other consequences arising from you not fulfilling your obligations.

4. *Working Papers and Deliverables*

- 4.1 **Ownership** - Any documents prepared by us or for us in connection with Services belong solely to us.
- 4.2 **Oral advice and draft deliverables** - You should not rely upon any draft deliverables or oral advice provided by us. Should you wish to rely upon something we have said to you, please let us know and, if possible, we will provide the information that you require in writing.
- 4.3 **Translated documents** - If you engage us to translate any documents, advice, opinions, reports or other work product of BDO from one language to another, you are responsible for the accuracy of the translation work.
- 4.4 **Reliance by Third Parties** - Our Services will not be planned or conducted in contemplation of or for the purpose of reliance by any third party other than you and any party to whom the assurance report is addressed. Items of possible interest to a third party will not be addressed and matters may exist that would be assessed differently by a third party, possibly in connection with a specific transaction.
- 4.5 **Consent to use the Report** - If we are requested to consent to the use of our report in connection with a continuous disclosure document, a public or private offering document, an annual report or any other document, we will consider, at the relevant time, providing consent and any conditions applicable to our consent. Our consent must be in writing. In order to provide consent, professional standards require that we read the other information in the related document and consider whether such information is materially inconsistent with the related financial statements. We will require adequate notice of the request for consent to allow us to consider your identification and resolution of events occurring in the period since the date of our report, and to obtain updated written representation letters. Such procedures will be performed at your cost.

5. *Confidentiality*

- 5.1 We agree to use Confidential Information provided by you only in relation to the services in connection with which the information is provided and we will not disclose the information, except where required by law, regulation or professional obligation. We may, however, give Confidential Information to other BDO Member Firms or other subcontractors assisting us in providing Services.
- 5.2 BDO shall be entitled to include a description of services we render to or for you in marketing and research materials and disclose such information to third parties, provided that all such information will be made anonymous and not associated with you. Additionally, we may analyze information on an industry or sector basis for internal



purposes or to provide industry/sector wide information to our clients or potential clients. You consent to our using information obtained from you in this way provided that the outputs therefrom will not contain any identifying features that can be attributed to you.

6. *Independence*

- 6.1 Professional and certain regulatory standards require us to be independent, in both fact and appearance, with respect to our clients in the performance of our services. We will communicate to you any relationships between BDO (including its related entities) and you that, in our professional judgment, may reasonably be thought to bear on our independence. Further, we will confirm our independence in writing.

7. *Offers of Employment*

- 7.1 Any discussions that you, or any party acting on your behalf, have with professional personnel of our Firm regarding employment could pose a threat to our independence. Your recruitment of an engagement team member from the current or prior year's engagement may compromise our independence and our ability to render agreed services to you. Engagement team members may include current and former partners and staff of BDO, other BDO Member Firms and other firms who work under our direction. Therefore, you agree to inform us prior to any such discussions so that you and we can implement appropriate safeguards to maintain our independence.

8. *Professional and Regulatory Oversight*

- 8.1 As required by legal, regulatory, or professional authorities (both in Canada and abroad) and by BDO policy, our client files must periodically be reviewed by practice inspectors to ensure that we are adhering to professional and BDO standards. It is understood that by entering into this agreement, you provide your consent to us providing our files relating to your engagement to the practice inspectors for the sole purpose of their inspection.
- 8.2 Certain regulatory bodies may also have the right to conduct investigations of you, including the Services provided by us. To the extent practicable and permitted by law, we will advise you of any such investigation request or order prior to providing our working papers.
- 8.3 You agree to reimburse us for our time and expenses, including reasonable legal fees, incurred in responding to any investigation that is requested or authorized by you or investigations of you undertaken under government regulation or authority, court order or other legal process.

9. *Privacy and Consents*

- 9.1 You agree we will have access to all personal information in your custody that we require to complete our engagement. We may collect, use, transfer, store, or process such information disclosed by you of a personal nature (personal information). Our Services are provided on the understanding that:
 - you have obtained any consents for collection, use and disclosure to us of personal information required under all applicable privacy legislation; and



- we will hold all personal information in compliance with our Privacy Statement.

10. Electronic Communications

- 10.1 Both parties recognize and accept the security risks associated with email communications, including but not limited to the lack of security, unreliability of delivery and possible loss of confidentiality and privilege. Unless you request in writing that we do not communicate by internet email, you assume all responsibility and liability in respect of risk associated with its use.
- 10.2 Unless BDO is otherwise advised in writing, by executing this agreement you provide BDO with consent to communicate with you electronically, including sending newsletters, publications, announcements, invitations and other news and alerts. You may withdraw your consent at any time by contacting BDO at unsubscribe@bdo.ca.

11. Limitation of Liability

- 11.1 In any dispute, action, claim, demand for losses or damages arising out of the Services performed by BDO pursuant to this Agreement, BDO shall only be liable for its proportionate share of the total liability based on degree of fault as determined by a court of competent jurisdiction or by an independent arbitrator as a result of the dispute resolution procedures, notwithstanding the provisions of any statute or rule of common law which create, or purport to create, joint and several liability.
- 11.2 Our liability shall be restricted to damages of a direct and compensatory nature and shall not include indirect, consequential, aggravated or punitive damages, or damages for loss of profits or expected tax savings, whether or not the likelihood of such loss or damage was contemplated.
- 11.3 You agree that BDO shall not be liable to you for any actions, damages, claims, liabilities, costs, expenses, or losses in any way arising out of or relating to the Services performed hereunder for an aggregate amount no more than the higher of:
- three times the fees paid by you to BDO in the twelve months preceding the incident giving rise to the claim; and
 - \$25,000.
- 11.4 No exclusion or limitation on the liability of other responsible persons imposed or agreed at any time shall affect any assessment of our proportionate liability hereunder, nor shall settlement of or difficulty enforcing any claim, or the death, dissolution or insolvency of any such other responsible persons or their ceasing to be liable for the loss or damage or any portion thereof, affect any such assessment.
- 11.5 You agree claims or actions relating to the delivery of Services shall be brought against us alone, and not against any individual. Where our individuals are described as partners, they are acting as one of our members.

12. Indemnity

- 12.1 To the fullest extent permitted by applicable law and professional regulations, you agree to indemnify and hold harmless BDO from and against all losses, costs (including solicitors'

fees), damages, expenses, claims, demands or liabilities arising out of or in consequence of:

- a misrepresentation by a member of your management or board of directors, regardless of whether such person was acting in your interest
- the services performed by BDO pursuant to this Agreement, unless, and to the extent that, such losses, costs, damages and expenses are found by a court of competent jurisdiction to have been due to the gross negligence of BDO. In the event that the matter is settled out of court, we will mutually agree on the extent of the indemnification to be provided by you, failing which, the matter may be referred to dispute resolution in accordance with the terms of this letter.

13. *Alternative Dispute Resolution*

- 13.1 Both parties agree that they will first attempt to settle any dispute arising out of or relating to this agreement or the Services provided hereunder through good faith negotiations.
- 13.2 In the event that the parties are unable to settle or resolve their dispute through negotiation, such dispute shall be subject to mediation pursuant to the National Mediation rules of the ADR Institute of Canada Inc. All disputes remaining unsettled for more than 60 days following the parties first meeting with a mediator or such longer period as the parties mutually agree upon shall be subject to arbitration pursuant to the National Arbitration Rules of the ADR Institute of Canada Inc. Such arbitration shall be final, conclusive and binding upon the parties, and the parties shall have no right of appeal or judicial review of the decision. The parties hereby waive any such right of appeal which may otherwise be provided for in any provincial arbitration statute made applicable under the National Arbitration Rules.

14. *Limitation Period*

- 14.1 You shall make any claim relating to Services or otherwise under this Agreement no later than one year after you became aware or ought reasonably to have become aware of the facts giving rise to any such claim.
- 14.2 You shall in no event make any claim relating to the Services or otherwise under this Agreement later than two years after the completion of the Services under this Agreement.
- 14.3 To the extent permitted by law, the parties to this Agreement agree that the limitation periods established in this Agreement replace any limitation periods under any limitations act and/or any other applicable legislation and any limitation periods under any limitations act and/or any other applicable legislation shall not alter the limitation periods specified in this Agreement.

15. *Québec Personnel*

- 15.1 We may sometimes have individual partners and employees performing Services within the Province of Québec who are members of the Ordre des comptables professionnels agréés du Québec. Any such members performing professional services hereunder assumes full personal civil liability arising from the practice of their profession,

regardless of their status within our partnership. They may not invoke the liability of our partnership as grounds for excluding or limiting their own liability. The provisions in Subsection 13.2 and Sections 11 (Limitation of Liability) and 14 (Limitation Period) shall therefore not apply to limit the personal civil liability of partners and employees who are members of the Ordre des comptables professionnels agréés du Québec.

16. Termination

- 16.1 This Agreement applies to Services whenever performed (including before the date of this Agreement).
- 16.2 You or we may terminate this Agreement at any time upon written notice of such termination to the other party. We will not be liable for any loss, cost or expense arising from such termination. You agree to pay us for all Services performed up to the date of termination, including Services performed, work-in-progress and expenses incurred by us up to and including the effective date of the termination of this Agreement.

17. Fees and Billings

- 17.1 Our estimated fee is based on an assumed level of quality of your accounting records, the agreed upon level of preparation and assistance from your personnel and adherence to the agreed-upon timetable. Our estimated fee also assumes that your financial statements are in accordance with the applicable financial reporting framework and that there are no significant new or changed accounting policies or issues or internal control or other reporting issues. We will inform you on a timely basis if these factors are not in place.
- 17.2 Should our assumptions with respect to the quality of your accounting records be incorrect or should the conditions of the records, degree of cooperation, results of audit procedures, or other matters beyond our reasonable control require additional commitments by us beyond those upon which our estimated fees are based, we may adjust our fees and planned completion dates.
- 17.3 Our professional fees will be based on our regular billing rates which depend on the means by which and by whom our Services are provided. We also will bill you for our out-of-pocket expenses, our administrative charge (described below), and applicable Harmonized Sales Tax, Goods and Services Tax and Provincial Sales Tax.
- 17.4 Our administrative charge is calculated as a percentage of our professional fee and represents an allocation of estimated costs associated with our technology infrastructure, telephone charges, photocopying and some support staff time costs.
- 17.5 Our accounts are due when rendered. BDO may suspend the performance of Services in the event that you fail to pay an invoice when it is due. Interest may be charged at the rate of 12% per annum on all accounts outstanding for more than 30 days.

18. Governing Laws

- 18.1 The terms of our engagement shall remain operative until amended, terminated, or superseded in writing. They shall be interpreted according to the laws of the province



or territory in which BDO's principal Canadian office performing the engagement is located, without regard to such province/territory's rules on conflicts of law.

19. *Entire Agreement and Survival*

- 19.1 This Agreement sets forth the entire agreement between the parties with respect to the subject matter herein, superseding all prior agreements, negotiations or understandings, whether oral or written, with respect to such subject matter. It is understood that this Agreement will not be superseded by any contract with us for other specific services that are not of the same scope as the Services contemplated in this Agreement, unless the other contract explicitly references this Agreement and an intent to supersede it.
- 19.2 The provisions of this Agreement that give either of us rights or obligations beyond its termination shall continue indefinitely following the termination of this Agreement. Any clause that is meant to continue to apply after termination of this Agreement will do so.

20. *Force Majeure*

- 20.1 We will not be liable for any delays or failures in performance or breach of contract due to events or circumstances beyond our reasonable control, including acts of God, war, acts by governments and regulators, acts of terrorism, accident, fire, flood or storm or civil disturbance.

21. *Assignment*

- 21.1 No party may assign, transfer or delegate any of the rights or obligations hereunder without the written consent of the other party or parties. BDO may engage independent contractors and BDO Member Firms to assist us in performing the Services in this Agreement without your consent.

22. *Severability*

- 22.1 If a court or regulator with proper jurisdiction determines that a provision of this Agreement is invalid, then the provision will be interpreted in a way that is valid under applicable law or regulation. If any provision is invalid, the rest of this Agreement will remain effective.

APPENDIX B

Independence Letter



Tel: 519 336 9900
Fax: 519 332 4828
www.bdo.ca

BDO Canada LLP
Kenwick Place
250 Christina Street North
Sarnia, Ontario N7T 7V3 Canada

March 5, 2018

Members of the Board of Directors
Grand Bend Area Joint Sewage Board
4 Ontario Street
P.O. Box 340
Grand Bend, Ontario N0M 1T0

Dear Board of Directors Members:

We have been engaged to audit the financial statements of Grand Bend Area Joint Sewage Board (the "Organization") for the year ended December 31, 2017.

Canadian generally accepted auditing standards (GAAS) require that we communicate at least annually with you regarding all relationships between the Organization and our Firm that, in our professional judgment, may reasonably be thought to bear on our independence.

In determining which relationships to report, we have considered the applicable legislation and relevant rules of professional conduct and related interpretations prescribed by the appropriate provincial institute/ordre covering such matters as:

- Holding a financial interest, either directly or indirectly in a client;
- Holding a position, either directly or indirectly, that gives the right or responsibility to exert significant influence over the financial or accounting policies of a client;
- Personal or business relationships of immediate family, close relatives, partners or retired partners, either directly or indirectly, with a client;
- Economic dependence on a client; and
- Provision of services in addition to the audit engagement.

We have prepared the following comments to facilitate our discussion with you regarding independence matters.

We are aware of the following relationships between the Organization and us that, in our professional judgment, may reasonably be thought to have influenced our independence. The following relationships represent matters that have occurred from March 6, 2017 to March 5, 2018:

- We will provide assistance in the preparation of the financial statements, including adjusting journal entries. These services will create a self-review threat to our independence since we will subsequently express an opinion on whether the financial statements present fairly, in all material respects, the financial position, results of operations and cash flows of the Organization in accordance with Canadian public sector accounting standards.



Tel: 519 336 9900
Fax: 519-332-4828
www.bdo.ca

BDO Canada LLP
Kenwick Place
250 Christina Street North
Sarnia Ontario N7T 7V3 Canada

January 25, 2018

Members of the Board of Directors
Grand Bend Area Joint Sewage Board
4 Ontario Street
P.O. Box 340
Grand Bend, Ontario N0N 1T0

Dear Sirs and Mesdames:

We are writing to you in your capacity as members of the Board of Directors of Grand Bend Area Joint Sewage Board.

Generally accepted auditing standards require that we, as auditors for Grand Bend Area Joint Sewage Board communicate to Board of Directors with regards to fraud and error and the impact it may have on the audited financial statements of Grand Bend Area Joint Sewage Board for the year ended December 31, 2017.

In this regard, we would ask that you provide us with responses to the following questions:

1. Has management communicated with the Board of Directors concerning its processes for identifying and responding to the risks of fraud and error in the entity?
2. How do Board of Directors members exercise oversight of management's processes for identifying and responding to the risks of fraud and error in the entity and how they exercise oversight of the internal controls that management has established to mitigate those risks?
3. Do Board of Directors members have any knowledge of any actual, suspected or alleged fraud affecting the entity?

Should you have any questions concerning the foregoing, please contact us. Otherwise, we will look forward to hearing from you in due course.

Yours truly,

BDO CANADA LLP

Pete Barnes, CPA, CA
Partner

DRAFT

April 27, 2018

BDO Canada LLP
250 Christina Street N
P.O. Box 730
Sarnia, Ontario N7T 7J7

Attention: Peter Barnes

Dear Sir:

Your letter of January 25, 2018 to the members of the Grand Bend Area Joint Sewage Board, regarding the audited financial statements for 2017 was reviewed at the April 27, 2018 Board meeting.

In the letter, three questions were posed to the members, and the following are the response to the questions for 2016 and 2017:

1. Has management communicated with the Board of Directors concerning its processes for identifying and responding to the risks of fraud and error in the entity?

Yes.

2. How do Board of Directors members exercise oversight of management's processes for identifying and responding to the risks of fraud and error in the entity and how they exercise oversight of the internal controls that management has established to mitigate those risks?

The Municipality of Lambton Shores has in place policies and procedures to establish internal financial control, and staff would report any issues to the CAO and subsequently the CAO would report to Council and the Board. The controls include providing information on the status of the municipal accounts on a quarterly basis. Council approves the municipal accounts on a quarterly basis, and all cheques require 2 signatures – those over \$25,000.00 require the Mayor or Deputy Mayor to sign with the staff member. Policies are also in place with respect to tendering, purchasing, cash handling and reporting as well as security on electronic equipment.

3. Do Board of Directors members have any knowledge of any actual, suspected or alleged fraud affecting the entity?

The Board members do not have any knowledge regarding any actual, suspected or alleged fraud affecting the Board.

Trusting this is the information that you require.

Sincerely,

Tom Tomes,
Chair

THE MUNICIPALITY OF LAMBTON SHORES

Report TR-15-2018

Council Meeting Date: April 27, 2018

TO: Chair Tomes and Board Members
FROM: Janet Ferguson, Treasurer
RE: 2017 Draft Audited Financial Statements

RECOMMENDATION:

THAT Report TR-15-2018 regarding the 2017 Draft Audited Financial Statements be received; and

THAT the Draft 2017 Audited Financial Statements be approved.

SUMMARY

This report presents the 2017 Draft Audited Financial Statements prepared by BDO Canada LLP.

BACKGROUND

As noted in TR-13-2018, Municipalities are required to conduct an annual audit by an outside person or firm licensed under the Public Accounting Act. BDO Canada LLP, Sarnia Branch, continues to be the Lambton Shores auditor and has now completed the 2017 audit and prepared the Draft Financial Statements.

The Draft Audited Statements have been prepared and attached to this report for your review and approval. If there are specific questions that you would like addressed at the meeting, it would be helpful to receive them in advance of the meeting to ensure they can be answered in a timely manner and if necessary any additional pertinent information is prepared. Gail Koehler from BDO Canada LLP will be in attendance to present the statements and answer any questions you may have. Once the Draft Statements are approved, the final will be released from BDO.

The total revenue and expenses in the draft audited statements differ from those provided for the year-end reconciliation and represented in Mr. McAuley's report included in this agenda. The audited statements reflect an accrual adjustment for utility bills that were received after the 2017 final costs were determined by staff. These costs will be adjusted for in the 2018 year quarterly billings and this is consistent with the transactions for 2016 audit.

ALTERNATIVES TO CONSIDER

None

RECOMMENDED ACTIONS

That the Draft Audited Financial Statements for the GBAJSB be received as presented.

FINANCIAL IMPACT

There is no additional financial impact by approving the 2017 Audited Financial Statements. The board previously received reports from Mr. McAuley with regards to the increased costs for hydro and gas for the facility, those expenses are the primary drivers for the expenditures being over budget. The 2018 budget was adjusted to reflect increased costs and thus contributions from the partners.

CONSULTATION

BDO Canada LLP

**Grand Bend Area Joint
Sewage Board
Financial Statements
For the year ended December 31, 2017**

Draft for Approval

Grand Bend Area Joint Sewage Board
Financial Statements
For the year ended December 31, 2017

	Contents
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Independent Auditor's Report

To the Board Members, Members of Council, Inhabitants and Ratepayers of the Municipality of Lambton Shores and the Municipality of South Huron:

We have audited the accompanying financial statements of Grand Bend Area Joint Sewage Board, which comprise the statement of operations for the year ended December 31, 2017 and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risk of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the statement of operations of Grand Bend Area Joint Sewage Board for the year ended December 31, 2017 in accordance with Canadian public sector accounting standards.

Chartered Professional Accountants, Licensed Public Accountants

Sarnia, Ontario
TBD

Grand Bend Area Joint Sewage Board Statement of Operations

For the year ended December 31	Budget 2017	Actual 2017	Actual 2016
REVENUES			
Municipal recovery - Lambton Shores	\$ 233,155	\$ 331,543	\$ 249,244
Municipal recovery - South Huron	190,655	215,448	184,424
Total revenue	423,810	546,991	433,668
EXPENSES			
Administration and governance			
General administrative charges	3,784	3,989	3,710
Insurance	16,423	19,737	17,492
Insurance - pump station 2	1,593	-	-
Audit	7,200	7,200	7,200
Accounting services	2,040	-	-
Technology support	500	121	-
Scada support	2,000	-	5,534
Engineering	2,000	5,525	-
Legal	1,000	-	-
Taxes	77,967	77,967	76,438
Taxes - pump station 2	1,749	1,206	1,725
Fixed maintenance and operational costs			
Telephone	2,000	1,703	1,514
Telephone - pump station 2	-	1,171	-
Computer	500	-	-
Building repairs & maintenance	20,000	5,167	6,891
Grounds maintenance	3,000	-	2,239
Annual preventative maintenance	10,176	16,429	10,175
Wetland pest control	1,000	-	-
Variable operational costs			
OMI administrative	32,646	32,647	31,839
Operator wages	95,469	95,469	93,106
Electrical	60,000	139,599	83,661
Electrical - pump station 2	13,000	13,864	15,643
Union gas	7,000	39,201	8,722
Water	5,000	26,602	11,922
Water - pump station 2	1,000	210	181
Chemicals	42,892	42,892	41,829
Laboratory sampling	13,871	16,292	13,847
Total expenses	423,810	546,991	433,668
Surplus	-	\$ -	\$ -

The accompanying notes are an integral part of these financial statements.

Grand Bend Area Joint Sewage Board

Notes to Financial Statements

December 31, 2017

1. Summary of Significant Accounting Policies

Management's Responsibility for the Financial Statements

The financial statements of the municipal board are the responsibility of management. The Grand Bend Area Joint Sewage Board ("the municipal board") is a municipal board in the Province of Ontario and was established under the Municipal Act, sections 196 and 202. The municipal board governs the management of a wastewater treatment facility, a forcemain and a pump station.

Basis of Accounting

The financial statements have been prepared using Canadian public sector accounting standards.

Government Transfer

Government transfers are recognized as revenue in the financial statements when the transfer is authorized and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an obligation that meets the definition of a liability. Transfers are recognized as deferred revenue when transfer stipulations give rise to a liability. Transfer revenue is recognized in the statement of operations as the stipulation liabilities are settled.

Revenue Recognition

Municipal recovery revenue is recognized in the year for which the service relates to. Recoveries for wastewater usage are based on agreed allocation percentages and flow rate usage of the participating municipalities.

Measurement Uncertainty

The preparation of financial statements in conformity with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of revenues and expenses during the period. Such estimates are periodically reviewed and any adjustments necessary are reported in earnings in the period in which they become known. Actual results could differ from these estimates.

Grand Bend Area Joint Sewage Board Notes to Financial Statements

December 31, 2017

2. Nature of Reporting Entity

In 2014, the participating municipalities signed an agreement to construct a new wastewater treatment facility which was completed in 2016. All new and existing works, properties, and all assets, liabilities, rights and obligations of the system have been conveyed, assigned and transferred jointly to The Corporation of the Municipality of Lambton Shores and The Corporation of the Municipality of South Huron. As long as a participating municipality is serviced by the works, each will have an undivided beneficial ownership interest in the works as a tenant in common with the other jointly. The municipalities' interest shall be in the same ratio of the quantity of wastewater contributed to the works from the municipality at any time and from time to time bears to the total quantity of wastewater contributed at such time.

A joint board was established to govern the management of the wastewater treatment facility. The joint board of management is comprised of three representatives from each participating municipality. All representatives have one vote each.

The Corporation of the Municipality of Bluewater has an option to become a participating municipality expiring January 1, 2044 with an option to renew for a further ten years. As at December 31, 2017, the Corporation of the Municipality of Bluewater has not exercised its option.

3. Subsequent Event

On November 23, 2017, the Board of Directors approved a motion to contribute a fixed amount to a capital replacement and rehabilitation reserve fund in the fiscal 2018 year. There is a commitment to contribute \$205,000 in 2018, increasing 2% per annum, to be reviewed in 2020.

GRAND BEND AREA JOINT SEWAGE BOARD

Report STB 01-2018

Board Meeting Date: April 27, 2018

TO: Chairman Tomes and Members of the Board

FROM: Steve McAuley, Director of Community Services, Lambton Shores

RE: 2017 Year-End Report

RECOMMENDATION:

THAT Report STB 01-2018 regarding the “2017 Year-End Report” be received.

SUMMARY

This report is a 2017 year end summary of the operations for the Grand Bend Sewage Treatment Facility.

BACKGROUND

Attached is the 2017 year end (Q4) operations report for the Grand Bend Sewage Treatment Facility. The report includes a year-end financial summary, a summary of flows experienced during 2017, a summary of the charges attributable to each participating municipality, and a summary of the monthly average effluent quality testing results.

Year-end financials are generally on target with the exception of exceedances in the area of utilities. As reported previously, hydro, gas and water were all over budget in 2017. 2018 budgets have been set to reflect the actual utilities costs that incurred in 2017. No other major variances were noted in the year end financials.

The flow data attached shows flows from the various contributors to the system on a monthly basis for the year 2017. In addition, the flow split between South Huron and Lambton Shores has been calculated based on this data. Using the flow split, the charges applicable to each participating municipality has been calculated in accordance with the Tri-party Agreement. General speaking the flow split between Lambton Shores and South Huron is 60%-40% respectively.

For 2017, the cost to South Huron will be \$212,552.73 which is \$21,897.15 over the budgeted projection. In the case of Lambton Shores the cost will be 327,292.59 which is 94,137.48 over the budgeted amount.

2017 effluent testing results show that the effluent quality generally met the established effluent limits with the exception of Ammonia which was above the limits for the first eight (8) months of the year. As explained to the Board previously this was due to the loss of nitrification in the plant because of low effluent temperatures. Nitrification is now taking place and ammonia levels have remained well below the limits through the end of 2017 and up to the end of March 2018.

As a requirement of the Environmental Compliance Certificate, a year-end report is prepared by the operators of the system and submitted to the MOEE. A copy of this year-end report is attached as additional information for the Board.

ALTERNATIVES TO CONSIDER

None, this report is information only.

RECOMMENDED ACTIONS

This report is prepared in accordance to the Board's Quarterly Report Policy 01-2017. Staff recommends the report be received for information by the Board.

FINANCIAL IMPACT

None

CONSULTATION

CH2M – Plant Operators

GRAND BEND AREA JOINT SEWAGE OPERATIONS
2017 Year End Financials

		2017 BUDGET	2017 YTD To Dec. 31
Revenue	<u>OWNER CONTRIBUTION</u>		
4-410-175-4500	LAMBTON SHORES CONTRIBUTION	233,155.11	327,292.59
4-410-175-4501	SOUTH HURON CONTRIBUTION	190,655.58	212,552.73
TOTAL REVENUE		423,810.69	539,845.32
Part A	<u>ADMINISTRATIVE AND GOVERNANCE</u>		
4-410-175-5100	GENERAL ADMINISTRATION CHARGE	3,784.20	3,710.00
4-410-176-5100	GENERAL ADMINISTRATION CHARGE		
4-410-175-5160	INSURANCE STF	16,423.47	19,737.10
4-410-176-5160	INSURANCE PS2 & FORCEMAIN	1,592.96	
4-410-175-5155	AUDIT	7,200.00	7,200.00
4-410-175-5156	ACCOUNTING SERVICES	2,040.00	
4-410-175-5170	IT	500.00	120.59
4-410-175-5104	SCADA SUPPORT STF	2,000.00	
4-410-176-5104	SCADA SUPPORT PS2		
4-410-175-5103	ENGINEERING STF	2,000.00	5,525.36
4-410-176-5103	ENGINEERING PS2		
4-410-175-5150	LEGAL	1,000.00	279.16
4-410-175-5910	CAPITAL REPLACEMENT RESERVE		
4-410-175-5210	TAXES STF	77,966.76	77,966.76
4-410-176-5210	TAXES PS2	1,749.30	1,206.02
TOTAL PART A		116,256.69	115,744.99
Part B	<u>FIXED MTC & OPERATIONAL COSTS</u>		
4-410-175-5125	TELEPHONE STF	2,000.00	1,702.81
4-410-176-5125	TELEPHONE PS2		1,171.05
4-410-175-5126	COMPUTER EXPENSE	500.00	
4-410-175-5140	BUILDING REPAIRS & MAINTENANCE STF	20,000.00	5,167.25
4-410-176-5140	BUILDING REPAIRS & MAINTENANCE PS2		
4-410-175-5175	GROUNDS MAINTENANCE	3,000.00	
4-410-175-5141	ANNUAL PREVENTIVE MAINTENANCE *	10,176.00	16,429.15
4-410-175-5176	WETLAND PEST CONTROL	1,000.00	
TOTAL PART B		36,676.00	24,470.26
Part C	<u>VARIABLE OPERATIONAL COSTS (RELATED TO FLOWS)</u>		
4-410-175-5101	OMI ADMINISTRATIVE COSTS STF *	32,646.00	32,646.43
4-410-176-5101	OMI ADMINISTRATIVE COSTS PS2		
4-410-175-5102	OPERATOR WAGES STF *	95,469.00	95,469.06
4-410-176-5102	OPERATOR WAGES PS2		
4-410-175-5122	ELECTRICAL COSTS STF	60,000.00	138,949.54
4-410-176-5122	ELECTRICAL COSTS PS2	13,000.00	13,863.93
4-410-175-5123	UNION GAS STF	7,000.00	32,704.64
4-410-176-5121	WATER PLANT	5,000.00	26,602.48
	WATER PS	1,000.00	210.18
4-410-175-5180	CHEMICALS *	42,892.00	42,891.72
4-410-175-5410	LABORATORY SAMPLING *	13,871.00	16,292.09
TOTAL PART C		270,878.00	399,630.07
TOTAL EXPENSES		423,810.69	539,845.32
NET TOTAL		0.00	0.00

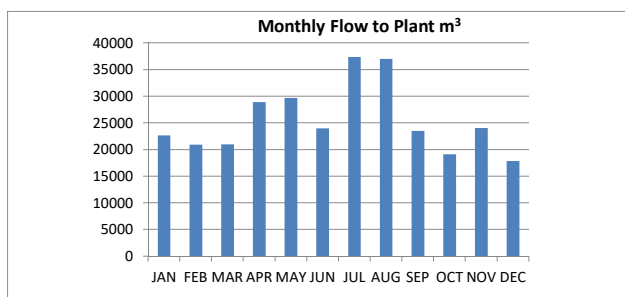
**Grand Bend Area Joint Sewage Board
2017 Summary of System Flows**

MONTH	OAKWOOD m ³	POG\Motor Plex m ³	GRAND COVE m ³	HC PLAYHOUSE m ³	PINERY m ³	PS2 m ³	Total Flow to Plant m ³	Plant Effluent m ³
	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow
JAN	1524	1091	12430	120	117	21363	22691	21950
FEB	1430	954	5888	144	109	19725	20932	23300
MAR	1337	796	7210	188	40	19944	20968	21062
APR	1838	1300	9315	194	152	27294	28940	31691
MAY	1973	1257	10140	178	749	27520	29704	34986
JUN	2034	461	6175	503	2474	20580	24018	41364
JUL	3460	381	6120	370	4799	31837	37387	39744
AUG	2961	690	4967	421	6492	29428	37031	43108
SEP	2239	418	5062	215	2546	20340	23519	36855
OCT	2162	388	5635	133	651	17979	19151	37511
NOV	1744	851	8570	103	24	23093	24071	24944
DEC	1477	345	6564	105	17	17427	17894	18867
Total to Date	24179	8932	88076	2674	18170	276530	306306	375382
Avg. Monthly Flow	2014.9	744.3	7339.7	222.8	1514.2	23044.2	25525.5	31281.8

Note:

Plant Effluent Flows are shown for reference only, and are subject to the effects of lagoon use.

TOTAL FLOW CALCULATION	
	2017
Main Pump (PS2)	276,530
GRAND COVE	88,076
OAKWOOD	24,179
Lambton Shores (PS2 - GC & Oak)	164,275
POG	8,932
HCP	2,674
Pinery	18,170
Grand Total Flows To GB plant (PS2 Flow Plus Remaining)	306,306
MUNICIPAL TOTALS	
SOUTH HURON	123,861
LAMBTON SHORES	182,445
TOTAL	306,306




MUNICIPAL FLOW PROPORTIONMENT

	Lambton Shores	South Huron
PS2 Flow Proportions	59.41%	40.59%
GB Plant Proportions	59.56%	40.44%

Revenue Calculation			
	Total	Lambton Shores	South Huron
Part A - per agreement			
PS 2- 50% LS, 50% SH	\$1,206.02	\$603.01	\$603.01
Treatment Facility - 64.7% LS,	\$114,538.97	\$74,106.71	\$40,432.26
Total Part A	\$115,744.99	\$74,709.72	\$41,035.27
Part B - Flow Based			
PS2	\$1,171.05	\$695.67	\$475.38
Plant	\$23,299.21	\$13,877.71	\$9,421.51
Total Part B	\$24,470.26	\$14,573.38	\$9,896.88
Part C - Flow Based			
PS2	\$14,074.11	\$8,360.84	\$5,713.27
Plant	\$385,555.96	\$229,648.64	\$155,907.32
Total Part C	\$399,630.07	\$238,009.49	\$161,620.58
Total	\$539,845.32	\$327,292.59	\$212,552.73

Grand Bend Sewage Treatment Plant						
2018 Final Effluent Average Monthly Testing Results						
Parameter Month	CBOD5 mg/L	T. S. S. mg/L	Total P mg/L	Total Ammonia mg/L	E-Coli Per 100ml	pH Grab
January	7.5	4.5	0.15	19.53	2	7.23
February	5.3	4.8	0.10	23.93	2	6.86
March	5.2	2.8	0.05	27.40	2	7.16
April	10.5	4.4	0.09	22.94	2	7.39
May	4.8	3.4	0.06	24.75	2	7.39
June	5.4	2.4	0.05	16.19	4	6.83
July	13.8	4.1	0.11	30.53	9	6.87
August	7.4	6.6	0.06	12.58	2	6.66
September	5.3	5.0	0.08	0.19	3	7.23
October	6.3	4.5	0.08	0.12	2	7.49
November	3.8	3.1	0.08	0.34	2	7.42
December	5.3	4.5	0.11	0.23	3	7.15
Effluent Objectives	5.0	5.0	0.10	2.0	NA	6.5-9.0
Effluent Limits	10.0	10.0	0.15	4.0	100	6.0-9.5

Note:

 Denotes results within Effluent Limits



2017 Annual Report of Operations

Grand Bend Wastewater Treatment Facility

Amended Environmental Compliance Approval
7637-ABCJVZ

Prepared by Jacobs / CH2M for the
Municipality of Lambton Shores



Jacobs

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Mr. Marc Bechard
Ontario Ministry of the Environment and Climate Change
1094 London Road,
Sarnia, Ontario.
N7S 1P1

March 22, 2018

Subject: Grand Bend Wastewater Treatment Facility 2017 Annual Report of Operations

Dear Mr. Bechard,

On behalf of the Corporation of the Municipality of Lambton Shores, in Lambton County, Jacobs / CH2M is pleased to provide the Ontario Ministry of the Environment and Climate Change (MOECC) with the 2017 Annual Report of Operations for the Grand Bend Wastewater Treatment Facility. The Report covers the period from January 1 2017 to December 31 2017. Please feel free to contact the undersigned if you have any questions regarding this report.

Regards,

Dale Wright
Lead Operator, Jacobs
519 786 2421

Cc: Nick Verhoeven, Engineering Specialist, Municipality of Lambton Shores
Rick Marsh, Senior Project Manager, Jacobs

Grand Bend Wastewater Treatment Facility 2017 Annual Report of Operations

The Grand Bend Wastewater Treatment Facility is located on the outskirts of the village of Grand Bend at 70145 Mollard Line in the Municipality of South Huron in Huron County. The facility is jointly owned by the Municipality of South Huron and the Municipality of Lambton Shores. Construction on the facility was completed in 2016. Prior to the construction of the facility, wastewater was treated in four lagoons and seasonally discharged. The facility receives residential wastewater from Grand Bend and from a portion of the municipality of South Huron as well as from the Pinery Provincial Park, Huron County Playhouse and the Grand Bend Motorplex and industrial wastewater from the Professional Onion Growers plant. There are seven sanitary pump stations in Grand Bend plus grinder pump cans on River Road. The facility is an extended aeration plant with tertiary filtration and ultra violet disinfection with an outfall to the Shipka Drain which flows to Parkhill Creek.

The facility is operated by Jacobs under contract with the Municipality of Lambton Shores.

An amended Environmental Compliance Approval 7637-ABCJVZ was issued on September 22 2016. The amended ECA replaced an earlier ECA 0149-9M4JKA which was issued on September 5 2014 as well as an earlier Certificate of Approval 1-605-79-006 from 1979.

Section A: Summary and interpretation of all monitoring data and a comparison to the effluent limits, including an overview of the success and adequacy of the Works.

Flow Capacity:

The facility has a rated capacity of 2473 m³ per day average daily flow.

During this reporting period, the average daily flows were 1036 m³/d. The total flows for the reporting period were 378064 m³. The flow report is attached.

The effluent average monthly concentration objectives and limits and loadings as outlined in the ECA are as follows:

Average Monthly Concentration Objectives & Non-compliance Limits and Loadings

Effluent Parameter	Objective mg/L	Limit mg/L	Loading kg/yr
CBOD	5.0	10.0	9026
Suspended Solids	5.0	10.0	9026
Total Phosphorus	0.10	0.15	135
Total Ammonia Nitrogen			
May 1 - Nov 30	1.0	2.0	1805
Dec 1 - Apr 30	2.0	4.0	3610
E coli organisms per 100 ml		100	
pH	6.5-9.0	6.0-9.5	

The treatment program has been operating significantly better in this reporting period than in the previous reporting period, however Total Ammonia Nitrogen continued to be a problem for the first eight months of the year. For the last four months of the year the Total Ammonia Nitrogen levels were in compliance with effluent objectives.

The plant effluent CBOD achieved an average of 95.9 % removal. The plant effluent TSS achieved an average of 97.6 % removal. The plant effluent Total Phosphorus achieved an average 97.6 % removal.

Effluent Limits:

The effluent monthly average concentration non-compliance limits were NOT met for CBOD for the months of April (10.5 mg/l) and July (13.8 mg/l) 2017. The remaining months of the year the monthly average concentration non-compliance limits were met. The annual average loading non-compliance limits for CBOD were met.

The effluent monthly average concentration non-compliance limits were met for Total Suspended Solids. The annual average loading non-compliance limits for TSS were met.

The effluent monthly average concentration non-compliance limits were met for Total Phosphorus. The annual average loading non-compliance limits for Total Phosphorus were met.

The effluent monthly average concentration non-compliance limits were NOT met for Total Ammonia Nitrogen for the months of January through August 2017. The remaining months of the year the monthly average concentration non-compliance limits were met. The annual average loading non-compliance limits for Total Ammonia Nitrogen were NOT met for the period May 1 to November 30. The annual average loading non-compliance limits for Total Ammonia Nitrogen were met for the period December 1 to April 30.

The geometric mean density non-compliance limits for E.coli were met.

The pH of the effluent from the facility was NOT in compliance with the range of 6.0-9.5, inclusive, at all times, during the reporting period. On April 13 2017 the effluent pH was 10.4 and was the only day in the reporting period that the pH fell outside the range of 6.0 to 9.5.

Effluent Objectives:

The effluent monthly average concentration objectives were NOT met for CBOD for the months of January to April, June to October and December 2017. The remaining months of the year the concentration objectives were met.

The effluent monthly average concentration objectives were NOT met for Total Suspended Solids for the month of August 2017. The remaining months of the year the concentration objectives were met.

The effluent monthly average concentration objectives were NOT met for Total Phosphorus for the months of January, July and December 2017. The remaining months of the year the concentration objectives were met.

The effluent monthly average concentration objectives were NOT met for Total Ammonia Nitrogen for the months of January to August 2017. The remaining months of the year the concentration objectives were met.

The annual average concentration and loadings and the calculated un-ionized ammonia results are attached.

Section B: A description of any operating problems encountered and corrective actions taken.

The GBWWTF continued to experience challenging issues in this reporting period. Effluent Total Ammonia Nitrogen exceeded the limit for the first eight months of the year. The addition of sodium hydroxide into the treatment process aided significantly in the reduction of effluent TAN for the remainder of the year. Experimentation with moving the alum injection point were conducted and an optimum location selected. Frequent plugging of the wash water filters for the disk filter was encountered. Minnows in the effluent chamber are being sucked into the wash water filters. This necessitates frequent flushing of the filters during the warm weather months. The Mollard Line force main was discovered to be leaking in January and in April 2017. Repairs were completed at that time. The municipality replaced a section of the Mollard line force main in the autumn of 2017. Numerous electrical and SCADA and communication issues were encountered and rectified throughout the reporting period.

Section C: Summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works.

Numerous issues were corrected or were worked towards being resolved by contractors and the municipality under the new facility construction warranty period.

New milltronics were installed at the Alberta pump station. Electronics at the Beach pump station were upgraded.

Electrical and pump issues at Gill Road pump station were rectified.

All pump stations were cleaned out.

Repairs to grinder pump stations on River Road were ongoing.

A new pump impeller was installed at Alberta pump station.

Flow meters were calibration checked December 19 2017.

Some UV bulbs were replaced.

Section D: Summary of any effluent quality assurance or control measures undertaken in the reporting period.

Jacobs uses an accredited lab (SGS Canada) for sample analysis. Analytical tests to monitor the effluent quality are conducted by a laboratory audited by the Canadian Association for Environmental Analytical Laboratories (CAEAL) and accredited by the

Standards Council of Canada (SCC). Accreditation ensures that the laboratory has acceptable laboratory protocols and test methods in place. It also requires the laboratory to provide evidence and assurances of the proficiency of the analyst(s) performing the test methods.

Jacobs operates the wastewater system with licensed operators. The wastewater treatment system is operated and maintained by Jacobs competent and licensed staff. The mandatory licensing program for operators of wastewater facilities is regulated under the Ontario Water Resources Act (OWRA) Regulation 129/04. Licensing means that an individual meets the education and experience requirements and has successfully passed the certification exam.

Jacobs follows the sampling and analysis schedule required by the ECA.

Jacobs follows the methods and protocols for sampling, analysis and recording, as outlined in the ECA, which conform, in order of precedence, to the methods and protocols specified in the following:

(a) the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended from time to time by more recently published editions;

(b) the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(c) the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.

Section E: Summary of the calibration and maintenance carried out on all effluent monitoring equipment.

The Grand Bend WWTF has a SCADA computer to monitor all plant processes. All flow meters were calibration checked December 19 2017. The calibration reports are on file with the operating authority. The in house pH meter and DO meter is calibration checked based on the manufacturer's recommendations.

Section F: A description of efforts made and results achieved in meeting the Effluent Objectives.

Refer to Sections A and B for a description of efforts made and results achieved in meeting the effluent objectives.

Section G: A tabulation of the volume of sludge generated in the reporting period, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed.

Approximately 13578 m³ of sludge was sent to the sludge storage lagoon. It is not possible to take a sample of the sludge that is wasted as it comes off the bottom of the aeration tank and the end of the discharge pipe is submerged in the lagoon. A sample is collected from a sample point on the return activated sludge line. A copy of the sludge results are attached.

Section H: Summary of any complaints received during the reporting period and any steps taken to address the complaints.

All complaints are to be addressed and logged in the facility logbook. There were no complaints received in the reporting period.

Section I: Summary of all By-pass, spill or abnormal discharge events.

There were no bypass events in this reporting period.

There were three spill events in this reporting period.

Jan 18 – Mollard Line force main.

Apr 16 – Mollard line force main

Dec 14 – Huron County Playhouse force main.

The summary report is attached.

There were numerous abnormal discharge events, where the effluent quality failed to meet the requirements of the ECA non-compliance limits, all related to the previously described operating issues at the plant.

Lab Data

Grand Bend WWTF Monthly Average Lab Results

RAW SEWAGE					FINAL EFFLUENT				
Test	BOD5	S. S.	TKN	Total P				Ammonia	E-Coli
Date	mg/L	mg/L	mg/L	mg/L	CBOD5	T.S. S.	Total P	NH3	Per
					mg/L	mg/L	mg/L	mg/L	100ml
Jan	82	109	18.6	2.2	7.5	4.5	0.15	19.53	2
Feb	131	165	25.6	2.8	5.3	4.8	0.10	23.93	2
Mar	107	102	22.3	2.2	5.2	2.8	0.05	27.40	2
Apr	151	237	25.0	2.6	10.5	4.4	0.09	22.94	2
May	191	383	28.4	3.1	4.8	3.4	0.06	24.75	2
Jun	176	146	26.1	3.4	5.4	2.4	0.05	16.19	4
Jul	292	151	47.9	5.3	13.8	4.1	0.11	30.53	9
Aug	310	229	59.9	6.7	7.4	6.6	0.06	12.58	2
Sep	130	115	25.8	3.5	5.3	5.0	0.08	0.19	3
Oct	119	143	19.5	2.5	6.3	4.5	0.08	0.12	2
Nov	141	167	24.3	2.9	3.8	3.1	0.08	0.34	2
Dec	159	189	31.2	3.6	5.3	4.5	0.11	0.23	3
Average	166	178	29.5	3.4	6.7	4.2	0.08	14.89	3
Minimum	82	102	18.6	2.2	3.8	2.4	0.05	0.12	2
Maximum	310	383	59.9	6.7	13.8	6.6	0.15	30.53	9

Loadings

Grand Bend WWTF 2017 Annual Average Loadings

Annual

Average

Flow 1000m3

1.036 (365 days)

CBOD	Loading	Limit
mg/l	kg/yr	kg/yr
6.7	2534	9026
TSS	Loading	
mg/l	kg/yr	
4.2	1588	9026
TP	Loading	
mg/l	kg/yr	
0.08	30	135
Ammonia	Loading	
mg/l	kg/yr	
12.10	3154	1805
18.81	2207	3610

1.218 (214 days)

0.777 (151 days)

May 1-Nov 30

Dec 1-Apr 30



yellow signifies an exceedance of a concentration objective

red signifies an exceedance of a concentration limit or loading limit

Formula:

Annual Average loading = annual concentration of contaminant X average daily flow X
365 OR the number of days the discharge was occurring.

Grand Bend WWTF
Calculated Un-ionized Ammonia 2017

Date	pH	Temp C	TAN mg/L	UI-Ammonia mg/L	Date	pH	Temp	TAN mg/L	UI Ammonia mg/L
05-Jan-17	7.27	11.3	22.00	0.084	06-Jul-17	6.83	22.1	23.50	0.073
12-Jan-17	7.49	10.7	25.90	0.157	13-Jul-17	7.21	22.2	30.63	0.230
19-Jan-17	6.39	9.6	9.60	0.004	20-Jul-17	6.93	20.0	40.25	0.136
26-Jan-17	7.13	9.3	20.60	0.049	27-Jul-17	6.52	20.2	27.75	0.037
02-Feb-17	6.20	8.1	33.80	0.009	03-Aug-17	6.80	20.8	46.75	0.124
09-Feb-17	7.53	7.4	16.90	0.086	10-Aug-17	6.92	20.9	15.50	0.054
16-Feb-17	6.94	6.4	20.50	0.025	17-Aug-17	6.62	20.9	0.17	0.000
23-Feb-17	6.77	10.8	24.50	0.029	24-Aug-17	6.29	20.4	0.25	0.000
02-Mar-17	7.44	10.3	8.75	0.046	31-Aug-17	6.65	20.2	0.25	0.000
09-Mar-17	7.35	11.3	22.75	0.105	07-Sep-17	7.17	19.6	0.11	0.001
16-Mar-17	6.92	8.3	46.25	0.063	14-Sep-17	7.28	19.6	0.26	0.002
23-Mar-17	6.94	8.7	34.50	0.050	21-Sep-17	7.26	20.7	0.21	0.002
30-Mar-17	7.15	9.5	24.75	0.062	28-Sep-17	7.22	22.1	0.18	0.001
06-Apr-17	7.23	8.5	14.25	0.040	05-Oct-17	7.44	19.5	0.17	0.002
12-Apr-17	7.54	10.0	20.00	0.128	12-Oct-17	7.44	18.3	0.13	0.001
20-Apr-17	7.30	12.5	30.75	0.138	19-Oct-17	7.47	17.4	0.01	0.000
27-Apr-17	7.50	13.5	26.75	0.205	26-Oct-17	7.61	16.0	0.16	0.002
04-May-17	7.43	12.8	16.50	0.102	02-Nov-17	7.63	15.4	0.09	0.001
11-May-17	7.36	12.0	18.25	0.091	09-Nov-17	7.63	16.0	0.12	0.001
18-May-17	7.01	15.4	30.00	0.086	16-Nov-17	7.49	14.5	0.74	0.006
25-May-17	7.75	14.7	34.25	0.508	23-Nov-17	7.22	12.7	0.07	0.000
01-Jun-17	6.77	15.0	13.00	0.021	30-Nov-17	7.13	12.6	0.68	0.002
08-Jun-17	7.04	16.8	35.00	0.120	07-Dec-17	7.16	11.2	0.20	0.001
15-Jun-17	6.57	19.1	18.75	0.026	14-Dec-17	7.11	9.9	0.25	0.001
22-Jun-17	6.75	19.9	13.75	0.030	21-Dec-17	7.13	10.6	0.20	0.001
29-Jun-17	7.00	19.0	0.47	0.002	27-Dec-17	7.19	8.6	0.27	0.001

The Un-ionized ammonia is calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" Dated July 1994, as amended, for ammonia (un-ionized).

Flows

Grand Bend WWTF Flow Report

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	m3/d
1	889	499	2380	854	1550	684	2490	1188	1518	1471	965	431	m3
2	918	569	1266	807	1150	715	1938	1183	1526	1267	793	691	m3
3	1694	564	892	718	862	958	1608	1230	1565	1224	939	644	m3
4	1257	657	933	1157	1265	914	1647	1343	1219	1187	949	538	m3
5	728	598	811	1147	2506	697	2098	1839	1130	1241	1160	589	m3
6	707	517	587	1835	1892	679	1985	1791	2001	1288	904	573	m3
7	775	929	729	1702	1258	628	1783	1391	1648	1486	826	535	m3
8	665	1207	678	1136	1007	644	1397	1198	1488	1539	631	553	m3
9	477	822	597	971	971	788	1285	1221	1596	1499	585	654	m3
10	670	708	487	874	868	1185	1515	1195	1429	1192	624	606	m3
11	1102	741	533	879	856	1115	1826	1163	1223	1328	651	350	m3
12	1464	773	494	855	1015	772	1732	1509	1184	1240	623	545	m3
13	895	689	509	757	1380	927	1888	1516	1213	1237	567	517	m3
14	946	730	582	734	1268	1184	1998	1528	1192	1343	560	511	m3
15	769	650	545	770	954	1201	1966	1421	1025	1591	648	525	m3
16	646	580	507	803	966	1306	1378	1211	1083	1319	1215	579	m3
17	1543	642	528	539	1067	1757	1396	1311	991	1202	917	546	m3
18	676	957	629	743	1006	1623	883	1518	678	1115	1634	595	m3
19	334	1008	601	678	993	1267	975	1664	659	1101	1577	505	m3
20	780	1057	434	1515	1490	1399	1149	1693	673	1105	1064	710	m3
21	941	993	545	1525	1975	1464	1262	1241	642	1212	933	737	m3
22	916	993	520	1293	1692	1299	1462	1087	666	1176	873	737	m3
23	727	748	513	1124	1013	1710	1404	1208	810	1070	814	736	m3
24	682	795	531	864	883	1985	1019	1445	791	1101	839	668	m3
25	586	1327	616	819	983	1647	1122	1231	937	1109	971	565	m3
26	747	845	592	810	1103	887	1180	1496	1333	1062	826	568	m3
27	569	686	726	822	1246	933	1188	1392	1363	1102	379	613	m3
28	653	642	753	778	1105	1019	1259	1091	1314	1319	665	625	m3
29	632		669	935	837	1634	1627	1144	1295	1257	639	610	m3
30	433		971	962	736	2152	1611	1077	1423	1198	685	638	m3
31	363		1302		744		1247	1290		1150		645	m3
Total	25184	21926	22460	29406	36641	35173	47318	41815	35615	38731	25456	18339	m3
Min.	334	499	434	539	736	628	883	1077	642	1062	379	350	m3
Max	1694	1327	2380	1835	2506	2152	2490	1839	2001	1591	1634	737	m3
Avg.	812	783	725	980	1182	1172	1526	1349	1187	1249	849	592	m3

Overflow Events

Facility Name: Grand Bend

Year: 2017

[illegible]

Primary Bypass - P - the discharge of raw sewage subject to no treatment except grit removal and or chlorination

Secondary Bypass - S - the discharge of sewage that has undergone solids removal at the primary clarifiers but bypassed the secondary treatment process

Y=Yes

N=No

U=Unknown

Reason Codes

1 = Heavy Precipitation 5 = Sewer Problems

2 = Snow Melt

3 = Equipment Failure 7 = Exceed design capacity

4 = Equipment Maintenance

Sludge Results



Report No. CA13314-APR17
Customer O.M.I. Canada Inc.(Lambton Shores-Grand Bend)
Attention Dale Wright
Reference Project Name/Number 656863-Rick Marsh
Works#
Title Final Report

Sample ID		Analysis Start Date	Analysis Start Time	Analysis Approval Date	Analysis Approval Time	Grand Bend Sludge 06-Apr-17 08:00
Sample Date/Time						
Analysis	Units					
Temperature Upon Receipt	°C	--	---	---	---	5.0
Total Solids	mg/L	7-Apr-17	21:11	11-Apr-17	16:32	8170
Total Solids (ASH)	mg/L	7-Apr-17	21:11	11-Apr-17	16:33	3830
Total Solids (LOI)	mg/L	7-Apr-17	21:11	11-Apr-17	16:33	4330
Total Kjeldahl Nitrogen	as N mg/L	10-Apr-17	9:15	12-Apr-17	12:20	332
Ammonia+Ammonium (N)	as N mg/L	11-Apr-17	8:00	12-Apr-17	12:11	14.2
Nitrite (as N)	as N mg/L	10-Apr-17	19:41	11-Apr-17	12:21	< 0.2
Nitrate (as N)	as N mg/L	10-Apr-17	19:41	11-Apr-17	12:21	< 0.3
Nitrate + Nitrite (as N)	as N mg/L	10-Apr-17	19:41	11-Apr-17	12:21	< 0.3
Arsenic	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	< 0.1
Cadmium	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	< 0.005
Cobalt	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	0.02
Chromium	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	0.09
Copper	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	0.94
Mercury	mg/L	13-Apr-17	6:17	13-Apr-17	9:02	0.002
Potassium	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	31
Molybdenum	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	< 0.05
Nickel	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	0.09
Phosphorus (total)	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	120
Lead	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	< 0.1
Selenium	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	< 0.1
Zinc	mg/L	12-Apr-17	12:15	12-Apr-17	16:36	1.8
E. Coli	cfu/1g dried wgt	7-Apr-17	13:55	10-Apr-17	9:31	1040392
E. Coli	cfu/100mL	7-Apr-17	13:55	10-Apr-17	9:31	850000

GRAND BEND AREA JOINT SEWAGE BOARD

Report STB 02-2018

Board Meeting Date: April 27, 2018

TO: Chairman Tomes and Members of the Board

FROM: Steve McAuley, Director of Community Services, Lambton Shores

RE: 2018 First Quarter Operations Report

RECOMMENDATION:

THAT Report STB 02-2018 regarding the “2018 First Quarter Operations Report” be received.

SUMMARY

This report is a summary of the operations for the first quarter of 2018 for the Grand Bend Sewage Treatment Facility.

BACKGROUND

Attached is the first quarter operations report for the Grand Bend Sewage Treatment Facility up to March 31, 2018. The report includes year-to-date financial summary, a summary of flows experienced over that time and a summary of the monthly average effluent quality testing results.

Year-to-date financials show no areas of concerns at this point.

The flow data attached shows flows from the various contributors to the system. In addition, the flow split between South Huron and Lambton Shores is shown for reference. It should be noted that the final division of costs is calculated based on the annual flows, the split shown in this report is for reference only.

First quarter effluent testing results show that the effluent quality has met or exceeded the established effluent limits in all cases, and in all but one instance exceeded the effluent objectives. Nitrification is now taking place, which has reduced the ammonia levels to well below the limits.

The Mollard forcemain is fully operational and the system is functioning as designed, with lagoon use limited to peak shaving during wet weather events.

No major maintenance issues were noted during the first quarter of 2018.

ALTERNATIVES TO CONSIDER

None, this report is information only.

RECOMMENDED ACTIONS

This report is prepared in accordance to the Board's Quarterly Report Policy 01-2017. Staff recommends the report be received for information by the Board.

FINANCIAL IMPACT

None

CONSULTATION

CH2M – Plant Operators

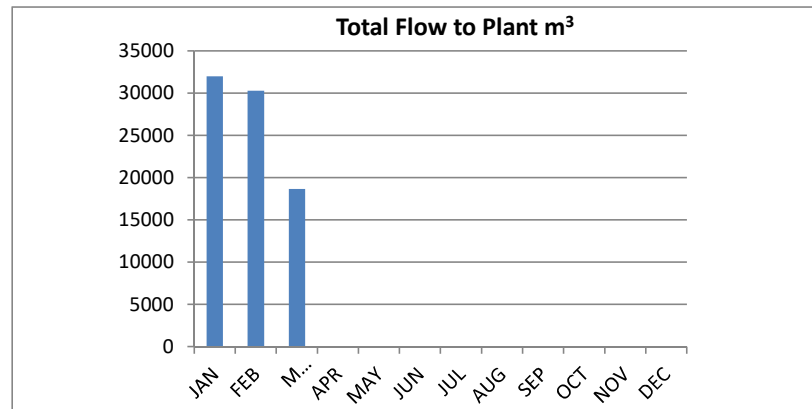
GRAND BEND AREA JOINT SEWAGE OPERATIONS
2018 YTD
Statement for the period ending March 31, 2018

GL Account	Description	2018 BUDGET	2018 DRAFT YTD	AVAILABLE	% USED
OWNER CONTRIBUTION					
4-410-175-4500	LAMBTON SHORES CONTRIBUTION	447,900.63	111,975.15	335,925.48	25.00%
4-410-175-4501	SOUTH HURON CONTRIBUTION	301,341.76	75,335.44	226,006.32	25.00%
	TOTAL REVENUE	749,242.39	187,310.59	561,931.80	25.00%
ADMINISTRATIVE AND GOVERNANCE					
4-410-175-5100	GENERAL ADMINISTRATION CHARGE STF	3,859.88		3,859.88	0.00%
4-410-176-5100	GENERAL ADMINISTRATION CHARGE PS2				
4-410-175-5160	INSURANCE STF	20,329.20		20,329.20	0.00%
4-410-176-5160	INSURANCE PS2 & FORCEMAIN				
4-410-175-5155	AUDIT	7,200.00		7,200.00	0.00%
4-410-175-5156	ACCOUNTING SERVICES	2,040.00		2,040.00	0.00%
4-410-175-5170	IT	500.00		500.00	0.00%
4-410-175-5104	SCADA SUPPORT STF	2,000.00		2,000.00	0.00%
4-410-176-5104	SCADA SUPPORT PS2				
4-410-175-5103	ENGINEERING STF	2,000.00		2,000.00	0.00%
4-410-176-5103	ENGINEERING PS2				
4-410-175-5150	LEGAL	1,000.00		1,000.00	0.00%
4-410-175-5910	CAPITAL REPLACEMENT RESERVE	205,000.00		205,000.00	0.00%
4-410-175-5210	TAXES STF	79,526.10	3,952.95	75,573.15	4.97%
4-410-176-5210	TAXES PS2	1,784.29		1,784.29	0.00%
		325,239.47	3,952.95	321,286.52	1.22%
FIXED MTC & OPERATIONAL COSTS					
4-410-175-5125	TELEPHONE STF	2,000.00	229.14	1,770.86	11.46%
4-410-176-5125	TELEPHONE PS2		1,216.97	(1,216.97)	0.00%
4-410-175-5126	COMPUTER EXPENSE	500.00		500.00	0.00%
4-410-175-5140	BUILDING REPAIRS & MAINTENANCE STF	20,000.00		20,000.00	0.00%
4-410-176-5140	BUILDING REPAIRS & MAINTENANCE PS2				
4-410-175-5175	GROUPS MAINTENANCE	3,000.00		3,000.00	0.00%
4-410-175-5141	ANNUAL PREVENTIVE MAINTENANCE	10,176.00	2,543.97	7,632.03	25.00%
4-410-175-5176	WETLAND PEST CONTROL	1,000.00		1,000.00	0.00%
		36,676.00	3,990.08	32,685.92	10.88%
VARIABLE OPERATIONAL COSTS (RELATED TO FLOWS)					
4-410-175-5101	OMI ADMINISTRATIVE COSTS STF	33,475.00	8,368.70	25,106.30	25.00%
4-410-176-5101	OMI ADMINISTRATIVE COSTS PS2				
4-410-175-5102	OPERATOR WAGES STF	97,892.00	24,473.01	73,418.99	25.00%
4-410-176-5102	OPERATOR WAGES PS2				
4-410-175-5122	ELECTRICAL COSTS STF	138,507.92	10,906.83	127,601.09	7.87%
4-410-176-5122	ELECTRICAL COSTS PS2	13,000.00	1,871.18	11,128.82	14.39%
4-410-175-5123	UNION GAS STF	26,100.00	14,363.34	11,736.66	55.03%
4-410-175-5121	WATER STF	20,000.00	986.38	19,013.62	4.93%
4-410-176-5121	WATER PS2	500.00	59.91	440.09	11.98%
4-410-175-5180	CHEMICALS	43,981.00	10,995.09	32,985.91	25.00%
4-410-175-5410	LABORATORY SAMPLING	13,871.00	4,009.55	9,861.45	28.91%
		387,326.92	76,033.99	311,292.93	19.63%
	TOTAL EXPENSE	749,242.39	83,977.02	665,265.37	11.21%
	GRAND TOTAL		(103,333.57)	103,333.57	0.00%

Grand Bend Area Joint Sewage Board
Summary of System Flows

MONTH	OAKWOOD m ³	POG\Motor Plex m ³	GRAND COVE m ³	HC PLAYHOUSE m ³	PINERY m ³	PS2 m ³	Total Flow to Plant m ³	Plant m ³
	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow	Monthly Flow
JAN	1431	3743	10453	115	22	28126	32006	26023
FEB	1378	2060	9662	129	36	28083	30308	19886
MAR	1315	564	8464	105	27	17998	18694	16329
APR								
MAY								
JUN								
JUL								
AUG								
SEP								
OCT								
NOV								
DEC								
Total to Date	4124	6367	28579	349	85	74207	81008	62238


<u>Flow Split to date m³</u>		
Plant		
Lambton Shores	41589	51%
South Huron	39419	49%
	<u>81008</u>	
PS2		
Lambton Shores	41504	56%
South Huron	32703	44%
	<u>74207</u>	



Note:
Plant Flows are shown for reference only, and are subject to the effects of lagoon use.

Grand Bend Sewage Treatment Plant						
2018 Final Effluent Average Monthly Testing Results						
Parameter Month	CBOD5 mg/L	T. S. S. mg/L	Total P mg/L	Total Ammonia mg/L	E-Coli Per 100ml	pH Grab
January	4.0	4.3	0.15	0.78	9	7.41
February	3.3	3.8	0.06	1.11	5	7.27
March	4.6	2.4	0.04	0.43	2	7.19
April						
May						
June						
July						
August						
September						
October						
November						
December						
Effluent Objectives	5.0	5.0	0.10	2.0	NA	6.5-9.0
Effluent Limits	10.0	10.0	0.15	4.0	100	6.0-9.5

Note:

 Denotes results within Effluent Limits

GRAND BEND AREA JOINT SEWAGE BOARD

Report STB 03-2018

Board Meeting Date: April 27, 2018

TO: Chairman Tomes and Members of the Board
FROM: Steve McAuley, Director of Community Services, Lambton Shores
RE: 2018 Proposed Board Meeting Dates

RECOMMENDATION:

THAT Report STB 03-2018 regarding the “2018 Proposed Board Meeting Dates” be received, and;

That the following dates be set for future Board meetings:

July 27, 2018
September 7, 2018 – Budget meeting
September 21, 2018 –Budget meeting (if required)
November 9, 2018
January 25, 2019

SUMMARY

This report recommends dates for future Board meetings.

BACKGROUND

The Tri-Party Agreement stipulates “The Joint Sewage Board will meet not less than once in any three (3) month Calendar period...”. In addition, there is a requirement that a draft budget be presented to the Participating Municipalities prior to September 30th. Based on past history, Board meetings have generally been held on Fridays, as such the following are suggested dates for future board meetings:

- July 27, 2018
- September 7, 2018 – Budget meeting
- September 21, 2018 –Budget meeting (if required)
- November 9, 2018
- January 25, 2019 – Election of Chair, Member Orientation.

Additional meetings can be called by the Chair or by Participating Municipalities as outlined in the Tri-Party Agreement.

ALTERNATIVES TO CONSIDER

The dates presented are for discussion; the Board could choose to changes or add dates at its discretion.

RECOMMENDED ACTIONS

Staff is recommending that the dates for future Board meetings be set based on this report.

FINANCIAL IMPACT

None

CONSULTATION

none

April 27, 2018

Notice of Motion: Moved by Member Cole

That GBSTP Board provide direction to develop a communication policy