

**APPENDIX E:**  
**PIC NO. 1 AND MEETING WITH RESIDENTS**





C.C. Tatham & Associates Ltd.  
Consulting Engineers

Collingwood Bracebridge Orillia Barrie



THE CORPORATION OF THE  
**TOWNSHIP OF RAMARA**  
*Proud History - Progressive Future*

**NOTICE OF PUBLIC INFORMATION OPEN HOUSE  
AND COMMENTS INVITED  
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION  
CLASS ENVIRONMENTAL ASSESSMENT - SCHEDULE 'B'**

The Township of Ramara is undertaking a Class Environmental Assessment study (Class EA) to consider the expansion of the effluent spray irrigation system serving the Bayshore Village Sewage Works. Currently, treated effluent from the sewage lagoons is spray irrigated on two fields near Concession Road 8 and Sideroad 20. The addition of spare spray irrigation capacity is being considered for operational flexibility and so that fields can be taken out of service for aerating and/or tilling as needed to maintain their performance.

The study is being carried out in accordance with the planning and design process for a Schedule 'B' project as outlined in the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended September 2007).

A Public Information Open House is being held to provide an opportunity for the public to review the preliminary assessment, and to provide input and comments. Representatives from the project engineering consultants and the Township of Ramara will be present to answer questions.

**PUBLIC INFORMATION OPEN HOUSE**

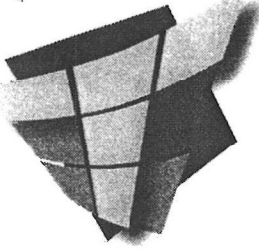
**Date:** Thursday, February 24, 2011  
**Time:** 3:00 – 7:00 p.m.  
**Location:** Joyland Beach Community Centre  
4303 McRae Park Road  
Orillia, ON L3V 6H7



Written comments are invited and must be received by Monday, March 14, 2011 to be considered in the study. Comments and requests for information regarding this project should be submitted to:

**C.C. Tatham and Associates Ltd.**  
Suzanne Troxler, M.Sc., P.Eng.  
Manager – Environmental Engineering  
115 Sandford Fleming Drive  
Collingwood, ON L9Y 5A6  
Ph: 705-444-2565 ext. 285  
Email: [stroxler@cctatham.com](mailto:stroxler@cctatham.com)





**C.C. Tatham & Associates Ltd.**  
Consulting Engineers

Collingwood      Bracebridge      Orillia      Barrie

*Q/S/T/RAM/FILE*

50 Andrew Street South, Suite 100

Orillia, Ontario L3V 7T5

Tel: (705) 325-1753

Fax: (705) 325-7420

Email: info@cctatham.com

Web: www.cctatham.com

February 10, 2011

**COPY**

via Mail  
CCTA File 100080-2

**Ms. Cindy Hood**  
District Manager  
Ministry of the Environment  
Barrie District Office  
54 Cedar Point Drive, Unit 1203  
Barrie, ON L4N 5R7

**Re: Township of Ramara  
Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment  
Notice of Public Information Open House and Comments Invited**

Dear Ms. Hood:

The Township of Ramara is undertaking a Municipal Class Environmental Assessment study to consider the expansion of the effluent spray irrigation system serving the Bayshore Village Sewage Works. The addition of spare spray irrigation capacity is being considered for operational flexibility. There is a need for spray irrigation fields to be occasionally taken out of service to restore and maintain their performance and their effluent absorption capacity.

You are invited to a Public Information Open House (PIC) on Thursday, February 24, 2011 at the Joyland Beach Community Centre to review the alternative solutions under consideration, and to provide input and comments. A copy of the Notice of Public Information Open House is attached. If you cannot attend the PIC, copies of the displays will be available upon request.

Upon completion of the study, a project file documenting the Class EA process and preferred solution will be prepared for review and comment.

We look forward to the receipt of your comments and input on this Class EA study by March 14, 2011.

If you are not the appropriate recipient for this letter, please pass it on to the appropriate person within your organization, and advise us accordingly.

If you have any questions, please do not hesitate to contact me.



Yours truly,

**C.C. Tatham & Associates Ltd.**

*S Troxler*

Suzanne Troxler, B.Eng., M.Sc., P.Eng.  
Manager – Environmental Engineering  
KES/ST:em

encl.

copy: Richard Bates and David Stephen, Township of Ramara

I:\Wpdocs\100080\Spray Irrigation EA\PICIL - Bayshore PIC Cover Letter.doc





C.C. Tatham & Associates Ltd.  
Consulting Engineers  
Collingwood Brantford Orillia Barrie



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The study is being carried out in accordance with the planning and design process for a Schedule 'B' project as outlined in the Municipal Engineers Association Municipal Class Environmental Assessment document (October 2000, as amended September 2007).

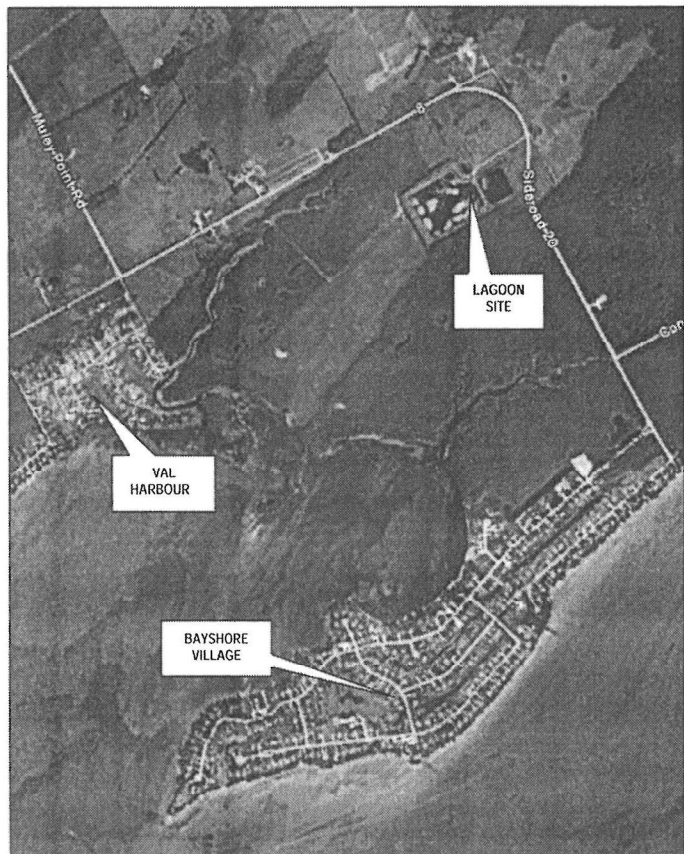
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**PUBLIC INFORMATION OPEN HOUSE**

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Suzanne Troxler, M.Sc., P.Eng.  
Manager – Environmental Engineering  
115 Sandford Fleming Drive  
Collingwood, ON L9Y 5A6  
Ph: 705-444-2565 ext. 285  
Email: [stroxler@cctatham.com](mailto:stroxler@cctatham.com)





Ms. Cindy Hood  
District Manager  
Ministry of the Environment  
Barrie District Office,  
54 Cedar Point Drive, Unit 1203  
Barrie, ON L4N 5R7

Mr. Ted Devine  
Director, Health Protection Services  
Simcoe County District Health Unit  
15 Sperling Drive  
Barrie, ON L4M 6K9

Mr. Rick Howse  
Simcoe County District School Board  
Planning & Assessment Department  
1170 Highway 26  
Midhurst, ON L0L 1X0

Mr. Rob Baldwin  
Director, Planning and Development Services  
Lake Simcoe Region Conservation Authority  
120 Bayview Parkway Avenue,  
P.O. Box 282  
Newmarket, ON L3Y 4X1

Mr. Colin Bonnell  
Manager Access Network  
Bell Canada  
136 Bayfield Street  
Barrie, ON L4M 3B1

Mr. Francois Lachance  
Senior Advisor  
Ministry of Aboriginal Affairs Aboriginal and Ministry  
Relationships Branch  
160 Bloor St. E., 9th Floor  
Toronto, ON M7A 2E6

Mr. Peter Savoie  
Regional EA Analyst  
Department of Fisheries and Oceans  
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Ms. Chunmei Liu  
Environmental Assessment and Planning Co-ordinator  
Ministry of the Environment  
Technical Support Central Region  
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North York, ON M2M 4J1

Mr. Rick Newlove  
General Manager of Corporate Services  
The County of Simcoe  
Administration Centre,  
1110 Highway 26  
Midhurst, ON L0L 1X0

Mr. Mike Walters  
Director, Watershed Management  
Lake Simcoe Region Conservation Authority  
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P.O. Box 282  
Newmarket, ON L3Y 4X1

Ms. Jennifer Sharpe  
Senior Planner  
Simcoe Muskoka Catholic School Board  
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Barrie, ON L4M 5K3

Mr. Martin Bohl  
Director  
Ministry of Agriculture, Food and Rural Affairs  
Economic Development Division  
Rural Community Development Branch,  
1 Stone Road West, 4th Floor  
Guelph, ON N1G 4Y2

Mr. Ron Desjardine  
District Manager  
Department of Fisheries and Oceans  
Peterborough Office, Habitat Management  
501 Towerhill Road, Unit 102  
Peterborough, ON K9H 7S3

Environmental Unit  
Department of Indian and Northern Affairs  
Environmental Assessment Coordination  
25 St. Clair Avenue East, 8th Floor  
Toronto, ON M4T 1M2



Ms. Sheila Allan  
A/Head Environmental Assessment  
Environment Canada Environmental Protection  
Operations Division  
867 Lakeshore Road  
P.O. Box 5050  
Burlington, ON L7R 4A6

Ms. Brenda Robinson  
District Planner  
Ministry of Natural Resources Midhurst District  
2284 Nursery Road  
Midhurst, ON L0L 1X0

Chief Sharon Stinson Henry  
Chippewas of Rama First Nation  
5884 Rama Road, Suite 200  
Rama, ON L0K 1T0

Katana Ljubica  
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Mississauga, ON L5G 4V3

Mr. Kenny Bodenstein  
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Maple, ON L6A 1G1

Ms. Tammy Kindler  
3736 Concession Road 8, R.R.#7 STN MAIN  
Orillia, ON L3V 6H7

Mr. Mark Aitkin  
Chief Administrative Officer  
The County of Simcoe Administration Centre  
1110 Highway 26  
Midhurst, ON L0L 1X0

Chief Donna Big Canoe  
Chippewas of Georgina Island  
R. R. #2,  
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1 Hayloff Lane, R.R.#3  
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24 Personna Blvd.  
Markham, ON L6C 1E9

Mr. Basil Clarke  
4276 Sideroad 20, R.R.#7 STN MAIN  
Orillia, ON L3V 6H7

Mr. Mark Wainman  
2182 Concession Road 9, R.R.#3  
Brechin, ON L0K 1B0

Mr. James Newlands  
3456 Concession Road 8, R.R.#7 STN MAIN  
Orillia, ON L3V 6H7

Mr. Derek Love  
3484 Concession Road 8, R.R.#7 STN MAIN  
Orillia, ON L3V 6H7

Mr. Reginald Wainman  
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Brechin, ON L0K 1B0

Mr. John Smith  
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Scarborough, ON M1C 2P3

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Yvonne Hirst  
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Chatham, ON N7M 5M1

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Orillia, ON L3V 2C6

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Ramara, ON L3V 6H7

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Township of Ramara  
2297 Highway #12  
P.O. Box. 130  
Brechin, ON L0K 1B0

Mr. Murray Rowan  
4 Thicketwood, Bayshore Village, R.R. #3  
Brechin, ON L0K 1B0

Ms. Linda Olsen  
President  
North Mara Beach Residents Association  
3628 Amelia Drive, R.R. #3  
Brechin, ON L0K 1B0



Chief Rodney Monague Jr.  
Beausoleil First Nation (Christian Island)  
1 O-Gema Street  
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Métis Nation of Ontario Head Office  
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Claims Analyst, Ontario Team Specific Claims Branch  
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Jan & Geraldine Toebes  
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Orillia, ON L3V6H7

Diane Cammelino  
Hydro One  
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Box 6700  
Barrie, ON L4M 5N5

RECEIVED MAR 04 2011



Chippewas of RAMA  
First Nation

5884 Rama Road, Suite 200  
Rama, Ontario L0K 1T0

T 705.325.3611 F 705.325.0879

*A Proud Progressive First Nation Community*

February 22, 2011

C.C. Tatham & Associates Ltd.  
50 Andrew Street South, Suite 100  
Orillia, ON L3V 7T5

Attention: Suzanne Troxler, Manager, Environmental Engineering

**Re: Township of Ramara  
Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment Study  
Notice of Public Information Open House and Comments Invited**

Dear Ms. Troxler:

Rama First Nation acknowledges receipt of your letters of February 10, 2011, which were received on February 14, 2011.

Please be advised that at this time Rama First Nation has no concerns with this project. Please continue to provide further information to Rama First Nation in regards to this matter.

We appreciate your taking the time to share this important information with us.

Sincerely,

Chief Sharon Stinson Henry

c: Council, Rama First Nation  
Jeff Hewitt, General Counsel

SSH/sw





**THE CORPORATION OF THE  
TOWNSHIP OF RAMARA**  
*Proud History - Progressive Future*

**BAYSHORE VILLAGE  
EFFLUENT SPRAY IRRIGATION EXPANSION  
CLASS ENVIRONMENTAL ASSESSMENT  
SCHEDULE B**

**PUBLIC INFORMATION OPEN HOUSE**

**FEBRUARY 24, 2011**



**C.C. Tatham & Associates Ltd.**  
Consulting Engineers

Collingwood

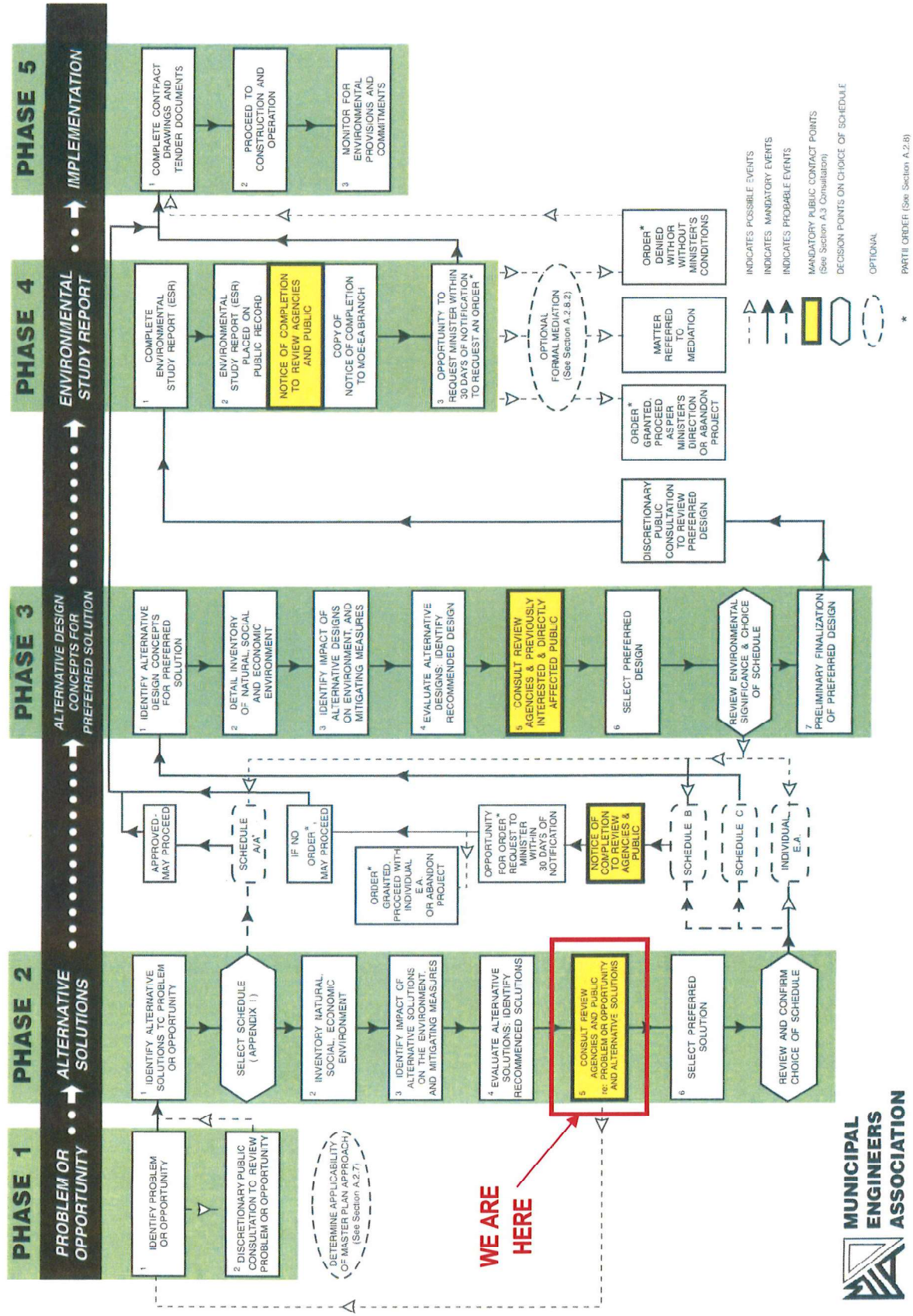
Bracebridge

Orillia

Barrie

# Bayshore Village Effluent Spray Irrigation Expansion Class Environmental Assessment

## MUNICIPAL CLASS EA PROCESS



**WE ARE  
HERE**





**Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

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**PROBLEM STATEMENT**

The Township of Ramara needs spare capacity at the effluent spray irrigation system serving the Bayshore Village Sewage Works, in order to provide operational flexibility. Spray irrigation fields need to be occasionally taken out of service for aerating and/or tilling as needed to restore and maintain their performance and their effluent absorption capacity.

**Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

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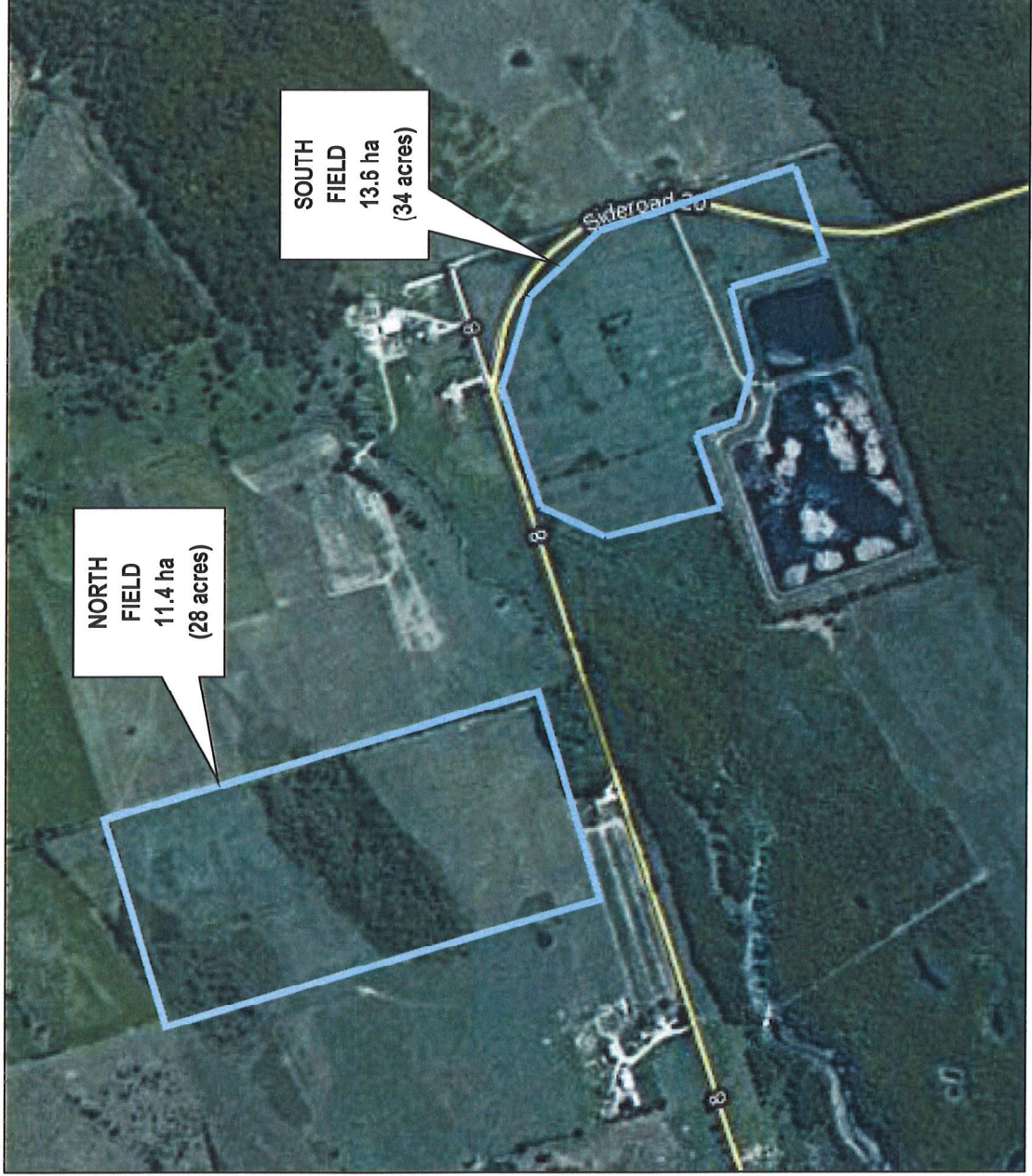
**STUDY AREA**





**Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

**EXISTING SPRAY IRRIGATION FIELDS**





## **BACKGROUND**

- Treated effluent from the Bayshore Village sewage lagoons is spray irrigated on two fields near Concession Road 8 and Sideroad 20.
- The spray irrigation fields were approved by the Ministry of the Environment in the 1980s based on their soil conditions.
- Soil conditions are becoming compacted, which, if not addressed, will impact the capacity of the spray irrigation facility.

The Township of Ramara, as part of its proactive approach to managing environmental services, wants to provide a means to restore and maintain the soil's absorption characteristics.

Alternative solutions must be:

- Compatible with current operations
- Consistent with the current Certificate of Approval
- Consistent with Ministry of the Environment guidelines for effluent spray irrigation.

## **SPRAY IRRIGATION SYSTEM MONITORING**

**Groundwater, surface water and soils are monitored.**

**When:**

- Before the start of the spray irrigation system in early May
- During the spray season in August
- After the spray irrigation season in November

**Where:**

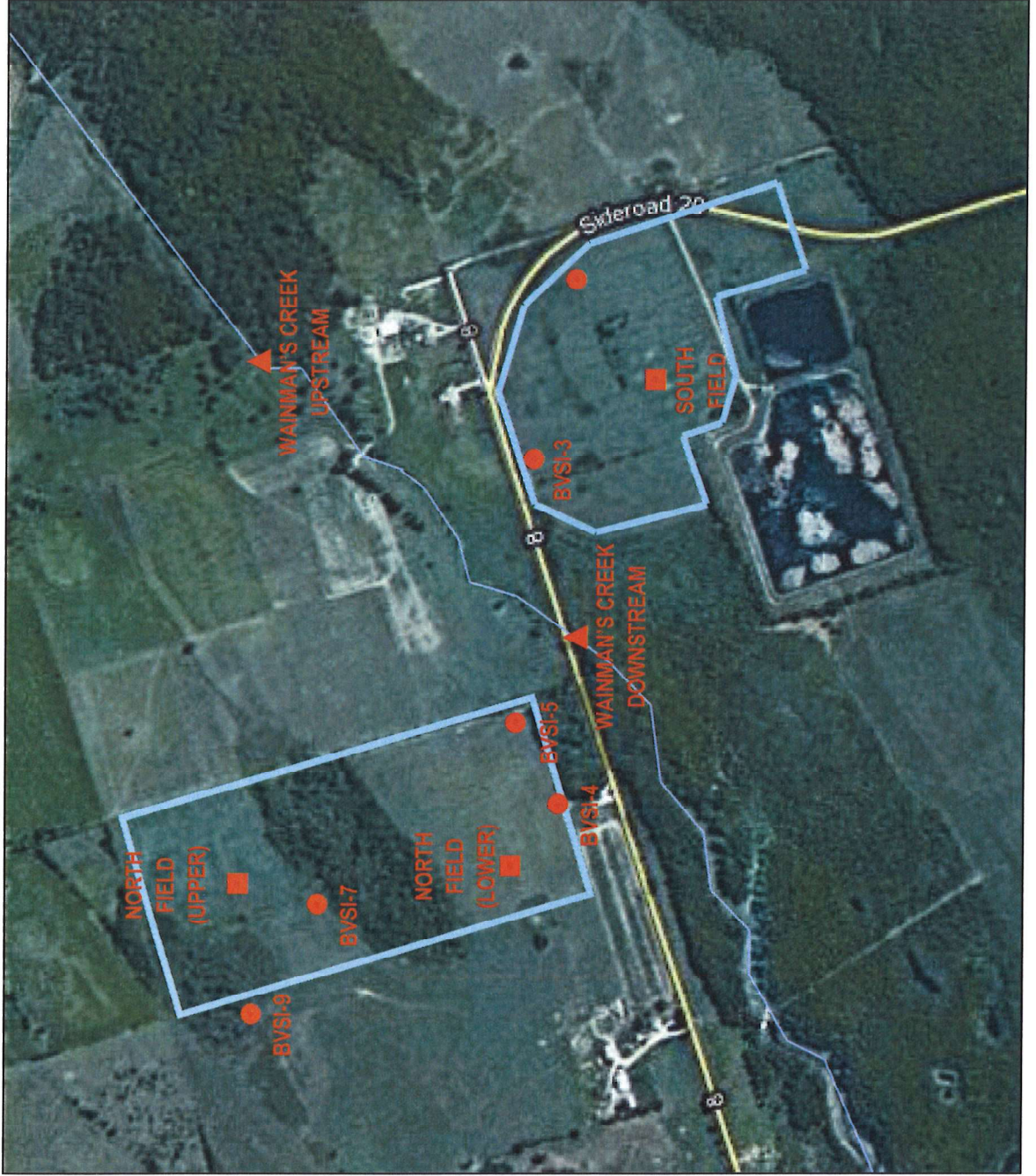
- **Groundwater** samples from six boreholes throughout the North and South Fields
- **Surface water** samples from Wainman's Creek upstream and downstream of the spray irrigation area
- **Soil** samples from the North and South Fields

**What:**

- Each sample is tested for various contaminants by an accredited laboratory

Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment

**MONITORING LOCATIONS**



## **SPRAY IRRIGATION SYSTEM MONITORING**

### **GROUNDWATER**

- Groundwater monitoring data show no change in water quality over time except for an increase in the concentration of chlorides.

### **SURFACE WATER**

- Samples from Wainman's Creek upstream and downstream of the spray irrigation area show the water quality is unaffected by spray irrigation.

### **SOIL**

- Soil core samples show localized and temporary increases in the concentration of some contaminants during the spray irrigation season.



## **ALTERNATIVE SOLUTIONS**

### **ALTERNATIVE 1: DO NOTHING**

Status Quo: Continue with current spray irrigation method on existing fields.

### **ADVANTAGES**

- No capital costs or increase in operating and maintenance costs.

### **DISADVANTAGES**

- Likely to result in deteriorating soil conditions, leading to:
  - reduced effluent disposal capacity;
  - increased potential for ponding and runoff;
  - increased potential for contamination of Wainman's Creek and Lake Simcoe.
- Does not improve operational flexibility.

## **ALTERNATIVE SOLUTIONS**

### **ALTERNATIVE 2: ACQUIRE ADDITIONAL LAND FOR SPRAY IRRIGATION**

Purchase land area equal to or greater than the largest field currently in service (13.6 ha), and install spray irrigation equipment.

#### **ADVANTAGES**

- Provides operational flexibility to take a field out of service to aerate/till it.
- This will assist in restoring and maintaining soil conditions to:
  - maintain required spray irrigation capacity for disposal of annual effluent volume;
  - eliminate potential for ponding and runoff;
  - eliminate potential for surface water contamination.

#### **DISADVANTAGES**

- Requires purchase of a minimum of 13.6 ha of additional land.
- Capital cost for spray irrigation equipment and piping.
- Increase in operating and maintenance costs.
- Potential visual impact of additional spray irrigation activity.

Potential impacts on natural environment can be fully mitigated by proper site selection.

## **PRELIMINARY PREFERRED SOLUTION**

### **ACQUIRE ADDITIONAL LAND FOR SPRAY IRRIGATION**

Spare spray irrigation lands (13.6 ha minimum is recommended) will allow existing spray irrigation fields to be taken out of service as required to restore and maintain their performance and capacity.

**Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

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**NEXT STEPS**

- Consider comments received and finalize evaluation of alternative solutions.
  
- Make recommendation for preferred solution to Township Council.
  
- Issue Notice of Completion of Class EA study and request public comments.
  
- If Alternative 2 is preferred, proceed to acquire suitable land and design spray irrigation system.



**Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

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**COMMENTS**



Please fill out a comment sheet and either leave it with us today or send it to the address provided.

**Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

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**FREEDOM OF INFORMATION ACT**

Comments and information regarding this project are being collected to assist the project team in meeting the requirements of the *Environmental Assessment Act*. These comments will be maintained for reference throughout the project and, with the exception of personal information, will be used in the Environmental Project File and become part of the public record.

**ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT**

The Township of Ramara continues to enhance accessibility that is inclusive of all ages and abilities. The information presented at today's Public Information Open House can be provided in alternative formats upon request. Such a request should be submitted to:

**C.C. Tatham & Associates Ltd.**

Ms. Suzanne Troxler, M.Sc., P.Eng.  
Manager - Environmental Engineering  
115 Sandford Fleming Drive  
Collingwood, ON L9Y 5A6  
Ph: 705-444-2565 ext. 285  
Fax: 705-444-2327  
Email: [stroxler@cctatham.com](mailto:stroxler@cctatham.com)

or

**Township of Ramara**

Mr. David Stephen  
Manager, Environmental Services  
2297 Highway 12 P.O. Box 130  
Breachin, ON L0K 1B0  
Ph: 705-484-5374 ext. 248  
Fax: 705-484-0885  
Email: [dstephen@ramara.ca](mailto:dstephen@ramara.ca)

TOWNSHIP OF RAMARA  
 BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS EA  
 PIC - FEBRUARY 24, 2011

SIGN-IN SHEET

| #  | NAME           | COMPANY             | ADDRESS             | PHONE #      | EMAIL |
|----|----------------|---------------------|---------------------|--------------|-------|
| 1  | Rick Beales    | Twp of Ramara       | 2297 Highway 12     | 484 5374     |       |
| 2  | J. Newlands    |                     |                     |              |       |
| 3  | Blain Hughes   |                     | 45 Southview Dr     | 484 5307     |       |
| 4  | Bill Lambert   |                     | 39 "                | 484-0100     |       |
| 5  | C.J. Armstrong |                     | 4390 Plum Pt. Rd.   | 326-6585     |       |
| 6  | M. Kowman      |                     | 4 Thicketwood Place | 484-5211     |       |
| 7  | Erika Nelson   | Twp Ramara          | 781 Atterley Rd     | 325-6654     |       |
| 8  | John Plannell  | "                   | 4154 Robynple Dr.   | 484-5742     |       |
| 9  | Harlan         | BVA                 | 602 Bayshore        | 705-4840534  |       |
| 10 | Dono Colicchio | BVA                 | 118 Bayshore Dr.    | 705-484-0600 |       |
| 11 | Maggie Monahan |                     | 4478 Drilling       | 705-426-9950 |       |
| 12 | KEN SEIBARTO   | NRA MARGA BEA Assoc | 4478 Orkney Hts RR7 | 705-327-5070 |       |

TOWNSHIP OF RAMARA  
 BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS EA  
 PIC - FEBRUARY 24, 2011

| #  | NAME            | COMPANY    | ADDRESS          | PHONE #  | EMAIL |
|----|-----------------|------------|------------------|----------|-------|
| 13 | Stephen B. Munn |            | 4319 Plum Pt Rd. | 327-5130 |       |
| 14 | Bill Daulton    |            |                  |          |       |
| 15 | Lealdine Toebes |            | 3733 Conc Rd 8   | 327-0542 |       |
| 16 | Jay VOERBES     |            | "                | "        |       |
| 17 | Ken Hobb        | Councillor |                  |          |       |
| 18 |                 |            |                  |          |       |
| 19 |                 |            |                  |          |       |
| 20 |                 |            |                  |          |       |
| 21 |                 |            |                  |          |       |
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| 23 |                 |            |                  |          |       |
| 24 |                 |            |                  |          |       |
| 25 |                 |            |                  |          |       |



TOWNSHIP OF RAMARA  
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A  
PIC - FEBRUARY 24, 2011

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PUBLIC COMMENT SHEET

NAME: Susan E. Smith

ORGANIZATION: \_\_\_\_\_

ADDRESS: 4129 Sideroad 20, RR#7 Orillia, ON L3V 6H7

PHONE: (705) 325-2954 EMAIL: smith susan e@hotmail.com

Do you wish to be added to the project mailing list? You will be notified of the study conclusions.

Yes

No

My family is already on the mailing list.

Do you have any specific comments, questions or suggestions?

**\_\_\_\_\_ We believe that the residents of Bayshore Village should be taking greater responsibility for the waste that they are creating. If additional spray fields are required, they should be located on property within Bayshore Village.**

**However, it appears that treatment plants, such as those that operate in Lagoon City, would be a better way to deal with waste.**

**Spray fields do not appear to be a wise choice due to the amount of evaporation and run-off that occurs.**

**It seems logical to contain the waste and treat it, rather than to simply spray it in the air.**

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TOWNSHIP OF RAMARA  
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A  
PIC - FEBRUARY 24, 2011

PUBLIC COMMENT SHEET

NAME: Stephen Bimm

ORGANIZATION: NMBRA

ADDRESS: 4319 Plum Pt. Rd. (Residence)

Mailing Add: P.O. 2445 Orillia On. L3V 7A3.

PHONE: 327-5130 EMAIL: \_\_\_\_\_

Do you wish to be added to the project mailing list? You will be notified of the study conclusions.

Yes

No

Do you have any specific comments, questions or suggestions?

1) Our main concern would be as large a buffer zone between the new bed and Weinman's creek.

2) This is a great idea,

TOWNSHIP OF RAMARA  
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A  
PIC - FEBRUARY 24, 2011

PUBLIC COMMENT SHEET

NAME: Rick Bate

ORGANIZATION: Twp of Ramara

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

Do you wish to be added to the project mailing list? You will be notified of the study conclusions.

Yes

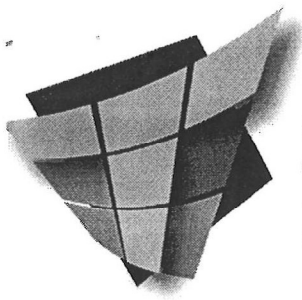
No

Do you have any specific comments, questions or suggestions?

The amount of land ~~shd~~ to be purchased should be based on a cycle of how often one must plow up to keep it usable, say 10 years.

We use 25ha now, so if we added 8ha plus buffers, the land 8ha could be worked up ~~evry~~ every 3 years (time required to rejournal a field)

Rick



**C.C. Tatham & Associates Ltd.**  
Consulting Engineers

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Bracebridge

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**MEMO**

**Date:** March 2, 2011      **Pages:** 2      **CCTA File:** 100080-2  
**To:** File      CCTA      **Via:** Hand  
**Copy:** Suzanne Troxler      CCTA      **Via:** Hand  
**From:** Keith Shular  
**Subject:** Bayshore Spray Irrigation Expansion Environmental Assessment  
Public Information Open House (February 24, 2011)

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A Public Information Open House (PIC) was held at the Joyland Beach Community Centre on February 24, 2011 from 3 p.m. to 7 p.m. Representatives from C.C. Tatham & Associates and the Township of Ramara (Township), including Rex Meadley, Tim Collingwood, Suzanne Troxler, Keith Shular, Rick Bates, and Dave Stephen, were available to answer questions from nearby residents and interested parties. The main concerns identified during the PIC are summarized below.

A few residents were concerned that spray irrigation is an out-dated technology and asked why alternate modern technologies were not considered. Keith and Suzanne explained that the mandate of the Environmental Assessment (EA) study was not to consider alternate effluent disposal technologies. Disposal of lagoon effluent by spray irrigation is a proven technology accepted by the Ministry of the Environment (MOE). The purpose of the EA study was to ensure the capacity/performance of the spray irrigation system can be maintained for the overall capacity of the sewage treatment system.

Some residents were concerned the Township would pay a premium to acquire the land required for the spray irrigation system expansion, and questioned whether only portions of a spray irrigation field could be taken out of service to reduce the land requirement. Keith and Suzanne explained a location for spray irrigation expansion had not been determined. Dave also explained that it is difficult to isolate only portions of a spray field due to the configuration of the temporary irrigation piping and the topography of the south spray field. Rick added that any land considered for the expansion will be evaluated at its fair market value.



One resident who lives close to the spray irrigation fields expressed concern with the presence sewage lagoon effluent in the air during spray events. Suzanne explained the effluent is not disinfected and will contain bacteria, as well as create odour. However, additional land capacity will provide the Township with more flexibility to spray only during favourable weather conditions, mitigating the risk of creating aerosols containing bacteria and causing objectionable odour.

One resident asked if the additional spray irrigation capacity will permit more development. Suzanne assured the resident that the additional spray irrigation capacity will not increase the rated capacity of the sewage works, and will not permit additional development beyond the current hydraulic reserve capacity of the Bayshore sewage treatment system.

One resident was concerned with the presence of heavy metals in the sewage lagoon effluent and their accumulation in spray irrigation soils. The resident suggested characterizing heavy metals in the sewage lagoon. Suzanne explained that metals in the sewage lagoon effluent are not currently monitored, but the suggestion would be passed on to the Township.

One interested party was concerned that the Wainman's Creek downstream sampling location may not capture the contribution of any runoff from the North Field. Dave clarified that the location shown on the PIC display summarizing the sampling locations was not accurate. Wainman's Creek is sampled downstream of the culvert draining runoff from the North Field, thereby capturing any contribution from the North Field.

## Suzanne Troxler - Re: Bayshore Village Spray Irrigation Class EA - Minutes of March 25 meeting (100080)

---

**From:** "4j farms" <4jfarms@orilliapronet.com>  
**To:** "Suzanne Troxler" <stroxler@cctatham.com>, "Cathy Wainman" <cwainman@sym...>  
**Date:** 4/21/2011 4:21 PM  
**Subject:** Re: Bayshore Village Spray Irrigation Class EA - Minutes of March 25 meeting (100080)  
**CC:** "Keith Shular" <KSHULAR@cctatham.com>, "Tim Collingwood" <TCOLLINGWOOD@c...

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Suzanne;

Thanks for the updated minutes. I missed those points Mark has made. I did find an interesting section of the Ramara Township Zoning Bylaw 2005.85 you maybe should be made aware of for the purposes of your assessment. Sec. 2.(35) (c) Wellhead Protection Area - Prohibited Activities - Lagoons for sewage treatment. This section of the Bylaw outlines the prohibited activities within the Wellhead Protection Areas based on the North Simcoe Groundwater Study, of October 2004. The study includes the 2, 10 and 25 year capture zones for each of the municipal well areas. Schedule A of the Bylaw is a map of the Township containing all the Zoning information and the Wellhead Protection Areas, indicated by a dotted line. Map K4 indicates there are two Wellhead Protection Areas, one of which partially covers the area of Con 8 and SR 20. Exactly underneath the Sewage Lagoons and encompassing approx. half of the south spray field. I realize that the lagoons and the spray field were installed well before the 2004 study and the 2005 bylaw prohibiting them was enacted. However, if the experts are to be believed, then the 25 year capture study means the residents of Bayshore Village have been drinking their own effluent five or ten years by now. No wonder! There really is something in the water after all. Now what. Leave the Lagoons in place in violation of the Zoning Bylaw, or move them to comply with the Bylaw and the science behind it. Or just amend the Bylaw and ignore the science. At least the study supports the assertion that the surface water is absorbed into the ground water. I would also note that the other Wellhead Protection Area is very near the western area of the North spray field where Mark and Neil indicated the runoff was heading. That wellhead services Val Harbour. I'll bet they wouldn't like to know about that.

Anyway, just something else for your consideration.

Thanks again

Jim

----- Original Message -----

**From:** [Suzanne Troxler](#)  
**To:** [Cathy Wainman](#)  
**Cc:** [Keith Shular](#) ; [Tim Collingwood](#) ; [4j farms](#) ; [David Stephen](#)  
**Sent:** Thursday, April 21, 2011 12:35 PM  
**Subject:** RE: Bayshore Village Spray Irrigation Class EA - Minutes of March 25 meeting (100080)

Mark,

Please find attached the revised minutes of the March 25, 2011 meeting, incorporating your comments.

Also attached, as requested, is an excerpt from the 2008 MOE Design Guidelines for Sewage Works, as it relates to treatment prior to spray irrigation.

Please don't hesitate to contact me if you have any questions.

Sincerely,

Suzanne

## Suzanne Troxler - Re: Bayshore Village Spray Fields

---

**From:** "4j farms" <4jfarms@orilliapronet.com>  
**To:** STROXLER@cctatham.com  
**Date:** 3/14/2011 3:37 PM  
**Subject:** Re: Bayshore Village Spray Fields

---

Thank you Suzanne  
Jim

----- Original Message -----

**From:** Suzanne Troxler  
**To:** 4j farms  
**Sent:** Monday, March 14, 2011 1:16 PM  
**Subject:** Re: Bayshore Village Spray Fields

Jim,

Thank you very much for your comments. We will review your comments carefully and take them into consideration in our assessment. We will also add you to our mailing list.

Sincerely,  
Suzanne

Suzanne Troxler, M.Sc., P.Eng.  
C.C.Tatham & Associates Ltd.  
Ph: 705-444-2565  
Fax: 705-444-2327  
[stroxler@cctatham.com](mailto:stroxler@cctatham.com)

>>> "4j farms" <4jfarms@orilliapronet.com> 3/14/2011 11:14 AM >>>

Suzanne

Attached please find my comments concerning the proposed expansion of the Bayshore Village Spray Fields. Would you acknowledge receipt of the attachment so I know you have received it. I've been having trouble with my Email lately

Thanks

Jim Newlands

**TOWNSHIP OF RAMARA  
BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A  
PIC - FEBRUARY 24, 2011**

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**PUBLIC COMMENT SHEET**

NAME: J. L. Newlands \_\_\_\_\_

ORGANIZATION: \_\_\_\_\_

ADDRESS: 3456 Con 8, RR#7 Orillia. Ont. L3V 6H7 \_\_\_\_\_

PHONE: 705 326-8460 \_\_\_\_\_ EMAIL: \_\_\_\_\_

Do you wish to be added to the project mailing list? You will be notified of the study conclusions.

Yes

No

Do you have any specific comments, questions or suggestions?

I am opposed to the use of the Bayshore spray fields. Rather than expand them, I believe they should be discontinued. A proper Sewage treatment plant should be installed for the safe and effective disposal of the effluent. From personal observation, the spraying of the effluent does not work. The fields have become compacted and the ground is incapable of absorbing so much moisture. The result is that the fluid runs off the fields and enters Wainman Creek and ultimately Lake Simcoe, untreated. I know that at the Open House, I was advised that the MOE would not approve any further Sewage Treatment Plants on Lake Simcoe, however, I can not understand how they would permit untreated effluent to effectively be dumped into the creek after a preliminary pass over a field. Why not just pipe it straight into the Lake? What's the difference? How does spraying it in the air so everyone can see and smell it make it any better? The end result is the same, except no one would see or smell it, and it would be cheaper if we just pumped it straight in. Either way, untreated sewage from Bayshore Village is going into the lake. At least with a proper treatment plant, a better product would be released into the environment.

Taking a field out of service for maintenance would likely improve the filtering and capacity to absorb more volume, but for how long? The effect of spraying water, causes the soil to compact from the droplets hitting the ground. This is compounded by the maintenance equipment driving on the wet ground, creating further compaction. You would require



**TOWNSHIP OF RAMARA**  
**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A**  
**PIC - FEBRUARY 24, 2011**

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considerably more land base to maintain effectiveness, using this technology. The soils in this area tend to be heavier clay type which are not generally very permeable unless they are worked regularly.

Ideally, the best solution would be a proper sewage treatment plant nearby the lagoons. This could be an incentive for nearby built up areas to connect to the system in the future. Peter and John Streets, Southview and Glenrest, and even Val Harbour could be connected to the plant thereby, reducing individual operating costs, reducing seepage from faulty septic systems, many of which are of questionable capacity and quality, and increasing property values. Further land acquisition would not be required.

Failing that, if we must continue to use this archaic technology, why does it have to be sprayed up in the air? I don't see much, if any of it, being evaporated. Why not just trickle the effluent on the ground and let it soak in from there? A flexible soaker hose would be more portable than the rigid piping in place now. It could be moved for maintenance, either grass cutting or aerating or both. It wouldn't cause as much compaction from the water drops hitting the earth from on high. A tile drainage system installed beneath would ensure the water, now filtered through the soil would be removed from the field thereby reducing the amount of saturation. It could be gravity fed to the creek. Perhaps the pumping capacity would not need to be as high, reducing operating costs through reduced pressure requirements. The visual impact of the spray heads with water shooting up into the air would be eliminated and the smell should be reduced. Maintenance may be reduced and life expectancy of the field could be extended and the land expansion may not be required.

How about a giant tile bed similar to a regular residential or commercial septic system? It should fit into a smaller area than the two fields now in operation. It would be completely out of sight with no smell at all. The land above might be used as a park, golf course or light recreational use, (dog park, whatever?)

Part of the problem with the spray fields, is the excessive volume of fluids. Whether people are using the system to dispose of sump discharge or downspouts or leaky faucets, the amount of fluid being sprayed is excessive. Last year was even worse due to the high amount of rainfall. A substantial amount of precipitation entered the system through the Lagoons, which then found its way to the spray fields. Why are you paying to dispose of rain water? Dairy and swine farmers over a certain number of Nutrient Units are required to cover their manure pits to avoid excessive fill. Why not here? By covering the lagoons, the volume of fluid would be reduced substantially. This could reduce the need to expand the fields. This would reduce the operating costs.

A few comments regarding your information package. The background information provided indicates that the effluent is treated, however, at the Open House, I was clearly told that the effluent was untreated, and in fact was toxic enough that cattle could not eat the grass grown on the spray fields for up to six months after the effluent was sprayed. If an animal with four stomachs can't eat a product grown from this stuff, what about all the animals with only one stomach? I don't suppose drinking it can be good for you either. It is unclear which contaminants are being tested for. Aside from the 'nutrients', what about the other things people may flush? I am more concerned about solvents, chemicals, pharmaceuticals, pathogens and the like all combined into this soup. Mother Nature can manage the 'nutrients' if they aren't overloaded. The other man-made concoctions often don't break down and disperse the same way. The runoff from these spray fields enters onto my property on its way to the creek. My cattle have access to this runoff. If it's that bad, I don't want it on my property anymore. Please make arrangements to have it diverted away from me ASAP. Thank you.

**TOWNSHIP OF RAMARA**  
**BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION CLASS E A**  
**PIC - FEBRUARY 24, 2011**

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The package goes on to state that there are no potential impacts to woodlands, wetlands and vegetation. I cannot disagree more strongly. The runoff from the north spray field impacts my property at two areas. At the north of my property, the runoff enters from the bush area between the two halves and proceeds easterly towards the Side Road 20 road allowance where it turns southerly to the creek. This is a low area of my farm and tends to be marshy year round. I cannot blame the spray field runoff completely; however, I feel it does contribute significantly to the loss of production in this area. At the south west corner of my property, runoff enters onto my property from a pipe draining the bush area between the two halves of the north spray field. The water lies in this field saturating the ground to the point where I cannot even walk on it anytime of the year. This was a reasonably dry pasture before the pipe was installed. I have seen this pipe running in years when all around is dry. I have never seen it not running. Both these areas have begun to grow more wetland type vegetation, where before they produced more grassy vegetation capable of maintaining cattle pasture.

Further along, the package states that spray irrigation does not result in noise or odour. Whoever, told you this is very much mistaken. Your shit does stink whether you think so or not. There have been occasions where the smell has been absolutely retching, causing headaches it was so bad. Mr. Stephen has been most accommodating during these times, shutting the system down on request. Generally, it's not that bad for us, depending on wind direction and certain times of the year. Even though it's not that bad, that's not to say it's good either. It still stinks, even when I don't complain. Usually we just leave, go into town if it's too bad. I haven't had any issues with the noise, just the usual sound from the spray heads.

Property values. Yes there will certainly be no change to the property values in Bayshore Village. Might even go up if we can find a cheaper way to flush their toilets. Problem is at my and my neighbours expense. Our property values certainly aren't going anywhere near up. If these fields don't impact property values; then how about we move them a little closer to BSV. I won't mind. There's a golf course there that could stand some irrigation. If there's no noise, smell, impact or deleterious property value impact, then try spraying this shit in their backyard instead of mine and we'll see if it still holds true.

My children will be the sixth generation to farm this property. We are strongly vested in its sustainability. We take pride in its ownership and stewardship and intend to maintain it as a working farm as our ancestors before us did. We strive to improve our water and soil and have taken great pains to do so, in an economically and environmentally viable manner. It is frustrating and heartbreaking to sit back and watch as others move in to the area and degrade the natural beauty and diversity of our little patch of Mara. We have been subsidizing the fortunes of the Bayshore residents, through lost and reduced property values and lost production of our farm land. Now you want more. Where will it end? When Bayshore is an island in a sea of spray fields? Stop it right now. Do the right thing and build a proper system that will last and get rid of this nonsense that doesn't work for anybody. It'll never get any cheaper.

J.L. Newlands.

Please complete the form and submit it to us today, or if you wish to complete this sheet at your convenience, **return by March 14, 2011** to:

Murray Kowan

4 Thicketwood 484-5211

(1)

1/ "Preferred Design"?  
What alternatives <sup>①</sup> methods of processing considered:  
\* <sup>②</sup> spray field locations

2/ What triggered the need? (-soil samples/MOE/who & what)

3/ How much of the north field is <sup>①</sup> currently in use  
& <sup>②</sup> currently could be used?

4/ Monitoring <sup>①</sup> Chlorides - <sup>(concentration)</sup> ~~volume~~ type of / change over time  
(DATA) <sup>②</sup> tests for what else / frequency / presents.  
<sup>③</sup> soil contaminants - list / concentration / MOE  
standards / beam sampling for presents.

5/ Why were other alternatives not listed??

6/ Disadvantage - visibility - no problem - east of current  
fields especially Northfield  
- farther from creek/lake A

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\* Require - complete list of "I" needs for each  
site to bring into operation including  
evaluation of alternatives  
e.g. - pipes above ground moved from  
existing field and made operational  
in new field (adjacent)

# 7/ Eval of Alternatives

Operation & Maintenance Requirements — to move pipes

① \$ ~~cost~~ & set up is minimal — for every 10-20 years  
— estimates of increase ??

② Aesthetic  
Property values ] better in fields out of sight  
e.g. east of north field

③ Cost → \$600,000 — pipe & pumping  
\$-??? → Land — expected costs  
→ Operation - ?  
?? alternatives to reduce ??

8/ Does any future site need tiling ??  
(— explain/need-depth etc/cost etc)

\* Method of notification of meeting  
— to very few in Bayshore

9/ — mtg - poor timing — Feb - 50% away included  
executive of Bayshore

10/ \* Meeting process — lack of presentation to  
communicate a standard message  
to all attending and hear concerns from  
visitors so that others may support or  
disagree collectively before the process  
goes any further



## Suzanne Troxler - Bayshore Village Effluent Spray Irrigation Class EA - Monitoring Data (pa 100080)

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**From:** Suzanne Troxler  
**To:** cwainman@sympatico.ca  
**Date:** 3/23/2011 10:04 AM  
**Subject:** Bayshore Village Effluent Spray Irrigation Class EA - Monitoring Data (pa 100080)  
**CC:** David Stephen; Keith Shular  
**Attachments:** Wainman Creek Monitoring Data.pdf; Groundwater Monitoring Data.pdf; Soil Monitoring Data.pdf; Lagoon City Sludge 2010.pdf

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Mark,

As we discussed yesterday, please find attached the Bayshore Village historical monitoring data that we currently have compiled in our files. I've attached:

- water quality in Wainman's Creek upstream and downstream of the spray irrigation fields.
- groundwater quality at 6 boreholes in the south and north fields
- soil quality at 3 locations in the south and north fields.

As per our discussion, I also attached for your information the 2010 results for the sludge from the Lagoon City sewage treatment plant, as this is the only measurement of Metals that is done at a STP. The metals would be contained in the solids that are removed through sewage treatment, and that are then in the sludge that is applied to land. I expect similar concentrations are in the sludge at the bottom of the Bayshore Village lagoons. It shows that sludge from domestic sewage treatment plants contains very little metals.

Hope this helps. I look forward to our meeting on Friday.

Suzanne

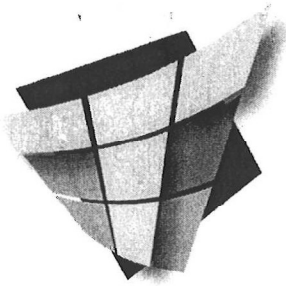
Suzanne Troxler, M.Sc., P.Eng.  
Manager, Environmental Engineering

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## MEETING MINUTES

**Meeting Date:** March 25, 2011

**Time:** 9:00 a.m.

**CCTA File:** 100080-2

**Location:** Township of Ramara, Council Chambers

|                   |                 |  |
|-------------------|-----------------|--|
| <b>Attendees:</b> | Rick Bates      | Township of Ramara                     |
|                   | David Stephen   | Township of Ramara                     |
|                   | Mark Wainman    | Resident                               |
|                   | Jim Newlands    | Resident                               |
|                   | Neil Wainman    | Resident                               |
|                   | Suzanne Troxler | C.C. Tatham and Associates Ltd. (CCTA) |
|                   | Keith Shular    | CCTA                                   |

**Purpose:** Bayshore Village Effluent Spray Irrigation Expansion Class EA  
Meeting with Residents – Revised Minutes April 21, 2011

| Meeting Item   | Action |
|--|--------|
| <p><b>1. Class EA Process</b></p> <p>Rick Bates and Suzanne Troxler (Suzanne) explained briefly the Class Environmental Assessment (Class EA) process and that it applies to all major municipal water and wastewater projects. A Class EA requires that review agencies, interested parties and the public be consulted during the assessment of alternatives. Public input is very important in order to understand and appropriately take into account the issues of concern and the potential impacts of the alternatives under consideration.</p> <p>Suzanne clarified in answer to Neil Wainman's (Neil) question that a field survey of existing environmental features is not part of the study scope; existing information is used for the natural environment impact assessment.</p> <p>Following their review of the comments received during the Bayshore Village Effluent Spray Irrigation Class EA, CCTA will identify the preferred solution and make a recommendation to Ramara Council.</p> |        |

| Meeting Item   | Action |
|--|--------|
| <p data-bbox="246 254 1299 331"><b>2. Concern: Potential for Spills or Exfiltration from Bayshore Village Sewage Lagoons</b></p> <p data-bbox="246 367 1299 703">In response to questions from the residents regarding the possibility of spills and exfiltration from the Bayshore Village sewage treatment lagoons, David Stephen (David) confirmed that no spills from the lagoons have occurred since he took over their operation. Typically, there are two to three feet of freeboard in the lagoons. He also explained that the large lagoon is lined with 10 inches of clay, while the small lagoon is not clay-lined but has significant deposits of settled solids that prevent exfiltration. Annual mass balances, tracking sewage flows into and pumped out of the lagoons plus precipitation and minus evaporation, do not indicate that exfiltration occurs.</p> <p data-bbox="246 745 1299 787"><b>3. Concern: Surface Runoff from Spray Irrigation Operation</b></p> <p data-bbox="246 819 1299 1039">The residents expressed a great deal of concern about surface runoff from the effluent spray irrigation onto their properties. They indicated that surface runoff from the North and South Fields has been observed during spray irrigation operations since the early days and particularly after the large spray irrigation pump was installed in 1996. In their opinion, the spray irrigation operation does not and has never worked properly as there has always been a lot of runoff.</p> <p data-bbox="246 1071 1299 1113">Runoff or flooding has been observed in the following areas:</p> <ul data-bbox="246 1144 1299 1837" style="list-style-type: none"> <li data-bbox="246 1144 1299 1249">• The low-lying pasture area in the northern portion of the Wainman's farm directly west of the North Field. Two to three feet of water has been observed in the area.</li> <li data-bbox="246 1291 1299 1480">• The low-lying area on the western property line of Jim Newland's (Jim) field directly east of the low-lying area in the North Field. Jim indicated that flooding has reversed the flow direction of the drainage ditch from east-to-west to west-to-east, causing flooding of the low-lying area around Wainman's Creek on Jim's eastern property line.</li> <li data-bbox="246 1512 1299 1659">• The low-lying area around Wainman's Creek in the south-western corner of Jim's property. Jim believes this flooding is caused by the 200 mm pipe that drains the middle low-lying area of the North Field to the drainage ditch along the western edge of Jim's property.</li> <li data-bbox="246 1690 1299 1837">• The low-lying areas in the field east of the South Field. Runoff is believed to flow from the South Field through the culvert to the drainage ditch along the old Sideroad 20 on the east side of the re-aligned Sideroad 20. This drainage ditch overflows to the low-lying areas of the field east of the South Field.</li> </ul> |        |

| Meeting Item  | Action |
|---|--------|
| <ul style="list-style-type: none"> <li data-bbox="321 264 1295 331">• The area west of the South Field, where runoff has been observed towards Wainman's Creek.</li> </ul> <p data-bbox="321 373 1295 520">The residents stated that although these areas are often flooded during the spring, they usually dry up during the summer. In their opinion, runoff from spray irrigation contributes to year-round flooding, rendering their land unusable and decreasing productivity.</p> <p data-bbox="321 562 1295 741">Mark Wainman (Mark) expressed the opinion that due to the high clay content of the soils in the spray irrigation fields, tilling and/or aerating the land will not improve the soil's infiltrative capacity to the extent required to eliminate runoff from the spray irrigation fields. Machinery used to cut the grass on the Township's spray fields further compacts the soils and reduces their infiltrative capacity.</p> <p data-bbox="321 783 1295 968">Jim asked whether the overall drainage in the area could be improved to reduce and/or eliminate the runoff. David has observed that many of the drainage ditches are overgrown with vegetation, which obstructs the flow of surface runoff. Rick Bates indicated the Township will consider conducting an assessment of the overall drainage in the area.</p>   |        |
| <p data-bbox="248 1003 1295 1041"><b>4. Concern: Effluent Quality</b></p> <p data-bbox="321 1083 1295 1150">The residents expressed concern about contaminants and pathogens in the spray irrigated effluent, and their potential impacts on humans and cattle.</p> <p data-bbox="321 1192 1295 1339">Suzanne explained that the lagoons provide physical and biological treatment of the sewage to produce an effluent of quality suitable for spray irrigation on land. The effluent is applied at a rate that was established based on the soil's characteristics, such that some evaporates and some infiltrates into the ground.</p> <p data-bbox="321 1381 1295 1560">Suzanne indicated that the Township produces each year an operations report on the Bayshore Village sewage works and spray irrigation that is available to the public. Suzanne provided Jim with a copy of the Township's groundwater, surface water, and soil monitoring data that is included in those annual reports. A copy of the data was sent earlier to Mark by e-mail.</p> <p data-bbox="321 1602 1295 1738">Jim indicated that he was told at the February 24 PIC that cattle could not consume hay grown on the spray fields until six months after spraying. CCTA confirmed, after reviewing the MOE Guidelines, this restriction only applies to crops destined for direct human consumption.</p> <p data-bbox="321 1780 1295 1915">Mark indicated his veterinarian cautioned against cattle eating crops that were spray irrigated with effluent, or drinking runoff water from the spray fields. His concern arises from the potential presence of man-made chemicals such as pharmaceuticals that could have been disposed to the sewers.</p> |        |



| Meeting Item  | Action |
|---|--------|
| <p>Jim asked if the effluent is tested for pharmaceuticals. Suzanne indicated that it is not. This is an emerging field in the water and wastewater industry. Testing for pharmaceuticals is not required at the Bayshore Village sewage works.</p> <p>Mark asked if the lagoon effluent is tested for metals. Suzanne indicated that it is not and explained that the Bayshore Village sewage works treats residential sewage (there are no industries in Bayshore Village), which typically has very low concentrations of metals. CCTA referred to the very low concentrations of metals in sludge generated at the Lagoon City Sewage Treatment Plant (STP), which also treats residential only sewage. This sludge is applied to land.</p> <p>Neil and Mark Wainman asked if spray irrigated effluent is subject to the same regulations as STP sludge (biosolids) applied to land as fertilizer. David explained that biosolids are subject to more stringent regulations, including limited application rates, due to the higher concentrations of nutrients, organics and metals.</p> <p>Jim expressed concern about the presence of pathogens in the effluent aerosols that occasionally occur during spray irrigation. CCTA explained that the additional spray irrigation land considered in this Class EA would enable the Township to reduce the number of spray irrigation days in less than ideal wind conditions. The Township and CCTA agreed that disinfecting the lagoon effluent with ultraviolet light prior to spraying would significantly reduce pathogens. Suzanne indicated that setbacks are required from the sprinklers to the property line that would minimize the impact of aerosols. Post-meeting note: MOE Guidelines suggest a 150 m setback from spray nozzles to the property line.</p> <p>The Township and CCTA also indicated it would be possible to add alum to assist in precipitating solids and phosphorus in the large lagoon prior to the spray irrigation season.</p> <p>Mark and Jim expressed concern that the presence of effluent spray irrigation fields adjacent to their farm may negatively impact the public's perception of their farm products, as the lagoon effluent is misunderstood to be raw human sewage.</p> |        |
| <p><b>5. Other Concerns: Further Residential Development and Property Values</b></p>  |        |
| <p>Mark expressed concern that increasing the number of spray irrigation fields could promote additional development in the area. Suzanne explained that the spray irrigation expansion would not increase the rated capacity of the Bayshore Village Sewage Works, and thus would not permit additional development.</p> <p>Mark and Jim indicated that they believe the presence of spray fields adjacent to their properties lowers the property value. This would get worse if there were more spray fields.</p>  |        |

| Meeting Item  | Action |
|---|--------|
| <p><b>6. Spray Irrigation Alternatives</b></p> <p>During the meeting, there was discussion about the type of crop that would be the most helpful to maintain the soils' infiltration capacity. There was also discussion of the type of spray irrigation sprinklers. David indicated that he would like to install buried piping and sprinklers that facilitate crop harvesting. CCTA also clarified that the new spray fields would be tile drained to ensure that there is an unsaturated layer of soil to maximize infiltration of effluent.</p> <p>However, the residents were of the opinion that expanding the spray irrigation fields would not be a sustainable solution. They suggested alternatives to the lagoons and to effluent spray irrigation.</p> <p>The following alternatives were mentioned and briefly discussed during the meeting:</p> <ul style="list-style-type: none"> <li>▪ Constructing a sewage forcemain from Bayshore Village to the Lagoon City STP.</li> <li>▪ Replacing the lagoon treatment system with a mechanical treatment plant.</li> <li>▪ Spraying effluent on a nearby golf course such as the small Bayshore Village golf course.</li> <li>▪ Utilizing the surrounding wetlands for further lagoon effluent treatment.</li> <li>▪ Spraying lagoon effluent into nearby woods and/or wetlands.</li> <li>▪ Disposing the effluent in a large raised tile bed.</li> </ul> <p>Suzanne indicated that the Lake Simcoe Protection Act does not allow the construction of new sewage treatment plants with effluent discharge into Lake Simcoe. Effluent disposal has to be either to the subsurface (tile bed) or to land (spray irrigation).</p> <p>Suzanne explained that the Class EA's current problem statement is to identify the best way to improve the operation of the effluent spray irrigation system. The Class EA may need to have an expanded scope to find a solution that addresses the concerns expressed by the residents.</p> |        |
| <p><b>7. Concluding Remarks</b></p> <p>Suzanne thanked Mark, Jim and Neil for taking the time to meet with CCTA and the Township to explain their concerns with the spray irrigation operation to date and the potential for expanding the spray irrigation areas. Their comments will be given due consideration during the Class EA study.</p>  |        |

| Meeting Item  | Action     |
|---|------------|
| <p><b>8. Errors &amp; Omissions</b></p> <p>Please report any errors or omissions to the author within seven days of receipt of these minutes otherwise they will be deemed correct.</p> | <p>All</p> |

Respectfully submitted,  
**C.C. Tatham & Associates Ltd.**

Suzanne Troxler, M.Sc., P.Eng.  
 Manager, Environmental Engineering  
 KES/ST:rlh

**Distribution**  
 All present

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100080



**Beausoleil First Nation**  
**Office of Council**

One O-Gema Street  
Christian Island, ON  
L0K 1C0  
705-247-2051 Fax: 705-247-2239

Chief Roland Monague, Chief Councillor Karry Sandy-McKenzie, Councillor Alfred Dan Monague,  
Councillor C. Susan Copegog, Councillor Hector Copegog, Councillor B. Jeffrey Monague, Councillor  
Valerie Monague

March 29, 2011

C.C Tatham & Associates Ltd.  
50 Andrew Street South, Suite 100  
Orillia, ON  
L3V 7T5

**RE: Township of Ramara Bayshore Village Effluent Spray Irrigation Expansion  
Class Environmental Assessment**

Dear Suzanne Troxler;

As a member of the Williams Treaties First Nations, Beausoleil First Nation acknowledges receipt of your letter dated February 10, 2011 and was received on March 17, 2011.

A copy of your letter has been forwarded to Karry Sandy-McKenzie, Barrister & Solicitor, Coordinator of the Williams Treaties First Nations for further review and response directly to you. Mrs. Sandy-McKenzie's address is 8 Creswick Court, Barrie, ON L4M 2J7, or by e-mail at [k.a.sandy-mckenzie@rogers.com](mailto:k.a.sandy-mckenzie@rogers.com).

We appreciate your taking the time to share this important information with us.

Sincerely,

Chief Roland Monague  
Beausoleil First Nation

c.c: Beausoleil First Nation Council  
Karry Sandy-McKenzie, Coordinator Williams Treaties First Nations



## Suzanne Troxler - RE: Bayshore Village Spray Irrigation Class EA - Minutes of March 25 meeting (100080)

---

**From:** Suzanne Troxler  
**To:** Cathy Wainman  
**Date:** 4/21/2011 12:35 PM  
**Subject:** RE: Bayshore Village Spray Irrigation Class EA - Minutes of March 25 meeting (100080)  
**CC:** 4j farms; David Stephen; Keith Shular; Tim Collingwood  
**Attachments:** bv\_min\_20110421122520.pdf; moe\_20110421122722.pdf

---

Mark,  
Please find attached the revised minutes of the March 25, 2011 meeting, incorporating your comments.

Also attached, as requested, is an excerpt from the 2008 MOE Design Guidelines for Sewage Works, as it relates to treatment prior to spray irrigation.

Please don't hesitate to contact me if you have any questions.

Sincerely,

Suzanne

Suzanne Troxler, M.Sc., P.Eng.  
Manager, Environmental Engineering  
C.C.Tatham & Associates Ltd.  
Ph: 705-444-2565  
Fax: 705-444-2327  
stroxler@cctatham.com

>>> Suzanne Troxler 4/21/2011 8:14 AM >>>

Mark,

Thank you for the clarifications. We will revise the minutes and re-issue them.

Have a good day (despite the snow...)!

Suzanne

>>> Cathy Wainman <cwainman@sympatico.ca> 4/21/2011 7:53 AM >>>

Suzanne:

Below are my comments with respect to the minutes of March 25, 2011:

1. Page 2, Section 3 – at the end of the first paragraph you state “some runoff”. We stated that the spray irrigation has never soaked up properly and there has always been “a lot of runoff”.
2. Page 2, Section 3 – you talk about four low-lying areas that get runoff. There is a fifth one that I mentioned at the meeting not recorded and it is on the west side of the south field which runs off directly into the creek.
3. Page 3, Section 3 – the second last paragraph states “Machinery to harvest crops...” The Township is not harvesting crops, they are cutting grass.

If you have any questions or concerns regarding my comments, please do not hesitate to contact me.

Thank you

Mark Wainman  
(705)326-9950

---

**From:** Suzanne Troxler [mailto:stroxler@cctatham.com]  
**Sent:** April 14, 2011 1:18 PM  
**To:** 4j farms; David Stephen; Richard Bates; cwainman@sympatico.ca  
**Cc:** Keith Shular; Tim Collingwood  
**Subject:** Bayshore Village Spray Irrigation Class EA - Minutes of March 25 meeting (100080)

Good afternoon,

Please find attached the minutes of our meeting of March 25 at the Township offices regarding the Bayshore Village Spray Irrigation Class EA.

Please review and inform me if there are any errors or omissions.

Sincerely,

Suzanne

Suzanne Troxler, M.Sc., P.Eng.  
Manager, Environmental Engineering

C. C. Tatham & Associates Ltd.  
Consulting Engineers  
115 Sandford Fleming Drive, Suite 200  
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**From:** Suzanne Troxler  
**To:** The Masks  
**CC:** Keith Shular; Tim Collingwood  
**Date:** 4/21/2011 12:07 PM  
**Subject:** Re: BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION (100080)  
**Attachments:** I mask\_20110421120228.pdf

Mr. Mask,

I apologize for the delay in responding to you. Please find attached our response to your questions and comments.

Please do not hesitate to contact me if you have any further questions.

We will notify you directly of the next opportunity to comment as we advance through the Class EA study.

Thank you again.

Suzanne Troxler, M.Sc., P.Eng.  
Manager, Environmental Engineering

C. C. Tatham & Associates Ltd.  
Consulting Engineers  
115 Sandford Fleming Drive, Suite 200  
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>>> Suzanne Troxler 3/18/2011 8:14 AM >>>  
Mr. Mask,

All comments received are being taken in consideration in our assessment, and will be included in our report to the Township. We are preparing responses and will send you a letter shortly. Thank you for taking the time to write your comments to us.

Sincerely,  
Suzanne

Suzanne Troxler, M.Sc., P.Eng.  
C.C.Tatham & Associates Ltd.  
Ph: 705-444-2565  
Fax: 705-444-2327  
stroxler@cctatham.com

>>> The Masks <themasks@sympatico.ca> 3/16/2011 7:37 PM >>>  
Thank you for the information you sent me regarding the recent information session. Unfortunately I was unable to attend due to a prior commitment out of town. I understand from an article in today's Packet and Times that you are preparing recommendations for the township. I would like my concerns to be included in any report/feedback you provide to council and I am still looking forward to receiving responses to the questions I raised below. Thank you.

Jamie Mask

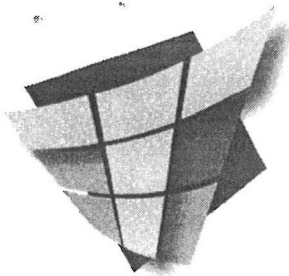
----- Original Message -----

From: "The Masks" <themasks@sympatico.ca>  
To: <stroxler@cctatham.com>  
Sent: Monday, January 24, 2011 12:01 PM  
Subject: BAYSHORE VILLAGE EFFLUENT SPRAY IRRIGATION EXPANSION

> Hi. My family and I reside in Val Harbour which is directly across  
> Barnstable Bay from Bayshore Village and at the mouth of Wainman's Creek  
> which is the main drainage channel from the Bayshore Village Effluent  
> Spray area. My family and I canoe and kayak regularly on Wainman's Creek  
> and over the past few years the water vegetation and algae has almost  
> tripled in volume. I would have thought that with the banning of  
> week-killers 2 years ago this amount of water vegetation should have  
> decreased and I am concerned that effluent from Bayshore is leeching into  
> Wainman's Creek.  
>  
> Accordingly, I would appreciate it if I could be added to the mailing  
> list. I also have a few comments/questions:  
>  
> 1. Is the current spray area at capacity and if so for how long? If so,  
> how many additional building permits have been issued since it was at  
> capacity?  
>  
> 2. I understand that Wainman's Creek has been tested regularly for various  
> bacteria and chemicals such as those found in detergents, bathroom  
> cleaners, flushed pharmaceuticals and fertilizers. Have the levels been  
> increasing or decreasing over the past several years and if so since when  
> and by how much? If it has not been tested will it be tested and  
> benchmarked as part of this assessment?  
>



- > 3. Will any recommendations for spray expansion include containment steps
- > such as a berm to protect against any further effluent entering Wainman's
- > Creek?
- >
- > 4. Will other options to spraying be considered? For example in a
- > neighbouring county they have just built a cost effective hydro generation
- > system for sewage that extracts methane that is used to power a generator
- > and enough hydro is put into the grid to serve 75 homes. Between sewage
- > disposal fees and the revenue from the Hydro this sewage
- > disposal/generating plant will have paid for itself in less than 10 years.
- >
- > 5. Can e-coli and other harmful bacteria from the effluent be airborne?
- > Several times last year when I drove my motorcycle past the spray area
- > there was a considerable increase moisture in the air and a strong sewage
- > smell. It was very unsettling. Normally I would not notice it in a car or
- > when walking or on a bicycle. But with the open air and speed of a
- > motorcycle it was definitely noticeable.
- >
- > 6. Are new lagoon and spray sewage systems like the one in Bayshore still
- > being built in Ontario? I read several years ago that they have been
- > banned. If new systems of this kind have been banned, will an expansion
- > mitigate any of the risks that led to the ban?
- >
- > Thank you for taking the time to review this email and for extending this
- > opportunity to local residents to comment and ask questions on the
- > assessment. I look forward to receiving your response.
- >
- > Jamie Mask
- >
- > 3872 Edgehill Road, RR7
- > Orillia, ON L3V 6H7
- > 705-323-9803
- > themasks@sympatico.ca



**C.C. Tatham & Associates Ltd.**  
Consulting Engineers

Collingwood Bracebridge Orillia Barrie

*RAM/Elc*  
115 Sandford Fleming Drive, Suite 200  
Collingwood, Ontario L9Y 5A6  
Tel: (705) 444-2565  
Fax: (705) 444-2327  
Email: info@cctatham.com  
Web: www.cctatham.com

April 21, 2011

via E-mail  
CCTA File 100080

**Jamie Mask**  
3872 Edgehill Road, RR7  
Orillia, ON L3V 6H7

**Re: Township of Ramara  
Class EA for the Bayshore Village Effluent Spray Irrigation  
Response to Comments and Questions**

Dear Mr. Mask:

Thank you very much for taking the time to send us questions and comments to be considered in the Class EA study for the Bayshore Village Effluent Spray Irrigation System. We can offer the following responses to your e-mail of January 24, 2011.

1. Concern with observed increase of water vegetation and algae in Wainman's Creek.

In-water vegetation and algae blooms typically result from high nutrient levels, particularly phosphorus and nitrogen, and can be influenced by a number of other factors including atmospheric conditions and water clarity. The nutrients in the effluent sprayed on the fields are absorbed in the soils and utilized by the crops on those fields. The Township of Ramara has been monitoring the water quality in Wainman's Creek upstream and downstream of the Bayshore Village's spray irrigation sites since 1994 and has found no difference in surface water quality between the two monitoring sites nor has there been an increase in any specific parameter monitored over the years. The spray irrigation operation therefore does not cause a measurable increase in the amount of nitrogen and phosphorus in Wainman's Creek.

2. Capacity of the spray irrigation area.

The capacity of the current effluent spray irrigation area matches the capacity of the sewage treatment system. The sewage treatment facility was designed to treat 399 m<sup>3</sup>/day of sewage from Bayshore Village and the spray irrigation system was designed to dispose of the annual effluent volume over the May to October period. The spray area is not at capacity but it is close, as is the sewage treatment facility. There are no plans to increase the sewage treatment and disposal system's capacity. The Township is monitoring the sewage flows and the system's spare capacity closely, and is taking steps

to reduce extraneous flows into the sewers to ensure there is capacity for the approved service area. This Class EA study is underway because the Township has concerns about the continued capacity of the existing spray fields to absorb the spray rates that were originally approved, as the soils become more compacted from continuous use. The Township is looking to increase the system's operational flexibility such that spray irrigation fields can be occasionally taken out of service for aerating and/or tilling as needed to maintain their effluent absorption capacity.

### 3. Monitoring of Wainman's Creek water quality

Township operators take water samples from Wainman's Creek upstream and downstream of the spray irrigation area before, during, and after each spray irrigation season. Samples are tested by a laboratory for: biochemical oxygen demand (BOD<sub>5</sub>), suspended solids, total phosphorus, nitrogen (total, ammonia, nitrate and nitrite), chloride, dissolved organic carbon, temperature, and pH, as required by the Ministry of the Environment issued Certificate of Approval for the system. The water quality data from 1994 to now shows the water quality of Wainman's Creek is unaffected by the effluent spray irrigation operation, and there is no increasing trend over the years. The Township is not required to monitor for E. Coli and coliforms, because Wainman's Creek is not used for drinking water or public swimming; nor for chemical compounds found in fertilizers, as these are not typically found in domestic sewage; nor for pharmaceuticals (this is an emerging field and there isn't a list of specific chemical compounds for testing and maximum allowable criteria).

### 4. Containment to prevent effluent from entering Wainman's Creek

Recommendations have not been developed at this time. As a result of comments made by local residents, we will consider a wider range of alternative solutions to mitigate potential runoff from the spray irrigation operation.

### 5. Other options to spray irrigation

The purpose of this Class EA study was not to consider replacing the Bayshore Village sewage treatment facility, nor to consider replacing the effluent disposal system. Rather, it was to assess options for ensuring the existing effluent spray irrigation system's capacity and performance can be maintained to adequately dispose of the effluent from the sewage treatment system. However, as stated in Item 4 above, we will consider and assess alternatives to the current effluent disposal system.

For your information, the Bayshore Village sewage treatment facility consists of two facultative lagoons, which by non-mechanical biological treatment processes, consistently produce an effluent that complies with all required standards and is of appropriate quality for disposal and further treatment by land application using spray irrigation. The treatment and disposal system utilizes land, but very little energy.

6. Can E. Coli / bacteria be airborne?

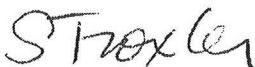
The treated effluent from the Bayshore Village lagoons is not disinfected before it is spray irrigated. Therefore, the water particles sprayed can contain bacteria, including E. Coli; however, they do not survive once out of their environment. The Township is required to spray only when winds are less than 15 km/hr. A buffer zone is also maintained to minimize impacts to adjacent residential properties. However, it is possible for weather conditions to change during the day after spraying has been initiated, and it can take time to fully shut the system down. Your concerns are noted and we suggest that you contact the Township if you ever experience objectionable conditions. Lastly, it is obvious with more available spray irrigation lands, the Township would have the operational flexibility to spray irrigate on only the best days.

7. Are new lagoon and spray irrigation systems built in Ontario?

The Ontario Ministry of the Environment maintains design guidelines for lagoons and has not banned their construction. They are a lower cost alternative to mechanical sewage treatment plants for relatively low sewage flows and when land is available, typically in rural areas.

We hope that we have adequately answered your questions. Please do not hesitate to contact us if you have any further comments or questions. We are currently considering all the comments we have received before we make a recommendation on the preferred solution to Township Council. We have added your name to our mailing list. Therefore you will be directly informed of the next opportunity to comment.

Yours truly,  
**C.C. Tatham & Associates Ltd.**



Suzanne Troxler, M. Sc., P.Eng.  
Manager, Environmental Engineering  
KS/ST:clh

copy: David Stephen, Township of Ramara (via mail)  
Rick Bates, Township of Ramara (via mail)

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