



FISHER ENGINEERING LTD.

40 Fairfield Road
Lower Coverdale, New Brunswick E1J 0A2
Phone: 506. 863. 1991

February 15th, 2019

File: DS252

Mr. David Maguire
Director
Project Assessment Branch
Department of Environment
20 McGloin Street
PO Box 6000
Fredericton, NB E3B 5H1

Attention: Mr. Maguire:

Re: Increased Water Withdrawal Request, Gourmet Chef Packers Ltd. Shediac River, NB

Enclosed are two hard copies and an electronic copy on USB of the registration document for the above noted undertaking. A cheque for the registration fee is also enclosed.

If you have any questions or require further details, please do not hesitate to contact the undersigned.

A handwritten signature in black ink that reads 'Michael Fisher'. The signature is written in a cursive style and is positioned above a horizontal line.

Michael Fisher, P. Eng.

MJF

Enclosures

cc: Ms. Marie-France Thibodeau, Gourmet Chef Packers Ltd.

**EIA Registration
Gourmet Chef Packers Ltd.**

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APPENDIX

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EIA Registration Gourmet Chef Packers Ltd.

**Pursuant to Section 5(2) of
The Environmental Impact Assessment Regulation 87-83
Clean Environment Act**

1 The Proponent

Name: Gourmet Chef Packers Ltd.

Address: 342 Main St. Shediac, NB E4P 2E7

Chief Executive Officer: Marie-France Thibodeau, (506) 532-4497

Principal Contact Person for Purposes of EIA:

Marie-France Thibodeau, (506) 532-4497 and
Michael Fisher, Fisher Engineering Ltd. (506) 863-1991.

Property Ownership: Same as Proponent

2 The Undertaking

Name: Gourmet Chef Packers Ltd.

Project Overview: Currently Gourmet Chef Packers Ltd. is constructing a 115,000ft² agricultural building complete (offices, greenhouse and production) on their property at 442 Beaubassin Road, in Shediac River. Currently the proponent has received approval from the New Brunswick Department of Environment and Local government for a maximum withdrawal rate from an existing onsite well for 7igpm (45.8m³/day). The current agricultural building under construction will require additional daily water withdrawal rates once the facility is fully operational.

Purpose/Rationale/Need: The purpose of the project is to evaluate the surrounding groundwater aquifer to ensure that it can sustain the proposed requirements along with not adversely affecting the surrounding properties.

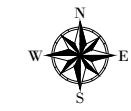
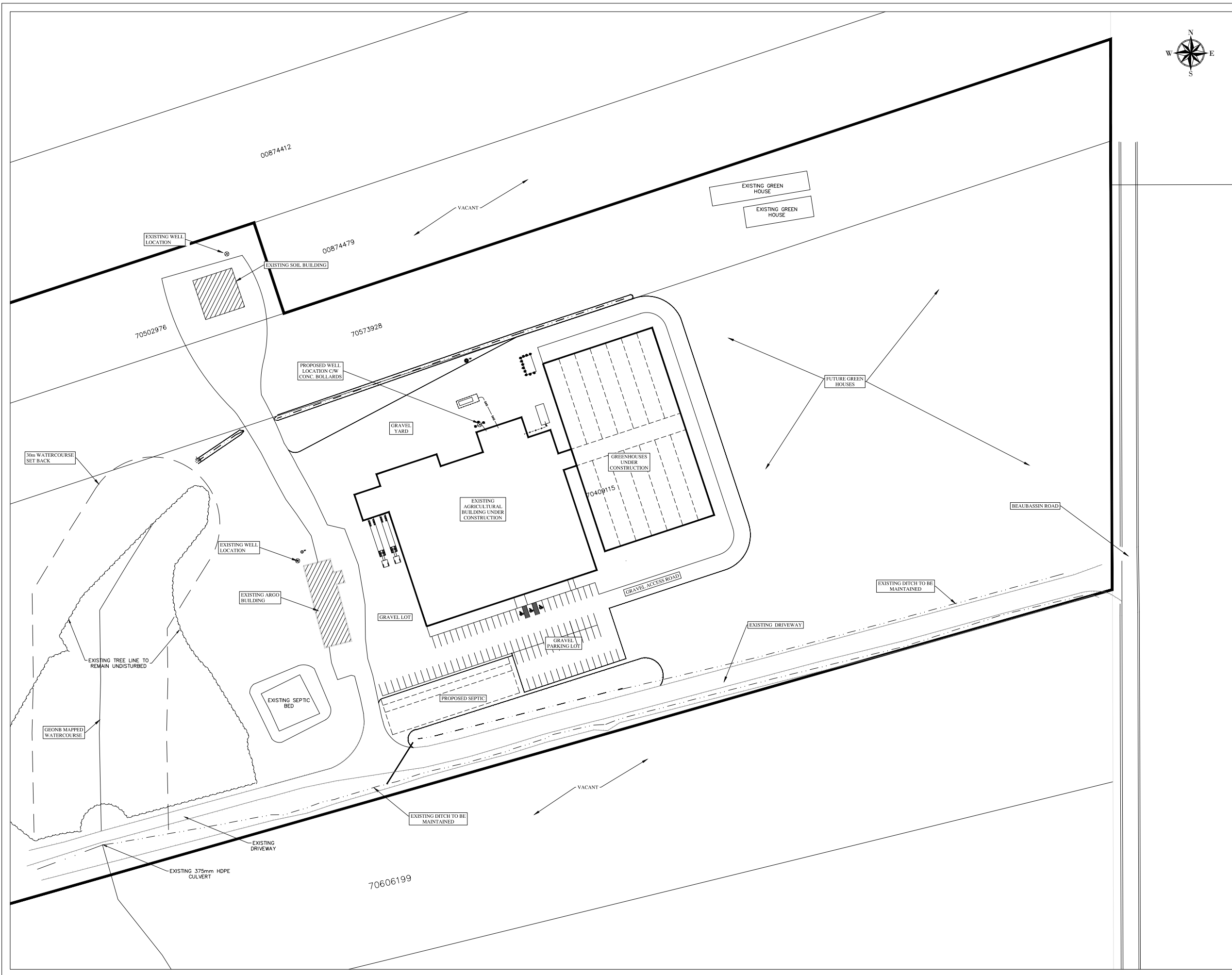
Project Location: The subject property is located at 442 Beaubassin Road in the LSD of Shediac Bridge in Shediac River, Figure 1. The subject property is identified by Service New Brunswick as PID 70409115. The subject property covers an approximate area of 15 hectares.

Siting Considerations: The project location was chosen because of the proximity to the Town of Shediac as that is where the head office of Gourmet Chef Packers Ltd. is located. In addition, an existing smaller agricultural building is currently located on the subject parcel that is used for packaging strawberries and a few other vegetables that are processed by Gourmet Chef Packers Ltd.

The land is currently zoned, Agricultural – Zone A, which permits the agricultural building. The site is easily accessible via the existing driveway off Beaubassin Road.

The project site is not located within Zone A or Zone B of a protected coastal area. There is one mapped wetland on the property that was identified through GeoNB mapping. This wetland is located adjacent the western edge of the property along the shore of Batemans Brook; which borders the property. The wetland is located approximately 650m from the proposed well location. There is also an unnamed mapped watercourse that bisects the subject property. All work associated with this development are located outside the 30m setback.

Physical Components and Dimensions of the Project: The site grading and drainage plan showing the site and the proposed well location is attached. The proponent received the building permit (permit#25785) on November 23, 2018. Construction of the agricultural building is currently underway with the foundation poured and erecting of the steel structure having begun. Pictures of the development are attached. The proposed site of the well is located adjacent the building within 10metres.



500 0 500 1000 1500
 SCALE - METERS 1: 25,000 SITE LOCATION

| No. | Issue | Date |
|-----|-------|------|
| 1 | | |
| 2 | | |
| 3 | | |

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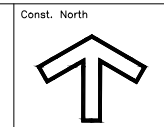
Project Title
GOURMET CHEF PACKERS LTD
 442 BEAUBASSIN ROAD
 SHEDIAC CAPE, NB E4P3A1

Drawing Title
SITE PLAN

Project No. **DS252**

Dwg. No. **DS25202r1**

Scale: 15 0 15 30 45
 SCALE - METERS 1: 750



Const. North
 Drawn By: ACB
 Designed By: M.JF
 DWG. Design Ckd. By: M.JF
 SHEET: 1

Construction Details:

The plan is for the well to be drilled in February 2019 so that hydraulic testing can be completed under low recharge conditions and that an approval for an increased daily withdrawal can be obtained prior to construction being finished in July 2019. Drilling of the well will likely only take a day as the well drilled under contract previously drilled a well on the subject and adjacent properties within the last four years.

The potential sources of pollutants generated during the drilling are discussed in Section 4.

Operation and Maintenance Details: Since the proponent is requesting that the daily groundwater withdrawal rate be increased beyond 7igpm, a hydrogeological evaluation of the proposed new production well is required to be completed, which will show that the surrounding aquifer can support the proposed expanded groundwater withdrawal. The hydrogeological program will follow the NBDELG Water Supply Assessment Guideline. The program will consist of drilling the new production well and performing a 72 hr pump test. The pumping test data will be analyzed to determine the long-term sustainability of the aquifer. Pumping test will be conducted as outlined in the guideline and will be performed during February/March of 2019 when groundwater recharge is minimal. The proposed peak water demand for the current and proposed future expansion is 50 igpm, which is based on estimates provided by the mechanical engineer following discussions with the proponent on proposed operations within the agricultural building. A WSSA application to complete the hydrogeological assessment for this development is attached is Appendix C.

Project Related Documents: The proponent provided the water well logs for the two existing wells within 250metres of the proposed new production well. In addition, a copy of the analytical results from one of the wells and the building permit was provided. Copies of these are attached.

- A hydrogeological study will be completed on the well which will include an evaluation of the two nearby wells.

3 Description of the Existing Environment

Physical and Natural Features:

- Based on 1:10,000 scale mapping the surface elevation across the site ranges from approximately 9.5 metres to 6 metres above mean sea level.
- The subject property is located within the drainage area of Bateman Brook and Shediac River as Bateman Brook borders the subject property. Surface water drainage across the portion of the site where the agricultural buildings are located is expected to be controlled by a unnamed tributary to Bateman Brook that bisects a portion of the property, west of the development area. West of the unnamed tributary, the land slopes westward toward Bateman Brook/Shediac River.
- Shallow groundwater flow across the property is expected to follow the local topography, which slopes toward a tributary to Bateman Brook. Deeper groundwater likely flows in a northwesterly direction toward the

Northumberland Strait. The area to the south and east that could potentially contribute groundwater to the study area is primarily forested.

- The regional bedrock geology is mapped as late Carboniferous stratified rock belonging to the Pictou Group, which is a subbasin of the Maritimes Carboniferous Basin. Mapping indicates that within the Pictou Group, the site may fall within the Richibucto Formation, which consists mainly of grey sandstone (Rivard et al. 2003).
- The Richibucto Formation has been described as one of the more productive sandstone formations in the province and has been described as a good aquifer throughout the Moncton basin. The majority of the domestic wells drilled in this formation generally yield 20+ igpm (Carr, 1959).
- Surficial geological mapping indicates that the area is underlain by late Wisconsinan age morainal sediments consisting of a discontinuous veneer of lodgement till, ablation till and associated sand and gravel generally less than 0.5m (Rampton, 1984).
- There are no municipal wells, municipal wellfields, or protected watersheds within 500 metres of the subject site. Surrounding properties rely on private wells to supply potable water. Within 500 metres of the subject site there are approximately 40 seasonal/permanent residents.
- One potential wetland was identified on the GEONB mapping along the edge of the western property boarder adjacent Batman Brook. A copy of the GeoNB mapping is attached (Figure 3). There is no work planned within 500metres of the wetland.

The NBDELG species at Risk database identified no records on the subject site. In addition, there were no reported deer yards on Crown Land within 5 km of the site.

The following are some of the references and personnel that were contacted and used in order to gather information regarding the physical and natural features of the subject and surrounding properties.

1. NB Department of Natural Resources - Stewart Lusk personal contact for search of NB DNR databases regarding species at Risk, deer yards, etc..
2. Environment Canada Species at Risk website - <http://www.sararegistry.gc.ca>
3. Canadian Species at Risk. Committee on the Status of Endangered Wildlife in Canada. Web site: <http://www.cosewic.gc.ca>
4. Canadian Wildlife Service website - <http://www.naturecanada.ca>
5. Department of Environment Government website – designated wellfields - <http://www.qnb.ca/0009/0371/0001/0003.html>, and protected watersheds - <http://www.qnb.ca/0009/0371/0004/0003.html>.
6. Department of Environment – Stewart Lusk personal contact for search of departmental database regarding species at Risk, deer yards, etc.

Cultural Features: None observed or reported on the subject site or adjacent properties

Existing and Historic Land Uses: Historical information was obtained through a review of historical aerial photos (1945 through 2011). The site has been vacant since at least 1945.

The application is aware of the Agricultural Operation Practices Act that states “A person who carries on an agricultural operation using acceptable farm practices is not liable in nuisance to any person for any odour, noise, dust, vibration, light, smoke or other disturbance resulting from the agricultural operation and shall not be prevented by injunction or other order of a court from carrying on the agricultural operation because it causes or creates odour, noise, vibration, dust, light, smoke or other disturbance that constitutes a nuisance”.

4 Summary of Environmental Impacts

The activity for this involves the drilling of the new production well. Potential Environmental Impacts associated with the drilling activities are limited as the site is already cleared and a gravel pad was previously installed. There could be an accidental release of hazardous materials such as fuels and lubricants during the drilling.

5 Summary of Proposed Mitigation

The potential environmental impacts listed in Section 4 are discussed further below along with any proposed mitigation.

1. Accidental release of hazardous materials: In order to minimize the risk of a release of hazardous materials the following best management practices will be employed during the drilling.
 - Refuelling of equipment, if required, will take place in designated areas where an impermeable surface will be prepared so that a release of fuel or oil does not enter the surface water. The refuelling areas will be located on level terrain and a minimum of 30 metres from any surface water.
 - Any required maintenance work would be performed offsite.

The latest CSA standard for emergency response planning will be reviewed prior to construction. The following standard emergency spill response measures will be followed.

- During drilling absorbent material will be kept on-site at all times for immediate response in the event of a spill.
- In the event of a spill, all work will be stopped and a supervisor notified immediately.
- A record of the incident will be taken which will include the personnel and machinery involved, spill containment measures employed, quantity and type of material spilled, date and time of occurrence, and agencies notified.

All necessary actions will be taken to stop the spread of spilled material. Actions may involve ditching, blocking drainage pathways, and using absorbent materials.

Any spills or leaks, such as those from machinery or fuel storage tanks, will be promptly contained and cleaned up. Actions may involve ditching, blocking drainage pathways, and using absorbent materials. In addition, any spills or leaks will be reported to the 24-hour environmental emergencies reporting system (1-800-565-1633) and to the NBDELG Regional Office in Moncton (506-856-2374).

In addition to the above noted mitigation measures, the following standard NBDTI EMM Mitigative measures will be followed throughout the life of the project:

- 5.10 – Fire Prevention and Contingency
- 5.12 – Spill Management
- 5.13 – Storage & handling of Petroleum Products
- 5.14 - Storage and Handling of other Dangerous Materials
- 5.23 – Working Near Environmentally Sensitive Areas.

The proponent will regularly consult Environment Canada's local forecast at <http://www.weatheroffice.ec.gc.ca/> so that construction-related activities can be scheduled accordingly.

6 Public Involvement

The following stakeholders will be contacted directly via a letter in order to obtain input on the project:

- Elected officials, the local service district, Southeast Regional Planning Commission, First Nations representative and residents within 100metres or abutting the subject property.

The letter will outline the scope of the project and will include a schematic of the development. Contact information for any comments will also be provided. The public will be given thirty days to provide comments. Once the comments have been received, a report will be prepared regarding the public's input. The report will be submitted within sixty days of project registration.


7 Approval of the Undertaking

Approvals will be required from the following authorities: New Brunswick Department of Environment prior to being able to increase the maximum daily water withdrawal beyond 7igpm.

8 Funding

No applications for a grant or loan of capital funds from a government agency have or will be submitted. Gourmet Chef Packers Ltd will be funding the project.

9 Signature


Michael Fisher, P.Eng

Feb. 15th/2019

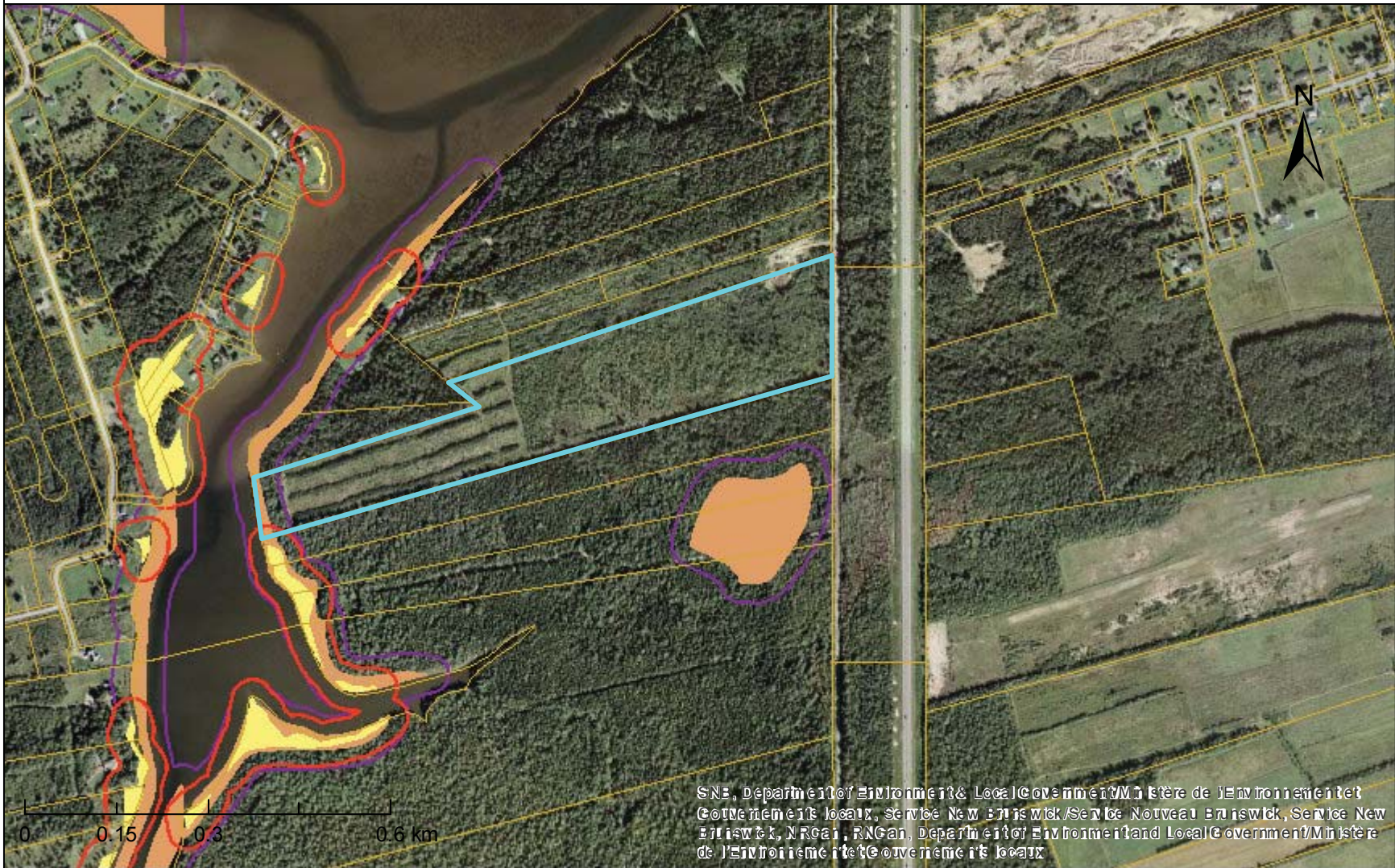
Date

APPENDIX A

FIGURES



Imagery ©2019 Google, Map data ©2019 Google 200 m



Scale/Échelle: 1:10,000

Date: 2/8/2019

Printed by/Imprimé par:

While this map may not be free from error or omission, care has been taken to ensure the best possible quality. This map is a graphical representation of natural and man made features which approximates the size, configuration and location of the features. This map is not intended to be used for legal descriptions or to calculate exact dimensions or area. SNB makes no representations or warranties, either expressed or implied, as to the accuracy of the information and the client assumes the entire risk as to the use of any or all information.

Même si cette carte n'est peut-être pas libre de toute erreur ou omission, toutes les précautions ont été prises pour en assurer la meilleure qualité possible. Cette carte est une représentation graphique d'éléments naturels ou artificiels et donne seulement une approximation de la taille, de la configuration et de l'endroit de ces éléments. Elle n'a pas pour but d'être utilisée pour les descriptions juridiques ou le calcul des dimensions ou de la superficie exacte. SNB n'offre aucune garantie explicite ou implicite quant à l'exactitude de l'information présentée; les clients acceptent pleinement les risques liés à l'utilisation d'une partie ou de l'ensemble de cette information.

APPENDIX B

ADDITIONAL DOCUMENTATION

View of the subject property looking west from the driveway at Beaubassin Road. Site is cleared with construction of the new Agricultural building visible.



Construction of the Agricultural Building well underway.

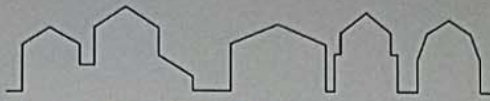




Existing well for the smaller Argo Building located onsite. This well will be monitored during the hydraulic testing.



Soil amendment building located on adjacent parcel owned by the proponent. Second well that will be monitored is located behind this building.



SOUTHEAST Regional Service
Commission

Commission de **SUDEST**
services régionaux

LSD Shediac Bridge - Shediac River

Building Permit / Permis de construction

25785

Permit. No. / No. Du Permis

Master File Number
18-1763

Gourmet Chef Packers Ltd. 70409115
Owner / Propriétaire PID / NID

442 Beaubassin Road, LSD Shediac Bridge - Shediac River
Location / Adresse Lot #

Penniac Construction Ltd. RA / ER
Contractor / Entrepreneur Zone

Construction of 115,000 sq ft Agricultural Building (Offices, Greenhouses and Production)

Purpose / Usage

November-23-18 November 23, 2019
Date issued / Date d'émission Expiration Date/Date d'expiration Building Inspector/Inspecteur du bâtiment

IMPORTANT - READ CAREFULLY

- This is not an occupancy permit.
- Post permit for public view on project site.
- The approval of plans and the issuance of the building permit does not relieve the owner from compliance with all applicable by-laws.
- All work shall be carried out in accordance with any plans & specifications approved by the Building Inspector and in accordance with all applicable Municipal, Provincial or Federal regulations or by-laws including any terms and conditions imposed by the Building Inspector or Regional Service Commission 7.
- This permit may expire, within 6 months of the date of issue if the work authorized has not commenced or when the work has been discontinued or suspended for a period in excess of one year. Where applicable.

IMPORTANT - LIRE ATTENTIVEMENT

- Ce permis ne constitue pas un permis d'occupation.
- Prière d'afficher bien en vue le permis sur l'emplacement du projet.
- L'approbation des plans et du permis de construire ne décharge pas le propriétaire de l'obligation de se conformer aux arrêtés applicable.
- Tout travaux doivent être entrepris conformément aux plans et dévis révisés et approuvés par l'inspecteur des bâtiments et doivent être conforme à tout règlements, ou arrêtés Municipal, Provincial ou Fédéral incluant toutes modalités et conditions imposés par l'inspecteur des bâtiments ou par la Commission de services régionaux.
- Ce permis peut expirer 6 mois suivant sa date de délivrance si les travaux autorisés n'ont pas débutés, le permis expire à la fin des travaux ou, si les travaux ont été suspendues ou discontinués, après une période d'un an. S'il y a lieu.



Gourmet Chef Packers Ltd

342 Main Street, Suite 213
Shediac, New Brunswick
CANADA E4P 2E7

Telephone: 1 (506) 532-4497

Fax: 1 (506) 532-4498

Email: info@GCPackers.com

Web: www.GCPackers.com

Date: November 10, 2016

Subject: Ensure Water Pumping rate at 442 Beaubassin Road, Shediac Cape, NB

Dear Mr. Doucet,

Gourmet Chef Packers is confirming that we will install a Dole Flow Control Valve that would restrict the pumping rate to no more than 7 gal/min.

If any change occurs in the future and requests a greater pumping rate, Gourmet Chef Packers will contact the Department of Environment and Local Government to get their expertise and recommendation, before going ahead in making any changes.

Sincerely,

Marie-France Thibodeau

Director

Gourmet Chef Packers Ltd.

Email: mary@gcpackers.com

APPENDIX C

WASA APPLICATION

**Water Supply Source Assessment
Step One Application
Gourmet Chef Packers Ltd Agricultural Building,
Shediac River, NB**

**Pursuant to Section 3(5) of
The Water Quality Regulation 82-126
Clean Environment Act**

Please answer the following questions:

1) Name of proponent: Gourmet Chef Packers Ltd.

2) The proposed water supply is to be used for what purpose?

New well for Agricultural Building, (office, greenhouses and production).

3) Required water quantity (in m³/day):

The estimated peak water requirement for the proposed full production including future greenhouse expansion is 327 m³/day (50 igpm), which was provided by the mechanical engineer on the project. This will be the peak demand once/if the entire agricultural production facility is expanded to include the proposed 5 additional greenhouse in the future.

4) List alternate water supply sources in area (including municipal systems):

The surrounding areas rely on individual wells to provide groundwater for their potable water supply. The nearest municipal system (Town of Shediac) infrastructure ends approximately 5km from the site. There are no plans to extend the infrastructure to the area.

5) Outline proposed work schedule:

The plan is to drill the new production well for the agricultural building during the winter of 2019. Paul Cassie of Cassie Well Drilling has been retained to complete the drilling. Mr. Cassie drilled the existing well on the property that is currently feeding an existing smaller agricultural building on the property that is located within 100metres of the proposed new well. That well was drilled in 2015. In 2018, Mr. Cassie drilled another well on an adjacent parcel (PID 70573928) for a soil amendment building owned by the proponent. A map showing the existing well locations along with the proposed new well location is attached.

If conditions permit (i.e. minimal recharge conditions) a 72 hr pump test will be performed in the winter of 2019. The intent is to pump the new production well and monitor the response in the surrounding two existing wells. A step-test (three 0.5 hour steps) will be completed at the beginning of the long-term test to determine the optimum pumping rate. Reporting will be completed once the pumping test is performed.

6) Discuss area hydrogeology as it relates to the project requirements:

The regional bedrock geology is mapped as late Carboniferous stratified rock belonging to the Pictou Group, which is a subbasin of the Maritimes Carboniferous Basin. Mapping indicates that within the Pictou Group, the site falls within the Richibucto Formation, which consists mainly of grey multistoried sandstone interstratified with red-mudrock dominated sequences (Rivard et al. 2003).

The Richibucto Formation has been described as one of the more productive sandstone formations in the province and is the best aquifer within Moncton Map-Area (Carr, 1959). The majority of the domestic wells drilled in this formation generally yield 20+ igpm (Carr, 1959).

Available domestic well logs from within a 500m radius of the site are summarized in the attached Table 1. Well yields range from 65 to 654 m³/day (10 to 100 igpm) with a median yield of 262 m³/day (40 igpm). Well depths range from 18.3 to 42.7 m.

Mr. Cassie stated that water wells in the area, especially in an around the subject property are high yielding wells (50igpm +) and typically less than 125'. The two existing wells that will be monitored during the pumping test have estimated safe yields greater than 50igpm and are between 36.6 and 42.7metres deep.

7) Identify any existing pollution or contamination hazards within a (minimum) 500 m radius of the proposed drill targets. If groundwater use problems (quantity or quality) have occurred in the past, then these should be identified. Historical land use that might pose a contamination hazard (i.e. tannery, industrial, disposal, etc.) should also be flagged:

Approximately 40 residential properties are located within a 500 m radius of the subject property with the majority of those properties located on the opposite side of Bateman Brook and Shediac River. These properties are located approximately 1km from the proposed production well location. There do not appear to be any potential sources of contamination on adjacent properties that would be considered up gradient from the site. Historically the site was vacant and forested.

Water quality in the area overall is generally good. Elevated levels of iron, manganese and Turbidity have been encountered at concentrations above their Health Canada drinking water guidelines in groundwater wells within 500m of the subject property. Results of a water sample collected from the well on the subject property was provided. All of the results meet the applicable water guidelines with the exception of manganese. Groundwater samples will be collected during the pumping test and analyzed for the potable water package as recommended in the WSSA guideline.

8) Identify any watercourse(s) (stream, brook, river, wetland, etc.) within 30 m of the proposed drill targets.

There are no watercourses or mapped wetlands within 30 m of the proposed well location. GeoNB mapping was used to assist in locating the proposed well location so that they would be outside the 30metre buffer.

9) Identify site supervisory personnel involved in the source development (municipal officials, consultants and drillers):

The source development consultant is FISHER ENGINEERING LTD.
Cassies Well Drilling is the well driller.

10) Attach a 1:10000 map and/or recent air photo clearly identifying the following:

- **proposed drill targets**
- **domestic or production wells within a 500 m radius from the drill target**
- **any potential hazards identified in question 7**

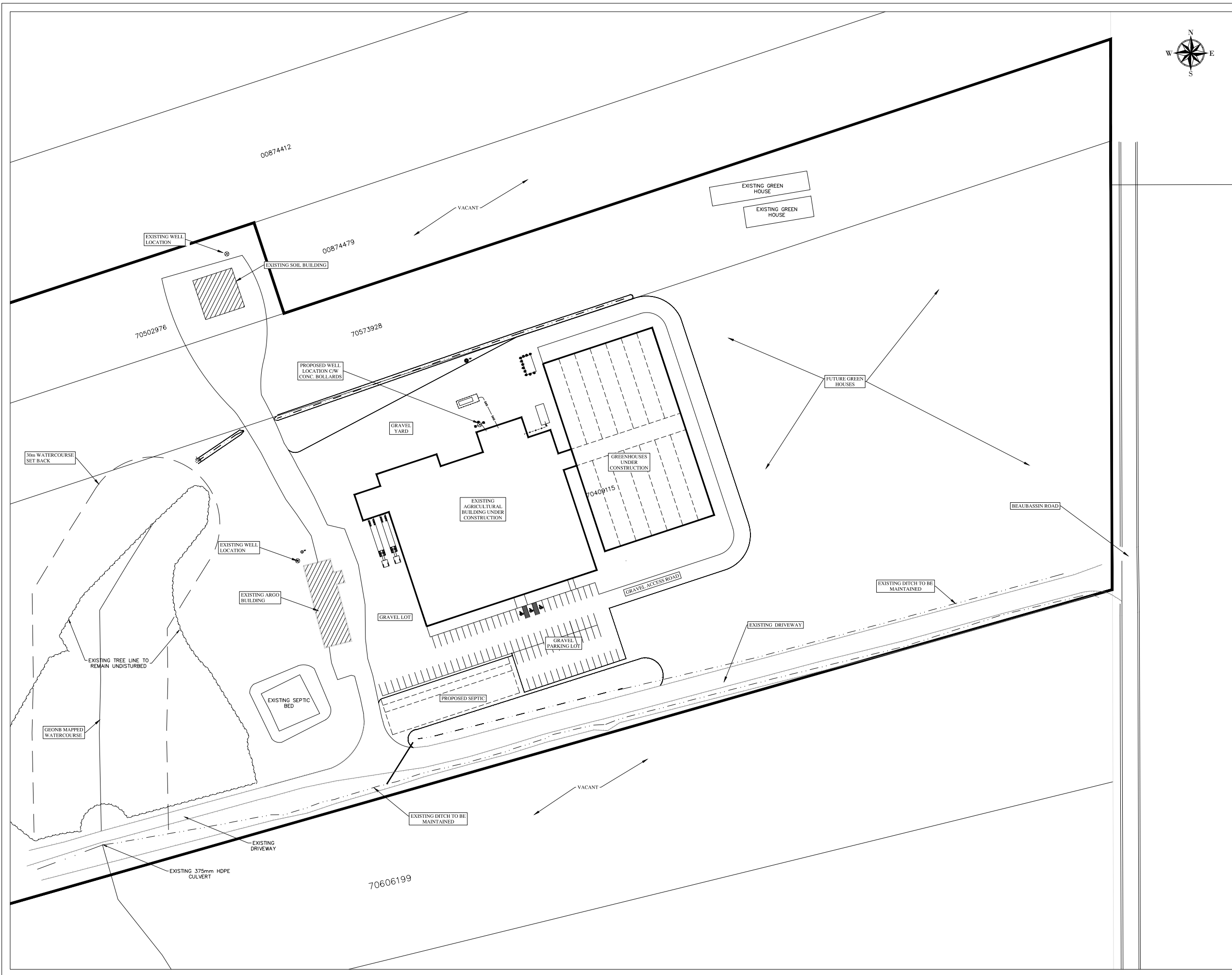
Refer to the attached Figure.

11) Attach a land use / zoning map of the area (if any). Superimpose drill targets on this map.

The proposed development falls within the Beaubassin West Planning Area within the Southeast Regional Service Commission Planning Area. The subject property and surrounding adjacent land are currently zoned Rural Area (Zone RA), which permits agricultural activities.

Enclosures

DS252/Water Supply Source Assessment Application.doc



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 SCALE - METERS 1: 25,000
 SITE LOCATION

| No. | Issue | Date |
|-----|-------|------|
| 1 | | |
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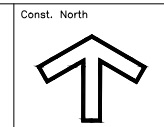
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Drawing Title
SITE PLAN

Project No. **DS252**

Dwg. No. **DS25202r1**

Scale: 15 0 15 30 45
 SCALE - METERS 1: 750



Const. North
 Drawn By: ACB
 Designed By: M.JF
 DWG. Design Ckd. By: M.JF
 SHEET: 1

Table 1 Well Log Summary 500m Radius for PID 70409115

| Well Report | Well | Casing | Rock | Yield | Rock Type |
|-------------|------------|--------|------|--------|-----------|
| | Depths (m) | | | m3/day | |
| 776 | 18.3 | 9.1 | 5.8 | 65 | Sandstone |
| 779 | 30.5 | 22.9 | 2.1 | 65 | Sandstone |
| 1671 | 33.5 | 24.4 | 5.5 | 163 | Sandstone |
| 12815 | 42.7 | 30.5 | 1.2 | 392 | Sandstone |
| 17968 | 36.6 | 27.4 | 2.1 | 327 | Sandstone |
| 24093 | 42.7 | 37.2 | 1.2 | 490 | Sandstone |
| 25661 | 24.4 | 8.5 | 2.4 | 262 | Sandstone |
| 28243 | 18.3 | 9.1 | 8.8 | 65 | Sandstone |
| 29341 | 31.7 | 25.9 | 15.2 | 196 | Sandstone |
| 30923 | 30.5 | 18.3 | 5.5 | 327 | Sandstone |
| 31781 | 24.4 | 9.1 | 4.6 | 105 | Sandstone |
| 32569 | 42.7 | 6.4 | 3.0 | 654 | Sandstone |
| 35270 | 30.5 | 16.2 | 3.0 | 65 | Sandstone |
| 33186 | 24.4 | 18.3 | 6.1 | 196 | Sandstone |
| 33299 | 25.0 | 18.3 | 1.2 | 327 | Sandstone |
| 35493 | 36.6 | 24.4 | 2.1 | 654 | Sandstone |
| 37004 | 36.6 | 22.3 | 1.5 | 327 | Sandstone |
| 39171 | 21.3 | 17.4 | 15.2 | 327 | Sandstone |
| 39486 | 30.5 | 18.9 | 11.3 | 262 | Sandstone |
| 90817200 | 29.0 | 17.7 | 17.7 | 98 | Sandstone |

| | | | | |
|---------|------|------|------|-----|
| Max | 42.7 | 37.2 | 17.7 | 654 |
| Min | 18.3 | 6.4 | 1.2 | 65 |
| Average | 30.5 | 19.1 | 5.8 | 268 |
| Median | 30.5 | 18.3 | 3.8 | 262 |

NBDELG Water Quality Results, 500m Radius of PID 70409115

| Parameter | CCME DWQG | unit | Sample | | | | | | | | | | |
|-------------------|-----------|------|--------|--------|--------|-------|--------|--------|--------|--------|-------|--------|--------|
| | | | <0.025 | <0.025 | <0.025 | 0.054 | <0.025 | <0.025 | <0.025 | <0.025 | 0.028 | <0.025 | <0.025 |
| Aluminum | | mg/L | <0.025 | <0.025 | <0.025 | 0.054 | <0.025 | <0.025 | <0.025 | <0.025 | 0.028 | <0.025 | <0.025 |
| Alkanity | | mg/L | 73.5 | 63.1 | 121 | 93.2 | 103 | 128 | 90.9 | 95.4 | 79.3 | 97.5 | 83.8 |
| Arsenic | 10 | µg/L | <1.5 | <1.5 | <1.5 | <1.5 | 1.6 | <1.5 | <1.5 | 2 | 2.9 | <1.5 | 1.9 |
| Boron | 5 | mg/L | <0.01 | 0.013 | 0.016 | <0.01 | <0.01 | 0.013 | <0.01 | 0.013 | 0.03 | 0.025 | 0.01 |
| Barium | 1 | mg/L | 0.347 | 0.333 | 0.325 | 0.29 | 0.561 | 1.2 | 0.267 | 0.258 | 0.149 | 0.347 | 0.277 |
| Bromine | 10 | mg/L | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Calcium | | mg/L | 22.8 | 27.7 | 12.7 | 28.1 | 18.9 | 25.5 | 28.6 | 17.7 | 12.2 | 57.8 | 25.4 |
| Cadmium | 5 | µg/L | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Chloride | 250 | mg/L | 4.46 | 44 | 77.2 | 4.1 | 4.92 | 5.09 | 8.66 | 5.61 | 4.37 | 61.1 | 3.98 |
| Conductivity | | | 162 | 270 | 507 | 193 | 222 | 264 | 208 | 226 | 190 | 409 | 191 |
| Chromium | 50 | µg/L | <10 | <10 | 12 | 14 | 11 | <10 | <10 | <10 | <10 | <10 | <10 |
| Copper | 1000 | µg/L | 20 | <10 | <10 | <10 | <10 | <10 | 17 | <10 | <10 | <10 | <10 |
| E-coli | | | Ab | Ab | Ab | Ab | Ab | Ab | Ab | Ab | Ab | Ab | Ab |
| Floride | 1.5 | mg/L | 0.112 | 0.147 | <0.1 | 0.17 | <0.1 | <0.1 | 0.186 | <0.1 | <0.1 | <0.1 | 0.164 |
| Iron | 0.3 | mg/L | 0.258 | 0.168 | 0.437 | 1.04 | 0.718 | 0.257 | 0.205 | 0.045 | 0.077 | 0.03 | 0.978 |
| Hardness | | mg/L | 67.9 | 85.5 | 34.7 | 86.8 | 51.5 | 71 | 88.4 | 49.9 | 36.4 | 171 | 81.1 |
| Potassium | | mg/L | 0.75 | 1.82 | 0.8 | 1.3 | 1.1 | 1.3 | 1.2 | 0.9 | 0.8 | 0.9 | 2.2 |
| Magnesium | | mg/L | 2.66 | 3.98 | 0.69 | 4.01 | 1.01 | 1.79 | 4.1 | 1.41 | 1.45 | 6.39 | 4.28 |
| Mangnesium | 0.05 | mg/L | 0.006 | 0.126 | 0.079 | 0.091 | 0.085 | 0.064 | 0.015 | 0.037 | 0.005 | 0.63 | 0.092 |
| Sodium | 200 | mg/L | 7.56 | 18 | 68.8 | 6.59 | 28.7 | 29.9 | 8.88 | 30.4 | 28.7 | 11.8 | 7.99 |
| Nitrite | | mg/L | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Nitrate | 45 | mg/L | 0.14 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Nitrite + Nitrate | | mg/L | 0.19 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| Lead | 10 | µg/L | 1.8 | <1 | 4.2 | 2 | <1 | <1 | 2.1 | <1 | <1 | <1 | <1 |
| pH | 6.5-9.0 | | 8.02 | 8.03 | 8.77 | 8.15 | 8.31 | 8.36 | 8.13 | 8.19 | 8.18 | 8.09 | 8.2 |
| Antimony | 6 | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Selenium | 10 | µg/L | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 | <1.5 |
| Sulphate | 500 | mg/L | 4.25 | 13.3 | 10.9 | 4.51 | 5.2 | 4.75 | 4.45 | 7.77 | 7.2 | 5.44 | 4.53 |
| TDS | 500 | mg/L | 88 | 147 | 245 | 106 | 123 | 146 | 111 | 122 | 103 | 203 | 100 |
| Titanium | | µg/L | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Turbidity | 1 | µg/L | 1.81 | 2.89 | 3.2 | 16 | 1.8 | 1.2 | 2.2 | 0.22 | 0.38 | 0.2 | 4.5 |
| Uranium | 20 | µg/L | <0.5 | 3.3 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| Zinc | 5000 | µg/L | 33 | <5 | <5 | <5 | <5 | <5 | 33 | <5 | <5 | <5 | <5 |

CCME - Canadian Council of Ministers of the Environment

DWQG - Drinking Water Quality Guidelines.

Value does not meet applicable guideline

Subject: rapport de puits identifié : 0051575

Date: Thursday, 6 August, 2015 3:23:33 PM Atlantic Daylight Time

From: Chiasson, Marilynne (ELG/EGL) <Marilynne.Chiasson@gnb.ca>

To: 'mary@gcpackers.com' <mary@gcpackers.com>



Government Well Driller's Report

0051575

70409115

Environment and Local

Report Number 32569

Well Tag ID

PID

Latitude N/A

Longitude N/A

Date printed 06-Aug-2015

Well Owner(s)

Gourmet Chef Packers

Address Suite 213
342 Main Street
Shediac, NB
E4T2E7

Telephone Nbr (506) -
Fax Nbr (506) -

Well Location 442 Beaubassin Road, Shediac Cape, NB,
Drilled by Caissie Well Drilling Ltd, Lic 207 (PAUL CAISSIE, Lic. 311)

Well Use Drinking Water, Domestic
Work Type New Well
Drill Method Rotary
Work Completed 18-Sep-2014

Casing Information

Casing above ground 2ft

Drive Shoe Used? Yes

Well Log Casing Type Diameter From To Slotted?
32569 Steel 6 inch (6.in) 0ft 2ft

Aquifer Test/Yield

Method Initial Water Level (BTC) Pumping Rate Duration Final Water Level (BTC) Estimated Safe Yield Flowing Well? Rate
Air 6ft 100.0 igpm 1hr 6ft 100.0 igpm No 0.0 igpm
(BTC - Below top of casing)

Well Grouting

Drilling Fluids Used

Disinfectant

Pump Installed

There is no Grout information.

None

12% NaOCl

Submersible

Qty 0.0 igal Intake Setting (BTC) 140ft

Driller's Log

Well Log From To Colour Rock Type Overall Well Depth 140ft
32569 0ft 8ft Brown Sand Bedrock Level 0ft
32569 8ft 10ft Brown Clay
32569 10ft 60ft Grey Sandstone
32569 60ft 70ft Brown Clay
32569 70ft 140ft Grey Sandstone

Water Bearing Fracture Zone

Setbacks

Well Log Depth Rate Well Log Id Distance Setback from
32569 130ft 100.0 igpm 32569 200ft Right of any Public Way Road
32569 2033ft Center of road
32569 100ft Septic Tank

32569

120ft

Leach Field

Sample Information

The information shown was entered using the Groundwater Information Management System (GWIMS)

There is no related sample information.

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Environment/Environnement

Analytical Services Laboratory/Laboratoire des services analytiques
12, rue McGloin Street, Fredericton, NB E3A 5T8

Inorganic Final Report / Rapport inorganique

Client information du Client:

Date Finalized/Finalisée: 2015/08/18

Name/Nom: Gourmet Chef Packers
Address/Adresse: Marie-France Thibodeau
342 Main Street Suite 213
Shediac NB E4P2E7

Tel. No./No. de tel.: (506) 532-4497
Client ID/No. de Client: 0126

Order No./No. de l'ordre : **150809801**

Matrix/Matrice: Drinking Water/Eau potable
Sample Type/Type d'échantillon: Drilled well / Puits foré
Reason/Raison: New Well Act

| | |
|---|-------------------------------------|
| Field No./No. d'Échantillon: | ES5380 |
| Location of Property/ location du propriété: | 442 Beaubassin Road Shediac Cape |
| Health Region/Région de santé publique: | 01 |
| Well I.D./Puits, identification du: | 0051575 |
| PID No./NID: | 70409115 |
| Date Collected/Date de prelevement: | 2015/08/11 |
| Date Received/reçu: | 2015/08/12 |

| | |
|-------------------------|---|
| Authorization/Autorité: | Lori Lamey |
| Title/Titre: | Inorganic Manager/Gérante d'inorganique |

| Parameter/ paramètre | Method/méthode | Flag/ Avis | Result/ Résultats | Units/ Unités | L.O.Q./ L.D.Q./ | Guideline/Indicateur | |
|--|------------------|---------------|----------------------|------------------|--------------------|----------------------|---------------|
| | | | | | | M.A.C./ C.M.A. | A.O./ O.E. |
| Sodium | EPA 200.7 (Mod.) | | 11.8 | mg/L | 0.10 | | 200 |
| Sulfate | SM 4110B (Mod.) | | 5.44 | mg/L | 0.050 | | 500 |
| Thallium | EPA 200.8 (Mod.) | | < 1.0 | µg/L | 1.0 | | |
| Total Hardness-Calc./Dureté totale-Calculé ‡ | EPA 200.7 (Mod.) | | 171 | mg/L | 0.67 | | |
| Turbidity/Turbidité | SM 2130B (Mod.) | | < 0.2 | NTU | 0.2 | 1.0 | |
| Uranium | EPA 200.8 (Mod.) | | < 0.5 | µg/L | 0.5 | 20 | |
| Zinc | EPA 200.8 (Mod.) | | < 0.005 | mg/L | 0.005 | | 5.0 |

| Calculated Parameters/Paramètres calculés | | | |
|---|------|----------------|-------|
| Sum of Cations | 3.97 | Sum of Anions | 3.80 |
| | | % Difference | -2.31 |
| Saturation Index @ 25°C | 0.52 | CO3(as CaCO3) | 1.11 |
| | | HCO3(as CaCO3) | 96.32 |

[L.O.Q.] Limit of quantitation
[M.A.C.] Maximum Acceptable Concentration (Drinking water only)
[A.O.] Aesthetic Objective
‡ Non-Accredited Parameter

[L.D.Q.] Limite de quantification
[C.M.A.] Concentration maximale acceptable (Eau potable seulement)
[O.E.] ordre esthétique
‡ Paramètre non accrédité

Results reported refer only to the sample(s) as received.

Les résultats fournis ne se rapportent qu'aux échantillons dans l'état où ils ont été reçus.

For an interpretation of your results, please contact the regional public health office in your area.

Pour une interprétation de vos résultats veuillez contacter le bureau de santé publique dans votre région.



Environment/Environnement

Analytical Services Laboratory/Laboratoire des services analytiques

12, rue McGloin Street, Fredericton, NB E3A 5T8

Inorganic Final Report / Rapport inorganique

Client information du Client:

Date Finalized/Finalisée: 2015/08/18

Name/Nom: Gourmet Chef Packers
 Address/Adresse: Marie-France Thibodeau
 342 Main Street Suite 213
 Shediac NB E4P2E7

Tel. No./No. de tel.: (506) 532-4497
 Client ID/No. de Client: 0126

Order No./No. de l'ordre : **150809801**

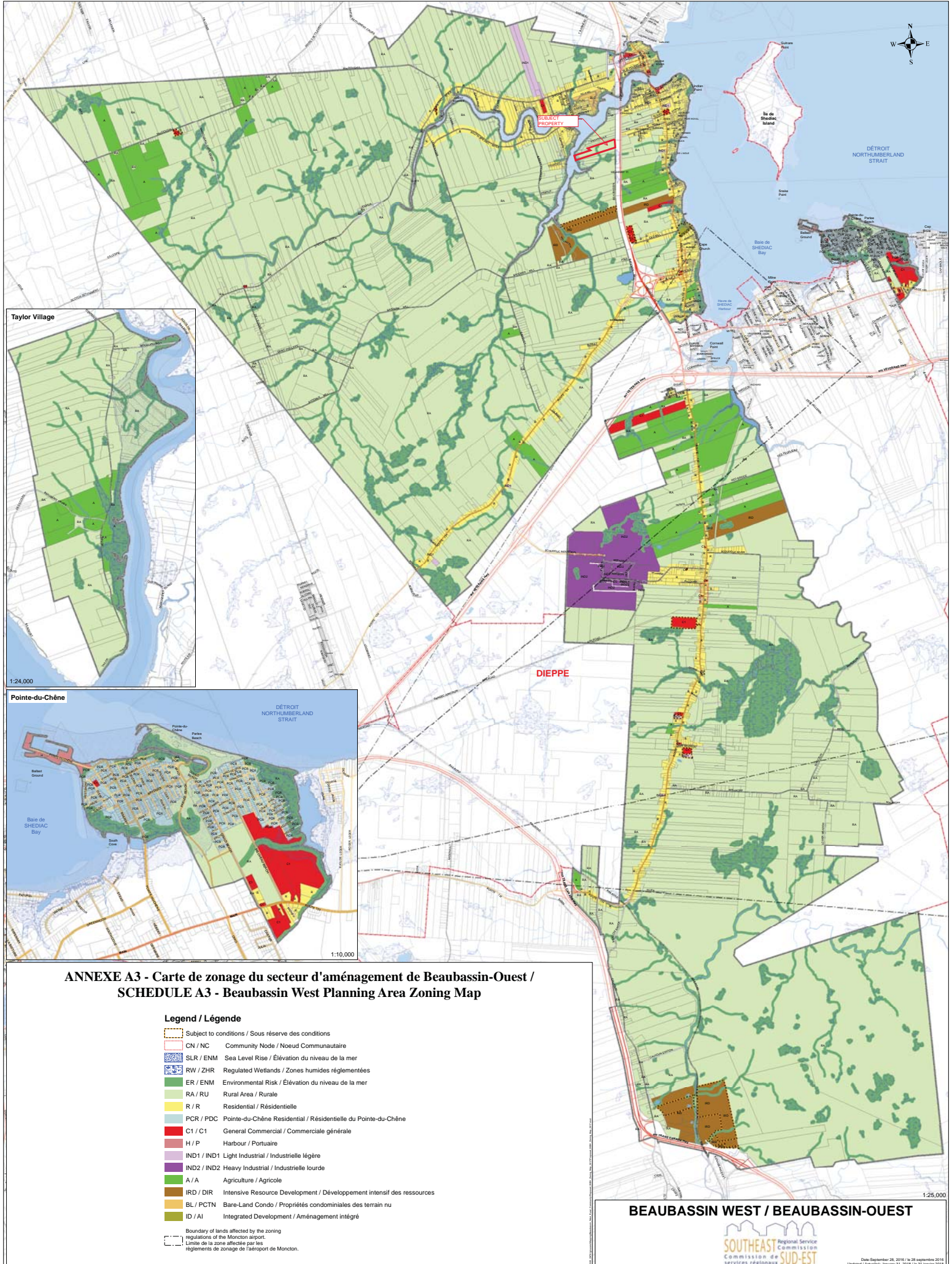
Matrix/Matrice: Drinking Water/Eau potable
 Sample Type/Type d'échantillon: Drilled well / Puits foré
 Reason/Raison: New Well Act

Field No./No. d'Échantillon: ES5380
 Location of Property/
 location du propriété: 442 Beaubassin Road
 Shediac Cape

Health Region/Région de santé publique: 01
 Well I.D./Puits, identification du: 0051575
 PID No./NID: 70409115
 Date Collected/Date de prelevement: 2015/08/11
 Date Received/reçu: 2015/08/12

Authorization/Autorité: Lori Lamey
 Title/Titre: Inorganic Manager/Gérante d'inorganique

| Parameter/ paramètre | Method/méthode | Flag/ Avis | Result/ Résultats | Units/ Unités | L.O.Q./ L.D.Q./ | Guideline/Indicateur | |
|--|----------------------|---------------|----------------------|------------------|--------------------|----------------------|---------------|
| | | | | | | M.A.C./ C.M.A. | A.O./ O.E. |
| Alkalinity/Alcalinité | SM 2320B (Mod.) | | 97.5 | mg/L | | | |
| Aluminum/Aluminium | EPA 200.8 (Mod.) | | < 0.025 | mg/L | 0.025 | | |
| Antimony/Antimoine | EPA 200.8 (Mod.) | | < 1.0 | µg/L | 1.0 | 6.0 | |
| Arsenic | EPA 200.8 (Mod.) | | < 1.5 | µg/L | 1.5 | 10.0 | |
| Barium/Baryum | EPA 200.8 (Mod.) | | 0.347 | mg/L | 0.010 | 1.0 | |
| Boron/Bore | EPA 200.7 (Mod.) | | 0.025 | mg/L | 0.010 | 5.0 | |
| Bromide/Bromure | SM 4110B (Mod.) | | < 0.100 | mg/L | 0.100 | | |
| Cadmium | EPA 200.8 (Mod.) | | < 0.5 | µg/L | 0.5 | 5.0 | |
| Calcium | EPA 200.7 (Mod.) | | 57.8 | mg/L | 0.10 | | |
| Chloride/Chlorure | SM 4110B (Mod.) | | 61.1 | mg/L | 0.050 | | 250 |
| Chromium/Chrome | EPA 200.8 (Mod.) | | < 0.010 | mg/L | 0.010 | 0.050 | |
| Conductivity/Conductivité | SM 2510B (Mod.) | | 409 | µS/cm | | | |
| Copper/Cuivre | EPA 200.8 (Mod.) | | < 0.010 | mg/L | 0.010 | | 1.0 |
| Fluoride/Florure | SM 4500-F-C (Mod.) | | < 0.100 | mg/L | 0.100 | 1.5 | |
| Iron/Fer | EPA 200.7 (Mod.) | | 0.030 | mg/L | 0.010 | | 0.300 |
| Lead/Plomb | EPA 200.8 (Mod.) | | < 1.0 | µg/L | 1.0 | 10 | |
| Magnesium/Magnésium | EPA 200.7 (Mod.) | | 6.39 | mg/L | 0.10 | | |
| Manganese/Manganèse | EPA 200.8 (Mod.) | | 0.63 | mg/L | 0.005 | | 0.05 |
| Nitrate as N-calc./Nitrate comme N-calculé ‡ | SM 4500-NO3 I (Mod.) | | < 0.05 | mg/L | 0.05 | 10.0 | |
| Nitrate-nitrite as N / Nitrate-nitrite comme N | SM 4500-NO3 I (Mod.) | | < 0.05 | mg/L | 0.05 | | |
| Nitrite as N / Nitrite comme N | SM 4500-NO3 I (Mod.) | | < 0.05 | mg/L | 0.05 | 1.0 | |
| pH | SM 4500-H+B (Mod.) | | 8.09 | | | | |
| Potassium | EPA 200.8 (Mod.) | | 0.9 | mg/L | 0.10 | | |
| Selenium/Sélénium | EPA 200.8 (Mod.) | | < 1.5 | µg/L | 1.5 | 10 | |



**ANNEXE A3 - Carte de zonage du secteur d'aménagement de Beaubassin-Ouest /
SCHEDULE A3 - Beaubassin West Planning Area Zoning Map**

Legend / Légende

- Subject to conditions / Sous réserve des conditions
- CN / NC Community Node / Noeud Communautaire
- SLR / ENM Sea Level Rise / Élévation du niveau de la mer
- RW / ZHR Regulated Wetlands / Zones humides réglementées
- ER / ENM Environmental Risk / Élévation du niveau de la mer
- RA / RU Rural Area / Rurale
- R / R Residential / Résidentielle
- PCR / PDC Pointe-du-Chêne Residential / Résidentielle du Pointe-du-Chêne
- C1 / C1 General Commercial / Commerciale générale
- H / P Harbour / Portuaire
- IND1 / IND1 Light Industrial / Industrielle légère
- IND2 / IND2 Heavy Industrial / Industrielle lourde
- A / A Agriculture / Agricole
- IRD / DIR Intensive Resource Development / Développement intensif des ressources
- BL / PCTN Bare-Land Condo / Propriétés condominales des terrain nu
- ID / AI Integrated Development / Aménagement intégré

Boundary of lands affected by the zoning regulations of the Moncton airport.
 Limite de la zone affectée par les règlements de zonage de l'aéroport de Moncton.

BEAUBASSIN WEST / BEAUBASSIN-OUEST

