1.0 THE PROPONENT

Table 1 – Proponent Information

Name of Proponent	Matt Harris and Son Ltd c/o Hughes Surveys and Consultants Inc.
Address of Proponent	130 Wilsey Road Fredericton Junction, NB E5L 1W9 368-2844
Chief Executive Officer	Matt Harris 130 Wilsey Road Fredericton Junction, NB E5L 1W9 368-2844
Principal Contact Person for purposes of Environmental Impact Assessment	Richard Turner 575 Crown Street Saint John, NB E2L 5E9 634-1717 Email: rt@hughessurveys.com

2.0 THE UNDERTAKING

(i) Name of Undertaking: Johnston Estates Subdivision

(ii) Project Overview

THE PURPOSE OF THIS SUBMISSION IS TO PROVIDE BACKGROUND INFORMATION, ENTER INTO PRELIMINARY DISCUSSIONS WITH REGULATORS AND REGISTER THE PROJECT.

The proponent is proposing to expand an existing residential development in the Rusagonis area. Johnston Estates currently consists of approximately 31 fully developed lots with many residences already established. A further 15 lots have received tentative approval from RPC and are fully developed to a building ready state. It is anticipated that final approval will be received for the 15 tentatively approved lots from the Regional Service Commission and the lots can then be registered upon a preliminary application being received by the Department of Environment and Local Government under the Environmental Impact Regulation requesting a review. Sales are pending on the lots and the purchased home sales ready to be closed.

Johnston Estates Subdivision is adjacent to two existing subdivisions – Harris Estates and O'Leary Estates. Each of these subdivisions has been developed over time and in phases. There are currently 111 developed lots in these two adjacent subdivisions. Upon reaching approvals for just under 50 lots in the Harris Estates Subdivision the developer, Matt Harris and Son Ltd., was advised that an EIA review would be required before proceeding further.

In order to keep his business operating the developer had been considering bringing other family members in as partners to manage the future development so he could explore other business opportunities. With the understanding that other lands owned by the developer bearing separate title and PID numbers could be considered as a separate development Carrie Estates was formed as a separate family business undertaking so development could proceeded and be managed by others in his absence should his business opportunities take him out of town or the province. Carrie Estates developed the O'Leary Estates portion of the development over the ensuing next few years.

An Environmental Impact Assessment was applied for by Matt Harris & Son Ltd. and Carrie Estates Ltd. and carried out for future development of Harris and O'Leary Estates Subdivisions in 2012. Upon completion of the EIA review, approval to proceed was given on the condition that all future development is to occur in accordance with Certificate of Determination # 4561-3-1338 dated December 30, 2013.

With the knowledge that an EIA review, in some cases, can take considerable time and expense the developer acquired the lands now being developed as Johnston Estates. Having an area that could be developed as a separate project enabled the developer to keep their business running and his employees in work otherwise potentially losing them to other out of province employers. Application was made to the planning commission and tentative approval of 46 lots was granted. The developers' intention was to file for an EIA review for the lands included in this application as soon as a 50-lot threshold was reached as he understood to be required by the planning commission.

It is proposed that any determination made with respect to this registration be merged with the existing Certificate to encompass all three subdivisions. Once this current project has been approved, we propose the three subdivisions be treated as one project for all future development and required reporting. Further discussion on this point is required so any consequences can be considered. If it is appropriate to keep the projects separate this can also be considered.

At present the developer is working out of province with most of his staff. During the review period for the Johnston Estates Subdivision project development activities will be suspended on the undeveloped portion of PIDs 60030095 and 60174588. Development of the Harris Estates and O'Leary Estates Subdivisions will continue under the approved Certificate of Determination conditions.

(iii) Need for the Undertaking

The developer has paced development in accordance with Rural Service Commission approvals, market demand and availability of their resources. Upon recently being made aware of details with respect to triggers and interpretations respecting what constitutes the necessity to file for an Environmental Impact Assessment (EIA) review, this preliminary submission is being made in order to register the undeveloped portion of PID 60174588 & 60030095.

The purpose of the proposed undertaking is to allow for the expansion of a current subdivision in order to accommodate the growing demand for rural building lots in the Fredericton/Oromocto area. The subdivision provides premium treed lots, 1 acre and up, in close proximity to Fredericton and Oromocto.

(iv) Project Location

The subject site comprises of a portion of PIDs 60030095 and 60174588 in Rusagonis, Sunbury County, New Brunswick. The property covers a total area of approximately 73 hectares. The property is located off of Wilsey Road and is shown in **Figure No. 1**, which also shows the location of O'Leary & Harris Estates Subdivisions.

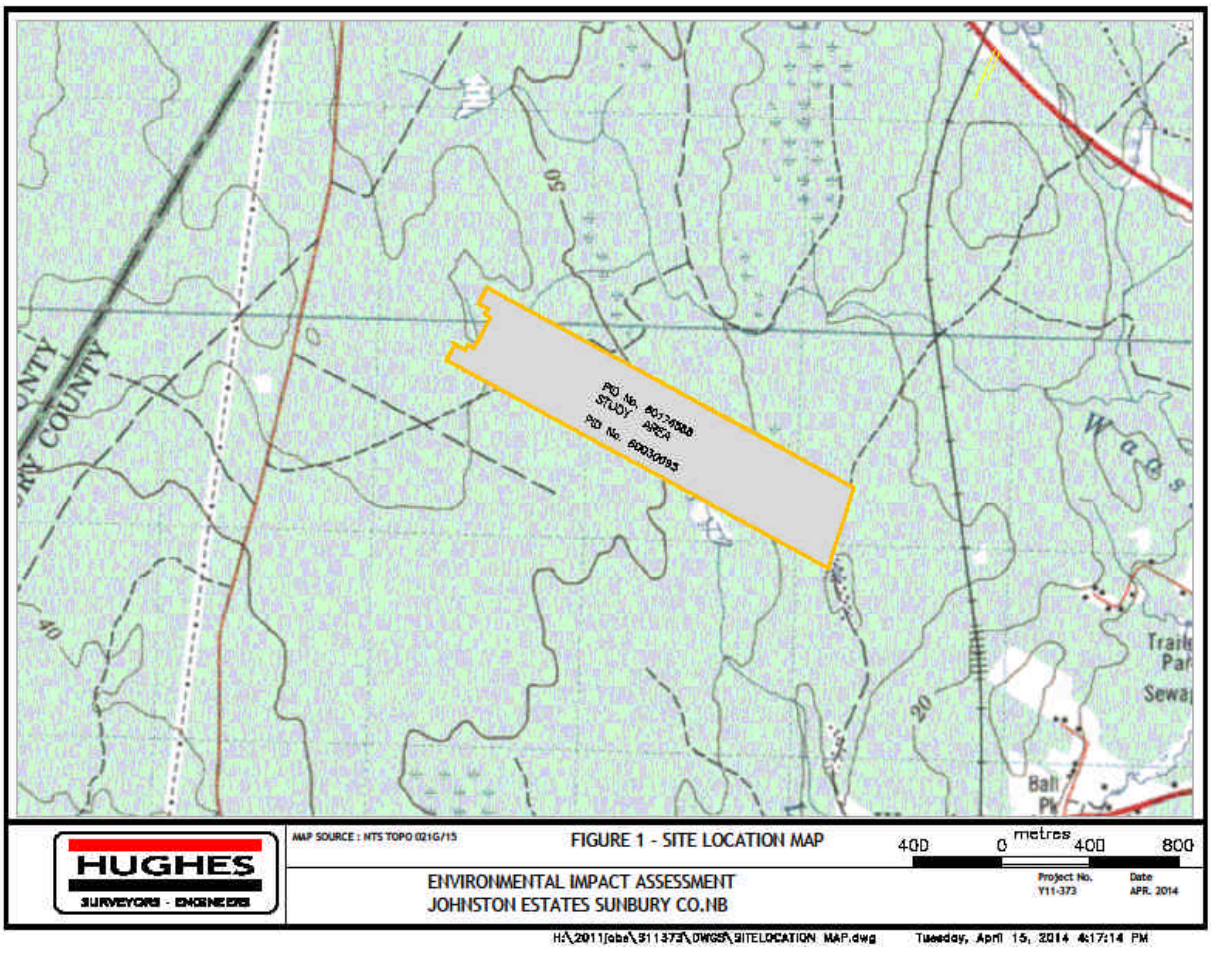


Table 2 – Adjoining Properties

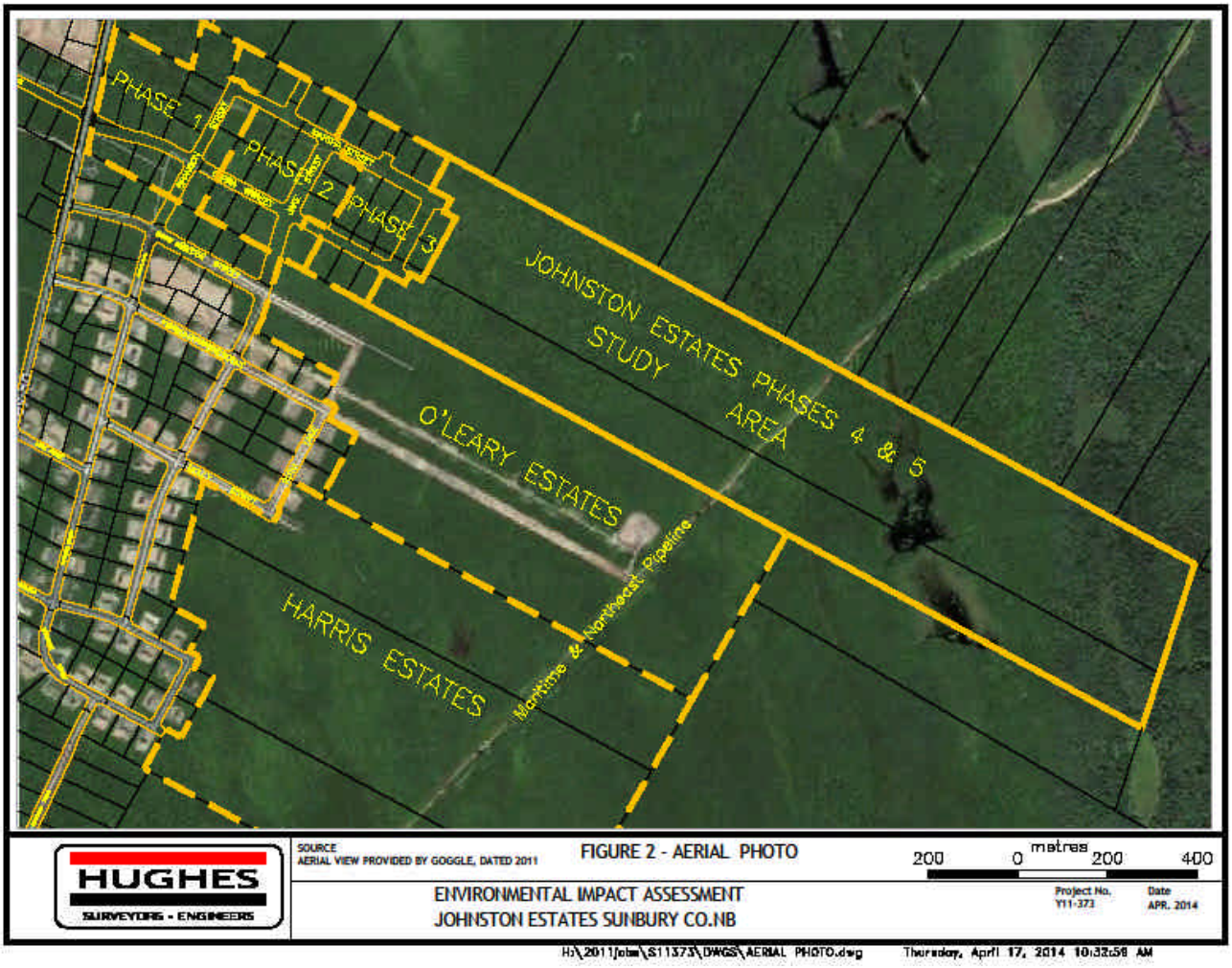
BOUNDARY SIDE OF SITE	OWNER AND PROPERTY IDENTIFICATION NUMBER (PID)
North	PID: 60031572
	Owner: Horizon Development Ltd PID: 60042421
	Owner: Scott's Nursery Ltd PID: 60116191
	Owner: Northrup Holdings Ltd PID: 60117819
	Owner: Northrup Holdings Ltd PID: 60123981
	PID: 60029360
	Owner: Irving Oil Limited PID: 60177755
	PID: 60029634
	PID: 60027018
	PID: 60028487
East	PID: 60030574
South	Owner: Carrie Estates Ltd PID: 60031267
	PID: 60032901
West	Phase 3 of Johnston Estates consisting of proposed public streets and pad ready building site.

(v) Siting Considerations

The design of the subdivision, including previously developed phases and the proposed expanded phases, generally follow accepted industry standards, the *Provincial Subdivision Regulation* (Regulation 80-159) and the *Provincial Setback Regulation* (Regulation 84-292) under the *Community Planning Act*.

(vi) Physical Components and Dimensions of the Project

An aerial photo showing the study area, previous phases of Johnston Estates and their relationship to O'Leary Estates and Harris Estates subdivisions is included as **Figure 2**.



(A) CONSTRUCTION

As is the case with the adjacent Harris and O'Leary Estates, Johnston Estates Subdivision is designed to be constructed, operated, maintained and abandoned using applicable standards and methods that are in accordance with the applicable Acts, permits, authorizations, guidelines and regulations. Summarized below are the details of the work that will be completed for the expansion of the subdivision.

a. Subdivision Layout

The layout of the subdivision, including existing phases is done by a licensed NB Land Surveyor following industry accepted best practices and the applicable Acts and regulations. The document that sets out specifics with respect to the construction is the Department of Transportation and Infrastructure "Guide to the Minimum Standards for the Construction of Subdivision Roads & Streets" (the guide).

Future expansion of Johnston Estates will be completed in two phases generally consisting of approximately 30 lots in each phase and will be surveyed upon receiving a Certificate of Determination and tentative approval of the proposed subdivision plan by the Regional Service

Commission. The subdivision is being developed as per a master subdivision plan devised for the entire subject property which shows how it may be tied into the existing Master Plan for Harris Estates and O'Leary Estates Subdivisions. The lot layout and street design of the future expansion will be completed generally in accordance with the master plan, attached as **Figure 3**, which also shows the outline of O'Leary Estates, Harris Estates and previously developed Phases 1, 2 & 3 of Johnston Estates. A Tentative Plan of the future phases of Johnston Estates is attached as **Figure 4**. The plan will be submitted to the Regional Planning Commission for consideration later this season for comments and approval subject to the EIA determination.

It should be noted that adjustments to the layout may be required as the proposal proceeds through the various approval processes. The area east of the Maritimes and North East Pipeline Corridor may be subject to a substantial adjustment depending on the final outcome of storm water attenuation requirements.

The layout of the subdivision minimizes the need for watercourse crossings and does not propose road or building lot development within any 30 metre buffer or provincially regulated wetlands.

One aspect of this development will be to review proposals to use the regulated wetland to attenuate storm water flows. We look forward to consulting with representatives in the Sustainable Development & Impact Evaluation Branch early in this process to determine whether this can be done in a manner that will respond to the social, economic and environmental aspects of the development.

The layout of the subdivision is designed generally in accordance with the *Community Planning Act* and the associated Provincial Subdivision Regulations which indicate that all lots will have a minimum width of 54 metres, a minimum depth of 38 metres and a minimum area of 4,000 square metres. Minor variances are sometimes necessary.

b. Road Construction

As mentioned, development will occur in phases and stages. Prior to detailed design and commencement of construction the proposed centreline will need to be surveyed. This involves completing a survey of the centreline of the proposed roads and also involves cutting an approximately 2 metre wide path through the standing timber where applicable.

Clearing is the process of removing the standing trees from the proposed alignment to make way for the roadbed and services (power lines). Clearing activities will adhere to the applicable regulatory requirements and will only be done on an as-required basis. Clearing activities will be scheduled to take place outside of the migratory birds breeding season. Merchantable trees/timber, where practical, should be salvaged by the proponent and non-merchantable trees/timber shall be shredded/mulched. A rubber tire mechanical harvester and skidder will be used to remove the timber and transport it to a stockpile are where it will be loaded onto a grappler equipped timber transport truck.

Once the proposed route has been cleared, it is then grubbed. Grubbing is the process of removing the stumps, roots, rock and organic matter from the new road right of ways after it has been

cleared. Grubbed materials will be disposed of onsite outside of any 30 metre wetland or watercourse buffers.

The proposed roadways will occupy a 25 to 30 metre wide right of way that will have to be graded and levelled with generally involves modifying the topography of the route by cutting and filling to the bring the proposed route to design grade. The removal of material for construction of subgrade (bottom layer of material) may involve one or more methods of excavation, including common excavation and rock excavation. Common excavation is the removal of overburden, including till, smaller boulders, and topsoil. Rock excavation is the excavation of rock, which is considered to be bedrock or single pieces greater than once cubic metre in size. Cuts in "soft" rock can be accomplished using ripper blades attached to larger heavy equipment, breaking up the rock so that it can be loaded onto trucks with an excavator or loader. This procedure tends to be successful in softer rock such as shale and sandstones, and in areas here the bedrock surface is highly weathered and/or fractured. It is anticipated that blasting will not be required to excavate rock cuts during the construction phase of Johnston Estates Subdivision.

The development of a drainage system and installation of culverts is generally conducted during the grading/levelling process. Roadside ditches completed to meet or exceed the minimum standards set out in the minimum standards guide will direct surface water away from the residential properties and road network and into natural drainage systems. Drainage ditches will be tamped and hay/straw will be placed in designated spots and will be maintained until permanent vegetation, after hydro-seeding, has been established. Exact details of erosion and sedimentation control will be laid out in the Environmental Protection Plan. There is one DNR mapped regulated wetland/ watercourse within the property boundaries. An overall storm-water management plan is included with the EIA Report that was submitted for the Harris Estates and O'Leary Estates Subdivisions. It will be supplemented by a further report to cover the subject property. Each phase of development also requires a phase specific storm-water management plan to be developed and carried out.

Sub-grade is the bottom layer of material on a road, providing strength and stability. Subgrade is constructed by spreading acceptable fill, either from cuts or suitable borrow source, in a layer of specified thickness, using moisture control procedures, and compacted to a specified density. Subsequent layers are added until the desired elevation is reached. Where feasible, as determined by suitability of the material and hauling costs, material excavated from the area will be used for fill. If the excavated material is determined to be unacceptable for road building, acceptable materials will be imported from nearby borrow sources.

Once the subgrade has been developed, a granular graded structural bases known as sub-base and base is prepared. The sub-base course (gravel or crushed rock) is placed immediately above the subgrade and consists of free draining material superior in quality to that used for subgrade. The base course I placed immediately above the sub-base to provide structural integrity and good drainage and beneath the finished road surface.

Vehicles used in sub-grade, sub-base and base construction typically include excavators, bulldozers, rollers trucks and graders. Most of these vehicles operate on diesel fuel and require some form of daily maintenance. The vehicles typically operate continuously for 12-hour shifts. Truck traffic

during construction will primarily be confined to on-site operations and to transport exported/imported material for cut and fill operations.

Conventional chip-seal will be used in the construction of this project. A thin base of asphalt will be sprayed onto the compacted base and then a thin layer of chips is placed on the surface of the sprayed asphalt, and finally the surface is swept and compacted with a roller. DTI can be provided with a cash surety to cover the chip-seal who in turn will complete this portion of the construction.

Vehicles typically used in base and chip seal construction include pneumatic tire and steel drum rollers, graders, dump trucks and asphalt sprayers. The chip seal is expected to be obtained from a local contractor.

Given the layout of the proposed expansion, the installation of sidewalks along the roads in the subdivision is not anticipated. Sidewalks have not been included in previous phases of the development nor in the adjacent Harris Estates and O'Leary Estates subdivisions.

c. Service Installation

Services including electricity, cable and telephone will be provided to each lot by overhead lines supported on wooden utility poles. Utility poles and anchors will be installed within the proposed road right of way limits and a 5 metre wide Public Utility Easement that runs parallel and adjacent to the road. The utility poles will be installed using standard techniques at appropriate spacing. This includes auguring holes for the poles to depths of 2 to 4 metres below ground surface and installing the pole. Utility lines for power telephone and cable will be strung from each pole and connected to existing utility infrastructure already in place within the subdivision. Utility companies or licensed contractors will be used to install the poles, anchors and run the services wires.

Street lights will not be installed as part of the subdivision development. Lighting on the exterior of the proposed dwellings will be typical of single family homes previously developed in the area.

d. Water and Sanitary Sewage

Each lot will be provided potable water via and individual drilled water well. Potable water wells will be drilled by a licensed well driller in accordance with the *Water Well Regulation* under the Clean Water Act. It is anticipated the suggested procedures outlined in a Hydrogeological Report, Water Supply Assessment prepared by Gemtec Limited for the adjacent developments will also be appropriate for this area. A supplementary report will be submitted at a later date.

Sewer services on each lot will be provided by means of private septic systems. Systems will be designed and installed as per the *Public Health Act* regulations.

e. Green Spaces – Conservation Area

The areas shown on attached **Figure 3** as "Conservation Area" are proposed to be included in large lots extending easterly from the main subdivision. It is our intent to consult with representatives in the Sustainable Development & Impact Evaluation Branch early in the review process to discuss the department's views with respect to the best approach for doing this. If the area is included in large lots as suggested we propose the following note be placed on the subdivision plan with reference to the specific lots affected.

"The identified wetlands on Lots (LOT NUMBERS HERE) has been located based on the GEONB mapping system. They are subject to the Watercourse and Wetland Alteration Regulation (Reg. # 90-80), of the New Brunswick Clean Water Act. Any proposed alteration within these areas or within the 30 metre regulated buffer requires permitting through the Department of Environment, Watercourse and Wetlands Alteration Program. These areas may also be subject to Environmental Impact Assessment (Reg. 87-83) of the New Brunswick Clean Environment Act and other Acts and Regulations. It is the responsibility of the lot owners which include these areas as part of their property to ensure that all regulatory requirements are met prior to development any portion of the lots within regulated areas."

Since this project is in a somewhat rural area requiring large lots (minimum 4000 sq. m.) Green Space allocations are less critical than in an urban setting. The following information is intended to provide the extent of development on individual lots usually completed by the developer prior to turning the lots over to a home builder or individual purchasers.

The portion of the lots extending into the existing Maritimes and Northeast Pipeline Easement and 30 metre buffer will remain untouched, with the exception of a ditch running parallel to the pipeline, possible culvert and roadway crossings to facilitate future development . That being said, each lot will have a minimum of 4,000 square metres with only a portion of that being taken up by the house, lawn and driveways. It is anticipated that the remaining portions of the lots (approximately 1,600 square meters or more) will be left as green space on lots prepared by the developer. Furthermore, the proponent intends to create larger lots in the vicinity of the Maritimes and Northeast Pipeline Easement to allow the green space buffer to be larger on lots in that area.

f. Lot Development

The construction and extension of the road and services will allow for the development of single family homes on the lots. The construction of the new homes will be by others in accordance with the *Provincial Building Regulation* (Regulation 81-126) and the *Provincial Subdivision Regulation* (Regulation 80-159). Prior to the commencement of the new single family homes the lots will be sold to a homebuilder or individual. The exact placement and construction of the home, potable well and septic system on each lot is not known at this time. Site preparation to bring each lot to a development ready state (cleared/grubbed) will be carried out by the developer in most if not all cases. New homes shall be built by others in accordance with the National Building Code standards and potable wells and septic systems shall be constructed in accordance with applicable provincial regulations and guidelines.

(B) OPERATION AND MAINTAINANCE

The developer will be responsible for any deficiencies in workmanship that happen during the warranty period. After the warranty period, the DTI will take over the operation and maintenance.

The roads in the expanded subdivision will require plowing during the winter snow and ice conditions. A snow plow equipped vehicle of appropriate size to clear the subdivision roads will be used. It is expected that sand and/or salt may be used from time to time to provide traction under icy conditions.

It is anticipated that over the lifetime of the subdivision, the chip seal surface may require refinishing. The timing and frequency of refinishing depends on traffic volumes, vehicle weights, vehicle characteristics and the climate. Refinishing the chip seal may generally involve the excavation of the chip seal and base, re-levelling and reinstatement of the chip seal. Vehicles and equipment required would be the same as those outlined in the construction phase for chip sealing operations.

(C) ABONDONMENT/DECOMMISSIONING

No abandonment or decommissioning is anticipated in the foreseeable future. Repair and maintenance is intended to support the operation of the road network indefinitely. Incremental replacement of structures (culverts) and paved (chip seal) surfaces may be required for continued operations in the long term.

3.0 THE EXISTING ENVIRONMENT

The proponent is currently selecting a consultant to perform the necessary research and study of the existing environment. The consultant will be asked to make a supplementary submission to address air quality, geology, hydrology and vegetation of the existing environment. In addition information about aquatic life, terrestrial wildlife and birds will also be gathered and assessed. Any species with special conservation status in the existing area will also be noted.

As part of the description of the existing environment, the chosen consultant will also be expected to provide a description of the existing and historic land uses so that any impact that the proposed development may have to the socio-economic environment of the area may also be analysed.

4.0 ENVIRONMENTAL IMPACTS

Although we await the supplementary environmental study, due to its close proximity to Harris Estates and O'Leary Estates, one would assume that the same general conditions would apply and from that many of the anticipated environmental impacts of the proposed development will be the same. For continuity some or all of the consultants that contributed to the EIA Report for the O'Leary & Harris Estates development will be engaged to do supplementary reports where necessary. We look forward to consulting with representatives in the Sustainable Development & Impact Evaluation Branch early in the review process to discuss the department's expectations.

Key potential impacts identified in the previous Environmental Impact Assessment for O'Leary Estates & Harris Estates and addressed in the Certificate of Determination were:
The following impacts may occur during construction activities:

- General ecological degradation due to construction
- Emission of combustion gases from construction vehicles
- Creation of fugitive dust potentially decreasing air quality in the project footprint during construction
- Elevated noise exposure to sensitive receptors
- Release of fine particulate matter from stockpiles and movement of construction materials
- Contaminants may adversely affect surface water quality, fish and fish habitat, wetlands and wildlife habitat.

The following may apply if any field identified watercourses are identified:

- Degradation of habitat due to increased water temperatures
- Possible sediment deposition may alter fish habitat
- Potential loss of riparian habitat
- Increased sediment loading in the watercourse

The following impacts may occur during clearing and grubbing activities:

- Alteration of, disruption to, or removal of migratory birds and/or their habitat
- Disturbance of adjacent nesting habitats
- Reduction in quantity/quality of habitat
- Potential for certain migratory bird species to nest in overburden piles

5.0 PROPOSED MITIGATION

As indicated above, at this time it is anticipated that the proposed mitigation measures will be similar to those outlined for the adjacent development. This is not a comprehensive list of the mitigative measures but is an outline of what is anticipated to arise from the study.

During all construction activities, the proponent and his contractors shall ensure that flagging required to address environmental issues is completed prior to commencement of construction. The progression of construction activities shall be carried out in such a manner that work proceeds continuously and diligently so as to ensure an orderly progression of work and effective protection of the environment.

During construction operations provisions shall be made for dust control, erosion control and sedimentation control. Operations shall be suspended during times of excessive winds or precipitation. All equipment shall be kept in good working order, idling of equipment shall be kept to a minimum. Spills are to be reported and cleaned up immediately. Construction schedules are to be planned as to keep noise limited to daylight hours. Noise complaints will be addressed promptly by the proponent or his contractors.

All onsite personnel shall be made aware of the Certificate of Determination and all its accompanying background information and reports. Erosion and sedimentation control structures shall be put in place prior to any construction. These shall be monitored on a predetermined schedule as well as prior to and directly after any major precipitation events. Spare quantities of silt fence, hay bales and/or other sediment control materials shall be available on site and ready for immediate repair or replacement that may be needed.

Certain portions of development may be constrained with time of year restrictions. This may involve watercourse buffer work or clearing and grubbing operations. Protection of existing habitat shall be considered prior to any construction activities. Any work within 30 metre of a watercourse must be carried out in accordance with a Wetlands and Watercourse Alteration Permit and must adhere to any additional conditions outlined therein.

It is anticipated that there will be site specific measures implemented to protect the migratory bird habitat, existing wildlife and significant habitat. Specific dates, practices and reporting are expected to be laid out in the Environmental Management Plan.

Fuels and chemicals used during construction activities shall be handled according to best practices. A designated refueling area shall be designated prior to construction. A designated storage are may also be defined. All handling and transfer of fuels shall be performed by qualified personnel. Spills shall be reported and handled promptly. All chemicals that must be stored on site shall be labelled appropriately. Waste oils and lubricants are to be disposed of properly.

6.0 PUBLIC INVOLVEMENT

The proponent is well known in the area of the proposed development. He has developed the existing lots and created the existing roads within Johnston Estates and the adjacent Harris Estates and O'Leary Estates and has a good working relationship with many in the community and with the other stakeholders in the area. Further public consultation is expected to follow the same process as was carried out as part of the EIA process for the adjacent sites and is referenced in the June 2012 EIA Report prepared by Dillon Consulting Limited. The environmental consultant selected to assess the existing environment, environmental impacts and proposed mitigation will address this in a supplementary report.

Respectfully Submitted,

HUGHES SURVEYS & CONSULTANTS INC.

Richard Turner on behalf of Matt Harris & Sons Ltd.

Figure 3

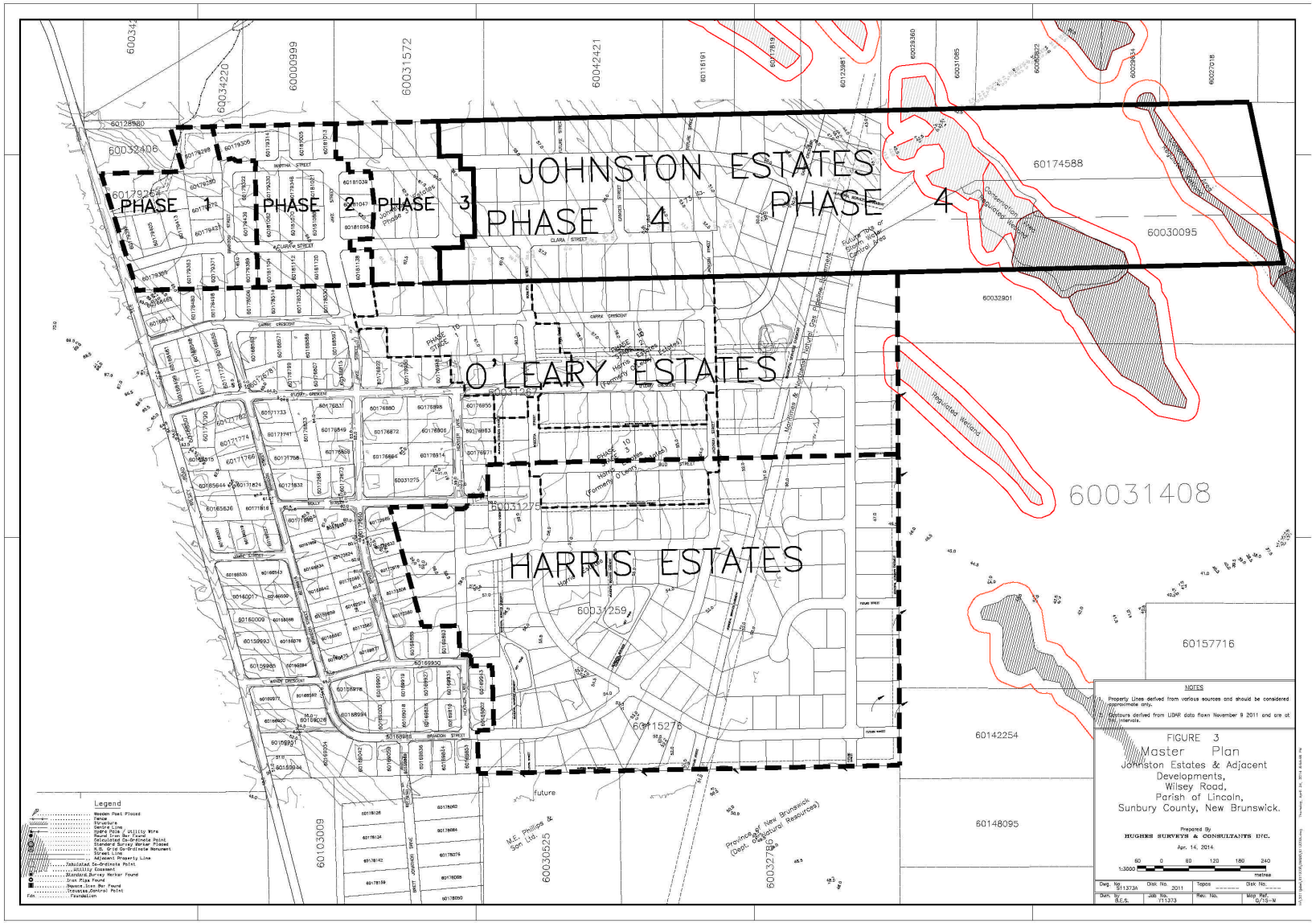
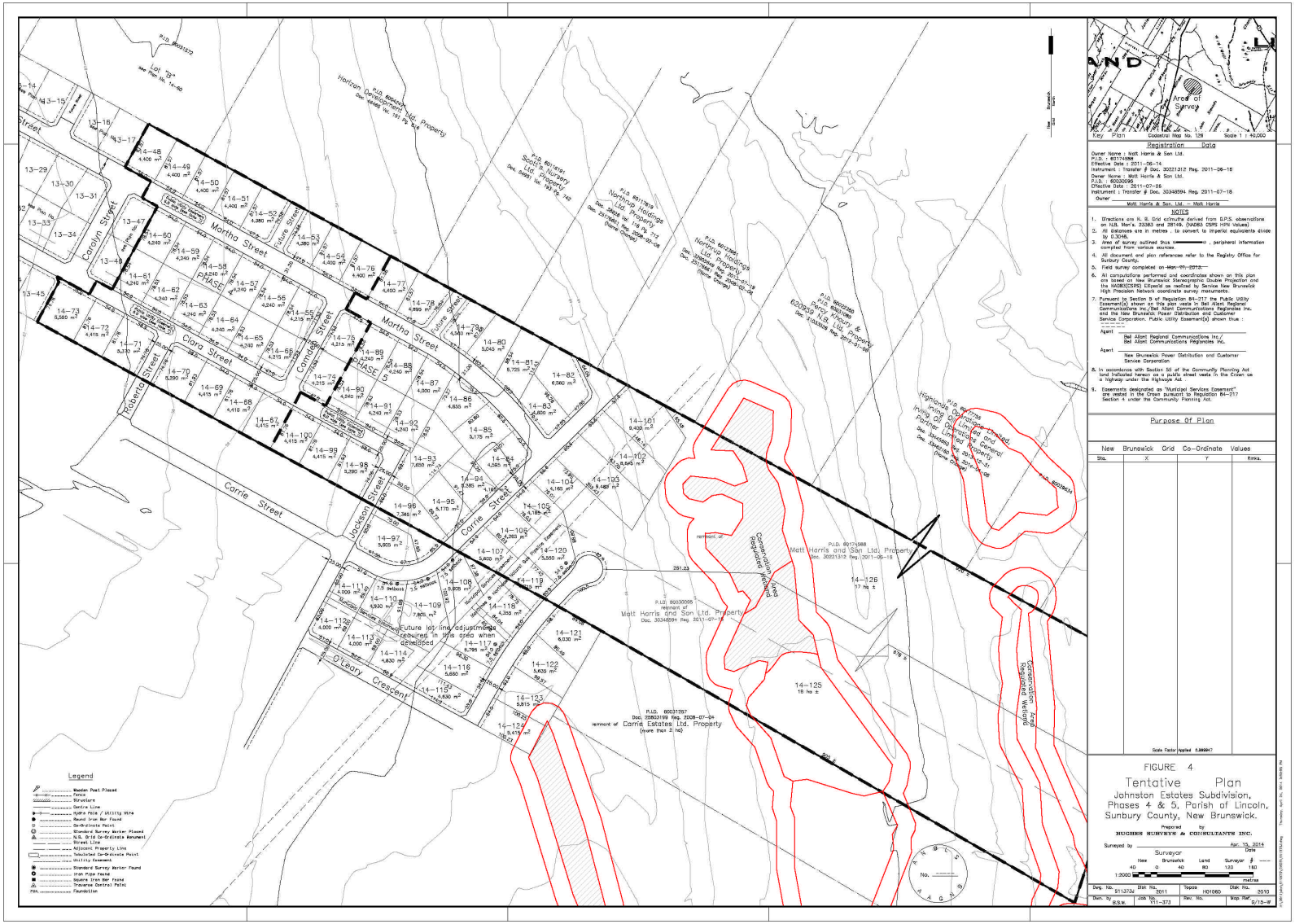

JOHNSTON ESTATES
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 4
O'LEARY ESTATES
HARRIS ESTATES
60174588
60030095
60032901
60031408
60157716
60142254
60148095
60115278
60031259
60030525
60032780
60103009
Legend
NOTES
Property Lines derived from various sources and should be considered approximate only.
Contours derived from LIDAR data flown November 9 2011 and are at 1m intervals.
FIGURE 3
Master Plan
Johnston Estates & Adjacent Developments,
Wilsey Road,
Parish of Lincoln,
Sunbury County, New Brunswick.
Prepared By
HUGHES SURVEYS & CONSULTANTS INC.
Apr. 14, 2014.
1:3000
metres

Figure 4


Martha Street
Carrie Street
Jackson Street
Clara Street
Roberta Street
Caralyn Street
Condon Street
Leisure Street
O'Leary Crescent
PHASE 4
PHASE 5
Matt Harris and Son Ltd. Property
Conservation Lands Required Around Wetland
Future lot line adjustment required in this area when developed
Legend
FIGURE 4
Tentative Plan
Johnston Estates Subdivision,
Phases 4 & 5, Parish of Lincoln,
Sunbury County, New Brunswick.
Prepared by
HUGHES SURVEYS & CONSULTANTS INC.
Surveyed by
Apr. 15, 2014
Date
Surveyor
New Brunswick
Land Surveyor
1:2000
metres