



Codrington Pit

ARA and Planning Act Application Package

Part Lots 32-34, Concession 6 Town of Brighton County of Northumberland

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Our File Y321 'D'

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**PLANNING REPORT AND ARA SUMMARY STATEMENT
ST. MARYS CBM - CODRINGTON PIT**

TABLE OF CONTENTS

PART 1 - EXECUTIVE SUMMARY 1

PART 2 - THE PROPOSAL / BACKGROUND 3

 2.1 St. Marys Cement Inc. (Canada) / St. Marys CBM 3

 2.2 Site Location 3

 2.3 Required Applications 4

 2.4 Project Description 4

PART 3 - PLANNING AND LAND USE CONSIDERATIONS 6

 3.1 Site/Surrounding Lands 6

 3.2 Natural Heritage Features 6

 3.3 Archaeological/Cultural Heritage Resources 8

 3.4 Provincial Planning Overview 8

 3.5 Township Official Plan 10

 3.6 Township Zoning By-law 12

PART 4 - ARA SUMMARY STATEMENT INFORMATION 13

PART 5 - CONCLUSIONS 15

FIGURES after page 15

 1 Location Map

 2 Land Use

 3 Simplified Operations

 4 Rehabilitation Concept

 5 Existing Features

 6 Official Plan Schedule A

 7 Proposed Haul Route

 8 Zoning By-law Schedule A

PART 1 - EXECUTIVE SUMMARY

St. Marys Cement Inc. (Canada) is making a Category 3, Class 'A' License application under the *Aggregate Resources Act*, and Official Plan and Zoning By-law amendments under the *Planning Act*, to permit aggregate extraction on the proposed Codrington Pit. Licensing of the pit will provide St. Marys with a large source of varied aggregate resources with which to supply construction materials to the local and regional area.

The proposed Codrington Pit is located approximately 1.5 km east of County Road 30, some 9 km by road north of Highway 401, and just over 2 km southeast of the hamlet of Codrington. The site is at Part Lots 32-34, Concession 6, in the Municipality of Brighton, County of Northumberland. The area to be licensed is ± 105 ha (± 259 ac), with ± 80 ha (± 198 ac) proposed for extraction. The pit site is in two land parcels, separated by an unimproved municipal road allowance. The Codrington Pit site is comprised of agricultural crop lands, woodlots and a seasonal pond.

The proposed operation provides for aggregate extraction from above the water table only. Processing will occur through the use of portable equipment. Aggregate haulage is proposed via a haul road on St. Marys owned lands located between the northwest corner of the site and County Road 30. Part of the haul route already exists, in use for an existing licensed pit owned by St. Marys, located between the Codrington site and County Road 30. The proposed haul route crosses a Hydro One transmission corridor which forms the north boundary of the site. The proposed haul route avoids the use of municipal road allowances and minimizes the impact of truck haulage on residential uses in the area.

Technical studies carried out at the site in support of the pit operation include geology/hydrogeology, natural environment, archaeology, and noise assessments. The findings from these reports have resulted in recommendations on pit extraction areas, depth, and rehabilitation/reforestation. A traffic impact assessment has also been completed to respond to Official Plan requirements for establishing extractive uses. This report has made recommendations with respect improving the existing haul route intersection at County Road 30 that will be addressed further with the County as the approvals proceed.

The proposed Codrington Pit represents wise aggregate resource management, minimizes extraction and haulage related impacts, and will result in a rehabilitated landscape which complements the natural environment attributes of the area over the long term. The application is consistent with the Provincial Policy Statement; and, conforms to the Township of Brighton Official Plan's amendment policies to establish extractive land use designation, on the basis of the following:

1. The Province has identified the Codrington site as a potential aggregate resource area. This regional scale mapping has been refined and confirmed through an on-site geological investigation that

concluded a substantial amount of suitable sand/gravel material is located above the water table at the Codrington site.

2. The proposed haul route minimizes impacts of truck traffic on residential uses and existing traffic patterns in the local area.
3. The proposed rehabilitated pit will include approximately 40 ha of reforestation. This will be established in specific parts of the site such that the amount of forest cover is increased over the long term from what currently exists, and the wildlife and forestry attributes are also enhanced from the existing (pre-pit) condition.
4. The proposed extraction operation is to occur above the water table and will not have any impacts on the local groundwater regime. A monitoring program has been proposed.
5. The proposed operation has been designed to satisfy the MOE sound level limits for the identified receptors through the implementation of recommended noise controls and ensuring pit equipment meets the sound levels outlined in the acoustic assessment.
6. The operational design of the pit incorporates the recommendations of the technical reports prepared for the application in order that the pit can operate within Provincial guidelines and minimize impacts on adjacent land uses and environmental features.

This report prepared by MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC Planning) complements the *Aggregate Resources Act* Site Plan prepared by MHBC Planning, as well as the various technical reports prepared by AECOM Canada Ltd. (natural environment), Jagger Hims Limited (geology/hydrogeology), Aercoustics Engineering Ltd. (noise), Sernas Transtech (traffic) and C.R. Murphy Archaeology. The Site Plan and technical reports are included at Tabs B through G and should be consulted for detailed information on matters addressed in the Planning Report and ARA Summary Statement.

PART 2 - THE PROPOSAL / BACKGROUND

2.1 St. Marys Cement Inc. (Canada) / St. Marys CBM

St. Marys Cement Inc. (Canada) is a leading manufacturer of cement and related construction products in Canada and the United States. Headquartered in Toronto, St. Marys Cement is a significant producer of aggregates, concrete and cement products to the Ontario market, with properties in strategic locations to serve local markets.

St. Marys CBM is the building materials division of St. Marys Cement, which focuses on ready-mixed concrete and aggregate. The company has more than 20 ready-mix plants across Ontario. Aggregates are produced from a dozen sand and gravel operations and a quarry providing supply to the Southern Ontario market which consumes 140 million tonnes of aggregate annually. St. Marys Cement Inc. (CBM Aggregates) began operations in the Brighton area in 1995 after acquiring an aggregates company that had been in business in the area since 1969. CBM Aggregates currently operates seven licensed pits northeast of the town of Brighton.

St. Marys Cement is a wholly-owned subsidiary of Votorantim Cimentos, an international cement manufacturer based in Sao Paulo, Brazil which is one of the largest cement producers in the world.

2.2 Site Location

St. Marys is applying for a licence on a 105 ha (259 acres) property located to the east of County Road 30, and north of Old Wooler Road, in the area of a hydro transmission corridor (see Figure 1 - Location Map). The lands are legally described as Part Lots 32-34, Concession 6, geographic township of Brighton, now in the Municipality of Brighton, County of Northumberland. The site is known as the proposed Codrington Pit.

The site is divided into a West Parcel and East Parcel by a gravel laneway on the road allowance between Lot 32 and 33. Extraction of material within the road allowance is a likely scenario but will require municipal approval. At this time, the application does not include road allowance extraction. Extraction is proposed on the entirety of the East Parcel, except for ARA regulatory setbacks and the area subject to archaeological conservation (historic site). Extraction will occur on approximately 70 percent of the West Parcel (not including setbacks). No extraction is proposed in the northwest section (see Figure 2 - Land Use) where there is another historic site and lands set-aside for the proposed rehabilitation program .

2.3 Required Applications

The following applications are required to permit the proposed Codrington Pit:

- An amendment to the Township of Brighton Official Plan to re-designate the site from Rural to Pits and Quarries Area.
- An amendment to the Town of Brighton Zoning By-law to re-zone the proposed extraction area from Rural (RU) to Extractive Industrial (EM). That portion of the West Parcel that is not to be extracted will remain in the Rural zone ¹.
- Application for a Class 'A' Licence under the *Aggregate Resources Act* (ARA) is required. The Category 3 (Pit Above Water) Aggregate Resources of Ontario Provincial Standards apply.

The Municipality of Brighton is currently in the process of preparing a new Official Plan for the entire municipality, replacing the current documents for the former Town and Township.

2.4 Project Description

The subject property is located on a hill with a flattened top that rises approximately 50 metres above the surrounding lands (i.e. elevation at County Road 30). Geologically, the hill originates from ice-contact deposits or a kame feature that was modified by the formation of pro-glacial lake features. The deposit is identified in the Province's Aggregate Resources Inventory Paper (ARIP) No. 158 as a Selected Sand and Gravel Resource Area of Secondary Significance.

The Codrington Pit will operate as a stand-alone pit. On-site processing will occur through the use of portable crushing and screening equipment, and a wash plant will also be located on-site in order to produce higher quality, premium aggregate materials. Access to County Road 30 will serve to allow the efficient movement of aggregates into the local area as well as the regional area, using Highway 401 and a well-developed system of County roads. Production from the Codrington Pit will not exceed 750,000 tonnes in a calendar year.

Extraction will occur above the water table only. Also, as indicated previously, the application does not include extraction of the Lot 32/33 road allowance but ultimately, wise management of the resource and efficient rehabilitation would be achieved if the road allowance was extracted as part of pit operations. Approval for this will be pursued with the municipality at a later date if a licence is issued for the adjacent lands that are subject of this application.

¹ A small parcel of land on the site at Lot 33 is zoned Rural Residential. Also, two site locations identified as having archaeological significance will be re-zoned to prohibit any disturbance, as required by the Ministry of Culture.

The northwestern +/- 11 hectares of the West Parcel of the site is not proposed for extraction. This area contains a site of historic significance (Cumming), being a mid-19th to 20th century farmstead, which is to be left undisturbed. A small wetland (pond) is located in the non-extraction area also. This pond results from a seasonal, locally elevated watertable. While it has low environmental significance, it was concluded that retention of the pond would fit well in the rehabilitation plan for the site and this area in particular. The area will serve to accelerate the reforestation program to be carried out at the northwest part of the West Parcel.

Extraction at the Codrington Pit is to occur in three phases (see Figure 3 - Simplified Operations). Phase 1 and 3 limits have been designed on the basis of the noise assessment, geological investigations and operational/processing needs. It has also been designed to ensure reforestation occurs in key areas in an expedited and progressive fashion as extraction is completed. Extraction in each phase necessitates certain operational restrictions concerning equipment and processing.

In the West Parcel, extraction will generally proceed from the central part of the parcel in an outward direction to the licensed limits. In the East Parcel, extraction will occur from the northwest area in a generally southern direction. Excavation equipment to be used includes front-end loaders, excavators and shovels. Bulldozers and scrapers will be used during site preparation activities. Topsoil and overburden (including substandard granular material), will be stripped from extraction areas. Overburden will be used to build berms a required for noise control, with the topsoil being used as a top-cover to the berms. Berms will ultimately be used in site rehabilitation as top-cover to slopes and pit floor areas.

Removal of aggregates from the site will occur by truck. While the site has frontage on an opened municipal road which could be upgraded for aggregate haulage, other possible routes have been given consideration by CBM. The option selected by CBM is to establish a private haul road from the northwest corner of the site to the CBM owned Archer Pit to the west (Lot 36). From there, access to County Road 30 would be made via the haul road that already exists and has been used for aggregate haulage from the Archer Pit (formerly Jensen Pit).

A key feature of the rehabilitation plan is to re-forest the northwest portion of the West Parcel and the southern and eastern fringe of the East Parcel. This will ultimately allow the for a strengthened forest landscape in the regional area by increasing the amount of contact between on-site and off-site forests (see Figure 4 - Rehabilitation Concept). Rehabilitation of the site will include retention of the seasonal pond feature located in the no extraction area at the northwest part of the West Parcel. Other portions of the excavated area will be graded and vegetated for slope stability. Existing topsoil and overburden will be stockpiled separately and/or used in progressive rehabilitation of the subject site. Page 3 of the ARA Site Plan (Rehabilitation Plan) contains full details regarding progressive and final rehabilitation.

PART 3 - PLANNING AND LAND USE CONSIDERATIONS

3.1 Site/Surrounding Lands

The West Parcel of the proposed licenced area consists of agricultural cropland, a deciduous forest area and a small wetland pond. The East Parcel consists of several woodland communities and abandoned/fallow fields (see Figure 5 - Existing Features). Agriculture at the West Parcel includes cash and forage crops planted by tenant farmers. The on-site woodlots are part of an Agreement Forest managed on behalf of CBM by Domtar Corporation.

The landform on which the site is located can be described as a flattened hill, which rises abruptly about 50 metres above the elevation of land at County Road 30, west of the site. The site itself is relatively flat, with a localized plateau at the West Parcel extending approximately half way across the East Parcel, varying in elevation by no more than 10 metres. At the southeast corner of the East Parcel, which is off the plateau, the topography varies in elevation by more than 20 metres from the west boundary of the East Parcel.

Natural features on lands surrounding the site include forested lands and a permanent stream. The forested lands around the site and partly on the West Parcel are part of Codrington East Ravine Natural Area, a mapping designation used in Lower Trent Conservation documents but not mapped as an Environmentally Sensitive Area by the Township Official Plan.

The site is in a relatively secluded area. Gravel/dirt lanes originally constructed many years ago are built on road allowances between Lots 32 and 33 (i.e. between the West and East Parcels), and at the south boundary of the site, between Concessions 5 and 6. These laneways are used by the occasional recreational visitor by car and more frequently by ATV users in the summer time and snowmobile users in the winter time. The roads also provide access to Hydro One's transmission line corridor, which forms the north boundary of the site. The corridor consists of twin, 500 kV steel pylon transmission lines.

The closest residential uses are adjacent to the West Parcel, where there are two homes, one within 50 metres of the west boundary and the other at the southwest corner of the site. Other homes are located at least 300 metres from the site, alongside Old Wooler Road.

3.2 Natural Heritage Features

AECOM has prepared a Level 1 and Level 2 Natural Environment Technical Report for the proposed Codrington Pit. The study did not find the following significant natural heritage features as defined under the Provincial Policy Statement, on-site: Provincially significant wetland, significant portions of endangered or

threatened species habitat, fish habitat, significant woodlands, significant valleylands, or significant areas of natural and scientific interest (ANSIs).

Candidate significant wildlife habitat was determined to exist on-site. Candidate significant woodlands were determined to exist off-site but within 120 m of the site. Fish habitat is identified within 120 m of the site, in what is considered to be a groundwater fed creek located just beyond the southeast corner of the East Parcel. AECOM conclude there are no impacts to fish habitat as a result of the proposed pit.

By virtue of their shape and lack of interior habitat, the on-site woodlands do not provide a Provincially significant function. A 15.5 hectare (38 acre) Red Oak woodland is found at the central portion of the West Parcel. The woodland also includes Sugar Maple and Aspen. It is bounded on three sides by open agricultural fields, and is connected on its west side to a larger oak forest that lies to the west of the site. The 20 hectare (50 acre) woodland at the southeast portion of the East Parcel is woodland composed of Aspen, White Birch, oak, and conifer species. The extreme northern fringe of a large oak woodland occurs primarily in the excavation setback area at the south boundary of the East Parcel and it is through this connection that the southeast woodland is connected to a larger woodland to the south of the East Parcel. Aecom conclude that the off-site woodlands (within 120 m) are of higher importance, and these have been classified as candidate significant woodlands.

Candidate significant wildlife habitat is classified on-site and within 120 m of the site. The Aecom study indicates that on-site candidate significant wildlife habitat results from the presence of breeding area-sensitive forest birds in the two on-site wooded areas. The classification of these woodland and wildlife features as “candidate” by Aecom is a recognition that:

- i) an assessment of whether these features are of Provincial significance has not been undertaken by the local municipality (which has jurisdiction to do so as the local planning authority); and,
- ii) that these features do possess natural heritage attributes either in and of themselves or through their connections to the larger natural landscape.

Assessing these features as “candidate” significant features has guided Aecom to carry out a more detailed analysis on the impacts of the pit operation on these features (Level 2 analysis under the ARA Provincial Standards) , and how the effects of these impacts can be mitigated through opportunities for reforestation.

The key facets of the woodland remediation strategy is to preserve treed areas where possible, and replace the loss of wooded areas through reforestation and regeneration programs. Non-extraction lands at the northwest part of the West Parcel will allow for preservation of existing vegetation and an early start to reforestation/revegetation, particularly where agricultural activities are presently ongoing. Reforestation will occur through the use of specific tree and shrub species. In addition, the reforestation areas have been selected on the basis of where a reforested landscape will provide the greatest benefit on a regional scale. Aecom have

concluded that once the reforested areas have become established, the loss of on-site woodlots will be more than compensated for. The shape and species make-up of the reforested, post-extraction landscape will provide greater natural heritage benefits compared to the existing situation.

Impacts on the candidate significant wildlife habitat can be managed as part of the pit operation. Extractive activity in the on-site woodlots will result in a loss of breeding bird habitat. However, similar habitat exists in the area and hence the displaced breeding birds have the opportunity to breed elsewhere. Further, once reforestation of the site has become established and the forest has matured, the on-site lands will once again become suitable habitat for breeding birds. The amount of habitat will be increased given the siting of the reforestation areas.

The Aecom study identified butternut tree specimens on and within 120 m of the site. Butternut trees are classified as an endangered species under the Endangered Species Act, but the presence of the trees does not constitute a significant portion of the habitat of endangered species. The six on-site tree specimens will be preserved, as they are located at the south boundary of the site (East and West Parcels), and hence lie within excavation setbacks where no extraction will occur. One butternut tree was found within 120 m of the site. Five of the on-site trees were found to be in healthy condition, with the other showing minor evidence of the Butternut canker disease.

3.3 Archaeological/Cultural Heritage Resources

The initial field work completed for this site by C.R. Murphy Archaeology resulted in the discovery of two mid-19th to 20th century farmstead dwellings. The Cummings site at the north section of the West Parcel consists of household material associated with the foundation of a house, barn and other structures. The Storms site at the southeast corner of the East Parcel consists of historic material associated with the visible architectural remains of two house foundations, and a barn.

The Murphy report recommended these areas be protected from any pit extraction activity. Comments received from the Ministry of Culture on the Murphy report have required that further work be undertaken to define the limits of the historic sites, a buffer around them, and to implement demarcation and protection measures to ensure the sites are not disturbed. Field work to address the Ministry's comments has been undertaken by the firm of Central Archaeology Group (CAG), and correspondence will be provided to the Ministry addressing their concerns.

3.4 Provincial Planning Overview

The Provincial Policy Statement (PPS) provides policy direction on matters of Provincial interest related to land use planning and development, and sets the policy foundation for regulating the development and use of land. The PPS provides for the appropriate development of land, while protecting resources of Provincial

interest, public health and safety, and the quality of the natural environment. The PPS is intended to be read in its entirety and the relevant policies are to be applied in each situation.

There are five main Provincial policy interests that must be considered as part of this application:

- availability of mineral aggregate resources;
- protection of significant natural heritage features and areas and ecological functions;
- protection of groundwater and surface water resources;
- operational design to ensure no adverse impacts on adjacent sensitive land uses; and,
- protection of cultural heritage resources.

The proposed Codrington Pit is located on a large aggregate deposit, in the north-central portion of the Municipality of Brighton, well located with respect to access to a local and regional roads system. Design recommendations have been incorporated into the *Aggregate Resources Act* Site Plan based on technical recommendations to ensure that no significant adverse impacts occur to the natural environment, groundwater/surface water, archaeological/cultural heritage resources or on surrounding residences as a result of the proposed operation.

The deposit on which the Codrington Pit is proposed is a large deposit of varying composition given its complex geological history. The pit site contains significant quantities of suitable aggregate material. This has been identified through detailed on-site testing, carried out at a much more intense level of detail than the regional scale mapping techniques used to prepare the Provincial ARIP mapping. The subject deposit has not been designated in the Official Plan as in the regional area, only selected resource areas at the primary level of significance have been designated and protected for extraction.

Studies have been prepared addressing the natural environment, water, aggregate, and archaeological resources on the subject property.

The application is consistent with the following Provincial interests:

- the proposed extension is located within a rural area (Policy 1.1.4.1.a);
- the pit operation has been designed to mitigate possible adverse effects on nearby rural residential land uses (Policy 1.7.1.e);
- impacts on significant natural heritage features as a result of the pit operation can be mitigated and, subsequent to the implementation of a reforestation rehabilitation program, the natural heritage aspects of the site and surrounding lands can be strengthened over the long term (Policy 2.1.2, 2.1.4 & 2.1.6);

- the quality and quantity of groundwater and surface water resources will be protected, and no negative impacts are anticipated as a result of this proposed operation (Policy 2.2.1);
- the proposed application makes additional resources available and makes provision for the environmentally responsible recovery of these resources (Policy 2.5.2.1 & 2.5.2.3);
- the subject lands will be progressively rehabilitated and will be compatible with surrounding land uses and future lands uses anticipated for the surrounding area (Policy 2.5.3.1); and,
- cultural heritage resources have been assessed and documented and protection measures implemented to ensure appropriate conservation (Policy 2.6.1).

The proposed Codrington Pit is consistent with the Provincial Policy Statement (PPS). It represents good planning, wise resource management, and is in the public interest after considering the economic, environmental, and social factors that apply to this application.

3.5 Township Official Plan

The August 2000 Township of Brighton Official Plan (OP) reflects long term planning policy within the Municipality of Brighton. Section 4 (Goals) of the Plan states the policy of ensuring an adequate supply of aggregate materials and protection for areas of potential aggregate extraction, while minimizing the effect of extraction on other resources and surrounding land uses. The achievement of this Goal is reached when lands are brought under *Aggregate Resources Act* licence for extraction.

The Codrington Pit site is currently within a Rural Area designation (see Figure 6 - Official Plan Schedule A). The *Aggregate Resources Act* licence being applied is for aggregate extraction in excess of 15,000 tonnes. This requires an Official Plan Amendment (OPA) to change the land use designation to Pits and Quarries Area, in accordance with OP Section 6.12.3.

Section 6.12.3 of the OP describes a two-step review and approval process to be followed by Council when an application for a new Pits and Quarries Area designation is proposed. First, as per OP Section 6.12.3.1, Council evaluates the amendment application on the basis of the following information provided by the Applicant:

- ARA site plan including the rehabilitation plan;
- a map of land uses within 300 m of the site;
- a traffic study where deemed necessary by Council depending on the scale of the application;
- any agency comments; and,
- a hydrogeological study where deemed necessary by Council.

In accordance with OP Section 6.12.3.2, the second stage of the Council approval process relates to Council's satisfaction through agreements reached with the Applicant that the following issues (as applicable to the subject St. Marys' application) have been satisfactorily addressed:

- a traffic/haul route agreement including possibly the provision of funds to upgrade/maintain the roads and to mitigate impacts;
- control over entrance/exit location;
- visual screening;
- no undue negative effects on the natural environment;
- compliance with MOE requirements; and,
- control of excavation areas and grades, phasing, rehabilitation (including funding or other appropriate measures to ensure rehabilitation occurs) and other operational parameters.

The reports/documents required to be submitted under the Provincial Standards for a licence application under the *Aggregate Resources Act* essentially addresses the Official Plan information requirements under Section 6.12.3.1 and 6.12.3.2. This is summarized in the following sections.

Site Operations

The ARA site plan (see Tab B), legally binding on the licensee when a licence is issued, addresses the following applicable OPA aspects of the proposed pit operation:

- existing on site and adjacent land use features and conditions;
- proposed operational practices (including entrance/exit location, visual screening, internal road plans, stockpiling areas and limits to excavation areas, grades, and phasing); and,
- progressive and final rehabilitation techniques, landforms and after-use.

Hydrogeology

Jagger Hims Limited (JHL) has undertaken a hydrogeological assessment of the application lands and their report is included in this package (see Tab C). The report concluded there would be no negative impacts to surface and groundwater resources as a result of the pit operation. It is to be noted that the hydrogeological assessment carried out for the Codrington Pit is in excess of what is normally required for above water table aggregate operations, which is to identify the established groundwater table.

Natural Heritage

Aecom has completed a natural environment report for the application which is also included in this package (see Tab D). The report concludes that "candidate" significant wildlife habitat occurs on and within 120 m of the site, and two "candidate" significant woodlands occur within 120 m of the site. On-site wooded areas are connected to the off-site (within 120 m) woodland features. In order to mitigate the impacts of extraction on the candidate significant wildlife habitat and candidate significant woodlands, a comprehensive reforestation programme has been designed which will, in net terms, increase the benefits provided by woodland features in a regional sense.

Traffic

Traffic and haulage issues have been a primary consideration for CBM as part of their planning for the proposed Codrington Pit. An initial analysis of possible haul route scenarios by MHBC Planning resulted in the selection of a private haul route option on lands between the site and County Road 30 (see Figure 7 - Proposed Haul Route). One of the benefits of this route is that it partially uses an existing road and entrance onto County Road 30 which has been used historically by aggregate trucks.

Grant A. Bacchus Limited in association with Sernas Transtech has completed a Traffic Impact Assessment for the proposed Codrington Pit (see Tab G) on the basis of this route. The report examines existing traffic conditions in the area of the proposed gravel pit, estimates the future background growth, and provides projections of future pit-generated truck traffic. The study provides an assessment of the associated traffic impacts and recommends mitigation to accommodate future traffic flows.

The traffic study concludes that entrance, intersection and road improvements are necessary at County Road 30 to address the impact of truck traffic from the Codrington Pit. Recommendations for upgrades made in the report will be reviewed with the County and the necessary approvals obtained prior to commencing any construction activity.

Visual

With the exception of the residences closest to the site, at the west boundary/southwest corner of the West Parcel, public views of the pit operation are expected to be minimal during most times of the year. The proposed pit is located on the highest point of land in the local area. Pit excavations will initially occur in the central part of the West Parcel and progress towards the boundary of the parcel. Excavation at the East Parcel will be from the northwest area in a generally southern direction.

Views into the pit from the closest residences will be screened to some degree by the presence of noise control berms located at the perimeter of the site. There will however, likely be views of the pit operation from the upper storey of the house adjacent to the west boundary of the West Parcel. This is essentially a result of the location and elevation of the house and the elevation of extraction lands in the pit.

3.6 Township Zoning By-law

The Codrington lands are zoned as Rural (RU) by Zoning By-law 140-2002, within which aggregate extraction is not a permitted use (see Figure 8 - Zoning By-law Schedule A). Therefore, an Extractive Industrial (EM) zone is being sought for the Codrington Pit but only on those areas where extraction is proposed. This is in keeping with ARA provisions. In accordance with Ministry of Culture comments with respect to the two historic sites, zoning of these parcels will be such that the archaeological resources are not disturbed. No re-zoning is proposed for the non-extraction lands at the north end of the West Parcel, which will remain in a Rural zone.

PART 4 - ARA SUMMARY STATEMENT INFORMATION

The following section is structured to address the information required under the Aggregate Resources of Ontario Provincial Standards (Version 1) for a Class 'A' Category 3 Pit Above Water *Aggregate Resources Act* Licence Application. The following provides a brief explanation of each criteria, and refers to the sections of the Planning Report for further information:

Standard 2.1.1 - Planning and Land Use Considerations

The proposed Codrington Pit is located in a rural area, and surrounding land uses include existing aggregate extraction (Archer Pit to west), public utility (hydro line), agriculture and scattered rural residential. The ARA Site Plan and Technical reports have been prepared in accordance with the ARA Provincial Standards, and the proposed operation has been designed to operate within MOE noise guidelines. Technical reports have also demonstrated that there will be no significant adverse impacts on water or natural heritage resources as a result of this application. The proposed pit is located within a Provincially mapped aggregate resource. Please see Sections 3.4 and 3.5 for additional information.

Standard 2.1.2 - Agricultural Classification of the Proposed Site

The subject lands are identified as Canada Land Inventory (CLI) Class 3 on the West Parcel and Class 3 and combined Class 4 and 6 on the East Parcel. The site is located outside the Agricultural designation in the Township Official Plan, which identifies lands which are primarily to be used for agriculture and farm related uses. Accordingly, the site does not represent a prime agricultural area according to the PPS and rehabilitation back to an agricultural use of the same substantial area and soil quality for agriculture is not required.

That being said, the site will be rehabilitated to reforested and agricultural area. This is in keeping with the recommendation of the natural environment report and represents a logical form of rehabilitation and after-use.

Standard 2.1.3 - Quality and Quantity of Aggregate

The aggregate located on the Codrington lands is recognized at the Provincial level as a potential aggregate resource. The aggregate deposit at the site has undergone significant modification since the time of its original deposition tens of thousands of years ago by glacial meltwaters. The deposit contains a range of aggregate materials, from fine sand to coarser gravel. Jagger Hims has estimated that there are approximately 11 to 14 million cubic metres of suitable sand/gravel available from the proposed area to be extracted. Please see the Hydrogeological Assessment for additional information.

Standard 2.1.4 - Haul Routes and Track Traffic

After consideration of several options, CBM has proposed haulage to occur via a private haul road from the northwest portion of the site (West Parcel) westerly across CBM owned lands to County Road 30. The route makes use of an existing haul road and entrance/exit onto County Road 30.

County Road 30 is a former Provincial King's Highway and has been built to a standard acceptable for truck haulage. It is one of the main north-south routes from Highway 401 to Highway 7. To accommodate the truck traffic from the Codrington Pit, road improvements and upgrades are required at the entrance/exit area. Please see Section 3.5 and the Traffic Impact Assessment for additional information.

Standard 2.1.5 - Progressive and Final Rehabilitation

Rehabilitation of the Codrington Pit site will result in a re-forested and agricultural land feature. The re-forestation design has been based on careful consideration of surrounding forested lands, future soil conditions and use of tree and shrub species which will have the best chance of survival and provide superior environmental benefits.

Siting of reforestation will result in the former pit becoming an integral part of a swath of forested lands located either side of pit site, at both the West and East Parcels. Reforestation design at the West Parcel can result in improved linkages and an increase of interior habitat from the current 4 ha (10 acres) to potentially 22 ha (54 acres). An area at the northwest section of the West Parcel that has been excluded from extraction partially on the basis that it will act as a starting-point for the reforestation effort. Similar considerations have been applied to the reforestation program at the East Parcel to enhance interior habitat area and linkages.

Please see Sections 2.4, 3.2, the ARA Site Plan and the Natural Environment Technical Report for additional information regarding rehabilitation.

PART 5 - CONCLUSIONS

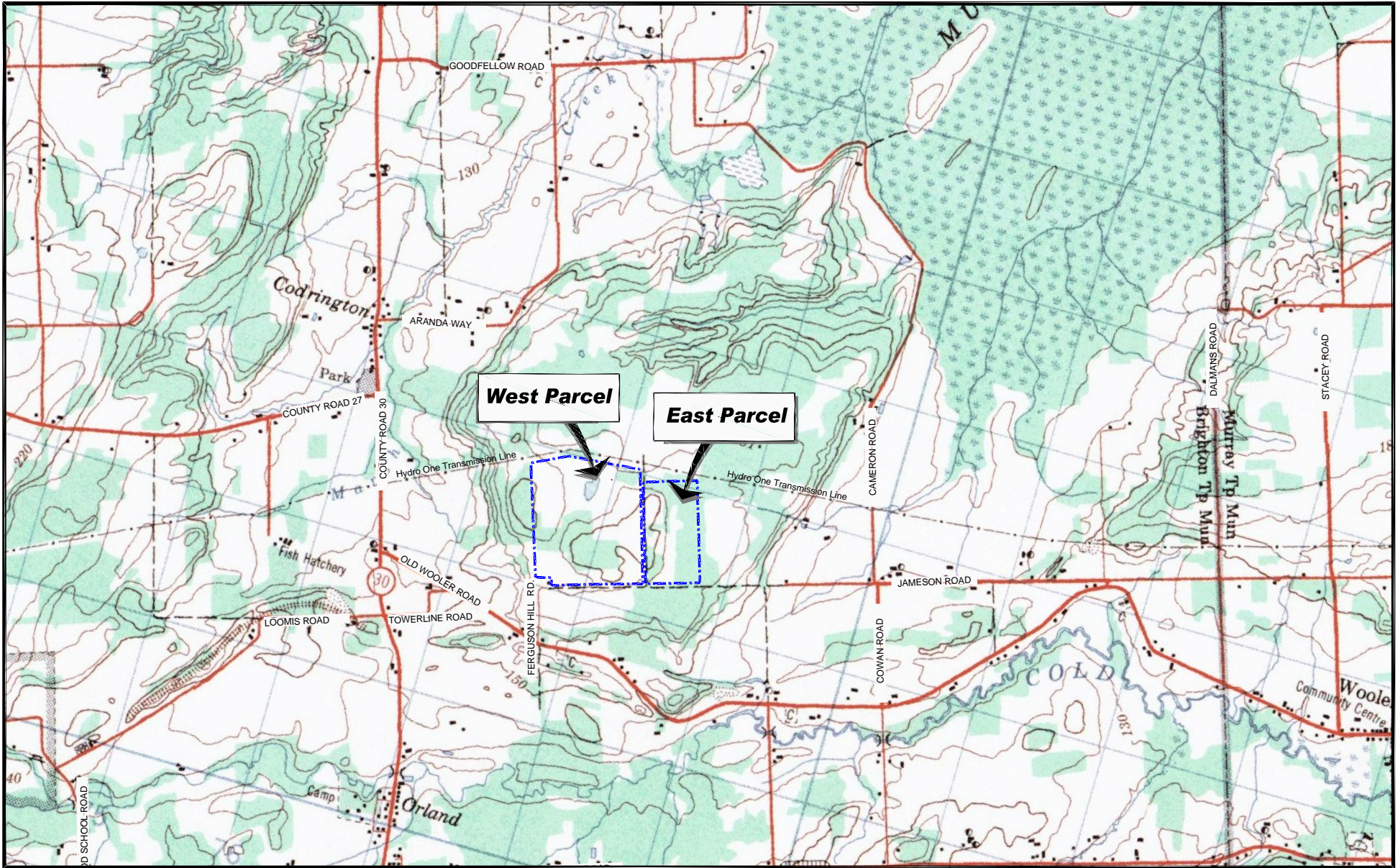
The proposed Codrington Pit represents wise resource management. The application is consistent with the Provincial Policy Statement with respect to the protection of mineral aggregate resources and it conforms to the policies contained in the County of Brant Official Plan to permit new extractive uses. This application package provides the information required for the consideration of aggregate operations in the Township of Brighton Official Plan, and the Provincial Standards.

The proposed pit is located within an area identified by the Province as having high quality aggregate resources. The extraction of these resources has been designed and will be implemented in a manner that protects adjacent land uses from adverse impacts. Rehabilitation activities for the proposed pit will result in a landscape that once fully established, will provide will greater woodland and wildlife attributes than that which currently exist on-site.

Haulage has been a primary factor in the overall consideration for the pit operation and St. Marys/CBM are proposing a route that reaches County Road 30 in a direct manner, and partially already exists and historically has been used by aggregate trucks. The pit will be well-positioned to supply high quality aggregate to existing and future growth areas in and around the Town of Brighton, and further afield.

Respectfully submitted,

Amarjit S. Sandhu, B.Sc.



Location Map Codrington Pit

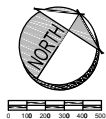


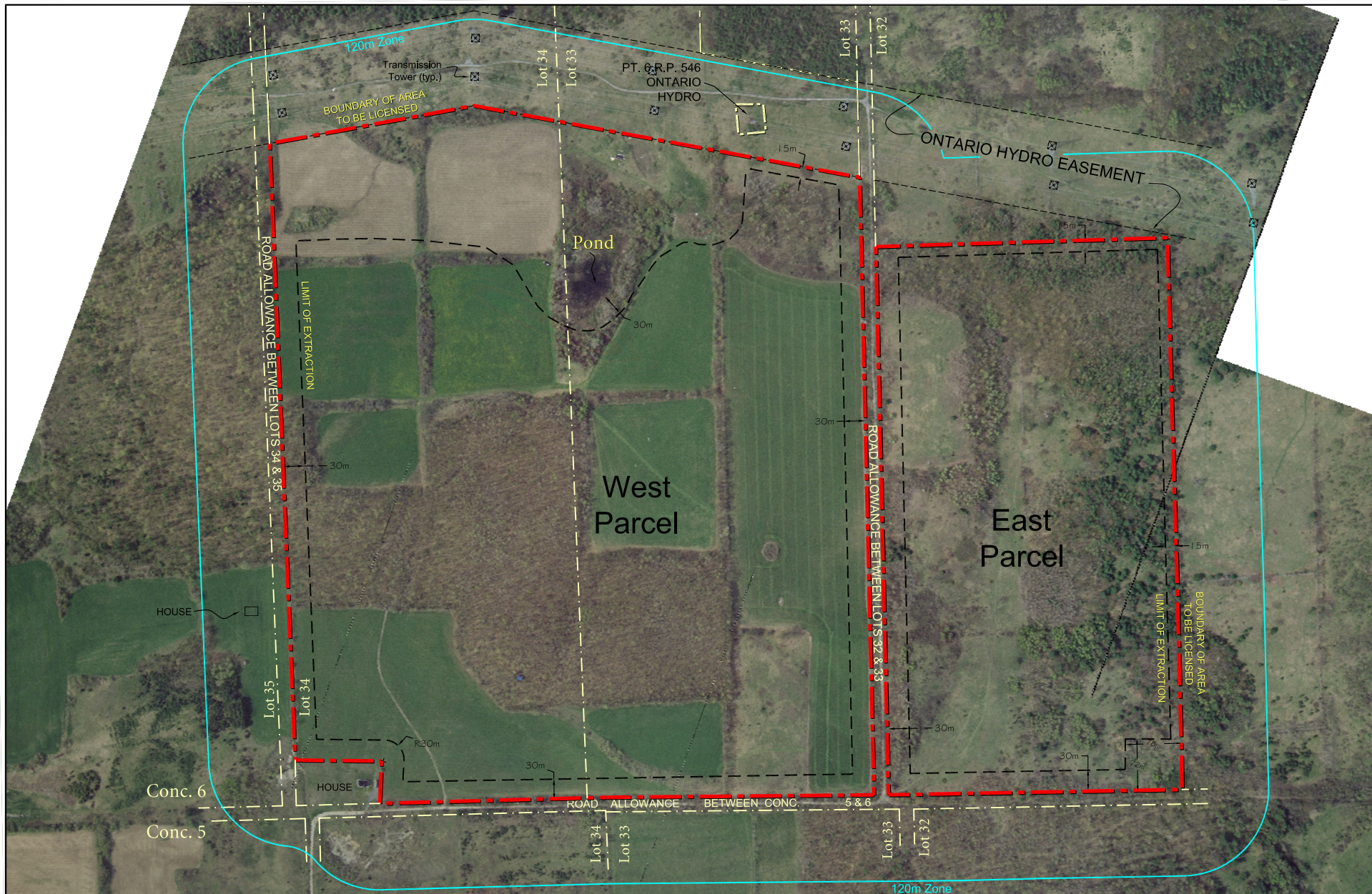
SUBJECT SITE

Part Lots 32 -34
Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland



Figure 1



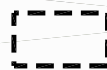


Land Use Codrington Pit

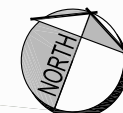
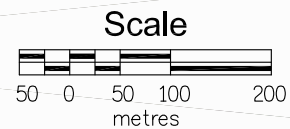
Figure 2



Subject Site
 Part Lot 32-34, Conc. 6
 Municipality of Brighton
 (geographic Township of Brighton)
 County of Northumberland



Limit of Extraction





Simplified Operations Codrington Pit



SUBJECT SITE
Part Lots 32-34
Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland



Limit of Excavation
ALL SETBACKS ARE DRAWN TO SCALE
AND SHOW LABELLED DISTANCES.

Proposed Spot Elevation
APPROXIMATE GEODETIC PIT FLOOR
ELEVATION



Figure 3



Rehabilitation Concept Codrington Pit

Figure 4




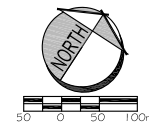


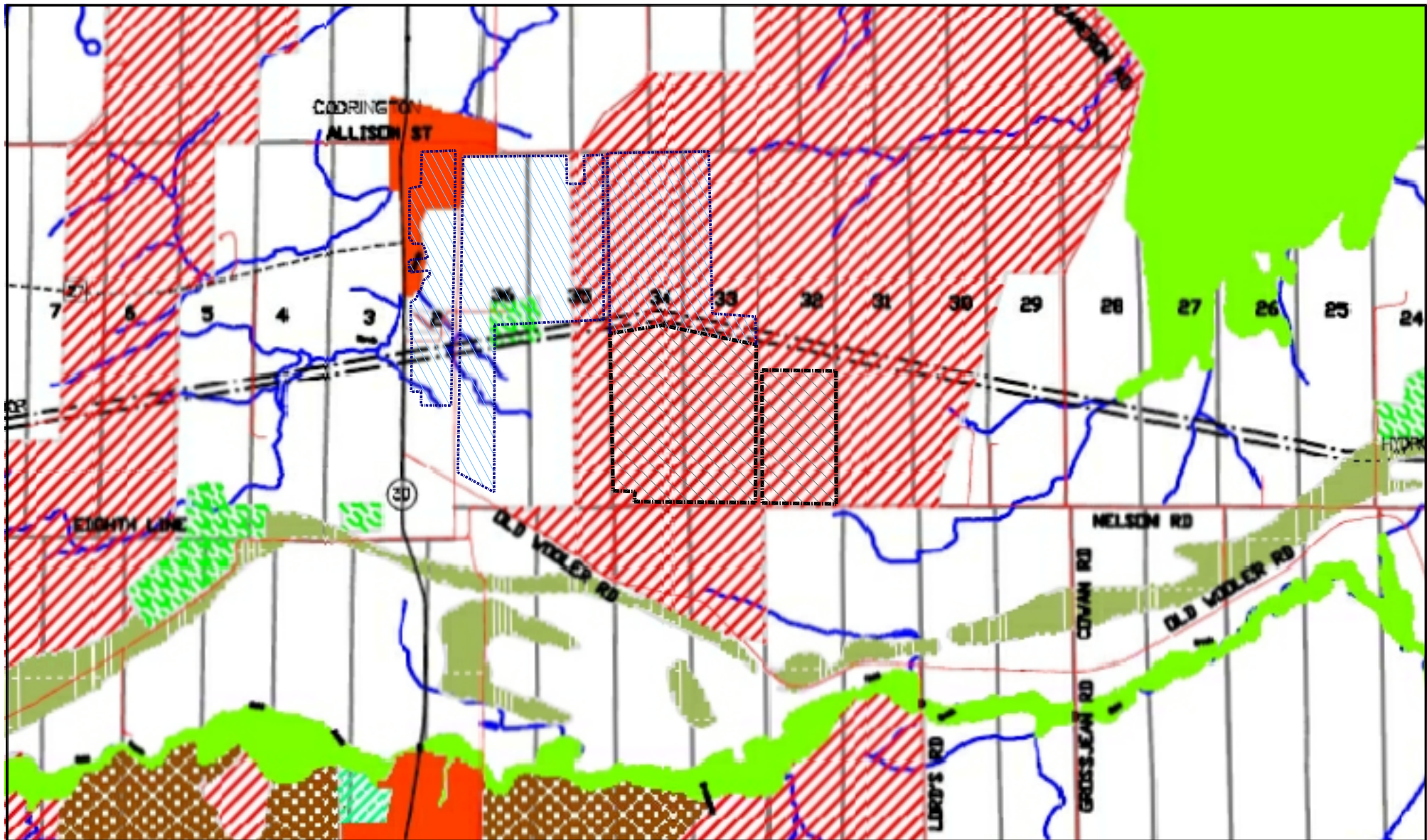
Existing Features Codrington Pit

Figure 5



 SUBJECT SITE
 Part Lots 32 -34
 Concession 6
 Municipality of Brighton
 (geographic township of Brighton)
 County of Northumberland





Official Plan Township of Brighton

Schedule A Land Use & Transportation Plan

Legend

SUBJECT SITE
Part Lots 32-34, Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland

- LAND USE**
- AGRICULTURAL AREA
 - RURAL AREA
 - RURAL AREA/SPECIAL POLICY

- ESTATE RESIDENTIAL AREA
- HAMLET AREA
- SHORELINE RESIDENTIAL AREA
- RESORT COMMUNITY AREA

- RECREATIONAL AREA
- HIGHWAY COMMERCIAL AREA
- INDUSTRIAL AREA
- INDUSTRIAL/COMMERCIAL AREA
- RESOURCE RESERVE AREA

- TRANSPORTATION**
- PROVINCIAL HIGHWAY
 - COUNTY ROAD
 - TOWNSHIP ROAD
 - PRIVATE ROAD
 - HYDRO CORRIDOR
 - OIL & GAS PIPELINE
 - RAILWAY LINE

- PITS & QUARRIES AREA
- ENVIRONMENTAL PROTECTION AREA
- MAJOR OPEN SPACE AREA
- SANITARY WASTE DISPOSAL AREA
- WATERCOURSE
- NATURAL HAZARD AREA

- RESERVOIR IMPACT ASSESSMENT AREA
- WASTE DISPOSAL ASSESSMENT AREA

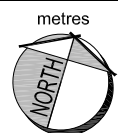
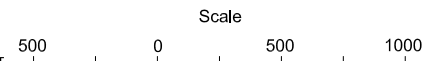
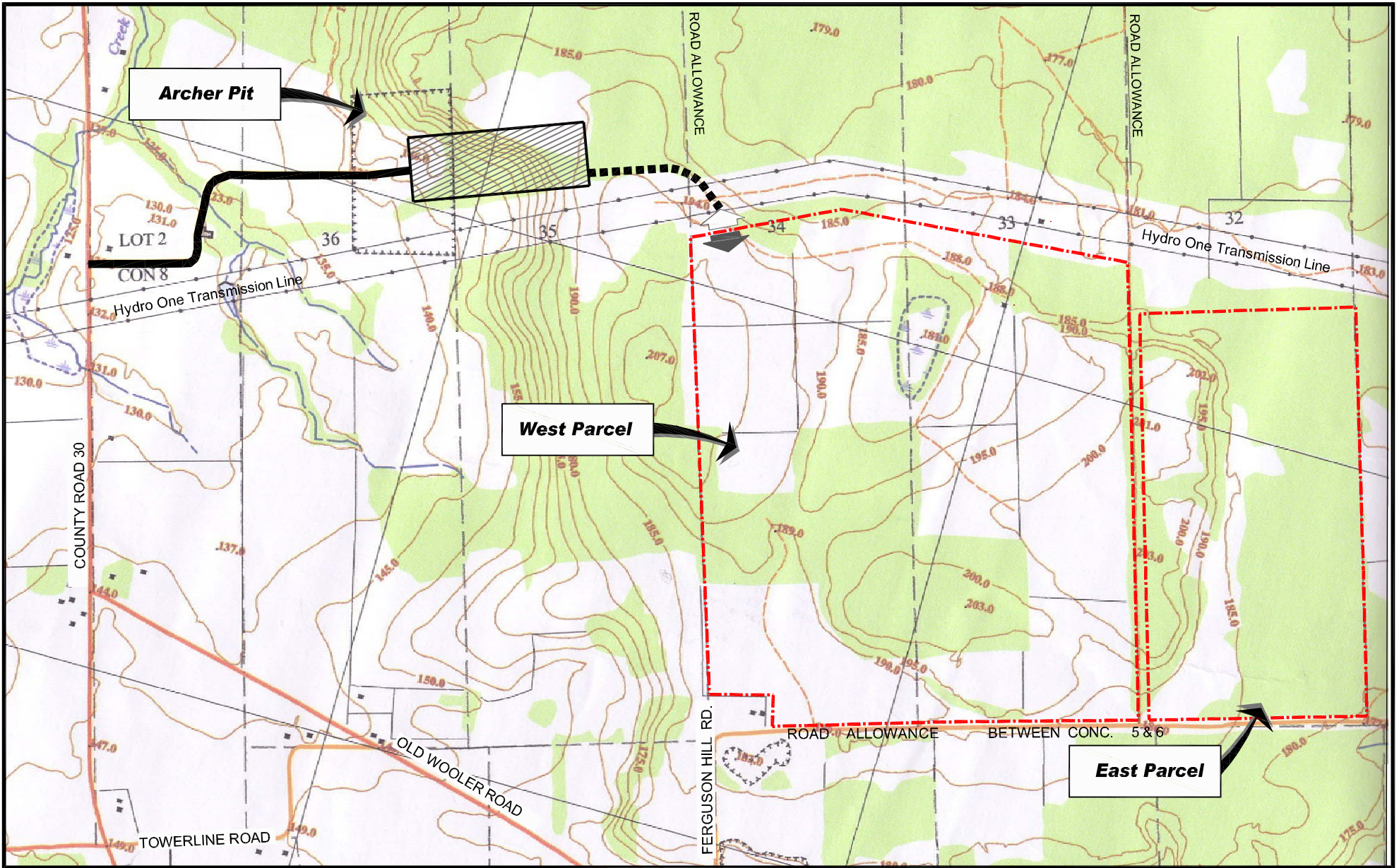






Figure 6



Proposed Haul Route Codrington Pit

 SUBJECT SITE
 Part Lots 32 -34
 Concession 6
 Municipality of Brighton
 (geographic township of Brighton)
 County of Northumberland

-  Proposed Haul Route Existing/In-Place
-  To be Constructed
-  Proposed Entrance/Exit


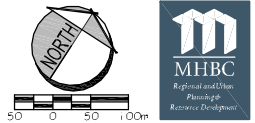
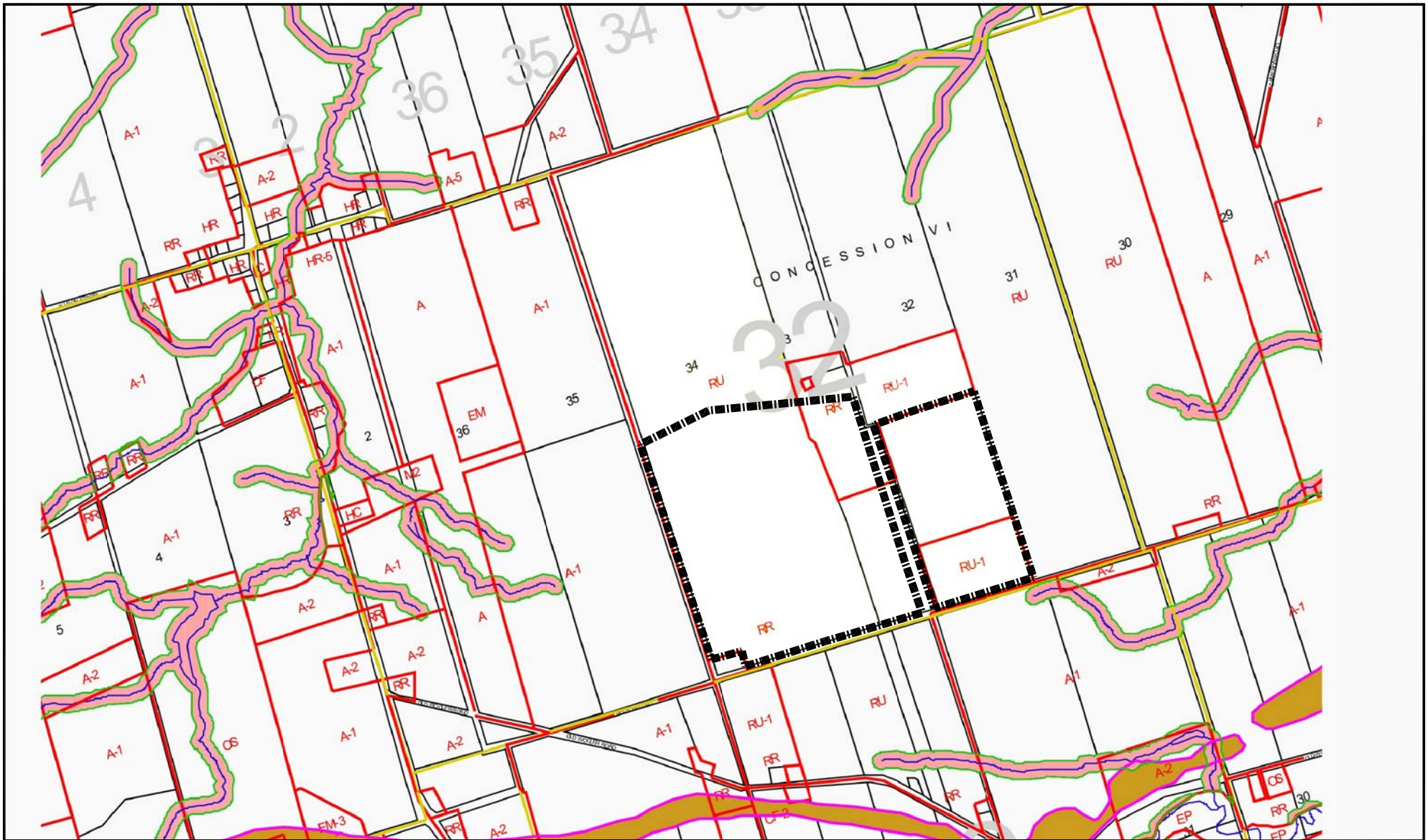
 Proposed Haul Route Location to be Determined



Figure 7






Zoning By-Law SCHEDULE 'A'

MUNICIPALITY OF BRIGHTON ZONING BY-LAW NO. 140-2002

Legend

 SUBJECT SITE
Part Lots 32 - 34, Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland

 FLOOD PRONE ZONE

RR - RURAL RESIDENTIAL ZONE
HR - HAMLET RESIDENTIAL ZONE
HC - HIGHWAY COMMERCIAL ZONE
EM - EXTRACTIVE INDUSTRIAL ZONE
RU - RURAL ZONE
A - AGRICULTURAL ZONE
OS - OPEN SPACE ZONE
EP - ENVIRONMENTAL PROTECTION ZONE
RR - RESOURCE RESERVE AREA ZONE

Figure 8

