

# HALIFAX

P.O. Box 1749  
Halifax, Nova Scotia  
B3J 3A5 Canada

**Item No. 11.2.1**  
**Halifax Regional Council**  
**August 4, 2015**

**TO:** Mayor Savage and Members of Halifax Regional Council  
**SUBMITTED BY:** Original Signed  
Councillor Steve Craig, Chair, North West Community Council  
**DATE:** July 24, 2015  
**SUBJECT:** Case 01192: Halifax Stanfield International Airport: Regulation of Adjacent Development

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## ORIGIN

- June 15, 2015 meeting of North West Community Council Item No. 10.1.1
- July 20, 2015 meeting of North West Community Council, Item No. 7.1.1

## LEGISLATIVE AUTHORITY

Section 25(c) of the Halifax Regional Municipality Charter sets out the powers and duties of Community Council to include "recommending to the Council appropriate by-laws, regulations, controls and development standards for the community."

## RECOMMENDATION

It is recommended by North West Community Council that Halifax Regional Council:

1. Give first reading to the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, to amend the Transportation Map and Zoning Map as set out in Attachments A and B of the staff report dated May 11, 2015, and schedule a public hearing;
2. Approve the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, to amend the Transportation Map and Zoning Map as set out in Attachments A and B of the staff report dated May 11, 2015;
3. Give first reading to the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, and the Regional Subdivision By-law to restrict the establishment of new noise sensitive developments located in the NEF 30 (Noise Exposure Forecast) Contour around the Halifax Stanfield International Airport, Enfield as set out in Attachments C, D, and E of the staff report dated May 11, 2015 and schedule a public hearing; and
4. Approve the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, and the Regional Subdivision By-law to restrict the establishment of new noise sensitive developments located in the NEF 30 (Noise Exposure Forecast) Contour around the Halifax Stanfield International Airport, Enfield as set out in Attachments C, D, and E of the staff report dated May 11, 2015.

**Recommendation continued on page 2**

5. It is further recommended by North West Community Council that the proposed amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law include conditions which reduce minimum frontage requirements from 300 feet to 200 feet and provisions for Notice on Deed/Noise Disclosure.

### **BACKGROUND**

A staff report dated May 11, 2015 pertaining to Case 01192 (attachment 2) was before North West Community Council at its meeting held on June 15, 2015. Staff responded to questions from Community Council in relation to the impact that the proposed amendments will have on privately owned lands and future development within the proposed Noise Exposure Forecast (NEF) Contour. As such, North West Community Council opted to defer the matter until a supplementary staff report could be provided for further information on the following:

1. Reductions to the allowable lot frontage from the proposed 300' to 200' and the number of new residences that would be permitted because of the proposed amendments to the Municipal Planning Strategy and Land Use By-Law.
2. Other potential forms of restrictions, such as the construction of homes with sound barriers
3. The potential for lands within the Noise Exposure Forecast which can be zoned commercial.

Staff provided a supplementary staff report dated June 24, 2015 in response to the requested information which was before North West Community Council for consideration at its meeting held on July 20, 2015.

For further information please refer to the attached staff reports dated June 24 and May 11, 2015 (attachments 1 & 2).

### **DISCUSSION**

North West Community Council received the supplementary staff report dated June 24, 2015 at its meeting held on July 20, 2015. The Community Council passed an amended motion which includes an additional recommendation that the approval of the proposed Amendments to the Planning Districts 14 and 17 MPS and LUB, include conditions to reduce minimum frontage requirements and provisions for Notice on Deed/Noise disclosure as outlined in this report.

### **FINANCIAL IMPLICATIONS**

As outlined in the attached staff report dated May 11, 2015 (attachment 2).

### **COMMUNITY ENGAGEMENT**

All meetings of North West Community Council are open to the public. The agenda and reports are provided online in advance of the meeting.

### **ENVIRONMENTAL IMPLICATIONS**

As outlined in the attached staff report dated May 11, 2015 (attachment 2).

### **ALTERNATIVES**

North West Community Council did not discuss alternatives.

**ATTACHMENTS**

1. Supplementary Staff report dated June 24, 2015
2. Staff report dated May 11, 2015

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A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.php> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by:      Liam MacSween, Legislative Assistant, 902.490.6521

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P.O. Box 1749  
Halifax, Nova Scotia  
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**Item No. 7.1.1 (i)**  
**North West Community Council**  
**July 20, 2015**

**TO:** Chair and Members of North West Community Council

Original Signed

**SUBMITTED BY:**

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Bob Bjerke, Director, Planning & Development

**DATE:** June 24, 2015

**SUBJECT:** **Case 01192: Halifax Stanfield International Airport: Regulation of Adjacent Development - Response to Council Questions**

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### **SUPPLEMENTARY REPORT**

#### **ORIGIN**

At its June 15, 2015 meeting, North West Community Council passed a motion directing staff to prepare responses to questions raised at the meeting and report back to Council by the next scheduled meeting of July 20, 2015.

#### **LEGISLATIVE AUTHORITY**

Halifax Charter Sections 229(1)(p) & 235 (5)(q) establish the ability for the Municipality to regulate development in areas near airports.  
Policy EC-14A of the 2006 Regional Municipal Planning Strategy  
Policies EC-10 and 11 of the 2014 Regional Municipal Planning Strategy

#### **RECOMMENDATION**

It is recommended that North West Community Council recommend that Halifax Regional Council:

1. Approve the amendment package presented at the June 15, 2015 meeting; and
2. Schedule a public hearing.



## **BACKGROUND**

At the June 15, 2015 North West Community Council meeting, a staff report was tabled with recommended amendments to the Districts 14 & 17 Municipal Planning Strategy and Land Use By-law and the Regional Subdivision By-law. A copy of the report and amendments can be found at:

<http://www.halifax.ca/Commcoun/central/150615nwcc-agenda.php> under item 10.1.1

Council passed a motion which requested staff to respond to requests for three pieces of information:

1. **Further clarification/information regarding reducing the allowable lot frontage from the proposed 300' to 200' and number of new residences that would be permitted because of the change.**
2. **Other potential forms of restrictions, such as the construction of homes with sound barriers**
3. **The potential for lands within the NEF which can be zoned commercial (ie: a quarry etc.)**

Staff have prepared responses to these questions as provided in the discussion section of this report.

## **DISCUSSION**

### **Question 1 - Further clarification/information regarding reducing the allowable lot frontage from the proposed 300' to 200' and number of new residences that would be permitted because of the change.**

The proposed NEF 30 Contour covers portions of five of the seven residential zones in the Districts 14 and 17 Plan area. Of these five zones, only the Rural Estate (RE) zone requires a minimum of 200 ft. frontage in order to create a new subdivided lot; all other residential zones require a minimum of 100 ft. of frontage for this purpose.

The residential subdivision capability that would be permitted if the proposed policy changes were to be approved by Council is largely dictated by two central factors. These factors are the established community settlement pattern within the area, and the Nova Scotia Department of Environment minimum lot size requirements for on-site services. Many of the long existing residential properties are large in area, but lack adequate existing road frontage. Additionally, many of the recently subdivided parcels do not contain a large enough land area to accommodate on-site (well and septic system) infrastructure which is required for further subdivision.

### **Existing LUB Frontage Requirements**

The staff memo to the Development Liaison Group (Attachment I of the May 11, 2015 Staff Report) referenced the potential future subdivision of 176 additional lots using the existing Land Use By-law (LUB) zone minimum frontage requirements. As the 176 lots included the 53 parent parcels, the number of potential new lots is 123.

### **Proposed 300 ft. Frontage Requirements**

The analysis of the proposed amendments of a uniform minimum of 300 ft. frontage requirement for all residential zones reduced the existing LUB potential future subdivision from 123 to 46 lots.

### **Proposed 200 ft. Frontage Requirements**

Reducing the proposed amendments minimum required frontage from 300 ft. to 200 ft. results in an additional 23 lots. When combined with the previous DLG memo analysis of 46 the total number of potential lots equals 69.

**Question 2 - Other potential forms of restrictions, such as the construction of homes with sound barriers etc.**

Staff addressed five alternatives to the use of the proposed planning document amendments in the Discussion section of the submitted May 11, 2015 Staff Report, under the sub-heading "Other Alternatives to Deal with Airport Noise". As outlined within the report these options include the following:

**Notice on Deed/Noise Disclosure:** A Notice on Deed would involve a disclosure on the land title indicating that the subject property could potentially be impacted by noise generated from a nearby airport. The use of noise disclosures does not solve the issue of airport noise. Such disclosure simply formally identify that the lands are subject to frequent noise from an airport, but do not reduce the conflict. They simply act as advisory. Transport Canada recommends the limiting of new land uses which are not compatible.

**Airport or Government to Purchase Affected Lands:** The purchase of private properties surrounding airports to deal with noise complaints is not a recommended practice. Transport Canada recommends dealing with land use issues before they are created by not permitting activities which would be in conflict. Neither the HIAA nor any other levels of government have the resources to embark on a land acquisition program. Notwithstanding the lack of resources, the acquisition of land is a very effective means of dealing with conflicting land uses.

**Sound Insulation/Building Code Modifications:** The practice of insulation and noise control techniques in relation to a building can achieve reduction of aircraft noise. There is a lack of a national standard relating to aircraft noise and appropriate insulation techniques, thus the creation of a program would be time consuming and complex. CMHC has previously developed a sound insulation standard for use around airports. This standard is out of date and is no longer recommended by Transport Canada. Further the major limitation of insulation is that it only improves noise issues within a building and does not generate any improvement on outdoor activities.

**Mitigating Airport Activities:** There are various techniques that can be used by an airport to manage aircraft noise. All of these techniques have some impact at managing noise, but ultimately airport noise will exist at an airport. The following are some of the techniques that an airport can employ to manage noise: pilot awareness programs, access restrictions (limiting flights, usually at night), enhanced navigational aids, restricting apron/gate power, noise barriers, berms and shielding, preferential runway use programs, flight path programs, thrust and flap management programs, etc. These techniques do not effectively deal with the land use conflict.

**Compensation:** It has been suggested that property owners should be compensated for changes to land use regulations. Changes to planning regulations are considered non-injurious by the Halifax Charter and thus, not eligible for compensation.

In addition to the above, and as further detailed in Transport Canada document TP1246 (Attachment K of the May 11, 2015 report), the application of any or all of these mitigating approaches is not deemed an acceptable solution by Transport Canada.

**Question 3 - The potential for lands within the NEF which can be zoned commercial (ie: a quarry etc.)**

### **Community Plan**

The Districts 14 and 17 Shubenacadie Lakes Municipal Planning Strategy establishes the community's goals and aspirations for future development. To guide this growth, the Plan policy statements approved by Council direct how and where residential, commercial and industrial land uses are located, while ensuring areas identified for environmental protection are preserved.

The proposed NEF 30 Contour overlays four land use designations as shown on the attached Map 1, Generalized Future Land Use. The future land use intent and general location within the NEF 30 Contour of each of these designations is as follows:

Airport: To recognize the unique opportunities offered by the Halifax Stanfield International Airport, the Designation reflects the importance of the airport as a major regional facility (Approx. 5,000 acres in combined area).

Resource: Primarily intended to recognize both the tradition of resource use and the need to provide for future growth. Portions of Resource designated lands are located to the west, east and north of the HSIA (Approx. 2,000 acres).

Residential: to recognize, support and protect the predominantly low density residential environment along with associated community uses such as churches, schools, community halls, and police and fire stations. In addition, the Residential Designation supports certain home businesses which will not be incompatible with the residential environment. Lands designated Residential are located exclusively west of the HSIA in the Oakfield subdivision (Approx. 400 acres).

Mixed Residential: to recognize and support the existing semi-rural environment while providing for the protection of the more suburban type residential neighbourhoods, and to recognize the importance of protecting the area's sensitive natural environment. In order to reduce the possibility of land use conflict and to protect the natural environment as the area grows, limitations are placed upon the business use of a residential property and the development of resource uses. In addition to recognizing existing smaller local commercial uses, Council may also consider permitting local commercial and personal service uses and associated residential uses. The Mixed Residential designation applies to lands located to the north, east and west of the HSIA (Approx. 4,000 acres).

### **Commercial Land Uses**

While the Residential and Mixed Residential designations provide for limited local commercial uses, larger scale commercial uses are directed to the Community Centre Designation. While not encompassed by the proposed NEF 30 Contour, the Community Centre Designation is intended to recognize, support and encourage the continued development of small village-style commercial centres and to provide for the development of larger more regionally oriented commercial uses in concentrated locations. The designation limits the size, type, mix of commercial services, office and residential uses in locations served by the secondary road network, while providing for the location of larger uses near the major highway network.

Should it be Council's desire to consider significant changes to the Plan wherein commercial land uses are expanded beyond the extent envisioned in the Community Plan it is highly recommended that these changes be considered within a separate process. Typically these types of amendments would warrant a full secondary plan review process and Regional Council approval. These types of changes were not the subject of staff review in the scope of the NEF Contour plan amendments being considered within this project, nor were they considered within any of the engagement sessions with the members of the public.

### **Quarries**

The recent Nova Scotia Court of Appeal decision 2015 NSCA 44 Northern Construction Enterprises Inc. v. Halifax Regional Municipality (dated May 12, 2015) determined the Municipality has no jurisdiction to

regulate quarry operations. As quarries and their operation fall exclusively within the jurisdiction of the Province of Nova Scotia the Municipality's planning documents on the issue are superseded.

A copy of the decision can be found at: <http://decisions.courts.ns.ca/nsc/nsca/en/item/109595/index.do>

Notwithstanding the aforementioned Nova Scotia Court of Appeal decision, for Council's information, the Districts 14 & 17 Community Plan addresses community concerns regarding pits and quarries near residential areas with Plan policy seeking the authority to control their location. Plan policy also restricts pit and quarry locations to the Resource Designation located to the north of the Oldham and Goffs Roads, as well as to the south of Goffs Road and to the east of the Halifax Stanfield International Airport (Attachment A).

### **SUMMARY**

Staff recommend that North West Community Council recommend that Halifax Regional Council give first reading to the amendment package presented at the June 15, 2015 meeting and schedule a public hearing.

### **FINANCIAL IMPLICATIONS**

The costs to process these planning document amendments can be accommodated within the approved 2015/16 operating budget for C320 Planning & Development.

### **COMMUNITY ENGAGEMENT**

A public participation program was undertaken in accordance with that approved by Council. A summary of this program is included in the May 11, 2015 staff report.

### **ENVIRONMENTAL IMPLICATIONS**

This report does not have environmental implications.

### **ALTERNATIVES**

1. Regional Council could choose to not amend the planning documents, thereby maintaining the existing planning policy and regulations. Regional Council has complete discretion in taking this action and its decision is not subject to appeal. This is not recommended as the amendments are a result of existing Regional MPS policies and is a further implementation of the direction provided by Council.

2. Council could seek amendments to the proposed planning policy and regulations which are more or less stringent from those that have been proposed in the attachments. Depending on the magnitude of the desired amendments, a new review process and public hearing may be required. This is not the recommended course of action.

### **ATTACHMENTS**

Map 1	Districts 14 & 17 Generalized Future Land Use Map
Attachment A	Districts 14 & 17 Municipal Planning Strategy Excerpts

A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/index.php> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: David Lane, Senior Planner, 902.490.5593

Original Signed

Report Approved by:

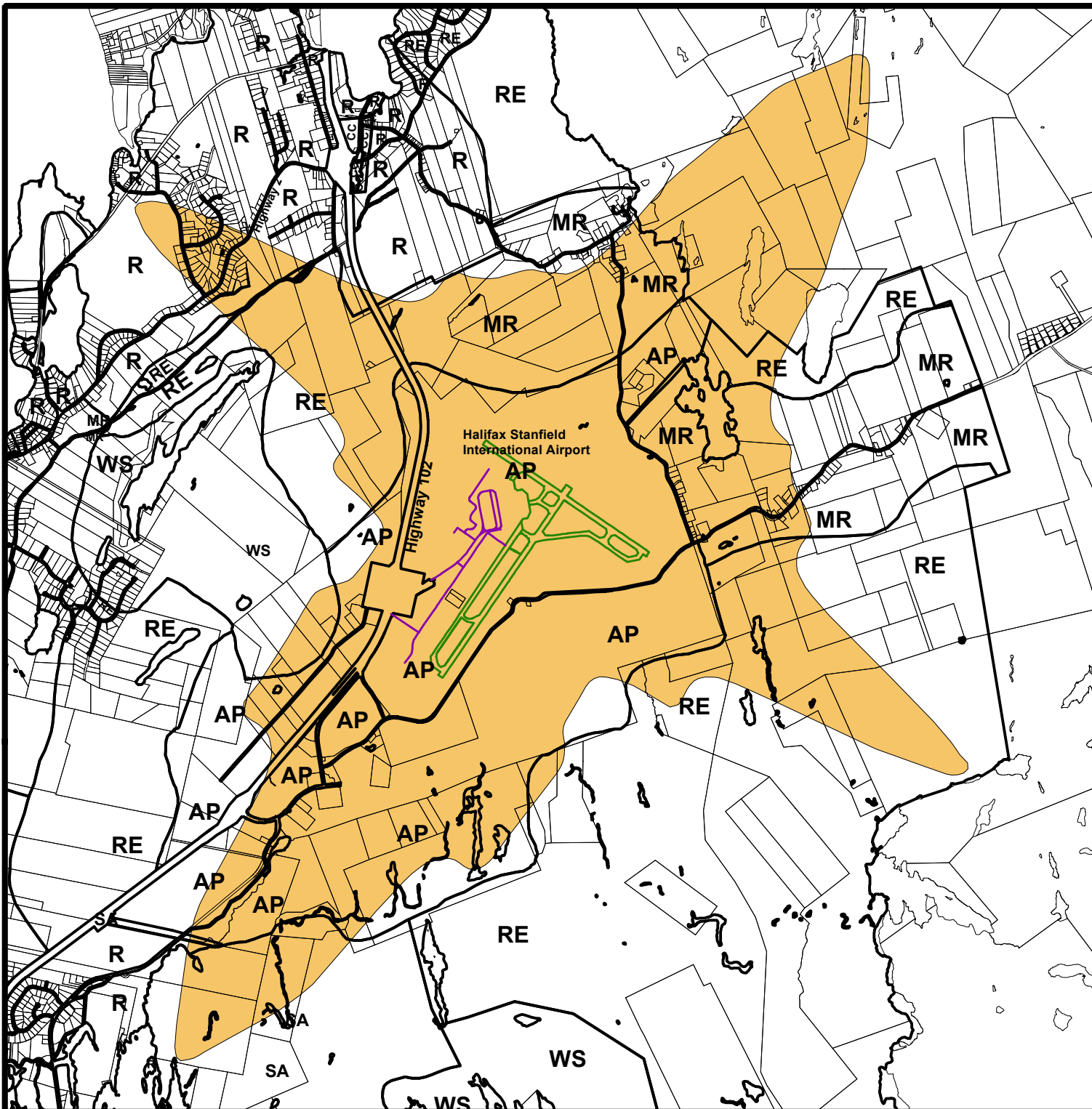
\_\_\_\_\_  
Carl Purvis, Acting Supervisor, Community Planning, 902.490.4797

Original Signed

Financial Approval by:

\_\_\_\_\_  
Bruce Fisher, Acting Director of Finance & ICT/CFO, 902.490.6308

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Map 1  
Generalized Future Land Use



NEF 30 Contour

**HALIFAX**

R Residential Designation  
MR Mixed Residential Designation  
AP Airport Designation  
WS Watershed Designation

CC Community Centre Designation  
RE Resource Designation  
SA Special Area Designation





**Attachment A**  
**Districts 14 & 17 Municipal Planning Strategy Excerpt**

**LAND USE INTENT**

The **Generalized Future Land Use Maps 1A and 1B (RC-Oct 23/12;E-Jan 12/13)** illustrates seven (7) land use designations intended to direct the pattern of future development in the Plan Area. The designations reflect existing development patterns as well as the potential for a transition of uses. The designations are:

- (a) Residential
- (b) Mixed Residential
- (c) Community Centre
- (d) Industrial
- (e) Special Area
- (f) Watershed
- (g) Resource

The Residential Designation recognizes the pattern of suburban residential development which has occurred in parts of the Plan Area in recent years, and which is expected to continue. This pattern of growth is associated with the improved accessibility provided by the 100 series of highways and affects the communities of Waverley, Fall River, Fletchers Lake and, most recently, the Enfield area. The development pattern is one of low density single unit dwellings with scattered two unit dwellings and some home business uses.

The Mixed Residential Designation has been applied to areas less influenced by suburban type development which have retained a more traditional semi-rural character. This designation includes communities such as Grand Lake, Goffs, Wellington, and Oldham. A linear pattern of single and two unit dwellings with mobile homes and interspersed community uses has resulted. Business uses are common and resource based activities are also dispersed throughout the area. Limited suburban style development has taken place. The designation recognizes the need to protect the natural environment and to minimize the potential for conflicts.

The Community Centre Designation recognizes existing shopping and service areas in the ~~communities~~ community (RC-Oct 23/12;E-Jan 12/13) of Waverley ~~and Fall River~~ (RC-Oct 23/12;E-Jan 12/13), and provides for the development of similar centres in other communities as well as near major highway interchanges. Present commercial development is oriented towards local markets and this pattern is expected to continue reinforcing the community centre/village atmosphere. The continuation of this pattern of commercial development is encouraged as is the realisation of new commercial opportunities derived from the 100 series highways. Interchanges on these highways have the potential to support a more regional scale of highway oriented commercial development.

The Industrial Designations recognize the distinction between the needs of private industrial developers and the needs of the Municipality in establishing the Aerotech Business Park. The Airport Industrial Designation provides for the Municipality's commitment to industrial growth and improved employment opportunities through the development of the Aerotech Industrial Park. The Light Industrial Designation accommodates existing industrial uses located in the Plan Area, as well as areas which are advantageously located with respect to the transportation network.

The Resource Designation recognizes the long tradition of resource use in the Plan Area, and the need to provide for its continued activity. However, the designation also recognises that future development throughout the Plan Area will be largely residential and that it will, therefore, be necessary to encourage compatibility between the resource and residential land uses which may in future occupy these lands. This is a secondary area for residential development.

### Aggregates

Pits and quarries producing gravel, fill, or crushed rock provide commodities essential to modern construction methods. However, proposals for new pits and quarries, particularly in the southern portions of the Plan Area have raised serious public concerns. In addition to considerations of environmental impact and public safety, there are also concerns with the location of such uses close to rapidly growing residential areas.

The Planning Act states that a municipal planning strategy may protect pits, quarries and aggregate deposits and regulate developments adjacent to pits and quarries. Council has asked the Province to provide municipal governments with the authority to control the location of pits and quarries. Thus far, such authority has not been given.

P-133 It shall be the intention of Council to continue to seek the authority to control the location of pits and quarries in the Plan Area.

The maintenance of an adequate supply of aggregate materials is of regional concern. Although there are portions of the Province where suitable rock is in short supply, this situation does not appear to be the case in the metropolitan region. However, the need to identify and protect, as yet untapped future sources, is important.

P-134 It shall be the intention of Council to cooperate with and encourage the Provincial Department of Mines and Energy to identify areas of high quality aggregate materials in the Plan Area.

While the specific locations of high quality aggregate resources have not yet been identified, it is apparent that additional exploitation of the deposits in the southern portion of the Plan Area will create severe long-term conflicts with the expanding residential communities. There are, however, large areas within the northern and eastern portions of the Plan Area where acceptable locations for future aggregate operations may be found.

When and if the Municipality is empowered to specifically regulate and prohibit the location of pits and quarries, it is important to have an established policy and regulatory structure. In this regard, it is appropriate for the Council to provide for the development of new pit and quarry operations in specific portions of the Resource Designation while prohibiting the expansion of existing operations.

P-135 In recognition of both the need for aggregates and the importance of expanding communities, when so empowered by statute, it shall be the intention of Council to permit the development of new pits and quarries only in those portions of the Resource Designation located to the north of the Oldham and Goffs Roads as well as to the south of the Goffs Road and to the east of Halifax International Airport.



Public and municipal concerns with respect to the overall impacts of pits and quarries on nearby communities, the safety and integrity of the public road network and the protection of natural environment can be expected to continue. In order to provide for adequate consideration of these concerns, it is appropriate to consider such uses by development agreement.

P-136 Within the portion of the Resource Designation described in Policy P-135, it shall be the intention of Council to consider the development of extractive facilities according to the provisions of Sections 55, 66 and 67 of the Planning Act. In considering such an agreement, Council shall have regard for:

- (a) the provisions of the Provincial Department of Environment's proposed Regulations for Pits and Quarries where applicable;
- (b) the maintenance of adequate separation distances from other non-industrial land uses;
- (c) the impact of the proposed use on the development and use of lands at or near Halifax International Airport;
- (d) the effect of the proposed use on surrounding traffic patterns and general public safety;
- (e) hours of operation;
- (f) provisions for limiting public access to the site;
- (g) provisions for the ongoing rehabilitation and ultimate reuse of the lands;
- (h) the location of structures and storage areas on the site;
- (i) the effects of the use on the natural environment as contained in a report from the appropriate provincial or federal government authority; and
- (j) the provisions of Policy P-155.

**Item No. 7.1.1 (ii)**  
**North West Community Council**  
**June 15, 2015**

**TO:** Chair and Members of North West Community Council

**SUBMITTED BY:** Original Signed  
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Bob Bjerke, Director, Planning & Development

**DATE:** May 11, 2015

**SUBJECT:** **Case 01192: Halifax Stanfield International Airport: Regulation of Adjacent Development**

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### **ORIGIN**

On January 12, 2010 Regional Council directed staff to initiate a process to consider amending the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-Law to regulate noise-sensitive land uses around Halifax Stanfield International Airport; and direct staff to follow the public participation program as approved by Regional Council in February 1997.

### **LEGISLATIVE AUTHORITY**

Halifax Charter Sections 229(1)(p) & 235 (5)(q) establish the ability for the Municipality to regulate development in areas near airports.  
Policy EC-14A of the 2006 Regional Municipal Planning Strategy  
Policies EC-10 and 11 of the 2014 Regional Municipal Planning Strategy

### **RECOMMENDATION**

It is recommended that North West Community Council recommend that Halifax Regional Council:

1. Give first reading to the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, to amend the Transportation Map and Zoning Map as set out in Attachments A and B, and schedule a public hearing;
2. Approve the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, to amend the Transportation Map and Zoning Map as set out in Attachments A and B;
3. Give first reading to the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, and the Regional Subdivision By-law to restrict the establishment of new noise sensitive developments located in the NEF 30 (Noise Exposure Forecast) Contour around the Halifax Stanfield International Airport, Enfield as set out in Attachments C, D, and E

and schedule a public hearing; and

4. Approve the amendments to the Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law, and the Regional Subdivision By-law to restrict the establishment of new noise sensitive developments located in the NEF 30 (Noise Exposure Forecast) Contour around the Halifax Stanfield International Airport, Enfield as set out in Attachments C, D, and E.

## **EXECUTIVE SUMMARY**

On January 12, 2010, Regional Council initiated a process to consider restricting the development of future land uses around Halifax Stanfield International Airport that may be adversely impacted by airport noise. This request is in support of existing Regional Municipal Planning Strategy (RMPS) policy (Attachment F) which identifies the importance this airport plays in the local and provincial economy.

Transport Canada recommends municipalities implement land use controls which limit residential development around airports. The Halifax International Airport Authority has formally requested that HRM implement such controls.

Staff has proceeded through the MPS amendment process including two public consultation sessions (February 17, 2010, Attachment F; and October 22, 2014, Attachment G).

Staff is recommending that Regional Council implement updated land uses controls, as identified in the recommendation section of this report, around the Halifax Stanfield International Airport which limit residential development.

## **BACKGROUND**

Halifax Stanfield International Airport is located in Enfield and has been operation since 1960. It is Atlantic Canada's busiest airport and serves approximately 3.5 million passengers each year. The airport generates approximately \$1.25 billion dollars in economic impact each year.

The Airport Authority controls approximately 2,323 acres of land around the airport which is owned by Transport Canada. It is developed as airport facilities, related commercial uses and reserve for future airport purposes. The airport is surrounded by a mixture of privately and publicly owned land. The public land is in the form of the Municipality's Aerotech Business Park (a 2,400 acre industrial and business park), limited watershed lands near Bennery Lake, and provincially owned land, primarily in the form of undeveloped forest, some of which forms portions of the Waverley Game Sanctuary. Private lands are intermixed with the above noted lands and include privately held commercial lands adjacent Highway 102. Residential development around the airport includes developments in the communities of Goffs, Enfield, Oakfield, Grand Lake, Fletchers Lake and Fall River (Map 1).

The Planning Districts 14 and 17 Municipal Planning Strategy and Land Use By-law (LUB) apply various designations and zones to the lands. Map 2 identifies MPS designations and Map 3 identifies existing land use zoning.

### **Regional Municipal Planning Strategy**

HRM has previously recognized the importance of addressing land use compatibility issues around the airport through Section 5.3.3 of the Regional Municipal Planning Strategy, which states:

*Halifax Stanfield International Airport is a significant contributor to HRM's economy, generating significant direct and indirect benefits and thousands of jobs. The Halifax International Airport Authority, the agency responsible for managing the airport, plans significant expansion and improvements over the coming years where warranted by projected increases in both passenger and freight traffic.*

*One issue facing the airport's activity is the potential impact of noise from plane traffic on surrounding areas. Transport Canada has charted areas where noise impacts may be significant and recommends restricting development, especially residential, from locating within these areas. Enabling provisions would need to be incorporated into the HRM Charter to allow for policies to be established under the applicable secondary planning strategy.*

*EC-10 HRM shall cooperate with the Halifax International Airport Authority in the development of airport-related facilities to ensure that municipal infrastructure requirements are adequate for any future expansion plans.*

*EC-11 HRM shall consider amendments to the applicable Land Use By-law to restrict residential developments in the vicinity of the Halifax Stanfield International Airport which would be incompatible by virtue of noise.*

Prior to the Regional MPS, HRM had previously started a process to limit residential development around the Airport, including the holding of a public information meeting in 2003 and a workshop in 2005. However, it was determined that the legislative authority to restrict development within the noise exposure contours was not clear and the project ceased. Amendments to the HRM Charter have since been adopted.

### **Planning Districts 14 and 17 Municipal Planning Strategy**

The existing Municipal Planning Strategy for Planning Districts 14 and 17 identifies noise contours around the Halifax International Airport and provides mapping of noise contours (circa 1979) as an information item in the Transportation Section of the MPS. Aside from much of the lands in the immediate vicinity of the airport being designated and zoned for industrial or commercial uses (Attachment J), there is no policy which links airport noise issues and land use.

### **Memoranda of Understanding with Halifax International Airport Authority**

Two Memorandums of Understanding (MoU) between Halifax Regional Municipality and the Halifax International Airport Authority have been signed. Directed by the Regional Plan, the MoUs are strategic collaborations, and contain statements regarding servicing, land use and economic development.

The December 2006 MoU addressed the ground lease agreement transfer of the airport from Transport Canada to Halifax International Airport Authority (HIAA), and emphasized continued collaboration of airport planning and development. The September 2008 agreement focussed on partnering to foster economic development, including investment in the Atlantic Gateway initiative, public transportation, taxation, infrastructure (fire, piped services) and future land sales and acquisitions.

With regard to land use, the 2006 MoU states:

*The Municipality and the Authority shall work toward the creation and implementation of appropriate planning processes and procedures of general application to be followed for the development of lands in the vicinity of the Halifax International Airport in order to protect against incompatible land uses which would restrict the operation and growth of the airport.*

## **DISCUSSION**

### **Noise at Airports and the Impacts on Land Use**

Airports can be significant generators of noise from on-ground operations, and specifically from air traffic, take-off and landings. Airport noise can be predicted and the federal government requires airport authorities to map airport noise utilizing a tool known as Noise Exposure Forecasts or NEF contours. The

federal government requires airport authorities to work with local land use authorities to reduce the conflict between an airport and surrounding land uses. By reducing conflict between airports and surrounding land uses, two main goals can be achieved:

1. A minimization of the impacts on residential properties thus allowing property owners quiet enjoyment of their properties and use of their homes and the exterior of their properties without significant interruption or annoyance by airport operations at all hours of the day.
2. Airport operations may be unimpeded by restrictions caused by the need to regulate air traffic to minimize noise impacts on the surrounding residential community.

### **Noise Exposure Forecasts**

In Canada, noise around airports is calculated and identified via a Noise Exposure Forecast (NEF) as recommended by the federal government via Transport Canada. The NEF is a time-averaged determination of expected noise levels within the vicinity of an airport, expressly from the perspective of predicting likely annoyances from aircraft upon a surrounding community. By considering factors such as types of aircraft, time of flights, arrivals, departures, and future runway expansions, anticipated noise levels are described as contours upon a map (a Noise Contour Map) with an assigned a NEF value for each contour. Transportation Canada describes the typical community response to each NEF contour range as follows:

#### **COMMUNITY RESPONSE PREDICTION**

<b>Response Area</b>	<b>Response Prediction</b>
1 (over 40 NEF)	Repeated and vigorous individual complaints are likely. Concerted group and legal action might be expected.
2 (35-40 NEF)	Individual complaints may be vigorous. Possible group action and appeals to authorities.
3 (30-35 NEF)	Sporadic to repeated individual complaints. Group action is possible.
4 (below 30 NEF)	Sporadic complaints may occur. Noise may interfere occasionally with certain activities of the resident
* It should be noted that the above community response predictions are generalizations based upon experience resulting from the evolutionary development of various noise exposure units used by other countries. For specific locations, the above response areas may vary somewhat in accordance with existing ambient or background noise levels and prevailing social, economic and political conditions.	

Source: Transportation Canada, TP-1247

### **Transport Canada Guidelines**

Transportation Canada recommends that noise sensitive development be controlled from the NEF 25 level and greater and recommends specific restrictions on residential for residential land uses at the NEF 30 level or greater.

The purpose of restricting further noise-sensitive development is to ensure that land use compatibility issues are minimized. Noise-sensitive development is referenced by Transportation Canada as being uses such as residences, nursing homes, schools, hospitals, and day cares (Attachment K). By restricting noise sensitive land uses the operation of the airport is less likely to be affected by noise conflicts. Where noise sensitive land uses have been permitted to encroach on airports, there have been instances where the conflict has resulted in the airport having to restrict operations by time of day or type of aircraft. In instances of extreme conflict class action law suits have been initiated by residents against airports. Some lawsuits have been successful for the residents, thus having negative impacts on airport operations or finances.

The Transport Canada recommendations are guidelines and implementation of these guidelines varies by province and municipality. Some municipalities are less stringent with their land use regulations than others. Council's role is to determine what standard is acceptable for our municipality.

Halifax International Airport Authority has developed NEF mapping for the areas around the airport. These calculations have been reviewed and accepted by Transport Canada. The Halifax International Airport Authority has asked HRM to restrict the development of future noise-sensitive land uses in support of the Transportation Canada recommendations. Map 4 identifies the NEF 30 and greater noise contour for the Halifax Stanfield International Airport. The NEF contour covers approximately 11,482 acres of land.

### **Jurisdictions**

Ultimately in Canada, all levels of government have a role to play in managing the impact of airport activities on adjacent lands. Because of Canada's constitutional system, the roles of federal and provincial governments are defined, with local municipalities also playing an important role on specific matters.

### **Federal Government and related Departments and Agencies**

**Transport Canada:** Transport Canada approves new noise abatement procedures and establishes regulations over such things as aircraft source emissions (engine noise). Transport Canada also sets out recommendations for managing airport noise and land use. To this end, Transport Canada has designed a system of predicting Airport Noise called NEF (Noise Exposure Forecasts) and provides recommendations to local land use authorities (Attachment K) to manage incompatible land uses. Transport Canada is also the owner of many airports in Canada, but is not the operator of most airports including Halifax Stanfield International.

**Airport Authorities:** Airport authorities are generally tenants of Transport Canada and are the operator of individual airports. They are responsible for establishing noise abatement procedures. Noise abatement procedures can govern things such as runway selection and routings near an airport. These authorities are responsible for the production of NEF contours for their respective airports subject to a review by Transport Canada. Additionally, most airports have noise management committees and noise offices that receive and respond to noise complaints from area residents. Further the airport authorities are the main point of contact with local land use authorities relating to land use compatibility.

**Health Canada:** Health Canada provides advice to the public and regulatory authorities, such as Transport Canada, on the health effects of aircraft noise. This ensures that health risks are taken into account when decisions are made that affect our exposure to aircraft noise. In addition, Health Canada's scientists assess the potential health effects of aircraft noise by:

- Conducting their own research on the stress response to aircraft noise;
- Tracking and assessing scientific papers by other experts in this field; and
- Participating in the *International Congress on Noise as a Public Health Problem*, which takes place every three years.

**Airlines and Other Aircraft Operators:** Airlines and other aircraft operators are responsible for conducting their operations in accordance with Transport Canada regulations and airport noise abatement procedures.

### **Provincial Government**

Each province in Canada deals with airports and land use compatibility in different ways. The table below identifies what role each province plays in creating planning policy for airports. In Nova Scotia the province gives limited powers to the municipality to regulate or restrict land uses around airports with defined NEF contours. In some provinces, provincial legislation requires all municipalities to implement regulations to restrict land uses around airports. A summary of provincial legislation can be found below:

Province	Roles	Details
British Columbia	The Community Charter and the Local Government Act does not	Not applicable.

	specifically reference airports	
Alberta	Alberta Municipal Government Act, enables land use planning restrictions in the vicinity of the Calgary and Edmonton airports.	Regulations relating to land use are specified as regulations for each airport. These regulations tend to reflect Transport Canada recommendations.
Saskatchewan	Provincial planning policy enabled regulation or prohibiting of development a specified distance from an airport in a zoning by-law.	Provincial policy enables restricted development regulation in any zoning by-law.
Manitoba	Provincial statements of planning policy includes references to the Winnipeg International; Airport and the need to protect it's 24 hour status and to restrict new residential development in areas that do not meet the national noise exposure standards in the vicinity of airports.	Each municipality is required to implement controls consistent with this policy.
Ontario	Province requires land use regulation around airports specifically NEF 30 through Statements of Provincial Interest.	Each municipality is required to implement these controls.
Quebec	Act Respecting Land Use Planning and Development does not specifically reference airports	Not applicable.
New Brunswick	Provincial Legislation does not appear to specifically speak to airport noise issues.	Not applicable.
Prince Edward Island	Provincial Legislation does not appear to specifically speak to airport noise issues.	Not applicable.
Nova Scotia	Province enables local authority to implement controls around airports via Municipal Charter or Municipal Government Act.	Controls are to be determined by each land use authority but are limited to the NEF 30 area and above.
Newfoundland	Provincial Legislation does not appear to specifically speak to airport noise issues.	Not applicable.

#### Municipality / Local Land Use Authority

In most parts of Canada, local municipalities or land use authorities are responsible for the implementation of land use controls around airports. Below is a summary of how select comparable cities deal with this issue.

City	Requirements	Comments
Victoria	No reference to noise sensitive land uses in the North Saanich Plan which covers lands surrounding the Victoria International Airport.	Although there appears to be official NEF calculations for the Victoria International Airport, they do not appear to be implemented in Municipal Planning documents. Research has indicated that there are noise issues in Victoria Harbour area due to sea plane traffic.

City	Requirements	Comments
Regina	Zoning requires higher standard of noise insulation via use of a zoning overlay and provision in the <u>Building By-law</u> .	Provincial planning policy enabled regulation or prohibiting of development a specified distance from an airport in a zoning by-law. Use of noise attenuation practices via additional insulation is no longer a recommended practice by Transport Canada.
London	Policies in the London Official Plan regulate establishment of noise sensitive Land Uses in NEF	Meets provincial requirement to ensure protection of airport.
Quebec City	Aéroport de Quebec Master Plan (2010) indicates that a NEF study has not been completed for this airport.	None
St. John's	Policies in the Municipal Plan regulate establishment of noise sensitive Land Uses in NEF	Residential land uses restricted within the NEF 30 Contour.

### **Nova Scotia**

In most parts of Nova Scotia, municipalities are responsible for implementing land use controls. There are very few airports in Nova Scotia which have enough air traffic to warrant consideration of sustained noise related issues. The airports which have this level of activity are Canadian Forces Base Greenwood, Sydney Airport and Yarmouth Airport.

Kings County has planning policy and zoning regulation in place around the Greenwood Canadian Forces Base which restricts residential new residential development in the NEF 35 or higher noise contour. The Municipality of the District of Yarmouth restricts new residential development in the NEF 35 or higher noise contour through the application of an Airport Noise Restriction Zone. Sydney Airport does not have official policies relating to noise contours in the Cape Breton Regional Municipality Municipal Planning Strategy.

### **Other Alternatives to Deal with Airport Noise**

Various forms of land use controls were suggested by members of the public during the consultation process. Many of these suggestions vary significantly from what is recommended by Transport Canada. Staff has reviewed these proposals and offers the following reasons as to why these controls are not recommended.

**Notice on Deed/Noise Disclosure:** A Notice on Deed would involve a disclosure on the land title indicating that the subject property could potentially be impacted by noise generated from a nearby airport. The use of noise disclosures does not solve the issue of airport noise. Such disclosure simply formally identify that the lands are subject to frequent noise from an airport, but do not reduce the conflict. They simply act as advisory. Transport Canada recommends the limiting of new land uses which are not compatible.

**Airport or Government to Purchase Affected Lands:** The purchase of private properties surrounding airports to deal with noise complaints is not a recommended practice. Transport Canada recommends dealing with land use issues before they are created by not permitting activities which would be in conflict. Neither the HIAA nor any other levels of government have the resources to embark on a land acquisition program. Notwithstanding the lack of resources, the acquisition of land is a very effective means of dealing with conflicting land uses.

**Sound Insulation/Building Code Modifications:** The practice of insulation and noise control techniques in relation to a building can achieve reduction of aircraft noise. There is a lack of a national standard relating to aircraft noise and appropriate insulation techniques, thus the creation of a program would be time consuming and complex. CMHC has previously developed a sound insulation standard for use



around airports. This standard is out of date and is no longer recommended by Transport Canada. Further the major limitation of insulation is that it only improves noise issues within a building and does not generate any improvement on outdoor activities.

**Mitigating Airport Activities:** There are various techniques that can be used by an airport to manage aircraft noise. All of these techniques have some impact at managing noise, but ultimately airport noise will exist at an airport. The following are some of the techniques that an airport can employ to manage noise: pilot awareness programs, access restrictions (limiting flights, usually at night), enhanced navigational aids, restricting apron/gate power, noise barriers, berms and shielding, preferential runway use programs, flight path programs, thrust and flap management programs, etc. These techniques do not effectively deal with the land use conflict.

**Compensation:** It has been suggested that property owners should be compensated for changes to land use regulations. Changes to planning regulations are considered non-injurious by the Halifax Charter and thus, not eligible for compensation.

### **Proposal**

Staff is proposing several changes to planning documents to implement controls in the vicinity of the Halifax Stanfield International Airport as detailed below.

**1. Planning District 14 and 17 MPS** – The draft MPS amendments identify that a schedule should be added which identifies the location of the Noise Exposure Forecast 30 and greater noise contour around the Airport (Map 4/ Schedule A of Attachment B). Further within the contour the proposed policy identifies that residential development in close proximity to the airport, should be limited. In addition the proposal prohibits the construction of new roads for residential development, as well as, specifically prohibiting Open Space Design Subdivisions within the NEF 30 contour. Policy also requires that additional controls be placed in the Land Use By-law to further limit residential development in the area.

**2. Planning District 14 and 17 LUB** – The draft LUB amendments add a schedule to the LUB which identifies the NEF 30 contour. Restrictions are proposed to be established to prevent the establishment of “Nursing homes” and “Residential care facilities” within the NEF 30 contour. Further, increased lot frontage requirements are proposed to limit the subdivision of new residential lots. The regulations propose a new requirement of 300 feet of frontage for new lots within the NEF 30 contour. This change will reduce the number of lots permitted to be created on existing roads. Regulations also do not permit the issuance of permits for mobile homes within the contour. These changes affect the R-1A (Single Unit Dwelling), R-1B (Suburban Residential), R-1D (Residential Auxiliary Dwelling Unit), R-1E (Residential Estate), R-6 (Rural Residential ) and R-7 (Rural Estate) Zones within the NEF 30 contour. Additionally, all publicly held lands in the noise contour which is not related to the airport are proposed to be rezoned to the P-3 (Park) Zone.

**3. Halifax Regional Subdivision By-law** – The proposal is to add a schedule to the Subdivision By-law which identifies the NEF 30 and greater contour. Restrictions are proposed to be established which prohibit the creation of new public roads within the noise contour. The proposal also includes provisions for the further subdivision approval of approved tentative subdivision plans which have been approved up until the date of the public hearing.

### **Impacts on Proposal**

The proposed changes will affect land owners whose properties are located within the NEF noise contour. The three main groups of property owners are: lands owned by the provincial government, private land owners with large lots which are capable of being subdivided and individual property owners with existing lots which are not capable of being subdivided. The following describes the proposals impact on each group of owners.

**Federal Government / Airport Authority** – The proposed change does not impact land uses on the lands controlled by the Halifax International Airport and owned by Transport Canada.

**Provincial Government Lands** – Lands owned by the Province of Nova Scotia which do not have an existing Park (P-3) Zone are proposed to be rezoned to the Park (P-3) Zone. This will ensure that these lands are not developed for residential purposes. The Province of NS owns approximately 5,627 acres of the land within the NEF noise contour.

**HRM Lands** - The proposed change does not impact lands owned by Halifax Regional Municipality (Aerotech Business Park).

**Private Land Owners (Large Lots)** – Large privately held land holdings make up approximately 300 acres of the land within the NEF noise contour. These lands are the most affected by the proposed changes. The proposed changes will not permit large scale subdivision of the lands because the construction of new roads will be prohibited. Limited subdivision will be permitted on existing road frontages. Residential uses will be permitted on all lots (effectively grandfathering existing low density residential rights). Mobile homes, residential care facilities and nursing homes will be prohibited on these properties. Policy will also preclude the establishment of Conservation Design subdivisions. Staff is proposing the grandfathering of any approved tentative or final subdivision plans that are in existence on the date of the public hearing.

**Private Land Owners (Small Lots not capable of subdivision)** – Small privately held land holdings make up approximately 800 acres of the land within the NEF noise contour. These lands are the least affected by the proposed changes. The proposed changes do not dramatically affect these properties as residential uses will be permitted on all lots (effectively grandfathering existing low density residential rights). Mobile homes, residential care facilities and nursing homes will be prohibited on these properties.

### **Summary of Proposal**

The proposal will not permit the creation of new public road or open space development thus not permitting large scale subdivision with the NEF 30 noise contour. Subdivision of existing parcels would be permitted on existing road frontages, but with an increased frontage requirement of 300 feet. The establishment of new nursing homes, residential care facilities and mobile homes will be prohibited. Residential land uses will continue to be permitted on existing lots as well as their future expansion. The limited creation of new lots (on existing roads) will be permitted with full residential rights. Staff is also proposing the grandfathering of any approved tentative or final subdivision plans that are in existence on the date of the public hearing.

### **Required Housekeeping Amendment**

Due to the age of the Planning Districts 14 and 17 MPS and LUB, the above noted amendments require the updating of approved mapping for these documents. Existing mapping for the Municipal Planning Strategy Map 3, Transportation Map was drafted using manual techniques. This map was recently updated to today's digital standards, which provides for more accurate mapping. As a result staff is proposing that the Transportation Map for the plan area be updated to reflect the Noise Exposure Forecast 30 Contour (Attachment A). All other Transportation Map information remains the same as the existing approved mapping. This map is an information map and is not directly linked to policy. Staff is suggesting that Council approve the new mapping first, followed by any changes required to implement the proposed changes around Halifax International Airport.

### **FINANCIAL IMPLICATIONS**

The costs to process this planning application can be accommodated within the approved 2014/15 operating budget for C310 Planning & Development.

### **COMMUNITY ENGAGEMENT**

The proposed amendments will potentially impact the following stakeholders: local residents, property

owners, community or neighbourhood organizations, provincial and federal governments and the Halifax International Airport Authority.

The community engagement process is consistent with the intent of the HRM Community Engagement Strategy. The level of community engagement was consultation. In accordance with Regional Council's Public Participation Program for MPS amendments, public information meetings (PIMs) were held on February 17, 2010 and October 22, 2014. Minutes from these meetings are attached as Attachment F and G.

At both of the PIMs, concerns raised included compensation for loss of development rights, airport expansion, airport noise (existing and future) and impacts of the amendments (subdivision) on existing residential development. Written stakeholder submissions are included as Attachments H and M.

Following the PIMs, several additional meetings were held with local councilors and with local land owners at their request.

On November 27, 2014 Staff presented the proposed amendments to the Development Liaison Group (DLG). As a result of DLG inquiry regarding the impact of the proposed amendments on residential subdivision potential a follow-up memo dated March 12, 2015 (Attachment I) was forwarded to the DLG.

Should Regional Council decide to schedule a public hearing, property owners within the NEF 30 noise contour area shown on Map 4 will be notified of the hearing by mail. Public notices will be posted in the local newspaper and on the HRM website.

### **ENVIRONMENTAL IMPLICATIONS**

This report does not have environmental implications.

### **ALTERNATIVES**

1. Regional Council could choose to not amend the planning documents, thereby maintaining the existing planning policy and regulations. Regional Council has complete discretion in taking this action and its decision is not subject to appeal. This is not recommended as the application is as a result of existing Regional MPS policies and is a further implementation of the direction provided by Council.
2. Council could seek amendments to the proposed planning policy and regulations which are more or less stringent from those that have been proposed in the attachments. Depending on the magnitude of the desired amendments, a new review process and public hearing may be required. This is not the recommended course of action.

### **ATTACHMENTS**

Map 1	Ownership
Map 2	Generalized Future Land Use
Map 3	Zoning Map
Map 4	Airport Noise Contour Overlay
Attachment A	Amendments to the Planning Districts14 and 17 MPS – MPS Map
Attachment B	Amendments to the Planning Districts14 and 17 LUB – Zoning Map
Attachment C	Amendments to the Planning Districts 14 and 17 MPS – Airport Noise
Attachment D	Amendments to the Planning Districts14 and 17 LUB – Airport Noise
Attachment E	Amendments to the Regional Subdivision By-law – Airport Noise
Attachment F	Public Information Meeting Minutes – February 17, 2010

Attachment G	Public Information Meeting Minutes – October 22, 2014
Attachment H	Stakeholder Submissions
Attachment I	Staff Memo to Development Liaison Group – March 12, 2015
Attachment J	Excerpts from the Planning Districts 14 and 17 Municipal Planning Strategy
Attachment K	Transport Canada, Land Use in the Vicinity of Airports: Part IV Aircraft Noise
Attachment L	Petition: Regional Council March 23, 2010, Item 10.2.1

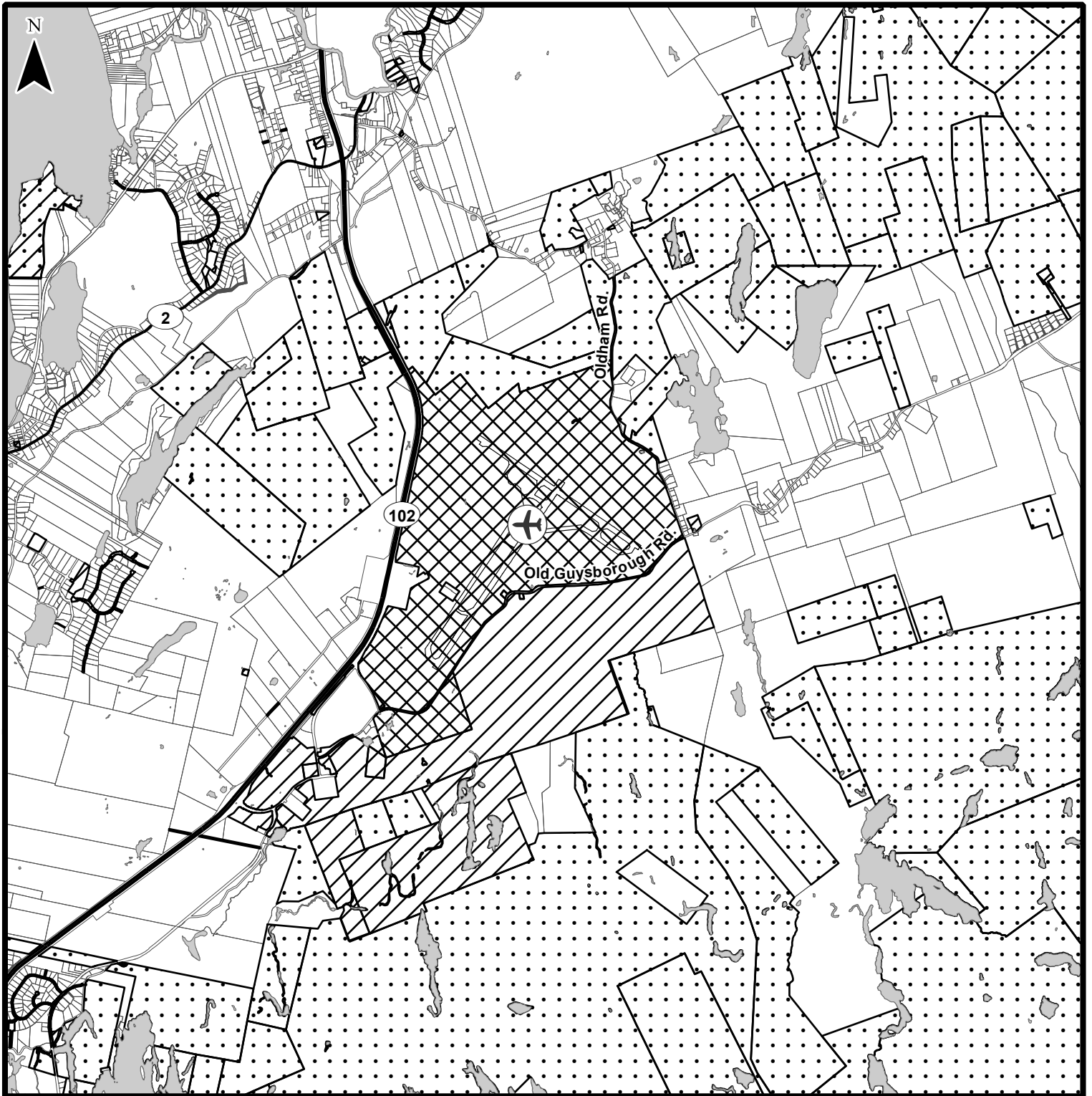
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A copy of this report can be obtained online at <http://www.halifax.ca/commcoun/index.php> then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 902.490.4210, or Fax 902.490.4208.

Report Prepared by: David Lane, Senior Planner, 902.490.5593

Original Signed

Report Approved by: \_\_\_\_\_  
Carl Purvis, Acting Supervisor, Community Planning, 902.490.4797



## MAP 1 OWNERSHIP



Halifax Stanfield  
International Airport



Highway



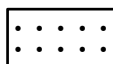
Waterbody



Private Lands



HRM Lands



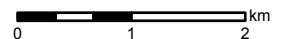
Provincial Lands

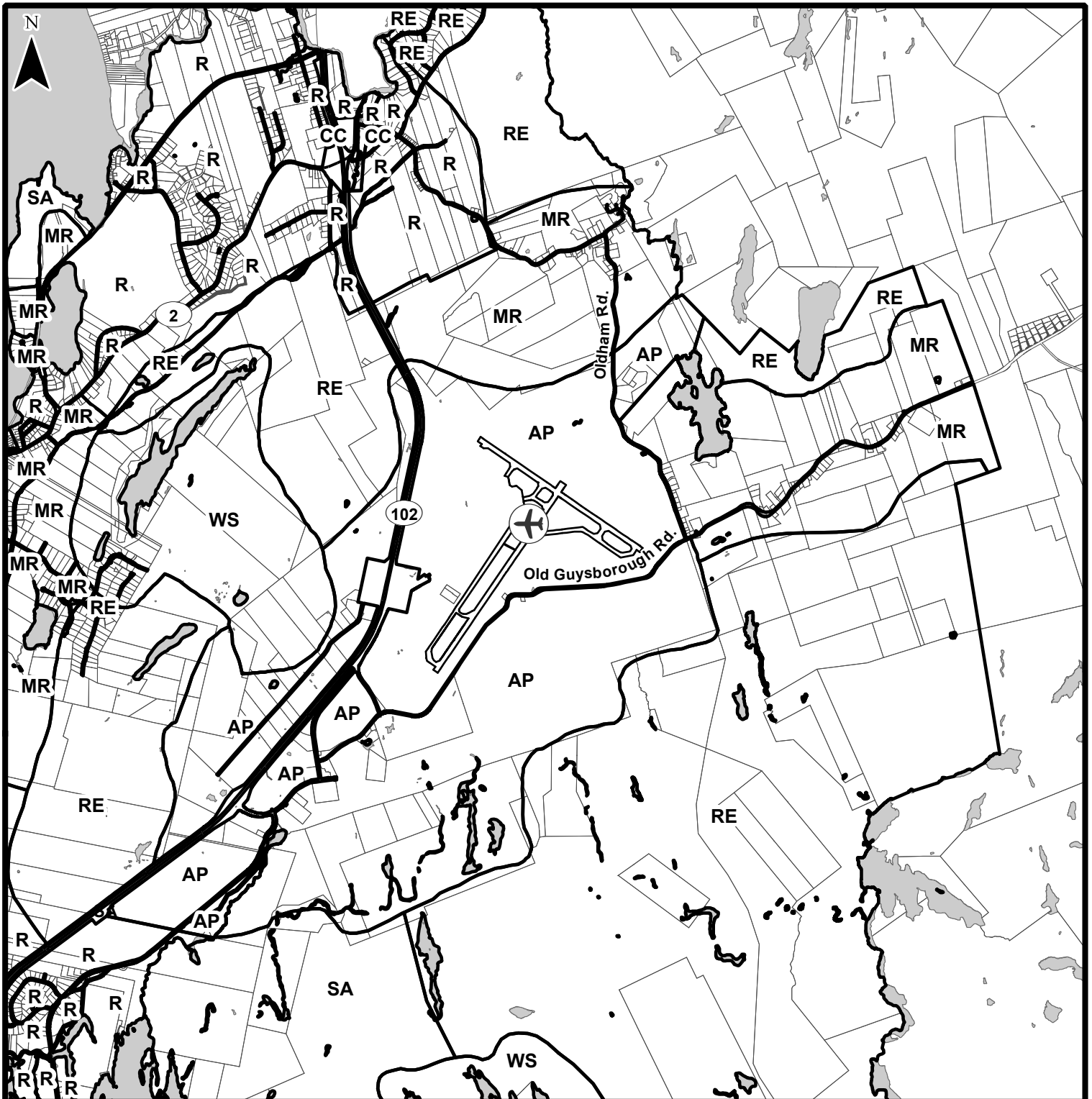


Federal Lands

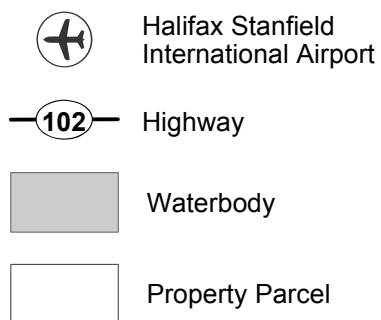
**HALIFAX**

Planning and Development





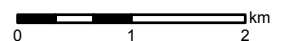
## MAP 2 GENERALIZED FUTURE LAND USE



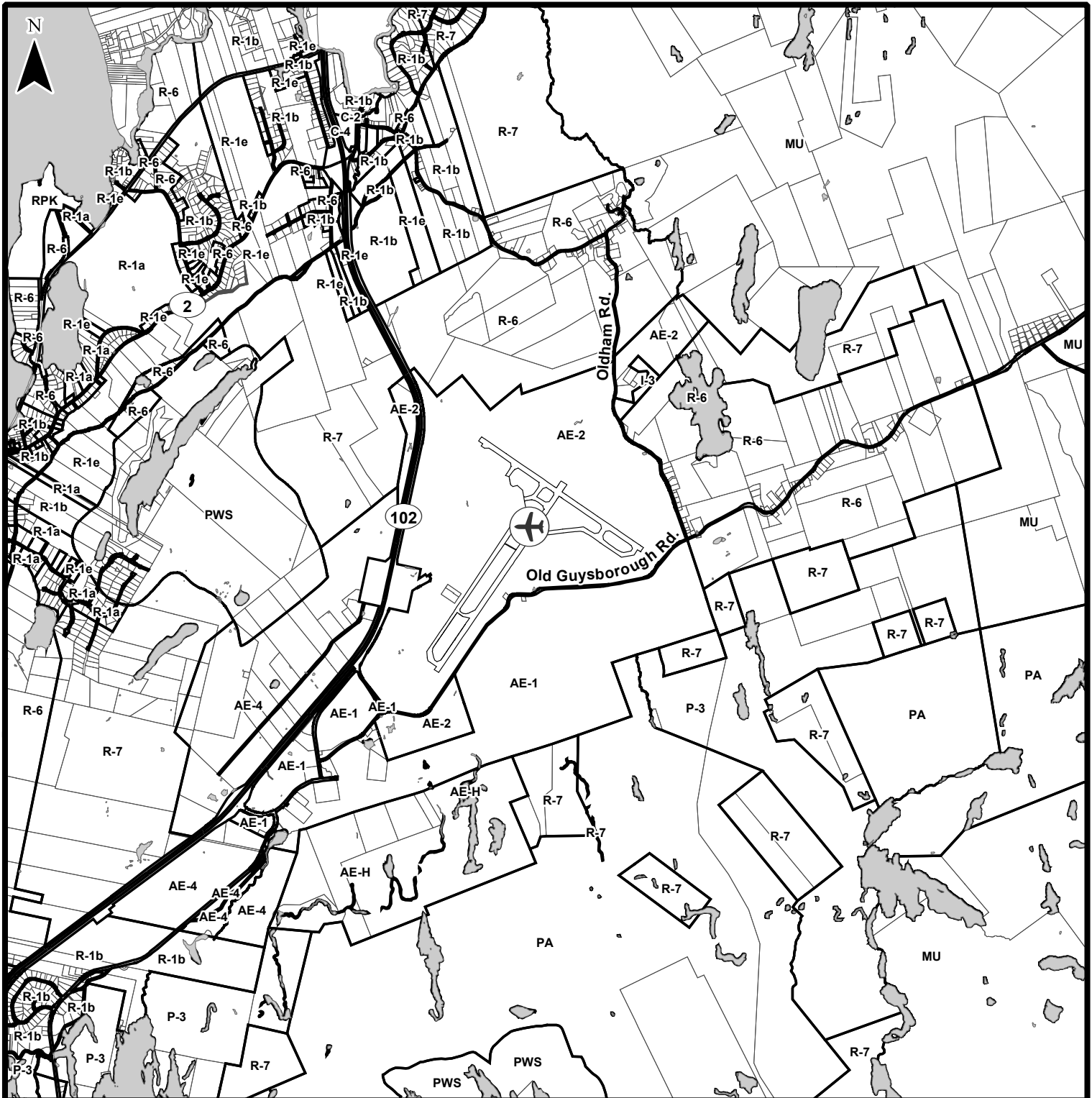
R	Residential Designation
MR	Mixed Residential Designation
AP	Airport Designation
WS	Watershed Designation
CC	Community Centre Designation
RE	Resource Designation
SA	Special Area Designation

**HALIFAX**

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## MAP 3 ZONING



Halifax Stanfield  
International Airport



Highway



Waterbody



Property Parcel

R-1a Single Unit Dwelling Zone

R-1b Suburban Residential Zone

R-1e Residential Estate Zone

R-6 Rural Residential Zone

R-7 Rural Estate Zone

CDD Comprehensive  
Development District Zone

P-3 Park Zone

AE-1 Aerotech Core Zone

AE-2 General Airport Zone

AE-4 Aerotech Business Zone

AE-H Holding Zone

PWS Protected Water Supply Zone

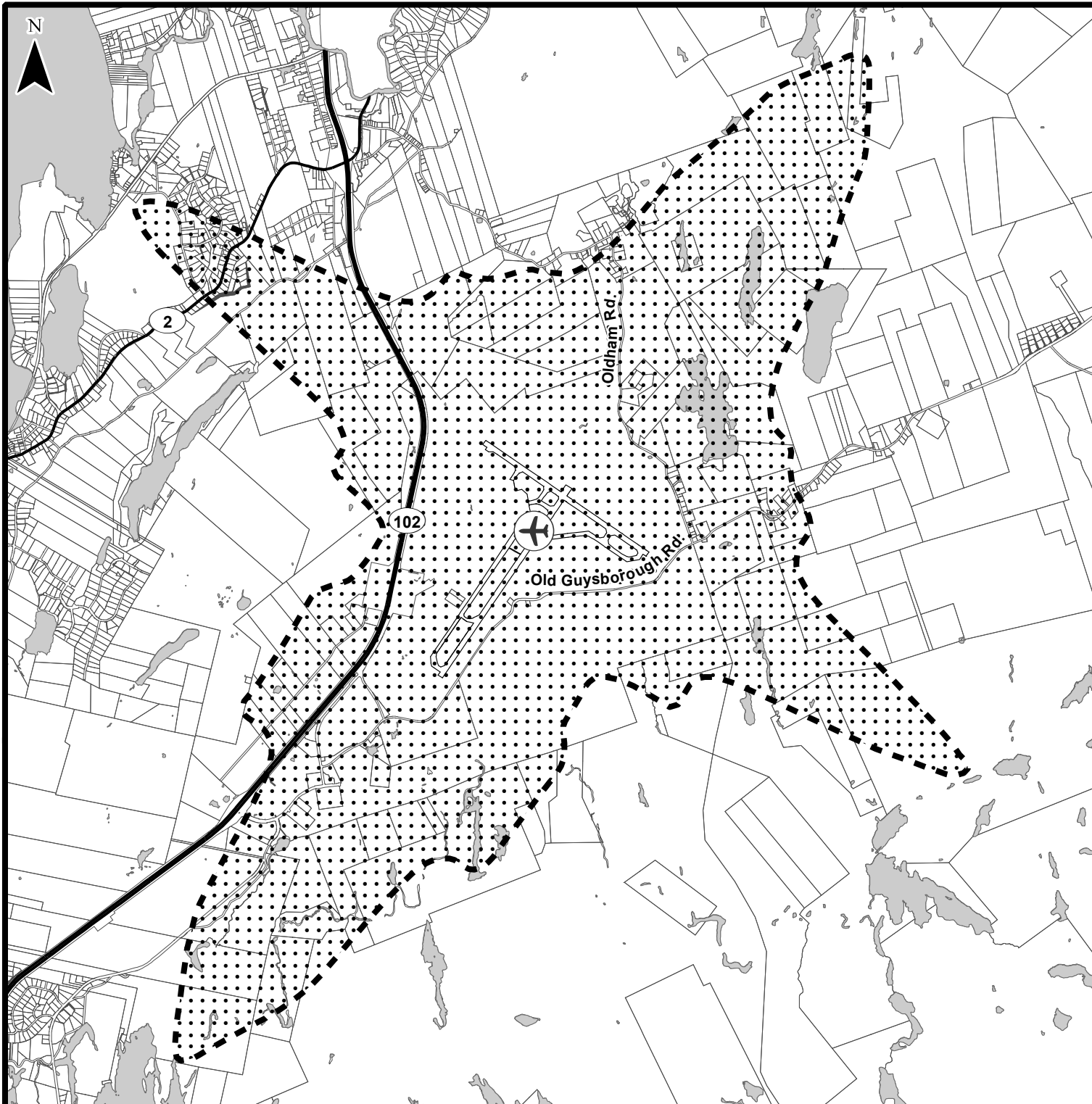
I-3 Light Industrial Zone

PA Protected Area Zone

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## MAP 4 AIRPORT NOISE CONTOUR OVERLAY



Halifax Stanfield  
International Airport



Property Parcel



Highway



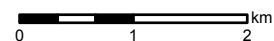
Waterbody



Noise Exposure  
Forecast 30

**HALIFAX**

Planning and Development





**Attachment A**  
**Amendments to the Planning Districts 14 and 17 (Shubenacadie Lakes) MPS – Map**

BE IT ENACTED by the Halifax Regional Council of the Halifax Regional Municipality that the Municipal Planning Strategy of Planning Districts 14 and 17 (Shubenacadie Lakes) as enacted by the Halifax Regional Municipality on the 2<sup>nd</sup> day of May, 1989 and approved by the Minister of Municipal Affairs on the 19<sup>th</sup> day of July, 1989, which includes all amendments thereto which have been approved by the Municipality and are in effect as of the 18<sup>th</sup> day of October, 2014, is hereby further amended as follows:

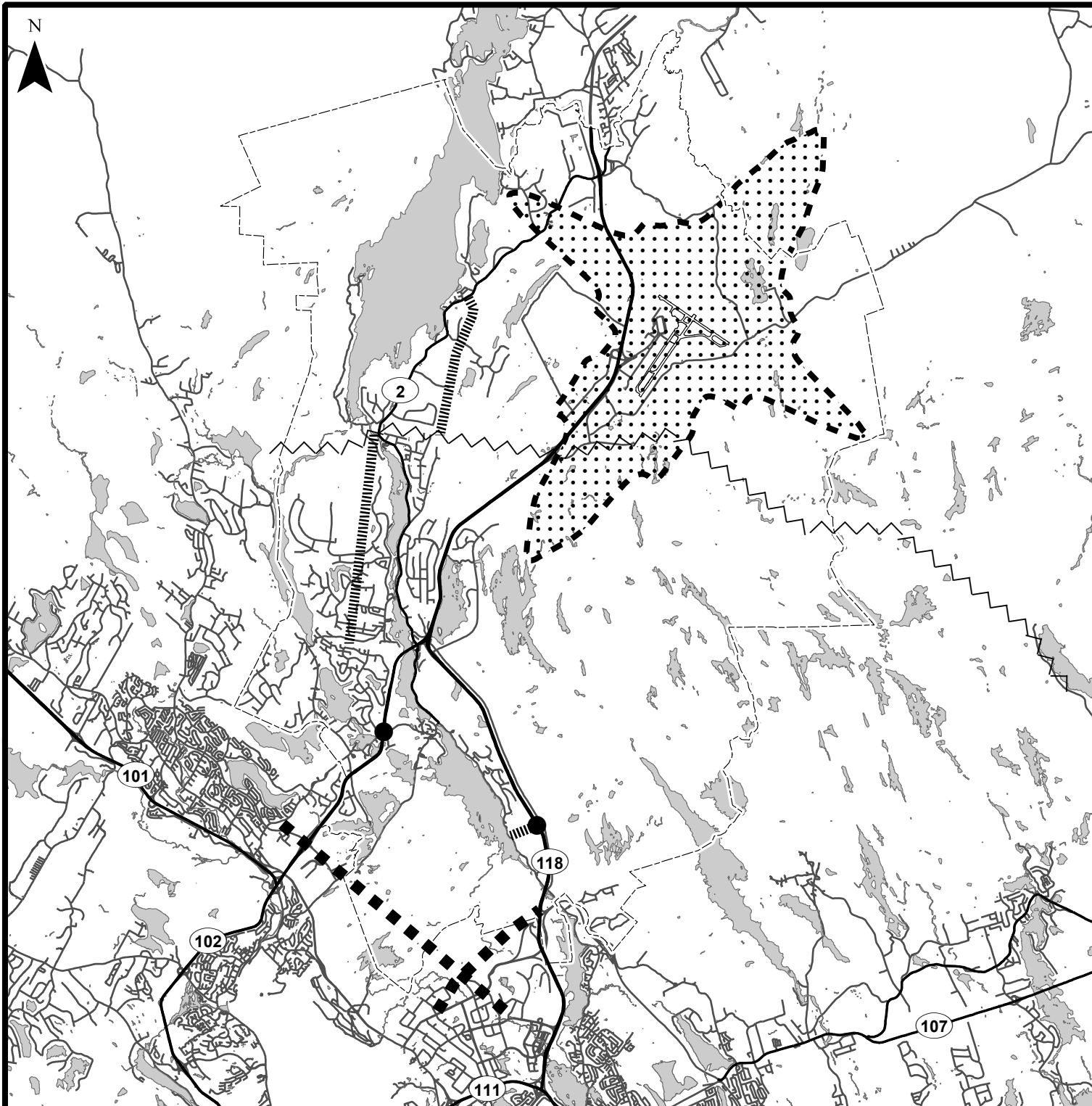
1. The Planning Districts 14 and 17 (Shubenacadie Lakes) Municipal Planning Strategy shall be amended by deleting Map 3 Transportation Map, and replaced with Map 3 Transportation Map, attached as Schedule A.

I HEREBY CERTIFY that the amendments to the Planning Districts 14 and 17 (Shubenacadie Lakes) Municipal Planning Strategy Maps as set out above, was passed by a majority vote of the whole Council of the Halifax Regional Municipality at a meeting held on the       day of       , 2015

GIVEN under the hands of the Municipal Clerk and under the Corporate Seal of the Halifax Regional Municipality this day of       , 2015

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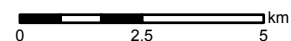
Municipal Clerk



# **SCHEDULE A** **MAP 3 TRANSPORTATION** **PLANNING DISTRICTS 14 & 17**

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- Interchange - Proposed
- Proposed Collector
- ■ ■ ■ Proposed Road
- Ring Road
- Planning Districts 14 and 17 MPS Boundary
- Highway
- Road
- Waterbody
- Noise Exposure Forecast 30

**Attachment B**  
**Amendments to the Planning Districts 14 and 17 (Shubenacadie Lakes) Land Use By-law – Zoning Map**

BE IT ENACTED by the Halifax Regional Council of the Halifax Regional Municipality the Land Use By-law of Planning Districts 14 and 17 (Shubenacadie Lakes) as enacted by the Halifax Regional Municipality on the 2nd day of May, 1989 and approved by the Minister of Municipal Affairs on the 19th day of July, 1989, which includes all amendments thereto which have been approved by the Municipality and are in effect as of the 18th day of October, 2014, is hereby further amended as follows:

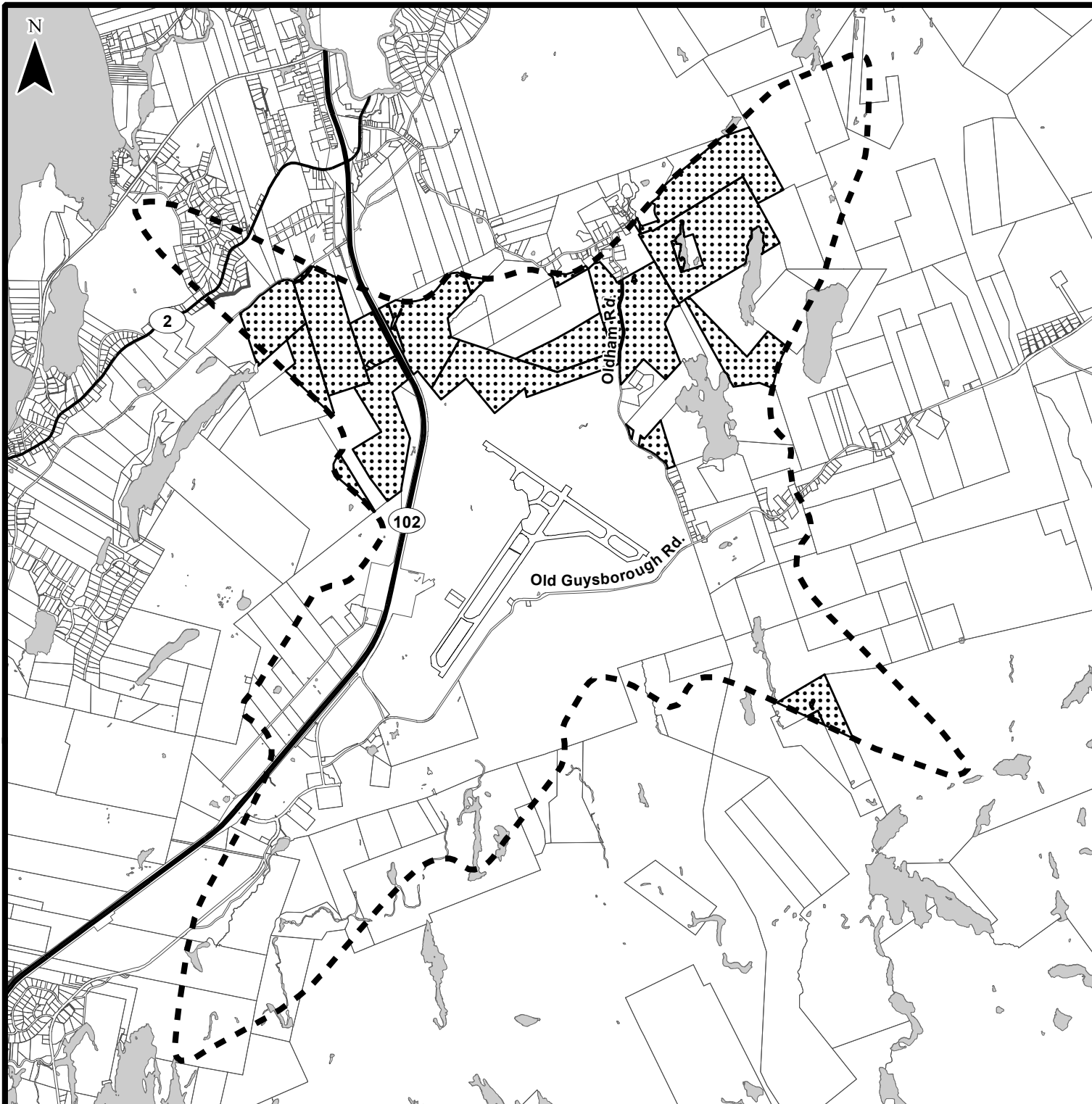
1. The Planning Districts 14 and 17 (Shubenacadie Lakes) Land Use By-law shall be amended by amending Schedule B Zoning Map, as per the attached Schedule A.

I HEREBY CERTIFY that the amendment to the Planning Districts 14 and 17 (Shubenacadie Lakes) Land Use By-law Zoning Map as set out above, was passed by a majority vote of the whole Council of the Halifax Regional Municipality at a meeting held on the       day of       , 2015

GIVEN under the hands of the Municipal Clerk and under the Corporate Seal of the Halifax Regional Municipality this day of       , 2015

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Municipal Clerk



## SCHEDULE A

--- Noise Exposure  
Forecast 30

▤ Area to be Rezoned from various  
Residential Zones to P-3 (Park Zone)

**HALIFAX**

Planning and Development

0 1 2 km

**Attachment C**  
**Amendments to the Planning Districts 14 and 17 (Shubenacadie Lakes) MPS – Airport Noise**

BE IT ENACTED by the Halifax Regional Council of the Halifax Regional Municipality that the Municipal Planning Strategy of Planning Districts 14 and 17 (Shubenacadie Lakes) as enacted by the Halifax Regional Municipality on the 2<sup>nd</sup> day of May, 1989 and approved by the Minister of Municipal Affairs on the 19<sup>th</sup> day of July, 1989, which includes all amendments thereto which have been approved by the Municipality and are in effect as of the 18<sup>th</sup> day of October, 2014, is hereby further amended as follows:

1. Section III, Halifax International Airport Designation of the Municipal Planning Strategy shall be amended by adding the following after Policy P-111:

“Noise Contours

Noise and land use conflicts associated with airports have emerged where residential land uses are permitted near airports. The proliferation of suburban growth, increased air traffic, larger and faster aircraft have created a land use conflict where one had not previously existed. Noise sensitive development such as residential land uses establishing near airports can result in complaints from residents. Such complaints can lead to limitations on hours of use and expansion possibilities for the airport. Such problems can be avoided with advance planning and consideration, based on use of Noise Exposure Forecast (NEF) Mapping. Further, promotion of development around Halifax Stanfield International Airport is not required as other areas of the Municipality are more appropriate and cost effective for the Municipality to serve. Residential growth shall be directed to other areas and residential development immediately proximate to the airport is deemed premature.

P-111A Notwithstanding any other policies in this Plan, Council shall limit residential development in close proximity to the Halifax Stanfield International Airport (HSIA) as this development is incompatible with airport operations. It is Council's intent to manage encroachment of future residential or other developments that are noise sensitive, which may lead to conflicts and the potential for demands to restrict aircraft operations. This shall be achieved by identifying the Airport Zoning Overlay in the Land Use By-law which identifies the NEF 30 Noise Contour, and by establishing regulations within the Airport Zoning Overlay. These regulations may include controls on new residential and other sensitive land uses. In considering such amendments to the Land Use By-law, Council shall have regard to the following:

- (a) the lands being considered for amendment are within NEF 30 contour prepared by a qualified person;
- (b) the restrictions proposed are to mitigate possible land use impacts on the operation of the Halifax Stanfield International Airport; and
- (c) the provisions of Policy P-155.

P-111B It shall be the intention of Council, through the Regional Subdivision By-law, to not permit the construction of new roads for residential development within the NEF 30 contour.”

P-111C It shall be the intention of Council to not permit new Open Space Design Subdivisions or other forms of large scale residential development within the NEF 30 contour.

P-111D It shall be the intention of Council to permit the construction of new roads for residential purposes where an approved tentative or final plan of subdivision exists prior to the approval of this Policy on *[insert date of public hearing]*.”

2. Section III, Residential Designation of the Municipal Planning Strategy shall be amended by adding the following after Policy P-78:

"Residential / Noise Sensitive Development near Halifax Stanfield International Airport

Transport Canada recommends that new residential development near airports be restricted within specified noise contours. Council has determined that controls around the Halifax Stanfield International Airport are appropriate.

P-78A It shall be the intention of Council to regulate new residential development in the Residential Designation subject to policies P-111A through P-111D."

3. Section III, Mixed Residential Designation of the Municipal Planning Strategy shall be amended by adding the following after Policy P-93:

"Residential / Noise Sensitive Development near Halifax Stanfield International Airport

Transport Canada recommends that new residential development near airports be restricted within specified noise contours. Council has determined that controls around the Halifax Stanfield International Airport are appropriate.

P-93A It shall be the intention of Council to regulate new residential development in the Mixed Residential Designation subject to policies P-111A through P-111D."

4. Section III, Special Area Designation of the Municipal Planning Strategy shall be amended by adding the following after Policy P-127:

"Residential Development near Halifax Stanfield International Airport

Transport Canada recommends that new residential and noise sensitive developments near airports be restricted within specified noise contours. Council has determined that controls around the Halifax Stanfield International Airport are appropriate.

P-127A It shall be the intention of Council to regulate new residential and noise sensitive development in the Special Area Designation subject to policies P-111A through P-111D."

5. Section III, Resource Designation of the Municipal Planning Strategy shall be amended by adding the following after Policy P-132:

"Residential Development near Halifax Stanfield International Airport

Transport Canada recommends that new residential and noise sensitive developments near airports be restricted within specified noise contours. Council has determined that controls around the Halifax Stanfield International Airport are appropriate.

P-132A It shall be the intention of Council to regulate new residential and noise sensitive development in the Resource Designation subject to policies P-111A through P-111D."

6. Section III, Watershed Designation of the Municipal Planning Strategy shall be amended by adding the following after Policy P-145:

"Residential Development near Halifax Stanfield International Airport

Transport Canada recommends that new residential and noise sensitive developments near airports be restricted within specified noise contours. Council has determined that controls around the Halifax Stanfield International Airport are appropriate.

P-132A It shall be the intention of Council to regulate new residential and noise sensitive development in the Watershed Designation subject to policies P-111A through P-111D.”

I HEREBY CERTIFY that the amendment to the Planning Districts 14 and 17 (Shubenacadie Lakes) Municipal Planning Strategy as set out above, was passed by a majority vote of the whole Council of the Halifax Regional Municipality at a meeting held on the       day of       , 2015

GIVEN under the hands of the Municipal Clerk and under the Corporate Seal of the Halifax Regional Municipality this day of       , 2015

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Municipal Clerk

**Attachment D**  
**Amendments to the Planning Districts 14 and 17 (Shubenacadie Lakes) LUB – Airport Noise**

BE IT ENACTED by the Halifax Regional Council of the Halifax Regional Municipality that the Land Use By-law of Planning Districts 14 and 17 (Shubenacadie Lakes) as enacted by the Halifax Regional Municipality on the 2<sup>nd</sup> day of May, 1989 and approved by the Minister of Municipal Affairs on the 19<sup>th</sup> day of July, 1989, which includes all amendments thereto which have been approved by the Municipality and are in effect as of the 18<sup>th</sup> day of October, 2014, is hereby further amended as follows:

1. The Table of Contents of the Land Use By-law is amended by adding the following text after “Schedule M: Prominent Site for Increased Commercial Floorspace in the Canal Court Zone: 11 Falls Run”  
  
“Schedule N: Airport Noise Contour Overlay...142”
2. Part 6, clause 6.2 of the Land Use By-law shall be amended by adding the following before the words “Minimum Front or Flankage Yard”:  
  
“Within Schedule N, Airport Noise Contour Overlay 300 feet (91.4 m)”
3. Part 7, clause 7.1 of the Land Use By-law shall be amended by deleting the words “Nursing homes” and “Residential care facilities” and replacing them with the following:  
  
“Nursing homes except where located within Schedule N, Airport Noise Contour Overlay  
Residential care facilities except where located within Schedule N, Airport Noise Contour Overlay”
4. Part 7, clause 7.2 of the Land Use By-law shall be amended by adding the following before the words “Minimum Front or Flankage Yard”:  
  
“Within Schedule N, Airport Noise Contour Overlay 300 feet (91.4 m)”
5. Part 9, clause 9.1 of the Land Use By-law shall be amended by deleting the words “Nursing homes” and “Residential care facilities” and replacing them with the following:  
  
“Nursing homes except where located within Schedule N, Airport Noise Contour Overlay  
Residential care facilities except where located within Schedule N, Airport Noise Contour Overlay”
6. Part 9, clause 9.2 of the Land Use By-law shall be amended by adding the following before the words “Minimum Front or Flankage Yard”:  
  
“Within Schedule N, Airport Noise Contour Overlay 300 feet (91.4 m)”
7. Part 9A, clause 9.1A of the Land Use By-law shall be amended by deleting the words “Nursing homes” and “Residential care facilities” and replacing them with the following:  
  
“Nursing homes except where located within Schedule N, Airport Noise Contour Overlay  
Residential care facilities except where located within Schedule N, Airport Noise Contour Overlay”
8. Part 9A, clause 9.2A of the Land Use By-law shall be amended by adding the following before the words “Minimum Front or Flankage Yard”:  
  
“Within Schedule N, Airport Noise Contour Overlay 300 feet (91.4 m)”
9. Part 10, clause 10.1 of the Land Use By-law shall be amended by adding the follow after “CSA approved mobile dwellings”:



“except where located within Schedule N, Airport Noise Contour Overlay”

10. Part 10, clause 10.1 of the Land Use By-law shall be amended by deleting the words “Nursing homes” and “Residential care facilities” and replacing them with the following:

“Nursing homes except where located within Schedule N, Airport Noise Contour Overlay  
Residential care facilities except where located within Schedule N, Airport Noise Contour Overlay”

11. Part 10, clause 10.2 of the Land Use By-law shall be amended by adding the following before the words “Minimum Front or Flankage Yard”:

“Within Schedule N, Airport Noise Contour Overlay 300 feet (91.4 m)”

12. Part 11, clause 11.1 of the Land Use By-law shall be amended by adding the follow after “CSA approved mobile dwellings”:

“except where located within Schedule N, Airport Noise Contour Overlay”

13. Part 11, clause 11.1 of the Land Use By-law shall be amended by deleting the words “Nursing homes” and “Residential care facilities” and replacing them with the following:

“Nursing homes except where located within Schedule N, Airport Noise Contour Overlay  
Residential care facilities except where located within Schedule N, Airport Noise Contour Overlay”

14. Part 11, clause 11.2 of the Land Use By-law shall be amended by adding the following before the words “Minimum Front or Flankage Yard”:

“Within Schedule N, Airport Noise Contour Overlay 300 feet (91.4 m)”

15. Schedule B, Zoning Map of the Land Use By-law is amended by rezoning the lands identified in the attached Schedule A to P-3 (Park) Zone.

16. The Schedules section of the Land Use By-law is amended by adding Schedule N, “Airport Noise Contour Overlay” attached as Schedule A, after Schedule M.

I HEREBY CERTIFY that the amendment to the  
Planning Districts 14 and 17 (Shubenacadie Lakes)  
Land Use By-law as set out above, was passed  
by a majority vote of the whole Council of the  
Halifax Regional Municipality at a meeting held on  
the      day of      , 2015

GIVEN under the hands of the Municipal Clerk and  
under the Corporate Seal of the Halifax Regional  
Municipality this day of      , 2015

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Municipal Clerk

**Attachment E**  
**Amendments to the Regional Subdivision By-law – Airport Noise**

BE IT ENACTED by the Halifax Regional Council of the Halifax Regional Municipality that the Regional Subdivision By-law as enacted by the Halifax Regional Municipality on the 27<sup>th</sup> day of June, 2006 and approved by the Minister of Municipal Affairs on the 26<sup>th</sup> day of August, 2006, which includes all amendments thereto which have been approved by the Municipality and are in effect as of the 14<sup>th</sup> day of March, 2015, is hereby further amended as follows:

1. Section 12 shall be amended by adding the following text after clause (d):

“(e) Notwithstanding section 12(a) through (d), no new public roads or highways shall be permitted within the NEF Contour as shown on Schedule “O” except where a tentative or final subdivision plan has been approved prior to [insert public hearing date].”

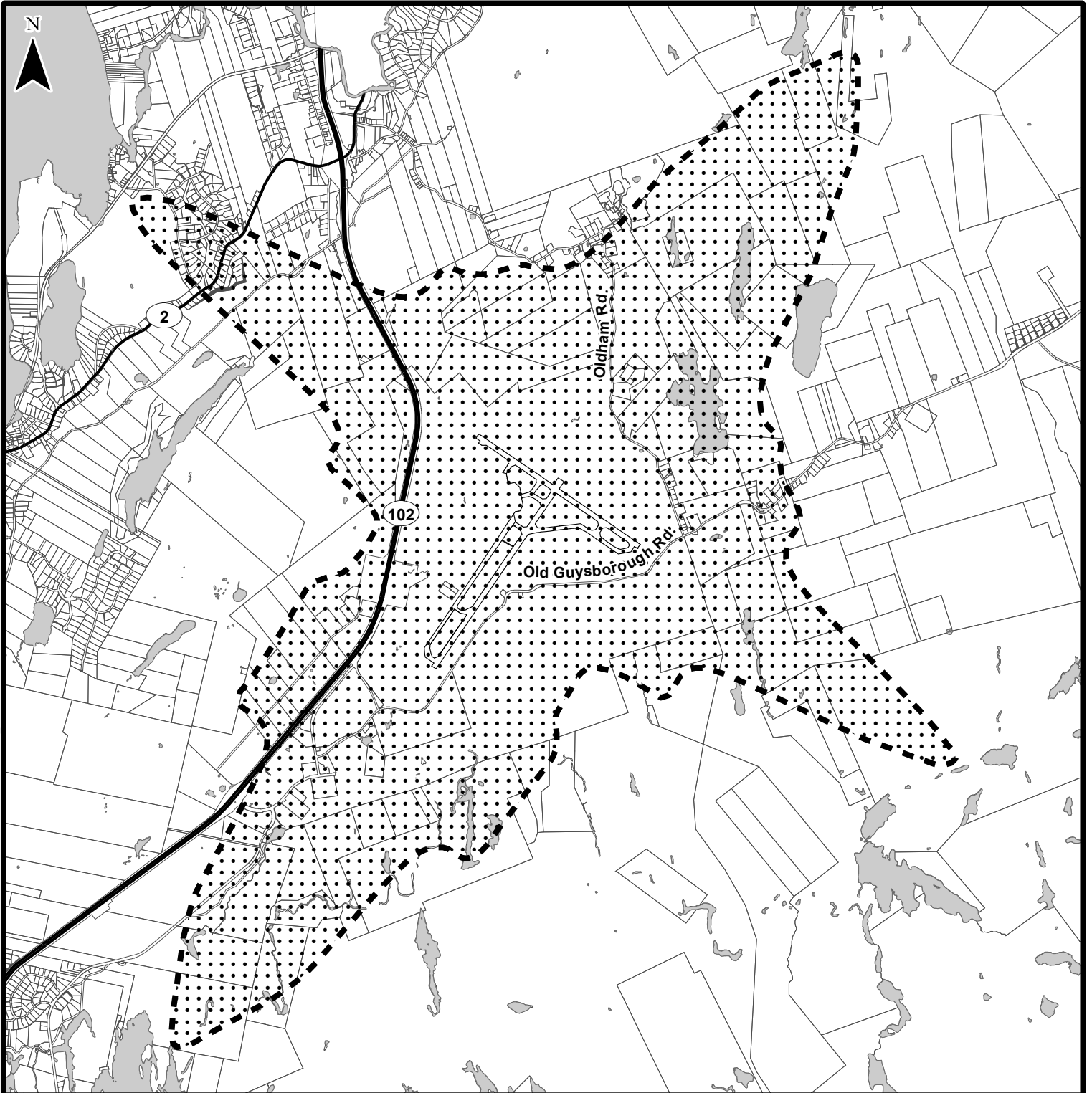
2. The By-law shall be amended by adding Schedule O, attached as Schedule A”

I HEREBY CERTIFY that the amendment to the Regional Subdivision By-law for Halifax Regional Municipality as set out above, was passed by a majority vote of the whole Council of the Halifax Regional Municipality at a meeting held on the       day of       , 2015

GIVEN under the hands of the Municipal Clerk and under the Corporate Seal of the Halifax Regional Municipality this day of       , 2015

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Municipal Clerk



## SCHEDULE A

**HALIFAX**

Planning and Development

 Noise Exposure  
Forecast 30

0 1 2 km

**Attachment F**  
**Public Information Meeting Minutes – February 17, 2010**

**HALIFAX REGIONAL MUNICIPALITY**  
**PUBLIC MEETING**  
**CASE NO. 01192 - Noise Exposure Forecast, Airport**

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**Wednesday, February 17, 2010**  
**7:00 p.m.**  
**Goffs Fire Hall**  
**2040 Old Guysborough Road, Goffs**

**STAFF IN**

**ATTENDANCE:** Richard Harvey, Planner, HRM Planning Services  
Andrew Bone, Planner, HRM Planning Services  
Alden Thurston, Planning Technician, HRM Planning Services  
Cara McFarlane, Planning Controller, HRM Planning Services

**ALSO IN**

**ATTENDANCE:** Councillor Barry Dalrymple, District 2  
Councillor Steve Streach, District 1  
Michael Healy, Airport Authority

**PUBLIC IN**

**ATTENDANCE:** Approximately 75

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The meeting commenced at 7:03 p.m.

**1. Opening Remarks/Introductions/Purpose of Meeting - Richard Harvey**

Mr. Harvey introduced himself as the Planner guiding the application through the planning process; Councillor Barry Dalrymple, District 2; Councillor Steve Streach, District 1; Michael Healy, Vice President, Airport Authority; Andrew Bone, Planner, Alden Thurston, Planning Technician, and Cara McFarlane, HRM Planning Services.

An agenda was reviewed.

**2. Presentation of Proposal - Richard Harvey**

The proposed area was shown on the screen (highlighted in yellow). The Regional Plan contains different planning policies. The Regional Plan sets out something of a land use planning concern with regards to noise sensitive development. Residential development is the primary matter and actual noise in and around the airport itself.

In terms of the airport itself and the land holding of that, there is what is called a noise exposure forecast. These are areas that extend out from the airport where noise issues are forecasted, or already exist, primarily from the activities of the airport and also planes coming and going.

In terms of those noise contours, staff is looking at what is called NEF30. There are different degrees of noise complaints which are typically experienced in and around airports. The highest of these is over NEF40 which would be closest to the airport. These are situations in which repeated and vigorous individual complaints are received. Further away from the airport and extending out from these contours, there are still noise issues but they are less. The type of situation we are looking at is a contour of NEF30 (shown on the screen).

The proposal is to look at regulating new noise sensitive development within that NEF30 contour. In particular, we are concerned with things such as residential uses, schools, daycares, nursing homes and hospitals. It is important to note that this doesn't have anything to do with existing development in and around the airport.

**Presentation: Michael Healy, Vice President of Infrastructure and Technology, Airport Authority**

This initiative around airport protection zoning is not an unusual one and Halifax is the only major airport in Canada that doesn't have it. Currently, the airport is in the position to operate 24/7 and we want to ensure that it can continue to operate. In the past, there hasn't been a large amount of development around the airport which gives Halifax a huge advantage over cities like Moncton or other areas that may have concerns around scheduling and noise. Going forward, opportunities for attracting continued business and develop cargo traffic in and out of the airport is possible through the free skies agreements. Presently, the Airport Authority does an economic impact statement every year. Last year the economic impact was \$1.3 billion to Nova Scotia economy. As an engine of reasonable economic development, we want to ensure that the airport isn't restricted in the future. The Airport Authority is a not for profit and basically a local company that rents the airport from Transport Canada for the community. Transport Canada regulate the rules. One of the things we are required to do under those rules is to develop these noise contours.

Noise contours have been developed through consultation with the developer of the 2003 master plan. We've been working with the planners at HRM for a number of years to move this initiative forward. These contours are designed through computer modeling that take into account the number of planes that leave from a particular runway, the amount of noise that is generated from those plane, the frequency of the flights, and the percentage of flights from each runway. There are four runways at the airport, two asphalt strips where a plane can take off from either end of each runway; therefore, there are four approach or departure positions. The noise contours reflect all four of these positions as well as predicts for future airport expansions and if present runway systems become unsatisfactory to handle the traffic. In the future, there may be a third runway built to handle increase air traffic (this is considered in the model shown at the meeting). The model shown is an anticipated future state for noise and to protect for future growth. The third runway primarily heads south into Aerotech Park from the short runway 1432; therefore, not impacting any residential development at this point.

**Presentation: Andrew Bone, Senior Planner, HRM Planning Services**

Transport Canada is the regulating body for airports who help develop and authorize these noise contours. This noise contour model has been reviewed by Transport Canada to ensure that the appropriate methods were used to come up with the area that is affected by noise. Transport Canada recommends that the individual airports liaise and work with the local land use authority (HRM). HRM controls land use around the airport through the Municipal Planning Strategy and Land Use By-law. Mr. Bone identified what properties within the noise contours would be affected and what the implications would be. There would not be any impact on an existing home that cannot be further subdivided but a property large enough to subdivide could be impacted by.

The area highlighted in orange is land that is owned by Transport Canada but leased to the Airport Authority. The highlighted area (shown on the screen) is the NEF30 contour as calculated by the Airport Authority and approved by Transport Canada. Prior to this contour, there were contours previously drafted and contained in HRM's planning documents since 1989. They are "advisory only". There is a map in the Municipal Planning Strategy for Planning Districts 14/17 that sets out these noise contours around the airport and expresses the level of noise that can be expected. The airport has come to HRM and asked if some controls could be implemented so that the airport is not affected by future residential development in the area.

In 2006, the Regional Plan came into effect. The Regional Plan is a long term plan for growth in the municipality and it identified areas in HRM to service large scale subdivisions in an economic way. It also identified areas that were inappropriate for long term subdivision development for a number of reasons. One of the things that the plan identified is something called the open space and natural resources

designation (shown on the map). Currently, the Regional Plan basically identified these areas as non-appropriate for large scale residential development. The current Regional Subdivision By-law, through the Regional Plan, does not permit the construction of new roads for residential subdivisions in these areas. Subdivision can only happen on existing road frontages. Most of this area has no public road access; therefore, cannot be further subdivided.

Privately owned land was shown in grey on the map (large scale land owners, individual properties and/or individual lots). All other properties are either municipally, provincially or federally owned land. Properties within the open space designation and that are privately held were shown. Because of current planning rules they cannot be subdivided because no new roads are permitted in these areas. Those properties would not be impacted tonight. The land off of Bell Boulevard which is primarily commercial/industrial will potentially have no impact from the regulations being looked at tonight as long as it is developed for commercial/industrial uses. Lands that could potentially be subdivided were shown on the map.

Mr. Harvey reiterated that there is no significant amount of issues as of yet in and around the airport. Much of this land is in fact crown land, does sell off from time to time and land assemblies actually occur. One of things that is being looked at is in fact preventing those land assemblies and future subdivision. This would also include the creation of new subdivision along existing roads; although, the thought at this particular point of time would be to allow for one additional subdivision along the road. The other implication would be that noise sensitive development (mentioned earlier) wouldn't be suitable to move into this particular area.

Mr. Bone asked the public to fill out the questionnaire that was available at the meeting.

### **3. Overview of Planning Process**

This public information meeting is the very beginning of the planning process and very importantly provides staff with feedback from the public. No decisions that are made tonight. Any decisions are made by Regional Council and happen at a later point in time. If Council wishes to make any changes, a public hearing must be held.

### **4. Questions/Comments**

Paul Pettipas, CEO of Home Builders' Association, said that Larry Gibson found the regulations to be so onerous that he didn't proceed with anymore development. Also, a home built around Oakfield required special installation. HRM is already regulating now, what will be the difference? Also, what authority does HRM have now to regulate before these come in? Mr. Bone said there are no specific regulations in place that relate to the airport. There was one case in the Frenchman's Road area where a developer applied for a development agreement to enable a residential subdivision. A year or two ago there was an up to date contour. When a development agreement is negotiated, all issues are investigated. Noise was an issue; therefore, staff tried to figure out a way to allow development in this area and deal with the noise issue. In the agreement, the developer was required to build houses subject to a stricter standard for the construction omitting the issue of noise. That was only one instance not because of any specific regulation related to the airport but because of an issue that came up. Mr. Pettipas asked about the other one outside of Miller Lake West where there were certain noise restrictions. Mr. Bone was not aware of anything in that area. There was no development agreement in that area so it would have been done through standard subdivision regulations. Mr. Bone explained that the Province is the creator of planning rules and they pass that planning authority, in the case of Halifax, to HRM through the Halifax Regional Municipality Charter. The Charter lists rules that HRM can and cannot do, one of which HRM can regulate or restrict land uses that are noise sensitive within the NEF30 contour. About two years ago, this same process was started but there were some issues with provincial legislation at the time which has since been changed.

Philip Obritsch, Airplane Golf Club, is concerned that his business will take quite a hit from this proposal. Subdivision of the land will not be permitted and the value of the land will go down considerably. It is

common to put residential development near golf courses but this will not allow it. He doesn't feel he has much of a chance standing up against the airport. Mr. Harvey mentioned that this is the type of feedback staff is looking for and Council will probably want staff to respond to as well. He agreed with Mr. Obritsch in terms of the implications for the golf course.

Ben Young, Oldham Road, a licensed pilot, mentioned that any major airport has noise abatement procedures to address these concerns. There must be some evidence of what happens to land values when these plans are implemented as this has been done in the past. A plane that landed 25 minutes ago did not interrupt the meeting. Mr. Harvey said staff hasn't looked into the issues of resale value as of yet. There are many types of noise abatement situations but they won't do everything to address the actual impacts of noise. Mr. Bone added that tonight's questions will be discussed in a staff report and recommendation to Council will be made.

Christina Dunham, Oldham Road, lived in the area before the airport was built. The noise has become much worse in the past few years. Her dishes rattle and she can hear the traffic controller guiding in the planes. It is very annoying.

Bernie McDonald, Waverley, has owned and paid increasing taxes on a piece of property located on Sky Boulevard for 53 years. He understands from Mr. Healey's presentation that the airport does not want restrictions. He feels the property owners don't want restrictions either. Unless there is some compensation, there does not seem to be any legal ground. In the past, the municipality rezoned his property, without his knowledge, from AE-4. When approached about the issue, the municipality did rezone about 70% of to AE-4 Zone and the rest P-4 (Watershed) Zone. Nothing by way of building can be done with watershed zoning. The municipality then decided his property should be considered a water protected area. Through conversations about compensation with the municipality, he was promised that his situation would be looked at to no avail. Even though his property is zoned AE-4, he may some day want to put houses on it. Now, potentially for a third time, the municipality will put more restrictions on his property without any compensation whatsoever while the value of the property constantly decreases and the tax increases. Mr. Harvey thinks it would be worthwhile for staff to look at Mr. McDonald's particular property circumstance in detail.

Danny Muir, Old Guysborough Rd, was told he could subdivide his property into four lots which he did and sold them off. If he waited much longer to do so, the lots would have been worth very little because of what is going on. The property values are going to drop and who is going to be compensated. There are problems with one of the sold properties and the current owner is having problems getting a building permit. If this application is just a proposal, why is the property owner running into roadblocks in trying to obtain permits? Mr. Harvey mentioned that they wouldn't be running into any roadblocks at this particular point in time because of this proposal. The existing subdivision regulations maybe something that is preventing the property from being developed. If this was every to be put in place, it is not until then that this proposal would have any impact upon the property. Mr. Muir asked if Mr. Harvey was going to address the property values dropping. Mr. Harvey said that staff is prepared to take a look at that issue and address it in the staff report. It is important to remember that staff is generally looking at land use compatibility. Staff also wants to assess, on an individual basis, what ability individuals currently have to create subdivisions, roads, etc. There is a significant amount of land in the area which, at least with current regulations, doesn't have the ability to be developed with new roads.

Max Chandler, Old Guysborough Road, says the land resale value will be 0. He has a house for sale which sold. Everything was in place until the buyers were shown by HRM Planning where the third runway was going to go. They were told that the new flight path was going to go directly over their house and along Old Guysborough Road. This information given by HRM Planning cost him a sale of \$295,000. He has a one year old house that is not worth anything. HRM should have informed everybody in this community about this meeting tonight. He found out about the meeting by the new potential owners insisting that he lied about this information. Mr. Harvey made it clear that these regulations, whether they are put into place or not, have absolutely no bearing upon whether the airport puts in a third runway and/or increases the air traffic. If these folks looked at where an airport runway was going to be and decided, on their own, not to buy that is a fair statement on their part. It has nothing to do with where noise contours are placed.

Mr. Chandler wanted to make it clear that the potential buyers said HRM gave them that information and HRM also told them that the flight paths were going to change. Mr. Healey said that these noise contours take into consideration the 2003 Masterplan that looked at a 20 year horizon. The third runway was beyond the 20 year planning horizon. We are presently updating the Masterplan for Transport Canada. The consultants are not certain that the third runway will be needed. Runways are very expensive to build. The noise contours shown tonight take into consideration the potential for a third runway. The location of third runway was shown. The path of the planes would be identical to the existing path of the north and south bound aircraft just 1000 feet over. Mr. Chandler said if the airport is not going to put in a third runway for 30 years then everyone in this community should get a letter stating that.

Mimi LeCain, Old Guysborough Road, lives outside of the buffer zone. She came to the meeting thinking their property would be protected but it is not. Their 56 acres and home is worth nothing because HRM is giving out misinformation about airport noise and a third runway. Mr. Harvey made it clear that HRM is not making decisions for individuals regarding the purchasing of properties due to airport noise. Someone making a decision that they don't want to live around an airport doesn't make the value of the land worth nothing. Many people are actually living around the airport with no issues. Staff wants to look ahead to see what impacts may arise for individual properties if increased, particularly residential, subdivisions in and around the airport were permitted.

Mr. Bone said that since 1989 HRM planning documents have identified noise in relation to the airport. The addition of a noise contour and that information being publicly accessible is nothing new. The 1989 map in the Planning District 14/17 Municipal Planning Strategy, which covers most of this area, has all of the noise contours that were calculated for the airport and go well beyond the NEF30. The contours advisory only to make people aware of the airport and potential conflicts. Ms. LeCain wondered why a subdivision couldn't go up and everyone sign an agreement to indicate that the airport noise isn't an issue. Mr. Harvey said that it would be taken into account. The practice in many other municipalities is that that approach has not been sufficient.

David Barrett owns about 200 acres of land in the zone and is basically for this proposal. Many years ago, Transport Canada purchased land, built an airport and because of that we have a wonderful thing there. Halifax County bought the land when they built Aerotech Park. Now in 2010, the year of entitlements, instead of being upfront and buying the rights of landowners, he believes HRM and the Airport Authority are planning to be sneaky. Rights of people's lands are being downzoned by HRM without compensation. This should be a win/win situation. He strongly suggests that the Airport Authority buy up the residential rights of landowners who are willing to sell. HRM and the Airport Authority should allow landowners to go through the approval process when wanting to do something with their land instead of putting up roadblocks. This previously happened costing him \$5000. The land was on sewer and water but he had to use political pressure to get a building. His cynicism is getting horrible for HRM and the Airport Authority. He believes they are doing a wonderful thing, but it shouldn't be done on the back of landowners.

Ernie Hopper, Old Guysborough Road, asked if staff knew about the third runway before tonight's meeting. Very few people in the community knew about the third runway or about this meeting. Mr. Harvey said the possibility of the third runway was known when the process was initiated. Mr. Bone explained that a letter was mailed to every property owner within the noise contour that HRM had information on. Mr. Harvey mentioned that staff has done their best to notify property owners from a list. Doug Ledwidge, represents an Enfield company that owns a couple of thousand acres as well as lots for sale on the Oldham Road and Old Guysborough Road within the noise contour zone. They also own a large amount of property where the proposed road mentioned earlier may go, which they were never consulted about. If there is a 20 year plan to create new zones, landowners should definitely be compensated and public consultation in the process. There are certainly very strong concerns from a fairly substantial landowner and a lot of strong opinions tonight.

Doug McRae, is a commercial/private landowner in Aerotech Park, and has invested in a new facility where the land is leased from the airport. Tonight, issues are presented that are futuristic looking and



there is a very good turnout of interested parties to find out how this impacts their future. As the land continues to be subdivided, at some point down the road, a group of residential homeowners will work together to create rules and restrictions regarding the lands. HRM and the Airport Authority doing this in advance is a very healthy thing because it is difficult to invest as private and/or commercial landowners if you don't know what the rules are. There needs to be a bit of a balance. Everyone is investing here. Trying to figure out what the rules are is important to us all.

Shawna Young, Oldham Road, disagrees with the statement at the beginning of the meeting in regards to this proposal not being an issue for houses on small parcels of land. The property value will not increase if the area is not allowed to develop.

Rebecca Dunstan, Old Guysborough Road, asked if staff could identify, by civic address, exactly where the line of the noise contour zone ends on Old Guysborough Road. Mr. Bone said it is between 2350 and 2371 Old Guysborough Road.

Roger Burns, a developer who has the piece of property on Frenchman's Road that was pointed out during the meeting. In the past four or five years he has worked with the municipality to have land approved and put certain regulations in place to develop the property. He also had a conveyance put in place so that when the land is sold, the new owners are aware that the land is within the NEF30 Zone. He is concerned for the folks that own land in the area and will face depreciation of land value because of possible new regulations. He explained that the Open Space designation is an area where, since the Regional Plan came into effect, no development is allowed. He would like to hear the Councillors' speak about how the area can open up for more development and work in conjunction with the airport to make things better for everybody. Mr. Harvey said that he brings up a very specific question and it really isn't the focus of this meeting. The public hearing is more of a forum for those discussions. Mr. Bone explained that the Regional Plan came into effect in 2006. In 2011, a review cycle will take place but he is not sure of the process as it hasn't been undertaken at this time. During that review would certainly be the time where a private land owner could come forward and talk about changes they feel should happen to the Regional Plan.

Sandra Publicover, Oldham Road, has two pieces of property on the Oldham Road that are affected by the zone by a small margin. Even though the road frontage is available, the land cannot be subdivided. A subdivision application would currently be accepted. Mr. Harvey said that if the subdivision application met the existing subdivision regulations of today, then the properties could be subdivided. It is important that individual landowners come forward and staff can look at the properties on an individual basis. Ms. Publicover asked if the zone line can be moved so it doesn't affect her properties? The person across the street has the same amount of noise but isn't within the zone to which Mr. Harvey said staff can take a closer look at her property. Mr. Burns said that depending on which side of the line you are on, you have made money or lost money.

Fred Morley, Greater Halifax Partnership, through his organization, works with businesses in the community and residents of HRM to help grow the economy of greater Halifax. The airport is one of a handful of industries in the greater Halifax that is absolutely essential to our future growth. He compliments staff on trying to think ahead, solve this problem in an equitable sort of way and maximize the benefits because this airport is too important to the future of this region not to solve it. Even today the airport employs over 12,000 people directly and indirectly. He has seen other cities where buffers have not existed between economic development and residential zones and the two have collided making the economic engine disappear.

Suzanne Bonn, Highway #2, understands that the NEF contour is regulated by HRM but recommended by the Federal government. Would it not then, if the open space is reassigned in 2011, would the NEF contour not be a higher regulatory body to that open space? The possibility of any future development would still be shut down. Mr. Harvey said if one was to be lifted and the NEF contour was to remain in place, that regulation would still stand.

Cyril Dillman, Devon, suggested the third runway be built as an overpass. Mr. Healey said that the orientation of the runways is primarily predicated on wind direction. The planes land and takeoff into the wind. It is the issue of the amount of runway surface and the number of landings the airport can handle. The two runway configuration that is in place now is sufficient for the near future and probably for the next 15 to 20 years. There are experts in these fields doing predictions as to the growth and changing technologies are taken into account. It may be that we may never build a third runway, that has yet to be determined. These contours take into consideration the worst case scenario for noise considering the third runway in place, if required, in the area where it would most likely be required. Mr. Harvey said Transportation Canada, in many of its documents, recommends a larger noise contour than what is shown here. This doesn't mean to say that you will not hear airport noise outside of this area.

John Hungerford, Stage Road, lives in an R-2000 home and it cuts the noise down. He is right on the edge of the green zone. By in large, everything is fine but probably every once in awhile his house shakes due to the flight pattern and load of the aircraft. When this happens he generally calls the airport but finds he doesn't get a response. What mechanism does the airport have in place to handle noise complaints? Mr. Healey said that all reports that come into the Duty Manager are recorded. A briefing is held daily to review those incidents that take place over the previous 24 hours. The airport does not get a lot of those complaints. The actual flight patterns are not controlled by the Airport Authority. He will follow up with his operations group to see if Mr. Hungerford's comments are logged.

Trudy Taylor, Old Guysborough Road, stated that there is no reason and it is completely unforgivable for staff to say they tried to let people know what was going on. She has lived in the area for the past 15 years and has always received her property tax.

Jason Lohnes, General Manager of Oakfield Golf and Country Club, said that, from what he can tell, the contour touches the property of Oakfield Country Club Limited. It is the wish of the company for that contour to be restructured or a different contour to be used to take that boundary off their property. Mr. Pettipas said that no one is saying that the airport isn't important but doesn't think anyone in the room expects to subsidize the airport and that is what is being asked of them. If the airport wants to expand, let them buy the land. When Fall River Village and Keltic Gardens were developed, the land was bought. He agrees that the airport is a big industry. His industry employs 20,000 in the Province, \$900 million in wages, \$2.8 million in private. Why doesn't the airport have to follow rules when in his industry construction can't start before 7:00 a.m.? Why can they take land rights without paying for them? In his opinion, HRM wants this to happen and tonight's meeting is basically a formality to have it approved. Builders, for the last couple of years, have been living with some of these regulations without it being approved. He asks that HRM be honest with the landowners.

Councillor Streach thanked everyone for coming to the meeting. He also thanked staff, Mr. Healey and Mr. Morley. As a resident of the Guysborough Road, he doesn't like the proposal. His interpretation when this came to Council that this was a request on behalf of the Airport Authority. HRM staff is responding to a request and are going through the process. There is absolutely no decision that has been made. He has no desire to see this happen but the application will go through the process and hopefully come out with a situation that will work out for everyone. He also made a point that when the initiation report was before Council the word "restrict" was used. Councillor Dalrymple and himself purposely asked staff to change that to "regulate". He believes there are a wide variety of options. He does not like rezoning in this fashion because it is a kin to expropriation without compensation and he is not for that. He believes that if everyone works together that there is going to be a solution and a compromise. He also believes that as the airport and their issues grow, it is important to talk to the community and be good neighbours and he would like to see that happen. In closing, it is important to recognize that the land for us is important and cherished and indeed part of our inheritance to our children. The rights that go with that are very important and he will not idly standby while those rights are compromised. At the same time, his commitment is to work to make things better and allow the airport to move into the future.

Mike Chandler, Old Guysborough Road, asked if this application has not yet been approved, why can't people obtain permits to build homes and why can't homes be sold? Mr. Harvey said this application can

have no impact upon your existing ability to walk in and get a permit provided all the current regulations are met.

One resident said that all building in the area will stop and a new road be put in. Who will pay for the increased taxes? Mr. Healey said that all the capital improvements that have taken place at the airport have been paid for by the airport based on the fees that are carried through the operation of the airport. Anything contemplated in the future would not be community based.

One resident mentioned that the third runway will go right over his house. He plans to sell it in five years and upgrade. What is the plan for expropriation if and when the third runway is built? He's concerned that the sale may be lost and suggests that HRM not give out information about the third runway to potential buyers if it is not a guaranteed thing.

Mr. Healey reiterated that they don't have detailed plans for a third runway. This model is of a 20 year master plan that was rolled out in 2003. It was done through public sessions at the airport and downtown. In terms of the placement of the third runway, if it was to happen, would be on present airport land owned by Transport Canada or the municipality.

Mr. Harvey said that staff and the Airport Authority would have some discussion around that issue in terms of the noise contours.

Councillor Dalrymple sympathizes with everyone regarding the noise issue. He thanked Mr. Harvey for running a well-structured meeting. As a relatively new Councillor, he is in attendance to listen to the public with no preconceived notion whatsoever on this plan. He has talked, and will continue to talk, with Councillor Streach about this but can also guarantee that neither one of them have made a decision. This is the beginning of the process and staff has been asked to come and give the public an opportunity to comment. The process is going to take a little bit of time and hopefully everyone can arrive at some compromise that will match in well with everything heard tonight. Staff came tonight with a presentation, presented some ideas and have heard feedback. That is how the system works.

## **5. Closing Comments**

Mr. Harvey thanked everyone for coming out to the meeting to express their comments and concerns. He invited individual property owners to contact him if they were interested in staff looking at their property. When prepared, the staff report will eventually go to Marine Drive, Valley and Canal Community Council and then to Regional Council. A public hearing needs to be held before anything can happen in which we would send notification out again.

## **6. Adjournment**

The meeting adjourned at approximately 8:58 p.m.

**Attachment G**  
**Public Information Meeting Minutes – October 22, 2014**

**HALIFAX REGIONAL MUNICIPALITY**  
**PUBLIC INFORMATION MEETING**  
**CASE NO. 01192 - Halifax Stanfield International Airport: Regulation of Adjacent Development**

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**October 22, 2014**  
**Quality Inn Airport Hotel**  
**60 Sky Blvd., Goffs**

**STAFF IN**

**ATTENDANCE:** David Lane, Senior Planner, HRM  
Tim Burns, Planning Technician, HRM

**ALSO IN**

**ATTENDANCE:** Councillor Barry Dalrymple, District 1  
Michael Healy, Halifax International Airport Authority

**PUBLIC IN**

**ATTENDANCE:** Approximately 35

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The meeting commenced at 7:04 p.m.

**1. Introductions & Purpose of Meeting**

Mr. Lane introduced himself as the Planner guiding the application through the planning process; Tim Burns, Planning Technician, District 1 Councillor, Barry Dalrymple and Michael Healy, Vice President, Infrastructure & Commercial Development, Halifax Stanfield International Airport Authority.

An agenda was reviewed.

**2. Presentation of Proposal & Planning Process**

Mr. Lane provided a slideshow presentation explaining the rationale for hosting this second public information meeting, Transport Canada and Halifax Stanfield International Airport background information, an explanation of the Noise Exposure Forecasting process, relevant Municipal policies and an overview of the proposed planning document amendments.

This second public information meeting provides staff with feedback for inclusion in the staff report to Council. No decisions are made tonight. Authority to approve the proposed planning document amendments rests with Regional Council. If Council wishes to make any changes, a public hearing must be held.

**3. Summary of Public Comments**

**Q = Question**

**A = Answer**

**C = Comment**

**Philip Obritsch, Airlanes Golf Course, Old Guysborough Rd.**

C: Previously complained about airport noise. Any airport expansion will result in additional noise. Compensation is desired for lost golf course revenue.

C: Not supportive of the proposed NEF-30 Contour overlay and restrictions on future residential land uses.

**Doug Ledwidge, Ledwidge Lumber Company, Enfield**

C: Not supportive of the proposed NEF-30 Contour overlay and restrictions on future residential land uses.

C: Concerned about loss of property value; HRM should compensate property owners for any devaluation.

A: HRM Charter enables the Municipality to regulate land use without compensation

**Diane Buote, Old Guysborough Rd.**

Q: Where the NEF-30 Contour partially covers a lot, how is the property impacted by the proposed amendments?

A: Proposed amendments restricting residential subdivision will only prevent a dwelling unit from being located in the overlay area, and will still be enabled on the remainder of property.

Q: Does the Transport Canada regulated NEF-30 Contour calculation include maintenance noise?

A: No; just air traffic (landing & take-off)

Q: Is the intent of these amendments to avoid potential legal actions from residential property owners?

A: Based on Transport Canada experience at other airports with greater surrounding residential density, the intent is to implement planning controls to avoid incompatible land uses that may result in complaints of airport operations.

Q: Can property owners apply to rezone?

A: Yes, every property owner has the ability to apply. Staff determine if application has merit; and Council may ultimately make decision on a rezoning request.

C: Proposed 300' frontage requirement for residential subdivision is too restrictive.

**Sandra Publicover, Old Guysborough Rd.**

Q: Are existing mobile homes exempt from the proposed amendments, and can existing homes make additions?

A: Yes, on both counts.

C: Would like the proposed NEF-30 Contour overlay adjusted to not impact her property.

**Anna Murphy, Realtor representative for Dan-Tal Corporation, Old Guysborough Rd.**

C: Clients own 88 acres of undeveloped land and are not supportive of the proposed NEF-30 Contour overlay and restrictions on future residential land uses.

**Jim Ledwidge, Ledwidge Lumber, Enfield**

Q: What is the current NEF level?

A: There is no NEF Contour currently adopted in the planning documents.

**Christena Dunham, Oldham Rd.**

Q: Late night airport noise is noticeable; can it be mitigated?

A: HSIA endeavours to limit maintenance noise (engine testing) whenever possible.

**Jodi Blois, Oldham Rd.**

C: If HSIA is interested in expanding their boundaries, why is HRM proposing Planning amendments? HSIA should buy the lands they want for expansion.

**Ben Young, Goffs**

Q: How often is the NEF revised?

A: Every five years.

Q: What is Councillor Dalrymple's position on these proposed amendments?

A: Councilor Dalrymple: The issue of property values is an important one, however, compensation is not possible. Will discuss the amendments further with staff. Debate and decisions occur at Council, inclusive of a public hearing.

**Patti Snow, Oakfield**

Q: Will there be grandfathering of applications for residential subdivision submitted prior to the proposed amendments being approved?

A: Yes.

**Mr. Robin Wilbur, Elmsdale Lumber Company**

C: Is supportive of the proposed amendments and regulating residential development near the airport.

**4. Closing Comments**

Mr. Lane thanked everyone for attending and invited individual property owners to contact him if they were interested in a more detailed analysis of potential impact of the proposed amendments on their property. A staff report will be considered by North West Community Council for their information. Community Council may then refer the matter to Regional Council. Mr. Lane stated a public hearing is required before any amendments can be approved for which land owner and public notifications would be issued again.

Councilor Dalrymple expressed his gratitude to everyone and encouraged attendees to not only forward additional comments via writing/email, but to appear in person at the public hearing should Council schedule one to consider the proposed amendments.

**5. Adjournment**

The meeting adjourned at 8:51 p.m.

**Attachment H  
Stakeholder Submissions**

David Lane, Senior Planner  
HRM Planning & Development  
Regional Planning  
PO Box 1749, Halifax, NS  
B3J 3A5



November 13, 2014

Dear Mr. Lane,

I would like to express my concerns regarding Case No. 01192 – Application by HRM in conjunction with the Halifax International Airport Authority to amend the Planning Districts 14 & 17 to implement land use controls on future residential development within the Noise Exposure Forecast (NEF) 30 contour around Stanfield International Airport.

My land will be affected by this proposed amendment. In my opinion, this proposed amendment is akin to expropriation without compensation. I believe compensation would be necessary for the devaluation of my property if this amendment is passed without the following changes:

1. Landowners maintain their As Of Right Development abilities
2. Allow properties to be subdivided more than once to allow for future residential uses
3. Specifically maintain current road frontage development abilities (as a limit to 300' instead of 200' or less was mentioned in the public information meeting on October 22, 2014)

The proposed amendment will quite certainly devalue land and limit its future uses therefore compensation must be forthcoming for the affected landowners unless the above noted changes are made. Also there was no consideration given to property owners in regards to commercialization of property.

I would appreciate a response to this letter as well as full involvement in updates and/or developments regarding this Case. Thank you for your time and consideration regarding this important matter.

Sincerely,

  
Jim Ledwidge

Phone: 

Email: 



D. Ledwidge, President  
J. Ledwidge, Vice-President, Woodlands Manager

www.ledwidelumber.com  
Office (902) 883-9889  
Fax (902) 883-8659

## LEDWIDGE LUMBER COMPANY LTD.



PO Box 39, Enfield, Nova Scotia, B2T 1C6



David Lane, Senior Planner  
HRM Planning & Development  
Regional Planning  
PO Box 1749, Halifax, NS  
B3J 3A5

November 12, 2014

Dear Mr. Lane,

We would like to express our concerns regarding Case No. 01192 – Application by HRM in conjunction with the Halifax International Airport Authority to amend the Planning Districts 14 & 17 to implement land use controls on future residential development within the Noise Exposure Forecast (NEF) 30 contour around Stanfield International Airport.

After reviewing the map it is apparent that 20 properties of our lands will be affected by this proposed amendment. In our opinion, this proposed amendment is akin to expropriation without compensation. We believe compensation must be made to the affected landowners for the devaluation of their property if this amendment is passed without the following changes:

1. Landowners maintain their As Of Right Development abilities
2. Allow properties to be subdivided more than once to allow for future residential uses
3. Specifically maintain current road frontage development abilities (as a limit to 300' instead of 200' or less was mentioned in the public information meeting on October 22, 2014)

The proposed amendment will quite certainly devalue land and limit its future uses therefore compensation must be forthcoming for the affected landowners unless the above noted changes are made. Also there was no consideration given to property owners in regards to commercialization of property.

We would appreciate a response to this letter as well as full involvement in updates and/or developments regarding this Case. Thank you for your time and consideration regarding this important matter.

Sincerely,

  
Doug Ledwidge  
President

Representative of Beaver Brook Enterprises & the Estate of Laurie Ledwidge as well

Phone: 

Email: 

PARTNER OF NOVA FOREST ALLIANCE & CANADIAN WOODLANDS FORUM  
MEMBER OF THE FOREST PRODUCTS ASSOCIATION OF NOVA SCOTIA & MARITIME LUMBER BUREAU

**Attachment I**  
**Staff Memo to Development Liaison Group**



PO Box 1749  
Halifax, Nova Scotia  
B3J 3A5 Canada

## M E M O R A N D U M

**TO:** Development Liaison Group  
**FROM:** David Lane – Senior Planner, Planning & Development  
**DATE:** Mar. 12, 2015  
**SUBJECT:** **Noise Contour Regulations: Halifax Stanfield International Airport  
Impacts on Residential Subdivision Potential**

The purpose of this memo is to provide information requested during the Nov. 27, 2014 presentation regarding impact on potential subdivision of lands located in the Noise Exposure Forecast (NEF)-30 Contour overlay area in relation to the proposed amendments.

The intent of the proposed amendments is to regulate future large scale residential subdivision. The proposed NEF-30 Contour covers 11,482 acres, of which 9% is zoned residential.

The adoption of the 2006 Regional Plan prohibited new private roads. Within the NEF-30 Contour candidate properties for potential subdivision are located on the seven existing public or private roads including: Old Guysborough Road, Oldham Road, Highway 2, Frenchman's Road, Sawgrass Drive, Turple Lane and Turf Lake Road.

The HRM Subdivision By-law requires any proposed lot to meet the frontage and minimum lot size requirements for each lot created (parent and new). The four residential zones under the proposed NEF-30 Contour have minimum lot requirements of 100 feet of frontage and 40,000 square feet of area.

The majority of existing developed residential lots within the NEF-30 Contour do not meet the current Subdivision By-law requirements to enable further subdivision.

The 53 existing parcels (1,132 acres) that are capable of satisfying subdivision requirements could potentially subdivide to create an additional 176 lots.

Proposed amendments include a uniform frontage requirement of 300' for all residential zones within the NEF-30 Contour, thereby reducing the number of potential subdivided lots to 46.

This analysis did not consider lot consolidation, nor discretionary approval Open Space Design Development subdivision opportunities, which theoretically could result in the creation of additional lots than anticipated by this by-right analysis.

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### Planning & Development

Tel: 902.490.5593  
Email: [laneda@halifax.ca](mailto:laneda@halifax.ca)      [halifax.ca](http://halifax.ca)

**Attachment J**  
**Excerpts from the Planning District 14 and 17 Municipal Planning Strategy**

**TRANSPORTATION**

**Halifax International Airport**

Halifax International Airport is located in the community of Goffs, on the eastern side of Highway 102, approximately seven miles north of Waverley. The airport is the only international airport in Nova Scotia and serves not only the metropolitan area, but also most of the province. In recent years, the airport has recorded rapid increases in freight and passenger traffic. Airport structures including the terminal have been expanded and new airport related commercial/industrial structures have been constructed on lands leased from the airport. The Federal Department of Transportation is considering the purchase of approximately 350 acres of land from the Aerotech Business Park land assembly for an additional taxiway.

P-21 It shall be the intention of Council to encourage and cooperate with the Federal Government to ensure the continued growth and safety of Halifax International Airport.

The airport's impact on development in the surrounding area has been twofold. First, Canada Mortgage and Housing Corporation lending policies make buildings constructed within portions of the airport noise cones (Map #3) ineligible for federal financial assistance. Secondly, the Municipality, at the request of airport authorities, has maintained an industrial zone on much of the private land surrounding the airport. This industrial zone has prohibited the construction of new homes in the areas affected.

In light of the continuing growth of the airport and the identification and servicing of specific areas for industrial development, it is appropriate to encourage the Federal Government to acquire those lands necessary to the future growth of the airport.

**AIRPORT INDUSTRIAL DESIGNATION**

In 1985, the Municipality and senior levels of government began developing the Aerotech Business Park on approximately 1,600 acres of land to the south of Halifax International Airport is Atlantic Canada's busiest airport and one of the metropolitan area's major transportation centres.

"Aerotech" is the Municipality's largest single commitment to growth, improved employment opportunities, and the long-term balancing of taxation. In total, 2,400 acres have been acquired for this undertaking. The park is intended to provide sites for the development of industries at the leading edge of modern technology, as well as for uses which will substantially benefit from the airport location.

Pratt and Whitney Canada Inc. will establish the first operation within the park. This facility will utilize a satellite directed robotics system to manufacture aircraft engine parts, a unique innovation in North America. In addition, Litton Systems Canada Limited has announced the construction of a radar component plant.

P-102 In recognition of the unique opportunities offered by the transportation interface at Halifax International Airport, it shall be the intention of Council to establish the Airport Industrial Designation as shown on the Generalized Future Land Use Map (Map 1). The Designation reflects the importance of the airport as a major regional facility, supports the Municipality's objectives in the phased development of Aerotech Business Park, and recognizes the potential which these create for complementary business development on private lands.

In adopting the requirements of the land use by-law, it is Council's intention to establish a variety of zones which respond to the various development phases, land ownership and uses within the Designation. In addition, the by-law shall provide specific and deliberate standards relative to municipal servicing and environmental matters, landscaping, storage and open spaces, parking and access, design and other

elements which contribute to the coordinated development of a variety of industry and other business in this strategic location. **In order to achieve the best possible use of land and to contribute to this co-ordination of development, the by-law shall allow for these standards to be varied only according to specific development agreements under the Planning Act. (C-Apr 30/90;May 18/90)**

All efforts will be made to create a campus atmosphere within Aerotech, and to ensure a high degree of compatibility between technology and the natural environment. This is supported and required by the dedication of high tech industry to providing a progressive work environment.

The success of the campus concept demands high standards of design and engineering from park tenants and the Municipality. It also requires a degree of flexibility in development control and a coordinated approach to developing individual yet complementary sites. It is the intention to establish minimal zoning standards and to ensure innovation and excellence by negotiating specific design and maintenance items. This will be achieved through a variety of means, including agreements of purchase and sale, deed or lease covenants and adherence to selected municipal **guidelines for site development as established by individual development agreements. (C-Apr 30/90;M-May 18/90)**

These guidelines will be established in the form of a site standards manual, which will identify the key elements required for site and facility design and will outline the process of design approval by the Municipality. The process will include the review and recommendation of the multi-disciplinary advisory group established to assist prospective tenants, negotiate specific elements of proposals and advise the Municipality's Industrial Commission on development matters within the park.

In addition to the site standards manual and review team, it is the intention to complete a master plan for Aerotech, which will incorporate both infrastructure and environmental elements and will reflect the basic zoning and design standards adopted by the Municipality.

P-103 It shall be the intention of Council to demonstrate its commitment to creating and maintaining a campus atmosphere within Aerotech Business Park, and to protecting the investment of park tenants in this concept over the long term by:

- (a) the establishment of an advisory group which may have representation from municipal departments, outside experts, park tenants and others as the Council determines are required to provide technical advice to the Industrial Commission and Council on the merits of specific proposals and on development matters with the park generally;
- (b) adopting municipal site development standards which shall guide the activities of the advisory group and prospective tenants in designing and negotiating the development of specific sites with the park; and
- (c) developing a master plan for the park, in order to support the most effective phasing of development, maximize efficiency in the construction and use of roads and other infrastructure, identify specific environmental or other elements which may affect the overall park design or operation, and locate natural and man-made features which provide opportunities for site design and the overall campus concept or which may assist in promoting areas of the park for specific uses.

In the first instance, the preparation of a master plan concentrates on the park itself. However, this undertaking may benefit from broader considerations, such as the future needs of Halifax International Airport and the development potential of privately held lands. Upon completion of either type of master plan, its land use elements should be incorporated into this Strategy.

P-104 With reference to Policy P-103, it shall be the intention of Council to amend this planning strategy and the land use by-law to incorporate and fully implement secondary planning carried out within and surrounding Aerotech Business Park.

As the character of "high tech" uses are not easily defined and are highly changeable, it is appropriate to establish only minimal standards within the zones applicable to Aerotech. Uses permitted within any zone will become inadequate to describe the overall high tech concept over time and it may be necessary

to amend existing zones or to create additional zones. The absence of a detailed master plan also sets limits on the potential of the by-law to identify detailed and varied zoning for specific sites. Thus, the by-law's requirements will be necessarily broad at the outset and Council will be required to monitor its continuing applicability as the first phase of the park is developed.

P-105 With reference to Policy P-104 and in recognition of the need to maintain flexibility with respect to site design and the changing character of technically advanced industry, it shall be the intention of Council to establish minimal site requirements within the land use by-law and to negotiate through the Industrial Commission more specific site requirements. These shall be implemented by way of covenants and other agreements as may be required **including development agreements**. Furthermore, it shall be Council's intention, with the co-operation and advice of the Commission, to monitor development within the park and, where beneficial to the overall concept, amend existing zones or create new zones. (C-Apr 30/90, M-May 18/90)

Initial planning has outlined two development stages within the park, and an access road from Highway 102 has recently opened 500 acres. It is intended that critical sites at the junction of this access road and the highway be reserved for high quality commercial developments and that they be withheld until such time as demand from Aerotech or airport users warrants these facilities. In addition, there is potential for other commercial or mixed use service centres within the first 1,600 acres, particularly at major intersections.

Approximately 250 acres of land has access to full services and water and sewerage has been provided to an additional 250 acres. It may be necessary to complete this servicing with storm drainage and road improvements in order to be cost effective or to respond to a major development proposal.

P-106 Within the first phase of Aerotech Business Park, it shall be the intention of Council to establish a core zone which provides a concentrated area for a wide range of technologically advanced industry, related to aviation, aerospace, research and development and manufacturing. In addition, the land use by-law shall provide for supporting services to industry and the airport, including education and training centres, information and communication facilities, and consulting, storage and other services normally required by park tenants. Provisions shall also be established within the land use by-law with respect to outdoor storage and display, parking and loading.

P-107 Notwithstanding Policy P-106 it shall be the intention of Council to establish a commercial zone within Aerotech Business Park, which shall provide for major commercial, manufacturing, institutional and mixed use developments serving airport and Aerotech users. Provisions shall be established within the land use by-law with respect to vehicle storage areas. In order to permit the identification of commercial sites prior to the completion of the master plan for Aerotech, the by-law shall provide that certain lands within the core zone may be developed for commercial purposes and according to the standards of the commercial zone.

P-108 Notwithstanding Policy P-106 and in addition to lands used for major commercial facilities pursuant to Policy P-107, it shall be the intention of Council to recognize the importance of lands within the Aerotech Designation which abut Highway 102. The land use by-law shall specify requirements which contribute to the development of a highway "showcase", including requirements which affect the visual appearance from the highway.

**P-108(a) Notwithstanding the provisions of Policies P-106, 107, 108 and 109, Council may consider varying the requirements of the land use by-law according to Sections 55, 66, and 67 of the Planning Act, for any of the uses permitted by the zone of a property within the Airport Industrial Designation. In considering any such agreement, Council shall have regard to furthering the campus concept for designed within the Aerotech Business Park, as is illustrated by the guidelines of the Aerotech development advisory committee, and to the integration of proposed projects with existing park tenants, and to specific measures required to meet the criteria established by Policy P-155. (C-Apr 30/90,M-May 18/90)**

The sewerage system is designed to eventually accommodate the 1,600 acres. However, additional lands have been acquired. In addition, the appropriate mix of land uses has yet to be determined.

P-109 Within the Airport Industrial Designation, it shall be the intention of Council to establish a holding zone which shall permit a limited range of uses such as government uses, utilities and educational uses. In recognition of the most recent acquisition of lands, it shall be the intention of Council to apply this holding zone to these lands. Furthermore, Council shall reserve these lands pending the resolution of a master plan.

Halifax International Airport is the busiest airport in Atlantic Canada and has often exhibited rates of growth in freight and passenger services in excess of national averages. Over the last ten years, substantial additions have been made to passenger, freight and supporting industrial uses at or near the airport. Additional growth can be expected.

The community of Goffs, within which both the airport and the Aerotech Business Park are located, while predating the construction of the airport has a substantial interest in the improvement of airport centred employment opportunities. In the past, the Municipality has maintained broad areas of industrial zoning throughout the community which, together with aircraft noise has helped to limit new residential and commercial opportunities in the community.

The airport is served by the only highway which directly links the metropolitan area with the rest of Canada. This major highway link and the airport area and Aerotech Park area as both an employment centre and a destination suggests that continued growth can be expected. This will generate increased opportunities for a broadened range of commercial and industrial uses in the airport area. The form and type of commercial uses which can be accommodated should include a range of uses which would also serve the needs of the residents of Goffs.

P-110 It shall be the intention of Council to recognize the existing and potential range of commercial and industrial uses which are provided by and supportive of the Halifax International Airport, as both a transportation centre and an employment centre as well as a service centre for the community of Goffs, by establishing a general airport zone within the land use by-law which shall permit airport related facilities and services, manufacturing and construction industries, warehousing and commercial uses (P-107). It shall be the intention of Council to establish the general airport zone on federal lands at the airport and on private lands generally contained within the 35th noise exposure projection contour.

The sizable investment of public funds in the Aerotech Business Park builds on public investment in the Halifax International Airport to make the general area more attractive to business development. It is not the Municipality's intention to ignore this potential nor restrict its overall benefits to the private property owner. However, in order to protect the initiatives at both Aerotech and the airport, there must be comparable requirements for development on private land holdings, whether related to environmental standards or to site design and maintenance along Highway 102. It is important that, in addition to maintaining the general campus concept, the sensitive equipment contained in facilities at Aerotech not be subjected to hazards and that the functions of the airport not be disrupted.

Three locations have specific industrial and commercial potential - lands on the opposite side of Highway 102 from the showcase lots of Aerotech; property abutting the highway and to the immediate south of the park; and federal holdings abutting the highway and to the immediate north of the park.

P-111 Within the Airport Industrial Designation, it shall be the intention of Council to establish a business zone which shall be applied to specific private and federal holdings in the immediate vicinity of, Aerotech Business Park and which have potential for business development in support of and complementary to, high technology developments. In addition, the land use by-law shall identify general industrial and commercial and institutional uses which can benefit from a location along Highway 102 and which can be accommodated without detracting from facilities developed at Aerotech or Halifax International Airport. Further, the land use by-law shall contain requirements for service stations and provisions which determine the compatibility of development with the general concept for Aerotech Park. In particular, land

abutting Highway 102 and yards visible from this highway shall be required to be used in a manner which supports the intentions for attractive and well-designed developments along this corridor. Further, it shall be the intention of Council to consider the expansion of the Airport Industrial Designation to include additional lands on the western side of Highway 102, at such time as public road access is made available.

In order to maintain the "showcase" approach intended for the development and promotion of lands abutting Highway 102, zoning mechanisms can establish setbacks, provide for landscaping, and limit the amount of outdoor storage on property. However, many of the requirements of design and other elements necessary to unify and fully realize the potential of a number of private land holdings cannot or should not be regulated. It is suggested that, in lieu of the automatic enforcement of various development restrictions and requirements, the Municipality work cooperatively with private property owners to develop a design and promotions strategy. Although not replacing professional consultants to these landowners, the advisory group established for Aerotech can offer expertise and assistance in specific site design according or complementary to municipal guidelines established for Aerotech. For example, these properties could benefit, visually and by association, from signage which approximates the Aerotech typography or materials but could incorporate a different colour scheme.

Further, the property owners could work together and with the Municipality to co-ordinate individual developments and set their own goals for general land use, design and marketing.

Of immediate need in this undertaking is the coordination of open space improvements to lands immediately abutting Highway 102 and determining the aesthetic impact of the highway showcase. The Municipality should actively pursue the planning and implementation of a landscaping and signage package for this area. Within Aerotech, a fifty foot wide parcel running the length of the park has been retained in public ownership for this purpose. Co-operation with private landowners must include discussion regarding the need to implement comparable improvements on private property.

P-112 It shall be the intention of Council, through the Industrial Commission, the Aerotech advisory group and municipal departments, to offer assistance and co-operation to private landowners within the Airport Industrial Designation, to support the development of the general airport area as a superior regional business location.

P-113 It shall be the intention of Council to develop a landscaping and signage plan for all lands forming the highway showcase and to co-operate with and support private landowners in carrying out design improvements.

Among the many uses which can be accommodated along Highway 102, the accessibility and extent of lands in the airport area and the absence of residential development provide opportunities for outdoor commercial recreation. While many portions of the Plan Area may be capable of supporting some form of commercial recreation use, the airport area offers the broadest range of possibilities, particularly where the activity attracts large crowds to single events. There are, however, community and land use considerations which should be reflected in specific and individual negotiations and agreements for these facilities. Automobile and harness racing tracks will, however, be permitted by right within the business zone (P-111) as a reflection of their previous existence or Council commitment to their development (P-144). These facilities may also be used for entertainment, retail and other temporary purposes and special events, including markets, concerts and assemblies.

P-114 In consideration of the availability and regional accessibility of lands within the Airport Industrial Designation, Council may consider the development of commercial recreation uses, according to the provisions of Sections 55 and 56 of the Planning Act. In considering such an agreement, Council shall have regard to the following:

- (a) the visual impact of the use from both Highway #102 and the eastern side of the highway;
- (b) the traffic volumes created by the proposed use;
- (c) the overall appearance of the site, including specific provisions for landscaping and buffering;



- (d) the manner by which solid and liquid waste will be treated;
- (e) the effects of the use on the natural environment, particularly with respect to pyritic slates, as contained in a report from the appropriate provincial or federal government authority; and
- (f) the provisions of Policies P-91 and P-155.

Many of the existing industries at Halifax International Airport are located on lands which have been leased from the Federal Government. In order to ensure an orderly pattern of development, it would be useful if future lands leased by Federal authorities to private interests conformed as much as possible to the pertinent municipal land use by-law requirements.

P-115 It shall be the intention of Council to encourage the Federal Government to have regard for the set back, side and rear yard and lot size requirements of the applicable municipal zone when considering future leases to private interests.

The Federal Department of Industrial Expansion together with the Provincial Department of Development have identified a need for the installation of a state of the art super computer in Nova Scotia. The Federal Government has committed substantial funds to the installation of such a machine and Provincial authorities are presently analysing funding options. Given the character of development at the Aerotech Business Park, the proximity to the metropolitan centre, and the ease of travel available at the airport site, it may be appropriate to consider the location of such a system within the Aerotech Business Park.

P-116 It shall be the intention of Council to encourage both Federal and Provincial Governments to resolve any outstanding issues with respect to the installation of a super computer and to consider the location of such a facility in the Aerotech Business Park.

**Attachment K**  
**Transport Canada (TP 1246) Land Use in the Vicinity of Airports: Part IV Aircraft Noise**

**PART IV**  
**AIRCRAFT NOISE**

**4.1 GENERAL**

An accurate assessment of the annoyance resulting from exposure to aircraft noise is essential to both aviation planners and those responsible for directing the nature of development of lands adjacent to airports. This Part will discuss noise measurement, annoyance prediction, the Noise Exposure Forecast and the Noise Exposure Projection. It also contains an assessment of various land uses in terms of their compatibility with aircraft noise.

**4.1.1 Noise Measurement**

The sound pressure level created by an aircraft (or any other noise source) can be measured by means of a sound level meter. The microphone of the sound level meter senses the pressure fluctuations over a short period of time. The sound pressure is the root mean square value of the difference between atmospheric pressure and the instantaneous pressure of the sound, the mean being read over several periodic cycles. For mathematical convenience, the logarithmic parameter called sound pressure level (SPL) is used. The unit of sound (noise) measurement is the decibel (dB).

A particular sound signal may comprise several different frequencies to which the human ear may respond in various ways. In order that noise measurements may relate more closely to loudness as judged by the average person, sound level meters are equipped with weighting networks which make use of information related to the frequency response characteristics of the human ear. Some sound level meters have the capability of reading on A, B, C, and D weighting scales, and decibel values are correspondingly indicated as dB(A), dB(B), dB(C) or dB(D), according to the weighting network used. However, the dB(A) is the most common. The dB(D) value was designed as the preferred measuring unit for aircraft noise, but dB(A) is widely used since it has been found to have good utility in determining annoyance reactions to a wide variety of noises occurring in communities.

The noise metric known as Perceived Noise Level (PNL), measured in the unit PNdB, provides a frequency weighting system which attempts to more closely approximate the subjective reaction of the human ear to an aircraft noise stimulus. Although weighting networks are available which provide a means of directly measuring approximate PNL values, i.e., dB(D), true PNL values are determined by the analysis and treatment of sound pressure levels in various 1/3 octave bands.

A more sophisticated noise metric, the Effective Perceived Noise Level (EPNL), expressed in the unit EPNdB, was developed specifically for use in the measurement of aircraft noise. This metric is basically similar to the PNL except that corrections have been applied to account for the effects of discrete tones and the duration of the noise event, i.e., factors which contribute to the annoyance of the listener.

#### **4.1.2 Predicting Annoyance**

In addition to the annoying characteristics of an individual noise signal, overall subjective reaction to noise is dependent on the number of times the disturbance occurs as well as the daily distribution of these events. These factors must be included in any noise forecasting system if it is to be applicable to the communities located in the vicinity of airports. The Noise Exposure Forecast (NEF) system used by Transport Canada takes into consideration all of these factors.

The NEF system provides for the summation of noise from all aircraft types operating at an airport based on actual or forecast aircraft movements by runways and the time of day or night the events occur. The large number of mathematical calculations necessary for the construction of NEF contours requires the use of computer techniques for the practical application of this system.

#### **4.1.3 The Noise Exposure Forecast System (NEF)**

Effective Perceived Noise Level is the basis for estimating noise annoyance in the Noise Exposure Forecast system.

The data required for determining NEF contours consist of EPNL (see 4.1.1 -last paragraph) vs distance information for various aircraft types, along with generalized aircraft performance data. In calculating NEF at a specific location, the EPNL contribution from each aircraft operating from each runway is assessed by considering the distance from the point in question to the aircraft, and then obtaining EPNL values from the appropriate EPNL vs distance curve. The noise contributions from all aircraft types operating on all runways are summed on an anti-logarithmic basis to obtain the total noise exposure at that one location. Thus, the determination of NEF contours is strictly a numerical calculation procedure. As stated previously, due to the large number of mathematical calculations involved, computer techniques provide the only practical means of constructing NEF contours.<sup>1</sup>

### **4.2 NOISE EXPOSURE CONTOURS**

There are three types of noise exposure contours produced depending on the time element involved. These are Noise Exposure Forecasts (NEFs), Noise Exposure Projections (NEPs) and Planning Contours. Both NEFs and NEPs undergo a rigorous review and approval process within Transport Canada Aviation before public release.

#### **4.2.1 Noise Exposure Forecast (NEF)**

The Noise Exposure Forecast (NEF) is produced to encourage compatible land use planning in the vicinity of airports. NEFs are approved (official) contours and Transport Canada will support them to the level of accuracy of the input data. Accordingly, the input data must be as accurate as current technology permits. Traffic volume and aircraft type and mix used in calculating the noise contours are normally forecast for a period of between five and ten years into the future (See NOTE). Runway geometry must be the current layout, except that new and approved projects involving changes in the runways may be included, when the completion date of the project lies within the forecast period.

NEFs are made available to provincial and local governments for use in conjunction with Transport Canada's recommended Land Use Tables (Table 3) which will enable planners to define compatible land use in the vicinity of airports over the short term.

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<sup>1</sup> 1 Kingston, Beaton and Rohr, A Description of the CNR and NEF Systems for Estimating Aircraft Noise Annoyance (R-71-20), Department of Transport, 1971)

**NOTE:**

These forecasts are prepared and/or approved by Statistics and Forecasts Branch of Transport Canada, Policy and Co-ordination.

Transport Canada retains copies of NEFs and NEPs, both regionally and at headquarters, in order to:

- (a) provide municipalities and local governments with a basis for zoning; and
- (b) inform the public of noise sensitive areas in the vicinity of airports.

Transport Canada does not support or advocate incompatible land use (especially residential housing) in areas affected by aircraft noise. These areas may begin as low as NEF 25. At NEF 30, speech interference and annoyance caused by aircraft noise are, on average, established and growing. By NEF 35 these effects are very significant. New residential development is therefore not compatible with NEF 30 and above, and should not be undertaken.

**Local Variances From NEF Contours**

The procedure for dealing with requests for local minor variances from the published NEF contours will be as follows:

- (a) the proponent of the change (property owner, developer) determines from the municipalities that a variance from the present zoning, established on the basis of Transport Canada's applicable official NEF contour, would be considered if adequate justification is provided. Municipal authorities advise Transport Canada (TC) Aviation, Air Navigation System (ANS) of the request;
- (b) the proponent undertakes to provide evidence that NEF contours, as they apply to his/her property, do not take into account factors that would affect aircraft noise attenuation or propagation. It is recommended that the proponent consult with TC Aviation, ANS to determine what evidence would be required to verify his/her contention;
- (c) the proponent obtains and submits the evidence to municipal authorities;
- (d) municipal authorities ask TC Aviation, ANS for its recommendations concerning the validity of evidence and claimed adjustment to noise impact relative to the official NEF contour;
- (e) TC Aviation, ANS makes recommendations to the municipality, and provides any pertinent additional information or advice that could bear on the municipality's decision; and
- (f) the municipality determines whether to allow variance from established zoning, taking into account TC Aviation, ANS's recommendations, and advises the proponent, provincial Ministries concerned and Transport Canada.

It is intended that this process will not affect the status of the applicable NEF map. The NEF map will not be changed to reflect the local variance, nor will future forecast show the local variance. The process just described is intended to accommodate small-scale characteristics of the property which can locally affect aircraft noise impact such as terrain features, ground condition, reflective or shielding surfaces, etc. The NEF model does not include such small scale characteristics, and it is not intended to incorporate a capability to do so in the future.

In summary, Transport Canada will not include local small-scale effects in the calculation of NEF contours, nor will official NEF contour sets be revised if and when it is demonstrated that localized small-scale effects modify predicted aircraft noise levels in specified areas. The municipality or province may request Transport Canada's technical advice and recommendations concerning such small-scale effects on aircraft noise levels, in order to consider the technical validity of claims to variances from official land zoning plans. The onus is on the proponent of such zoning variances to provide evidence of the noise impact adjustment; Transport Canada will not undertake any studies into the matter, and will only advise the municipality on the basis of evidence provided by the proponent.

#### **4.2.2 Noise Exposure Projection (NEP)**

It is recognized that much land use planning involves projections beyond five years into the future, when aircraft fleet mixes and runway configurations are most likely to be different from the known conditions of today. To provide provincial and municipal authorities with long range guidance in land use planning, Transport Canada introduced the Noise Exposure Projection (NEP). The NEP is based on a projection (not a forecast) of aircraft movements for more than ten years into the future, and includes aircraft types and runway configurations that may materialize within this period: NEPs are approved (official) contours and Transport Canada will support them to the level of accuracy of the input data. The information required to produce an NEP must, at least, be contained in an Aviation System or Airport Master Plan. NEPs are available to interested parties in the same manner as NEFs.

#### **4.2.3 Planning Contour**

The third type of noise contour is the Planning Contour which is produced to investigate planning alternates and must be labelled as such. This may be released to the public by a regional TC Aviation office without Headquarters' (Ottawa) approval. Any agency may produce these contours as they do not have any official status.

#### **4.3 PRODUCTION OF NOISE CONTOURS — AIRPORTS THAT ARE NEITHER OWNED NOR OPERATED BY TRANSPORT CANADA**

The preparation and approval of noise contours for airports that are neither owned, nor operated by the Federal Government is not a responsibility of TC. However, TC will assist the owner or operator of such airports to produce noise contours for the airports, provided that:

- (a) the owner or operator initiates this action;
- (b) supplies or approves a projection of aircraft traffic, both as to type and numbers; and
- (c) uses the noise impact prediction methods, procedures and recommended practices relating to aircraft operations as established by TC.

#### **4.4 PRODUCTION OF NOISE CONTOURS: DND AERODROMES**

Production of noise contours for airports, used solely by the Department of National Defence (DND), is the responsibility of DND as to data input and production. When requested by DND, these contours will be published subject to TC's approval of the technical accuracy of the contours. Noise contours for joint use DND/TC airports will normally be produced by regions in the same manner as for TC airports with the exception that DND Headquarters in Ottawa will provide the official military traffic forecasts. Requests for military forecasts will be submitted to TC Headquarters who will liaise with DND Headquarters for their procurement.

#### **4.5 NOISE CONTOUR MAPS**

All contour maps will be prepared at a 1:50 000 scale.

It may be necessary for computer-produced contour lines to be mechanically smoothed to remove irregularities that arise in the plotting process. This will be done particularly in areas of sharp corners or tips.

NEF and NEP maps must depict the 40, 35 and 30 contours as a solid line. TC does not require any other contours to be depicted.

With respect to printing of maps with approved, superimposed NEF/NEP contours, TC Aviation Headquarters will produce a single master map with enough copies for internal TC Aviation use. Additional copies will be available from TC Aviation regional offices (see Appendix A) for a nominal fee. For new airports, see Section 4.6.1.

#### **4.6 COMMUNITY RESPONSE TO NOISE**

During developmental work on preliminary noise rating systems, it was established that community response to aircraft noise correlated well with the noise contours then in use. Case histories of noise complaints at twenty-one airports were analyzed as to severity, frequency of complaint, and distribution around the airports to establish a relationship with known noise values. The results of this work, which may be found in Table 2, have been used for relating land uses to NEF contours.

The analysis of the effect of aircraft noise on various working and living environments is a complex matter. For each case where there is a note in the Land Use Tables (Table 3), it is desirable that a noise climate analysis or a noise reduction requirement analysis be undertaken, since each note indicates a particular specialized problem.

Many of the factors that would be considered in such analyses are subject to changing technology. Also, the attitudes of those exposed to the noise environment are subjective and varied. Since these factors are under constant review, authorities undertaking analyses of noise climates and noise reduction requirements in buildings should maintain liaison with agencies conducting these reviews. At the present time, such agencies include: the National Research Council and TC Aviation.

##### **4.6.1 New Airports and Community Response to Noise (new section)**

Where an airport is already surrounded by residential or other noise sensitive land uses, the intent of land use planning guidelines is to prevent any increases in incompatible land use. As urbanization increases, any new airport would, by necessity, be planned for and built in non-urban areas. Therefore, where a new airport is planned on land designated as an airport site, an opportunity exists to establish appropriate land use planning guidelines that recognize the unique noise environment of a non-urban area and preserve the balance between the integrity of the future airport and the quality of life of the community that it will serve.

For the purposes of this section, "New Airport" means any land designated by the Governor in Council an "Airport Site" under the Aeronautics Act after January 1, 2001.

The encroachment of incompatible, sensitive land uses is clearly a vital factor in planning and establishing appropriate protection criteria for new airports. The best and often only opportunity to establish a sufficient buffer zone to control noise sensitive development around a new airport is in the initial planning stage of that new airport. This opportunity diminishes quickly as the airport develops and community land use patterns become established.

In addition to the traditional approach of defining land use planning guidelines, pertinent factors considered in a study of land use guidelines for new airports included not only individual activity interference (speech & sleep)

criteria, but also habituation to noise, the type of environment (non-urban versus urban environment), community attitudes toward the noise source, the extent of prior exposure to the noise source, and the type of flight operations causing the noise.

For new airports, Transport Canada recommends that no new noise sensitive land uses be permitted above 25 NEF/NEP. Noise sensitive land uses include residential, schools, day care centres, nursing homes and hospitals. This approach is the single most practical for reasons of ease of implementation and administration since below this threshold, all noise-sensitive land uses would be permitted without restrictions or limitations. The guidelines for all other land uses remain unchanged from Table 3. This buffer would also offer protection against the long term uncertainties inherent in planning for a new airport.

To implement this NEF 25 criterion, NEF and NEP maps for new airports must depict the 25 contour as a solid line in addition to the noise contour requirements set out in Section 4.5.

#### **4.7 RECOMMENDED NOISE CONTROL ACTION**

For a specific noise problem, Table 4 may be used to select different actions.

#### **4.8 RECOMMENDED PRACTICES**

NEF/NEP contours approved by TC Aviation are to be used in conjunction with these guidelines to encourage compatible land use in the vicinity of airports. Therefore, it is imperative that these official contours be distributed by Airport Operators to the authorities responsible for land use and zoning of the affected land. This would normally include both provincial and municipal planners, and zoning boards. It should be noted that distribution of these official contours is not restricted.

**Table 2**  
**COMMUNITY RESPONSE PREDICTION**

<b>Response Area</b>	<b>Response Prediction</b>
1 (over 40 NEF)	Repeated and vigorous individual complaints are likely. Concerted group and legal action might be expected.
2 (35-40 NEF)	Individual complaints may be vigorous. Possible group action and appeals to authorities.
3 (30-35 NEF)	Sporadic to repeated individual complaints. Group action is possible.
4 (below 30 NEF)	Sporadic complaints may occur. Noise may interfere occasionally with certain activities of the resident
* It should be noted that the above community response predictions are generalizations based upon experience resulting from the evolutionary development of various noise exposure units used by other countries. For specific locations, the above response areas may vary somewhat in accordance with existing ambient or background noise levels and prevailing social, economic and political conditions.	

**Table 3**  
**LAND USE TABLES**  
**AIRCRAFT NOISE CONSIDERATIONS ONLY**



This land use tabulation should not be considered as an exhaustive listing, but merely as examples of how various land uses would be assessed in the Noise Exposure Forecast Zones in terms of community response predictions.

<b>No</b>	Indicates that new construction or development of this nature should not be undertaken.
<b>No</b>	Indicates that new construction or development of this nature should not be undertaken See Explanatory Note B.
<b>(A)</b>	This particular land use may be acceptable in accordance with the appropriate note and subject o the limitations indicated therein.
<b>Yes</b>	The indicated land use is not considered to be adversely affected by aircraft noise and no special noise insulation should be required for new construction or development of this nature.

**A**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Residential</b>				
Detached, Semi-Detached	<b>No</b>	<b>No</b>	<b>(No)</b>	<b>(A)</b>
Town Houses, Garden Homes	<b>No</b>	<b>No</b>	<b>(No)</b>	<b>(A)</b>
Apartments	<b>No</b>	<b>No</b>	<b>(No)</b>	<b>(A)</b>

**B**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Recreational - Outdoor</b>				
Athletic Fields	<b>No</b>	<b>(J)</b>	<b>(K)</b>	<b>Yes</b>
Stadiums	<b>No</b>	<b>No</b>	<b>(K)</b>	<b>Yes</b>
Theatres - Outdoor	<b>No</b>	<b>No</b>	<b>No</b>	<b>(H)</b>
Racetracks - Horses	<b>No</b>	<b>(K)</b>	<b>(K)</b>	<b>Yes</b>
Racetracks - Autos	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Fairgrounds	<b>(K)</b>	<b>(K)</b>	<b>Yes</b>	<b>Yes</b>
Golf Courses	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Beaches & Pools	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Tennis Courts	<b>No</b>	<b>(K)</b>	<b>Yes</b>	<b>Yes</b>
Playgrounds	<b>(K)</b>	<b>(K)</b>	<b>Yes</b>	<b>Yes</b>
Marinas	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Camping Grounds	<b>No</b>	<b>No</b>	<b>No</b>	<b>(H)</b>
Park & Picnic Areas	<b>No</b>	<b>(K)</b>	<b>Yes</b>	<b>Yes</b>

**C**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Commercial</b>				
Offices	(F)	(E)	(D)	Yes
Retail Sales	(F)	(D)	Yes	Yes
Restaurants	(F)	(D)	(D)	Yes
Indoor Theatres	No	(G)	(D)	Yes
Hotels & Motels	No	(F)	(G)	Yes
Parking Lots	Yes	Yes	Yes	Yes
Gasoline Stations	Yes	Yes	Yes	Yes
Warehouses	Yes	Yes	Yes	Yes
Outdoor Sales	(E)	(K)	Yes	Yes

**D**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Public</b>				
Schools	No	No	(D)	(C)
Churches	No	No	(D)	(C)
Hospitals	No	No	(D)	(C)
Nursing Homes	No	No	(D)	(C)
Auditoriums	No	No	(D)	(C)
Libraries	No	No	(D)	(C)
Community Centres	No	No	(D)	(C)
Cemeteries	(N)	(N)	(N)	(N)

**E**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Municipal Utilities</b>				
Electric Generating Plants	Yes	Yes	Yes	Yes
Gand & Oil Storage	Yes	Yes	Yes	Yes
Garbage Disposal	Yes	Yes	Yes	Yes
Sewage Treatment	Yes	Yes	Yes	Yes
Water Treatment				
Water Storage	Yes	Yes	Yes	Yes

**F**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Industrial</b>				
Factories	(I)	(I)	Yes	Yes
Machine Shops	(I)	(I)	Yes	Yes
Rail Yards	Yes	Yes	Yes	Yes
Ship Yards	Yes	Yes	Yes	Yes
Cement Plants	(I)	(I)	Yes	Yes
Quarries	Yes	Yes	Yes	Yes
Refineries	(I)	(I)	Yes	Yes
Laboratories	No	(D)	Yes	Yes
Lumber Yards	Yes	Yes	Yes	Yes
Saw Mills	(I)	(I)	Yes	Yes

**G**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Transportation</b>				
Highways	Yes	Yes	Yes	Yes
Railroads	Yes	Yes	Yes	Yes
Shipping Terminals	Yes	Yes	Yes	Yes
Passenger Terminals	D	Yes	Yes	Yes

**H**

Noise Exposure Forecast Values	>40	40-35	35-30	<30
Response Areas	1	2	3	4
<b>Agricultural</b>				
Crop Farms	Yes	Yes	Yes	Yes
Market Gardens	Yes	Yes	Yes	Yes
Plant Nurseries	Yes	Yes	Yes	Yes
Tree Farms	Yes	Yes	Yes	Yes
Livestock Pastures	M	Yes	Yes	Yes
Poultry Farms	L	L	Yes	Yes
Stockyards	M	Yes	Yes	Yes
Dairy Farms	M	Yes	Yes	Yes
Feed Lots	M	Yes	Yes	Yes
Fur Farms	K	K	K	K

### EXPLANATORY NOTES FOR TABLE 3

The location of the lines between noise zones cannot be fixed exactly. It will therefore be necessary for the responsible public authority to make an appropriate interpretation of what regulations are to apply at a specific location.

In cases where reference is made to a detailed on-site noise analysis, or to peak noise levels, it will be appreciated that the notes are intended to apply specifically at existing airports, where a field assessment is possible. For planning with respect to new airports, such zones should be considered cautionary. Before reaching a final decision with respect to permitting the particular land-use in question, the authority may wish to consider local topographic effects and ambient noise levels, in conjunction with generalized peak noise level "footprints" for the predominant aircraft types to be using the new airport.

A. Annoyance caused by aircraft noise may begin as low as NEF 25. It is recommended that developers be made aware of this fact and that they undertake to so inform all prospective tenants or purchasers of residential units. In addition, it is suggested that development should not proceed until the responsible authority is satisfied that acoustic insulation features, if required, have been considered in the building design.<sup>2</sup>

B. This Note applies to NEF 30 to 35 only. New residential construction or development should not be undertaken. If the responsible authority chooses to proceed contrary to Transport Canada's

<sup>2</sup> National Research Council, working in conjunction with Canada Mortgage and Housing Corporation (CMHC) and Transport Canada Aviation, has developed a technique for selecting residential building components based on NEF values. This information is published in CMHC's New Housing and Airport Noise Handbook, NHA 5185 81/05. Authorities are referred to this document for assistance in determining appropriate noise insulation features for a particular residential development.

recommendation, residential construction or development between NEF 30 and 35 should not be permitted to proceed until the responsible authority is satisfied that:

- (1) appropriate acoustic insulation features have been considered in the building<sup>3</sup> and
- (2) a noise impact assessment study has been completed and shows that this construction or development is not incompatible with aircraft noise.

Notwithstanding point 2, the developer should still be required to inform all prospective tenants or purchasers of residential units that speech interference and annoyance caused by aircraft noise are, on average, established and growing at NEF 30 and are very significant by NEF 35.

C. These facilities should not be located close to the 30-NEF contour unless the restrictions outlined in Note D are applied.

D. These uses should not be approved unless a detailed noise analysis is conducted and the required noise insulation features are considered by the architectural consultant responsible for the building design.

E. When associated with a permitted land use, an office may be located in this zone provided that all relevant actors are considered and a detailed noise analysis is conducted to establish the noise reduction features required to provide an indoor environment suited to the specific office function.

F. It is recommended that this specific land use should be permitted only if related directly to aviation-oriented activities or services. Conventional construction will generally be inadequate and special noise insulation features should be included in the building design.

G. Generally, these facilities should not be permitted in this zone. However, where it can be demonstrated that such a land use is highly desirable in a specific instance, construction may be permitted to proceed provided that a detailed noise analysis is conducted and the required noise insulation features are included in the building design.

H. Facilities of this nature should not be located close to the NEF 30 contour unless a detailed noise analysis has been conducted.

I. Many of these uses would be acceptable in all NEF zones. However, consideration should be given to internally generated noise levels, and acceptable noise levels in the working area.

J. Undesirable if there is spectator involvement.

K. It is recommended that serious consideration be given to an analysis of peak noise levels and the effects of these levels on the specific land use under consideration.

L. The construction of covered enclosures should be undertaken if this use is to be newly introduced to the noise environment. (See Note M).

M. Research has shown that animals condition themselves to high noise levels. However, it is recommended that peak noise levels be assessed before this use is allowed.

N. This appears to be a compatible land use in all NEF zones.

Table 4

## RECOMMENDED MATRIX OF NOISE CONTROL ACTIONS

CONSIDER THESE ACTIONS		IF YOU HAVE THIS PROBLEM						
			Noise from Taxiing	Departure	Approach	Landing Roll	Training Flights	Maintenance Ground Equipment
AIRPORT PLAN	Changes in Runway Location, Length or Strength	1	●	●	●	●		
	Displaced Thresholds	2			■	■		
	High-Speed Exit Taxiways	3	●			●		
	Relocated Terminals	4	●				●	●
	Isolating Maintenance Runups or Use of Test Stand Noise Suppressors and Barriers	5	■				●	●
AIRPORT AND AIRSPACE USE	Preferential or Rotational Runway Use *	6	●	●	●	●		
	Preferential Flight Track Use or Modification to Approach and Departure Procedures *	7		●	●	●		
	Restrictions on Ground Movement of Aircraft *	8	●					
	Restrictions on Engine Runups or Use of Ground Equipment	9					●	●
	Limitations on Number or Types of Operation or Types of Aircraft	10	●	●	●	●	●	●
	US Restrictions, Rescheduling move flights to Another Airport	11	●	●	●	●	●	●
	Raise Glide Slope Angk or Intercept *	12			●	●		
AIRCRAFT OPERATION	Power and Flap Management *	13		●	●	●		
	Limited Use of Reverse Thrust *	14			●			
LAND USE	Land or Easement Acquisition	15	●	●	●	●	●	●
	Joint Development of Airport Property	16	●	●	●	●	●	●
	Compatible Use Zoning	17	●	●	●	●	●	●
	Building Code Provisions and Sound Insulation of Buildings	18	●	●	●	●	●	●
	Real Property Noise Notices	19		●	●	●	●	●
	Purchase Assurance	20		●	●	●	●	●
NOISE PROGRAM MANAGEMENT	Noise Related Landing Fees	21	●	●	●	●		
	Noise Monitoring	22		●	●	●	●	
	Establish Citizen Complaint Mechanism Establish Community Participation Program	23	●	●	●	●	●	●

\*These are examples of restrictions that involve TC Aviation's responsibility for safe implementation.

**Attachment L**  
**Petition: Regional Council March 23, 2010 Item 10.2.1**

**Note:** The submitted petition contained signatories who did not record their name in addition to their signature. In accordance with the Freedom of Information and Protection of Privacy Act (FOIPOP), Staff have transcribed the petition below. Copies of the original petition are available upon request from the Office of the Municipal Clerk 902-490-4210 or [clerks@halifax.ca](mailto:clerks@halifax.ca)

<b>Name</b>	<b>Community</b>
P.1	
Angel Brown	Oldham Rd.
Sherry Dowell	Oldham Rd.
Pat Lightle	Oldham Rd.
TJ Brown	Oldham Rd.
Marilyn (Illegible)	Oldham Rd.
Ralph (Illegible)	Oldham Rd.
Frances Dowell	Oldham Rd.
Joe Dowell	Oldham Rd.
Marjorie Grandy	Oldham Rd.
Victor Grandy	Oldham Rd.
Darlene (Illegible)	Oldham Rd.
Laura Lightle	Oldham Rd.
K. Cunningham	Oldham Rd.
(Illegible)	Oldham Rd.
Amanda (Illegible)	Oldham Rd.
P.2	Oldham Rd.
W. McMullen	Oldham Rd.
L. McMullen	Oldham Rd.
(Illegible)	Edmund Rd.
(Illegible)	Oldham
(Illegible)	(Illegible)
(Illegible)	Oldham
(Illegible)	Oldham Rd.
Dale Lunn	Oldham Rd.
(Illegible)	Oldham Rd.
(Illegible)	Oldham Rd.
Janet Morash	Oldham Rd.
(Illegible)	Oldham Rd.
(Illegible)	Oldham Rd.
Gordon Parker	Oldham Rd.
(Illegible)	Oldham Rd.
P.3	
Tracy White	North Noel Rd.
(Illegible)	Hardwood Lands
Courtney Casey	Lantz
Krista Conrad	East Chezzetcook
Amanda Wiswell	Milford
Kelli McGrath	Enfield
Lori Morash	Enfield
Caroline Fitzpatrick	Ess Rd.
Isabelle Cole	Oldham Rd.
(Illegible)	Oldham Rd.
(Illegible)	Oldham Rd.
Phyllis Cole	Oldham Rd.

Lorraine Myers	Oldham Rd.
Yvonne Phalen	Oldham Rd.
Harold Phalen	Oldham Rd.
P.4	
Joanne Dowell	Oldham Rd.
Dexter Dowell	Oldham Rd.
Ben McIntyre	Oldham Rd.
Joanna McIntyre	Oldham Rd.
Anthony McIntyre	Oldham Rd.
Ed W. (Illegible)	Oldham Rd.
(Illegible)	Oldham Rd.
Tom Cunningham	Oldham Rd.
(Illegible)	Oldham Rd.
(Illegible) Thompson	Oldham Rd.
Kristina Durnford	Oldham Rd.
John Durnford	Oldham Rd.
Troy Langthorne	Oldham Rd.
Josh Brown	Oldham Rd.
Norman Brown	Oldham Rd.
P.5	
Amanda Gaudet	Oldham Rd.
Stephen Gaudet	Oldham Rd.
Denise Ross	Halls Rd.
Cheyenne Burns	Enfield
Scott Fraser	Enfield
Darrell Graham	Enfield
Tammy Leadbetter	Enfield
Joe Ferguson	Enfield
(Illegible)	Oldham
Laverne Burns	Enfield
Peter Muise	Oldham
P.6	
Judy Publicover	Oldham Rd.
Sandra Publicover	Oldham Rd.
Bob Milley	Oldham Rd.
Dawn Scott	Oldham Rd.
Owen Scott	Oldham Rd.
Karen MacDonald	Oldham Rd.
Mike MacDonald	Oldham Rd.
Rob (Illegible)	Oldham Rd.
Kim Spurrell	Oldham Rd.
P.7	
Elsie Whidden	Oldham Rd.
Barry Whidden	Lantz
Glenda Sullivan	Oldham Rd.
Trevor Gavel	Oldham Rd.
Shawna Young	Oldham Rd.
(Illegible)	Oldham Rd.
Margaret (Illegible)	Old Guysborough Rd.
Arthur LeCain	Old Guysborough Rd.
Karen LeCain	Old Guysborough Rd.
Dean Snelgrove	Old Guysborough Rd.
Lori (Illegible)	Old Guysborough Rd.
Katie Snelgrove	Old Guysborough Rd.
Kris Snelgrove	Old Guysborough Rd.
(Illegible)	Old Guysborough Rd.

Deborah Dowell	Oldham Rd.
P.8	
Ernie Hopper	Goffs
Joan Ross	Goffs
Brian Baxter	HRM
Hannah Lively	HRM
Minnie Preeper	Old Guysborough Rd.
Helen Boutilier	Old Guysborough Rd.
Corrina (Illegible)	Nile Mile River
Charlene Boutilier	Elmsdale
Connie Boutilier	Lantz
Vicki Hilton	Shubenacadie
Shane Boutilier	Shubenacadie
Greg Lively	Nine Mile River
Kevin Hinch	Lantz
Shirley White	Nine Mile River
Doug Boutilier	Wellington
P.9	
Ruby Garrison	Goffs
Phillip Perry	Elmsdale
Sandra Perry	Nile Mile River
Joshua Perry	Upper Nine Mile River
Ken Boutilier	Belnan
Michael Boutilier	Indian Brook
Crystal Boutilier	HRM
Justin Williams	HRM
Sharon Boutilier	Indian Brook
Stacie Boutilier	Indian Brook
Fred Boutilier	HRM
Roy Boutilier	HRM
Ruby Boutilier	HRM
Anne Owen	Devon
Cathie Boutilier	Goffs
P.10	
Jordon Boutilier	Wellington
P.11	
Sherry Young	(Illegible)
Christena Dunham	Goffs
Peter (Illegible)	Old Guysborough Rd.
P.12	
Matt Ehler	Old Guysborough Rd.
Donald (Illegible)	Old Guysborough Rd.
Lorraine Lewis	Old Guysborough Rd.
Kerstin Grzesik	Old Guysborough Rd.
Erin Grzesik	Old Guysborough Rd.
Paul Mombourquette	Oldham Rd.
Manon Mombourquette	Oldham Rd.
Krista Thompson	Turf Lake Rd.
Don Thompson	Turf Lake rd.
Miriam LeCain	Old Guysborough Rd.
G. LeCain	Old Guysborough Rd.
P.13	
Gary Adams	Goffs
Glenda Adams	Goffs
Max Chandler	Old Guysborough Rd.
Mike Chandler	Old Guysborough Rd.



Jodi Horne	Old Guysborough Rd.
Ian Horne	Old Guysborough Rd.
Anne Marie Horne	Old Guysborough Rd.
Andrew Horne	Old Guysborough Rd.
Robert E. Ripley	Old Guysborough Rd.
Lorraine Ripley	Old Guysborough Rd.
Randy Lovett	Old Guysborough Rd.
(Illegible)	Old Guysborough Rd.
Cindy Boutilier	Old Guysborough Rd.
Jessica Boutilier	Old Guysborough Rd.
(Illegible)	Old Guysborough Rd.
P.14	
(illegible)	(Illegible)
Sandra Miller	Devon
Thomas Miller	Devon
Vera Dielman	Devon
Robert Cole	Devon
(illegible) Sedgwick	Devon
Gail Sedgwick	Devon
Sheila & Charles Harding (no signatures)	Devon
Troy Nickerson	Porters Lake
David Bennett	Old Guysborough Rd.
Anne Bennett	Old Guysborough Rd.
Anna (illegible)	Old Guysborough Rd.
Jeff Hallett	Old Guysborough Rd.
James Mulrooney	Old Guysborough Rd.
Karen Kirk	Goffs
P.15	
Heather McGirr	Beaverbank
Steve McGirr	Beaverbank
Shirley Campbell	Windsor Junction
Nancy Lee (illegible)	Windsor Junction.
Neil Paul Campbell	Windsor Junction
Heather Wilson	HRM
(illegible)	Old Guysborough Rd.
(illegible)	Old Guysborough Rd.
Trevor Lawson	Carrolls Corner
Tammy Lawson	Carrolls Corner
P.16	
Barrett Lumber Company (No Signature)	Beaver Bank
David F. Barrett	Beaver Bank
Douglas Ledwidge (No Signature)	Old Post Rd.
P.17	
Michael Laurie	Halifax
P. 18	
Shawn Turple	Enfield
Brian Totten	Elmsdale
(illegible)	(illegible)
(illegible)	Highway 2
(illegible)	(illegible)
(illegible)	Enfield
Craig Logan	Elmsdale
Paul Langille	Enfield
Brett White	Kennetcook
Randy Hines	Dutch Settlement
Donald (illegible)	Beaver Bank

Bradley Vincent	Wallace
Sinclair Verboom	RR1 Stewiacke Rd.
P.19	
William Turple	Enfield
Deborah Turple	Enfield
Debbie (illegible)	Enfield
Andre (illegible)	Enfield
P.20	
Cassie Turple	Enfield
Stephen Campbell	Highway 236
P. 21	
Shelley Armsworthy	Fall River
Thomas Hilchie	Goffs
Bernie McDonald	Waverley
David M. Miller	Fall River
P. 22	
Derek Prest	Enfield
Randy Fitzgerald	(illegible)
(illegible)	(illegible)
Kevin Piper	Dickson Ave.
Louis Comaeu	(illegible)
Paul (illegible)	Elmsdale
Darrell Park	Lantz
Mary Ashley	Lantz
Delores (illegible)	Lower Sackville
Jodi Ledwidge	Goffs
Tyler (illegible)	Goffs
P.23	
Laurie F. Ledwidge	Enfield
Kyle Ledwidge	Goffs
Larry Hitz	Porters Lake
Stephen Bennett	Lower Sackville
Jared (illegible)	Dartmouth
Robert Lively	Beaver Bank
Kim Fuller	Enfield
Jim Ledwidge	Enfield
Rose Ledwidge	Enfield
Janice Munroe	Elmsdale
Terry Jollimore	Devon
P.24	
(illegible) Wilson	Enfield
Cyril Wilson	Enfield
Benjie Young	Goffs
Nathan (illegible)	Enfield
Brad (illegible)	Oakfield
P.25	
(illegible)	Goffs
Mike Durnford	Goffs
(illegible)	Enfield
Sonia Monroe	Enfield
Lindsay Naugler	Halifax
P. 26	
Shawn Ingraham	Fraser St.
P. 27	
Wes Shields	Enfield
Sarah Ingraham	Fall River

Jeff Wilson	Enfield
Sharon Ingraham	Fall River
Garland Ingraham	Fall River
John MacMillan	Ashley Crt.
Jordan (illegible)	Oldham Rd.
Brett Byng	Behrent Crt.
Dave (illegible)	Old Post Rd.
(illegible)	Highway 2
Kevan Fancy	Wellington
Paul (illegible)	Highway 2
Doug Wilson	Enfield
Vivian Wilson	Enfield
Ernie Dillman	Enfield
P. 28	
Murray Bezanson	Enfield
Corrina Mosher	Enfield
James Wilson	Enfield
Kathleen Wilson	Enfield
Stuart Wilson	Enfield
Melissa Wilson	Enfield
Leonard Dillman	Enfield
Gordon (illegible)	Stage Rd.
(illegible) Lebert	Stage Rd.
(illegible) Lebert	Stage Rd.
Evan Lebert	Stage Rd.
Robert Parker	Grant Rd.
Anne Parker	Grant Rd.
Jacques (illegible)	Grant Rd.
H. Murphy	Halifax
P. 29	
Robby Tibbo	Oldham Rd.
Julie Hudson	Oakfield
Virginia Houston	Oakfield
Gerald Fraser	Oakfield
Annette Fraser	Oakfield
James (illegible)	Sawgrass Dr.
Steven (illegible)	Sawgrass Dr.
Sheldon Crowell	Sawgrass Dr.
Colleen Jewkes	Sawgrass Dr.
Rachelle MacDonald	Sawgrass Dr.
Hughie MacDonald	Sawgrass Dr.
(illegible) Illegible	Sawgrass Dr.
Kim MacKenzie	Sawgrass Dr.
Heather King	Frenchmen's Rd.
P. 30	
Sue Stephens	Oakfield
Bob Stephens	Oakfield
Brent Munroe	Oakfield
Debbie Munroe	Oakfield
Vivian Kohout	Oakfield
W.J. Kohout	Oakfield
Andrew Ryan	55 Parkview Dr.
Shelley Ryan	55 Parkview Dr.
Jason Finney	Sawgrass Dr.
Krista Finney	Sawgrass Dr.
Tim (illegible)	Lundy

(illegible)	Halifax
(illegible)	Poplar Dr.
Mike Holmes	Weyburn Rd.
J. (illegible)	Memorial Dr.
P. 31	
John Dunham	Shubenacadie
Philip Obritsch	Old Guysborough Rd.
Kandace Obritsch	Lower Sackville
Jessica Obritsch	Lower Sackville
Wayne (illegible)	Russell Lake Dr.
Kevin Obritsch	Nordic Cres.
Laurel Obritsch	Nordic Cres.
Doug Carter	Sixth St.
Don Cameron	Crystal Crt.
Bruce (illegible)	Wynacht Pt.
Ed (illegible)	Waverley Rd.
Jill Obritsch	Dresden Crt.
Matthew Dunn	Cowder Dr.
Elizabeth M. Obritsch	Halifax
John Obritsch	Halifax