

***NATIONAL BUILDING CODE ENFORCEMENT
PROVINCE OF NEWFOUNDLAND AND LABRADOR***

FINAL REPORT

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Canada Mortgage and Housing Corporation*

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NEWFOUNDLAND AND LABRADOR**

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Abstract

*National Building Code Enforcement
Province of Newfoundland and Labrador*

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THE PURPOSE OF THE STUDY WAS TO ASSESS THE LEVEL OF NATIONAL BUILDING CODE (NBC) ENFORCEMENT IN THE PROVINCE OF NEWFOUNDLAND ALONG WITH ENFORCEMENT CAPABILITIES AND RELATED TECHNICAL TRAINING NEEDS.

WHILE THE CODE HAS BEEN ADOPTED BY MUNICIPALITIES THROUGHOUT THE PROVINCE, IT IS ONLY ENFORCED THROUGH A FULL BUILDING INSPECTION PROGRAM IN THE THREE CITIES AND A FEW OF THE LARGER TOWNS.

CURRENT ECONOMIC REALITIES MEAN THAT MUNICIPALITIES ACROSS THE PROVINCE HAVE LIMITED RESOURCES WITH WHICH TO DELIVER PUBLIC SERVICES. THIS APPLIES TO ALL FORMS OF DEVELOPMENT CONTROL, INCLUDING BUILDING INSPECTION. THERE IS CURRENTLY AN EMPHASIS ON DE-REGULATION BY THE PROVINCE AND ON ACCOMMODATING DEVELOPMENT.

IN CONTRAST, DEMAND APPEARS TO BE GROWING ON SOME FRONTS FOR PROOF OF COMPLIANCE WITH THE NBC, FOR EXAMPLE, FROM MORTGAGE COMPANIES, MORTGAGE AND LIFE UNDERWRITERS AND NATIONAL COMPANIES (AS A CONDITION OF CORPORATE TRANSFERS). AWARENESS OF THE NEED FOR HIGHER BUILDING STANDARDS HAS BEEN RAISED BY A NUMBER OF COURT CASES ACROSS THE COUNTRY WHERE LAWSUITS HAVE BEEN LODGED AGAINST MUNICIPALITIES AND BUILDERS.

THE STUDY INCLUDED A SURVEY OF MUNICIPALITIES ACROSS NEWFOUNDLAND AND LABRADOR WHICH HAVE ADOPTED THE NBC AND PRIVATE FIRMS OFFERING A BUILDING INSPECTION SERVICE. QUESTIONNAIRES WERE COMPLETED THROUGH TELEPHONE INTERVIEWS AND RETURN MAIL FOR 115 MUNICIPALITIES AND 28 FIRMS. IN ADDITION, CONSULTATIONS WERE COMPLETED WITH A SELECTION OF RESOURCE PEOPLE. A NUMBER OF CONCLUSIONS AND RECOMMENDATIONS WERE DRAWN ABOUT THE CURRENT STATUS AND FUTURE NEEDS OF NBC ENFORCEMENT IN THE PROVINCE AND THE ROLE THAT CMHC CAN PLAY IN THAT FUTURE.

EXECUTIVE SUMMARY

In November, 1994, Canada Mortgage and Housing Corporation called for an assessment of National Building Code (NBC) enforcement in Newfoundland and Labrador, with the following objectives:

- TO DETERMINE THE LEVEL OF NATIONAL BUILDING CODE ENFORCEMENT IN THE PROVINCE'S MUNICIPALITIES,
- TO EVALUATE CODE ENFORCEMENT CAPABILITIES, INCLUDING TECHNICAL SKILL LEVELS OF BOTH PUBLIC AND PRIVATE INSPECTION SERVICES, AND
- TO IDENTIFY TECHNICAL TRAINING NEEDS WITHIN THE INDUSTRY.

The research consisted of a survey of municipalities and private firms offering an inspection service through a combination of telephone interviews and mailout questionnaires. Completed questionnaires were secured for 115 municipalities, representing 45% of the municipalities contacted and 28 or 70% of the private firms. In addition, consultations were completed with a selection of resource people.

The NBC has been adopted by approximately 250 of the 291 incorporated municipalities in the Province under a provision of the Municipalities Act. However, there has been little follow up by the Provincial Government to determine, for example, how the Code could be practically implemented in a small rural municipal setting. Of the 115 respondents surveyed, 101 or 88% have adopted the Code. This includes all large municipalities in the Province (over 6,000 people) except one and all the medium sized municipalities surveyed (2 - 6,000 people).

While the NBC has been adopted by most municipalities, it is being enforced by very few. Seven municipalities in the Province are administering full (or substantially full) building inspection programs. In addition, nineteen or 16% of respondents have partial inspection programs. Many reported that they are issuing notices to builders that they (and not Council) are responsible for NBC compliance.

Respondents were divided approximately half and half about whether the NBC is an appropriate standard for their municipalities. As would be expected, the number in favour were weighted towards the larger municipalities. In the municipalities of less than 1,000 population, only 16% answered "yes". Several respondents appear to be intimidated by the document and don't see it as applicable to small communities and "ordinary people".

The most common reasons given for not enforcing the NBC were related to *Cost* and *The Lack of Qualified Staff*. Other reasons were the *Low Level of Building Activity* and *Housing Quality is not a Problem Here*.

Inspection staff of the seven municipalities offering a full (or substantially full) program appear to meet CMHC Capability/Skill Level Criteria. Only 4.6% of the remaining one hundred and seven municipalities surveyed appear to meet the enforcement capability criteria. A very high level of enforcement capability was demonstrated by the private sector firms. While most of

them are concentrated in the St. John's Region, each of the other major regions of the Province contains at least one firm.

A large majority of respondents are satisfied with the quality of housing in their municipalities. However, considerable importance was given to *Training for Municipal Staff* as a means of improving housing quality (given first priority by 26 or 23 % of respondents). Interest in training was indicated in several areas, including *National Building Code* (58 %) and *Inspections of New Residential Buildings* (51%). Strong interest in training was also expressed by the private sector respondents (68 %).

Based on the survey findings, the potential is high to provide NBC-related training at two levels:

- i) to larger municipalities with established training programs (ie, a continuation of the type of program offered in Nova Scotia), and
- ii) to smaller municipalities (awareness raising, a modified training package).

The potential target markets for training on a fee-for-service basis include building inspectors, other municipal administrative staff, home builders and private firms (inspection and engineering/architectural firms).

Recommendations to CMHC resulting from the survey include the following:

- *That action be taken by CMHC towards production of an illustrated version of the Canadian Housing Code which is user-friendly and easily understood by "non-professionals" in the field.*
- *That CMHC become proactive in the provision/facilitation of technical training on a fee-for-service basis for municipal staff and private sector firms in the Province, the first step of which would be to convene a round table of stakeholder groups to discuss the results of the NBC Enforcement Study.*
- *That the question of how an inspection service could be delivered to small municipalities at a regional level be included in the agenda of the round table discussion and an Action Plan formulated.*

RÉSUMÉ

En novembre 1994, la Société canadienne d'hypothèques et de logement a fait une évaluation de l'application du Code national du bâtiment (CNB) à Terre-Neuve et au Labrador, en tenant compte des objectifs suivants :

- . DÉTERMINER LE DEGRÉ D'APPLICATION DU CODE NATIONAL DU BÂTIMENT DANS LES MUNICIPALITÉS DE LA PROVINCE
- . ÉVALUER LES COMPÉTENCES DE CEUX QUI METTENT EN APPLICATION LE CODE, COMPRENANT LES COMPÉTENCES TECHNIQUES DES SERVICES D'ÉVALUATION DES SECTEURS PUBLIQUE ET PRIVÉ, ET
- . DÉTERMINER LES BESOINS EN MATIÈRE DE FORMATION TECHNIQUE DANS L'INDUSTRIE.

Une enquête a été menée auprès des municipalités et des firmes privées offrant un service d'inspection. On a sondé les gens par téléphone ou à l'aide d'un questionnaire. Cent quinze municipalités ont rempli le questionnaire, ce qui représente 45 % de celles que nous avons contactées et 28 ou 70 % des firmes du secteur privé l'ont rempli. De plus les consultations ont été tenues en compagnie de personnes-ressources.

Environ 250 des 291 municipalités de la province ont adopté le CNB dans le cadre de la Loi sur les municipalités. Toutefois, le gouvernement provincial n'a pas assuré un suivi rigoureux permettant de déterminer, par exemple, comment le Code pourrait être mis en application dans une petite municipalité rurale. Des 115 répondants, 101 ou 88 % ont adopté le Code. Cela comprend toutes les municipalités de grande taille (plus de 6 000 habitants) de la province sauf une et toutes celles de taille moyenne (2 000 à 6 000 habitants) interrogées.

Même si la plupart des municipalités ont adopté le CNB, très peu le mettent en application. Sept municipalités mettent à exécution tous (ou presque tous) les programmes d'inspection de bâtiments. De plus, 19 ou 16 % des répondants ont des programmes partiels d'inspection. Un bon nombre ont annoncé qu'ils envoient une note aux constructeurs leur indiquant qu'ils (et non le Conseil) sont responsables de la mise en application du CNB.

Environ la moitié des répondants étaient divisés concernant la pertinence des normes du CNB pour leur municipalité. Tel que prévu, il a été conclu que les municipalités de taille élevée étaient en faveur des normes. En ce qui concerne les municipalités de moins de 1 000 habitants, seulement 16 % étaient en faveur. Plusieurs répondants semblent intimidés par le document et ne voient pas comment son application pourrait toucher les petites municipalités et les «gens ordinaires».

Les raisons principales qui expliquent pourquoi on ne met pas en application le CNB sont le coût et le manque de personnel qualifié. On cite également la faible activité dans le domaine de la construction et l'absence de problèmes de qualité des logements.

Le personnel d'inspection des sept municipalités qui offrent un programme complet (ou relativement complet) semble répondre aux critères relatifs aux aptitudes et aux compétences. Seulement 4,6 % des cent sept autres municipalités interrogées semblent répondre aux critères de mise en

application du Code. Un pourcentage très élevé des firmes du secteur privé ont montré qu'elles pouvaient le mettre en application. Bien que la plupart des firmes soient situées dans la région de St. John's, chacune des autres régions principales en contient au moins une.

Une grande majorité des répondants sont satisfaits de la qualité des logements dans leur municipalité. Toutefois, une grande importance a été accordée à la formation du personnel des municipalités dans le but d'améliorer la qualité des logements (priorité de 26 ou 23 % des répondants). L'intérêt du personnel concernant la formation est présent dans plusieurs secteurs, comprenant le Code national du bâtiment (48 %) et l'inspection de nouveaux immeubles résidentiels (51 %). Les répondants du secteur privé ont également manifesté un intérêt marqué pour la formation (58 %).

En se fondant sur les résultats de l'enquête, il est possible de fournir une formation relative au CNB à deux niveaux :

- i) aux municipalités de grande taille élevée ayant des programmes de formation établis (c.-à-d. un prolongement du type de programme offert en Nouvelle-Écosse) et
- ii) aux municipalités plus petites (la sensibilisation, un programme de formation modifié).

Les groupes cibles qui pourraient recevoir une formation selon un barème de rémunération à l'acte comprend les inspecteurs de bâtiments, d'autres membres du personnel de l'administration municipale, les constructeurs d'habitations et les firmes privées (firmes d'inspecteurs, d'ingénieurs et d'architectes).

Voici les recommandations faites à la SCHL à la suite de l'enquête :

- . La SCHL devrait produire une version illustrée du Code canadien de construction d'habitations, d'utilisation facile et qu'un profane dans le domaine peut comprendre facilement.
- . La Société devrait s'adapter de façon proactive pour faciliter et rendre accessible la formation technique aux employés municipaux et aux firmes du secteur privé de la province, selon un barème de rémunération à l'acte. La première étape serait d'organiser une table ronde réunissant les groupes cibles afin de discuter des résultats de l'étude relative à la mise en application du CNB.
- . Inclure dans l'ordre du jour de la table ronde un point relatif à la question de la mise en application du service d'inspection dans les petites municipalités au niveau régional ainsi que la formulation d'un plan d'action.

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I. INTRODUCTION

Background

The National Building Code of Canada (NBC) in its current form was first applied across Newfoundland and Labrador in 1979-80, with adoption of the Municipalities Act by the Provincial Government. The Act requires that a municipality adopt a building regulation approved by the Minister of Municipal and Provincial Affairs (not specifically the NBC).

The NBC is applied by the Development Control Division of Municipal and Provincial Affairs (now part of the Government Service Centre) for buildings along protected highways as well as in Local Planning Areas (Benton, Sheppardville and Fogo Central) and Protected Areas (Gander River environs and Marble Mountain). It is also applied by the Government Service Centre and the Department of Works, Services and Transportation to all Provincial Government buildings in the Province.

Large commercial and institutional buildings constructed in the Province are subject to a substantial level of inspection although there is no single agency with overall responsibility. Inspection services carried out by Provincial agencies are centred around public safety issues, namely fire, health and accessibility. Compliance with the Canadian Electrical Code is required across the Province as a prerequisite for connection to the Provincial grid. Accessibility regulations for the handicapped are administered by the Department of Employment and Labour Relations via the Government Service Centre. Fire safety inspections are handled through the Fire Commissioner's office. Health related matters concerning for example the handling of food or sewage disposal are subject to standards imposed by the Department of Health and/or Environment.

The area not covered by these programs is the structural integrity of buildings, although the vast majority of larger buildings are designed and project managed by engineering or architectural firms with full inspection capability.

A significant point pursuant to the above is that the NBC has not been officially adopted as the Provincial Building Code for Newfoundland and Labrador. Only one other Province, Prince Edward Island, has not adopted the Code. This subject has been examined recently by the Provincial Regulatory Reform Committee and it will likely be pursued further in the coming months. The Province is also a participant in

the National Committee on Building Standards which is attempting to define a set of appropriate building standards across the country.¹

The 1991 Census recorded a total of 736 communities in Newfoundland and Labrador, of which 313 were incorporated municipalities. The number of incorporated communities has since been reduced slightly, primarily as a result of amalgamations. Information supplied by the Department of Municipal and Provincial Affairs indicates there are currently 291 incorporated municipalities across the Province. Through the provision of the Municipalities Act, the NBC has been adopted by close to 250 or 85 per cent of incorporated municipalities in the Province. A detailed listing of incorporated municipalities and their status in respect to NBC adoption is contained in Table 1, Appendix 1.

While the Code has been adopted by municipalities throughout the Province, it is only enforced through a full building inspection program in the three cities and a few of the larger towns. Through an arrangement worked out with the Department of Municipal and Provincial Affairs, many municipalities place the onus on builders/developers to comply with the NBC and free themselves from responsibility through disclaimers on building permits. Current economic realities mean that municipalities have limited resources with which to deliver public services. This applies to all forms of development control, including building inspection. The Provincial Government also faces this dilemma, having for example, recently laid off many of its electrical inspectors. There is currently an emphasis on de-regulation by the province and on accommodating development. In contrast, demand appears to be growing for proof of compliance with the NBC, for example, from mortgage companies, mortgage and life underwriters and national companies (condition of corporate transfers).

Awareness of the need for higher building standards has been raised by a number of court cases where lawsuits have been lodged against municipalities and builders. The process of building enforcement appears to be further advanced in certain other provinces; legislation is currently proposed in Ontario, for example, to require certification of property vendors.

One of the major questions to be asked relative to the NBC is whether and to what degree it should/can be enforced in the vast majority of municipalities in the Province. In the typical rural community, there is very little building activity in an average year and most people build their own homes on a limited budget, sometimes over a period of years. Municipal Councils in these communities have to deliver services within the constraints of a limited tax base and fiscal restraint. Providing services to many of the municipalities of the Province is also an expensive proposition

¹ Consultation with Mr. Mike Dwyer, Provincial Regulatory Reform Committee.

due to the rugged landscape and the inefficient land use patterns that have developed. Approaches that could be examined to ensure a high level of building standards in a time of fiscal restraint include regionalized sharing of services, out-sourcing and improved training of inspectors.

Study Objectives

Canada Mortgage and Housing Corporation in November, 1994 called for an assessment of the National Building Code enforcement and enforcement capability in this Province. The purpose of the project, as outlined in the Terms of Reference, was as follows:

- TO DETERMINE THE LEVEL OF NATIONAL BUILDING CODE ENFORCEMENT IN THE PROVINCE'S MUNICIPALITIES,
- TO EVALUATE CODE ENFORCEMENT CAPABILITIES INCLUDING TECHNICAL SKILL LEVELS OF BOTH PUBLIC AND PRIVATE INSPECTION SERVICES, AND
- TO IDENTIFY TECHNICAL TRAINING NEEDS WITHIN THE INDUSTRY.

D.W. Knight Associates was engaged to undertake the assignment. This document outlines the work that was undertaken and the resulting recommendations.

II. METHODOLOGY

Survey Techniques

Data for the assignment was collected through consultation with selected individuals and the administration of two questionnaires, one for municipalities, the other for private sector firms involved in building inspection. Two questionnaires were developed through a number of meetings with Canada Mortgage and Housing officials. They were also pre-tested to ensure that the questions were well designed, to remove ambiguities and ensure consistent results. The questionnaires were administered to municipalities and private sector firms through a combination of telephone interviews and mailout.

Survey Sample and Response

Municipalities:

An initial sample of 80 municipalities was selected from the total set of 247 municipalities who, according to records supplied by the Department of Municipal and Provincial Affairs, have adopted the National Building Code. The sample was selected to ensure there would be adequate representation both from the major geographic regions of the Province and the range of population sizes. The major geographic regions used in picking the sample were:

Avalon Peninsula	Burin/Bonavista
Central	West
Labrador	

The population size categories used were as follows:

Category	Population Size
Large	greater than 6,000
Medium	2 - 6,000
Small (A)	1 - 2,000
Small (B)	less than 1,000

The objective was to complete the questionnaire with the initial sample of 80 respondents by telephone, to ensure that both the regions of the Province and the range of population sizes were well represented. It was forwarded to these municipalities by telefax and mailed to the remaining 167 municipalities. Through a

combination of telephone and return mail, questionnaires were completed for 115 municipalities or 47% of the total number of 247 (see Appendix 1, Table 2). The geographic and population size breakdown of the 115 respondents is outlined below.

**RESPONDENTS BY LOCATION AND POPULATION SIZE,
SURVEY OF MUNICIPALITIES, NBC ENFORCEMENT STUDY**

	<i>Population Size</i>				<u>Total</u>
	<u>Large</u>	<u>Medium</u>	<u>Small (A)</u>	<u>Small (B)</u>	
Avalon	3	11	3	14	31
Burin/Bonavista	1	5	2	5	13
Central	2	8	10	13	33
West	2	6	8	13	29
Labrador	2	1	1	5	9
<hr/>					
Total	10	31	24	50	115

Private Firms:

The private sector questionnaire was sent to 40 private firms, as follows:

Home Inspection firms	4
Engineering/Architectural firms:	
- St. John's Region	20
- Outside the St. John's Region	<u>16</u>
Total	40

The list of forty firms was compiled using information received from the Association of Professional Engineers and Geoscientists of Newfoundland, the Newfoundland Association of Architects and the Newfoundland Telephone Yellow Pages and is therefore considered to contain a large percentage of the firms in the Province offering inspection services. Questionnaires were completed for 28 firms or 70% of the total. They ranged in size from one person, home based operations to the large, multi-discipline firms, breaking down as follows:

PRIVATE SECTOR RESPONDENTS, NBC ENFORCEMENT STUDY

Home Inspection firms:	3
Engineering/Architectural firms:	
- St. John's Region	16
- Outside the St. John's Region	<u>9</u>
Total	28

In addition, three of the St. John's Region firms have branch offices in Corner Brook, Clarenville and Happy Valley-Goose Bay.

III. SCOPE AND LIMITATIONS

In accordance with the objectives set out by the Terms of Reference, the Study was to include an assessment of the level of NBC enforcement and capability, including technical skill levels of both public and private inspection services.

A number of municipalities and private sector firms were difficult to reach due primarily to the heavy work load of the key contact people. The survey was carried out, for example, during a time when a large number of municipalities in the Province were experiencing financial difficulties and working their way through a period of rationalization and change in terms of the services they deliver and the method of delivery. Notwithstanding the difficulties encountered, the response rate by both municipalities and private sector firms is considered more than sufficient to provide a high level of confidence that the results are representative of the NBC enforcement situation in the Province.

IV. PROFILE OF NBC USE AND USERS

Survey of Municipalities

Of the sample of one hundred fifteen (115) respondent municipalities, one hundred one (101) have the code currently adopted (see Appendix 1, Table 2). The Town of Marystown, the only large town without the Code adopted, rescinded the Code a couple of years ago due to concern over liability. The local Council does not have any current plans to re-adopt it. Of the thirteen other municipalities who have not adopted the Code, four have less than 500 population while two have in excess of 1,000.

Seventy-seven (77) respondents, or 76%, have the 1990 version of the Code in place, as outlined below. In addition, nine municipalities reported the adoption of regulations over and above the Code. They are the Province's three cities (St. John's, Corner Brook and Mount Pearl), Conception Bay South, three medium-sized municipalities (Twillingate, Glovertown and Burgeo) and three small-sized municipalities (Lawn, St. George's and Makkovik). The regulations adopted by these municipalities over and above the Code include the National Fire Code, NFPA 101 (Life Safety Code) and the National Plumbing Code.

NBC VERSION ADOPTED BY 101 MUNICIPALITIES

NBC Version	1970	1980	1985	1990
Number	2	4	18	77

As outlined below, fifty-six or 49% of the 115 respondents are of the opinion that the NBC is an appropriate standard for managing the quality of residential construction in their municipalities. This included all of the large town respondents except one. Respondents in the other three categories of municipalities generally conformed with the average.

MUNICIPALITIES CONSIDERING THE NBC AN APPROPRIATE STANDARD (115 respondents)

Municipalities	Yes	No	Don't Know	No Answer
Large	9	0	0	1
Medium	19	5	7	0
Small (A)	4	8	9	3
Small (B)	<u>24</u>	<u>5</u>	<u>10</u>	<u>11</u>
Total	56	18	26	15

Nineteen respondents answering "no" or "don't know" gave reasons why they have concerns about the NBC. Responses ranged from "too complicated for the ordinary person to understand and use" to "do not have qualified staff to use the document" to "not necessary because of the low level of building activity".

Code Enforcement:

As outlined below, only seven respondents or 12.5% reported that the NBC is being fully enforced, six of which were large municipalities. An additional twenty-two respondents reported that the NBC is being partly enforced (a range of enforcement levels indicated). They include seven medium-sized and thirteen small-sized municipalities. Further details on the level of enforcement by municipal respondents are outlined in Table 3, Appendix 1.

NBC ENFORCEMENT BY MUNICIPALITY SIZE

Municipalities	Full	No	Part
Large	6	2	2
Medium	1	23	7
Small (A)	0	17	7
Small (B)	<u>0</u>	<u>44</u>	<u>6</u>
Total	7	86	22

In giving reasons why the NBC is not being enforced in their municipality, "Cost of Enforcement" and "Lack of Qualified Staff" was stated by 71 and 80 respondents respectively. Another 21 included "Low Level of Building Activity" in their answer.

Full Inspection:

Full (or substantially full) inspection programs are being implemented in seven municipalities: St. John's, Mount Pearl, Conception Bay South, Gander, Grand Falls-Windsor, Corner Brook and Paradise.

All seven municipalities have at least one Building Inspector on staff. The people responsible for building inspections generally have training in Engineering Technology, Architectural Technology, Civil Engineering, Journeyman Carpentry and Building Construction. The following summarises the experience of inspection staff in the seven municipalities.

BUILDING INSPECTION STAFF, MUNICIPALITIES WITH FULL INSPECTION PROGRAMS

Experience	# of People
Residential Inspection:	
1 - 5 years	4
5 - 10 years	4
10 years +	9

Further details are contained in Appendix 1, Table 3.

Partial Inspection:

Twenty-two municipalities reported having partial inspection programs (different levels). They include two Large, seven Medium and thirteen Small municipalities. These towns are spread fairly evenly around all regions of the Province.

The majority of the twenty-two municipalities identified *Building Plans Examination* and *Site Assessment* as the main components of their inspection program. Details on the types of inspections are profiled in Table 3, Appendix 1. Most of them rely on the Provincial Departments of Health and Employment and Labour Relations, Fire Commissioner's office and Newfoundland Power for inspections.

A wide range of people are responsible for carrying out building inspections in these municipalities. They range from Municipal Engineer to Fire Chief to Town Clerk/Manager. Some of them have a lot of general experience in municipal administration, general by-law enforcement, fire protection, etc, but none reported having focused training related to building inspection. A summary of training and experience of inspection personnel within the Large, Medium and Small municipalities surveyed is contained in Appendix 1, Table 3.

No Inspection:

For the remaining municipalities, no inspection program is provided. Some reported that they provide very limited inspection in some cases, with reliance on assistance from Government Departments and utility companies. There are indications that many of them accomplish as much as they can with their limited resources and rely on residents for their co-operation.

Municipalities of all sizes and in all regions of the Province indicated that they are issuing notices to builders and permit holders that they (and not Councils) are responsible for compliance

with the NBC and that their Councils are therefore not liable for any resulting damages.

Capability/Skill Levels of Municipal Enforcement Staff:

Criteria supplied by CMHC state that municipal enforcement staff should meet one of the following minimum technical qualifications:

- i) A Bachelor's degree in architecture or engineering,
- ii) A municipal, provincial or federal building inspector certification with two years of inspection experience,
- iii) A diploma in building science and building technology, urban planning or other relevant discipline with two years of inspection experience,
- iv) Three years of residential inspection experience , specification writing and cost estimating,
- v) A building trade with at least two years of post apprentice experience, or
- vi) At least four years of general construction experience in the construction or renovation of residential buildings.

Inspectors should possess knowledge and skills in a wide range of areas related to technical and building science, workflow management and oral and written communication.

The survey results indicate that inspection staff of the seven municipalities with full inspection programs generally meet these capability/skill levels. Qualifications include three professional degrees, ten diplomas and two building trades. The information supplied by the remaining one hundred eight (108) municipalities suggest that the staff of six, or 5.5% would possibly meet the qualification criteria. They include an Engineer, a Tradesman, Works Superintendent with over ten years experience and fire prevention officers with considerable training and practical experience. The remaining 102 municipalities responding to the survey reported little or no relevant staff training and experience.

Housing Quality:

There is a high level of satisfaction with the quality of housing in most municipalities surveyed. Eighty-five or 74% of respondents said they were very satisfied or satisfied (see below). This opinion was well distributed throughout the regions of the Province and among the four categories of municipalities.

SATISFACTION WITH QUALITY OF HOUSING
(115 respondents)

Very Satisfied	17	Dissatisfied	4
Satisfied	68	Very Dissatisfied	0
Neither Satisfied nor Dissatisfied	16	Don't Know	10

Given the high level of satisfaction, the question concerning how to improve the quality of housing was not responded to by twenty-eight or 24% of respondents and only partial input was received from a number of others. The results are outlined in Appendix 2 (see Question #14).

Training:

Considerable importance was given to *Training for Municipal Staff* as a means of improving housing quality (ranked as first priority by 26 respondents). This is interesting, given the shortages of funds and staff being faced by municipalities. Also noteworthy is the lower ranking given to *Sharing Services with other Municipalities*, even though the concept of sharing between municipalities has gained considerable prominence in the Province during the past few years. The results indicate a preference for contracting out of inspection services to external inspectors over the sharing of services between municipalities (29 first priorities as opposed to 16).

As indicated below, interest was expressed in a wide range of training areas. This interest came from large, medium and small municipalities used in this Study, with support from the large municipalities being as strong as from the smaller ones (see Appendix 1, Table 4).

MUNICIPALITY INTEREST IN TRAINING
(82 respondents)

National Building Code	67
Inspections of New Residential Buildings	59
Inspections of Existing Residential Buildings	46
Plans Examinations	56
Fire Safety	57
Report Writing	28

Forty-eight or 58% of respondents said they would pay a fee for training events (subject to the cost being reasonable) while thirty-four said no. Several respondents indicated a preference for sessions being held in the regions. In addition to the lower

travel cost, this would presumably make the training more relevant to problems being experienced within a given region. A number of respondents held the strong opinion that Building Inspector training should be held in this Province rather than having to go to Nova Scotia.

In general therefore, the majority of municipalities are in favour of training and awareness building, subject to cost. Secondly, sessions offered within the regions would likely be better received than in one location such as St. John's.

Survey of Private Sector Firms

The questionnaire was sent to forty private sector firms, some of which were known to offer an inspection service and others which might be offering it either currently or in future. Twenty-four of the twenty-eight respondents offer a building inspection service. The four who do not currently offer a service do not plan to do so in future. One of the four does not formally offer or promote an inspection service but does provide it when approached or when required as part of a larger project. Some of the firms specialise in areas such as institutional and commercial buildings, structural inspections and existing building inspections.

The twenty-four companies providing an inspection service offer it to a range of clients, including:

Client Group	# of Respondents
Municipalities	12
General Public	13
Financial Institutions	11

The range of services offered by the twenty-four companies is outlined below.

TECHNICAL SERVICES OFFERED BY PRIVATE FIRMS

(24 respondents)

Service	# of Respondents	%
Building plans examination	17	71
Existing Building Inspection	22	92
Site Assessment	17	71
Excavation Inspection	17	71
Electrical Inspection	6	25

Services such as electrical and plumbing inspections are more specialised and therefore are provided by fewer firms. Other services offered include property

condition/resale suitability, dispute resolution and fire/accident investigation. A complete breakdown is provided in Appendix 3 (see Question #3).

As outlined below, the format used by 50% of respondents in reporting to clients is the customized detailed narrative.

REPORTING FORMAT FOR BUILDING INSPECTION SERVICES

(24 respondents)

Format	# of Respondents	%
Verbal report	2	08
Standard inspection form	8	33
Customized detailed narrative	12	50
All of the above	8	33

Professional fees are charged mostly according to an hourly rate schedule.

The professionals available within the 24 companies to undertake residential inspection work are highly qualified and experienced. Twenty-one of the twenty-four firms offering an inspection service have at least one person with an Engineering or Architectural degree. Eleven of them also have at least one person with a diploma in building science, building technology or equivalent. Three other people have training in Carpentry, Home Inspection and Real Estate respectively. The experience of employees in both residential inspection and construction/renovation is equally impressive. It appears therefore that most if not all the private sector respondents would meet the Capability/Skill Level criteria for inspectors supplied by CMHC. Experience in both inspection and construction/renovation is summarized below.

EXPERIENCE OF FIRMS OFFERING RESIDENTIAL INSPECTION SERVICE (24 respondents)

Category	Years of Experience	No. of Persons
Residential Inspection	1 - 5	6
	6 - 10	6
	10 years +	29
<hr/>		
Construction or Renovation	1 - 5	1
	6 - 10	7
	10 years +	28

There was considerable interest shown in training for employees relative to building inspection, as demonstrated below.

INTEREST IN TRAINING, PRIVATE SECTOR FIRMS

(18 respondents)

National Building Code	17
Inspections of New Residential Buildings	12
Inspections of Existing Residential Buildings	11
Technical Audits	11
Plans Examinations	10
Fire Safety	13
Report Writing	11

Sixteen firms indicated they would be prepared to pay a fee for training services, while seven responded negatively.²

Twenty-six of the twenty-eight firms indicated an interest in future business opportunities with municipalities in the area of building inspection.

²The number of companies responding to this question differs from the previous question as a few respondents answered one question and not the other.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Municipalities:

While the National Building Code has been widely adopted by municipalities across the Province, its level of enforcement is quite low except for the three cities and a few of the larger towns. Among the smaller municipalities, there was uncertainty about which version was adopted, the contents and whether the Code applied to residential development (or just commercial/institutional development). Many people consulted were clearly intimidated by the document and saw it as having low applicability to small communities and "ordinary people". This leads to the question of whether the NBC is a suitable and realistic standard for rural communities. On a national scale, this question is being addressed by the National Committee on Building Standards, with the participation of this Province.

Among the seven municipalities offering a full (or substantially full) inspection service, the inspection program appears to be comprehensive and of good quality. Inspection staff in these municipalities appear to meet the Capability/Skill Level criteria supplied by CMHC. It is understood however that in reality, there is probably little inspection done at the occupancy stage, ie, to ensure that all the requirements of the Code have been met. For the remaining one hundred eight municipalities surveyed, the Code appears to have a low level of application. Information supplied by these municipalities suggest that the staff of five or 4.6% of them could meet the Capability/Skill Level criteria supplied by CMHC.

The primary issue to be addressed is how cost effective and high quality building inspection services can be provided to those municipalities of the Province without an NBC enforcement capability. In the typical rural community, there is very little building activity in an average year and most people build their own homes on a limited budget, sometimes over a period of years. Municipal Councils in these communities have to deliver services within the constraints of a limited tax base and fiscal restraint. Providing services to many of the municipalities in the Province is also an expensive proposition due to the rugged landscape and the inefficient land use patterns that have developed.

Many of the rural municipalities are looking to the Provincial Government for leadership and assistance, including the delivery of an inspection program. The Government on the other hand appears to be getting out of the regulation business in many instances and, for example, has recently laid off many of its electrical inspectors. In September, 1993, the Minister of Municipal and Provincial Affairs

advised Municipalities that, if they are not in a position to provide building inspection and enforcement, to add a clause to building permits to the effect that it is the responsibility of the builder/permit holder and not the municipality to ensure compliance with the NBC. It therefore appears unlikely at this time that the Provincial Government will become involved in delivering inspection services to the smaller municipalities of the Province. Currently, therefore, in many parts of the Province, inspection for compliance of residential buildings with the NBC is being done on a very sporadic basis and no public agency is accepting overall responsibility.

In the case of larger commercial and institutional buildings, most issues concerning public health, safety and accessibility are being addressed, with the notable exception of structural integrity. There is no single agency with the responsibility of coordinating the inspection effort, outside the municipality and its building permit program. Participants on an individual building basis, depending on the circumstances, include Provincial Government departments, engineering and architectural firms and financial institutions.

The municipalities of the Province are very receptive to training in inspection services. This points to an opportunity for CMHC to become involved, possibly in partnership with the Department of Municipal and Provincial Affairs and the Newfoundland and Labrador Federation of Municipalities. The Department has a Manager of Training Programs who is continuously working on training initiatives with municipalities. She is aware of the need for training in the area of building inspection and is interested in being involved in discussing future initiatives in the area.

Private Sector Firms:

The survey results indicate that private sector firms have the capability of delivering a top quality inspection service in most regions of the Province. The firms offering or interested in offering such a service in the Province have very well qualified and experienced individuals available. There was also a widespread interest in training related to residential inspection expressed by the firms surveyed. However, the demand by municipalities for such a service is likely to remain low for the foreseeable future due to fiscal constraints.

Recommendations

The following recommendations are made to CMHC based on the data collection and analysis carried out during this assignment.

1. There is need to increase awareness about the need for quality housing. Many municipal administrators and Councils are not fully aware of the need and are basically "hoping for the best". Secondly, the survey showed that there is a high level of interest in NBC-related training by both municipalities and private sector firms.

Therefore and in view of the high interest in training expressed by municipalities, it is recommended that CMHC become proactive in the provision/facilitation of technical training on a fee-for-service basis for municipal staff and private sector firms in the Province.

Training sessions could be delivered at an introductory level to small and medium sized municipalities and at an advanced level to staff of existing building inspection departments (ie, to replace the program currently being offered in Nova Scotia by the Nova Scotia Building Officials Association). The Association may be interested in assisting with the development and/or delivery of a training program for this Province. An indirect benefit of a local training program is that it could be an incentive for inspectors to form an organization in the St. John's area at least, possibly with some support from the Canadian Building Officials Association.

2. *It is recommended that CMHC take the lead in convening a round table discussion of the results of this survey and "where to proceed from here".*

The session should include the Department of Municipal and Provincial Affairs, the Newfoundland and Labrador Federation of Municipalities and the Government Service Centre. Other participants could include the Newfoundland and Labrador Homebuilders Association and possibly representatives from a municipality with and without an inspection program, which could be arranged by the Federation of Municipalities. A representative of the private sector firms with inspection capability should also be invited to participate, possibly through the Association of Consulting Engineers.

3. The solution to providing adequate inspection services will vary within the different regions of the Province. In some cases a regionalized service would seem to be the best option. In some municipalities, with good local builders and limited building activity, rather than having fully accredited inspectors, the answer may be to train existing municipal staff or, for example, a retired

builder, to provide an inspection service on a part-time basis. This issue should be addressed by the round table discussion.

It is recommended that the question of how an inspection service could be delivered at a regional level be included in the agenda of the round table discussion and an Action Plan formulated.

5. An area that should be emphasized is the need for a more "user-friendly" document to be developed from the NBC. While most residential buildings come under Section 9 of the Code, other sections must be referenced, which makes the Code difficult for lay-persons to interpret and use. The introduction of the Canadian Housing Code in 1990 brought all housing inspection requirements under one cover. However, this document is not readily available in most municipalities and it is also not illustrated.

It is recommended that action be taken by CMHC to produce an illustrated version of the Canadian Housing Code which is user-friendly and easily understood by "non-professionals" in the field.

VI. APPENDICES

APPENDIX 1, TABLE 1: LEVEL OF NBC ADOPTION - INCORPORATED MUNICIPALITIES, PROVINCE OF NEWFOUNDLAND

SOURCE: DEPARTMENT OF MUNICIPAL AND PROVINCIAL AFFAIRS

Municipality	'91 Population	NBC Adopted (Y/N)
Admiral's Beach	275	Y
Anchor Point	380	Y
Appleton	526	Y
Aquaforte	188	Y
Arnold's Cove	1,106	Y
Avondale	802	Y
Badger	1,073	Y
Badger's Quay, Valleyfield, etc.	3,230	Y
Baie Verte	1,913	Y
Baine Harbour	189	Y
Bauline	386	Y
Bay Bulls	1,065	N
Bay de Verde	679	Y
Bay L'Argent	403	N
Bay Roberts	679	Y
Baytona	366	Y
Beachside	280	Y
Bellburns	123	Y
Belleoram	739	Y
Bide Arm	325	Y
Birchy Bay	768	Y
Bird Cove	349	Y
Biscay Bay	97	N
Bishop's Cove	292	Y
Bishop's Falls	4,232	Y
Bonavista	4,597	Y
Botwood	3,663	Y
Branch	382	Y
Brent's Cove	310	Y
Brighton	297	N
Brigus	929	Y
Bryant's Cove	441	Y
Buchans	1,164	Y
Burgeo	2,400	Y
Burin	2,940	Y
Burlington	456	Y
Burnt Islands	1,024	Y
Campbellton	687	N
Cape Broyle	693	Y
Cape St. George, Petit Jardin, etc	1,140	Y
Carbonear	5,259	Y
Carmanville	942	Y
Cartwright	611	Y
Catalina	1,205	Y
Centreville, Wareham, Trinity	1,472	Y
Chance Cove	435	N
Change Islands	524	N
Channel-Port aux Basques	5,644	Y
Chapel Arm	638	Y
Charlottetown	292	N
Clarenville	4,473	Y
Clarke's Beach	1,192	Y
Coachman's Cove	208	N
Colinet	232	Y

APPENDIX 1, TABLE 1: - cont'd

Municipality	'91 Population	NBC Adopted (Y/N)
Colliers	808	Y
Come by Chance	296	Y
Comfort Cove-Newstead	825	N
Conception Bay South	17,590	Y
Conception Harbour	907	Y
Conche	417	Y
Conne River	108	N
Cook's Harbour	359	N
Cormack	788	Y
Corner Brook	22,410	Y
Cottlesville	375	N
Cow Head	696	Y
Cox's Cove	941	Y
Crow Head	280	Y
Cupids	868	Y
Daniel's Harbour	428	Y
Davis Inlet	465	N
Deer Lake	4,327	Y
Dover	881	Y
Duntara	102	Y
Eastport	601	Y
Elliston	533	Y
Embree	846	N
Englee	984	Y
English Harbour East	288	Y
Fermeuse	505	Y
Ferryland	717	N
Flatrock	1,044	Y
Fleur de Lys	463	Y
Flowers Cove	372	N
Fogo	1,030	Y
Forteau	518	Y
Fortune	2,177	Y
Fox Cove-Mortier	464	Y
Fox Harbour	434	Y
Frenchman's Cove	229	N
Gallants	73	N
Gambo	2,496	Y
Gander	10,339	Y
Garnish	716	Y
Gaskiers-Point la Haye	508	Y
Gaultois	516	Y
Gillams	496	N
Glenburnie-Birchy Head-Shoal Brook	365	N
Glenwood	984	Y
Glovertown	2,276	Y
Goose Cove East	373	Y
Grand Bank	3,528	Y
Grand Falls-Windsor	14,693	Y
Grand le Pierre	356	Y
Great Harbour Deep	203	N
Greenspond	435	Y
Hampden	716	Y
Hants Harbour	531	Y
Happy Adventure	323	Y
Happy Valley-Goose Bay	8,610	Y
Harbour Breton	2,418	Y
Harbour Grace	3,786	Y
Harbour Main, etc	1,278	Y
Hare Bay	1,387	Y
Hawkes Bay	564	Y
Heart's Content	567	Y
Heart's Delight-Islington	878	Y

APPENDIX 1, TABLE 1: - cont'd

Municipality	'91 Population	NBC Adopted (Y/N)
Heart's Desire	363	Y
Hermitage	756	Y
Holyrood	2,075	Y
Hopedale	515	Y
Howley	363	Y
Hughes Brook	166	Y
Humber Arm South	2,104	Y
Indian Bay	215	Y
Irishtown-Summerside	1,560	Y
Isle aux Morts	1,146	Y
Jackson's Arm	533	Y
Joe Batts Arm	1,164	Y
Keels	128	Y
King's Cove	214	Y
King's Point	869	Y
Kippens	1,767	Y
Labrador City	9,061	Y
Lamaline	482	Y
L'Anse au Clair	263	Y
L'Anse au Loup	630	Y
Lark Harbour	755	Y
La Scie	1,412	Y
Lawn	1,005	Y
Leading Tickle West	564	Y
Lewins Cove	609	Y
Lewisporte	3,848	Y
Little Bay	154	N
Little Bay East	201	Y
Little Bay Islands	261	Y
Little Burnt Bay	436	N
Little Catalina	710	N
Logy Bay-Middle Cove-Outer Cove	1,882	Y
Long Harbour-Mount Arlington Heights	522	Y
Lords Cove	329	Y
Lourdes	858	Y
Lumsden	675	Y
Lushes Bight-Beaumont-Beaumont North	397	N
Main Brook	458	Y
Makkovik	370	Y
Mary's Harbour	470	N
Marystown	6,739	Y
Massey Drive	619	Y
McIvers	725	Y
Meadows	719	Y
Melrose	423	N
Middle Arm	622	N
Miles Cove	223	Y
Millertown	158	Y
Milltown-Head of Bay D'Espoir	1,161	Y
Mings Bight	456	N
Morrisville	201	Y
Mt. Carmel-Mitchells Brook-St. Catherines	619	Y
Mount Moriah	726	Y
Mount Pearl	23,689	Y
Musgrave Harbour	1,528	Y
Musgravetown	726	Y
Nain	1,069	Y
New Perlican	281	Y
Nipper's Harbour	243	Y
Norman's Cove-Long Cove	1,054	Y
Norris Arm	1,089	Y
Norris Point	927	Y
North River	542	Y
North West River	528	Y

APPENDIX 1, TABLE 1: - cont'd

Municipality	'91 Population	NBC Adopted (Y/N)
Northern Arm	391	Y
Old Perlican	745	Y
Pacquet	326	Y
Paradise	7,500	Y
Parkers Cove	441	Y
Parsons Pond	589	Y
Pasadena	3,428	Y
Peterview	1,011	Y
Petty Harbour-Maddox Cove	974	Y
Pilley's Island	465	Y
Pinware	175	Y
Placentia	5,394	Y
Plate Cove East	145	N
Plate Cove West	130	N
Point au Gaul	130	Y
Point Lance	161	N
Point Leamington	852	N
Point May	435	Y
Point of Bay	209	N
Pools Cove	258	Y
Port Anson	209	Y
Port au Bras	319	Y
Port au Choix	1,260	Y
Port au Port East	785	Y
Port au Port West-Aguathuna-Felix Cove	718	Y
Port Blandford	676	Y
Port Hope Simpson	614	Y
Port Kirwan	120	Y
Port Rexton	482	Y
Port Saunders	822	Y
Port Union	638	Y
Portugal Cove-St. Philip's	5,400	Y
Portugal Cove South	341	Y
Postville	231	Y
Pouch Cove	1,976	Y
Raleigh	389	Y
Ramea	1,224	Y
Red Bay	228	Y
Red Harbour	252	Y
Reidville	585	Y
Rencontre East	212	Y
Renews-Cappahayden	551	Y
Rigolet	334	N
Riverhead	398	Y
River of Ponds	341	Y
Roberts Arm	994	Y
Rocky Harbour	1,138	Y
Roddickton	1,153	N
Rose Blanche-Harbour le Cou	918	Y
Rushoon	482	Y
St. Alban's	1,586	Y
St. Anthony	3,164	Y
St. Bernard's-Jacques Fontaine	852	Y
St. Brendan's	378	N
St. Bride's	586	N
St. George's	1,678	Y
St. Jacques-Coomb's Cove	701	Y
St. John's	104,600	Y
St. Joseph's	205	Y
St. Lawrence	1,743	Y
St. Lewis	339	Y
St. Lunaire-Griquet	1,020	Y
St. Mary's	637	Y
St. Paul's	448	Y

APPENDIX 1, TABLE 1: - cont'd

Municipality	'91 Population	NBC Adopted (Y/N)
St. Shotts	232	Y
St. Vincent's-St. Stephens-Peter's River	674	Y
Sally's Cove	49	N
Salmon Cove	791	Y
Salvage	246	Y
Sandringham	308	Y
Sandy Cove	174	Y
Seal Cove (Fortune Bay)	467	Y
Seal Cove (White Bay)	656	Y
Seldom-Little Seldom	590	Y
Small Point-Broad Cove	505	Y
South Brook (Halls Bay)	720	Y
South River	786	Y
Southern Harbour	716	Y
Spaniards Bay	2,779	Y
Springdale	3,545	Y
Steady Brook	421	Y
Stephenville	7,621	Y
Stephenville Crossing	2,172	Y
Summerford	1,157	Y
Sunnyside	622	N
Terra Nova	38	Y
Terrenceville	818	N
Tilt Cove	17	Y
Tilting	379	Y
Torbay	4,707	Y
Traytown	374	Y
Trepassey	1,198	Y
Trinity (Trinity Bay)	326	Y
Triton	1,273	Y
Trout River	763	Y
Twillingate	2,969	Y
Upper Island Cove	2,038	Y
Victoria	1,831	Y
Wabana	3,608	Y
Wabush	2,331	Y
Westport	469	N
West St. Modeste	202	Y
Whitbourne	1,036	Y
Whiteway	333	Y
Winterland	272	Y
Winterton	667	Y
Witless Bay	1,064	N
Woodstock	311	Y
Woody Point	405	Y
York Harbour	415	Y

Total - 291 municipalities

APPENDIX 1, TABLE 2: NBC & RELATED STANDARDS ADOPTED, 115 MUNICIPAL RESPONDENTS

SOURCE: D.W. KNIGHT ASSOCIATES

	Municipality	NBC Adopted	Edition	Other Standards Adopted
Large:	St. John's	Y	'90	Nat Fire Code, Nat Plumbing Code, NFPA 101
	Mount Pearl	Y	'90	Life Safety Code
	Conception Bay South	Y	'90	Life Safety Code
	Marystown	N		
	Gander	Y	'90	
	Grand Falls-Windsor	Y	'90	
	Corner Brook	Y	'90	Life Safety Code, NFPA 101
	Stephenville	Y	'90	
	Labrador City	Y	'90	
	Happy Valley-Goose Bay	Y	'90	
Medium:	Torbay	Y	'90	
	Portugal Cove-St. Philip's	Y	'90	
	Paradise	Y	'90	
	Wabana	Y	'90	
	Carbonear	Y	'90	
	Harbour Grace	Y	'90	
	Spaniard's Bay	Y	'90	
	Upper Island Cove	Y	'80	
	Bay Roberts	Y	'90	
	Holyrood	Y	'80	
	Placentia	Y	'90	
	Burin	Y	'90	
	Grand Bank	Y	'80	
	Fortune	Y	'90	
	Clarenville	Y	'90	
	Bonavista	Y	'85	
	Springdale	Y	'90	
	Botwood	Y	'90	
	Lewisporte	Y	'90	
	Twillingate	Y	'90	Municipal Building Regulations
	Badger's Quay-Valleyfield	Y	'90	
	Gambo	Y	'90	
	Harbour Breton	Y	'90	
	Glovertown	Y	'90	National Fire Code
	Stephenville Crossing	Y	'90	
	St. Anthony	Y	'90	
	Deer Lake	Y	'90	
Pasadena	Y	'90		
Burgeo	Y	'85	Municipal Development Regulations	
Channel-Port aux Basques	Y	'90		
Wabush	Y	'90		
Small (A)	Trepassey	Y	'90	
	Logy Bay-M. Cove-O. Cove	Y	'90	
	Arnold's Cove	Y	'85	
	St. Lawrence	Y	'90	
	Lawn	Y	'90	
	Summerford	Y	'90	
	St. Alban's	Y	'90	
	Triton	Y	'90	
	Buchans	Y	'90	
	Fogo	Y	'85	
	Badger	Y	'85	
	Norris Arm	Y	'90	
	Port aux Choix	Y	'90	
	Rocky Harbour	Y	'90	
	Baie Verte	Y	'90	
	St. George's	Y	'90	Nat Fire Code, Electrical, Nat Plumbing Code
	Kippens	Y	'90	
	Ramea	Y	'90	

APPENDIX 1, TABLE 2 - cont'd

Municipality	NBC Adopted	Edition	Other Standards Adopted
Nain	Y	'85	
Joe Batt's Arm	N		
Milltown-Head Bay D'Espoir	Y	'90	
Cape St. George	N		
Hare Bay	Y	'70	
Musgrave Harbour	Y	'90	
Small (B) Old Perlican	Y	'90	
Heart's Content	Y	'90	
Long Hr-Mt. Arlington Heights	Y	'90	
Victoria	Y	'85	
Trinity	N		
Garnish	N		
Port Rexton	Y	'85	
Port Blandford	Y	'85	
St. Jacques-Coomb's Cove	Y	'90	
Gaultois	Y	'90	
Glenwood	Y	'85	
Belleoram	Y	'85	
Cormack	Y	'90	
Lark Harbour	N		
Rose Blanche-Hr. le Cou	Y	'90	
Conche	Y	'90	
Makkovik	Y	'85	
Forteau	Y	'90	
L'Anse au Loup	N		
Cartwright	N		
Raleigh	Y	'90	
Northwest River	Y	'90	
New Perlican	Y	'90	
South River	Y	'90	
Winterton	Y	'90	Interim Development Regulations
Bay de Verde	Y	'90	
Chapel Arm	Y	'90	
St. Mary's	Y	'90	
St. Vincent's, etc	Y	'85	
Cupids	N		
Salmon Cove	Y	'85	
Brigus	Y	'90	Historic Regulations, Zoning Regulations
Goose Cove East	Y	'90	
Baine Harbour	N		
Birchy Bay	Y	'90	
Sandringham	N		
Northern Arm	Y	'85	
Lumsden	Y	'90	
Traytown	Y	'85	
Musgravetown	Y	'90	
Carmanville	Y	'85	
Keels	N		
Massey Drive	Y	'90	
Port au Port East	Y	'90	
Daniel's Harbour	Y	'85	
McIver's	Y	'90	
Trout River	N		
Glenburnie-B. Head-S. Brook	Y	'70	
Fleur de Lys	N		
Jackson's Arm	Y	'80	

APPENDIX 1, TABLE 3: NBC ENFORCEMENT, 115 MUNICIPAL RESPONDENTS

SOURCE: D.W. KNIGHT ASSOCIATES

	Municipality	Full/Partial/None ⁽¹⁾ Enforcement	Inspection Programs ⁽¹⁾	Summary of Personnel 10 Large Municipalities
Large:	St. John's	F	All Programs	18 Building Inspectors
	Mount Pearl	F	All Programs	Training:
	Conception Bay South	F	1 - 5, 7 - 9, 10 (a)	Relevant Degrees (3)
	Marystown	N		Diplomas (8)
	Gander	F	1 - 5, 7 - 9	Bldg Trades (2)
	Grand Falls-Windsor	F	1, 3 - 5, 7 - 9	Inspectors Crse (2)
	Corner Brook	F	1 - 3, 5, 7 - 9	Other (2)
	Stephenville	P	1, 2	Years of Experience:
	Labrador City	P	1 - 4, 7, 9	1 - 5 (4)
	Happy Valley-Goose Bay	N		5 - 10 (4)
				10+ (9)
				Not stated (1)
Medium:	Torbay	N		
	Portugal Cove-St. Philip's	N		
	Paradise	F	1 - 5, 7 - 9	
	Wabana	N		
	Carbonear	N		
	Harbour Grace	N		
	Spaniard's Bay	N		
	Upper Island Cove	P	1	
	Bay Roberts	N		
	Holyrood	N		
	Placentia	N		
	Burin	N		
	Grand Bank	N		
	Fortune	N		
	Clarenville	P	1, 2	
	Bonavista	N		
	Springdale	N		
	Botwood	P	1 - 3, 5 - 9	
	Lewisporte	N		
	Twillingate	N		
	Badger's Quay-Valleyfield	N		
	Gambo	N		
	Harbour Breton	N		
	Glovertown	N		
	Stephenville Crossing	P	1 - 4, 9	
	St. Anthony	N		
Deer Lake	N			
Pasadena	P	1, 2		
Burgeo	P	1 - 5, 9		
Channel-Port aux Basques	N			
Wabush	P	1, 2, 9		
				Summary of Personnel 31 Medium Municipalities 10 Building Inspectors
				Training:
				Relevant Degrees (1)
				Diplomas (2)
				Bldg Trades (0)
				Inspectors Crse (1)
				Other (1)
				Years of Experience:
				1 - 5 (2)
				5 - 10 (0)
				10+ (4)
				Not stated (4)
Small (A)	Trepassey	N		
	Logy Bay-M. Cove-O. Cove	N		
	Arnold's Cove	N		
	St. Lawrence	P	2, 10 (C)	
	Lawn	N		
	Summerford	P	6, 7	
	St. Alban's	N		
	Triton	N		
	Buchans	P	1	
	Fogo	N		
	Badger	P	1, 2	
	Norris Arm	P	1, 2, 9	
	Port aux Choix	N		
	Rocky Harbour	N		
	Baie Verte	N		
	St. George's	N		
	Kippens	P	1, 2	
	Ramea	N		

APPENDIX 1, TABLE 3 - cont'd

Municipality	Full/Partial/None ⁽¹⁾ Enforcement	Inspection Programs ⁽¹⁾	Summary of Personnel
Nain	N		74 Small (A & B) Municipalities 13 Building Inspectors Training: Relevant Degrees (0) Diplomas (0) Bldg Trades (1) Inspectors Crse (0) Other (1) Years of Experience: 1 - 5 (1) 5 - 10 (0) 10+ (1) Not stated (11)
Joe Batt's Arm	N		
Milltown-Head Bay D'Espoir	P	1, 2	
Cape St. George	N		
Hare Bay	N		
Musgrave Harbour	N		
Small (B) Old Perlican	N		
Heart's Content	P	1, 2	
Long Hr-Mt. Arlington Heights	P	9	
Victoria	N		
Trinity	N		
Garnish	N		
Port Rexton	N		
Port Blandford	N		
St. Jacques-Coomb's Cove	N		
Gaultois	N		
Glenwood	N		
Belleoram	N		
Cormack	N		
Lark Harbour	N		
Rose Blanche-Hr. le Cou	N		
Conche	N		
Makkovik	N		
Forteau	N		
L'Anse au Loup	N		
Cartwright	N		
Raleigh	P	1, 2, 6	
Northwest River	N		
New Perlican	N		
South River	N		
Winterton	P	1	
Bay de Verde	N		
Chapel Arm	N		
St. Mary's	N		
St. Vincent's, etc	N		
Cupids	N		
Salmon Cove	N		
Brigus	P	1, 2	
Goose Cove East	N		
Baine Harbour	N		
Birchy Bay	P	1, 2	
Sandringham	N		
Northern Arm	N		
Lumsden	N		
Traytown	N		
Musgravetown	N		
Carmanville	N		
Keels	N		
Massey Drive	N		
Port au Port East	N		
Daniel's Harbour	N		
McIver's	N		
Trout River	N		
Glenburnie-B. Head-S. Brook	N		
Fleur de Lys	N		
Jackson's Arm	N		

Footnotes: ⁽¹⁾ A full inspection program (F) includes all categories listed below; services offered in partial programs (P) are identified by the numbers shown.

- | | |
|-------------------------------|---|
| 1) Building plans examination | 6) Electrical |
| 2) Site assessment | 7) Plumbing |
| 3) Excavation | 8) Insulation |
| 4) Backfill | 9) Occupancy |
| 5) Framing | 10) Other: Basement Apartment Inspection (a), Water & Sewer Location (b), Zoning & Development Regulations (c). |

APPENDIX 1, TABLE 4: INTEREST IN TRAINING, 115 MUNICIPAL RESPONDENTS

SOURCE: D.W. KNIGHT ASSOCIATES

Interest by Training Category		Willingness to Pay		
10 Large Municipalities:				
National Building Code	9	Yes	-	7
Inspections, New Residential Buildings	9	No	-	1
Inspections, Existing Residential Buildings	8	No Ans	-	2
Plans Examination	8			
Fire Safety	7			
Report Writing	6			
Other	2			
31 Medium Municipalities:				
National Building Code	23	Yes	-	17
Inspections, New Residential Buildings	20	No	-	4
Inspections, Existing Residential Buildings	20	No Ans	-	10
Plans Examination	21			
Fire Safety	18			
Report Writing	10			
Other	0			
74 Small Municipalities:				
National Building Code	34	Yes	-	22
Inspections, New Residential Buildings	29	No	-	19
Inspections, Existing Residential Buildings	18	No Ans	-	33
Plans Examination	27			
Fire Safety	32			
Report Writing	14			
Other	0			

APPENDIX 2: MUNICIPAL QUESTIONNAIRE SURVEY RESULTS

Following is a summary of responses to each of the questions presented on the questionnaire to municipalities (115 respondents). The number of respondents to each question is included.

SECTION A:

- 1) Has your municipality formally adopted the National Building Code? yes - (101), no - (14).
(If "yes", please answer questions 3 - 6 in this section; if "no", please answer question 2 only in this section)
- 2) If "no", has the municipality adopted any other standard to govern building construction? yes - (1), no - (13).
 If "yes", please specify: zoning and development regulations - (1).
 If "no", do you plan to adopt a building standard? yes (3), no (3), maybe (1).
(proceed to Section C)
- 3) Which edition of the Code is currently in use?
(please tick adjacent to the correct year) (101 respondents)
 1970 (2), 1980 (4), 1985 (18), or 1990 (77).
- 4) Has Council formally excluded any section(s) of the Code? yes (0), no (91), no answer (24).
 If "yes", please specify (0).
- 5) Has Council formally adopted any regulation over and above the Code? yes (10), no (95), no answer (16).
 If "yes", please specify:
- | | | | |
|--------------------------------|-----|--------------------|-----|
| National Fire Code | (4) | Life Safety Code | (3) |
| National Plumbing Code | (2) | NFPA 101 | (2) |
| Municipal Building Regulations | (2) | Historic Bldg Regs | (1) |
- 6) Do you think the National Building Code in its current form is an appropriate standard for managing the quality of residential construction within your municipality? yes (56), no (18), don't know (26), no answer (15).
 If "no", why not?
- | | | | |
|--------------------|------|-----------------------------|-----|
| Too complicated | (8) | Low number of new buildings | (2) |
| No qualified staff | (10) | Fiscal restraints | (2) |
| Too stringent | (1) | | |

SECTION B:

- 7) Is the code being enforced in your municipality? yes (10), no (72), partly (19), no answer (14).
- 8) If the code is not being enforced, which of the following reasons apply? *(please tick)*
(answered to those answering "no" or "partly" to #7)
- | | | | |
|---|--|------|--|
| i) Cost of enforcement | | (71) | |
| ii) Lack of qualified staff | | (80) | |
| iii) Low level of building activity | | (21) | |
| iv) Housing quality is not a problem here | | (12) | |
| v) Other (please state) | | (0) | |
- (if the code is not being enforced, proceed to Section C; otherwise, please answer all remaining questions)*
- 9) Which of the following are included in your municipality's building inspection program: *(please tick)*
- | | | | |
|--|------|------------------|------|
| i) Building plans examination | (24) | vi) Electrical | (6) |
| ii) Site assessment | (25) | vii) Plumbing | (10) |
| iii) Excavation | (11) | viii) Insulation | (08) |
| iv) Backfill | (9) | ix) Occupancy | (15) |
| v) Framing | (9) | | |
| x) Other: Basement Apartment Inspection - (1), Water & Sewer Location - (1), Zoning & Development Regulations - (1). | | | |
- 10) Are the inspections indicated above done for all units? yes (19), no (5).
 If "no", please explain: *For New Units Only* - (2)

APPENDIX 2, MUNICIPAL QUESTIONNAIRE SURVEY RESULTS - cont'd

- 11) Who does building inspections in your municipality?
- i) Municipal Employee(s)
 - Building Inspector (8)
 - Municipal Enforcement Officer (3)
 - Other (specify):
 - Town Clerk/Manager (6)
 - Fire Chief (2)
 - Municipal Engineer (1)
 - Works/Maintenance Supt (4)
 - ii) Private Company
 - Building Inspection Firm (0)
 - Engineering/Architectural Firm (0)
 - Building Contractor (0)
 - Other (please state) (0).

12) Please indicate below the training and experience of municipal employee(s) responsible for code enforcement:

Training:

- i) Degree in architecture or engineering (4)
- ii) Diploma in building science/building technology or similar (4)
- iii) Building trade (please state): Carpentry (3)
- iv) Other (please specify):
 - Inspectors Course, Nova Scotia (2)
 - Fire Commissioner's Training (2)
 - Journeyman Plumber (1)

Experience:

- i) Experience in residential inspection:
 - 1 - 5 years (4)
 - 5 - 10 years (2)
 - 10 years + (7)
- ii) Experience in construction or renovation of residential buildings:
 - 1 - 5 years (1)
 - 5 - 10 years (3)
 - 10 years + (8)

SECTION C:

13) Is your municipality satisfied that quality housing is being developed in your community? (please circle a number below from 1 - 6)

Very Satisfied	(17)	Dissatisfied	(4)
Satisfied	(68)	Very Dissatisfied	(0)
Neither Satisfied nor Dissatisfied	(16)	Don't Know	(10)

14) How would you rate the following initiatives as a means of improving the quality of housing in your municipality?

	Ranking (by # of municipalities)		
	First	Second	Third
Training for municipal staff	(26)	(12)	(24)
Shared inspection service with another municipality(ies)	(16)	(28)	(22)
Access to qualified external inspectors on a fee-for-service basis	(29)	(20)	(24)

Other (specify): *Strict enforcement of Code* (1 respondent), *Province to provide/pay for inspection services* (3 respondents)
Concern about cost (2 respondents).

15) Would your municipality be interested in participating in training events for employees in any of the following areas? (please tick)

- (of 82 respondents answering the question)
- National Building Code (67)
 - Inspections of New Residential Buildings (59)
 - Inspections of Existing Residential Buildings (46)
 - Plans Examinations (56)
 - Fire Safety (57)
 - Report Writing (28)

APPENDIX 2, MUNICIPAL QUESTIONNAIRE SURVEY RESULTS - cont'd

Other (please specify):

Public Relations	(1)
Plumbing Code	(1)
Only if had additional staff	(4)

16) Would your Municipality be prepared to pay a fee for these events? yes (48), no (34).

17) Other comments?

Selection of representative comments:

Inspector training is required in this Province; ridiculous to have to go to Nova Scotia. In favour of training and awareness building, subject to cost; sessions offered within the regions would be well received.

Concerned over Government's move to reduce inspection/enforcement levels.

RRAP made a huge difference to the quality of housing stock.

The provisions of the Code are incorporated into building materials such as gyproc wallboard and chimneys (which reduces the need to enforce the Code).

Mainly concerned with zoning requirements, water, sewage and utility requirements and fire standards.

More concerned with commercial/institutional buildings than residential.

The builder/permit holder is notified that they are responsible for Code compliance.

Government should provide inspection services.

We enforce as much as we can and rely on our residents for their co-operation.

REGIONAL DISTRIBUTION OF RESPONDENT MUNICIPALITIES

Avalon Peninsula	31
Burin/Bonavista	13
Central	33
West	29
Labrador	<u>9</u>
Total	115

APPENDIX 3: PRIVATE FIRMS QUESTIONNAIRE SURVEY RESULTS

Following is a summary of responses to each of the questions presented on the questionnaire to private firms (28 respondents). The number of respondents to each question is included.

- 1) Does your firm offer a building inspection service? yes (24), no (4).
(if "no", please skip to question #7)
- 2) Which of the following categories best describes your clients? *(please tick)*
- | | | | |
|--------------------------|------|------------------------|------|
| Municipalities | (12) | Real estate vendors | (2) |
| Real estate purchasers | (7) | Financial institutions | (11) |
| General public | (13) | | |
| Other (specify): | | | |
| Government | (6) | | |
| School Boards/Churches | (1) | | |
| Insurance Investigations | (1) | | |
- 3) Which of the following technical services are offered by your firm as part of your building inspection service? *(please tick):*
- | | | | |
|---------------------------------------|------|---------------------------------|------|
| i) Building plans examination | (17) | vi) Electrical inspection | (6) |
| ii) Site assessment | (17) | vii) Plumbing inspection | (8) |
| iii) Excavation inspection | (17) | viii) Insulation inspection | (13) |
| iv) Backfill inspection | (17) | ix) Occupancy inspection | (12) |
| v) Framing inspection | (20) | x) Existing building inspection | (22) |
| xi) Other: | | | |
| Structural inspection | | (1) | |
| Property condition/resale suitability | | (1) | |
| Dispute resolution | | (1) | |
| Fire/accident investigation | | (1) | |
| Progress claims | | (1) | |
- 4) For the technical services you have identified above, which of the following best describes the reporting format used by your firm?
- | | |
|------------------------------------|------|
| i) Verbal report | (2) |
| ii) Standard inspection form | (8) |
| iii) Customized detailed narrative | (12) |
| iv) All of the above | (8) |
| v) Other: | (0) |
- 5) Which of the following best describes how your fee schedule is structured?
- | | |
|---|------|
| i) Hourly rate | (10) |
| ii) Per diem | (5) |
| iii) Fixed fee-for-service | (4) |
| iv) As per fee schedule set by professional association | (4) |
| v) All of the above | (4) |
| vi) Other | (0) |
- 6) What is the training and experience of the person(s) in your firm who provides technical services?
(number of firms reporting at least one of each category)
- Training:**
- | | |
|--|------|
| i) Degree in architecture or engineering | (21) |
| ii) Diploma in building science/building technology or similar | (11) |
| iii) Building trade <i>(please state): Carpentry</i> | (1) |
| iv) Other <i>(please specify): Home Inspection Course</i> | (1) |
| Real Estate Broker | (1) |
- Experience:**
- | | | |
|--|--|----------------|
| i) Experience in residential inspection: | | No. of Persons |
| 1 - 5 years | | (6) |
| 6 - 10 years | | (6) |
| 10 years + | | (29) |

APPENDIX 3, PRIVATE FIRMS QUESTIONNAIRE RESULTS, cont'd

ii)	Experience in construction or renovation of residential buildings:	No. of Persons
	1 - 5 years	(1)
	6 - 10 years	(7)
	10 years +	(28)

(go to question 8)

- 7) If you answered "no" to question #1, do you plan to offer building inspection services in the future? yes (0), no (4).
- 8) Would your firm be interested in participating in training events for employees in any of the following areas? (please tick) (completed by 18 respondents)
- | | |
|---|------|
| National Building Code | (17) |
| Inspections of New Residential Buildings | (12) |
| Inspections of Existing Residential Buildings | (11) |
| Technical Audits | (11) |
| Plans Examinations | (10) |
| Fire Safety | (13) |
| Report Writing | (11) |
| Other (please specify): | (0) |
- 9) Would your firm be prepared to pay a fee for these events? yes 16, no 2.
- 10) Should opportunities present themselves in the future, would your firm be prepared to provide technical services (including building code enforcement) to municipalities on a fee-for-service basis? yes (26), no (2).
- 11) Please add any other comments:
 Selection of comments:
*It would be an asset to have a chapter in St. John's of building inspectors - full and part time.
 Most municipalities cannot afford inspection services.
 Firms specialise in institutional and commercial buildings, structural inspections and existing building inspections. Some do not actively promote the service but provide it when asked or as part of the design and management of projects.*

RESPONDENTS - PRIVATE FIRMS

	Engineering/Architectural	Home Inspection
<i>Avalon Region</i>	19	3
<i>Central Region</i>	3	0
<i>Western Region</i>	2	0
<i>Burin/Bonavista</i>	0	0
<i>Labrador Region</i>	<u>1</u>	<u>0</u>
Total	25	3

APPENDIX 4: LIST OF CONTACTS

Don Ryan, Development Control Unit, Municipal and Provincial Affairs, 729-5415.

John Warren, Newfoundland and Labrador Homebuilders Association Ltd, 579-6542.

Randy Ivany and Gary Reardon, Home Inspection Services Ltd, 576-2000.

Mike Dwyer, Provincial Regulatory Reform Committee, 729-3056.

Roy Layden, Director of Operations, Government Service Centre, 729-2497.

Jane Fitzgerald, Manager, Municipal Training Programs, Municipal and Provincial Affairs, 729-3077.

Patricia Hampstead, Executive Director, Newfoundland and Labrador Federation of Municipalities, 753-6820.

Wayne Purchase, Director and Sylvester Crocker, Building Inspector, Buildings and Property Management, City of St. John's, 576-8701.

Stan Clinton, Director, Urban and Rural Planning Division, Municipal and Provincial Affairs, 726-3090.

Art Butler, Development Control Officer, Town of Conception Bay South, 834-2093.

Rick Frazer, Nova Scotia Building Officials Association, Cape Breton Metro Planning Commission, Sydney, Nova Scotia.