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An examination of the planning approval process for materials recovery facilities in Ontario.

Bruce Joseph. Singbush
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An Examination of the Planning Approval Process for Materials Recovery Facilities in Ontario

by

Bruce J. Singbush

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ABSTRACT

As the recycling industry has expanded in Ontario, allegations of an inconsistent approval process for Materials Recovery Facilities (MRFs) have surfaced. An inconsistent approval process for MRFs could potentially have serious environmental, spatial, social and political consequences at the local, municipal and provincial levels. As a result, the purpose of this study was to investigate the validity of the claims of inconsistencies in the planning approval process for MRFs.

Through an examination of the provincial legislation governing MRFs, a comparison of planning policies regulating MRFs in ten selected municipalities, and an in-depth analysis of the actual planning treatment of 89 MRFs in the City of Mississauga, the findings of this study provide partial support to the allegation that MRFs are inconsistently approved in Ontario. Although this research did not find any differential treatment of MRFs in Mississauga or contradictions between the Environmental Protection Act and the new 3Rs Regulations, it did reveal that municipalities have tended to adopt varied planning strategies to manage MRFs within their communities. As a result, this research reveals the need to clarify the required municipal planning procedures regulating MRFs to ensure a consistent planning approval process for these land uses in Ontario.

This study should prove useful for other researchers investigating the planning treatment of MRFs and other waste management facilities in Ontario.

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1.0 Introduction

The garbage crisis within Canada has led to a rapidly growing recycling industry (Zambrano, 1994). This materials recovery industry aims to reduce the substantial amount of solid wastes requiring disposal annually [1] by diverting the reusable by-products of human consumption and production back into the cycle of production. As a land use, materials recovery facilities, or MRFs as they are known (Glenn, 1991), are similar to all other industrial operations except for the fact that they handle wastes and not raw or virgin materials. However, as the recycling industry has expanded in Ontario questions regarding the consistency of the provincial and municipal approval process for MRFs have been raised.

In 1991 the Ministry of the Environment addressed this issue in a report entitled Regulatory Measures to Achieve Ontario's Waste Reduction Targets. In this report the Ministry of the Environment alleged that

> ...(the) approval process for recycling sites have not been consistently applied. This is due in part to the existing definition of recyclable materials in *Regulation 309* under the *Environmental Protection Act* and the substantial growth in the number and types of 3Rs activities that are being proposed.
>
> (p. 4)

This allegation, if correct, is significant for four reasons.

First, the recycling industry handles materials which are potentially harmful to the surrounding environment. Recyclable material is, by definition,

---

[1] The Canadian government estimated that Canadians produce over 30 million tonnes of garbage annually, of which only 10 percent is recycled. This averages out to 1.7 kilograms of waste per person per day. (Government of Canada, 1990, pp. 57-58).

waste which requires specific measures to be in place to prevent the pollution of the natural environment (Environmental Protection Act R.S.O. 1990, s. 27). However, if MRFs are inconsistently approved at the provincial and municipal level, negative environmental consequences such as increased noise and traffic in sensitive areas (i.e. residential areas), unsightly landscapes, blowing wastes, and the contamination of soil and water due to the improper storage of potentially hazardous materials could occur.

Second, given that the purpose of planning is to reduce land use conflicts, if MRFs are located inconsistently at the local level the potential for spatial conflicts exists. For example, locating a MRF in a residential or commercial area could result in land use conflicts over incompatible land uses. Such land use conflicts would then likely result in a number of protests and appeals by neighboring land owners to the Ontario Municipal Board, costing both the Province and its municipalities valuable time and resources.

Third, the lack of an acceptable approval process for other waste management facilities (i.e. landfill sites and incinerators) has contributed to political and social outrage over the way in which these facilities are approved (Armour, 1991; Lang, 1990; Ziess, 1990). Therefore, if the approval process for MRFs is inconsistent, there is the potential for similar political and social outrage to occur when a new MRF is established.

Finally, an inconsistent approval process for MRFs would fly in the face of the legal and ethical principles of the planning profession. One of the fundamental objectives of the land use planning process is to minimize land use conflicts between neighboring land uses (ICMA, 1988; Solnit, 1988). In order to accomplish this objective, planning professionals are guided by a combination of legal acts and professional codes of ethics and conduct. Implicit in these

guidelines is the need for fair and consistent treatment of similar land uses and interests.

The Planning Act R.S.O. 1990 is the main act that governs the practice of land use planning in Ontario. In this Act, the responsibilities of the Minister and/or their delegates (i.e. municipal governments) are outlined in Section 2 where there is explicit reference to the various matters that the Minister and/or their delegates must have regard to including;

(a) the protection of the natural environment, including the agricultural resource base of the Province, and the management of natural resources;
(b) the protection of features of significant natural, architectural, historical, or archeological interest;
(c) the supply, efficient use and conservation of energy;
(d) the provision of major communication, servicing and transportation facilities;
(e) the equitable distribution of education, health and other social facilities;
(f) the coordination of planning activities of municipalities and other public bodies;
(g) the resolution of planning conflicts involving municipalities and public bodies;
(h) the health and safety of the population;
(i) the protection of the financial and economic well being of the Province and its municipalities; and
(j) the provision of a range of housing types.

In order to give adequate consideration to these matters the Planning Act implicitly requires fair and consistent treatment. In fact, as a result of the New Planning for Ontario Report (Sewell Commission Report) (Sewell et al., 1993), the Ministry of Municipal Affairs (1993) is recommending that "shall have regard to" be changed to "shall be consistent with", to strengthen the implementation of these provincial policy statements. Furthermore, the concept of fair and consistent treatment of interests and land uses is embedded in the various codes of ethics and conduct that guide planning professionals.

The Ontario Professional Planning Institute (OPPI) (1990) requires "the promotion and protection of both the public and private interests.....always acknowledging the primacy of the public interest' "(Section 1.0). Similarly, the American Institute of Certified Planners (AICP) (1986) requires planners to serve the public interest by having special concern for the long range consequences of present actions (Section A). Therefore, implicit in these objectives is the need for consistent and fair treatment of interests and similar land uses.

Therefore, due to the potential for environmental, spatial, social and ethical conflicts to manifest themselves at the local level, it is in the best interest of both the province and its municipalities to ensure that there is a consistent method of approving MRFs. A consistent planning process for MRFs, or any land use for that matter, would contain three basic elements (Figure 1.1):

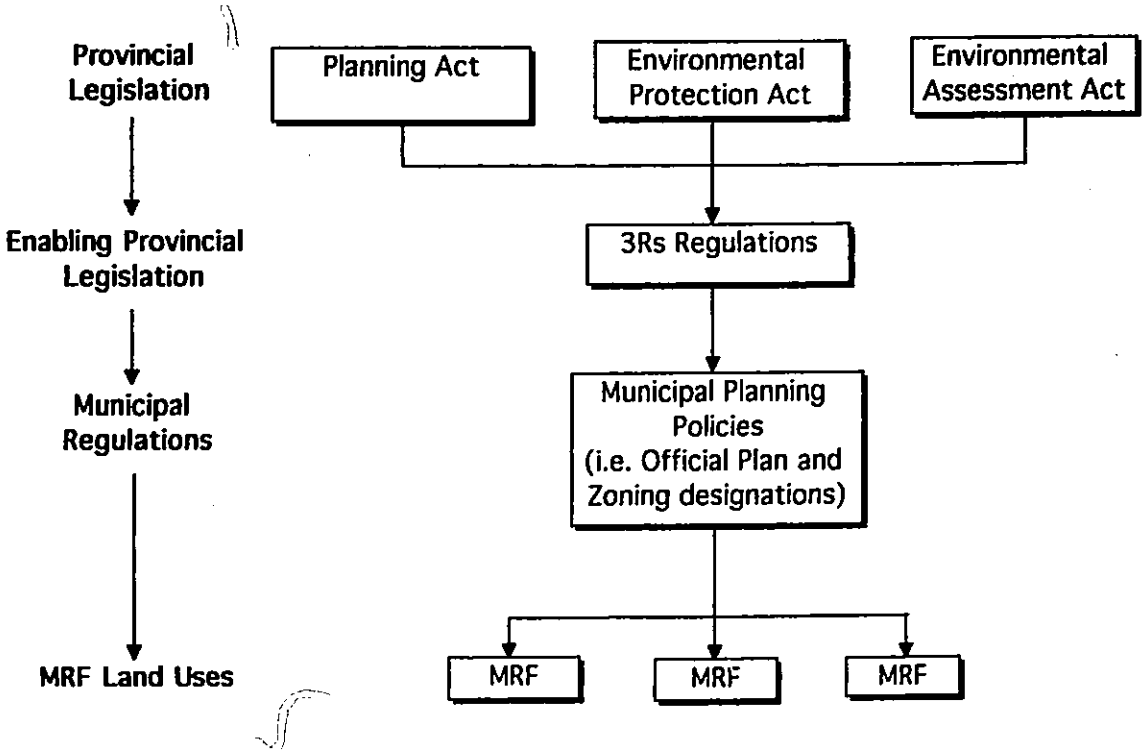
1. The enabling provincial legislation (i.e. 3Rs Regulations R.S.O. 1994) must reflect and operationalize the provisions of the Planning Act, Environmental Assessment Act and Environmental Protection Act;
2. The municipal planning policies regulating MRFs across Ontario must be similar to each other and the provincial legislation; and
3. The individual municipal land use planning policies (i.e. Official Plan provisions and Zoning Bylaws) regulating one MRF must be similar to all other land use planning policies regulating other MRFs in a selected municipality.

As a result, it is the intent of this investigation to examine the approval process for MRFs at the provincial and municipal levels for consistency. Prior to addressing this issue, however, it is important to understand the development of waste management legislation in Ontario.

1.1 Ontario's Waste Management Regulations

In 1987 the Ontario government embarked on a new direction for waste management. In addition to tightening the legislation governing the operation

Figure 1.1
Progression of Regulations Governing MRFs in Ontario



and site selection process for new landfill sites (Ministry of the Environment 1992b), the Ministry of the Environment announced the target of diverting 25 percent of its household, commercial and industrial waste by 1992, and 50 percent by 2000, based on 1987 volumes (Ministry of the Environment 1993b, p. i). However, by 1991 the Ontario government realized that its goal of 50 percent waste reduction by 2000 would not be met without further altering the waste management practices of Ontario residents (Ministry of the Environment, 1993a). As a result, in addition to subsidizing the start up costs for municipal recycling programs (Ministry of the Environment, 1993a), the government announced its intention to introduce mandatory recycling programs in all but the smallest municipalities:

> A local municipality that has a population of at least 5000 shall establish, operate and maintain a blue box waste management system if the municipality is served by a waste management system owned by or operated by or for the municipality that collects municipal waste or accepts such waste from the public at a waste disposal site.
> (Ministry of the Environment, 1993d, s. 7(1)).

The development of a recycling program in a municipality normally requires that a facility be established to collect, sort and process recyclable material for resale. In Ontario, the approval procedures for the establishment and location of an MRF are outlined for municipalities through the provisions of the Environmental Protection Act. However as previously noted, questions regarding the consistent treatment of MRFs under this legislation had been raised by the Ministry of the Environment in 1991. Therefore, in an attempt to address these concerns the provincial government passed the 3Rs Regulations in March, 1994.

The new 3Rs Regulations are intended to facilitate the achievement of the 50 percent waste reduction goal by increasing the reduction, reuse, and recycling of solid wastes at the municipal level (Ministry of the Environment, 1994).

Therefore, included in these new regulations is a streamlining of the approval process for municipal MRFs. However in the government's haste to accelerate the introduction of recycling programs at the local level, some of the inconsistencies which the Ministry of the Environment (1991) alleges exists in the Environmental Protection Act may have been overlooked. Therefore, inconsistencies in the approval process for MRFs may still exist in the provincial legislation.

Therefore, this investigation will examine the approval process for MRFs at the provincial and municipal levels for consistency and determine the contribution of the new 3Rs Regulations to improving the approval process for MRFs.

1.3 The Study

Given that all land use planning decisions in Ontario are governed by the provisions of the Planning Act, Environmental Assessment Act and the Environmental Protection Act, it is logical to assume that the enabling legislation for MRFs (the 3Rs Regulations) would reflect and operationalize these three pieces of legislation. Moreover, given that municipal land use planning policies are the result of this provincial legislation, it is logical to assume that the various municipal planning policies for MRFs would reflect one another and the provincial legislation. Finally, given that the establishment and location of MRFs are the result of the municipal planning policies for MRFs, it is logical to assume that the policies regulating these land uses would be similar.

Therefore, based on the progression of regulations governing MRFs in Ontario, one would expect that the 3Rs Regulations, various municipal planning policies for MRFs, and the land use planning controls governing the establishment and location of MRFs in individual municipalities would reflect

the provisions of the Planning Act, Environmental Assessment Act and the Environmental Protection Act. However as previously noted, the Ministry of the Environment (1991) has suggested that there is, in fact, no consistent linkages between the provincial legislation, various municipal planning policies and individual land use regulations for MRFs.

Therefore, it is the intent of this study to examine the progression of the land use planning regulations governing the establishment and location of MRFs in Ontario to determine if, in fact, consistent linkages exist between the Environmental Protection Act and the 3Rs Regulations, the various municipal planning policies regulating MRFs in ten study municipalities, and the municipal planning policies regulating individual MRFs in a selected study municipality. The results of this investigation will then be used to determine if there is a sufficient approval process for MRFs in Ontario.

CHAPTER TWO
Literature Review

2.0 Introduction

Regulating solid waste management in Canada is a fundamental responsibility of the provincial government. As such, ensuring that the collection, sorting and disposal of solid waste occurs in a safe and efficient manner is a duty of the provincial government. In order to adequately fulfill this responsibility, the provincial government is expected to provide regulations which ensure that the establishment and location of a waste management facility maximizes its benefits to the local community, while broadly distributing its costs equally throughout the community (McAllister, 1980). Therefore, the need for consistent treatment of issues and interests is an important part of this siting process because it implies that all issues and actors are being dealt with fairly. Unfortunately, recent literature suggests that provincial and municipal governments have failed to adequately distribute the costs of waste management facilities, implying that they have not fulfilled their responsibilities (Armour, 1991; Lang, 1990; Kowalski, 1987).

The literature has recognized that controversy surrounding the approval process for waste management facilities has become expected, if not accepted (Armour, 1991 & 1990a; Lang, 1990; Kowalski, 1987). Some authors have alleged that the "situation has been allowed to become a crisis in order that equity and environmental considerations can be 'trumped' by urgency, and local interests can be subordinated to 'the larger good' " (Lang, 1990, p. 8). Moreover, authors such as Wolpert (1970) have alleged that spatial biases influence the site selection process for waste management facilities.

> Sometimes the location finally chosen for a new development, or the site chosen for relocation of an existing facility, comes out to be the site around which the least protest can be generated by those displaced. Rather than being an optimal, a rational, or even satisfactory locational decision produced by the resolution of conflicting judgments, the decision is perhaps merely the expression of rejection by elements powerful enough to enforce their decision that another location must not be used; alternatively the locational decision may result in a choice against which no strong argument can be raised since such elements are either inarticulate or command little power to render their argument effective.
>
> (p. 220)

Therefore, the need for a consistent approval process for waste management facilities is vital if the provincial and municipal governments are to maintain their credibility.

Carter (1987) commented that regardless of how well site screening and evaluation methods have been done, it was unlikely "they could ever be done well enough to promote technical consensus on the fairness and soundness of choices" (p. 2). Nevertheless, consistency and fairness in the planning process must still be strived for as a fundamental objective of 'good' planning (Sewell et al., 1993, Ministry of Municipal Affairs, 1993). Consistent treatment, although not always 'fair' to all parties involved, at least provides a benchmark to which all decisions can be compared. Moreover, at set of consistently applied procedures could then be improved upon to address any shortcomings it may possess.

How then can this be accomplished? The ability of the approval process for waste management facilities to adhere to the principles of good planning may well be a utopian concept. Nevertheless, the government has attempted to improve the waste management approval process over the past twenty years from "rather crude site screening approaches to very systematic and highly technical procedures" (Armour, 1991, p. 7).

Despite these continuing attempts to improve the facility siting process, the siting of waste management facilities has become more, not less, controversial (Lang, 1990; Ziess, 1990; Furuseth and Johnston, 1988; Kowalski, 1987). Reasons for this continuing conflict have been attributed to the operational nature of a waste management facility.

2.1 Defining a Controversial Land Use

The siting of certain land uses normally results in controversy over the way in which they were approved. Landfill sites, incinerators, mental health care facilities and nuclear power plants are but a few examples. In the literature these land uses are referred to as 'noxious' or 'locally unwanted land uses'.

Austin et al. (1970) defined a 'noxious' land use as "a facility which is needed in a region, but is not necessarily desired by the residents of any potential site" (pp. 315-316). Popper (1987) expanded upon the definition of noxious land uses with 'locally unwanted land uses' or LULU's. According to Popper (1987):

> A LULU may be noisy (airport), dangerous (hazardous waste facilities), ugly (power plants), smelly (many factories), or polluting (all of the above). It may offend its neighbors because of such intrinsic features such as it technology or occupants. Or it may offend because of its consequences - increased traffic, industrial by-products, or the problems its mismanagement could create.
>
> (p. 2).

Therefore, LULU's "always threaten their surroundings by inflicting, or promising to inflict, negative externalities upon them" (Popper, 1987, p. 3). While potentially any land use could be considered a LULU, Popper (1987) noted that a true LULU is different in two respects. First of all, the concerns that it engenders are environmental in the broadest sense (that is, focused on the effects the LULU may have on its surroundings); second, the opposition constitutes a substantial

body of local opinion (although it may not reflect the majority opinion) (Popper, 1987, p. 3).

While the reforms made by the provincial government in recent years to the approval process for waste management facilities have attempted to address these local concerns, particularly by increasing public participation opportunities (Armour, 1991), some authors have suggested that these reforms may have only magnified the problem. According to Mazmanian (Armour, 1991, p. 8):

> The public involvement experiment did not, as anticipated, prevent conflict; the conflicts reflected not simply misunderstanding, which might have been corrected through dialogue, but rather basic disagreement over the relative values of technological development and environmental protection. Participation mechanisms further exposed, and intensified, those disagreements.

What then can public policy makers do to correct this problem? In an attempt to more accurately address the concerns of the public in the approval process, much recent literature has been devoted to studying the social aspects of waste management planning (Armour, 1991 & 1990a; Lang, 1990; Ziess, 1990; Furuseth and Johnston, 1988; Lindell and Earle, 1983). This research has revealed that the current approval process has been ineffective in addressing the inequalities in the distribution of costs and benefits, perceived risks, feelings of loss of control over the forces affecting the quality of one's life and community, and the lack of trust in proponents and regulators (Armour, 1991, p. 9). Therefore, there is agreement in the literature on the need to reexamine the way in which waste management facilities are approved (Armour, 1991; Lang, 1990; Wlodarczyk, 1990; Kowalski, 1987). Prior to determining how this can be done, however, it is important to understand the wide array of problems associated with the approval process for waste management facilities.

2.2 Problems Associated with Siting Waste Management Facilities

A good summary of the research on the problems associated with siting waste management facilities is provided by Armour (1991). While Armour's (1991) article, "The Siting of Locally Unwanted Land Uses: Towards a Cooperative Approach", focuses on the social aspects of the planning approval process for waste management facilities, her work is valuable here to an understanding of the common criticisms associated with the approval process for waste management facilities and other locally unwanted land uses.

Armour (1991) summarized the problems associated with facility siting into three interrelated explanations: the NIMBY syndrome, poor public relations and a flawed siting process. While some of the problems discussed by Armour (1991) are not central to this particular study, her set of three interrelated explanations warrant further consideration here because the problems associated with the siting of other waste management facilities and locally unwanted land uses have undoubtedly influenced the approval process for recycling facilities.

2.2.1 The NIMBY Syndrome

The first interrelated explanation for the problems associated with siting 'noxious' or 'locally unwanted land uses' discussed by Armour (1991) is the NIMBY syndrome. The NIMBY, or not-in-my-back-yard, syndrome is a common phenomenon discussed in the planning literature (for example see Lang, 1990; Furuseth and Johnston, 1988; Lindell and Earle, 1983; O'Hare, 1977). Basically NIMBY refers to the local opposition associated with attempting to locate an unwanted land use in an area (Furuseth and Johnston, 1988). The NIMBY concept is an extension of the distance decay function for land use externalities (i.e. externality effects dissipate over distance) to include people's behavioral

responses (Armour, 1991), and it has been demonstrated that the extent of the externality field varies with the scale, type, number and degree of noxiousness of facility (Dear, 1977).

Several studies have demonstrated the relevancy of the NIMBY syndrome to the siting of waste management facilities. For example, Furuseth and Johnston (1988) found that in Charlotte, North Carolina the residents most concerned with an existing landfill facility were concentrated within 800m of the site, and that 54 to 70 percent of the variation in individual attitudes towards landfill noise, odour, litter, traffic noise, and dust were linked to distance from the facility. Moreover, Lindell and Earle (1983) found that only eight percent of people surveyed as part of a national (U.S.) survey were willing to live one mile or less from a hazardous waste facility, and that the proportion only rose above 50 percent at a distance of 47 miles. Therefore, the NIMBY syndrome has played an important role in explaining the controversy associated with siting a waste management facility or LULU.

However, as Armour (1991) pointed out, it is important not to perceive the NIMBY syndrome as the only underlying cause of the facility siting problem. NIMBY studies often rely on hypothetical examples that may not provide a true indication of people's responses when faced with the real situation. In addition, studies using NIMBY implicitly aim to explain the opposition towards a facility by the public's negative attitudes towards the facility, and not towards other explanations. Thirdly, NIMBY only reflects a limited analysis of the conflict, defining the problem as a socio-psychological one, ignoring other elements such as attitudes, behaviors, and incompatible goals and objectives. Finally, NIMBY unfairly focuses the 'blame' for the facility siting problems on the public and not on other actors or issues. As a result, Armour (1991) suggested other

contributing factors in siting disputes such as the second interrelated explanation, public consultation problems.

2.2.2 Public Consultation Problems

The second interrelated explanation offered by Armour (1991) is public consultation problems. As Armour (1991) notes:

> One message that has come through loud and clear in siting disputes is that people who feel they have not been given an opportunity to become fully informed, to have their concerns listened to, and to exercise what they feel to be their basic democratic rights are not very likely to accept siting recommendations and decisions regardless of how substantively-sound such decisions may be.
>
> (p. 24)

Therefore, a lot of critical attention has been given to the way in which proponents interact with the public in the decision making process (Armour, 1991 & 1990a; Lang, 1990; Ziess, 1990; Popper, 1987; McAllister, 1980).

Armour (1991) divides public consultation problems into a discussion of two major flaws in the approval process: public relations errors and risk assessment problems. While the public relations errors are generally the result of proponent attitudes, the risk assessment problems are much more complex.

2.2.2.1 Public Relations Problems

Armour (1991 & 1990a), Lang (1990), Ziess (1990) and Ellis and Disinger (1981), among others, have been highly critical of the way in which the public is allowed into the approval process for waste management facilities. According to Armour (1991) these criticisms can be summarized into six broad categories: 'its our agenda', 'its the big picture that counts', 'going to the public too late', 'the bunker mentality', 'poor format/poor forum', and 'leave it to the hearing'.

'Its our agenda' is the classification used by Armour (1991) to describe the fact that the proponent determines and maintains control of the issue agenda. "No systematic procedure is used to 'scope the issues', though public meetings may be held to 'hear views' and 'get a sense' of the relative importance of issues" (Armour, 1991, p. 24). The result of this action is that proponents end up over emphasizing their own points of view and undervaluing alternative perspectives.

'Its the big picture that counts' refers to the fact that the public and the proponents appraise the facility siting problem from distinctively different perspectives (Armour, 1991). As Ziess (1990) pointed out, both the public and the decision makers value different criteria and assign different weights to the criteria in the approval process. This is due in part to the tendency of the public to focus on its own particular interests, while the 'regulatory bureaucrats' tend to concern themselves with public policy and broader social impacts (Armour, 1991).

'Going to the public too late' is the third public relations error discussed by Armour (1991). Basically, this classification accounts for the problem that often the public is brought into the decision making process only after the site selection process has begun, or after it has already selected the 'best' or 'optimal' site (McAllister, 1980). By putting insufficient effort into public consultation in the study design phase to ensure that the study approach reflects a sound understanding of community concerns and issues, proponents often force the public to collect its own version of the facts, leading to an inevitable allegiance of each side to its own particular version of the facts (Armour ,1991, p. 26).

'The bunker mentality' refers to the tendency of decision makers to feel that they need to 'defend against attack' by restricting the flow of information and deliberately handling issues ambiguously so as not to reveal their intentions or provide a focus for public debate (Armour, 1991, p. 26). In the end, this

mentality contributes to the 'intelligibility gap' between the experts and the decision makers on the one hand, and the public on the other (Wynne, 1980).

'Poor format/poor forum' is the fifth public relations error classification used by Armour (1991). This classification refers to the reliance proponents place on large public meeting and open houses as a method of consultation. In these formats the public often feels misunderstood and unimportant as their individual concerns are often dismissed by a barrage of facts (Armour, 1991). As a result, Armour (1991) notes that these types of formats don't provide for a productive discussion of contentious issues and the public ends up feeling as though it is 'kept in the dark' on important issues (p. 26).

Finally, 'leave it to the hearing' refers to the tendency of proponents to wait until the public hearing stage to resolve issues (Armour, 1991). This results in a lack of interest and information being afforded to the public, and sets up a show down for conflict (Armour, 1991), costing both the proponents and the public valuable time, energy and resources that could have been used to resolve issues earlier on in the decision making process.

Therefore, problems associated with poor public relations can influence the decision making process by creating two or more conflicting parties in the approval process. With the siting of waste management facilities these parties often delay the actual siting of a facility for years through appeals and protests to the Ontario Municipal Board (Lang, 1990). As a result, serious efforts have been made by the government to better include concerns of the public in the approval process to attempt to reduce conflicts (Armour, 1990). In spite of this government effort, public backlash has occurred in several communities throughout the province as a result of the facility siting practices for waste management facilities (Armour, 1990a; Lang, 1990). At the root of this public conflict is the problem of risk perception.

2.2.2.2 Risk Perception Problems

A common explanation for the facility siting problem is that "opposition is rooted in fears of major and long terms risks posed by facilities to the health and welfare of the surrounding community" (Armour, 1991, p. 27). Therefore, in an attempt to reduce this opposition, proponents have relied on risk assessments.

Risk assessments attempt to provide sound data on the 'real' risks and, in doing so, 'correct' public misconceptions of the risks posed by a specific land use (Armour, 1991). However, attempts to quantify the probabilities and potential hazards of land uses has met with serious opposition. Authors have criticized the practice of risk assessments as limited and methodologically unsound (McAllister, 1980). The assessment of risk, it is argued, is not suited to scientific analysis:

> The fundamental uncertainties about the nature and extent of risks inherent in many technological choices often defy analysis. Sometimes the efforts to quantify risks and benefits have simply masked real uncertainties. Often the estimation of risk has ignored the non quantifiable, fragile values - the emotional distress of the disruption of social relationships - that are associated with technological risks.
>
> (Nelkin, 1985, p. 15)

This methodological argument is supported by several actual cases in which the risks associated with a development were greatly underestimated and negatively impacted on the public. Well known examples, such as Love Canal and Three Mile Island, have created a strong public skepticism of risks assessments, contributing to the NIMBY syndrome. As a result:

> Experts and the public...tend to be at odds over strategies for managing risks and impacts associated with waste management facilities. Experts tend to emphasize systems based on prediction, using probability estimates to select appropriate technologies. On the other hand, potentially affected publics stress the need for other control

> measures such as additional or different hazard reduction measures, contingency plans, monitoring and remedial action.
>
> (Wlodarczyk, 1990, p. 46)

Therefore, the problems of risk perception "boils down to a rather straightforward issue - proponents simply do not appreciate [the public's] concerns about the potential risks and their views of what is acceptable " (Armour ,1991, p. 28).

Therefore, the use of risk assessments to reduce fears associated with facility siting has failed because of its ineffectual treatment of the judgment aspects of risk assessment - those points in the process where choices must be made regarding what variables to take into account, what evaluation criteria to use and how much insight to give these, and what general conclusions to reach (Armour, 1991, pp. 29-30).

However despite these problems, the literature on risk perception has provided sufficient evidence to suggest that there is a need to reassess the way in which the approval process function (Armour, 1991; Ziess, 1990; McAllister, 1980). Among the key issues revealed by risk assessments are:

(1) There are substantial differences between the risk estimates of experts and laypersons and these differences result, in large part, from the differences between the risk perceptions of experts and those of the public.

(2) Technical experts and lay persons both perceive risk as a combination of probability and consequences but use different criteria and analytic methods to arrive at an overall evaluation of 'riskiness'.

(3) Experts tend to assign equal weight to both probability and consequences in their estimations of risk (the same risk is assigned to 500 accidents per year involving one death as to one accident per year resulting in 500 fatalities), whereas lay persons tend to put more weight on consequences (the one accident and 500 deaths would be judged as more significant).

(4) Experts tend to measure consequences in terms of expected losses (measured quantitatively as annual deaths, dollars lost or lost person days of work) and to assume that willingness to accept a risk is a matter of the trade-off between expected losses and expected gains. Lay persons, on the other hand, use expected losses as only one criterion among many to judge potential consequences. They also assign importance to the qualitative attributes of the risk situation such as its voluntariness, catastrophic potential, likelihood to result in death, familiarity, and equity.

(5) Experts tend to focus on the properties of the risk per se (both quantitative and qualitative), whereas lay persons also include aspects of the context within which the risk is situated (most notably the reliability and credibility of the proponent and regulatory bodies responsible for managing the risk).

(Armour, 1991, p. 29)

Therefore, the literature examining public consultation problems has provided some valuable insights into the causes and effects of an ineffective approval process for waste management facilities. However, as with the NIMBY syndrome, the focus on public relations has serious shortcomings. According to Armour (1991):

> It focuses solely on the interactional style of proponents and the types of responses it elicits from local residents. What it ignores is the extent to which proponent - resident behaviors are influenced by the context within which these behaviors occur.
>
> (p. 30)

As a result, any discussion that focuses on the problems of siting any particular land use must be framed within the methodological and administrative procedures that govern the approval process. In Ontario these are the provincially established guidelines for the establishment and location of waste management facilities (i.e. the Environmental Protection Act and the 3Rs Regulations).

2.2.3 Flawed Siting Process

The final explanation offered by Armour (1991) for the problems associated with facility siting is the facility siting process itself. It is through this process that the identification and selection of the various combinations of technological and locational options is processed to best satisfy often competing economic, engineering, environmental and social objectives (Armour, 1991). The basic elements of this process are outlined in Figure 2.1.

Figure 2.1
Components of the Facility Siting Process

Perceived Need ↦ Establish Goals and Objectives ↦ System/Technology Assessment ↦ Site Search

(Adapted from Armour 1991, p. 31)

The facility siting process always begins with a perceived need for a facility. As previously noted, the need for MRFs in Ontario municipalities began in 1987, when the Minister of the Environment announced the waste reduction target of diverting 25 percent of its household, commercial and industrial waste by 1992, and 50 percent by 2000 (Ministry of the Environment, 1993b). This announcement then prompted a series of provincial initiatives designed to reduce waste, including the introduction of mandatory recycling facilities in every municipality with a population of over 5000 (Ministry of the Environment, 1994).

The first stage in the facility siting process is to establish goals and objectives. At this point in the process, the focus is on problem specification. For waste management facilities the types of questions asked at this stage include:

1. What are the volumes and types of wastes needing management?
2. What constitutes sound waste management?

3. What are the best technologies for waste management?
4. What are the existing waste management initiatives? and;
5. How adequate are they?

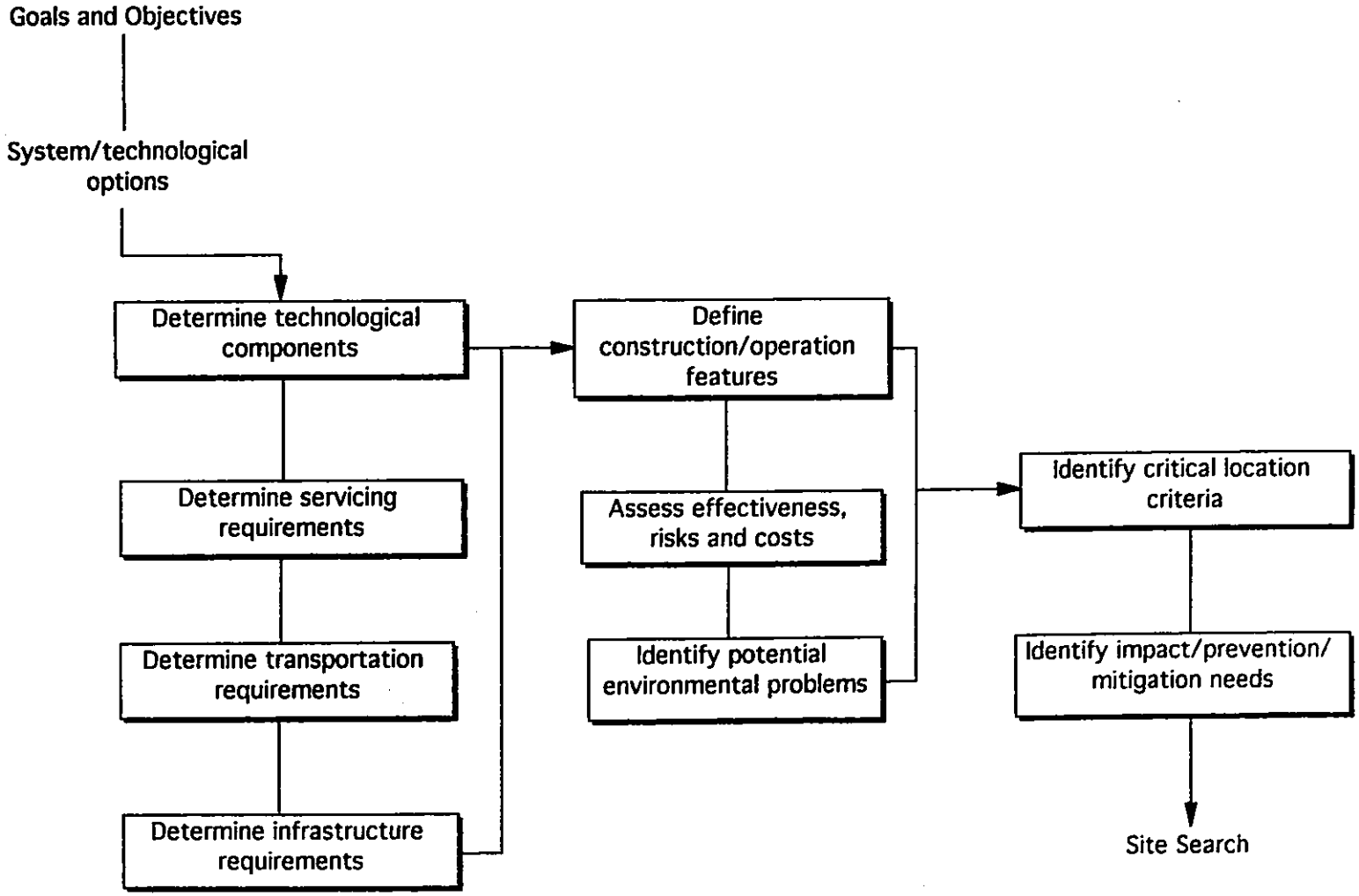
(Armour, 1991, p. 32).

The goal of this stage is to devise the overall policy framework within which technological and locational decisions can be made. As a result, the need for the facility must be confirmed at this stage as well as some of its potential characteristics (i.e. type, size, phasing, etc.) (Armour ,1991) as inputs into stage two, system/technology assessment.

System/technology assessment involves selecting among the possible system and technology options which are likely to best meet desired goals and objectives, and thus warrant detailed study (Armour, 1991). Therefore, this stage identifies the technological requirements associated with each option (i.e. land area, infrastructure, servicing, transportation) and assesses their relative effectiveness, risks and costs. The goal of this stage is to select a specific type of facility to meet the established objectives and to provide basic inputs into the site search activities (Figure 2.2). For waste management, key and often contentious issues at this stage include such matters as whether to develop an integrated or partial system of waste management, whether to opt for a centralized or decentralized system, and whether and to what extent to pursue joint public/private sector initiatives (Armour, 1991, pp. 32-33).

Finally, the last stage in the facility siting process is the site search. Basically, this stage involves two broad activities: area and site screening, and site evaluation and selection. Area and site screening is the process whereby a list of candidate areas (and within these, candidate sites) are selected for further consideration, while site evaluation and selection involves the detailed comparative assessment of candidate sites so that the most suitable site can be identified (Armour, 1991). It is at this stage in the process that the various

Figure 2.2
System/Technology Assessment



(Adapted from Armour, 1991, p. 33)

environmental, engineering, economic and social factors taken into account must be combined into some sort of ratings system to facilitate comparison and choice (Armour, 1991, p. 33).

There are several methods that can be used to assess candidate sites to select the preferred location. However, because these methods rely on arbitrary weights to account for the various environmental and social factors in the decision making process, it is often open to debate as to which weighting system produces the best or optimal site (McAllister, 1980). Therefore, because this final stage is often the most visible stage in the entire decision making process, it is also the most controversial (Armour, 1991).

Therefore, the site selection process normally involves the establishment of goals and objectives, system/technology assessment and a site search. While in reality the process does not always adhere to the linear problem solving fashion implied in Figure 2.1, these are viewed as the basic components of any site selection process (Armour, 1991). However, this approach to facility siting does have some serious shortcomings.

While the approach outlined in Figure 2.1 does follow a logical approach to site selection (gradually filtering all alternatives down to one final decision) it has been criticized for its top-down approach (Kowalski, 1987). The basic social argument made against this approach is that it imposes a decision upon the public, often evoking a 'why us' reaction (Armour, 1990a; Kowalski, 1987). Moreover, authors have deemed rational decision making to be fundamentally impossible:

> It is difficult for any proponent to maintain that it was rationalism that guided the initial formation of goals and objectives (the first component of the site selection process) or the determination of what value 'ought' to be placed on each. Similarly, it is difficult for proponents to maintain that the criteria used to define 'need', to screen sites, or to evaluate alternative technologies were objectively derived

> and are not value-based. Finally, as for the 'it's in the public interest' line of defense, it is difficult (if not impossible) for proponents to demonstrate unequivocally that the choices made are, in fact, the ones with the highest expected social value and reflect overall public preferences.
>
> (Armour, 1991, p. 36)

Therefore, the final interrelated explanation for the problems associated with siting waste management facilities offered by Armour (1991) is a flawed siting process.

However, while the criticisms made by Armour (1991) and other authors of the rational decision process are indeed valid, the siting paradox still remains. What are municipal governments supposed to do to locate a needed waste management facility without considerable controversy?

A consistent approval process is perhaps the best alternative. Consistent treatment, although not always 'fair' to all parties involved, at least provides a benchmark to which all decisions can be compared. Moreover, a set of consistently applied procedures could then be improved upon to address the concerns raised in the literature on public participation standards and environmental requirements. To this end, the Planning Act, Environmental Protection Act and Environmental Assessment Act are designed to provide the common standards for Ontario municipalities to guide their approval process. Unfortunately, these provincial regulations have been criticized for being unclear and incompatible.

2.3 The Problems Associated with the Provincial Legislation

Land use planning in Ontario is regulated by the provisions of the Planning Act, Environmental Assessment Act and Environmental Protection Act. However, because these Acts were developed separately it has been suggested

that there is a lack of cohesion and consistency between them (Appendix A) (Sewell et al., 1993; Doering et al., 1991; Armour, 1990b).

The Planning Act, which is the principle Act regulating land use planning in Ontario, has been in force since 1946. It was designed to regulate the explosive growth that occurred after World War II and, although updated since this period (1983 & 1990), the aims and substance of municipal planning have remained virtually unchanged (Doering et al., 1991).

In contrast, the Environmental Protection Act and the Environmental Assessment Act have existed only since 1971 and 1975 respectively. These Acts were established to reflect the growing public concerns over the negative environmental consequences of development. However, the Environmental Assessment Act, which was intended to operationalize the Environmental Protection Act, did not recognize the fact that there was an established statutory process for regulating land uses already in existence (i.e. the Planning Act) (Doering et al., 1991). In fact, the Consolidated Hearings Act R.S.O. 1981, which allows for a proposal that is subject to both the Environmental Assessment Act and the Planning Act to be approved by a Joint Board, is the only formal acknowledgment of a link between these two processes. As a result:

> The absence of provincial leadership has lead to an unbalanced situation in which municipalities take different approaches to environmental matters: some ignoring them, while others do what they can, with varying degrees of success. These piecemeal and inconsistent approaches.... make it hard for developers to know the rules of the game.
>
> (Doering et al., 1991, p. 39)

The problems created by the lack of cohesion between these Acts has a special significance for waste management planning. All waste management facilities can be subject to the provisions of the Environmental Protection Act, the Environmental Assessment Act, and the Planning Act. Therefore, the lack of

consistency and confusion inherent in these Acts often creates long delays in the approval process for waste management facilities.

Although the literature has been exhaustive in the treatment of issues surrounding the approval process for waste management facilities (i.e. landfill sites and incinerators), studies on ancillary uses, such as MRFs, have been rare. While recycling has become a recommended waste management strategy as a means of coping with the landfill crisis, an adequate approval process for the establishment and location of facilities to handle these recycled goods has yet to be fully established. In the absence of this approval process an ad hoc approach has been adopted by municipalities in the location of recycling facilities (Zambrano, 1994), which is inherently inconsistent on a province wide basis (Ministry of the Environment, 1991).

An inconsistent approval process can lead to appeals and protests regarding the site selection process. In fact, there has already been a hearing by the Joint Board regarding the site selection process used to site the City of London's MRF in the Township of Westminister in 1988. This hearing may be a sign of things to come as municipal recycling initiatives intensify. As a result, research must be undertaken to mitigate the consistency concerns surrounding the establishment and location of MRFs.

CHAPTER THREE
Methodology

3.0 Introduction

Based on the progression of land use planning regulations in Ontario, it is logical to assume that there must be a consistent set of procedures governing the establishment and location of MRFs. Therefore, the provincial regulations under the Environmental Protection Act should be reflected in, and operationalized by, the new 3Rs Regulations. In addition, the various municipal planning policies for MRFs (which are based on the provincial legislation) should maintain similar intents. Finally, municipal planning policies regulating an individual MRF should correspond to the planning policies governing all other MRFs in that same municipality. Satisfaction of these three elements would indicate a consistent approval process for MRFs.

In order to determine if these three elements of a consistent MRF approval process exists in Ontario, a series of objectives has been developed for this study. These objectives are:

1. To determine if any changes have been made to the provincial approval process for MRFs as a result of the introduction of the new 3Rs Regulations;

2. To determine if any inconsistencies exist between various municipalities with respect to planning strategies for MRFs; and

3. To examine the actual planning treatment of existing MRFs, through an in-depth investigation of a selected case study municipality.

3.1 Objective One

In order to fulfill objective one, the existing provincial policies under the Environmental Protection Act will be compared to the new provincial legislation, the 3Rs Regulations, using the analytical instrument depicted in Appendix B. Since the purpose of developing new legislation is to improve upon past regulatory inconsistencies and omissions, the intent of this objective is to determine if clarifications have been made to such issues as definition of what constitutes recyclable material, the different types of MRFs, and which MRFs are explicitly exempt from the certificate of approval [1] process. The results of this analysis will be summarized in chart format and used to determine if the provincial regulations under the Environmental Protection Act are reflected in, and operationalized by, the new 3Rs Regulations.

In addition, a discussion of the potential shortcomings within the Environmental Protection Act and the 3Rs Regulations will follow this regulatory analysis. The intention of this discussion is to suggest potential areas of weakness in the 3Rs Regulations and the Environmental Protection Act that may lead to inconsistent interpretations by municipal governments and therefore, potential land use planning conflicts. These identified areas of weakness in the provincial regulations will then serve as the basis for the development of an analytical instrument to examine the existence of any inconsistencies between various municipalities with respect to planning strategies for MRFs.

3.2 Objective Two

The second objective of this study is to determine if any inconsistencies exist between various municipalities with respect to planning strategies for

[1] A certificate of approval is a license granted to a waste management facility under the provisions of the Environmental Protection Act (s. 27).

MRFs. For the purposes of this study, the cities of Etobicoke, Guelph, Hamilton, Kitchener, Mississauga, North York, Oakville, St. Catherines, Waterloo, and Windsor have been selected as study areas. These areas were selected because each possesses a number of MRFs within the jurisdiction of their local planning departments.

However, the selection of Etobicoke, Guelph, Hamilton, Kitchener, Mississauga, North York, Oakville, St. Catherines, Waterloo, and Windsor as case studies does not mean that the MRFs operating in these areas are typical of all Ontario municipalities. Moreover, while this study recognizes the limitations of the case study approach as noted by Pinch (1985), it must be emphasized that all Ontario municipal planning departments must operate within the legal framework of the Planning Act, Environmental Assessment Act and Environmental Protection Act. As such, the legal guidelines that govern the approval process for areas outside of the selected study areas are the same as those that govern the approval process for Etobicoke, Guelph, Hamilton, Kitchener, Mississauga, North York, Oakville, St. Catherines, Waterloo, and Windsor.

In order to document the planning approval procedures for MRFs in the selected study areas, all of the relevant land use planning documents including the Official Plan, Zoning By-laws, Site Plan Control Agreements, and in-house policy statements, will be consulted for each city. All of this information will be collected using the analytical instrument depicted in Appendix C, for the purposes of comparison.

The second element of a consistent approval process for MRFs is indicated by each study municipality adopting similar planning strategies for MRFs. In order to assess this second element of a consistent approval process for MRFs, it is necessary to develop evaluative criteria. Table 3.1 depicts the 'ideal' planning

requirements for MRFs, based on the 'ideal' satisfaction of locational, legal, and consistency requirements. These evaluative criteria were developed by satisfying the requirements of the 3Rs Regulations, the Environmental Protection Act, the Guidelines on the Separation Distance Between Industrial Facilities and Sensitive Land Uses (Ministry of the Environment, 1992a), and the Waste Reduction Office Initiative Paper No. 1 (Ministry of the Environment, 1992e). In short, these are the 'ideal' planning requirements which should be followed, according to provincial documents.

The individual planning procedures for MRFs in each of the study municipalities will be evaluated in accordance with these evaluative criteria. The results of this evaluation will be depicted in chart format. As a result, this chart will foster discussion regarding the degree of satisfaction of the 'ideal' MRF planning procedure in not only each municipality, but in the entire sample population. This discussion will also be used to determine if, in fact, the second element of a consistent approval process for MRFs, that the study municipalities have adopted similar planning strategies for MRFs, has been satisfied.

Table 3.1
The 'Ideal' Provincial Planning Requirements for MRFs

1. Within the Official Plan
   a) MRFs are a recognized land use.
   b) MRFs are not permitted as-of-right in all Official Plan land use designations.

2. Within the Zoning By-laws
   a) A specific zoning bylaw regulates MRFs.
   b) MRFs are not allowed as of right in all industrial zones.
   c) MRFs are allowed in only in the 'Heavy Industrial' or 'Medium Industrial' zoning categories.

3. Within Staff Reports
   a) MRFs have been the subject of staff reports.
   b) Changes to the planning strategies for MRFs have resulted from these staff reports.

3.3 Objective Three

The third objective of this study is to examine the actual planning treatment of MRFs in a selected municipality. In order to facilitate this examination, the City of Mississauga will serve as the case study municipality. Mississauga was selected from the ten municipalities used in objective two, based on the fact that it has the most public and private MRFs operating within its jurisdiction (Table 3.2).

Table 3.2
Estimated Number of Public and Private MRFs Operating Within the Study Areas

Study Area	Number of Facilities*
Etobicoke	12
Guelph	3
Hamilton	17
Kitchener	17
Mississauga	89
North York	8
Oakville	6
St. Catherines	8
Waterloo	12
Windsor	14

* Note: These numbers are based on the estimated number of facilities operating in these areas based on an amalgamation of sources and may not reflect the actual number of facilities operation in these areas.

(Sources: Essex-Windsor Waste Management Committee, 1993; City of Mississauga, 1993; Regional Municipality of Waterloo, 1993; Wastewise, 1992)

To ensure comparison, each of the 89 MRFs operating within Mississauga will be examined using the analytical instrument depicted in Appendix D. This information will then be synthesized based on the following criteria:

1. Certificate of approval status;
2. Official Plan designation;

3. Zoning designation; and
4. Separation distance from residential areas.

Once all of the MRFs have been examined in Mississauga, a comparison of the regulations governing each MRF will be presented in chart format. This chart will be used to address the final element of a consistent approval process for MRFs, similar municipal planning regulations should govern all MRFs in one municipality.

In order to facilitate the examination of this final element, it is necessary to develop evaluative criteria. Table 3.3 depicts the 'ideal' planning regulations governing MRFs in the City of Mississauga. These criteria were developed by satisfying the requirements of the City of Mississauga's Official Plan, Zoning By-laws and Staff Reports which regulate the establishment and location of MRFs in the City. In short, these requirements represent the 'ideal' planning regulations which should govern the establishment and location of all MRFs in Mississauga.

Table 3.3
The 'Ideal' Planning Requirements for All MRFs in the City of Mississauga

1. Certificate of Approval Status
   a) All MRFs operate with a certificate of approval.

2. Official Plan Designation
   a) All MRFs are on lands designated 'Waste Management', 'General Industrial' or 'Heavy Industrial' in the Official Plan.

3. Zoning Designation
   a) All MRFs are on lands zoned 'M1', 'M2' or 'O1-855'.

4. Separation from Residential Areas
   a) All MRFs are 800m from the nearest residential areas.

The individual regulations governing the 89 MRFs in Mississauga will then be evaluated in accordance with these evaluative criteria on the degree of

'ideal' satisfaction with the planning requirements for MRFs in Mississauga. These results will be depicted in chart format and used for discussion purposes. The discussion will be used to determine if the individual MRFs operating within Mississauga are treated consistently under the planning regulations which governed their establishment and location.

3.4 Summary

Therefore, this study will examine the allegation of inconsistencies in the provincial and municipal approval process for MRFs. The findings of this study will then be used to either to support the need for revised legislation to better guide the approval process for MRFs or conversely, to imply that the existing regulations under the Environmental Protection Act and 3Rs Regulations are sufficient to guide the municipal approval process. Armour (1991 &1990), Lang (1990), Ziess (1990), Wlodarcyzk (1990), Kowalski (1987), and Wolpert (1970) have all asserted that inconsistencies exist within the municipal treatment of waste management issues in general. This analysis strives to examine these accusations for the specific waste management issue of land use planning concerns surrounding the establishment and location of MRFs.

CHAPTER FOUR
Analysis

4.0 Introduction

The analysis of the provincial and municipal approval process for MRFs has been broken into four sections. The first section examines the provincial approval process for MRFs to determine if any changes have been made to the provincial approval process for MRFs as a result of the introduction of the new 3Rs Regulations. The next section examines the municipal policies governing the establishment and location of MRFs in selected study municipalities to determine if inconsistencies exist between the various municipalities with respect to planning strategies for MRFs. The third section provides an in-depth case study of the actual planning treatment of existing MRFs in the City of Mississauga. Finally, the last section of this analysis summarizes the results of the three previous analysis sections and discusses the implications of this analysis.

4.1 The Provincial Approval Process for MRFs

The first objective of this study is to establish what, if any, changes have been made to the existing Environmental Protection Act approval process forMRFs as a result of the introduction of the new 3Rs Regulations. In particular, the intent of this objective is to determine if clarifications have been made to such issues as the definition of what constitutes 'recyclable material', the differentiation between the various types of MRFs, and the exemption process for certificates of approval. The results of this analysis will then be used to determine if the provincial regulations under the Environmental Protection Act are reflected in, and operationalized by, the new 3Rs Regulations.

4.1.1 The Environmental Protection Act

Prior to the legal adoption of the new 3Rs Regulations R.S.O. 1994 the approval process for MRFs was determined, in large part, by the provisions contained in Part V - Waste Management of the Environmental Protection Act. According to Regulation 309 under the Environmental Protection Act 'recyclable material' can be defined as:

> ...waste transferred by a generator and destined for a site,
> (a) where it will be wholly utilized, in an on-going agricultural, commercial, manufacturing or industrial process or operation used principally for functions other than waste management and that does not involve combustion or land application of waste,
> (b) where it will promptly be packaged for retail sale, or
> (c) where it will be offered for retail sale to meet a realistic market demand,
>
> but does not include,
> (d) hazardous waste or liquid industrial waste unless the transportation from generator to site is direct, and
> (e) used or shredded or chipped tires.

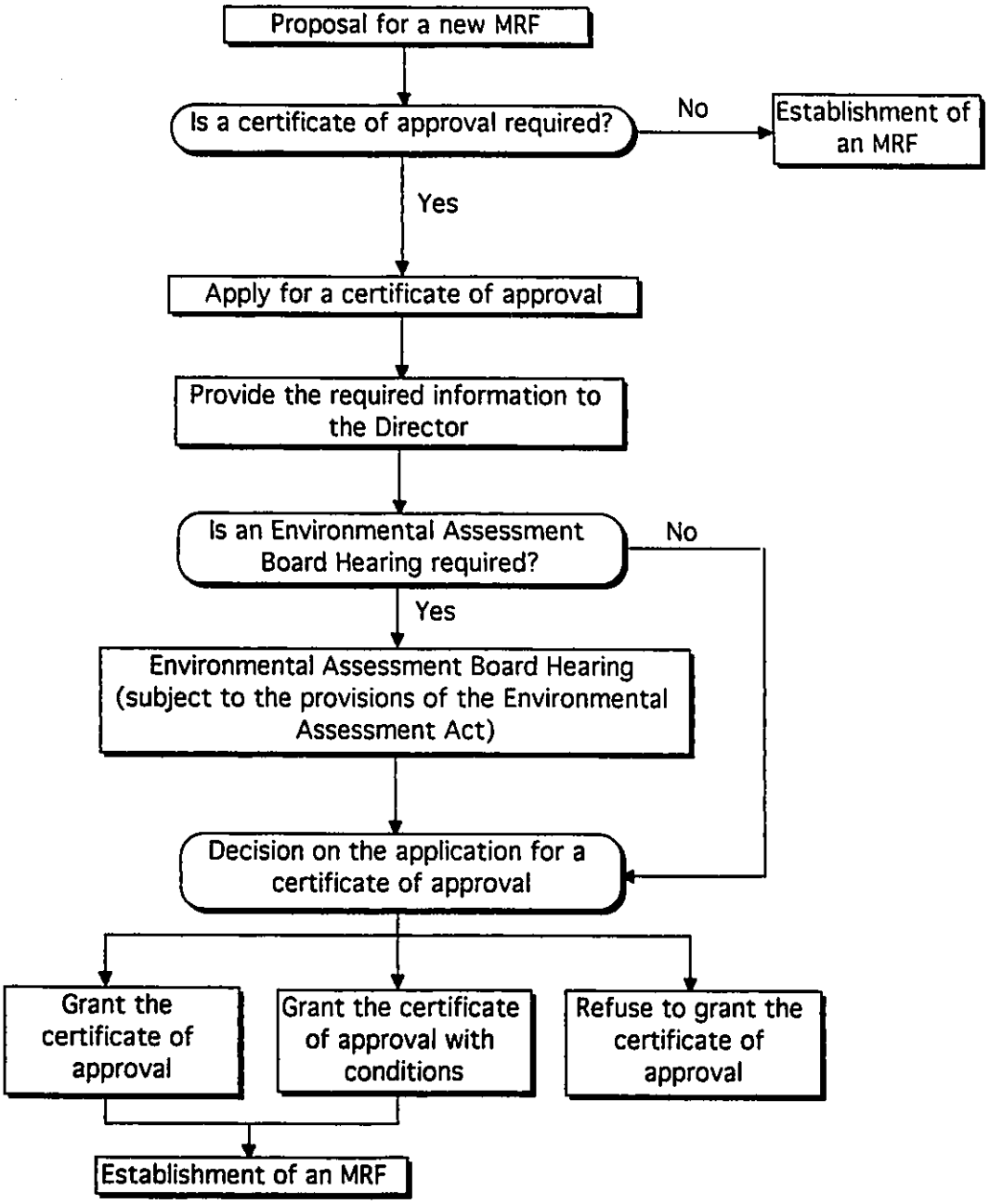
According to the Environmental Protection Act, all sites which handle waste require a certificate of approval:

> No person shall use, operate, establish, alter, enlarge or extend,
> (a) a waste management system; or
> (b) a waste disposal site,
> unless a certificate of approval or provisional certificate of approval therefor has been issued by the Director and except in accordance with any conditions set out in such certificate.
>
> (Environmental Protection Act R.S.O. 1990, s. 27)

In order to obtain a certificate of approval, an applicant must follow the procedures of the Environmental Protection Act. A general synopsis of these procedures is outlined in Figure 4.1.

The certificate of approval process begins with a decision by the Ministry of the Environment as to whether or not a certificate of approval is required for a

Figure 4.1
Approval Process for MRFs under the
Environmental Protection Act



proposed MRF. If a certificate of approval is required, the proponent must submit an application for a certificate of approval under Section 38. According to Section 38, the applicant must provide "all plans and specifications of the work to be undertaken together with such other information the Director may require". Next, the Director decides whether or not a hearing by the Environmental Assessment Board is required. If a hearing is required, the Environmental Assessment Board hearing is held under the provisions of the Environmental Assessment Act. Alternatively, if a hearing is not required, or after the Environmental Assessment Board hearing has been held, the application for a certificate of approval is forwarded to the Director for a decision. In the decision on the certificate of approval, the Director may:

(a) refuse to issue or renew,
(b) suspend or revoke; or
(c) impose, alter or revoke terms and conditions in,

a certificate of approval or provisional certificate of approval where,
(a) the waste management system or the waste disposal site does not comply with the [Environmental Protection] Act or the regulations;
(b) the Director considers, upon probable grounds, that the use, establishment, operation, alteration, enlargement or extension of the waste management system or waste disposal site may create a nuisance, is not in the public interest or may result in a hazard to the health and safety of any person.

(Environmental Protection Act R.S.O. 1990, s. 39)

Yet although this approval process may seem straightforward, within the Environmental Protection Act there are several discretionary powers given to the Director which, if used indiscriminately, can create an inconsistent approval process for MRFs (Ministry of the Environment, 1991). For example, under Section 32 of the Environmental Protection Act the Director may require a hearing by the Environmental Assessment Board on the certificate of approval. However the Environmental Assessment Act, which governs the operation of the Environmental Assessment Board, is only enforceable on public undertakings.

Unless the Minister specifically designates a private undertaking subject to the Environmental Assessment Board process, a private MRF undertaking is not governed by the provisions of the Environmental Assessment Act (Doering et al., 1991). As a result, while any public MRF can be subject to a hearing by the Environmental Assessment Board, a similar private undertaking would rarely be subject to a similar hearing (Doering et al., 1991).

In fact, a survey of all Environmental Assessment Board hearings and Joint Board [1] hearings between 1980 and 1993 revealed that no private MRF has ever been the subject of a hearing under the Environmental Assessment Act. Conversely, the same survey revealed that three public MRFs had been subjected to Environmental Assessment Board/Joint Board hearings. As a result, inconsistencies exist between the treatment given to public and private MRF operations through the Environmental Assessment Board process.

Moreover, the discretionary powers given to the Director in Section 38 of the Environmental Protection Act can lead to further inconsistent treatment of MRFs. As noted previously, Section 38 of the Environmental Protection Act states:

> An applicant for a certificate of approval shall submit to the Director plans and specifications of the work to be undertaken together with such other information the Director may require.

Questions must be raised regarding what 'other information' the Director may require. The Environmental Protection Act does not specify what must be included as a part of the submission for the certificate of approval, other than the "plans and specifications of the work to be undertaken". As a result, relevant 'other information' included in one application may not be included in another application. Without a list of specific information to be contained within a

[1] The Joint Board allows a hearing subject to both the Environmental Assessment Act and the Planning Act to be held together under the provisions of the Consolidated Hearing Act.

certificate of approval application, applicants are able to submit different applications, and presumably get similar decisions regarding the granting of a certificate of approval for a MRF. As a result, inconsistent decisions could potentially occur in similar cases where different information was submitted to the Director.

Another area of the Environmental Protection Act which may allow for inconsistencies is contained within Regulation 309 (Ministry of the Environment, 1991). As noted previously, Regulation 309 defines 'recyclable materials' as:

> ...waste transferred by a generator and destined for a site,
>
> (a) where it will be wholly utilized, in an on-going agricultural, commercial, manufacturing or industrial process or operation used principally for functions other than waste management and that does not involve combustion or land application of waste,
> (b) where it will promptly be packaged for retail sale, or
> (c) where it will be offered for retail sale to meet a realistic market demand.

By defining 'recyclable material' as a 'waste' all MRFs should be required to obtain a certificate of approval. However, if one defines 'recyclable material' as a 'resource', instead of as a 'waste', the certificate of approval requirement may be waived (Ministry of the Environment, 1991). For example, Wastewise, a private MRF in Halton Hills, operates without a certificate of approval. Although Wastewise collects all blue box materials and "virtually all other forms of non-hazardous household waste - from old sinks, to toaster ovens, to twist ties " it operates as a 'resource centre' and therefore has been allowed to operate without a certificate of approval (Kranias, 1993, p. 15).

As a result, a semantical change in the definition of what constitutes 'recyclable material' can exempt a MRF from obtaining a certificate of approval designed to ensure the safe and efficient treatment of waste. Although Wastewise may be an atypical example of this semantical difference, it does

demonstrate a significant loophole in the Environmental Protection Act that has contributed to an inconsistent approval process for MRFs.

A final flaw in the Environmental Protection Act is that it does not specify a minimum separation distance between MRFs and sensitive land uses (i.e. residential areas). Presumably this is why the Ministry of the Environment released the Guidelines on the Separation Distance Between Industrial Facilities and Sensitive Land Uses (Ministry of the Environment, 1992a) and the Waste Reduction Office Initiatives Paper No. 1 (Ministry of the Environment, 1992e) which provide recommended separation distances for industrial land uses and waste management facilities from sensitive land uses. However, because these distance separation standards are not contained within the Environmental Protection Act, municipalities have the option of following these guidelines or setting their own arbitrary separation requirements. As a result, different locational standards for MRFs can be enforced in various municipalities.

In summary, the Environmental Protection Act broadly defines 'recyclable material' to include all 'waste', does not differentiate between the various types of MRFs, and does not specify the exemption provisions required to avoid the certificate of approval process. As a result, wide latitudes can be taken by municipalities in enforcing the provisions of the Environmental Protection Act, leading to the potential for inconsistent treatment of MRFs at the local level.

4.1.2 The 3Rs Regulations

The new 3Rs Regulations were legally adopted in Ontario to assist the Province in reaching its waste reduction goal of 50 percent by the year 2000 by allowing for the rapid approval of municipal MRFs (Ministry of the Environment, 1994). As a result, the new 3Rs Regulations are intended to supplement the existing approval process under the Environmental Protection

Act (Ministry of the Environment, 1994). Therefore, it must be emphasized that the new 3Rs Regulations do not replace all of the requirements of the Environmental Protection Act for MRFs, instead they are intended to clarify and streamline the existing approval process for MRFs.

The new 3Rs Regulations differentiate between three types of municipal MRFs: municipal waste recycling sites, leaf and yard composting sites, and municipal waste recycling depots (Ministry of the Environment, 1994). A municipal waste recycling site is defined as:

> a facility that accepts only materials (source separated or commingled), [as listed in Table 4.1], and transfers them, with or without processing, to secondary material markets for recycling into secondary products. Processing activities can only include sorting, grading, sizing, cleaning, drying, deinking, size reduction, pulping, composting, bailing, packaging, or pelletizing.
>
> (Ministry of the Environment, 1994, p. 11)

Table 4.1
Materials Defined as 'Recyclable Materials' to be Collected by all Municipalities under the 3Rs Regulations

Basic Blue Box Materials (All materials mandatory)	Supplementary Blue Box Materials (At least two materials are mandatory)
- Newsprint	- Aluminum Foil
- Food and beverage containers made of:	- Boxboard and paperboard
- aluminum	- Corrugated cardboard
- glass	- Fine papers
- steel	- Foam plastics
- PET (i.e. plastic beverage bottles)	- Polycoat paperboard containers
	- Magazines
	- Plastic film
	- Paper cups and plates
	- Rigid plastic containers
	- Telephone directories
	- Textiles (excluding fibreglass, carpet)

(source: Ministry of the Environment, 1994, p.4)

Leaf and yard composting sites are defined as:

> ...central facilities that accept only source separated leaf and yard material and wood for composting. The wastes that can be accepted [at these facilities] are limited to common lawn and garden materials, such as leaves, brush, tree trimmings, or grass clippings.
>
> (Ministry of the Environment, 1994, p. 11)

Finally, municipal waste recycling depots are defined as:

> ...locations at which an owner will accept, but not process, source separated materials. The operator [of a municipal waste recycling depot] will simply provide containers into which materials are deposited and, once full, the containers are transported to other recycling sites.
>
> (Ministry of the Environment, 1994, p. 11)

Therefore, the new 3Rs Regulations differentiate between the three types of non-hazardous MRFs.

In addition to differentiating between the three types of non-hazardous MRFs, the new 3Rs Regulations also specify how these facilities can be exempted from obtaining a certificate of approval. To be exempted from having to obtain a certificate of approval for a waste disposal site, municipal waste recycling sites must have all buildings, processing and storage areas located at least 50m from the site's property line (Ministry of the Environment, 1994, p. 11). For a municipal leaf and composting site, a facility can be exempted from obtaining a certificate of approval for a waste disposal site and air emissions if its buildings, processing areas and storage areas are at least 100m from the site boundary and any body of water or water course (Ministry of the Environment, 1994, p. 11). A municipally owned and operated waste recycling depot can be exempted from obtaining a certificate of approval for a waste disposal site if all buildings and storage areas are at least 50m from the site's property line (Ministry of the Environment, 1994, p. 11). Finally, an integrated municipal waste recycling site, or "a site that is located at a manufacturing facility that uses the output of the

recycling site in its manufacturing process", is exempt from the provisions of the Environmental Protection Act entirely (Ministry of the Environment, 1994, p. 11).

Therefore, the new 3Rs Regulations differentiate between three types of municipal MRFs, clearly define what constitutes 'recyclable material', and clarify the exemption requirements for MRFs from the certificate of approval process. However, despite these improvements to the Environmental Protection Act there are shortcomings in the new 3Rs Regulations that may still lead to an inconsistent approval process for MRFs.

First, the new 3Rs Regulations only apply to municipally run non-hazardous MRFs. As a result, while a public non-hazardous MRF can be exempted from the certificate of approval process under the new 3Rs Regulations, a similar private MRF operation can not be exempted from the certificate of approval process. Therefore, there is an unfair time and cost advantage for developers of public MRFs over the developers of private MRFs. This differential treatment of public and private MRFs is surprising given that there are numerous private MRFs projected to be established in the next couple of years (Zambrano, 1994) which, if approved quickly, would help the province meet its waste reduction goal of 50 percent by 2000.

Secondly, although the new 3Rs Regulations specify distance separation requirements for the various types of MRFs, the distance separation requirements contained in these regulations contradict two earlier Ministry of the Environment reports. The first report is entitled Guidelines on the Separation Distance Between Industrial Facilities and Sensitive Land Uses (Guidelines Report) (Ministry of the Environment, 1992a) and the second is entitled Waste Reduction Office Initiatives Paper No. 1 (Initiatives Report) (Ministry of the Environment, 1992e).

The Guidelines Report, although not specifically designed for MRFs, provides municipalities with the recommended separation distances for industrial uses from sensitive areas. According to this report, a 'sensitive land use' is defined as:

> ...a use associated with residences, schools, hospitals and senior citizen homes or other land uses such as outdoor recreational activities, where humans or the natural environment may be adversely affected by emission from major facilities.
>
> (Ministry of the Environment, 1992a, p. 2)

Light industries are defined as small scale servicing, repair, manufacturing or assembly facilities, and have a recommended separation distance of 60m from sensitive land uses (Ministry of the Environment, 1992a). Medium industries are defined as a place of business where medium scale processing and manufacturing occurs, and heavy outdoor storage of waste material exists (Ministry of the Environment, 1992a). A minimum separation distance of 90m to sensitive land uses is required for these medium scale industries, with the recommended distance separation being 300m. Finally, heavy industrial land uses are defined as large scale manufacturing or processing operations which "have the potential for the release of contaminants that are highly objectionable to nearby sensitive land uses" (Ministry of the Environment, 1992a, p. 4). The minimum distance separation for these land uses to the nearest sensitive land use is 300m.

Therefore, based on the Guidelines Report (Ministry of the Environment, 1992a) the majority of both public and private MRFs would be classified as medium sized industries, with a recommended distance separation of 300m from sensitive uses. However, this distance is six times the required distance separation for municipal waste recycling depots and municipal waste recycling sites, and three times the required distance separation for municipal leaf and composting sites under the 3Rs Regulations. Similar contradictions can also be

found between the Initiatives Report (Ministry of the Environment, 1992e) and the new 3Rs Regulations.

The Initiatives Report (Ministry of the Environment, 1992e) was specifically developed to address issues surrounding waste management facilities. According to this report, certain land uses such as: schools, places of religious assembly, hospitals and other public institutions, are sensitive to recycling industries and a minimum separation distance of 100m is recommended. Therefore, based on this separation distance, the 50m separation distance contained in the 3Rs Regulations for both the municipal waste recycling depots and municipal waste recycling sites, falls short of the recommended separation distance contained in the Initiatives Report (Ministry of the Environment, 1992e).

As a result, unless there have been dramatic improvements in recycling industry technology between 1992 and 1994, it would appear that based on the Guidelines on the Separation Distance Between Industrial Facilities and Sensitive Land Uses (Ministry of the Environment, 1992a) and the Waste Reduction Office Initiatives Paper No. 1 (Ministry of the Environment, 1992e), that the new 3Rs Regulations have greatly underestimated the minimum required separation distances for municipal waste recycling sites, municipal waste recycling depots, and leaf and composting sites from sensitive land uses.

As a result, depending on which of these three minimum distance separations a municipality chooses to follow, there is the potential for inconsistencies between municipalities who adopt the legislated 3Rs Regulations and those who adopted the longer recommended separation distances contained in the Initiative Report (Ministry of the Environment, 1992e) and the Guidelines Report (Ministry of the Environment, 1992a).

In summary, the new 3Rs Regulations have clarified the definition of what constitutes 'recyclable material', differentiated between three types of MRFs, and clarified the requirements for sites to be exempted from the certificate of approval process. However, despite these improvements to the existing regulations in the Environmental Protection Act, it would appear that the potential for inconsistent treatment of MRFs still exists in these new regulations. The failure to extend the new 3Rs Regulations to private MRFs and the contradiction of two earlier Ministry of the Environment Reports (1992a & e), means that these regulations have the potential to further confuse municipalities who attempt to regulate MRFs

4.1.3 Summary of Provincial Policies

By clarifying the definition of what constitutes recyclable material, differentiating between three types of MRFs, and by clarifying the exemption requirements for MRFs from the certificate of approval process, the new 3Rs Regulations have improved the existing approval process under the Environmental Protection Act As a result, since 4 out of the 6 criteria contained in the Provincial Regulations Summary Checklist (Table 4.2) are satisfied by the new 3Rs Regulations, compared to only 1 out of 6 for the existing approval process under Environmental Protection Act, it is determined that the new 3Rs Regulations have clarified the provincial approval process for MRFs. Therefore, the first element of a consistent approvals process for MRFs has been satisfied by the introduction of the new 3Rs Regulations.

Table 4.2
Provincial Regulations Summary Checklist

	E.P. Act	3Rs Reg.
1. Are all MRFs subject to the regulations	Yes	No
2. Do the regulations differentiate between the various types of non-hazardous MRFs?	No	Yes
3. Do the regulations differentiate between the various types of hazardous MRFs?	No	No
4. Are there specific approval requirements for the various types of MRFs?	No	Yes
5. Are the exemption provision for certificates of approval specifically defined?	No	Yes
6. Does the definition of 'recyclable material' include specific examples of materials subject to the provisions of the Act?	No	Yes
TOTAL YES RESPONSES	1	4
TOTAL NO RESPONSES	5	2

4.2 The Municipal Policies

The second objective of this study is to determine if any inconsistencies exist between the various study municipalities with respect to planning strategies for MRFs. In particular, the intent of the second objective is to determine if similar land use planning policies regulating MRFs have been adopted by Etobicoke, Guelph, Hamilton, Kitchener, Mississauga, North York, Oakville, St. Catherines, Waterloo and Windsor. Table 4.3 provides a summary of the ten study municipalities regulations for MRFs.

The results of this survey indicate that out of the ten municipalities surveyed, six municipalities (Guelph, Hamilton, Kitchener, Oakville, Waterloo and Windsor) did not adopt a majority (4 out of 7) of the 'ideal' provincial

Table 4.3
Summary of the Municipal Policies Governing MRF's

'Ideal' Planning Regulations	Etob.	Guelph	Ham.	Kit.	Miss.	N. York	Oak.	St. Cat.	Wat.	Wind.	Total
1. Official Plan Designations											
a. The Official Plan designates MRFs as a recognized land use	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	Y - 5 N - 5
b. MRFs are not permitted as-of-right in industrial areas	Yes	No	No	No	Yes	Yes	No	Yes	No	No	Y - 4 N - 6
2. Zoning Designations											
a. Specific zoning by-law(s) regulate MRFs	Yes	No	No	No	Yes	Yes	No	Yes	No	No	Y - 4 N - 6
b. MRFs are not allowed as-of right in industrial zones	No	No	Yes	No	Yes	No	No	No	Yes	No	Y - 3 N - 7
c. MRFs are only allowed in a medium' or 'heavy' industrial zones	No	No	No	Yes	No*	No	No	No	Yes	No	Y - 2 N - 8
3. Staff Reports											
a. MRFs have been the subject of staff reports	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	Y - 5 N - 5
b. Changes resulted from these staff reports	Yes	N/A	N/A	No	Yes*	Yes	N/A	Yes	N/A	N/A	Y - 4 N - 1 N/A 5
TOTAL	Y- 5 N - 2	Y - 0 N - 6 N/A - 1	Y - 1 N - 5 N/A 1	Y - 3 N - 4	Y - 6 N - 1	Y - 5 N - 2	Y - 0 N - 6 N/A 1	Y - 5 N - 2	Y - 2 N - 4 N/A 1	Y - 0 N - 6 N/A 1	Y- 27 N-38 N/A 5

Note: A response of "Yes" indicates satisfaction of one of the 'ideal' planning procedures for MRFs.
A response of "No" indicates neglect of one of the 'ideal' planning procedures for MRFs.

* Based on the pending changes to the City of Mississauga's approval process.

planning regulations for MRFs. In fact, Guelph, Oakville and Windsor did not adopt any of the 'ideal' provincial planning regulations for MRFs.

In addition, of the seven 'ideal' provincial planning regulations for MRFs, only one 'ideal' regulation had a large discrepancy in responses. While Kitchener and Waterloo only allow MRFs in 'Medium' or 'Heavy' industrial zones, Etobicoke, Guelph, Hamilton, Mississauga, North York, St. Catherines and Windsor all allow MRFs on lands zoned other than 'Medium' or 'Heavy' Industrial, a contradiction of the 'ideal' provincial planning regulations for MRFs.

4.2.1 Summary of the Municipal Policies

Therefore, the results of this analysis indicate that the 'ideal' provincial planning regulations governing the establishment and location of MRFs have not been adopted in the ten study municipalities. Out of a possible total of 70 'yes' responses that would indicate that MRFs are being regulated in accordance with the 'ideal' planning requirements of the Provincial government, only 27 (or 38.5%) were recorded. Moreover, of the ten municipalities surveyed, only four municipalities (Etobicoke, Mississauga, North York and St. Catherines) had adopted more than 4 of the 7 'ideal' provincial planning regulations for MRFs.

Therefore, based on the failure of these municipalities to adopt the 'ideal' provincial planning regulations governing MRFs and the lack of a similar set of regulations governing the establishment and location of MRFs, the second element of a consistent approval process was not found by this study. It would appear that Etobicoke, Guelph, Hamilton, Kitchener, Mississauga, North York, Oakville, St. Catherines, Waterloo and Windsor have adopted their own varied planning policies regulating MRFs independent of the provincial legislation. The results of this analysis would therefore support the allegation made by the

Ministry of the Environment (1991) that there is an inconsistent approval process for MRFs in Ontario municipalities.

4.3 The Manifestations of Municipal Policy - A Mississauga Case Study

The third objective of this study is to examine the actual planning treatment of MRFs in the City of Mississauga. In particular, the purpose of this objective is to determine if similar municipal planning policies govern all 89 existing MRFs in Mississauga. Table 4.4 summarizes the results of this analysis for the 89 MRFs operating in Mississauga.

Table 4.4
Summary of the Planning Policies Regulating All 89 MRFs in the City of Mississauga

	Yes	No
1. Does the MRF operate with a certificate of approval?	40	49
2. Is the MRF on lands designated by the Official Plan as 'General' Industrial, 'Heavy' Industrial or 'Waste Management'?	68	21
3. Is the MRF on land zoned 'M1', 'M2', or 'O1-855'?	86	3
4. Is the MRF 800m from the nearest residential area?	29	60
TOTAL	233	133

Note: A response of 'yes' indicates satisfaction with the 'ideal' planning requirements for MRFs set by the City of Mississauga.
A response of 'no' indicates that the MRF does not comply with the 'ideal' planning requirements for MRFs set by the City of Mississauga.

The analysis of the 89 MRFs operating in Mississauga revealed that 40 of the facilities had a certificate of approval. Although the City of Mississauga does not control the allocation of these certificates (it is a Ministry of the Environment

responsibility), it is none the less interesting to note that over 50% (49 out of 89) of the MRFs in Mississauga are not subject to specific provincial regulations.

The analysis of the planning designations given to the 89 MRFs in Mississauga revealed that, in general, all MRFs in Mississauga are given similar land use planning treatment. Sixty-eight of the 89 MRFs in Mississauga satisfy the 'ideal' Official Plan designations (that being on lands designated by the Official Plan as 'General' Industrial, 'Heavy' Industrial or 'Waste Management'), while 86 of the 89 MRFs satisfy the 'ideal' zoning requirements of the City of Mississauga (that being on lands designated as 'M1', 'M2' or 'O1-855').

However, the analysis of the recommended separation distance for MRFs from residential areas revealed that 60 of the 89 MRFs operating within the City of Mississauga did not comply with the 'ideal' separation distance of 800m set by the Planning Department (City of Mississauga, 1993). This finding represents the largest discrepancy in the 'ideal' planning requirements for MRFs within Mississauga.

However, it should be noted that based on the least stringent separation distance for MRFs from residential areas given by the Province of Ontario (300m in the Initiatives Report) (Ministry of the Environment, 1992a), all but one MRF in Mississauga conforms to the provincial separation requirement. As a result, the failure to satisfy the stringent distance separation standards set by the City of Mississauga may be discounted in favor of the least stringent separation distance recommended by the Ministry of the Environment (1992a).

Similar results were also found when the 89 MRFs were broken down by type (Table 4.5). Using the six classification types for MRFs assigned by the City of Mississauga Planning Department (1993), all of the non-hazardous, hazardous, tire, metal, plastic and organic MRFs operating within the City of Mississauga were found to receive similar planning treatment in each of the 'ideal' planning

Table 4.5
Summary of the Planning Policies Regulating MRFs by Type in the City of Mississauga

MRF Type	Possess a cerificate of approval?	On OP lands designated 'Gen.' Ind., 'Heavy' Ind. or 'Waste Management'	On lands zoned 'M1', 'M2', or 'O1-855'	800m from Residential Areas?	TOTAL
Non-hazardous	Yes - 16 No - 20	Yes - 24 No - 12	Yes - 34 No - 2	Yes - 11 No - 25	Yes - 85 No - 59
Hazardous	Yes - 18 No - 13	Yes -24 No - 7	Yes - 30 No - 1	Yes - 7 No - 24	Yes - 79 No - 45
Tire	Yes -2 No - 2	Yes - 4 No - 0	Yes - 4 No - 0	Yes - 3 No - 1	Yes - 13 No - 3
Metal	Yes - 1 No - 8	Yes - 8 No - 1	Yes - 9 No - 0	Yes - 3 No - 6	Yes - 21 No - 15
Plastic	Yes - 1 No - 5	Yes - 5 No - 1	Yes - 6 No - 0	Yes - 3 No - 3	Yes - 15 No - 9
Organic	Yes - 2 No - 1	Yes - 3 No - 0	Yes - 3 No - 0	Yes - 2 No - 1	Yes - 10 No - 2
TOTAL	Yes - 40 No - 49	Yes - 68 No - 21	Yes - 86 No - 3	Yes - 29 No - 60	Yes - 233 No - 133

Note: A response of 'yes' indicates satisfaction of an 'ideal' planning requirement of the City of Mississauga. A response of 'no' indicates that the MRF does not satisfy an 'ideal' planning requirement of the City of Mississauga.

requirements. Once again, although most of the non-hazardous, hazardous, tire and organic materials MRFs did not meet the City of Mississauga's 'ideal' separation distance of 800m from residential areas, all but one hazardous MRF complied with the minimal separation distance of 300m recommended by the Province (Ministry of the Environment, 1992a).

4.3.1 Summary of Case Study Findings

Therefore, based on the results of this analysis it would appear that the majority of the 89 existing MRFs within the City of Mississauga conform to the 'ideal' planning requirements contained within the City's Official Plan, Zoning By-laws and Staff Reports. Although only 40 of the 89 MRFs operating within the City possess a certificate of approval restricting their operations, this form of regulatory control is not governed by the City and therefore does not reflect poorly on the regulatory framework of Mississauga. It does however reflect poorly on the existing planning policy framework in Ontario.

Despite the City of Mississauga's attempt to enforce stricter regulatory controls on MRFs within its jurisdiction, it is unable to do so because of the hierarchy of planning controls in the Province. The policies contained in the provincial regulations (i.e. the Environmental Protection Act and 3Rs Regulations) take legal precedence over any municipal regulations (i.e. Official Plan policies and Zoning Bylaws). As a result, at a minimum MRF land uses must conform to the provincial standards and not those set by an individual municipality.

Nevertheless, this analysis confirms that MRFs are in fact given similar planning treatment within the City of Mississauga. Therefore, the results of this analysis do not support the allegations of the Ministry of the Environment (1991)

that MRFs receive inconsistent planning treatment as a result of the municipal applications of their own policies.

4.4 Analysis Summary

Therefore, an examination of the provincial and municipal planning policies governing the establishment and location of MRFs revealed that:

1. Changes have been made to the approval process for MRFs as a result of the introduction of the new 3Rs Regulations;
2. The ten study municipalities have adopted varied planning strategies to approve MRFs as a result of the provincial regulatory framework; and
3. MRFs are regulated consistently in the City of Mississauga.

Based on these findings it can be determined that the planning approval process for MRFs satisfies two of the identified requirements for a consistent approval process. The new 3Rs Regulations reflect and operationalize the provisions of the Environmental Protection Act (element 1) and the planning regulations governing all MRFs in one municipality are similar with respect to Official Plan, Zoning and separation distance from residential area requirements (element 3). Therefore, these results indicate that a consistent planning approval process for MRFs exists both in the provincial legislation and in the municipal application of municipal planning policies regulating MRFs.

However, the results of this analysis also indicate that inconsistencies exist in the planning approval process for MRFs between the ten study municipalities. As a result, the second element of a consistent approval process for MRFs does not exist between the municipalities of: Etobicoke, Guelph, Hamilton, Mississauga, North York, Oakville, St. Catherines, Waterloo, and Windsor.

Therefore, the findings of this analysis lend partial support to the allegation made by the Ministry of the Environment that:

> ...(the) approval process for recycling sites have not been consistently applied. This is due in part to the existing definition of recyclable materials in *Regulation 309* under the *Environmental Protection Act* and the substantial growth in the number and types of 3Rs activities that are being proposed.
>
> (p. 4)

The failure of the ten municipalities examined by this study to adopt similar regulations governing the establishment and location of MRFs would indicate that municipalities were not able to adequately apply the provincial requirements for MRFs under the Environmental Protection Act and Regulation 309. Therefore, this finding would support the introduction of the new 3Rs Regulations that reflect and operationalize the provisions of the Environmental Protection Act.

As a result, the provincial and municipal planning approval process for MRFs appears to be consistent. The introduction of the new 3Rs Regulations should clarify the provisions of the Environmental Protection Act sufficiently enough to allow local municipalities to adopt similar planning regulations for MRFs. However, the contradictions between the new 3Rs Regulations and existing Ministry of the Environment reports (1992a & e) and the failure to extend these regulations to private MRFs, may lead to further problems for municipalities who attempt to develop planning regulations for MRFs. As a result, further investigation of the manifestations of the new 3Rs Regulations will be required.

CHAPTER FIVE
Implications

5.0 The Case for an Inconsistent Approval Process for MRFs in Ontario

The allegations made by the Ministry of the Environment (1991) of an inconsistent planning approval process for MRFs in Ontario was found to be only partially supported by this study. A thorough examination of the provincial legislation governing MRFs in Ontario, a comparison of the planning policies of ten selected municipalities, and an in-depth case study of the actual planning treatment of MRFs in the City of Mississauga revealed that only one element of an inconsistent approval process for MRFs could be substantiated by this study. Although this research did not find any differential treatment of MRFs in the City of Mississauga or contradictions between the Environmental Protection Act and the new 3Rs Regulations, it did reveal that the ten municipalities studied tended to adopt different planning strategies for MRFs. As a result, this research reveals the need to clarify the municipal planning procedures for MRFs to ensure a consistent planning approval process for the land uses in Ontario.

While researchers such as Armour (1991 &1990a), Lang (1990), Wlodarcyzk (1990), Ziess (1990), and Furuseth and Johnston (1988) have concentrated on the issues surrounding large waste management facilities such as landfill sites and incinerators, this research extends their work to the relatively new waste management practice of recycling. Although these authors have extensively documented the need for an improved approval process for landfill sites and incinerators, this research extends the need to include ancillary waste management facilities such as MRFs.

Although MRFs may not be considered as 'noxious' as a landfill site or an incinerator, the fact that these land uses handle the waste by-products of human consumption and production means that MRFs have the potential for environmental, spatial, social and political conflicts. As a result, it is in the best interest of the provincial and municipal governments to ensure that there is a consistent planning approval process for MRFs in Ontario.

A set of consistent approval procedures for MRFs might not always produce a satisfactory outcome but would at least ensure that all facilities which handle recyclable material receive similar treatment across the province and within every municipality. Therefore, improvements to the planning approval process for MRFs need to be made if the Province and municipalities of Ontario hope to regulate these land uses in a similar fashion.

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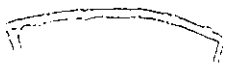
Appendix A
A Comparison of the Planning Act, the Environmental Assessment Act, and the Environmental Protection Act



Note: The information in this table is highly generalized for the purposes of comparison. For detailed and accurate information, references should be made to publications of the ministries of Municipal Affairs and the Environment. The information presented in this table was modified from Doering et al. (1991, pp. 30-31).

	Planning Act	Environmental Assessment Act	Environmental Protection Act
Statutory Purpose	"[P]rimarily to provide guidance for the physical development of a municipality [or unorganized area]..while having regard to relevant social, economic, and environmental matters." (Planning Act, s. 1[h])	"[T]he betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment." (Environmental Assessment Act, s.2)	"[P]rovide for the protection and conservation of the natural environment" (Environmental Protection Act, s.3)
Responsibility	The municipal council, subject to the approval of the Minister of Municipal Affairs, of the regional council, and subject to appeal to the Ontario Municipal Board (OMB).	The Minister of the Environment, who may delegate to the Environmental Assessment Board (EAB); EAB decision subject to alteration by Cabinet.	The Minister of the Environment, who may delegate to the Director, subject to the approval of Cabinet.
Application	All land use under municipal jurisdiction (excludes land and operations of the provincial and federal government).	(At present): all operations or "undertakings" of the provincial and municipal governments and their agencies over a certain values, unless exempted by the Minister; private undertakings only if expressly designated by the Minister.	All operations within the province over a certain size that may affect the environment.

	Planning Act (con't)	Environmental Assessment Act (con't)	Environmental Protection Act (con't)
Approval Procedure	A proposal to change land use or carry out any other operation does not require an approval procedure under the Planning Act if it is in conformity with the current official plan and other instruments, notably the zoning bylaw. This is usual in the case of minor operations, but exceptional for large projects. The following is a summary procedure if an official plan amendment is required (additional steps may be required in some circumstances): - Municipal staff review proposed amendment - Public meeting -Council adopts amendment and submits to Minister or regional council -Amendment approved, or (if substantial) usually referred to the OMB - Minister may declare provincial interest - OMB hearing, or Joint Board hearing if subject to the EA) -OMB or Joint Board decision, if no provincial interest declared.	Approval procedures vary according to circumstances; the outline below applies to the most elaborate. -Proponent submits an environmental assessment (EA) of the proposed undertaking to the Minister. - Ministry review EA; 30 days allowed for public review - Minister accepts EA, refers to EAB (or Joint Board, if undertaking is also subject to OMB approval) - 15 days allowed for further public review, followed by EAB (or Joint Board hearing) - EAB (or Joint Board) decision (approval, approval with conditions, refusal) -Board decision may be altered by Cabinet within 28 days	Approval procedures may vary according to the undertaking; the outline below is for waste management facilities. - Proponent submits an application for a Certificate of Approval (C of A) - Ministry reviews application; 30 days allowed for public review - Ministry grants C of A, or requires a hearing by the EAB -15 days allowed for public review, followed by EAB hearing -EAB decision (approval, approval with conditions, refusal) -30 day appeal period

	Planning Act (con't)	Environmental Assessment Act (con't)	Environmental Protection Act (con't)
Technical Procedure	The Planning Act does not stipulate the procedure to be followed in preparing an official plan or major amendment. The outline of a 'text-book' sequence of steps each involving interaction among the planners, the municipal council, and the public, is: - Identify and evaluate issues and problems - Determine goals - Identify options to reach goals - Select preferred option - Draft plan - Final plan - Approval (see above) - Plan implementation - Monitoring of implementation and effects - Review and revision	The following is an amplification of the procedure established by the EA Act for carrying out and following up an EA: - Establish the need or rational for the proposed undertaking - Identify alternatives to the proposed undertaking - Assess environmental conditions - Identify alternative means of carrying out the undertaking - Assess the environmental effects of the undertaking - Identify means of preventing, mitigating, or compensating for adverse effects - Prepare EA - Approval (see above) - Monitoring of effects - Corrective measures	The following is an amplification of the procedure established by the EP Act for carrying out and following up a C of A: -Submit plans and specifications of the work to be undertaken -Identify means of preventing or mitigating adverse effects - Approval (see above) - Monitoring of preventative measures - Corrective measures and/or fines

Appendix B
Provincial Regulations Checklist

Provincial Regulations Checklist

Title of Act_____
Year of Proclamation_____

1. Are all MRF's subject to the regulations? Yes No

   If no specify ones that are_____

   _____

   _____

2. Do the regulations differentiate between the various types of non-hazardous MRF's? Yes No

   If yes specify how_____

   _____

   _____

3. Do the regulations differentiate between the various types of hazardous MRF's? Yes No

   If yes specify how_____

   _____

   _____

4. Are there specific approval requirements for the various types of MRF's?

   Yes No

   If yes specify_____

   _____

   _____

   _____

   _____

5. Are the exemption provisions for certificates of approval specifically defined?

Yes No

If yes specify_____

_____

_____

_____

_____

6. What is the definition of 'recyclable material"?_____

_____

_____

_____

a) Are examples of the 'recyclable material' given? Yes No

If so, what are they?_____

_____

_____

Additional Comments_____

_____

_____

_____

Appendix C
Municipal Checklist

MUNICIPAL CHECKLIST

Name of City_____

Official Plan Information

1. Does the Official Plan designate MRF's as a recognized land use?
   Yes No

2. Are MRF's permitted as-of-right in industrial areas? Yes No
   If no, specify why not_____
   _____
   _____

3. What is the general Official Plan designation(s) for MRF's?_____
   _____
   _____

Zoning Information

1. Is their a specific by-law regulating MRF's? Yes No
   If yes, specify how_____
   _____
   _____
   _____

2. Are MRF's allowed as-of-right in industrial zones? Yes No
   If no, specify why not_____
   _____
   _____
   _____

3. What are MRF's generally zoned?_____
   _____
   _____

4. Are MRF's permitted in more than one zoning category? Yes No

Staff Report Information

1. Have MRF's been the subject of any staff reports? Yes No
   If yes, specify_____

2. Have any changes resulted from these reports? Yes No
   Specify why/why not_____

Appendix D
Case Study Checklist

CASE STUDY CHECKLIST

MRF Name_____
MRF Address_____

General Information

1. Does the MRF have a Certificate of Approval? Yes No
Comments_____
_____

2. What types of materials does the MRF handle?_____
_____
_____

Official Plan Information

1. What is the Official Plan designation for the site?_____
_____

Zoning Information

1. What is the zoning classification for the site?_____
_____

Separation Distance from Residential Areas

1. What is the minimum separation distance requirement?_____

2. What is the recommended maximum separation distance?_____

3. Does the site conform to the minimum separation distance?
Yes No

4. Does the site conform to the recommended maximum separation distance?
Yes No

Additional Comments_____
_____
_____
_____
_____

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