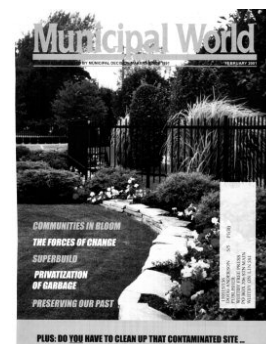


# An alternative approach to Recycling/Waste Management

## Increasing consumer stewardship at the individual household/business level

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This proposal was originally developed many years ago in the form of an editorial comment in the author's newspaper, the Whitby Free Press, during one of Toronto's many garbage crises. Several years later it was expanded and published in the Feb/2001 issue of the magazine **Municipal World** which is widely distributed to Municipal officials and politicians. Since then the proposal has continued to evolve and has been discussed with numerous officials and politicians in Toronto, Durham Region, the Ontario Ministry of the Environment and the Smart Growth Secretariat of the Ministry of Municipal Affairs.



## Summary

Garbage collection as a municipal responsibility only began in the early years of the last century and is only about a hundred years old. Before that everybody was responsible for the safe disposal of their own waste. As a result, most people made choices that resulted in less waste - they practiced the 3Rs - reduce, reuse, recycle - as a matter of course. Once people were able to put anything at the curb and it disappeared, the incentive to control their waste disappeared and now most people produce many, many times the amount of waste as they did a hundred years ago.

It can be argued that our current consumer society, in which producers compete with each other to get us to consume ever more, is an unintentional consequence of universal tax-supported garbage collection. If we were still directly responsible for the disposal of our individual waste, we would never have become so drunk on over-consumption.

This proposal is intended to re-introduce consumer stewardship so that consumers once again are responsible for the quantity and composition of their waste. Consumer stewardship is critical to waste reduction because only when consumers use their buying power to reject poor quality products and excessive packaging will manufacturers stop producing them.

The most often cited alternative, producer stewardship, would require detailed regulation over a massive range of products to achieve the same results. Producers will still need to shoulder their share of responsibility - such issues as standardized containers and bottle deposits are best regulated at the producer level.

In the widespread move in the last 20 years to bring competition into monopoly services (gas, phone, electricity) at the consumer level, it is surprising that garbage disposal was overlooked. This is probably because garbage falls under several jurisdictions within municipal and provincial governments. No single jurisdiction is prepared to take ownership of the file. Bureaucrats are not risk takers – going out on a limb to advocate a new approach could be a career limiting move, especially with several jurisdictions involved.

Under this proposal municipalities would stop collecting garbage as a tax-supported service and would over time assume a purely regulatory role which would include diversion targets.

Individual homeowners/businesses would have two main options:

1) join an approved recycling co-op which would handle the waste disposal of its members. Obviously these co-ops would want to maximize the level of recycling in order to generate revenue, minimize the cost to their members (and hopefully generate a dividend).

2) contract with a private licensed garbage collector. This contract would specify the responsibility of the homeowner/business for an agreed level (or none) of sorting of recyclables with the contract priced accordingly.

These contracts could be highly individualized and most would be charged on the basis of volume.

Government would assume a regulatory role. Not only would they license and regulate the co-ops and collection/disposal companies but they would also set annual recycling targets. Thus a municipality could achieve 70% recycling simply by setting that as the target level for a particular year. It would be up to the contractors and co-ops to figure out their best way to achieve that level and to charge their clients accordingly. Each year the level of recycling required would be increased until it approached 100%.

The criteria for licensing would require that all waste pickup would be auditable in terms of quantity and composition.

## **Consumer Stewardship**

In waste disposal terms, stewardship is most commonly applied to manufacturers accepting responsibility for the reuse/recycling/disposal of their products and packaging.

It is generally agreed that from an environmental point of view, reuse is the best option. However, a manufacturer can only reuse/recycle what gets returned to them. (See the 3Rs below.) Stewardship at the manufacturing level has to work hand in hand with stewardship at the consumer level.

Consumers are the front line and need to become directly involved in decisions of what they use and how they use them. Those decisions affect the cost of waste disposal, and the consumer should be paying those costs in direct proportion to the amount and type of waste they generate. Then they have a specific incentive to make appropriate purchasing decisions.

If consumers have to pay for the disposal of excess packaging, then they will be inclined to purchase products with less. Similarly if they have to pay for the disposal of broken appliances, electronics, toys, etc. they are more likely to purchase products that are more durable or have better warranties. When manufacturers realize that consumers are making smarter choices, they will build better products. Planned obsolescence will decline.

As a result consumers will save money and scarce resources will be better utilized

The current situation where manufacturers are being required to fund blue box programs may solve the municipalities' financial issues but, in itself, it does little to increase recycling.

## **The People Factor**

Blue Box programs depend heavily on people's sense of civic responsibility and their interest in general environmental issues. Some people are keen recyclers; others are not. The former will divert 90% of their waste with maybe a bag of 'other' garbage every two weeks while the latter might put out 5 bags of unsorted garbage. As long as each pays the same on their taxes for garbage disposal, there is no incentive for the latter to change his ways and the recyclers amongst us will be subsidizing his wastefulness.

Municipalities have spent millions on advertising to encourage greater blue box participation with considerable success, but it will take a lot more than persuasion to enlist the participation of the holdouts. Without incentives and/or penalties there will always be a great many who will stay on the sidelines. This proposal provides the necessary incentives.

## **User pay – Subsidies & Choice**

This is not a plan to reduce the overall dollar cost of waste disposal (although it may well do so). It is a plan to increase the reuse and recycling of waste and to maximize the financial recovery of recycled waste streams. Those who seriously embrace recycling by joining a leading edge co-op, will see substantial savings - or even a dividend, but those who don't recycle and continue to make bad purchasing choices will see markedly higher waste disposal costs than at present.

It also eliminates the built-in subsidies that most homeowners currently enjoy on their municipal garbage collection.

Household garbage collection is currently subsidized in most communities by the commercial and institutional sectors who pay taxes for garbage collection and then pay a private contractor on top of that to actually dispose of their garbage. Further, people who recycle are subsidizing those who don't. And finally the manufacturing sector is picking up 50% of the cost of municipal blue box programs through Stewardship Ontario. While this latter subsidy may be appropriate in terms of their responsibilities to recycle the packaging they create, at least some of their contribution might be better spent in areas that encourage reduction and reuse rather than recycling (so that items never enter the waste stream.)

This proposal is also about choice. Consumers and businesses are offered choices as to the level of sorting and recycling they will do themselves and how much they will leave to others. Private enterprise operating in a competitive environment can do this far better than governments. The choice as to whether you can have 2 bags or three, or whether you use clear bags or opaque, or what goes in what bins, would be defined by the contract you sign with whichever licensed contractor or co-op you choose.

## **The first 2Rs**

Since municipalities got into recycling in the late 80s and early 90s the first 2 Rs, reduce and reuse, have received very little attention, yet they are the most direct and the most effective ways of reducing waste.

**Reduction:** The most effective way to reduce waste is to buy less and buy products that are more durable. If shoddy products in excessive packaging cost money to dispose of, consumers will buy less. Manufacturers will respond far faster to reduced consumer demand than they will to government regulation.

**Reuse:** The best and most successful example of reuse in Ontario is beer bottles. At one time, pop bottles also had a deposit but the bottling industry would prefer to make new bottles than reuse old ones so the practice has largely disappeared in Ontario. Sustainability requires that deposit return needs to be revived and extended to numerous other types of containers.

## **Recycling – the importance of sorting**

Sorting is critical in maximizing the effectiveness of recycling.

For used glass to be recycled into new glass, it has to be carefully sorted by colour - mixed glass is essentially worthless with some being used to make fiberglass and some being used as aggregate in road building. When co-ops were managing recycling programs in the 70's and 80's, glass was carefully sorted and markets were found, but when the municipalities took recycling over, they found it too expensive to collect glass by sorted colours. As a result, a large proportion of glass collected for recycling actually goes to landfill even though its separate blue box collection was subsidized with the intent of being recycled.

The same is true for plastics – types and colours need to be kept separate for it to be worth anything. Even paper is valued as the lowest grade unless the higher quality grades are separated out and priced accordingly.

The most efficient place to sort garbage is at the consumer level before anything is broken, mixed or otherwise contaminated. Municipalities and private contractors have set up large sorting plants to remove recyclables from mixed waste but, at best, it is a dirty, expensive, and dangerous job. The argument against consumer sorting is that picking up of 3 or 4 colours of glass and many types and colours of plastic and 3 or 4 grades of paper fibres is just too complicated - not for the consumer, but for the companies picking it up.

The solution to this is recycling co-ops such as those that led the recycling movement in the seventies and eighties. If people transport their recyclables to a depot and sort them into multiple bins, then not only is their no collection cost but the waste - fully sorted - has greater value.

## **Historical Perspective - the changed nature of garbage**

Until about 1900, every individual was responsible for the disposal of their own garbage. Anybody who lives in a home that's more than 100 years old has probably found the remains of a private garbage dump in their backyard with bits of old pottery and glass being the principal 'artifacts'. People composted what they could, burnt some, and buried the rest. While most people would have practiced good stewardship, as populations increased problems with vermin, odours, and aesthetics were inevitable.

Various health and other regulations were enacted and people were required to dispose of their garbage in 'cleaner' ways. In many cases, this meant hiring a private contractor to haul it away to a private dump. (This still happens in many rural areas.)

Eventually this proved insufficient and municipalities got into the garbage collection business themselves. At the time it was a logical solution but over the last century garbage has changed and that change has largely come about because municipal garbage collection changed the dynamics. The consumer no longer had a stewardship role.

As long as people were responsible for their own garbage, they generated as little as possible, but when municipalities took over garbage collection, quantity and composition was no longer an issue - and by the 80s people were disposing of immense quantities of trash with absolutely no sense of stewardship.

Whatever they put at the curb, it disappeared. Out of site - out of mind.

Most damaging to the waste stream was that all kinds of toxic chemicals and other substances entered the waste stream. Not only does this create hazards for garbage handlers, it creates long term problems at both landfill sites and incinerators. While attempts have been made to discourage or even ban some substances from the waste stream, there is little that municipalities can do other than education and hope that people will comply. As long as people can put garbage (including whatever can be hidden) at the curb and it disappears, toxic waste will never be eliminated from the waste stream.

Unless there is a regular program for convenient collection of toxics, they will either end up in regular garbage or simply accumulate in people's homes.

## **Markets for recycled goods**

For about 20 years leading up to the early nineties, recycling was led by groups of dedicated environmentalists who set up cooperatives to separate out as much reusable materials as possible and then find markets for them. In spite of official indifference, they were surprisingly successful. In order to maximize the prices they received, these co-ops had to be particularly sensitive to the requirements of their end-users. So glass, for instance, had to be carefully sorted by colour because any cross-contamination would drastically reduce the price or even render it worthless.

When municipalities took over recycling a lot of this careful legwork was lost and so many municipalities found themselves buried in worthless mixed glass.

Markets for recycled goods even when well-sorted remain volatile because the supply is either insufficient or too variable for industry to stake their future on. Markets will stabilize when quantities and quality become dependable enough that recycling industries will compete for good quality material

The imperative towards recycling has been increased dramatically in the last few years by the fact that all commodities prices are increasing due to depletion of natural resources. As easily extracted raw materials become harder to find, prices of these resources inevitably increase. Right from the beginning of municipal recycling, both aluminum and paper have paid for themselves in resource sales, and as commodity prices increase and sorting becomes better we can expect the overall value of recovered commodities to increase. With oil at \$100 a barrel, even plastics become a resource.

## Composting

Composting has been very helpful in increasing waste diversion but it suffers from all the same limitations as other recycling initiatives, namely some people do it, others don't.

There is also the potential for toxic contamination. There is nothing to prevent thoughtless people from putting motor oil or much worse things into their organic waste and contaminating an entire batch of compost produced. Given human nature some level of such contamination is virtually inevitable - will farmers want it on their fields or gardeners in their gardens?

Properly prepared compost is a resource which will help restore natural nutrients to farmland and improve the nutritional value and safety of our food.

## The role of co-ops

By way of example co-ops will be the driving force behind this proposal. Price is the biggest incentive for anyone to do anything and co-ops will be the cheapest garbage solution simply because they will not be charging for pick up and their sorting will be done by their members. The dollars received for their properly sorted recyclables should more than offset the cost of disposal for those items for which there is, so far, no market, and members should be able to get a dividend for their membership.

One of the principal limitations on the early co-ops of the 70s and 80s was generating sufficient and consistent volumes of certain recycled materials that the marketplace could rely on them. By making certain levels of recycling mandatory, more materials will be generated in usable volumes which will drive further recycling, increase revenues for co-ops, increase dividends for members providing even greater incentives for people to do more recycling.

Convenience will be important to co-ops and at the outset it would be desirable for municipalities to provide space for small depots at readily accessible locations. It would help if municipalities or the province also provided seed money assistance in developing manuals and databases to help co-ops get up and running quickly. Liability insurance is a concern in the waste industry and some government support either financial or in the form of exemptions might be required to make recycling co-ops viable. However, once they are well established, co-ops should strive for self-sufficiency.

In practice, co-ops are likely to form working relationships with each other as well as with private contractors in order to generate larger volumes of certain recyclables.

## The regulatory role of government

In most municipalities, garbage collection is lumped together with everything else on the tax bill and people have no idea what it costs. As a first step that needs to change; garbage needs to be itemized separately; there needs to be transparency. Businesses and apartments which currently hire private operators to haul their garbage have to be able to see the extent that they are subsidizing the wastefulness of others.

From a political point of view, this proposal has the huge advantage that it takes the whole garbage issue out of politics and lets private enterprise provide the solutions. Instead of a few mega

corporations looking for mega solutions, a whole range of businesses of many sizes - some with very narrow perspective, others much broader - could be looking for individual solutions to the hundreds of issues in recycling. Innovation is the great strength of competitive business.

The government's role would be to license co-ops and private operators and ensure that their respective commitments are being carried out. Most importantly, government would set the level of recycling that had to be met each year. How individual contractors or co-ops reached that level would be up to them but the process would have to be open to inspection with numbers that were auditable.

The municipal government would maintain a registry of all taxpayers as to what co-op or operator is contracted to handle their garbage.

One of the big problems municipalities face in operating a garbage collection monopoly is that they have relatively little leverage in ensuring compliance with garbage/recycling by-laws. They can't really refuse to pick up garbage because that creates health compliance issues. In a competitive privately operated system, if a homeowner is not living up to their contract, the contractor can say "shape up, or find a new contractor" and if there is no improvement, they would inform the municipality that the contract had been terminated.

Municipalities, in turn, would have an arrangement with a 'garbage contractor of last resort' for homeowners and businesses who did not have their own arrangement. It would be the most expensive waste collection option and would be added to these people's taxes.

In addition, some specific legislation/regulation will be desirable for specific product types to facilitate high levels of diversion. For instance

- 1) Deposit-return should be regulated in Ontario as it is in virtually every other jurisdiction
- 2) Some level of standardization of packaging would greatly enhance reuse potential.
- 3) The plastics industry might also be asked to standardize plastic formulations as the myriad range of additives complicates their recycling.

Apart from these changes, municipalities would continue to enforce laws with respect to litter, odours, vermin and public health.

## **ICI & Multi-unit Residential**

One of the great challenges to municipalities has been trying to get the Industrial, Commercial & Institutional, and Multi-unit residential sectors to recycle effectively.

The advantage of the proposed system is that municipalities pass that problem to others to solve – which they will.

For example, an apartment owner (as the registered property taxpayer) will be required to arrange the diversion of their tenants waste to the standards regulated by the municipality. The apartment owner will then have to get agreement from the tenants as to how this will be done. The owner will probably encourage tenants to join a co-op and these tenants would receive a tax rebate and the landlord would

get an exemption for those tenants. For other tenants, most apartment buildings already have some recycling program in place and this plan provides the incentive to put real teeth into it.

The alternative would be for the apartment owner to contract for mixed garbage pickup with the contractor doing all the sorting - and charging accordingly. The apartment owner would pass the increased charge on to the tenants.

The institutional sector has been particularly bad – most schools pay only lip service to recycling. If the institutional sector has to pay private contractors to do their sorting for them, most will find a way. Schools in particular are in an ideal position to mobilize the next generation. Conservation and resource recovery should be part of their core mandate.

## **The role of private operators**

When Toronto was amalgamated, there were parts of the city that had twice a week collection and others only once. There were even a few ritzy neighbourhoods where garbage was collected from the rear of the house. Such ‘privileges’ could not be tolerated in the amalgamated city where everybody was paying the same.

Under the proposed private contract system, a homeowner/business could have whatever level of service he was willing to pay for. Free enterprise is far better than governments when it comes to providing choice.

Private contractors might include something as simple as a guy with a pickup truck who contracted with a few neighbours to handle their trash, or as large as a vertically integrated multi-national with its own collection, sorting, and landfill facilities for unrecyclable residuals. In either case, they would enter into a written contract with the homeowner/business and a summary of that contract would be filed with the municipality.

Private operators might also specialize in different aspects of waste disposal, for example, a sorting plant serving a number of collectors. It is likely that at some levels, private contractors would subcontract some recycling to co-ops and co-ops would get rid of their residuals through private haulers. All of these transactions would have to be recorded and transparent to ensure that overall recycling goals were being met.

For recycling goals to work under this system there would have to be a paper trail which tracked all the waste collected, how it was separated, how much recyclables were recovered, of what type and who they were sold to, and how and where the residue was disposed of. This paper trail would have to be maintained even where more than one operator is involved at different levels. Ten years ago this level of documentation would have been very difficult but with barcodes and computer integration, record keeping can be virtually automatic.

Operators would provide regular reports of their activities to the municipalities who would conduct random audits and inspections. Disposalsites for residue waste would be licensed under whatever local jurisdiction where they were located.



## Transitional Phase

As with everything that governments do, some people just aren't paying attention and regardless of the number of notices they receive they will continue to put their garbage at the curb and expect it to be picked up.

The first step to implementing this proposal is to separate garbage collection from the rest of government services and show it separately on the tax bill. A few municipalities have already done this.

Concurrently, a by-law should be passed allowing homeowners/businesses to opt out of municipal collection by joining an approved co-op or contracting with a licensed private collector.

Garbage collection for those remaining with municipal collection would for a while continue as before until the numbers remaining on municipal collection no longer warranted it. The municipality would then contract those remaining to a private carrier. The cost to those remaining under municipal collection will rise dramatically for a few reasons:

- 1) many industrial, commercial, apartment and institutional buildings already have contracts with private carriers and they will opt out immediately, eliminating their involuntary subsidy of municipal garbage collection. However current contracts will have to be renegotiated because contractors will have to be licensed by the municipality and will have to meet the recycling levels set out by the municipality. All businesses, apartments and institutions will have to rethink how they handle their waste in order to minimize costs.
- 2) those who currently generate the least garbage and recycle the most will almost certainly join a co-op. These people have been net-subsidizers of the municipal system.
- 3) the municipal carrier will have to meet recycling standards for those who remain on municipal collection. This means expensive sorting.

In practice, municipal collection should be the most expensive option for the homeowner/ business thus providing the strongest possible incentive to find other alternatives.

## Efficiency

The two most frequent arguments raised against this proposal has been 1) efficiency, and 2) that having multiple vehicles picking up garbage on the streets would generate more exhaust and affect air quality.

- 1) Municipalities have created extremely efficient waste collection systems and this proposal can not achieve the same level of efficiency on an individual basis. But collectively it will greatly increase recycling levels which will provide environmental benefits which conventional alternatives cannot match.
- 2) If everybody continued to have their garbage picked up at the curb, then it is true that many more trucks would be on our streets. However it is anticipated that substantial numbers will opt to carry their own waste to a co-op depot in their own vehicles. These trips would in many cases be combined with other errands and likely on an as needed basis (less frequent than once per week). This would create a reduction in exhaust which would more than offset truck traffic

from those residents still getting private contractor pickup. To further offset the affect of truck exhaust, municipalities could require contractors to use low emission vehicles as part of the licensing process.

## Too Radical?

There is an easy perception that this is too radical a change from the current way we handle garbage. In fact, for most of us, it is a call to do just a little bit more than we already do.

From the municipalities point of view, it is a ‘who does what’ question, and ‘who does it better’

There is the assumption that because municipalities have been collecting garbage for all of living memory, that’s the way it should be. While the roots of municipal waste collection in the early part of the last century were all logical and necessary, they have nevertheless contributed to a gradual but radical change in the composition and quantity of our garbage.

These changes make it necessary to rethink that decision a century ago.

The proposed change is not radical in the broader context of municipal government. For example, planning departments determine through zoning (regulation) what can be built where, but architects and builders actually design and build the buildings (implementation). If you applied the current waste collection paradigm to planning, then municipalities would also build all the buildings. Wouldn’t that be a boring fiasco?

## Conclusion/Advantages

The principal advantage of the proposed system is that it provides a direct financial incentive for people to be more garbage conscious, leading to more recycling and less waste.

In turn, this increased waste consciousness will lead to pressure on manufacturers to produce products which are easier to reuse/recycle. This pressure might be in the form of political pressure but most likely through simple supply and demand economics.

Increased recycling will lead to more stable recyclable markets which will lead to new recycling industries and increased employment and prosperity.

From a political perspective, politicians can stop being the heavies who have to tell people that they have to recycle more, or must compost, or can only put out 2 bags, etc. Instead, they can take the high road and take credit for achieving ever increasing recycling targets. Private enterprise can do the dirty work, for which they will be paid accordingly at rates that they themselves will set.

Municipalities no longer have to struggle with the problem of getting the ICI sector and multi-unit residential buildings to meet targets.

And finally, whatever municipality is first to adopt this proposal, and runs with it, will be able to claim a level of environmental leadership that other communities can only follow.