Report on Public Consultation – Waste Reduction and Recovery Program Expansion

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Northwest Territories Environment and Natural Resources

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1. Summary

The Department of Environment and Natural Resources consulted with residents of the Northwest Territories (NWT) to help decide what additional waste products we should recycle next across the NWT. A discussion paper and questionnaire was designed to inform the public of the options, and allow them to provide feedback on expanding the Waste Reduction and Recovery Program. The discussion included electronics, tires, lead acid batteries, fuel drums, plastic grocery bags, milk containers and paper and cardboard.

In general, people were eager to see the government take action to expand the program. Paper and cardboard products emerged as the number one items to develop a recycling program for. Electronics, milk containers, and lead acid batteries followed, all with similar scores. Plastic grocery bags, tires and fuel drums had less support.

People were generally supportive of imposing fees to pay for recovery and recycling programs or new legislation to regulate the entry of certain items into the NWT. Although paper and cardboard emerged as the first choice for recycling, the fewest people would agree to pay fees to have it recycled. They were most willing to pay fees to have tires recycled, even though tires had a low priority for recycling. Many people said that they would like to see plastic grocery bags banned from NWT stores, or otherwise legislated to reduce consumption. Some people commented that recycling should be easy, user-friendly, and that there should be incentives for participation. Overall, environmental reasons for expanding the recycling program (reducing pollutants, greenhouse gases and landfill waste) were more important to people than economic and administrative or operational costs.

Several respondents stated that communication and education campaigns about reduction and reuse, in addition to recycling, are critical to encourage residents to make positive lifestyle choices for the environment. Other products that people expressed interest in being able to recycle included other types of plastic, tin cans, scrap metal other than fuel drums, waste motor oil and other hazardous fluids, and all types of batteries.

2. Introduction

The Department of Environment and Natural Resources (ENR) distributed two complementary documents to guide the public consultation for the expansion of the Waste Reduction and Recovery Program. The first was a discussion paper – a summarized report to provide a general understanding of the issues surrounding the recovery and recycling of certain products. The second document was a background for the discussion paper – an in-depth report for people who want more details to support the information in the discussion paper. The discussion paper and background document have information about recycling these products:

- Electronics
- Tires
- Lead acid batteries
- Fuel drums
- Plastic grocery bags
- Milk containers
- Paper and cardboard

A questionnaire was developed as part of the discussion paper to encourage people to share their ideas about which products are most important to collect and recycle next through NWT-wide programs. We asked for feedback on the following:

- Which products are the highest priority to start recycling next
- Willingness to pay recycling fees for each product
- Principles used to decide which products are the most important to recycle
- Ideas for a territory-wide program to collect and recycle any of the products in question

Over 2000 discussion papers and questionnaires were distributed to NWT schools, municipalities, current Beverage Container Program depot operators, First Nations groups, government representatives, and other business, community and environmental organizations. All documents were posted on the Environment and Natural Resources website for online responses. A media release for the public consultation was distributed, and it was advertised in newspaper and radio ads throughout the two-month consultation period.

We received 88 responses, the majority of them through the online questionnaire. Other questionnaires were returned by fax, mail, and in person.

3. Results - Overall

3.1 Products Ranked by Priority

Given the list of potential products for recycling, people were asked to rank the products according to the order they believe the programs should happen. We gave the lowest priority product a rank of one, and the highest priority product a rank of seven. We summed the ranks, and the final scores indicate the overall priority for each product (Figure 1). Paper and cardboard clearly had the most support. Electronics, lead acid batteries, and milk containers were next with very close scores. Tires and plastic grocery bags followed, and fuel drums had the least support for a recycling program.

Figure 2 shows the proportions of respondents who chose each product as their top priority for recycling. The greatest proportion of people chose paper and cardboard as their top priority, which corresponds with the summed ranking results. The rest of the products do not necessarily correspond with the summed ranking. While electronics, lead acid batteries, and milk containers all had close scores in the summed ranking, milk containers emerged as the second product that people chose as their top priority (Figure 2). This tells us that, even though electronics and lead acid batteries weren't chosen as peoples' number one priority, they were still often ranked relatively high (second or third) out of the seven products. The summed ranking chart gives us an idea of the overall range of peoples' priorities, and the top priorities chart can help us refine the interpretation and target products that may have had close scores in the summed ranking. Support for milk container recycling is not surprising. During the initial public consultation held before the beverage container program was started, most people had stated that milk containers should be included in the next stage of the program[1]. A summary of the main reasons people had for ranking the products the way they did is in Section 4 of this report.

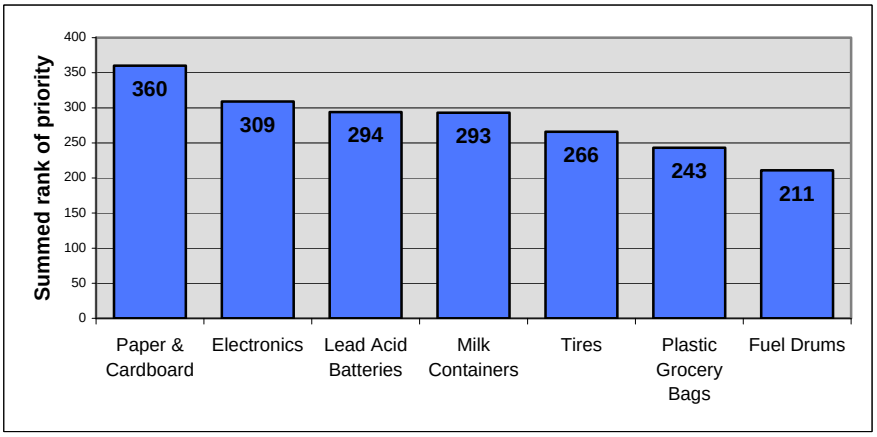

Figure 1. Summed ranking of priority[2]. Highest score = highest priority.

[1] Report on Public Consultation: NWT Beverage Container Recovery Discussion Paper. July 2001.
[2] Some respondents did not rank the products from one to seven. Those responses were not included in this calculation.

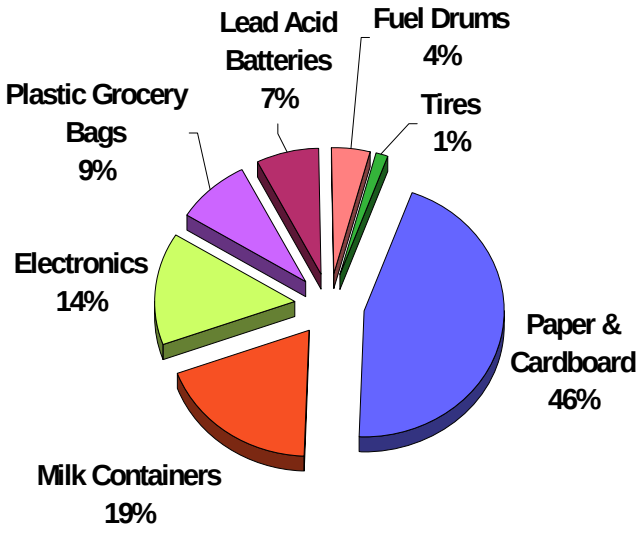

Figure 2. Proportions of respondents who chose each product as their top priority for recycling[3].

3.2 Willingness to Pay Recycling Fees

The majority of people surveyed would agree to pay recycling fees to have territory-wide collection and recycling programs for each of the products (Figure 3). Paper and cardboard had the lowest score of all the products, even though they are the products that people most want recycled. People are most willing to pay recycling fees for tires, even though there was relatively less support for a tire recycling program.

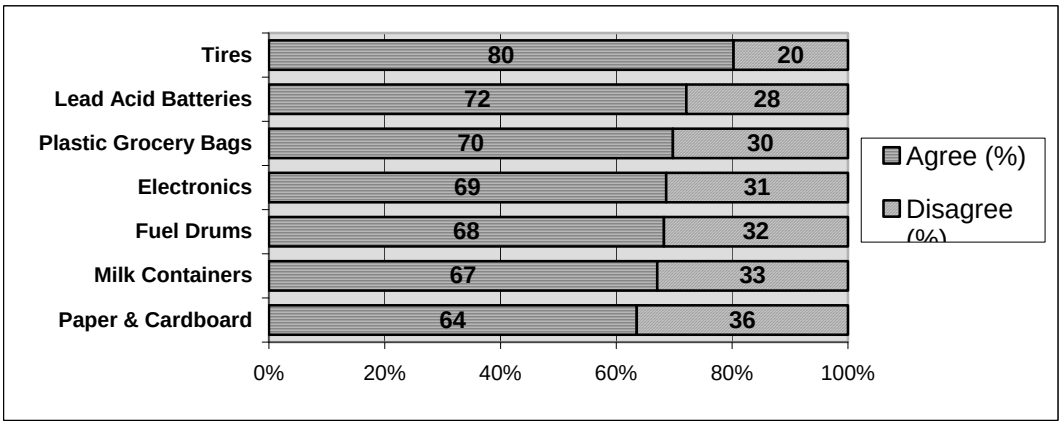

Figure 3. Willingness to pay fees for collection and recycling of the products.

[3]Some respondents did not rank the products from one to seven. Those responses were not included in this calculation.

3.3 Principles Used to Decide What to Recycle Next

When asked if certain principles should be used to decide which products are most important to recycle, most respondents agreed that both environmental and economic factors should be considered. However, environmental reasons such as reducing pollutants, decreasing landfill volumes and reducing energy use and greenhouse gas emissions garnered the strongest support (Figure 4). Obtaining good value from a recycling program was least important, with 32% of respondents disagreeing that it should even be one of the principles.

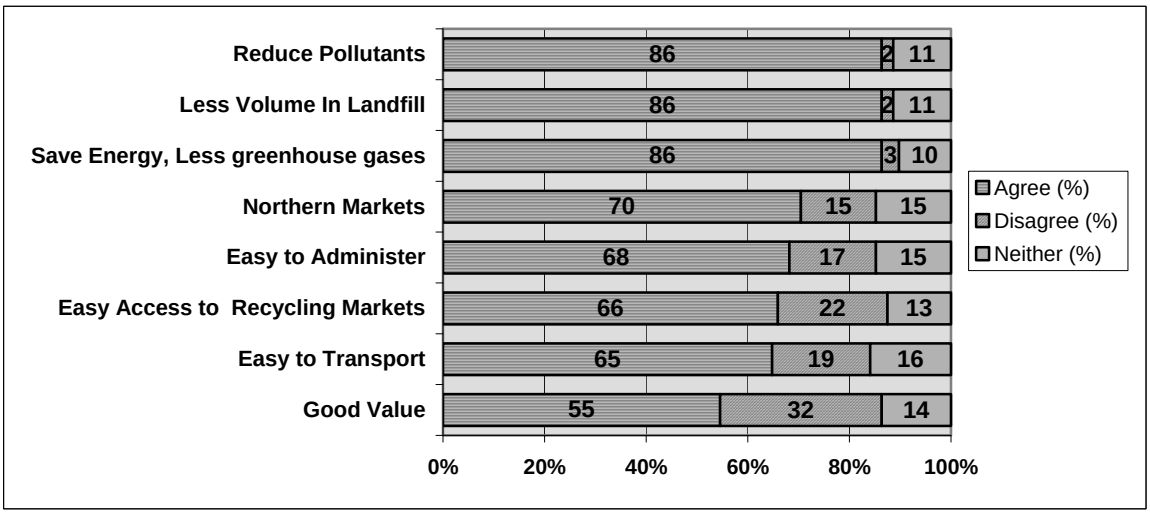

Figure 4. Percentages of respondents who agree or disagree that these principles should be used to decide which products are most important to recycle.

Respondents were then asked to rank the principles from one (less important) to three (most important), if they felt that some principles were more important than others. The ranks were summed, and the pattern of the results was similar to the previous question (Figure 5). Reducing pollutants, decreasing energy use and greenhouse gas emissions, and reducing landfill volumes were most important to people. Access to Northern markets and operational factors were less important, and getting good value from a recycling program was least important.

Respondents gave feedback on other principles the GNWT should consider to help decide which products are most important to recycle next:

- Environmental costs and saving our natural land.
- Cost of the recycling fees to the consumer.
- How easy it will be for consumers to participate. If more individuals are affected, the support will be broader and there will be a higher probability of success.

- The negative environmental cost of recycling itself when items have to be handled, processed and shipped long distances.
- Costs to operate landfills. The cost of diverting materials from the waste stream should be accounted for before any of the products are for sale to retailers and commercial enterprises.
- Support for the existing collection and processing system (to improve financial viability of community depots).
- Benefits must be visible to residents (i.e. people notice plastic bags, but not a reduction in waste tires or lead acid batteries).
- Homeowner desire and will.
- What works in other provinces and territories.
- How biodegradable the item is in northern landfills (excluding toxic materials).
- Which items are renewable.
- How much energy went into the creation of the item in the first place.
- Corporate responsibility. Homeowners should not be expected to take on the burden of recycling for items that businesses have an interest in such as tires, batteries and electronics.
- Opportunities to develop share sheds to capitalize on free recycling. Share sheds are locations where people can leave or exchange used items, rather than putting them in the landfills.
- Job creation.
- Evaluate which items can be decreased through education and media awareness. E.g. can we "get people off" of buying milk in cardboard containers, or buying water in bottles?

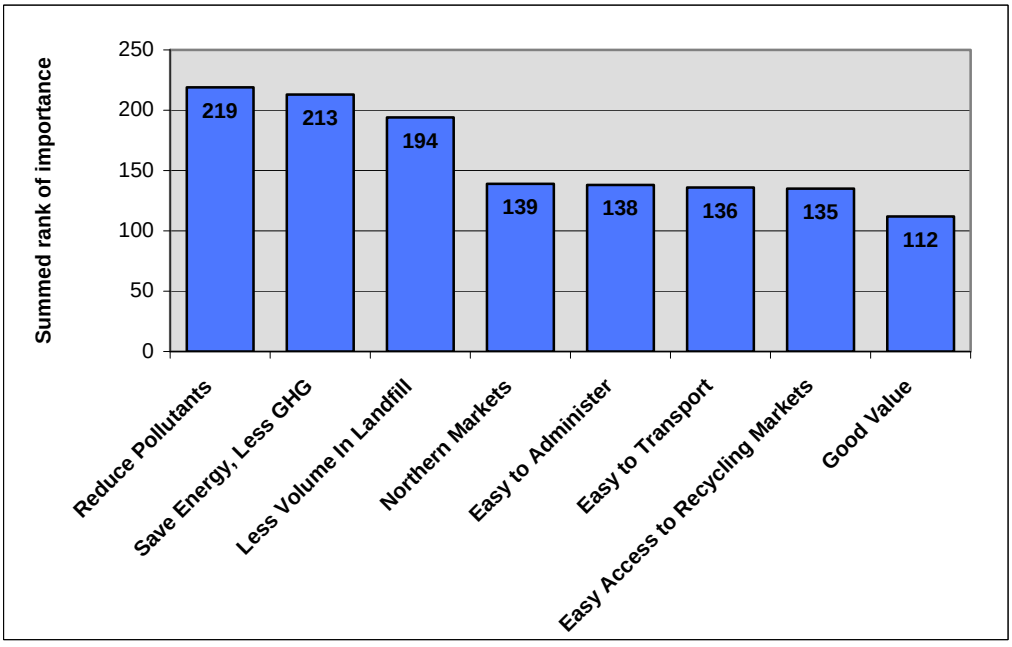

Figure 5. Principles ranked by importance. Highest score = most important.

4. Results - By Product

Paper and cardboard had the highest overall summed score, followed by electronics, lead acid batteries, milk containers, tires, plastic grocery bags, and fuel drums (Figure 1). However, the ranking changes slightly when only the respondents' top priorities are considered. More people chose paper and cardboard as their top priority than any other product, followed by milk containers, electronics, plastic grocery bags, lead acid batteries, fuel drums, and tires (Figure 2).

People gave the main reasons for ranking each product the way that they did. The results below are a summary of the most common responses, as well as any ideas and comments people had for a recycling program for specific products.

4.1 Paper and Cardboard

Paper and cardboard ranked first in both the summed ranking and the top priority ranking.

Main reasons for recycling paper and cardboard

- High volume in landfill
- Easily recyclable
- Reduce CO_{2EQ} or save forests

Main reasons for not recycling paper and cardboard

- Non-toxic and biodegradable
- Large portion of the population (i.e. Yellowknife) can already recycle them

Ideas for a recycling program for paper and cardboard

- Local reuse opportunities could include recycled paper made in the NWT, or as a heating fuel source at the jails or elsewhere.
- Work with communities to compost them.
- Ban from the landfills with strict penalties.
- Cardboard recycling should be mandatory for all businesses and in particular the GNWT.
- Work out some sort of a backhaul deal with the shipping companies that bring in all the cardboard in the first place. Even if the larger stores did this, it would make a big difference.
- Cardboard must begin to be baled and stored in locked storage by the Stores for collection. They can be baled with plastic straps.
- Schools could easily be involved in recycling these products. If the Department of ENR were to find markets for the products, the students would readily support the program.
- Offer a recycled paper pick up service for offices, newspaper vendors and print shops.

Additional comments about recycling paper and cardboard

- They are the easiest items to decompose.
- Recycling can be more harmful to the environment than just scrapping.
- Some business owners have expressed a desire to recycle cardboard because they generate so much.

4.2 Electronics

Electronics ranked second in the summed ranking and third in the top priority ranking.

Main reasons for recycling electronics

- Toxic elements or hazardous to environment
- Amount of recyclable components
- Increasing volume in landfill

Ideas for a recycling program for electronics

- Ban from landfills, combined with a recycling program.
- Separate at landfill right now, in preparation for a future recycling program.
- Set up a user-pay system like in other jurisdictions.
- Contract separation and recycling to a local business.
- Develop an industrial facility to separate and handle the toxic materials. The North could potentially use existing mine mills to become a recycler of some components such as the precious metals from electronics. The cost per ton of recycling electronics produces 17 times more gold than from gold ore and can obviously be cost effective.

Additional comments about recycling electronics

- Growing global concern because technology changes so fast, and the volume of e-waste is growing so rapidly.
- Consumer electronics is a small market share, so industry should take responsibility.
- Trying to give away used computers is difficult, so that cannot be the only option.

4.3 Lead Acid Batteries

Lead acid batteries ranked third in the summed ranking and fifth in the top priority ranking.

Main reasons for recycling lead acid batteries

- Pollutant; Dangerous to environment
- Easily recyclable
- Prevalence and high volume in landfill

Main reasons for not recycling lead acid batteries

- Not a big issue in terms of landfill volume - not replaced monthly, so not a lot of turnover

Ideas for a recycling program for lead acid batteries

- An industrial recycling facility should be developed to address the toxic materials.
- Work with municipalities and auto service companies. Charge fees at point of sale, and return to municipalities or retailers for recycling.
- Have collection centres for these so they are not sent to the landfill.
- Do not charge for collection. Charging to drop off at landfill sites/collection centres (e.g. $4 in Yellowknife) encourages illegal dumping.
- Have an annual pick up in communities.
- Ship down south with electronics for recycling.

Additional comments about recycling lead acid batteries

- Toxic hazard is of great concern to people. Hazardous waste needs to be managed properly.
- There is no safe place to deposit batteries at present (depending on the community).

4.4 Milk Containers

Milk containers ranked fourth in the summed ranking and second in the top priority ranking.

Main reasons for recycling milk containers

- High volume in landfill
- Easy to add to the existing Beverage Container Program
- Affects the most people/Most households across the territory can participate

Main reasons for not recycling milk containers

- Large portion of the population (i.e. Yellowknife) can already recycle them

Ideas for a recycling program for milk containers

- Add to existing Beverage Container Depot system.
- Ban cardboard and Tetra Pak milk containers. HDPE is easily recyclable and worth something. If it is not feasible to ban the cardboard containers, charge a fee for them.
- Devise a method for cleaning out milk containers to make them more acceptable for recycling at the depots.
- Go back to using non-plastic milk containers (cardboard, glass).

4.5 Tires

Tires ranked fifth in the summed ranking and seventh in the top priority ranking.

Main reasons for recycling tires

- Many uses or easily reusable
- High volume in landfills
- Toxic hazard or fire risk

Main reasons for not recycling tires

- Low volume in landfills
- Non-toxic

Ideas for a recycling program for tires

- An industrial recycling facility should be developed to address the toxic materials.
- Work with municipalities, tire retailers and auto service companies. Put recycling fees on new tires that are bought.
- Ban from landfills. Store them in sea cans to be barged out in the summer or sent out on winter roads.
- Tire and auto shops should receive incentives to collect and recycle more.
- A grinder to shred would provide materials for fuel or road construction. Maintain a stockpile of free feedstock for construction companies who would use it.
- A shredder could travel through the territory annually. Can use the same shredder to shred metal fuel drums.

Additional comments about recycling tires

- There are so many of these in our car-dependent society.
- There are so many uses for used tires. Shoes, floor mats, retreaded tires, decking material, blasting mats, roads, playground structures.
- Fires are extremely dangerous.

4.6 Plastic Grocery Bags

Plastic grocery bags ranked sixth in the summed ranking and fourth in the top priority ranking.

Main reasons for recycling plastic grocery bags

- High numbers causing unsightly litter
- Non-biodegradable
- Extremely dangerous to terrestrial and aquatic wildlife

Main reasons for not recycling plastic grocery bags

- Low volumes in landfill
- Many people reuse them
- Priority should be reduction through bans or education campaigns

Ideas for a recycling program for plastic grocery bags

- Ban from grocery stores completely.
- First, start with an education program or promotion to reduce use.
- There are small numbers/volumes, so could use the existing depot system.
- Partner with stores that offer to reuse their own bags if returned.
- Use biodegradable plastic bags.
- People should pay for plastic grocery bags and should be rewarded for bringing their own bags (1% of cost of item(s)).
- Stores should offer an alternative to plastic bags - bins/boxes/cloth bags for purchase.

- Set targets and legislate reduction by large stores.

Additional comments about recycling plastic grocery bags
- There is no incentive to do anything but throw them away.
- Lots of people reuse these bags or take their own to the stores already.
- Consumer awareness is an important part of whatever action is taken.

4.7 Fuel Drums

Fuel drums ranked seventh in the summed ranking and sixth in the top priority ranking.

Main reasons for recycling fuel drums
- Potential environmental contamination from contents
- High volumes
- Ready market for recycling or ability to recycle metal

Main reasons for not recycling fuel drums
- There are already deposits attached to fuel drums and site cleanup initiatives exist.
- It is less relevant to average residents because they are not household items.

Ideas for a recycling program for fuel drums
- An industrial recycling facility should be developed to address the toxic materials.
- Work with fuel distributors. Apply outrageous deposits to fuel drums to provide incentives for returning them.
- Make companies responsible for removing them. This is easy to legislate.
- Have a hydraulic car/metal crusher travel to the communities to crush fuel drums, as well as vehicles, culverts, etc.
- Shred them in Yellowknife, and then ship them to Alberta for recycling. Can use the same shredder to shred tires.

Additional comments about recycling fuel drums
- It will be difficult and expensive to implement a program immediately. Testing the contents of the drums could be expensive if they are not labeled clearly.
- Some people are not familiar with this issue; it does not affect their daily lives.
- They should be recycled before they are corroded and cause leaks.
- Cleaning up the current stockpile would provide an incentive to continue to recycle.

5. General Comments on the Waste Reduction and Recovery Program Expansion

A few respondents indicated that milk containers and paper/cardboard should not be on the list, or did not rank them highly, because they already recycle those products as part of a municipal recycling program. The current roles of the territorial government and the municipalities in collecting and recycling waste products may not be evident.

5.1 Education and Communications

Many people said that communication and public education campaigns on all three "R"s, not just recycling, are very important. *Reducing* consumption and *reusing* materials should be considered before recycling, given the high costs of shipping to markets. Several respondents said that education is key to encouraging people to make wise choices - for example, buying their milk in plastic jugs that can be recycled, or by not using plastic bags.

Suggestions related to education and communications were:

- One of the biggest impacts you can have on getting people to live greener is through education. Start with children, who will then educate their parents and elders.
- Communication of any new recycling initiatives through the media and any other means available (e.g. mail, email, etc) should be a big priority in the implementation stage of this project.
- An insert in the phone Directory is an inexpensive and lasting medium that reaches all communities in the NWT all year round - other provinces do it.
- Have information and workshops in other languages.
- Education about HOW to recycle is just as important as the WHY.

5.2 Fees and Legislation

While most people were willing to pay recycling fees for at least some products, the suggestions ranged from strict legislation of all packaging that enters the NWT to providing financial incentives to make it worthwhile for people to recycle. Overall, there was support for additional legislation to reduce waste.

Suggestions related to fees and legislation were:

- Legislate sound sensible laws for reducing waste and what we do with it.
- A Territorial Waste Management Plan has to be designed and be sustainable for the NWT.
- Force retailers to keep and recycle all plastic packaging, as they do in Germany.
- Research ways to stop the manufacturing of certain products or change the way things are being packaged (e.g. use real popcorn instead of Styrofoam, packing materials sent back by retailer for reuse).
- Ban products with wasteful packaging from entering the NWT.

- Look at putting a levy on cars coming into the NWT. A fee paid annually or at the time of first registration or through fuel taxes would help offset the cost of properly recycling vehicles in smaller communities as well as Yellowknife.
- Allow companies to store only a limited amount of recyclables on their property so that remediation costs are minimal when the company leaves that property.
- Regulate the landfill. Have someone on site that can give tickets for not recycling.
- Have a garbage bag limit, and charge a fee for people who do not recycle (like in Victoria).
- If schools are involved in running recycling programs, the handling fees should be increased to reflect the time and effort required to operate this service in a voluntary capacity. Follow Newfoundland's model.
- To implement a mandatory deposit system, money should come from our taxes to pay for the starting costs of recycling - i.e. setting up return stations and creating more plants or factories to recycle the materials. Side benefit – this creates jobs for people.
- Make reuse, reduction, and recycling as easy and user friendly as possible. If you charge for it (or charge too much for it), they will dump it somewhere else. If fees are charged, make them comparable to the south.
- The GNWT should pay the recycling fees. Some respondents stated that they would support programs funded by taxes.
- Pay people enough money for their recyclables, and they will bring them in.
- Have a general environment fund with the potential for innovative business opportunities to deal with some of these issues. The private sector will create opportunities if it is worthwhile.

5.3 Additional Suggestions

- Start community composting projects to deal with organic waste in the landfills. Many respondents suggested composting.
- Other products should be included in a recycling program: tin cans, glass, plastic of all types, batteries of all types (rechargeable, cell phone, etc.), motor oil and other hazardous fluids, and disposable batteries. The largest response was for other types of plastic and tin cans.
- Keep any expansion simple to begin with; impact the maximum number of residents, but in a manageable way.
- Don't follow media hype, like that surrounding plastic bags (they get the most attention, but take up relatively little landfill volume).
- Encourage businesses to collect and recycle.
- Look into and promote use of biodegradable plastic products.
- Collect all items separately - store in sea cans until they can be shipped out.
- Adopt a Blue Box program for the Communities with a controlled Depot.
- If curbside pickup is not feasible, have a central collection depot for all items.
- For hazardous goods, specialists need to assess the communities' sites and identify liquid, gases (in cylinders) and chemical waste to prevent injury to municipal workers.

- Control waste oil containers for collection of used motor oils in all communities.
- Use pallets to build stands for auto batteries and old computer equipment.
- Stop the trashing of vehicles in the waste site - some parts are recyclable.
- A system has to be adopted to remove fuel and anti-freeze from waste vehicles.
- Hold annual collection events in the communities for things like electronics, rechargeable batteries, or other recyclable household waste.
- Start separating items as they come into community landfills, so they are ready to go when a recycling program begins for certain products. Stockpile items and transport them south when it is cost effective.
- Buffalo Air flies into some communities at least twice a week and usually flies back empty. They could take products to the Yellowknife Waste Management Facility for recycling.
- Would be good to transfer the programs to Nunavut once all the wrinkles have been ironed out.

5.4 Additional Comments

- We need to implement an all-inclusive recycling program as soon as possible.
- Consumers should take some responsibility for their own waste (user pay system).
- A small recycling fee for most products is fine. However, for fuel drums and paper products, that is more of a corporate/government purchaser responsibility.
- If it is not cost effective, it will take years to remove all of the pollutants from the land throughout the territory. We will have to live with that.
- Running recycling programs will never be cost effective in northern communities. Knowing that, we should remember why it is important to do it anyway – to protect the land and environment.
- Programs must be available to ALL NWT communities.
- Funding for an expanded household hazardous waste program must also come from a "polluter pays" system.
- There must be a societal shift from a "cradle to grave" mentality to a "cradle to cradle" mentality.
- If certain materials cannot be readily recycled due to northern conditions then they should not be brought up in the first place. If you want to live in the north, you should learn to live with the limitations.
- The government is a poor example to its constituents on motivating people to recycle, reduce and reuse. The territorial government should lead as an example to other local and national governments and residents.
- Thank you for expanding the program!!