



**SASKATCHEWAN ENVIRONMENT AND
RESOURCE MANAGEMENT**

Paper Product Stewardship Options Report

**To balance people's
interaction with the
environment to protect
human health and
ecosystem integrity**



**SASKATCHEWAN ENVIRONMENT
AND RESOURCE MANAGEMENT**

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Executive Summary

This report examines various facets of paper/fibre stewardship to provide an overview of current paper recycling in the province, what some other jurisdictions are doing and the potential options that may be considered for a paper/fibre product stewardship program in Saskatchewan.

The focus of this report is to address the paper/fibre waste stream. This waste stream includes wastes from all sources (residential, industrial, institutional and commercial), and commodities such as newspapers, magazines, corrugated cardboard, boxboard, telephone books, computer/office paper and polycoat paper/fibre. Paper/fibre was identified as the single largest portion of Saskatchewan's waste stream, and it is the focus of this report. Some stakeholders have indicated that the focus should be broader, and should include a multitude of materials under a single stewardship initiative. However, the method of addressing waste management in a "stream by stream" approach is consistent with Saskatchewan's Conservation Strategy for Sustainable Development which was developed in 1992. This does not mean that integration of recycling systems for various commodities shouldn't occur. In fact it is important to consider integration of recycling efforts to ensure efficiency and convenience in their application and delivery, as long as cross subsidization of funding between material streams is minimized.

Consultation was conducted with a stakeholder network that had a direct interest in the initiative. These stakeholders were included throughout the process to provide information and comments on the work as it progressed, and to help identify options. The interests and needs of our stakeholders are diverse, and they can therefore be expected to have varying opinions on the suitability of the various options. We are grateful for their time, effort and willingness to help.

Throughout the consultation process, one item that was heard repeatedly was the need for public education/communication. Communicating and educating the public is critical to the success of any recycling program. In the process of communicating, the importance of the first two R's of recycling (reduce, reuse) should be emphasized. They embody the most efficient use and conservation of our precious resources, even though recycling of paper/fibre is the focus of this options report.

Although growth in waste disposal is generally expected to match economic growth rates, Saskatchewan's municipal solid waste disposal rate was reduced by about 26.5 per cent between 1988 and 1998 during a time of economic expansion (24.6 per cent growth in real gross domestic product between 1991 and 1998). This is a very favourable trend, even though Saskatchewan has not been able to achieve the national objective of reducing waste by 50 per cent of 1988 levels by the year 2000. A reduction in paper waste is an integral part of this picture, in that paper waste typically makes up about 30 to 40 per cent of municipal solid waste.

Approximately 75 per cent of all paper produced in Canada is exported. Environment Canada estimates that less than 25 per cent of paper used in Canada is currently recycled, and that 20 per cent of paper is not able to be recycled for a number of reasons. The paper industry estimates that as much

as 45 per cent of paper used in Canada was recycled as of 1997 (a steady increase from about 28 per cent in 1990).

Selected major Saskatchewan cities have estimated their paper diversion rates at between 15 and 32 per cent. Overall, the provincial diversion rate, albeit based on very limited data, is estimated at between 14 and 31 per cent, consisting largely of old newspaper, magazines, old corrugated cardboard and old boxboard. Saskatchewan should have an opportunity to increase recycling in the residential, industrial, commercial and institutional sectors.

SERM worked with the stakeholders to compile a list of potential management options for a paper/fibre stewardship program. These include: a national program, an industry program, a provincial program, a third party program, a municipal program and an enhancement of the present system. A discussion of each potential option identifies the pros and cons for each. Also identified were a number of implementation tools that could be used to facilitate any of the options. They were separated into three categories: regulatory, economic and operational tools.

It is hoped that this work may be used as a potential model or guide for development of stewardship programs for other recyclable materials.

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1.0 Background

Statistics indicate that waste generation within Organization for Economic Cooperation and Development(OECD) countries continues to increase at a rate similar to that of economic growth. Saskatchewan is a notable exception to this trend. Based on the Saskatchewan Bureau of Statistics' 1999 Economic Review¹⁷, the provincial economy grew during every year except one between 1991 and 1998. Saskatchewan's real gross domestic product growth rate was 24.6 per cent between 1991 and 1998, yet according to Statistics Canada, Saskatchewan's waste generation rate actually decreased by 26.5 per cent between 1988 and 1998⁷. This is a very positive trend, yet there is much more we can do to improve solid waste management in the province.

The focus of this report is to address the paper/fibre waste stream. This waste stream includes wastes from all sources (residential, industrial, institutional and commercial), and commodities such as newspapers, magazines, corrugated cardboard, boxboard, telephone books, computer/office paper and polycoat paper/fibre. This waste stream is typically estimated to make up at least about 30 to 40 per cent of the total waste stream. Saskatchewan is presently estimated to be diverting from 14 to 31 per cent of the paper/fibre waste stream from landfill disposal.

Some stakeholders have registered concerns about addressing the paper/fibre stream in isolation, or even addressing it at all at this time. Others have pressed for this review. The provincial sustainable development strategy¹⁹ supports a stream by stream assessment of waste management options.

One of the policy options available for improving diversion of recyclable materials from landfill disposal is *product stewardship*. A closely related concept is that of *extended producer responsibility* (EPR)²⁵. Both of these options involve an approach where a producer's responsibility (physical and/or financial) for a product is extended to the post-consumer stage of a product's life cycle. A pure stewardship or EPR program would involve having the producers take a shared financial responsibility for their own products from cradle to grave. This shifts the typical responsibility for disposal of commodities from municipalities (taxpayers) to include producers. European jurisdictions have pursued these concepts much further at this time than we have in North America, but many North American jurisdictions are exploring and implementing stewardship programs in a variety of areas. Saskatchewan's provincial government has introduced mandatory stewardship programs for beverage containers, used oil and scrap tires. There are also many producer-driven programs operating for a variety of materials in the province. They tend to work best for easily identifiable commodities like printer cartridges, batteries, and so on.

Municipalities are responsible for waste collection and disposal. However, many are unable to fund significant paper/fibre recycling programs because of the overall cost, as well as the fluctuating salvage value of paper/fibre. In recent years, recycling is improving the picture in some of the larger urban areas, but our anecdotal evidence (see following photo) still suggests there is much more we can do in reducing the disposal of paper/fibre wastes. Actual *measurement* of these wastes has been a major problem for all provincial jurisdictions. If we maintain the status quo, businesses, industries and institutions (churches, schools, government agencies, etc.) will continue to dispose of large amounts of

cardboard, boxboard, etc. to landfills, and residential paper/fibre disposal will also continue at levels which will limit our ability to reach our provincial target of 50 per cent reduction in per capita waste generation. Even in cities like Regina, residents are still sending more paper to the landfill than they need to. For these reasons, a group of stakeholders has been pressing SERM to conduct a review of how stewardship programs could be used to divert more wastes from provincial landfills. Saskatchewan Environment and Resource Management (SERM) has set up a government working group to consult with stakeholders and conduct such a review.

Landfill Photo

(SERM, 1999)



Following the legislative framework established in the mid 1980's, Saskatchewan's waste reduction policy initiatives can be traced back to the *Conservation Strategy for Sustainable Development in Saskatchewan* in 1992. This strategy was developed by a provincial round table, and included a broad spectrum of recommendations aimed at ensuring the integrated management of Saskatchewan's resources in an environmentally, economically and socially sustainable manner. It was modeled after the World Commission on Environment and Development's 1987 report, *Our Common Future* (commonly called the *Brundtland Report*). These reports define the modern sustainable development concept of *environmental, economic and social* sustainability.

The 1992 Conservation Strategy for Sustainable Development in Saskatchewan

The *Conservation Strategy for Sustainable Development in Saskatchewan* introduced the idea of managing provincial wastes by *waste stream*. Six waste streams were defined:

- I. Solid non-hazardous wastes.
2. Liquid non-hazardous wastes.
3. Waste dangerous goods.
4. Biomedical wastes.
5. Air emissions.
6. Mining, agricultural and forestry (resource sector) wastes.

This strategy outlined the 4Rs (reduce, re-use, recycle and recover) and indicated this approach had only been applied in the area of solid non-hazardous waste at the time. Recommendations were made to:

I. Encourage individuals, businesses, government and others to minimize waste.

Among the proposed actions were:

- The Saskatchewan government should develop a comprehensive waste minimization strategy.
- Develop education/information programs regarding waste minimization.
- Provide monetary and non-monetary incentives for waste minimization.
- Increase deposits for recycling; include the cost of recycling in the price of products.
- Impose and enforce controls and standards when education fails.
- Penalize those who fail to meet controls and standards.
- Participate in organizations like the Saskatchewan Waste Reduction Council.

II. Government and industry need to expand the provincial waste management infrastructure to include at least the following components. Proposed actions included:

- Expand the SARCAN collection network.
- Establish workable systems for waste dangerous goods.
- Develop cooperative systems with neighbouring provinces and states.

III. Government must help minimize waste by developing and implementing policies and administrative systems. Actions included:

- Pass a Waste Minimization Act by 1994.
- Adopt a target to minimize waste by 25 per cent before 1996 and by 50 per cent before 2000.
- Implement environmentally sensitive purchasing policies.
- Implement policies and programs that develop waste minimization industries and markets for recyclable materials.
- Develop systems that include environmental as well as financial costs of resource extraction, manufacturing, use, disposal and clean-up.
- Create reporting systems that measure progress and ensure all producers of waste are accountable.
- Develop incentives to ensure manufacturers provide life cycle costs and recycling information about their products.
- Fund research for waste minimization in Saskatchewan.

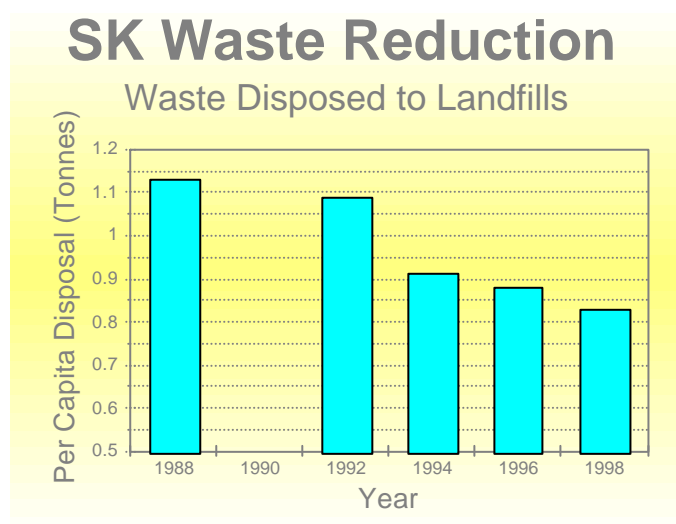
The Conservation strategy has provided direction in many of Saskatchewan's waste reduction policy initiatives.

Saskatchewan is similar to other jurisdictions who are also having great difficulty in characterizing and measuring paper waste diversion rates. The City of Regina has provided information to indicate that in 1998 they were diverting between 27 per cent and 32 per cent of their residential paper wastes from landfilling, and based on 1994 figures, they were diverting only about 7 per cent of their institutional/commercial/industrial (ICI) paper wastes. The City of Saskatoon estimates their paper diversion rate at approximately 25 per cent based on the paper stream being comprised of 40 per cent of the total waste stream, and Cosmopolitan Industries estimates they are now diverting approximately 73 per cent of newspaper in Saskatoon. The City of Swift Current estimates an overall paper diversion rate of 15 - 22 per cent. It is likely that diversion rates in smaller rural centres are even lower than those in the larger urban centres.

Saskatchewan already has some very successful provincial stewardship programs in place, such as the Beverage Container Collection Program, the Scrap Tire Management Program and the Used Oil Collection Program. There are also a number of industry-run stewardship programs that deal with wastes such as pesticide containers, batteries, antifreeze, solvents and paints. Many municipalities operate recycling programs for a variety of waste streams such as organics, metals, glass, plastics, construction/demolition materials, wood and paper.

Through the Canadian Council of Ministers of Environment (CCME), Saskatchewan committed to the target of reducing wastes going to landfills by 50 per cent of 1988 levels by the year 2000. Since paper/fibre makes up between 30 per cent and 40 per cent of wastes entering landfills, this waste stream is an important focus for reduction efforts.

Saskatchewan's Progress in Reducing Waste Disposal
(from Statistics Canada)



Saskatchewan reduced its 1988 waste disposal rate by 3.5 per cent in 1992, 19.5 per cent by 1994, 22.1 per cent by 1996 and by 26.5 per cent by 1998^{6, 7, 11}. This progress came during an expansion of

the provincial economy, which typically works against such waste reduction efforts. Saskatchewan's latest calculated waste disposal rate (1998) is lower than both of our neighbouring provinces' rates, but still higher than the Canadian average. This reduction is due to considerable effort by municipalities and many organizations throughout the province over an extended period. In spite of this remarkable success, Saskatchewan is still not expected to meet its CCME objective of 50 per cent waste reduction. The 50 per cent reduction target is somewhat arbitrary (i.e., there is no scientific evidence to confirm that if this reduction level is attained, the environment will be significantly better off), however it provides a benchmark from which to measure waste reduction. Only one Canadian jurisdiction (Nova Scotia) has attained the CCME target.

The scope of the current review is to focus on efforts which are more closely related to stewardship rather than to the first of the two R's, namely waste *reduction* and material *re-use*. Stewardship efforts therefore focus more on the latter two R's, particularly *recycling* and to some extent, waste *recovery*. We should note that the focus on stewardship does not diminish the importance of waste reduction and material re-use. These types of conservation efforts are critical, and the province should encourage these types of waste minimization efforts at every opportunity.

This stewardship review is attempting to deal with a number of potential waste streams, including the paper/fibre stream. Each waste stream has very different dynamics, different stakeholders, different issues, different constraints and different potential options for resolution. Due to the department's limited resources to address stewardship in all waste streams at once, to engage all potential stakeholders at the same time, and to develop one specific strategy that would fit the needs of all waste streams, the department directed that the stewardship group address the issue of paper/fibre first, then apply the learnings to the development of strategies for other waste streams.

2.0 Consultation

2.1 Consultation Strategy

2.1.1 Introduction

Product stewardship involves sharing the responsibility for a product to the post-consumer phase of its life cycle. There are already successful product stewardship programs in place in Saskatchewan for scrap tires, beverage containers, and used oil. These programs have greatly improved waste diversion for their respective materials.

Municipalities have expressed a need to extend the lives of their landfills by further reducing the volume of recyclables disposed in them. At the same time, Saskatchewan along with other provinces, has committed through the Canadian Council of Ministers of the Environment, to reduce the volume of waste going to landfills to 50 per cent of 1988 levels by 2000. Estimates indicate that as of 1999, the volumes had been reduced by 25 per cent nationally. The potential for implementing additional product stewardship programs to encourage re-use and recycling and thereby help further reduce the amount of material that is disposed in landfills in Saskatchewan is being reviewed.

The current stewardship program initiative has the potential to be a multi-material program. Consistent with the recommendations of the Conservation Strategy¹⁹, a phased approach will be taken focusing on one material at a time. Paper/fibre has been selected as the first material to be addressed. The process for developing a strategy for paper product stewardship will be used as a template for other product stewardship initiatives if applicable. Paper products comprise a large proportion of material going to landfills (generally 30-40 per cent) and can easily be separated from other waste streams. There are some successful paper recycling programs already in place in Saskatchewan. However, figures show that a significant amount of waste paper in Saskatchewan is not recycled.

Saskatchewan is experiencing the same difficulty developing an accurate estimate of the per cent of waste paper being recycled as is being experienced in many other jurisdictions. Variations in the level and format of data collection as well as geographical variations in access to recycling services make it difficult to develop the whole picture. Available information from Regina indicates that in 1998, 27 - 32 per cent of residential paper was being recycled, and 7 per cent of industrial, commercial, institutional paper wastes were recycled in 1994. It is expected that diversion rates would be even lower in smaller centres.

The volatility of salvage value for paper makes it difficult to establish paper recycling programs which are consistently viable based on the salvage value of the paper alone. A stewardship program for paper could be used to create economic stability for recycling businesses and agencies.

2.1.2 Context / Background

Consultation is required to develop a strategy which will take into account the interests of those who would be impacted by a paper stewardship program including businesses, organizations, institutions or groups currently involved in waste management and recycling, the environmental community, and businesses or organizations who may be involved in the funding, collection and/or processing aspects of the proposed program.

Consultation will be done on how the program could be designed and delivered, including:

- who would operate the program
- who would qualify for funding
- how the funding will be generated and distributed
- whether it can be implemented using a voluntary process, or whether levies should be applied.

Also included will be an information gathering exercise in which the stakeholders will be asked to provide input and information as the department develops a more detailed profile of the current situation with respect to paper recycling in Saskatchewan.

Items which are not open to consultation at this point include:

- The initial focus on paper products
- The nature of the deliverable, i.e., the deliverable will be a report containing recommendations to the minister
- The membership of the stakeholder network. Any additional appointments to the primary stakeholder network will be done with the approval of the department.

2.1.3 Consultation Goals and Objectives / Desired Results

- provide a forum for information sharing / exchange and discussion of issues with key stakeholders who will have a direct interest in the development of the strategy
- seek comment from a broad spectrum of stakeholders on the proposed strategy as it develops
- generate ideas
- identify common ground
- come up with some options that are potentially workable
- seek agreement on policy direction through discussing the issues
- understand the implications of the proposed strategy for SERM, other government departments / agencies, and consultation participants
- build support for a solution that will meet the needs of the key stakeholders as well as achieve the goal of significantly improving the diversion rate for paper in Saskatchewan.

2.1.4 Potential Consultation Participants

Consultation will be done at two different levels during this strategy development process.

1. Primary Stakeholder Network

A primary stakeholder network has been established including representatives of organizations who have a fairly direct interest in the initiative. This network of people will participate actively in the strategy development. The stakeholders in this network fall generally into the following categories:

- organizations or groups concerned with waste management
- municipalities
- organizations involved with recycling
- paper industry (various levels).

2. Corresponding Network

A secondary network has also been established which will attempt to include any other organizations or individuals who may be interested in staying informed as the initiative develops. This network will receive updates as the initiative progresses, including a copy of the first draft of the strategy for comment. It will include additional representatives from the groups listed above as well as from the following groups:

- government agencies
- citizens, organizations or businesses who have expressed an interest in staying informed regarding the progress of the initiative.

Consultation with the general public is beyond the scope of the current process. Public reaction from newspaper clippings, calls and letters to the department will be monitored.

See Appendix 1 for lists of the primary and corresponding stakeholder networks.

2.1.5 Challenges

General challenges of the consultation exercise include:

- Diverse values, priorities, responses
- Politicized issue
- Budgetary constraints
- Large # of participants
- Ambitious timeline.

More specific items which will need to be addressed through the consultation include:

- Identifying and understanding areas of non-agreement
- Addressing and dealing with non-agreement in the context of the consultation process.

2.1.6 Consultation Products

Throughout the consultation period, there will be interim products produced which will either provide information to be used during the consultation, or emerge from the consultation process itself. The following interim products are expected:

- Discussion Papers - Discussion papers are planned which will provide information to stakeholders on stewardship programs in other jurisdictions and give an overview of the current situation with respect to paper recycling in Saskatchewan.
- Participant Response Document / Summary - The results of the initial consultation which will identify positions, concerns, and options will be summarized and presented to stakeholders.
- Draft Strategy - A draft strategy will be developed and circulated for comment.

Stakeholders will provide input through participation in workshops and/or meetings. The participant response document will outline the challenges, opportunities, and options identified by the stakeholders through the consultation. This information will be used in preparing the draft strategy.

2.1.7 Involvement Options

The following are some of the tools and procedures which may be used as part of the consultation process:

- Stakeholder group meetings
- Workshops
- Circulating information by email /mail
- Individual meetings / telephone contact.

2.1.8 Resources

- The financial resources allocated for this consultation process are limited to logistical arrangements - i.e., covering the cost of meeting rooms and communications, which primarily includes printing and distribution of consultation material.

2.1.9 Overall Process

1. Initial Consultation / Research

- Meeting or Workshop with Primary Stakeholder Network to provide the department with an understanding of the interests, concerns, and goals of the various key stakeholders and to get their ideas for the design of the program.
- Informal contact with individual stakeholders to get information as part of the research into the discussion papers.

2. Initial Feedback

- Release the discussion papers to the Primary Stakeholder Network.
- Communicate the Consultation Results Summary to the Primary Stakeholder Network and the wider corresponding group.
- Request comments and feedback by mail, email and telephone from the Primary Stakeholder Network on the discussion papers and on the consultation results summary to aid in the development of the first draft of the strategy. The wider corresponding group will also be given the opportunity to comment on the Consultation Results Summary.

3. Feedback on the First Draft Strategy

- Circulate a draft of the strategy for internal comment and review.
- Release the first draft of the strategy, with any amendments resulting from the internal review for wide external comment and review. Comments will be received through individual submissions.

4. Feedback on the Final Strategy

- Circulate a draft of the final strategy for internal review prior to release of the final strategy for consideration by the department.

2.2 Meetings

May 27, 1999

The initial meeting was with the SERM group that would be coordinating a stakeholder group to investigate product stewardship within Saskatchewan. The meeting involved interested parties promoting their views on stewardship. The group established a stakeholder list of potential participants who may be interested and willing to provide input into a strategy. SERM provided a draft terms of reference to guide and inform the stakeholders of the process. Presentations were given on the Manitoba Product Stewardship Corporation and the Quebec Action Plan for the management of solid waste. There was a general discussion on other jurisdictions related to stewardship. It was suggested a summary of product stewardship in other jurisdictions and information on Corporations Supporting Recycling (CSR) be prepared for the next meeting.

October 6, 1999

This was the first meeting with primary stakeholders which represented a more diverse group of interested parties willing to participate. Introductions of the members and their representations started off the meeting. An overview was given on the approach being taken to focus on the paper waste streams. Roles and responsibilities of the primary stakeholders were discussed to ensure that all stakeholders were aware of their expected input. Presentations were given on what is happening across Canada on stewardship as well as who is CSR and what they represent.

October 26, 1999

The roles and responsibilities of the primary stakeholder network were revisited to ensure that everyone present was aware of the objectives of the primary stakeholder group. Further additions to the participants in the primary stakeholder network was discussed to ensure that everyone who should be represented at the table was invited to attend. The group formalized the project objective: **To develop**

a strategy which uses a stewardship program to assist recycling/waste minimization in Saskatchewan. Initial efforts will focus on paper/fibre as a template for other materials. The primary stakeholder group brainstormed guiding principles that they felt should be considered in the development of a strategy. These guiding principles would provide fundamental principles agreeable to all stakeholders.

April 26, 2000

The primary stakeholder network revisited the guiding principles to ensure they were accurately captured. Various reports were given on waste generation and waste diversion rates in Saskatchewan and SERM's findings on a Survey of Options sent out to the Primary Stakeholder Network. Brainstorming on the Survey of Options by the group provided clarity to the group and would assist SERM in the development of the strategy.

2.3 Guiding Principles

Meetings were established with the Primary Stakeholder Network to discuss the objective of the paper product stewardship initiative. From the meetings a list of common guiding principles was developed in consensus with all those involved. These guiding principles were seen as common interests and expectations that all the stakeholders had of a paper product stewardship initiative.

- No cross - subsidization between streams (e.g., revenues from recycling of tin cans should not subsidize paper recycling)
- Level playing field domestic & foreign
- Recognition of waste management as a municipal responsibility
- Consider existing programs already in place
- Encourage partnerships
- Management by not-for-profit multi-stakeholder party (money not to go to general revenue)
- Stabilization of the revenue stream
- Excess funds dedicated to waste minimization initiatives
- Ensure cost effective programs
- Ensure environmentally effective programs
- Recognition of remoteness of location and economy of scale
- Shared responsibility between industry and municipalities

2.4 Survey Results

SERM prepared some questions that were distributed to the primary stakeholder network to provide input into the April 26, 2000 meeting. The purpose of the questions was to get some of the stakeholders' ideas regarding how stewardship principles could be applied to improve paper recycling rates in Saskatchewan. A summary of ideas and concepts was to be presented and discussed at a subsequent meeting. The following is the summary that was provided to the stakeholders at the meeting.

1. What problems do you see with the current paper recycling system?

- volatile / inconsistent price
- some recycling operations shut down when prices low
- municipalities reluctant to commit
- high cost of shipping / distance to transport
- no co-operation in marketing materials to achieve maximum proceeds
- small communities not attractive to buyers because of low/ intermittent volumes
- public doesn't understand cost of recycling.

2. Is stewardship the proper mechanism to enhance current recycling programs?

- Yes
- if funds distributed fairly to recyclers
- it would acknowledge responsibility of producer and consumer
- it would provide stability to recyclers
- municipal or provincial governments could stabilize market through taxes, or a direct charge to consumers - levy on newspapers last resort.

3. What kind of stewardship program would be appropriate for paper products in Saskatchewan? (mandatory vs. voluntary aspects)

- voluntary will not be successful
- voluntary has not been successful for other materials
- mandatory or long term contract between producers and recyclers
- recognition that mandatory would be difficult politically, especially from industry side.

4. How do you see a stewardship program operating organizationally?

- SARC - already successful, provides employment for persons with disabilities
- not industry run - motivated to reduce costs rather than increase returns
- third party board - fair representation from environmentalists, recyclers, manufacturers, government, municipal interests, SARC, industry
- third party board / existing partnerships - do not duplicate existing programs / infrastructure
- funding should come from unremitted beverage containers
- larger centres could have competing businesses, smaller centres need central focus.

5. Who do you see involved in the principal collection of paper/fibre products for recycling?

- existing partnerships (where they exist) new partnerships where they don't
- only municipalities and existing agencies
- partnerships between private contractors and SARC member centres under contract to municipal government or provincial stewardship agency

- municipalities / SARC should decide who qualifies for funds from a board with special protection for SARC centres
- various combinations - private industry, SARC members under contract to municipality or stewardship board
- municipalities work with existing agencies to have centralized collection group.

6. How do you see the paper collection / recycling aspect of a stewardship program operating?

- depots / drop-off bins with mechanized collection is most efficient
- combination - depending on location / capability of existing partnerships
- collection system could be private or municipal
- stewardship fees based on per tonne basis - incentive to collect more
- up to each municipality / recycling agency
- subsidy levels should be based on average of most efficiently running systems to encourage efficiency.

General Learnings:

- Two separate main problems - 1) fluctuating market price for paper, 2) difficulty/inefficiency of small municipalities to market their material
- may be able to get industry to do something voluntary with regard to marketing paper on behalf of municipalities
- Committee respondents seem to think the program should be mandatory, but most see the funding coming from provincial or municipal taxes or user fees rather than industry
- Committee respondents think the program should be run by a third party board with municipalities and SARC having a strong role
- Committee respondents would like to see SARC's current role protected and perhaps expanded but some also see other private contractors/recycling operators as having an important role
- Committee respondents think that mechanisms for collection and recycling should be decided by each municipality / recycling agency although depot's / drop-off bins with mechanized collection were thought by some to be most efficient.

3.0 Product Stewardship in Other Jurisdictions

Throughout Canada there are many examples of different options for product stewardship¹⁵. The entire range of options has been explored. This provides an excellent opportunity to see how each program is working and where there could be changes to make it more effective.

The options can be separated into four categories:

- 1) Government mandated programs with regulated fees
- 2) Multi material programs
- 3) Industry funded and run programs
- 4) Industry internalized programs

Each program within a category has subtle differences and unique characteristics that should be noted. The most diverse category is the multi material programs, because they can range from those that are initiated using bans at landfills, to ones that fund multi-material recycling through the establishment of fees on beverage containers. The majority of the program managers have indicated that they are considering expanding their programs to include other materials.

3.1 United States (U.S.) Overview

The United States Environmental Protection Agency (USEPA)²⁶ indicates that, by any measure, paper and paperboard makes up the largest portion of municipal solid waste (MSW).

The total generation of paper products in the U.S. grew from 30 million tons in 1960 to 81.5 million tons in 1995, and to 83.8 million tons in 1997. The percentage of paper making up MSW went from 34 per cent in 1960, to 39.2 per cent in 1995, and to 38.6 per cent in 1997. These estimates are based on figures from the American Forest & Paper Association.

In 1995, U.S. recovery rates were as follows:

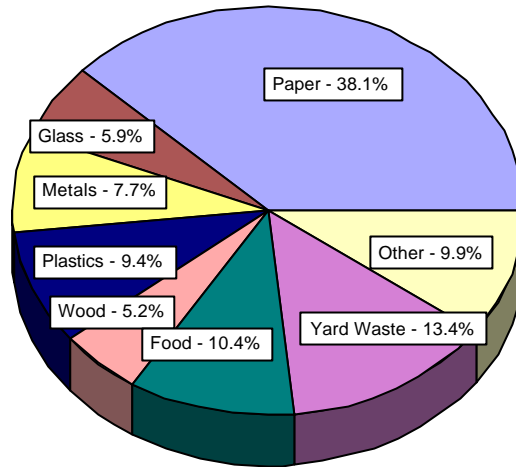
- corrugated boxes - 64.2 per cent
- newspapers - 53.0 per cent
- high grade office papers - 44.3 per cent
- lower rates for other paper products.

Approximately 32.6 million tons of post-consumer paper were recovered in 1995, 40 per cent of total paper and paperboard generation. In 1996 this recovery figure rose to 33 million tons (41 per cent). Paper wastes account for more than half of the total MSW recovered.

The makeup of the total MSW stream and the breakdown of paper products in the U.S., which should both be similar to the Canadian situations, has been adapted from USEPA figures and is shown in the following graphs.

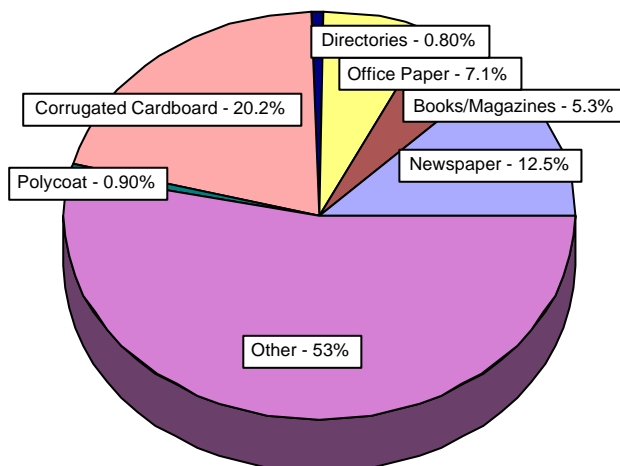
USEPA estimates the total MSW recovered in the U.S. as of 1996 was 27.3 per cent.

U.S. MSW Composition (USEPA)



The following graph of U.S. Paper Composition implies that “other” paper makes up a large proportion of the total (53 per cent). These are the types of paper that are sometimes difficult to recycle (e.g., standard mail, commercial printing, tissue paper, paper towels, paper plates and cups, packaging, folding cartons, bags and sacks and wrapping paper). There does seem to be promise, however, in the potential recycling of the corrugated cardboard and newspaper streams, and perhaps to some extent, the books/magazines and office paper streams.

U.S. Paper Composition (USEPA)



3.2 Canadian Overview

Environment Canada²⁷ estimates that paper and paper products account for more than one third of the materials discarded into Canada's municipal waste stream.

One obvious way to reduce the amount of paper waste being discarded, and to conserve our forest resources, is to recycle more of our waste paper. Environment Canada estimates that less than one quarter of the approximately 6 million tonnes of paper and paperboard used annually in Canada is recycled.

Not all the paper we use can be recycled. Approximately 20 per cent is unavailable for recycling, for a number of reasons. Some is destroyed through fire or permanently conserved (e.g., as books, roofing materials, etc.), and some is so severely contaminated that recycling is impossible or impractical.

The end-user of the waste paper uses the paper in a manufacturing process. Most of the waste paper is used to make new paper products. Old corrugated cardboard is used to make new corrugated cardboard, or combined with mixed papers to make boxboard. Recycled, de-inked newspapers are used in newsprint manufacture. Waste "fine" paper from printers and paper "converters" (such as envelope manufacturers), and some office paper waste, is used in the production of a variety of products; these include sanitary papers such as bathroom tissues and hand towels, and some office papers. Various grades of paper are used to make roofing materials. Small amounts of waste paper are also used in the manufacture of molded pulp items (such as egg trays), packing materials, cellulose insulation, mulch and animal bedding.

For years, paper manufacturers have routinely recycled waste paper from paper-making processes ("mill waste"), and from converters and printers. The real challenge today is to collect and recycle "post-consumer" waste paper products which have been used and discarded by consumers and businesses. Across the country, recycling activity is increasing as waste disposal costs climb.

Environment Canada indicates that to develop sustainable paper recycling systems, it is necessary to do more than simply collect more waste paper. Increasing the supply of waste paper without correspondingly increasing the demand for products manufactured from that waste will eventually result in a glut in the waste paper market. According to the basic laws of supply and demand, this will lead to lower prices for the paper, and lower revenues for paper collection programs. Without sufficient revenues, paper collection programs will be difficult to sustain.

In order to build sustainable recycling systems, it is necessary to "close the loop" by increasing the demand for products containing recycled paper. A number of government and private-sector organizations have been helping to do this, by implementing policies to encourage the purchase of products containing recycled paper.

Environment Canada's "Environmental Choice" program is developing guidelines for products which are characterized by a high degree of environmental soundness while also meeting performance and safety standards. Products which meet the guidelines will be eligible to display the Environmental Choice logo. Environmental Choice guidelines have been developed for fine paper from recycled paper, newsprint from recycled paper and miscellaneous papers from recycled paper.

Many provincial governments are also introducing policies to encourage the purchase of products made from recycled materials. The governments of Manitoba and Ontario, for example, have both announced such policies.

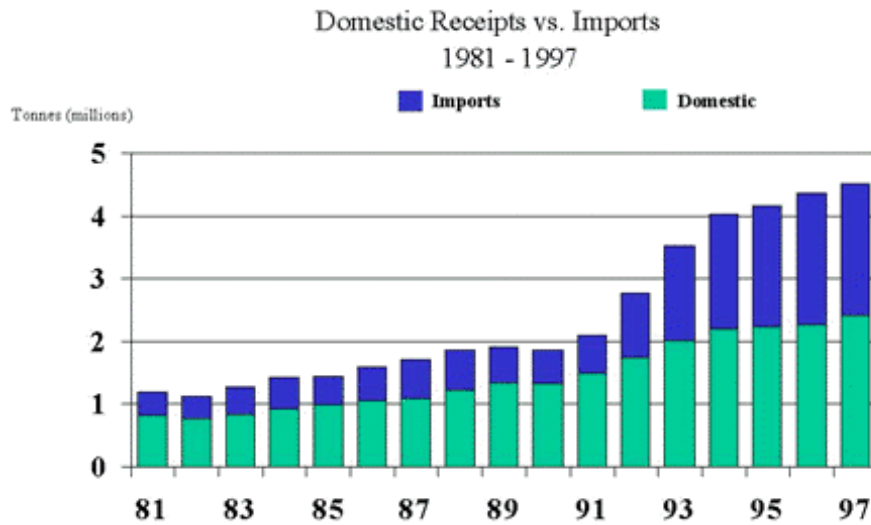
Canadian paper mills are beginning to respond to the growth in paper collection and the increasing demand for paper products containing post-consumer fibre. Several new plants capable of de-inking and recycling old newspapers are being built, and paper manufacturers are beginning to experiment with producing fine papers from recycled paper. There will probably always be some lags between supply and demand for waste paper, simply because of the long lead times required to bring on-stream new paper mills and de-inking facilities. Developing a strong demand for products containing recycled paper may be one way to ensure that paper recycling will be a sustainable part of our future.

Some municipalities, because of shortages of landfill space, have banned materials such as old corrugated cardboard and office fine paper from disposal sites. Implementing bans without sufficiently developing markets for the banned materials can, however, work against the long-term viability of recycling by disrupting materials markets. Buyers, aware that generators of a banned waste material have nowhere else to turn, often respond by paying much lower prices for the material than the true market value.

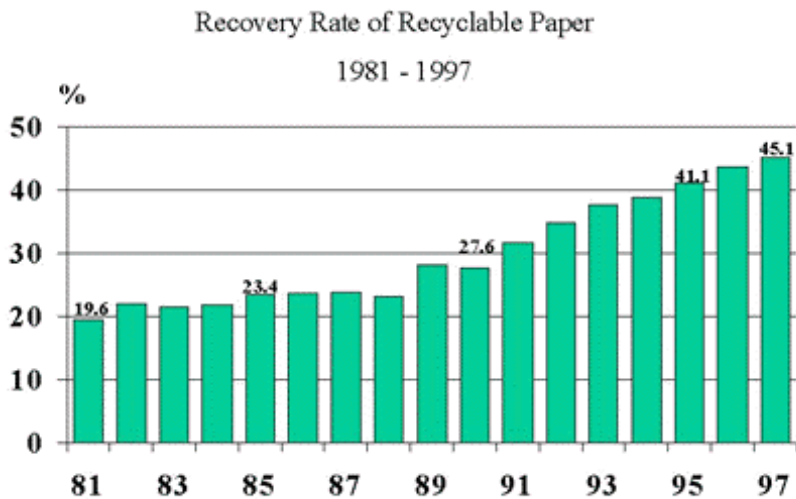
The repercussions of such market disruptions can extend far beyond the municipality or region which implemented the ban, adversely affecting the economics of recycling programs elsewhere. In the long term, a more effective approach is to encourage voluntary recycling of waste papers while simultaneously encouraging the purchase of products containing recycled paper.

According to its own estimates, the paper and paperboard industry²⁸ transformed 4.7 million tonnes of old newspapers, magazines, corrugated containers, communication papers, boxboard (cereal/shoe boxes, etc.) and other grades of paper into new newsprint, containerboard, boxboard, construction papers, communication, kraft and sanitary papers in 1997.

Some 2.6 million tonnes or 55 per cent of this recovered paper came from Canadian sources. The remainder was imported, primarily from the United States. The following graph outlines the growth in recovered paper receipts between 1981 and 1997.



In 1997, the Canadian paper and paperboard industry recovered 45.1 per cent of the paper and paperboard consumed in Canada and transformed it into new paper and paperboard products. The interest of Canadians in recycling their paper products is growing. The following chart shows the industry's recovery rates for paper between 1981 and 1997.



The forest products industry in Canada is largely an export industry. Of the 19.2 million tonnes of paper and paperboard sold by Canadian mills in 1997, only 4.7 million tonnes or 25 per cent was shipped within Canada. The remaining 14.5 million tonnes (75 per cent) was shipped to export markets around the world, primarily to customers in the United States.

Because Canada has a relatively small population compared to the United States and because the industry exports three-quarters of its production, it is likely that Canadian recycling mills will always have to import recovered paper to meet their requirements.

Canadian Recycling Facts

- Today, approximately 71 per cent of the fibre used to make Canadian pulp and paper comes from sawmill residues and recovered papers that used to go into landfills.
- Over 90 per cent of paper-based packaging is made from recycled fibre or sawmill residue.
- Canada is the world's largest importer of recovered paper and paperboard; it is also a leading exporter of recycled-content paper and paperboard.
- In 1989, there was only one mill in Canada that could manufacture recycled-content newsprint. Today there are 23.
- In 1997, the Canadian industry used 4.7 million tonnes of recovered paper to manufacture recycled-content paper and packaging.
- Some 2.6 million tonnes, or 55 per cent of recovered paper used in Canada, came from domestic sources. The other 2.1 million tonnes was imported from the United States.
- In 1997, the recovery rate in Canada was 45.1 per cent; i.e., 45.1 per cent of the paper consumed in Canada was recovered to make new paper and paperboard products.
- Recovered paper is sold on international commodity markets; because recovered paper is a commodity, prices will vary by grade and are subject to economic conditions.

3.3 Government Regulated Fees

BRITISH COLUMBIA

British Columbia has three programs that impose a product levy through legislation. Batteries and tires are commodities included in a government operated program where a levy is imposed at the point of sale (\$5 for batteries and \$3 for tires) to provide consumers with options for their scrap tires and used lead-acid batteries. The government uses the money collected to provide payment for the transportation and the processing/end use costs.

British Columbia's other program that has government regulated fees is the Beverage Containers program. The system is set up as a deposit/refund system (deposit of 5¢, 10¢ and 20¢, handling fees of 2.2¢ and 3¢). However, there is a difference in the collection of the containers. Three stewardship agencies have been formed to fulfill the responsibilities of the brand owners in accordance with the regulations, one for non-alcoholic beverages, one representing the major breweries and one for wines, spirits and imported beer. BC's beverage container program is very similar to other beverage container programs across the country.

ALBERTA

Alberta's Beverage Container Recycling Board (BCRB) is an industry administered program set up as a deposit/refund system. The deposits are established in the regulations at 5¢, 10¢ and 20¢ and the handling charges are 3¢, 3.55¢ and 5¢. This program has evolved to the state where the BCRB is responsible for the day to day operation and the government is not as directly involved. Alberta is looking at using the infrastructure of this program to introduce other stewardship programs.

NOTE: Alberta is conducting some work on developing a common accountability framework for all their stewardship boards and establishing performance indicators for recycling.

MANITOBA

The Manitoba Tire Stewardship Board is an industry administered program with backdrop regulations that establish the tire levies (\$3/tire fee charged). The levies are paid through the government into a fund that is administered by the Board. The regulation requires that the Board address specific requirements such as waste reduction, education, research, development, promotion of waste reduction, and appropriate disposal.

QUEBEC

Quebec has a program for beverage containers which is managed by Recyc-Quebec (crown corporation). The regulations establish a deposit of 5¢ and a handling fee of 2¢. The interesting difference in this program is that the stores retain the handling fee and the bottlers get the scrap revenue from the return containers.

3.4 Multi Material

MANITOBA

The Manitoba Product Stewardship Corporation (MPSC) is an independent corporation established to deal with multi-material stewardship. The majority of the funding for the program is gained through the collection of a regulated 2¢ levy on non-deposit beverage containers (excluding milk). The funds collected are used to fund municipal programs using a cost split of 80 per cent MPSC / 20 per cent municipality. To be eligible, the municipal recycling program must collect aluminum containers, #1 PET containers, newspaper, steel/tin cans, and glass. The municipalities can also be subsidized for magazines, boxboard, gable top containers, #2 HDPE containers, residential corrugated cardboard and tetra pacs. The MPSC's next stated goal is to reduce cross subsidization between waste streams. This would include placing a levy on all packaging and newsprint.

ONTARIO

The province of Ontario is in the process of revamping waste management and waste minimization in the province. There has been a report submitted by The Recycling Council of Ontario on "Recycling Roles and Responsibilities Final Report" which outlines a number of options for recycling in the province. It reviewed the options and provided the background needed to make a decision on the next steps that Ontario would be taking. The province decided to implement a new Waste Diversion Organization (WDO) as a one year pilot which is responsible for waste diversion in the province. Industry contributed \$14.5 million to the WDO to develop, implement and fund municipal waste diversion programs. The funds are being used to help defray the costs of recycling glass, establish organic waste diversion, set up a household hazardous waste program, provide education regarding initiatives and to improve the efficiencies of blue box programs in the province.

NOVA SCOTIA

Nova Scotia's *Solid Waste-Resource Management Regulations*, under the *Environment Act*, ban materials from being deposited at the landfill (beverage containers, corrugated cardboard, newsprint, steel/tin food containers, glass food containers, waste paint, car batteries, used tires, antifreeze and #2 HDPE non-hazardous plastic containers).

The Resource Recovery Fund Board (RRFB) Inc. is a private, not-for-profit organization with a mandate to oversee the refund/deposit system on beverage containers, administer disposal bans, promote manufacturing of new products, negotiate industry stewardship agreements, direct funding to municipalities and educate the public. The RRFB also assists municipalities by funding programs to accomplish waste diversion. RRFB is currently looking to expand into stewardship programs for waste paint, derelict vehicles, newsprint-flyers and household hazardous waste collection days. The RRFB obtains financial support from the beverage containers system and from industry through stewardship agreements.

For beverage containers, the RRFB collects the levies, pays the Enviro Depots (independently owned and operated), and arranges for the collection, processing and marketing of materials. Beverage containers have a deposit applied to them of between 5¢ and 20¢ each and a handling fee of 2.5¢ each. The containers can be returned to the Enviro Depots for half the deposit back. The uncollected deposits are used to fund other recycling programs (newsprint, OCC, and batteries).

For tires, the RRFB collects the levy from the retailers and contracts a company to collect the tires from retailers and process the tires. Tires have an environmental fee of \$3 for passenger and \$9 for truck tires.

NEWFOUNDLAND

Newfoundland's Multi-Materials Stewardship Board develops, implements, and manages a variety of waste diversion strategies. There are presently a number of initiatives, in various stages of development and operation, include beverage containers, household hazardous waste, used tires and waste paper.

The Multi-Material Stewardship Board (MMSB) began with a beverage recycling program very similar to the other Atlantic provinces. The Beverage Recovery Program's day-to-day operation is contracted out. The system works on a half back deposit/refund system - deposits of 20¢ for alcoholic beverage containers and 6¢ for non-alcoholic beverage containers.

A three year pilot project was developed, in cooperation with six municipalities, to collect household hazardous waste. The long-term objective is to develop a permanent, self-sustaining program with industry support.

3.5 Industry Funded and Run

BRITISH COLUMBIA

British Columbia has established three programs that are industry funded and run.

The return of used lubricating oil is a regulated program that requires the retailers to accept used lubricating oil at their retail facilities and pay for its disposal/recycling. This used oil accounts for only 20 per cent of the used oil that is used in the province.

British Columbia also has a program for solvents, flammable liquids, domestic pesticides and gasoline. The program regulates industry to provide consumers with reuse, recycling and safe disposal options for residual paint products. The funding is industry assessed and managed. Producers have established a depot network for the collection of this material. An eco-fee of \$0.40/L for solvents/flammable liquids and \$1.20/L for pesticides has been assessed.

BC Paint Care is another regulated program where the brand owners are required to either operate a collection system or belong to a group system. The funding is established by industry and assessed as an eco-fee collected on all paint sold. The eco-fees are itemized on bills and managed by a non-profit industry association (range from \$0.10/250mL to \$1.00/23L).

ALBERTA

In Alberta, the Used Oil Management Association operates an industry funded and operated program (5¢ per litre) for used oil. Used oil is collected through expanding the existing beverage container depots to include multi-materials. Alberta is also looking at expanding the depots to collect household hazardous waste.

Tires are another product that Alberta has dealt with as a stewardship program. The Tire Recycling Management Board is an industry operated program administered through a fund setup by regulations. There is a fee of \$4 per tire charged on all new tires that is used to collect and process the tires.

3.6 Industry Internalized Program

BRITISH COLUMBIA

The Pharmaceutical Manufacturing Industry voluntarily established the BC EnviRx Pharmaceutical Stewardship Program. This program accepts any unused pharmaceuticals at the retail level. The costs of this program have been internalized.

NOVA SCOTIA

Nova Scotia introduced legislation that required oil retailers to either accept the used oil back or provide a collection depot within 5 km. Used oil has been banned from the landfill since 1997. The retailer is responsible for the collection and disposal costs.

3.7 Summary of Paper Stewardship Initiatives

There are a number of provinces that are in various stages of including paper/fibre in stewardship programs. In the previous program descriptions, there were some programs in which paper was mentioned. To focus on the paper/fibre component, the following is a more focused explanation of how paper/fibre is included in these programs, or at which stage paper/fibre stewardship may be considered for inclusion.

Newfoundland does not have a formal program to date. However, some recycling depots throughout the province have voluntarily (without funding) collected and marketed paper. At present, there is no formal plan but Newfoundland expressed that they have been considering a formal program.

Manitoba's program, through the Manitoba Product Stewardship Corporation, has been collecting various types of paper/fibre which has been funded from collection of levies on beverage containers. There have been indications that cross-subsidization may be addressed. However, at this time this issue has not been resolved.

Nova Scotia's Resource Recovery Fund Board does collect some newsprint and corrugated cardboard from the residential stream as a courtesy. There is some voluntary funding provided by the newspapers. Currently, Nova Scotia is in the process of signing an agreement with the newspapers for contributing to the program. This portion of the program is not legislated or required. However, the provincial government legislated landfill bans for a number of materials which necessitated that the communities and regions collect paper/fibre within each community.

Ontario's Waste Diversion Organization (WDO) is designed with voluntary funding from private industry. The municipalities operate their own recycling programs (which include paper). However, the WDO educates and assists in the studying of programs to improve efficiencies. Some portion of the industry funding is from the paper component from the brand owners and in kind services from the newspaper industry. This commitment has been recommended for a five year period. The one year pilot project with the WDO has concluded and the group has provided a number of recommendations. These recommendations include²⁴:

- 1) Backdrop legislation requiring brand owners or first importers of all packaged consumer products, designated solid waste products and printed materials to recover their material or join an organization to do it on their behalf.
- 2) Industry should be responsible for the collection of its share of WDO programs. Industry should provide financial support equal to 50 per cent.
- 3) Recyclable beverage alcohol containers should support the program.
- 4) Organic waste diversion should be shared primarily between the municipalities and the province.
- 5) The WDO should complete a life cycle inventory of the environmental costs and benefits of achieving a 50 per cent waste diversion goal.

Quebec has had a long-standing voluntary program for paper. This system involves an organization called Collecte Sélective Québec with backing from industry which provides subsidization for paper. Quebec is currently developing new regulations requiring participation and they would involve the collection and processing of all paper fibre as well as packaging (including plastic, metals and other materials). The funding of the program is from industry and the money is designated to a fund.

There are paper/fibre recycling options scattered throughout the country either run by private contractors or by municipalities. Discussions with the provincial representatives have shown an interest in what Saskatchewan is doing related to paper/fibre because most of the provinces recognize paper as a major component of their waste streams.

4.0 Operation of Paper Recycling in Saskatchewan

Paper fibre is used to make recycled paper products and other various materials, including newsprint, insulation, apple crates, egg cartons, shingles, roofing paper, cardboard, box board and other items. All of these items are not necessarily produced in Saskatchewan.

Saskatchewan's two mills, Millar Western in Meadow Lake and Weyerhaeuser in Prince Albert, export most of their product out of province. Neither of these mills were designed to use recycled paper in their operations.

There is an active and vital paper recycling industry in Saskatchewan at this time. Many private and government organizations are well established and are providing paper recycling and processing services at this time. Collection and hauling of waste and recyclable paper is conducted by several private waste hauling firms in the province. Many of them have joined together in a group called the Waste Advisory Council of Saskatchewan, and they play a vital role in the industry. Other private firms accept paper products from consumers and further process them at locations in the larger cities; some of these are very significant operations. Crown Shred and Recycling Incorporated collects, brokerages and processes paper fiber from approximately 40 communities across the province and prepares for transport to recycling facilities. There are a number of brokerage firms also dealing with paper as a service to municipalities. The Saskatchewan Association of Rehabilitation Centres (SARC) collects and processes paper at 23 of its centres operating throughout the province. Cosmopolitan Industries is one of these centres; they collect and process a substantial amount of paper annually in Saskatoon while creating employment opportunities for many disabled people. Saskatchewan has always supported the employment of disabled persons for recycling initiatives and we expect this will continue to be a strong facet of recycling. Some of the province's newspapers provide advertising support for paper recycling. Many municipalities have a variety of programs in place for collecting paper/fibre recyclables. Waste minimization has been a fundamental component of systems operated at communities like the Town of Outlook and the Regional Authority of Carlton Trail (REACT) regional waste management system at Humboldt. Urban Forest Recyclers in Swift Current accepts recyclable paper from Saskatchewan communities, and they import paper from outside of the province to create egg cartons, fruit trays and other products for the market. A similar but smaller operation exists in Tisdale by the name of Nuform Packaging.

There are many communities and service organizations that are involved in recycling of paper in Saskatchewan. In the early 1990's there were very few opportunities for recycling paper at the local level other than in large urban centres. Only a few commercial enterprises provided the opportunity to recycle paper with collection and transportation services varying widely. As interest grew, paper recycling improved in smaller centres surrounding the cities. Fluctuations in paper prices have caused some municipalities to rethink or discontinue paper recycling. Municipalities are reluctant to initiate any recycling because of the variability of the market prices.

4.1 Paper Marketing

Paper marketing is a key component of the success of a recycling operation. Input from communities and service organizations involved in recycling operations indicates that it is important to have an aggressive manager who tracks and analyzes the fluctuating paper markets and actively seeks out the highest bidder for each product, as well as the lowest bid from transport companies.

Currently, the communities and service organizations market their paper in one of four ways;

- 1) Establish a contract with an existing paper recycler.
- 2) Hire a broker to market the paper.
- 3) Independently track weekly quotes from the recycling companies and send the product to the highest bidder.
- 4) Hire an established collection agency to handle the material.

The paper stream is separated into different categories largely dependant on the end user's requirements. The streams include: newspaper, magazines, corrugated cardboard, boxboard, telephone books, computer paper, office paper, tissue paper, wallpaper, polycoat and other paper. The collectors need to be aware of the various requirements for the different categories of paper to ensure the best pricing is obtained.

4.2 Historic Paper Prices

Extreme fluctuations in prices paid for paper have created an uncertainty in the revenues and costs of recycling. These fluctuations have increased the number of people involved in recycling when prices are high and then flooded the market with material. In order to cushion fluctuating paper prices, bales are often stored in order to ride out slumps in any or all of the various markets. Dry storage space can be expensive and also pose a potential fire hazard. Price fluctuations for the various paper waste streams are shown in the following tables and graphs.

Stream	Low	High	Average*
Cardboard	35	400	90
Newsprint	40	130	90
Glossy Paper	20	60	40
Office Pack	65	200	170
White Ledger	110	280	240
Computer Print-out	200	290	250

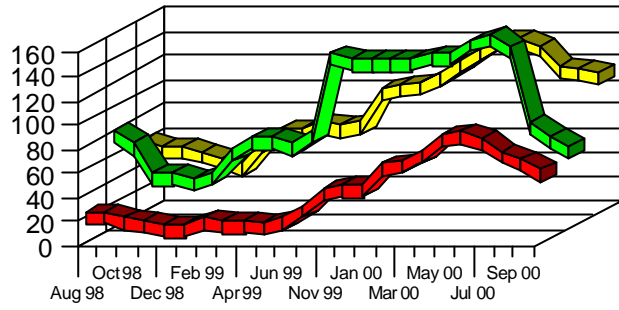
* Based on personal experience, best guess average over the last five operating years (1995 -2000) in dollars per tonne - Dan Swerhone, REACT; Rick Peterson, Town of Outlook.

The CSR Sheet⁵
\$/tonne

Date	ONP	OCC	Mixed Paper
Aug 98	55	75	20
Sept 98	50	65	20
Oct 98	50	40	15
Nov 98	45	40	12
Dec 98	40	35	10
Jan 99	35	40	10
Feb 99	55	60	15
Mar 99	65	70	12
Apr 99	65	70	12
May 99	70	65	11
Jun 99	67	75	15
Jul 99	70	140	25
Nov 99	98	135	40
Dec 99	101	135	43
Jan 00	103	135	43
Feb 00	110	135	60
Mar 00	120	140	62
April 00	130	140	71
May 00	140	155	87
Jun 00	140	155	87
Jul 00	133	145	82
Aug 00	116	82	70
Sept 00	114	71	64
Oct 00	111	63	55
Highs	140	155	87
Lows	35	35	10
Averages	87	94	39

Notes: 1) August - October 1999 were unavailable.
2) OCC - Old Corrugated Cardboard
3) ONP - Old Newsprint

The CSR Sheet (\$/tonne)

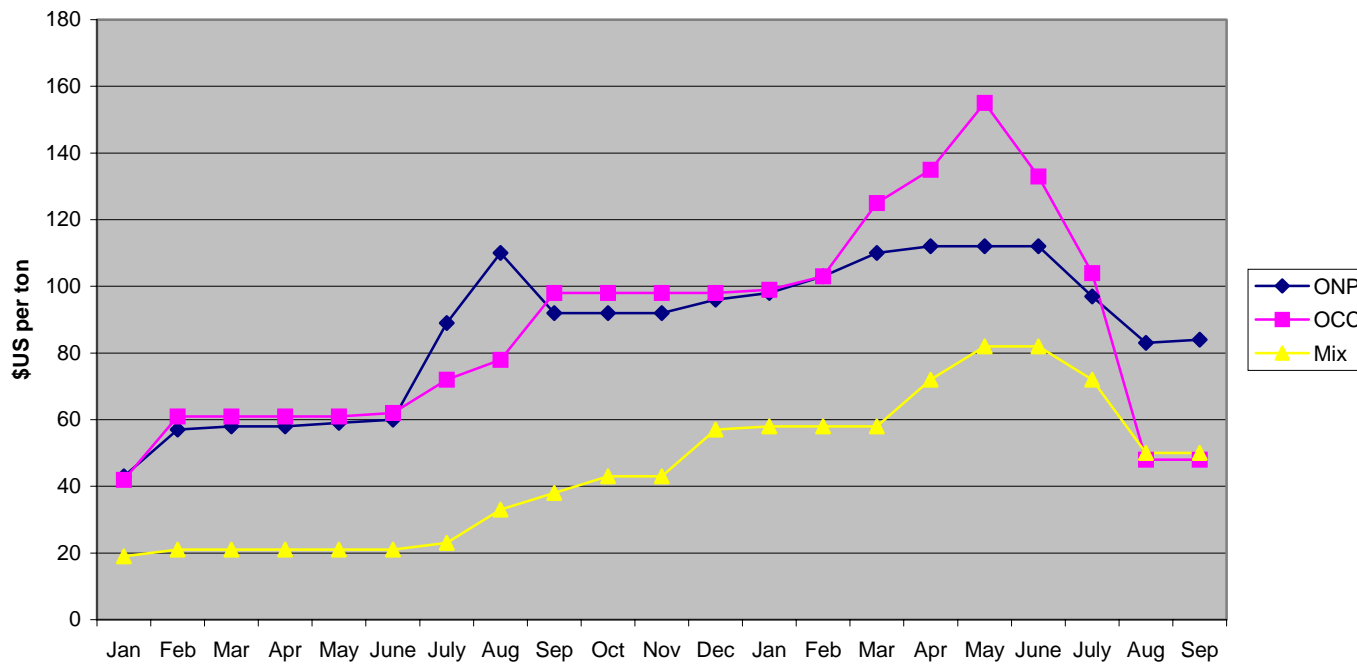


- ONP
- OCC
- Mixed Paper

**Recycled Paper Prices for the 3 Commodities, in \$US per ton
January 1999 - September 2000¹⁴**

Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
ONP	43	57	58	58	59	60	89	110	92	92	92	96	98	103	110	112	112	112	97	83	84
OCC	42	61	61	61	61	62	72	78	98	98	98	98	99	103	125	135	155	133	104	48	48
Mix	19	21	21	21	21	21	23	33	38	43	43	57	58	58	58	72	82	82	72	50	50

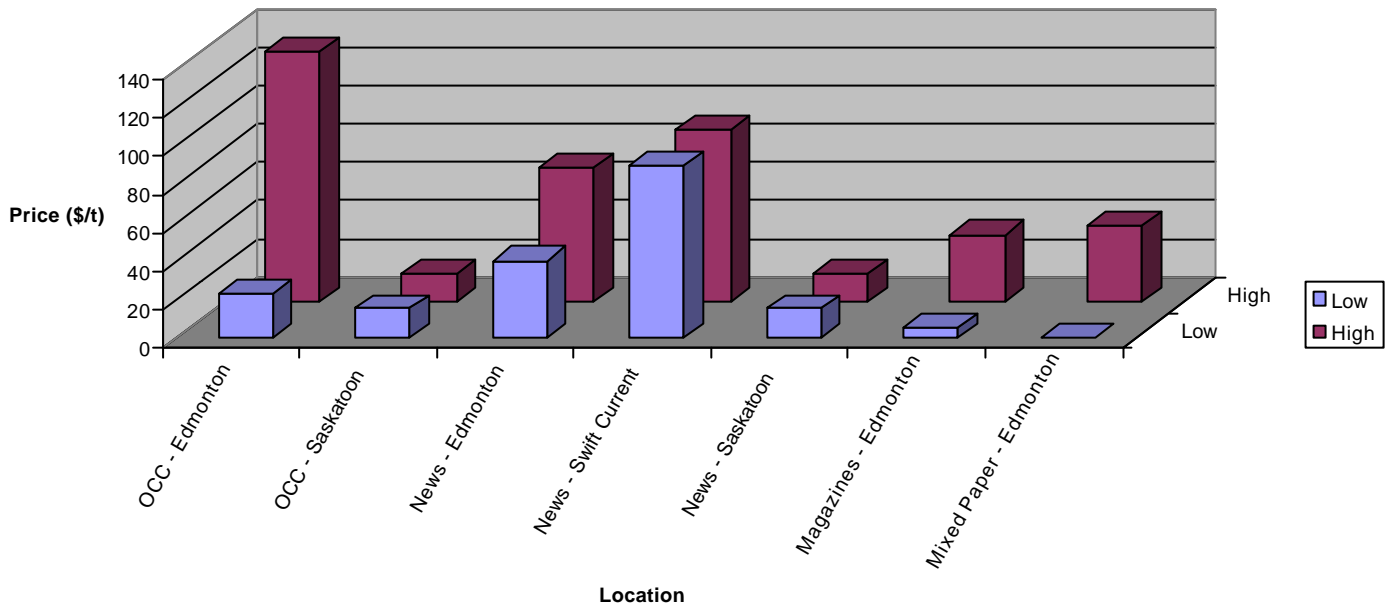
Market Values for Recyclable Materials²²



Source: The Yellow Sheet

Item	Price (\$/t)	Location
Cardboard	35 to 130	Edmonton
Cardboard	15	Saskatoon
Newspaper	40 to 70	Edmonton
Newspaper	90	Swift Current
Newspaper	15	Saskatoon
Magazines	5 to 35	Edmonton
Mixed Paper	0 to 40	Edmonton

Recycled Paper Market Values



It can be seen that even over a short time period, markets can be extremely variable, even in a large market area like Ontario. Such variation creates hardships for recycling programs, and could necessitate the need to build storage into the recycling system.

4.3 Cost to Collect, Process, and Transport Paper

The costs of handling recycled paper involves the collection, processing and shipping of the material to market. Three independent sources were contacted as to their costs and they each provided a range depending on available resources and efficiencies. Prices varied from \$40.00 to \$45.00 for the collection of the recycled paper, a range of \$25.00 to \$60.00 on the processing costs and shipping varied between \$15.00 and \$28.00 per tonne. Since there are a great number of small sources of paper, prices vary due to the transportation, quantity of materials and storage opportunities. Some communities are minimizing transportation costs by arranging back hauls with transportation companies. Processing costs may be lower if supplying to a purchaser who accepts loose (not baled) product, but this is offset by increased shipping costs (more bulk). The information is to be considered only as estimates as there was not detailed information available for the cost of handling paper in Saskatchewan.

4.4 Cost Comparisons

The following cost comparison provides the reader with an indication, based on the personal experiences of Saskatchewan operations, of the costs and net revenues required for a successful recycling program to operate. The information is limited to three Saskatchewan sources only. In order to fully understand the costs associated with paper recycling, detailed information needs to be gathered and analyzed from all sources available in the province. A further breakdown by substream of the various waste streams within paper would provide a more detailed indication of the costs and revenues. The information does provide a general indication of what a program within Saskatchewan can expect.

There should also be consideration given to the indirect savings and benefits that a recycling program can provide, such as landfill space that is saved by diverting material, and the employment opportunities associated with the recycling operations.

It appears that recycling of corrugated cardboard and newspaper would seem to be more cost effective streams for recycling in comparison with the other paper streams. Because of volatility, paper prices vary from increased profitability to a potential cost. However, if paper is collected strictly as “mixed paper”, a significant and on-going cost will be associated with paper recycling. This could make it attractive for paper recycling programs to separate corrugated cardboard, newspapers, and possibly other high value substreams from the paper/fibre stream.

Material		OCC	ONP	Mixed Paper
Total Operational Costs		\$90.00	\$90.00	\$90.00
Averages	CSR Sheet	\$87.00	\$94.00	\$39.00
	The Yellow Sheet	\$87.00	\$87.00	\$45.00
Net Revenue		*(\$3.00)	*(\$3.00) to \$4.00	*(\$51.00) to *(\$45.00)

*brackets indicate a net cost

4.5 Paper Recyclers Accessible from Saskatchewan

Company	Location	Materials Accepted	Pre-Processing	Phone Number
Newform Packaging	Tisdale, SK	News, Card, Mixed	Boxed, Bagged	306-873-5505
Allied Paper Savers, Can-cell Ind.	Edmonton	All	Boxed, Bagged	780-447-1648
Alberta Newsprint	Whitecourt, AB	News, Mags	Baled	1870749
Crown Packaging	Edmonton, AB	News, Card, Fine	Sorted, Boxed	780-464-4761
EMCO Limited Building Products	Edmonton, AB	News, Card, Mixed	Baled	780-466-1135
IG Paper Recycling	Calgary, AB	All	Baled, Loose	403-265-2128
IKO Industries	Calgary, AB	News, Card, Fine	Sorted, Baled	403-265-5022
Pine Falls Paper	Pine Falls, MB	News, Mags	Baled	204-367-5200
Wascana Recycling	Regina, SK	All	Baled, Loose	306-586-6044
Paper Mill Recycling	Edmonton, AB	All	Baled, Loose	780-944-1308
Urban Forest Recyclers	Swift Current	Newsprint	Baled, Loose	306-773-2500
Balkin Paper Stock Inc.	Calgary, AB	All	Baled	403-254-9930
Crown Shred & Recycling Inc.	Regina, SK	All	Baled	306-545-5454
Capital Paper recycling Ltd.	Calgary, AB	High grade, Mags	Baled, Loose	403-543-3322

Note: The above list does not include all companies involved in paper recycling.

5.0 Status of Paper Recycling in Saskatchewan

Saskatchewan Environment and Resource Management (SERM), as part of the work that is being done with the Paper Product Stewardship initiative, conducted a survey in the early part of 2000. The intent of this survey was to determine the amount of recycling being done in the province. Information obtained will be useful in identifying strengths and weaknesses of the collection and recycling of paper in the province.

The collection of recyclables is presently being conducted by private companies, service organizations, as well as through voluntary programs established by municipalities. The information received from the primary stakeholders as well as others involved in recycling provided a good representation of recycling programs in Saskatchewan. The accuracy of information may be limited due to sample size and methods used to gather the information.

5.1 Development of The Survey

The development of the survey was crucial to ensure that the information collected could be interpreted and used relative to the issues being studied. Well separated information would allow the department to interpret specific information on each of the waste categories collected. The purpose of the survey was to determine:

- the amount of paper and paper fibre that is currently being diverted from landfills in the province,
- waste generation rates, and,
- waste composition.

There were a number of different strategies for waste characterization considered including:

- 1) The National Packaging Task Force study on waste characterization - this federal document examined a number of different studies and categories that have been used, and it formulated a comprehensive listing of the waste streams and the materials that would be considered under each category²⁰.
- 2) Categories used by the brokers. This is the template that the municipalities are following if they are using the broker to market their material.
- 3) Recycling organizations (SARC, private businesses) are also involved with recycling and would have a categorizing method for their materials.
- 4) Municipalities are typically the primary group involved with recycling initiatives and would have the greatest variety of categories.

Using all these sources to determine the specific categories within paper, the survey requested information separated into the categories of: newspaper, magazines, corrugated cardboard, boxboard, telephone books, computer paper, office paper, tissue paper, wallpaper, polycoat and other paper. The survey separated paper fibre into a number of groups based on accepted national recommendations. SERM realized that some organizations did not weigh their recyclables in the given categories. However, any specific information was considered useful. If the material collected was a

combination of materials as separated by the categories specified, we requested that the different categories included be identified.

The survey was also separated into three different waste streams: residential, institutional/commercial/industrial, and construction and demolition. This was to ensure that the information collected would be flexible and could be analyzed separately if that derivation were required.

In addition to the waste information, we also requested the population of those who had access to the programs. This would assist in determining the number of people served by voluntary programs as well as identifying gaps.

The information requested would provide a better understanding of the state of paper recycling in the province, the number of people with access to voluntary programs, as well as the overall waste generation rates in the province. This would assist SERM in examining paper product stewardship, the gaps and the options available.

5.2 Information Submitted

Saskatchewan Environment and Resource Management requested a small group of primary stakeholders to assist in studying waste characterization and waste streams for paper and paper fibre in Saskatchewan. In addition to the primary group, we sent the survey to a number of municipalities and organizations that we were aware of being involved in recycling in the province. We also requested the primary stakeholders forward the survey to any other municipalities or organizations that they were aware of in the province.

There were a number of sources for the information, including:

- 1) SERM used all the existing reports that were available because of our involvement with waste management activities^{3, 4, 10}. These reports included information from a number of communities, studies conducted by other jurisdictions, and national studies reporting on Saskatchewan.
- 2) Saskatchewan Association of Rehabilitative Centres (SARC) membership - information was provided on 23 member agencies within SARC. A number of these agencies are recycling a number of different paper categories. Tonnages were provided for the 1999 year.
- 3) Regional Authority of Carlton Trail (REACT) - REACT operates a recycling collection program for the 26+ municipalities that are within their region. Tonnages were provided for the 1999 and 1998 years.
- 4) Cities of North Battleford, Saskatoon^{8, 9}, Weyburn, Melfort and Prince Albert - These cities provided information for their communities for the most current year. Very few communities in Saskatchewan have weigh scale information available.
- 5) Private Recyclers - Loraas, Crown Shred and Recycling, and Urban Forest Recyclers - These companies have involvement with recycling in the province. Information provided by these companies was specific to Saskatchewan.

6) Newspapers - Prince Albert Daily Herald, Moose Jaw Times Herald - The newspaper industry in Saskatchewan is the only stream that there is a possibility of determining the amount generated as well as the amount diverted. Information was obtained from two separate newspapers as well as a comprehensive list provided by Cosmopolitan Industries of all the daily newspapers and the dailies.

7) Towns of Meadow Lake, Outlook, Maidstone - These towns provided information on the material that is being diverted by their recycling programs. These communities have a varying degree of programs from very extensive to one that includes some key materials.

The information collected indicated that access to paper recycling programs is available to approximately 580,000 people while other stakeholder estimates go as high as 75 per cent of the population.

The data collected provided a representation of communities of varying sizes. This information was useful to provide representation of the programs available for communities and volumes that can be expected from these programs.

5.3 Assumptions and Obstacles

There were a number of obstacles and assumptions that had to be made in order to determine the paper diverted in the province by the number of organizations involved. The numbers received from the various stakeholders were very important and the accuracy of our provincial total is dependant on the data that we received.

Some information was sent by two organizations for the same community or organization. Although these numbers were not used twice to avoid double counting, they were used as a check to ensure accuracy. There were some opportunities to cross check numbers and to assess if the numbers were similar to other numbers that were available. These cross checks were used whenever possible to provide additional confidence in the data received.

The survey provided a large number of different paper categories that some organizations did not separate specifically. Some communities indicated that their numbers included certain paper categories but they did not have specific tonnages available for each category. In these cases a percentage of the total paper collected had to be assigned to specific paper categories in order to calculate the paper in each category diverted. These percentages were assigned based on the national breakdown of categories of paper in the paper waste stream. This occurred in a few cases where the community's tonnages were small compared with the total paper tonnages in the survey.

There were also some communities on which SERM had a number of years worth of information available. This was useful in looking at the trends in recycling in these communities, but for determining the paper recycled the most current information was used.

The most comprehensive information provided was from SARC, indicating the amount recycled from 23 member organizations. All of SARC's data were used in the survey, and if communities that were

served by a SARC member identified that SARC collected the material on their behalf, the community's numbers were used as a cross check.

There were a number of obstacles encountered in the derivation of the data. In the work conducted it was a challenge to determine the following:

- 1) The largest obstacle was the waste composition portion of the work done. In the province there is very limited information on typical waste composition for differing population sizes. The studies completed have been limited to the two largest cities. However, there were a number of out-of-province studies that proved to be useful and very relevant. Any opportunity to relate the waste composition to Saskatchewan was used in order to verify the numbers.
- 2) In addition to the waste composition information, generation rates for communities of different sizes provided another issue. Communities of differing sizes, industrial activity, commercial activity and purchasing habits provide differing waste generation rates. Saskatchewan's population is very diverse and provides a distribution of communities of all different sizes. In order to determine the amount of paper typically generated by these communities, a representative waste generation rate had to be determined.
- 3) The studies conducted have used differing methodologies. Awareness of the waste streams included in the studies was very important to ensure that similar materials were being compared. Some communities included only residential, or ICI or construction and demolition material or a combination of these waste streams. In order to ensure the numbers provided a representation of the situation in Saskatchewan, a similar combination of waste streams had to be compared.

With these obstacles, challenges, and assumptions, decisions were made based on best available knowledge, and were double checked when possible. The derivations conducted provide a reasonable range of possible paper diversion rates that Saskatchewan is experiencing.

5.4 Waste Profiles (See Table 1 - Waste Profiles)

Table 1- Waste Profile Spreadsheet provides a summary of the information received and used by SERM in the compilation of the data. This table is strictly the real numbers obtained through reports or from the stakeholders that provided information. In this table there have been no assumptions made or interpretations applied. This was done to ensure that the numbers obtained through the survey and the derivations used remained separated.

Table 1 - Waste Profiles

Community / Organization	Waste Stream Streams	Population Served	Total Waste Generated	Gen. Rate (t/c/yr)	Total Waste Landfilled	Paper Diverted From Landfill	Newspapers	Magazines	Corrugated Cardboard	Boxboard	Telephone Books	Fine Paper		Polycoat	Other Paper	
												Computer	Office			
City of Regina (1994)	Residential	192000	148,500.000	0.773	73,700.000	4,500.000*										
	ICI	1994			70,300.000											
City of Regina (1998)	Residential	180400			56,815.000	4,874.000										
	ICI					6,764.000										
City of Saskatoon (1998)	Residential	193647	116,178.000	0.6	61902	8516	5,654.000									2862
	ICI				41856											
City of Swift Current (1998)	Residential	14890	29,657.963	1.992	5,082.447	267.34										
	ICI				24,308.176											
City of Lloydminster (1998)	Residential	7636				2,367.395	1,137.620	2.98	1,214.460				12.335			
	ICI															
Town of Delisle (1997)	Residential	840			183.000	41.040	17.367		23.673							
Town of Outlook and Area(1998)	All Sources	4702				292.100	107.060	17.100	139.62	Incl. OCC			6.650			21.670
City of Moose Jaw (1998)	All Sources	32973	42,182.600	1.279	39,149.760	487.000										
City of North Battleford (1998)	Residential	14051	9,383.000	0.668	4,880.000											
	ICI				2,053.000											
	C & D				2,450.000											
SARC Members (1999)	All Sources	488428				21,829.770	12,327.430		6,012.550				138.000	740.130		2,611.660
REACT (1998)	Residential	18865	7,481.341	0.397	6,500.000	803.167										
Meadow Lake	Residential	5000	2,900.000	0.580	2,600.000	150.000	43.000	1.000	100.000	0.000	1.000	0.000	5.000			
	C & D		500.000													
City of Saskatoon (1999)	Residential	193647			119,000.000	5,835.500	1,458.900									4,376.600
City of Weyburn (1998)	All Sources	11000				447.000	220.000	21.500	173.000	Incl. OCC			7.000	25.500		
City of Weyburn (1999)	All Sources	11000				359.000	156.500	26.500	143.000	Incl. OCC			6.000	27.000		
REACT (1999)	All Sources	22500			2,860.000	1,605.883	313.167	64.930	1,156.270					56.649		14.867
Outlook (1998)	All Sources	2216	805.970	0.364	211.000	254.160	78.420	16.680	130.000	Incl. OCC	Incl. MW	Incl. Office	6.650	4.200		18.210
Town of Maidstone (1999)	All Sources	1000	1,608.000	1.608	1,560.000	24.000*										24.000
Prince Albert Daily Herald	Commercial		485.000													
Crown Shred and Recycling	Residential					463.250	272.500	54.500	54.500	27.250	5.450					49.050
	ICI					8,180.000	800.000		5,700.000					1,100.000		580.000
	Brokerage					4,000.000	2,000.000		2,000.000							
City of Melfort	Residential	6000	4,000.000	0.667	4,200.000	150.000	50.000		100.000							
Moose Jaw Times Herald	Newsprint		1,348.000													
Loraas Disposal (Saskatoon)	ICI					2,509.000	80.000		2,307.000					122		
Urban Forest Recyclers (1999)	Residential					8,400.000	6,600.000	600.000	780.000	240.000	60.000	60.000	60			
	ICI					3,600.000	600	60.000	2,400.000	480.000	12.000	24.000	24			
City of Prince Albert	Residential	38000	24,830.000	0.653	12,600.000	230.000*										
	ICI				12,000.000											
Totals		580883			287502.383	36041.443	16266.784	843.93	15805.653	777.790	6.450	138.000	2030.429	4.2	3273.787	

* - Included in other category

5.5 Waste Composition Estimates (See Table 2 - Waste Composition)

Another component of the survey was to determine what percentage the different categories of paper make up the waste stream. The information available for this portion of the survey was very limited for Saskatchewan specific numbers. The cities of Saskatoon and Regina are the only communities that have completed a detailed waste composition study. The town of Outlook also provided information on the amount that is recycled within the community, although this does not relate specifically to the composition of the waste being discarded, it is useful to relate these numbers to the calculated waste generation rates in the derivation portion of the work that was completed.

To expand the range of information and provide a number of different estimates for the amount of paper diverted, we gathered information from other jurisdictions with similar lifestyles and habits. Information was available from British Columbia, Alberta, Manitoba and nationally. Alberta and British Columbia both had waste composition studies related to the size of community served. The information from Manitoba provided waste generation rates for communities of differing sizes.

5.6 Derivation 1 - Calculated Waste Generation Rates and Waste Composition (See Table 3 - Calculated Waste Generated)

The initial derivation was the most intricate of the three done. This method divided the population according the communities of differing sizes so that specific waste generation rates and waste composition could be applied. The population was based on the 1996 census information, with the exception of the two largest cities where the populations cited in the reports were used¹³.

Current information was available for the waste composition and waste generation rates for the cities of Regina and Saskatoon. These cities had reports available that studied the waste characteristics for their specific communities^{3, 4, 8, 9}. This information was used in the derivation because the information is the most accurate for those communities. The city of Regina number had to be manipulated because the data did not include the ICI portion of the waste stream. To estimate the waste composition for the ICI portion the Stettler, Alberta numbers were used.

Manitoba prepared data on waste generation rates for communities of differing sizes¹⁶. This demographic division was used in this derivation based on the population split observed in Saskatchewan. This report made the division at communities over 5000 people, towns (2000 to 5000 people), towns (1000 to 2000 people), villages (0 to 1000 people) and the rural population. This provided a base to begin with to assign generation rates that, when compared with the few actual generation rates in Saskatchewan, are very reasonable.

Alberta conducted waste characterization studies on a number of communities that were of differing sizes¹. Information was used from Stettler, Alberta for the waste composition for cities over 5000 people, and towns (2000 to 5000 people). Information from Big Valley, Alberta was used for the waste composition for towns (1000 to 2000 people) and villages (0 to 1000 people) as well as Alberta waste compositions for the rural population.

This derivation provided an estimate of the amount of paper currently recycled in the province. It also provided an understanding of the different types and amounts of paper products being handled in the province.

The results of this derivation indicated that the amount of paper diverted in Saskatchewan was:

1. Total paper - 16 per cent
2. Newspaper - 34 per cent
3. Magazines - 25 per cent
4. Corrugated cardboard - 28 per cent
5. Boxboard - 19 per cent

5.7 Derivation 2 - National Generation Estimates (See Table 4 - Using National Waste Generation Rates)

The second derivation involved using the national estimates for generation rates and waste composition²¹. These were very general numbers that would provide another range of waste diversion rates. This would be useful to compare with other derivations.

The results of this derivation indicated that the amount of paper diverted in Saskatchewan was:

1. Total paper - 14 per cent
2. Newspaper - 17 per cent
3. Magazines - 4 per cent
4. Corrugated cardboard - 65 per cent

This derivation indicated that a significant portion of the corrugated cardboard was being removed from the waste stream. However, we are aware that one of the most significant issues at landfills is the corrugated cardboard. The corrugated cardboard diversion rate may be elevated because the national numbers only consider the residential stream and do not include the industrial/commercial/institutional portion that creates a significant portion of the corrugated cardboard portion of the waste stream.

Table 2 - Waste Composition

Waste Characterization		Population	Generation Rate	Breakdown	Total Paper	Newspaper	Magazines	OCC	Boxboard	Telephone	Computer	Office	Polycoat	Other Paper
City of Regina (1996)	Residential		1.03 (kg/ca/day)	0.497	40.0%	16.6%	4.6%	2.4%	5.6%		0.1%	0.8%	2.0%	3.0%
	Industrial, Commercial and Institutional		0.85 (kg/ca/day)	0.475	37% to 68% (43%)									
	Construction and Demolition		0.23 (kg/ca/day)											
Alberta (residential)	Rural				30.9%	8.1%		3.7%						19.1%
	Small Urban Residential (Big Valley)	300			35.6%	10.7%		1.2%						23.7%
	Small Urban Commercial				44.5%	2.7%		22.3%						19.5%
	Big Valley (Total)				40.1%	6.7%		11.8%						21.6%
	Urban Residential (Stettler)	5000			31.6%	6.8%		3.3%						21.5%
	Urban Commercial (Stettler)				46.0%	5.5%		18.6%						21.9%
	Stettler (Total)				38.9%	6.2%		11.0%						21.7%
British Columbia (residential)1991	Urban (Castlegar)				38.6%	7.7%		10.6%	5.5%	4.4%		3.5%		6.9%
	Rural (Slocan Valley)				31.9%	5.1%		7.6%	5.4%	4.6%		3.2%		6.0%
	Castlegar/Slocan Valley (Total)	6500	5170 tonnes		33.4%	5.6%		8.4%	4.4%	3.6%		2.7%		1.2%
	Residential (Kamloops)				32.0%	10.2%		3.8%	6.3%	4.1%		2.4%		5.2%
	ICI (Kamloops)				37.0%	6.5%		8.8%	5.3%	3.2%		4.9%		8.3%
	Kamloops (Total)				28.9%	6.3%		4.8%	4.4%	2.8%		2.8%		1.4%
City of Saskatoon -1996	Residential - Winter (1/3)			0.360	36.0%	9.0%		7.0%						20.0%
	Summer (2/3)				19.0%	4.0%		5.0%						10.0%
	Mixed Res/Com- Winter			0.060	43.0%	5.0%		8.0%						30.0%
	Mixed Res/Com -Summer				37.0%	5.0%		9.0%						23.0%
Outlook (1998)	Residential (tonnes)	2216	0.364		137.670	76.420	13.340	26.000	Incl. OCC	Incl. MW	Incl. Office	3.000	4.200	14.710
	ICI (tonnes)				116.490	2.000	3.340	104.000	Incl. OCC	Incl. MW	Incl. Office	3.650		3.500
	Residential				17.1%	9.5%	1.7%	3.2%				0.4%		1.8%
	ICI				14.5%	0.2%	0.4%	12.9%				0.5%		0.4%
National (1996 Estimates)	Residential		0.82		32.00%	12.00%	3.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.00%

Manitoba(1994) Rural (any population) 0.45 - 0.50 tonnes/capita/year
 Village (Under 1000 population) 0.51 - 0.55 tonnes/capita/year
 Town (1000 to 2000 population) 0.56 - 0.60 tonnes/capita/year
 Town (2000 to 5000 population) 0.61 - 0.90 tonnes/capita/year
 City (over 5000) 0.91 - 1.00 tonnes/capita/year

Table 3 - Calculated Waste Generated

		Population	Generation Rate	Total Waste	Total Paper	Newspaper	Magazines	OCC	Boxboard	Telephone	Computer	Office	Polycoat	Other Paper
City of Regina	Residential	192000	0.77	73700	28873	12256	3375	1732	4149	0	52	575	1452	2204
	ICI			70300	30229	3867	0	13076	0	0	0	0	0	15396
City of Saskatoon (1998)		203648	1.05	116178	31949	7552	0	6971	0	0	0	0	0	17427
Cities (over 5000)		119552	0.94	112379	43715	6967	0	12362	0	0	0	0	0	24386
Towns (2000-5000)		55719	0.8	44575	17340	2764	0	4903	0	0	0	0	0	9673
Towns (1000-2000)		42434	0.59	25036	11141	676	0	5583	0	0	0	0	0	4882
Village (0-1000)		110493	0.54	59666	23926	3998	0	7041	0	0	0	0	0	12888
Rural		266886	0.48	128105	39585	10377	0	4740	0	0	0	0	0	24468
		990732		629940	226758	48456	3375	56407	4149	0	52	575	1452	111323

TOTAL DIVERTED - Using Calculated
Waste Generated

15.9% 33.6% 25.0% 28.0% 18.7% 0.0% 267.5% 353.2% 0.3% 2.9%

Table 4 - Using National Generation Rates

Saskatchewan		990732	0.82	812400	259968	97488	24372	24372	0	0	0	0	0	113736
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TOTAL DIVERTED - Using National
Numbers

13.9% 16.7% 3.5% 64.9% 0.0% 0.0% 0.0% 0.0% 0.0% 2.9%

5.8 Derivation 3 - Newspaper

The most accurate and complete volumes reported were for newspaper. Newspaper was the only source of paper that can be specifically identified and tracked with any reasonable certainty of the amount generated and diverted. Although not all sources of newspaper were accounted for, a large portion of the waste stream has data available. Because the newspaper industry is very defined in Saskatchewan, obtaining information on the amount of newsprint that each of the dailies as well as the weeklies used in the last year was possible.

From the information received, approximately 20,962 tonnes of newsprint is used by newspapers in the province annually. This translates into approximately 77 per cent of newspaper generated currently being diverted.

This diversion rate is very high compared with other types of paper, but we must remember that newspaper has been collected the longest and is the best developed of all the paper diversion efforts. In this derivation it must also be noted that the total tonnage may also not be including other sources of newspaper such as flyers, automotive sales publications, telephone books or other out of province publications. There is also the possibility that the amount diverted may be higher because of other paper products included in the newspaper waste streams such as magazines, boxboard or fine paper. These factors may cause derivations of 77 per cent for newspaper to be fairly optimistic.

5.9 Summary

We would like to thank all those who took the time to complete the survey and who forwarded the survey to other interested parties. We would like to again emphasize the importance of the submissions, as the information derived is only as reliable as the numbers that were provided by the stakeholders. The ICI and residential waste streams were difficult to analyze because of the limited information available.

The survey conducted by SERM to determine the amount of recycling being done in the province was very useful to help us understand how paper was being handled in the province. The information obtained was useful in identifying areas of strengths as well as areas that needed more work related to paper recycling. The information provided a range of values for the diversion rates for paper in the province.

From the work completed it indicated that the amount of paper diverted in Saskatchewan ranged between:

1. Total paper - 14 to 31+ per cent
2. Newspaper - 17 to 77 per cent
3. Magazines - 4 to 25 per cent
4. Corrugated cardboard - 28 to 65 per cent
5. Boxboard - 19 per cent

We believe that if a detailed analysis of paper/fibre recycling in the province is to be conducted, additional work will be required to produce more accurate and comprehensive data.

The estimated range of total paper recycled in Saskatchewan seems to represent a reasonable range for paper diverted based on the national estimates, work the cities have conducted and the correlation with the United States Environmental Protection Agency. The total paper range was expanded considering the information used for the third derivation, and that newspaper is approximately 40 per cent of the paper stream. Newspaper diversion in Saskatchewan is likely towards the higher end of the range that was provided based on the accuracy of the data submitted. The diversion of magazines in the province is probably towards the lower end of the range, as the data were based on one city's diversion information. Corrugated cardboard diversion rates are questionable because of the limited information received from the commercial sectors in the province (the major producer of this paper stream). Boxboard diversion is also questionable because it is based on one derivation and represents information from only one city. There are a number of other paper streams (office, telephone directories, computer, etc.) that have little or no segregated information that is important to accurately reflect the total make-up of the paper stream.

Although these results are far from precise, they seem to indicate that in Saskatchewan we have room to improve in diverting paper. The challenge will be how to recycle economically increasing amounts of low value magazines and boxboard, while continuing to improve the rates for newsprint and cardboard.

6.0 Paper Stewardship Options

The attached options paper is one piece in the development of a comprehensive paper product stewardship strategy which will be examined by Saskatchewan Environment and Resource Management (SERM). Principles to guide the evaluation of options were developed by consensus with a large and diverse array of primary stakeholders. This process was not intended as a public involvement/decision making forum. However, it was needed to gather basic information on the issue. In addition to the primary stakeholder group, a secondary (corresponding) group of stakeholders was established to receive information and provide feedback as they deemed necessary.

Guiding Principles

The stakeholder group developed these twelve guiding principles:

- No Cross - subsidization between streams (e.g., revenues from recycling of tin cans should not subsidize paper recycling)
- Level Playing field (domestic & foreign) between materials in a multi-material system
- Recognition of waste management as a municipal responsibility
- Consider existing programs already in place
- Encourage partnerships
- Management by not-for-profit multi-stakeholder party (money not to go to general revenue)
- Stabilization of the revenue stream
- Excess funds dedicated to waste minimization initiatives
- Ensure cost effective programs
- Ensure environmentally effective programs
- Recognition of remoteness of location and economy of scale
- Shared responsibility between industry and municipalities

6.1 Options

The stakeholder group brainstormed many alternatives when considering the development of a paper product stewardship strategy for the province. In addition, a survey was sent out to stakeholders asking them to identify options for evaluation.

The government working group examined the issues raised by the stakeholder group and a determining factor was found to be management characteristics. Options were then developed from the alternatives based on management characteristics that separate one option from another. The intent is to develop and assess options and determine how well they align with the guiding principles. While some options may appear to be inadequate, impractical, or in contravention of the guiding principles, all are provided to enhance the evaluation process. The options, as separated, are not entirely independent of one another. Each contains some portions that may be similar to or overlap with other options.

The six options that will be discussed (in no particular preferred order) are:

- National Program
- Industry - Run Program
- Provincial - Run Program
- Third Party Program
- Municipal - Run Program
- Status Quo

6.2 Implementation Tools

When we examined all the suggestions provided in consultation with the stakeholders, a number of the alternatives were identified as implementation tools rather than options. These implementation tools may be used individually or in combination to support any one of the options. There are three main categories for the implementation tools identified below:

6.2.1 Regulatory Tools

There is a continuum of regulatory tools ranging from voluntary action (little or no regulation) to prescriptive regulation (with the expectation of frequent legal enforcement action). The following list is within this continuum.

- Landfill bans - Existing regulations could be expanded to ban paper/ fibre products from disposal in landfills. This would ensure that paper is removed from the waste stream and would provide a feedstock to paper recyclers.
- Minimum recycled content - A regulation could be developed to require a minimum recycled content in paper products sold in the province. This would generate a need for material within the province.
- Municipal participation - Participation in a program could be regulated to ensure that recycling is provided across the province. Such a regulation might require all municipalities to administer their own paper recycling programs or enter into agreements with third parties to undertake recycling on their behalf.
- Backdrop regulations - Less intrusive backdrop regulations could be developed to support a stewardship program run by industry, municipalities or a third party. Government would be involved in overseeing backdrop regulations.
- Funding mechanisms - Regulations could be developed to structurally fund a program to establish levies or fees to be payed. This option could involve monies being funneled through general revenue or to a third party board.
- Management structure - A structure for the program could be regulated and it could target either municipalities, industries, third parties, or other options. The management and operational responsibilities could be outlined in a regulation. This might be a management structure that could range from one third party board to a number of municipally-supported programs.
- Enforcement and Compliance - Increased enforcement and compliance activity could be initiated to promote the success of the program. Government has a number of tools

to increase compliance of any regulated program. These include prosecutions, compliance orders, administrative orders, injunctions, etc.

- Voluntary - The government could support and promote a voluntary program in the province through a number of mechanisms such as partnerships or memorandums of understanding with all interested parties.

6.2.2 Economic Tools

There are a number of economic tools that may be considered for funding a program. Funding (who pays?) was one of the major issues that was of interest to the stakeholder group.

- Grants - Funding could be provided through a grant system. Grants provide a sum of money for a specific purpose.
- Levies (consumer-pay)- A levy system could provide funding by placing an environmental handling charge (EHC) on paper/fibre products. The levies could be placed on any portion of the purchasing chain - from raw materials, where it is sold as a stock material, or where the consumer purchases the material. This would focus on the industries, businesses, institutions and consumers that use paper.
- Waste Charges - A charge could be placed on waste being disposed of similar to the current utility bill system, fees at landfills or bag and tag system used by many municipalities. These charges could be used to fund new recycling programs focusing on paper as a starting point²³.
- Taxes - Taxes would be a broader funding mechanism that would simply be charged to every individual in the province. The government would be solely responsible for the collection and administration of the funds which would become part of the general revenue fund of the province. Municipalities could add a portion to their tax bill to fund a recycling program. Some municipalities have taken this approach.
- Industry Funding Organization (IFO) - Industry (Brand Owners) could join an industry funding organization which would pool their contributions. The fee to join the IFO could be based on dollars of sales, units or could be a weight of volume based fee. The pooled contributions would form the basis of financial support for shared financial support of a municipal waste diversion by industry.
- Incentives - We could set up a system that encourages and rewards either municipalities, industries, third parties, or others that participate in recycling programs.
- Disincentives - The reverse of incentives would be disincentives. This would be accomplished by fines, penalties, administrative charges, or other options to discourage disposal of paper/fibre to landfills¹⁸.

6.2.3 Operational Tools

There are a number of operational tools that may be considered for any program recommended.

- Blue box program - This is used in other jurisdiction. It is one alternative for providing the collection system required for a program. Home owners would be responsible for the separation of the materials.
- Composting - One alternative for the use of the paper fibre that was suggested is to compost the material. This would reduce transportation and market concerns, however, this tool would be considered a relatively low value re-use option.
- Education - For the majority of options outlined education is a necessary component. A multi media approach would be required to educate the public about the program.
- Communications - Promotion of any program and regular communications about how the program works are required to ensure its success.
- Regionalization - Co-operation and joining resources could be one alternative for a provincial program. This would involve a number of communities, industries or third party interest groups joining resources to develop and operate a program. It could be based on any number of geographic or administrative divisions (e.g., we could establish areas based on the natural eco-regions of the province, existing regional waste management systems, etc.).
- Centralization - Centralization could be an operational component of any program. This would involve the development of one body that would oversee the program in the province.
- Integration - Partnerships could be developed to accomplish a program in the province. This may include established programs expanding to cover the entire province with outside interest groups.
- Marketing - This is an important component of any program to ensure that a premium price is obtained for the materials that are being marketed. Marketing would include the 4 P's - ensuring product is available, at the right place, with a reasonable price, providing the adequate promotion.

6.3 Discussion of Options

6.3.1 Option 1 - National Program

Description

Our vision for a national program could involve a coordinated effort by all provinces and it could include the participation of major industry, interest groups and municipalities. A cooperative effort between the federal and provincial jurisdictions, managed under guidelines created by the Canadian Council of Ministers of the Environment (CCME) could be the basis for this program. Considerable discussions nationally would be required to initiate and gain support for this option. This option would have to address a number of issues:

Funding - Would industry contribute based on their sales? Would producers of the materials pay based on tonnages produced? Would each province contribute to the program based on population, demographics, materials entering each province? Would the federal government provide funding from their tax revenue? Would consumers be charged based on consumption? An equitable funding mechanism would be required for all those contributing parties to the program. How would provinces that have a large manufacturing base be impacted?

Collection, Processing and Marketing - What type of system would be needed to manage the collection, processing and marketing of paper fibre? Would each participating body provide a centralized collection system? Who would be responsible for the transportation to the mills or recycling facilities? Who would be responsible for the storage of collected material? Would one province take the lead on this initiative based on their advanced level of expertise on stewardship programs? Would a third party organization be established to oversee the program? How would the third party organization be established and managed? Could an existing third party be called upon to oversee the program? Are municipalities involved and to what extent? How does it include existing programs and private contractors? All jurisdictions have a variety of programs with different maturity levels that would have to be considered. How would these be included in a national program? Consideration must be given to those programs already operating.

How would the paper/fibre materials be marketed? Would the materials be marketed centrally, regionally or where they are collected? Who would be responsible for marketing the materials?

Education and Communication - Promotion of the program would be required to ensure sufficient participation. This would involve educational materials available through schools, community groups and the general public. An on-going media campaign would be needed to be initiated to inform the public of the program details.

Pros

- Provide a consistent approach across Canada
- Stabilized markets for the materials including price and feedstock stabilization
- United national approach to include industry
- Provide many or most Canadians with access to a recycling program
- Gain access to those jurisdictions who have the comprehensive expertise on stewardship programs
- Ease interprovincial issues related to recycling
- Reduce the difficulty of individual provinces attempting to deal with the issue of import/export of paper/fibre

Cons

- Difficult to coordinate provincial and federal involvement, which could take considerable time to implement
- Some jurisdictions may be more advanced than others, limiting their desire to participate in the program
- May not address all of Saskatchewan's needs
- May not consider existing programs or private contractors
- Sparsely populated areas may not be included due to economic viability constraints
- Difficult to coordinate centralized approach
- Federal and provincial regulations may not be consistent
- Transportation coordination would be difficult
- Fairness of pricing could become an issue
- A national program may not recognize waste management as a municipal responsibility

6.3.2 Option 2 - Industry - Run Program

Description

An industry run program may include stakeholders composed of front end operations such as the mills, the pulp and paper industry, manufacturers of products produced, the newspaper industry, and/or any brand owner or group of brand owners²⁵. This would ensure a cradle to grave approach placing the accountability and responsibility on those who produce the materials². This type of program would require extensive consultation and communications to expedite the program. The costs associated with this program would be borne directly by industry. How do we fairly treat each product to form an equitable cost formula? Government may be required to establish partnership agreements with industry or provide backdrop legislation needed to implement this type of program. How would a diverse group of industries be organized, and what role would government have in this program? Consideration must be given to municipal recycling and third party programs already established in the province and how they would be involved. How would an industry or manufacturer from outside of the province be included in this type of program? Coordination for this type of program may be significantly influenced by out of province industries. Would there be one consolidated program, or would each industry sector (e.g., boxboard versus newspapers) have its own program?

Pros

- Has greater potential to reduce packaging or promote new packaging initiatives
- Has greater potential to increase efficiencies within industry
- Represents a true Stewardship option
- Minimize government involvement
- Government should not have to provide funding

Cons

- Difficult to establish and ensure participation from industry as a whole
- Difficult to develop an equitable cost formula to avoid cross-subsidization
- Difficulty in managing out of province industry
- May not address all Saskatchewan's needs as the majority of stakeholders are outside of the province
- May not consider existing programs, third party groups or private contractors
- Difficult to coordinate centralized approach
- Industry may not be perceived by the public to have the best interests of environmental protection in mind.
- Fragmentation could occur if multiple programs are required.
- Negotiations with many industry sectors would be required.
- May not recognize waste management as a municipal responsibility.

6.3.3 Option 3 - Provincial - Run Program

Description

A provincially run program would be operated by the government without direct stakeholder participation. Government would be directly involved in the operation and activities of the program. The allocation of staffing for a designated program would need to become established. The importance of this program may be supplanted by other environmental issues that may come to the forefront. This type of program would draw funds from and deposit revenues into the existing general revenue fund. A mechanism would need to be established by government to administer the proper allocation of funds for the program.

Pros

- Existing systems already exist for expansion
- Neutral viewpoint and operation
- Provide all citizens with access to a recycling program
- Potential to provide employment for persons with disabilities

Cons

- Government would be directly involved in operations
- Government may have to subsidize the program
- Indirect taxation is a probable funding source
- Money would be designated through the general revenue fund
- Wages and benefits would be paid at government rates leading to costly administration
- May not allow the most appropriate groups to administer the program
- Inconsistent with the government's stated principles for environmental protection
- Lengthy approval and implementation processes would be required

6.3.4 Option 4 - Third Party Program

Description

A third party program may include participation from a range of stakeholders including sheltered workshops already operating within the province, SARC, SARCAN, service organizations, Corporations Supporting Recycling, existing recycling programs in the province, municipalities, industries, government, environmental groups or a newly formed third party consisting of a combination of the above. The third party would be responsible for the coordination of collection, processing, marketing, education and communication of the program. Who would be represented as the third party? What role would government, municipalities or industry have with the third party? How would accountability be handled for this program? What mechanisms are required to ensure viability and accountability for the program? The third party would have to develop a business plan to ensure long term viability. Funding options may range from voluntary to regulated fees or levies. How would the funding mechanisms be established and who would pay for the funding of this type of program? Funding may be available through industry or government. There are existing organizations which have fee structures in place which requires industry to pay on a dollar per sales basis. Existing third parties could initiate expanded programs quickly to include other materials. This program may be expanded into the collection of a range of recyclable materials. What third party could best deal with this material?

Pros

- Concentrates the focus on a neutral party
- Number of existing funding mechanisms in place
- Existing third parties are presently involved with large industry
- Systems already exist for expansion
- Government would be more at -arms -length from operations
- Third party would interact with municipalities directly
- Neutral viewpoint and operation
- Could potentially be implemented relatively quickly
- Would require representation by or the support of diverse stakeholders

Cons

- Third party acts independently of municipal interests
- Government may have to subsidize the program, particularly at first
- Government would be open to lobbying from third party groups
- Third party may not accomplish the desired results
- Added risk with a third party program remaining viable
- Negotiations with potential third parties and stakeholders would be required
- Third party may experience difficulty in reaching consensus

6.3.5 Option 5 - Municipal - Run Program

Description

A municipal - run program may involve a set of stakeholders made up of all municipalities including established regional systems, SUMA, SARM, REDA's, New North and private contractors who are responsible and accountable for the collection, operation, marketing, promotion, education and communication of the program. The basic ownership of this type of program would be geared towards municipalities and their organizations. Municipalities are legally responsible for waste management in the province. Existing third party organizations and private contractors would have to be considered as delivery mechanisms for inclusion in this type of program. Demographics and the geographic nature of the province creates its own set of issues. How would the North and the South and Urban/Rural be equally represented and served within the program? How would this program include existing recycling programs? A newly established management board may be required to oversee this type of program. Larger urban centres with existing infrastructure and programs may not wish to participate in this type of program as their existing programs may be well established. A transition period may be required to allow for time to set up a new program.

Pros

- More potential for employment opportunities within municipalities
- Municipalities have more ownership with this type of program
- Encourages cooperation amongst municipalities, and indirectly supports regionalization of solid waste management

Cons

- All municipalities may not wish to participate in the program
- May not consider existing third party programs or private contractors
- Equal representation of Rural/Urban, North/South and Large vs. Small may be difficult
- Sparsely populated areas may not be included due to reduced economic viability
- Could be detrimental to existing recycling programs (may not consider established infrastructure or programs)
- May not provide any financial advantages for municipalities overall
- Does not make industry directly responsible for their products
- Is not a consumer-driven program

6.3.6 Option 6 - Enhanced Present System

Description

Voluntary initiatives made up of municipalities, private companies and third party organizations exist for collecting recyclable materials. These groups are independently or in some cases jointly responsible for the collection, processing, marketing, promotion, education and communication for their programs. Government funding is not currently available, however there are important recycling programs ongoing by municipalities, third party organizations and private companies for recycling of newspapers, telephone books and other paper fibre products. Coverage for these options is not uniformly accessible throughout the province. No formal program exists to coordinate these efforts. Fluctuations of services provided by the municipalities generally occur due to the unstable market prices of paper/fibre.

SERM distributed a survey to the stakeholders to obtain an understanding and some information on how paper/fibre is being handled in the province. There is a significant portion of the provincial population that has access to some form of recycling option. The large urban centres of the province or service groups within them have established programs to deal with the paper/fibre currently. There are also a number of regional programs in place. The majority of these programs deal with the residential portion of the paper/fibre stream only, however a large potential still exists within the industrial/commercial/institutional (ICI) portions of the waste stream for increased recycling. From the work completed on the limited survey information, the amount of paper currently diverted in Saskatchewan ranges as follows:

1. Total paper - 14 to 31+ per cent
2. Newspaper - 17 to 77 per cent
3. Magazines - 4 to 25 per cent
4. Corrugated cardboard - 28 to 65 per cent
5. Boxboard - 19 per cent

The above ranges are based on a number of different scenarios for waste characterization and waste composition and should be used as general information only. Newspaper recycling varies significantly; the 17 per cent is from national waste generation rates, while the 77 per cent is from provincial numbers. It is expected that newspaper recycling is closer to the high end of the range provided.

Regionalization of waste management facilities has contributed to voluntary waste minimization and paper/fibre recycling. Education regarding waste reduction and waste management initiatives has been conducted voluntarily by a number of special interest groups.

Pros

- Voluntary program
- No government involvement or funding
- Programs exist where there is strong interest
- Large urban centres have established recycling programs
- Interest groups provide some education and communication

- No conflict with other provincial programs
- No cross subsidization exists
- Systems already exist for expansion
- Could potentially be implemented relatively quickly

Cons

- Fluctuations in materials recycled and market values for recyclables
- Does not provide equivalent service to all areas of the province
- Does not remove a large portion of total paper from the waste stream
- Difficult to coordinate the proper approach for the program province wide
- Demographics within the province dictate services provided and materials removed
- Does not make industry responsible for their products

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**Appendix 1 - Membership
Primary and Corresponding Stakeholder Networks**

Primary Stakeholder Network

Canadian Federation of Independent Business - Marilyn Braun
Corporations Supporting Recycling - Geoff Rathbone
Cosmopolitan Industries (Saskatoon)
 Bob Pringle
 Mike Stensrud
Crown Shred and Recycle - Jack Shaw
Meadow Lake Disposal - Terry Lamon
Nuform Packaging - Rick Sawatzky
Regional Authority of Carlton Trail - Dan Swerhone*
SARC - Ken Homenick
SARC - Wheatland Regional Centre - Bob Legoffe
SARCAN - Kevin Acton
Saskatchewan Weekly News Association - Terry Jenson
Saskatchewan Urban Municipalities Association - Donna Birkmaier
Saskatchewan Environment and Resource Management
Saskatchewan Waste Reduction Council - Joanne Fedyk
Solid Waste Association of North America - Dwight Mercer
Town of Outlook - Rick Pederson*

The Regional Authority of Carlton Trail and the Town of Outlook withdrew from the Primary Stakeholder Group just prior to the finalization of this report.

Corresponding Stakeholder Network

Agency Chiefs Tribal Council - Terrence Lewis
Allied Paper Savers - Jack Astill
Canadian Council of Grocery Distributors - Bryan Walton
Chamber of Commerce (Sask.) - Craig Zawada *
City of Saskatoon - Eve Casavant
City of Prince Albert - Arnie McKay
City of Regina - Derrick Bellows
City of Moose Jaw - Dorian Wandzuria
Consumer's Association of Canada - Saskatchewan Branch
Cosmopolitan Recycling (Regina) - Mike Carpenter
Crown Packaging - William Stitt
Environment Canada - Dave Munro
First Brands (Canada) Corp - David Douglas
K&B Construction - David Keys
Loraas Disposal Services Ltd. - Bruce Loraas

Loraas Disposal Ltd. (Regina)
Carmen Loraas
John Rooney
Mainline / Moose Mountain RWMS - Eugene Doroshenko
John McConnell
Moose Jaw Times Herald - Ab Calvert
MTD Disposal - Sten/Audrey Lockwood
Ottenbreit Sanitation - Greg/Grant Ottenbreit
Paper and Paperboard Packaging Environmental Council - John Mullinder
Jean Pearson
Prince Albert Daily Herald
Quik Pick Waste - Doug Carson
Regens Disposal Ltd.- Gene Barniulis
Regina Leader Post - Greg McClean
Saskatchewan Association of Rural Municipalities - Ken Engel *
Saskatchewan Environmental Managers Association - Stacey Carmichael
Saskatchewan Environmental Network - Cathy Holtslander
Saskatoon Star Phoenix
Silver Star Salvage - Calvin Anderson
Tisdale Disposals Ltd. - Friedel Magnus
Urban Forest Recyclers - Ray Huser
Weyerhaeuser Saskatchewan - Steve Smith (V.P.)

* Invited to be a Primary Stakeholder

Appendix 2 - Terms of Reference
Paper Product Stewardship Strategy

TERMS OF REFERENCE

Paper Product Stewardship Strategy

Issue

To develop a strategy which uses a stewardship program to assist recycling / waste minimization in Saskatchewan. Initial efforts will focus on paper / fibre as a template for other products.

Background

Saskatchewan, along with other provinces, has committed to the target of reducing solid waste to landfills by 50 per cent by the year 2000¹. While reduction of waste and re-use of objects and material continue to be encouraged as the preferred methods to reduce the amount of waste disposed of in landfills, recycling is considered to be an important component of a waste minimization program. Stakeholders in Saskatchewan, including municipalities and other groups, have raised the issue of using product stewardship programs as a means of providing financial stability to recycling programs which, in some areas, are not consistently viable based on the salvage value of their products alone. Paper products typically account for approximately 30 per cent of the total municipal solid waste stream. While existing operations in Saskatchewan are recycling significant amounts of paper products in some areas, paper continues to be a problem at many landfills in the province. Diverting paper products from landfills through reduction, re-use and recycling will be key to achieving waste minimization targets.

Saskatchewan has mandated other product management programs or set environmental handling charges for waste materials such as used oil, scrap tires and beverage containers. SERM's Environmental Protection Branch (EPB) has committed to lead an initiative to review product stewardship options and develop a waste minimization strategy based on this review. The initial focus will be on developing a stewardship strategy for paper/fibre with an expectation that this strategy will be used as a template for developing stewardship programs for other material. The initial outcome of the review will be a paper outlining a recommended strategy with respect to developing a stewardship program for paper products in Saskatchewan.

Participants

The initiative will be led by SERM's Planning Section with representation from Standards Section, Client Services Section and the ecoregions on the core government working group (GWG). This group will be responsible for organizing consultation activities and preparing the final report.

In addition to the core working group, a stakeholder network will be established to provide insight, information, feedback and input into the process. Participation in the network will be on a voluntary basis. Apart from the expenses associated with communications and meetings, which will be coordinated by the GWG, no funding will be available to the network. The stakeholder network should represent all interests who have a direct stake in the outcome of the project including industry, environmental groups, waste management and recycling organizations and urban and rural municipalities. Interested organizations will have the option to be actively involved in the process through participation

¹Saskatchewan's Environmental Agenda, 1994.

in the Primary Stakeholder Network (PSN), or to take a less active role but remain informed through participation in the Corresponding Group.

Mechanisms

The GWG will research the potential for a stewardship program for paper products and ensure early and ongoing participation of the PSN in identifying priorities and opportunities, and making suggestions on the focus and operational aspects of the initiative. It will also be responsible for ensuring full integration of the strategy proposal, as it develops, with other existing programs including those within the department, the province, and between provinces. It will be essential that the strategy avoid any potential conflict with existing programs and that its economic, social and market implications are understood in the context of any existing, planned or potential initiatives in this or other jurisdictions. The GWG will consider a wide range of options including voluntary and legislated, and will evaluate those options against EPB's principles of risk management, pollution prevention, minimal intervention, ecosystem focus, partnerships, empowering regulations, devolution and regional program delivery. The GWG will prepare and finalize the strategy proposal.

Consultation

Target groups will be involved initially through the PSN. The PSN should represent all interests who have a direct stake in the outcome of the project. Other interested parties will be kept informed through communication sent to the corresponding Group. Additional consultation within and outside of government may also be required. It will be the responsibility of members of the PSN to try to ensure that they are communicating with and representing the interests of their sponsoring group or organization. Other communication / consultation objectives may be set by the GWG as the initiative progresses.

Approval Process

As an External Sector Policy, the report will require approval of the EPB, affected ecoregions and the Assistant Deputy Minister. The strategy report, if adopted as the basis for policy development, will ultimately require approval of the Minister of Environment and Resource Management.

Communication

As a strategy report, the document developed will be communicated primarily to an internal audience. Should it be adopted as the basis for policy development, a wider communication strategy would be developed.

Appendix 3 - Survey on Options

Saskatchewan Environment and Resource Management
Survey on Options

Product stewardship describes various mechanisms through which the producers / consumers of a particular material can take responsibility for the ultimate disposal of that material. The following set of questions is designed to generate ideas among the stakeholder network regarding how product stewardship principles could be used to help improve Saskatchewan's performance in recycling all types of paper / fibre products. The results of the survey will be discussed at the next meeting of the stakeholder network.

1. What problems do you see with the current paper recycling system?

2. Is stewardship the proper mechanism to enhance current recycling programs?

3. What kind of stewardship program would be appropriate for paper products in Saskatchewan? (mandatory vs. voluntary aspects)

4. How do you see a stewardship program operating organizationally?

Examples:

- Third Party Board - Recognizes / registers legitimate recycling businesses, haulers, or municipalities
- Use Existing Partnerships - Use existing partnerships / programs / infrastructure such as SARC to run this program
- Industry-run program

5. Who do you see involved in the principal collection of paper/fibre products for recycling?

Examples:

- Private industry
- Existing partnerships / agencies
- Municipalities

6. How do you see the paper collection / recycling aspect of a stewardship program operating?

Examples:

- Collection depots / drop-off bins
- Private Collection
- Curbside collection
