



**BELL ELECTRONIC AND ELECTRICAL EQUIPMENT STEWARDSHIP PLAN
BRITISH COLUMBIA**

Revised Version May 2012
Original plan submitted September 2011



1.	Bell Stewardship plan profile	1
2.	Products covered by the program.....	2
3.	Process	3
3.1	<i>Bell Use</i>	<i>3</i>
3.2	<i>Bell business market.....</i>	<i>5</i>
4.	Product recovery rates and targets.....	6
4.1	<i>Bell Use</i>	<i>6</i>
4.2	<i>Bell Business Market</i>	<i>6</i>
5.	Stakeholder Consultation	7
6.	Program Performance Measurement	7
7.	Dispute Resolution	7
8.	Product life cycle management.....	8
9.	Pollution Prevention Hierarchy.....	8
10.	Consumer awareness.....	10
10.1	<i>Bell Use</i>	<i>10</i>
10.2	<i>Bell Business Market.....</i>	<i>10</i>
APPENDIX A : BELL USE		11
APPENDIX B : BELL BUSINESS MARKET		14
APPENDIX C : STAKEHOLDER CONSULTATION		15
APPENDIX D : STAKEHOLDER LIST		16



1. BELL STEWARDSHIP PLAN PROFILE

British Columbia adopted a regulation on October 7, 2004 (Recycling Regulation, B.C. Reg. 449/2004), under the Environmental Management Act, requesting Producers of regulated electronic equipment to establish a stewardship plan for their end of life equipment. A producer is subject to this regulation for its regulated electronic equipment sold, offered for sale or distributed in British Columbia. Stewardship plan must demonstrate how producers apply Extended Producer Responsibility (EPR) for the life cycle management of their products, including collection and recycling. Moreover, producers need to develop a Stewardship Plan in a manner and format satisfactory to the Director of the British Columbia Ministry of Environment.

In response to the above regulatory requirements, for all consumer products that Bell¹ is considered being the producer, as defined by the definition provided in section 1 of the Regulation, Bell has decided to join Electronics Stewardship Association of British Columbia (ESABC); with the exception of mobile devices which are already included in the Canadian Wireless Telecommunications Association (CWTA) Stewardship plan named "Recycle My Cell".

This Bell (including Northwestel² operation) stewardship plan is specific to equipment subject to the Recycling Regulation and phased in on July 1, 2012 under the electronic and electrical product category section 2.3i and covers network equipment and administrative equipment used by Bell, as well as network equipment sold to Bell business customers;.

As Bell is ISO 14001: 2004 certified for all Bell business sectors across Canada; centralized processes including reverse logistics are established, controlled and

¹ Bell is Canada's largest communications company, providing consumers with solutions to all their communications needs, including telephone services, wireless communications, high-speed Internet, digital television and voice over IP. Bell also offers integrated information and communications technology (ICT) services to businesses and governments, and is the Virtual Chief Information Officer (VCIO) to small and medium businesses (SMBs).

² Northwestel is the primary telecommunications provider of the North, offering internet, data, telephone, television, wireless, and additional communications solutions through many communities in the Northwest Territories, Yukon, Nunavut, northern British Columbia, and northern Alberta. Northwestel became a subsidiary of BCE Inc. in 1988 and of Bell Canada in 1999.



monitored on a national basis. Therefore, elements on this stewardship plan reflect a centralized management of end of life equipment.

2. PRODUCTS COVERED BY THE PROGRAM

The following is a general list of Bell equipment covered in product categories listed in the BC Recycling Regulation section 2.3. This list remains general, as it does not enumerate accessories or peripherals.

Administrative Equipment

- Corded desktop phones
- VOIP and Centrex phones
- Computers
- Printers
- Data equipment
- Global positioning System equipment (Telepod)
- Video and telephone conferencing equipment
- Batteries associated with these electronics

Telecom Network Equipment

- PBX
- Router
- Cable
- IP Telephone System
- DMS
- Servers
- Modems
- Printed circuits cards
- Batteries associated with these electronics
- Data Equipment



3. PROCESS

3.1 Bell Use

3.1.1 *Network Equipment*

Bell network operations staff manages decommissioned equipment through the following steps:

- 1- Decommissioned equipment is kept on site for future use when possible.
- 2- If decommissioned equipment does not meet local foreseeable needs, it is sent to our warehouses where it is evaluated for:
 - a. other internal redeployment , or
 - b. final dismantling and recycling through a ISO 14001 certified electronics recycler under specific contractual agreements with Bell.

It worth noting that some network equipment is covered under a vendor take back program. In which case, such equipment is always sent back to the vendor when decommissioned.

Part of its ISO 14001 certified Environmental Management System, Bell has set an internal procedure named “Disposal of Lead Acid Batteries” which provides instructions on how to ensure lead acid batteries are transported and recycled in compliance with applicable environmental legislation and best management practices. Bell does not, and under no circumstances, sell or give any lead acid batteries to individuals or companies that are not battery recyclers, except when the battery is recovered by the vendor. Bell’s preferred option is to add provisions in its purchasing agreements to have its battery vendors taking back decommissioned batteries. Such provisions include requirements ensuring used batteries will be properly managed after service life.

3.1.2 *Administrative Equipment*

Portable Computers, Desktop Computers, Desktop printers and Computer peripherals and monitors

These types of office equipment are managed through an internal web application called “My Telecom Warehouse”. This application allows controlling the deployment of equipment to each employee or user groups, and retrieval of such equipment either at its end of life or when an employee leaves the company.



Retrieved equipment is shipped to a warehouse for triage. Depending on its condition and respecting the pollution prevention principle, equipment from the warehouse follow one of those three disposition processes:

- 1- Equipment is redeployed internally
- 2- Equipment is refurbished and donated to a secondary market through our Computer for School program *
- 3- Equipment that cannot be redeployed through the above two options are sent to a ISO certifiedrecycler

*Note that due to limited third party resources, this refurbishing stage does not apply to Northwestel.

Landline Telephones

Landline telephones are constantly reused as they are not assigned to individuals but to workstations. Defective or surplus landline telephone sets are sent to a central warehouse via My Telecom Warehouse, where they are sorted for internal redeployment or for recycling through a ISO 14001 certified electronics recycler. .

Northwestel's reverse logistic for landline telephones is slightly different. When possible, end of use telephones are refurbished locally, otherwise they are shipped to a Bell ISO 14001 certified Recycler.

Xerox Multifunction Devices

It is Bell's policy to share all multifunction devices to minimize paper and electronic consumption. The multifunction devices are capable of scanning to e-mail, fax, print and copy. They are located in centralized offices throughout Canada and are all networked to allow employees to access any device in any building. Bell strives to reduce the number of desktop printers.

The Xerox Multifunction devices are all leased and returned to Xerox at the end of the lease. Xerox is responsible to manage the pickup and disposal/recycling of these units.

Xerox re-uses equipment by remanufacturing used equipment to its standards, salvaging re-usable components where practical, and destroying older equipment that have outlived their technological life. The Bell contract with Xerox requires Xerox to destroy all hard-drive equipment in an environmentally friendly way



and provide certificates that the equipment has been destroyed. According to our agreement with Xerox, all scrapping is done under contract with government approved electronics recyclers and closely monitored. All equipment entering recyclers' facility is completely destroyed and recycled.

Telematics hardware (GPS enabled technology)

Bell Canada completed the deployment of Telematics hardware in technicians' vehicles in 2010. On an ongoing basis, the Telematics hardware is collected at the end of life of the vehicles and shipped back to the supplier who keeps the returned Telematics hardware inventory for repair and return purposes. Depending on their condition and respecting the pollution prevention principle, Telematics hardware follow one of those three disposition processes:

- 1) Working but deactivated units are recovered from the field and reused in both new and old vehicles
- 2) Operating parts from non-reusable units are used to repair other units as needed
- 3) Non operating parts are sent to an electronic recycling supplier

Administrative Batteries

Bell provides battery recycling containers at all multifunction device printing stations and at all multi-port recovery stations located in office spaces (2-3 per floor). All the recovered batteries are shipped to our Centralised Hazardous Residual Material Recovery Center, where they are sorted and sent to authorized recyclers or disposal facilities.

3.2 Bell business market

Given that network equipment has a high reuse/resell value, about 25 to 30 % of the volume of decommissioned equipment is managed through manufacturers' trade in programs. The remaining is managed directly by our Business customers who usually redeploy the equipment within their business, resell it or ensure its recycling.

To date Bell has not received any request to manage decommissioned network equipment from its Business customers in western Canada. Should this situation change in the future, Bell will easily manage such requests through its own reverse logistics process as described in subsection 3.1.1.

4. PRODUCT RECOVERY RATES AND TARGETS

The management of end of life electronic equipment is centralized, the product recovery rates and targets are determined at a national level.

4.1 Bell Use

4.1.1 *Network Equipment*

Through its ISO 14001 certified environmental management system, Bell has had in place for number of years a network equipment recovery program, which aims to recover 100 % of decommissioned equipment. Procedures, online training, audit and specific environmental tasks delivered to environmental coordinators are many tools used internally to ensure reaching this recovery rate.

Based on our records, Bell has recovered in 2010 100 % of its decommissioned equipment and is aiming to maintain this recovery rate for the following five years

In 2010, Bell collected 7,568 tonnes of materials from network operations, out of which 6,799 tonnes (89.8%) was recycled or used as a fossil fuel substitute, a 2.8 percentage point improvement over 2009. .

4.1.2 *Administrative Equipment*

As computers contain confidential information, Bell has put in place a process that ensures the retrieval of such equipment either at its end of life or when an employee leaves the company. Through this mechanism, nearly 100% of computers are collected. The same mechanism is employed for administrative electrical and electronic equipment, which enabled reusing and recycling 133 tonnes of computers and peripherals in 2010.

The collection process for Telematics hardware ensures the recovery of all units at end of life. In 2010, about 2,175 units were either reused or recycled through this mechanism.

With our actual recovery mechanisms, our target for administrative equipment covered in section 3.1.2 is to maintain a recovery rate close to 100 % over the next 5 years.

4.2 Bell Business Market



The totality of decommissioned network equipment received from our western Canada Business customers will be managed through our own reverse logistics process. Our target is to attain the same recovery rate as Bell Network equipment: recover 100 % of decommissioned equipment received from our western Canada Business customers.

5. STAKEHOLDER CONSULTATION

Bell consulted different business units, local governments, environmental groups and industrial associations through the elaboration of this stewardship plan. Participants made a significant contribution to the plan by providing valuable insights to the processes and final approval of the content.

Prior to submitting the plan for approval, Bell has undertaken public consultation and has provided opportunity for public input on the implementation and operation of the plan. To do so, Bell has posted the plan on its Website where a commenting option was available.

6. PROGRAM PERFORMANCE MEASUREMENT

Bell will measure the environmental performance of its program by measuring the diversion rate of materials from landfill reported by weight. In addition, Bell will provide annually to the Ministry:

1. Categories of equipment recovered
2. Equipment refurbished/reused (by total weight)
3. Equipment recycled (by total weight)

7. DISPUTE RESOLUTION

Bell's contracts with our return service providers contain standard commercial language outlining dispute resolution procedures.

Any disputes arising from stakeholders with regards to this program will be resolved in a responsible, timely and respectful fashion.

Any consumer enquiries that cannot be answered by Bell technicians will be escalated internally as required.



8. PRODUCT LIFE CYCLE MANAGEMENT

Bell encourages its manufacturers to design products with special consideration for the environmental impacts of the product during its whole lifecycle. This pressure is exercised when making choices about which products or services to buy, we consider ecological criteria ranging from energy consumption and recyclability to durability and the presence of hazardous or recycled materials. For example, Bell participates in the ENERGY STAR® program. We promote ENERGY STAR qualified products and already purchase many qualified products for our operations, such as computers, monitors and printers. In 2010, Bell introduced new packaging for retail products made of recycled polyethylene terephthalate, replacing PVC (polyvinyl chloride). The new packaging contains half the volume of material, resulting in a savings of 22 tonnes of plastics every year.

Furthermore, in accordance with our procurement policy, we seek out suppliers who demonstrate a strong commitment to sustainable development through the adoption of rigorous principles regarding environment. Since February 2009, all new contracts entered into by Bell include a standard clause indicating that the supplier shall conform to Bell's Supplier Code of Conduct. Bell also makes it clear that its suppliers must take all reasonable measures to respect the supplier Code of Conduct, not only in their own business operations but also along their own supply chains. Each year Bell performs audits within its supplier base to validate their commitment to Bell's Supplier Code of Conduct.

9. POLLUTION PREVENTION HIERARCHY

As part of its ISO 14001 certified Environmental Management System, Bell is committed through its Environmental Policy to “prevent, control and reduce releases into the environment”. To be in line with its environmental commitment, and in order to promote and support cost-effective resource and waste minimisation initiatives, Bell has pursued



and implemented initiatives that support the 4R principles and the pollution prevention hierarchy.

“Reduce”

All agree that the most effective way to reduce emissions and electronic wastes is to consume less. In that perspective, Bell has put in place a series of programs and initiatives to reduce its consumption of resources. The main resource consumption streams at Bell are the following:

- Energy
 - Bell purchases energy-efficient computer and telecommunications network equipments and makes optimal use of existing computer and network equipment. The latter is achieved by migrating services to new, more effective equipment and/or by using renewable energy sources, in particular solar and wind energy, to power equipment.
- Digitalisation/Virtualisation
 - The number of local printers is reduced to maximize the use of multifunction devices. This initiative allows reducing our consumption of paper and our acquisition of printers.
 - Through virtualization, we decommissioned 603 servers and converted 130 servers from physical to virtual

“Reuse”

Bell emphasizes on the importance of reusing electronic and IS/IT equipment. When equipment is no longer required in a department or is returned by customers, the equipment is first tested to determine its condition. Reusable equipment is redeployed internally for a future use or is refurbished and shipped to a secondary market. For example, in 2010, we donated 5,765 used computers, for a total donation of 48,900



computers, more than 13,200 monitors and more than 3,850 printers since the beginning of our involvement in these programs.

“Recycle, Recover material or energy”

Administrative and Network equipment which could not be reused is transferred to an ISO 14001 certified electronics recycler. In 2010, 89.9% of Network Equipment recovered were recycled or used as a fossil fuel substitute.

10. CONSUMER AWARENESS

10.1 Bell Use

Online Training

Bell’s Environmental Policy is one of the Company’s key policies and is the object of annual training. The Corporate Responsibility and Environment team has deployed an online training tool which covers the regulatory requirements and environmental procedures Bell employees must follow while carrying out their duties. Employees must pass a test annually and receive the minimal mark (8/10). Modules 7 and 8 cover non hazardous residual materials ensuring that employees are aware of the location of collection facilities, and know how to manage used products in a safe and compliant manner.

Environmental Website

Bell’s intranet provides information on processes described in this Bell stewardship plan.

Signage

Bell has already displayed signage on recycling bins to ensure that Bell employees are aware of what must be recycled.

10.2 Bell Business Market

Bell Website

Bell’s corporate website as well as its 2010 Corporate Responsibility Report provide information on elements of the Bell stewardship plan.

Bell Technicians



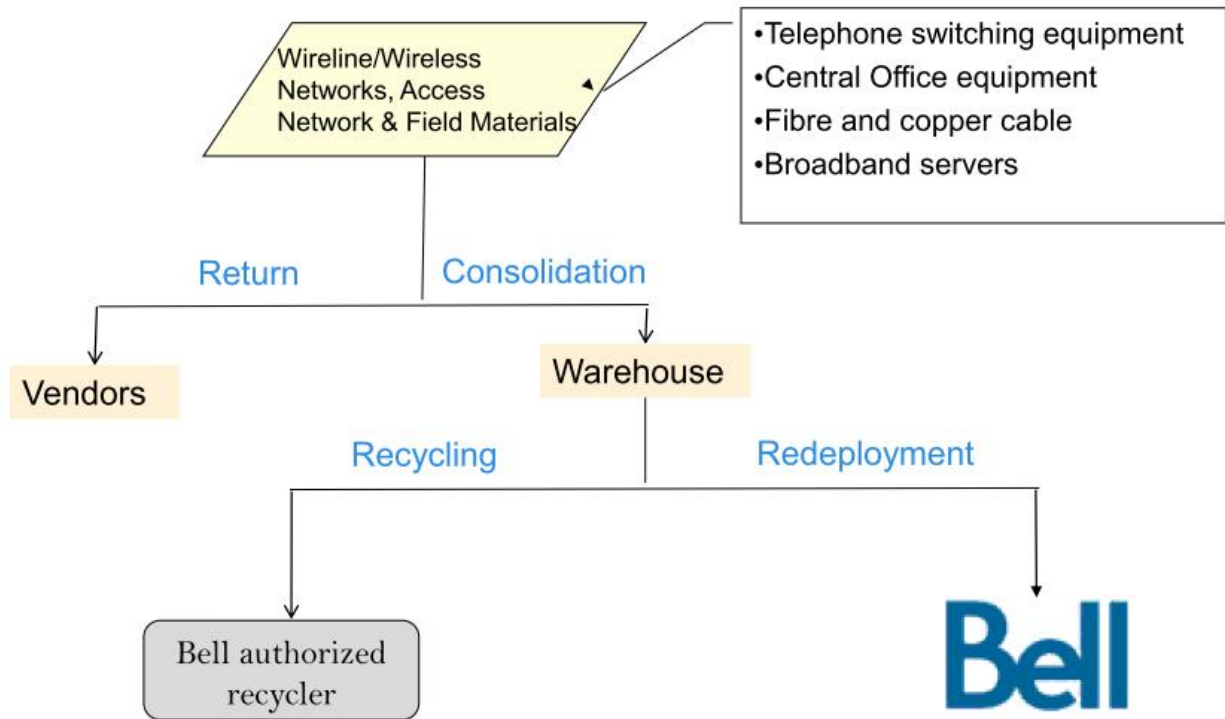


A service order adapted to each customer informs Bell technicians on the service to provide, including instructions on recovery of used Bell equipment.

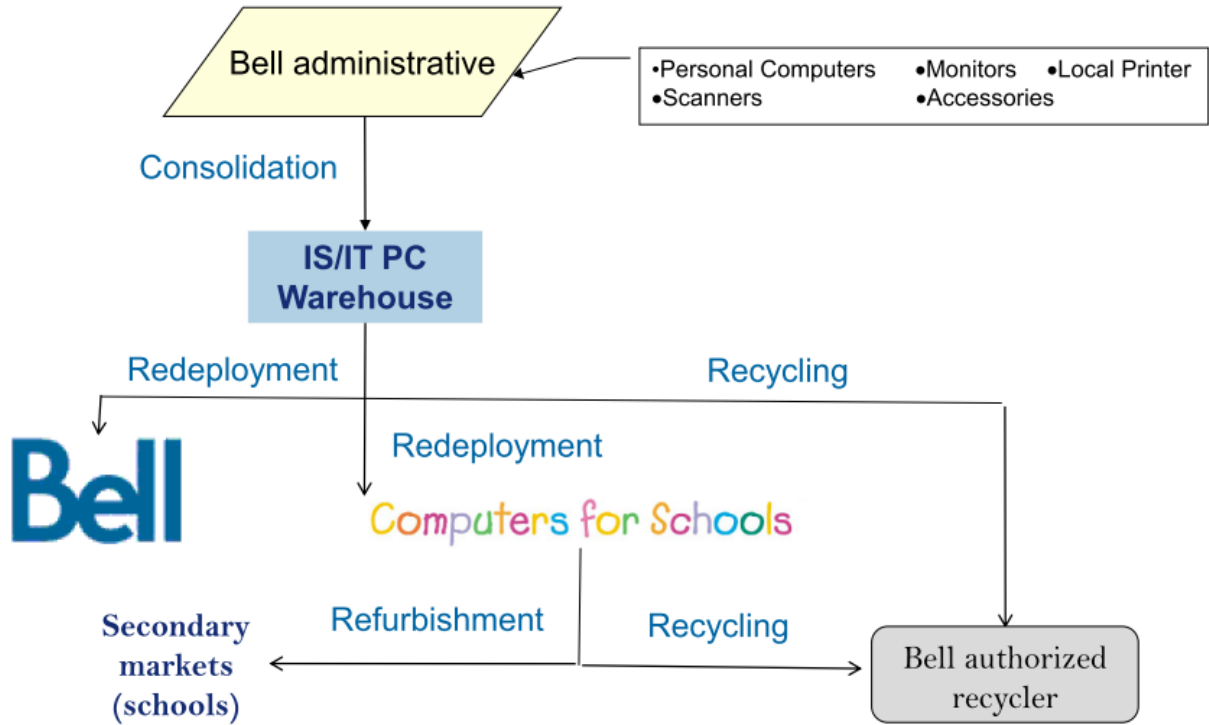
Bell sales contract

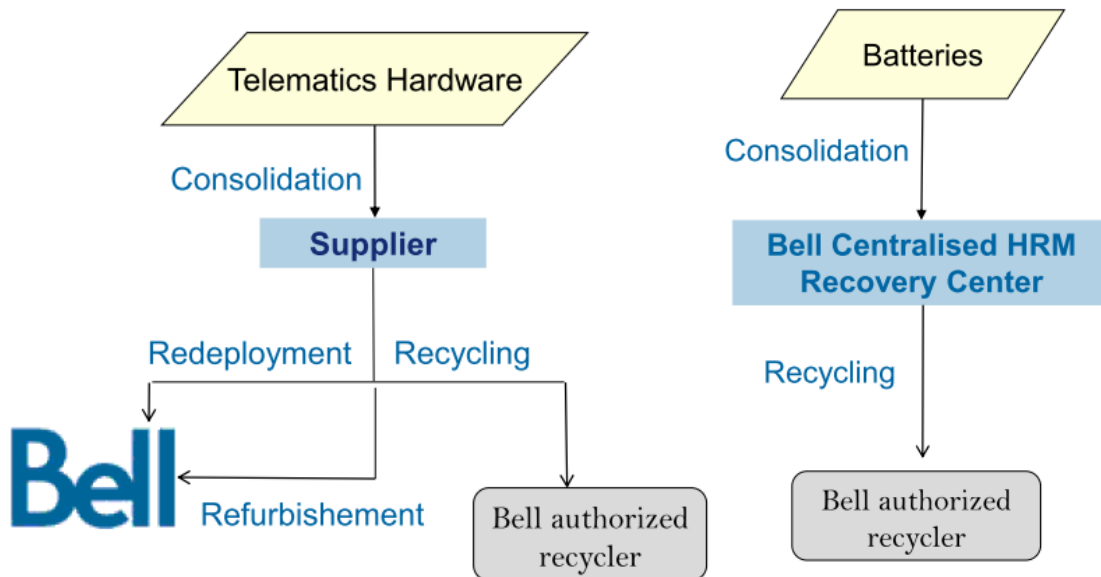
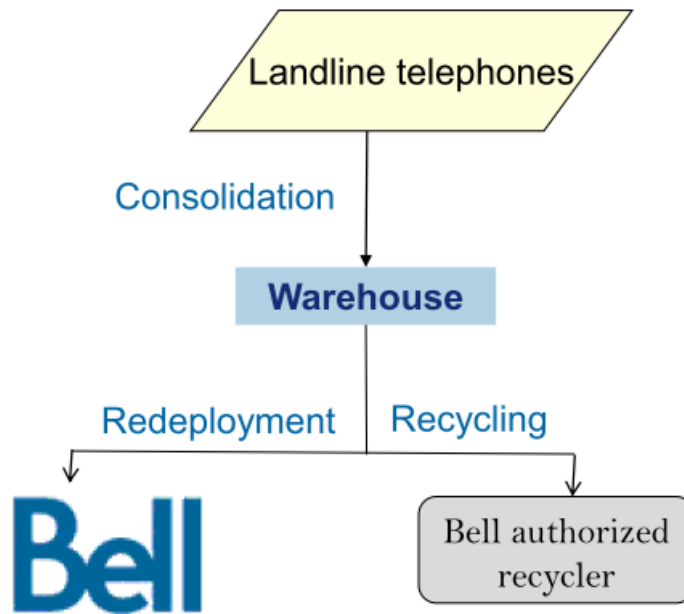
Bell Canada will offer a recovery service for end of life equipment, a clause to this effect will be included on sales contract.

APPENDIX A : BELL USE



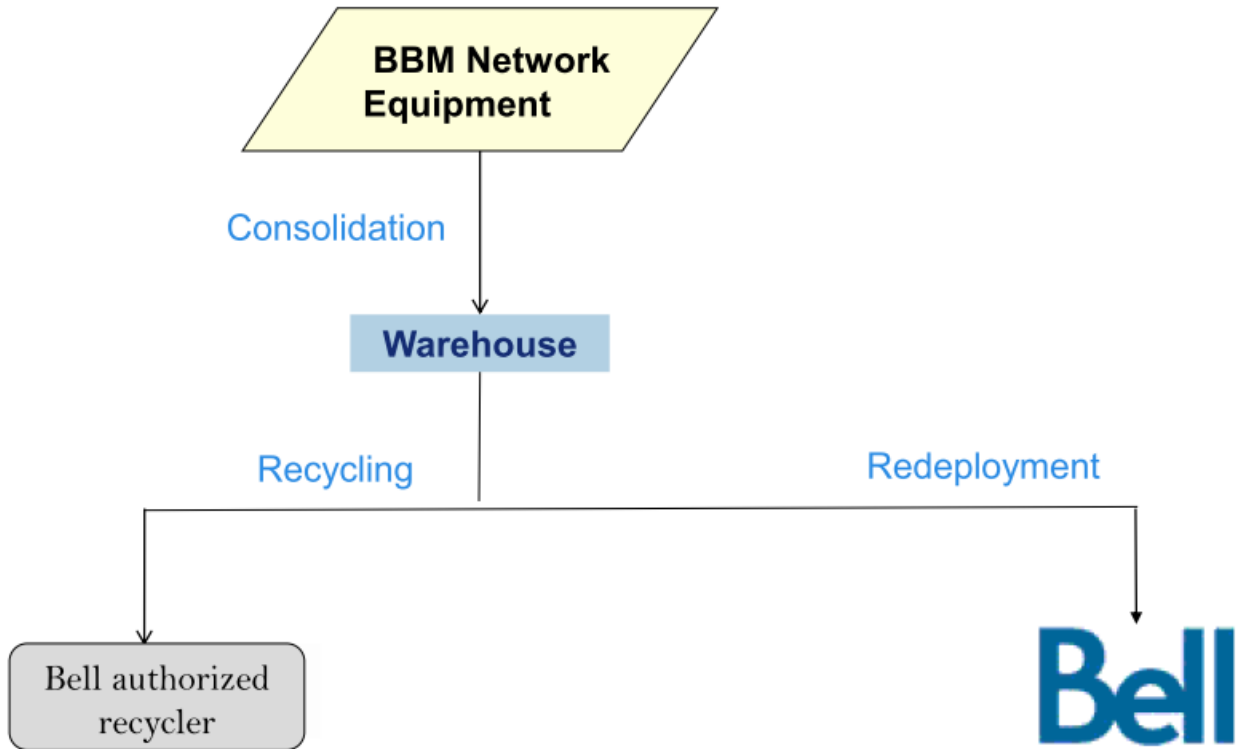
Bell







APPENDIX B : BELL BUSINESS MARKET



APPENDIX C : STAKEHOLDER CONSULTATION

Bell has undertaken public consultation and has provided opportunity for public input on the implementation and operation of the plan. To do so, Bell has posted the plan from the 6th of August until the 9th of March on its intranet and on its corporate responsibility website where a commenting option was available. An e-mail was sent to over 30 employees representing eight internal businesses units of Bell and to a dozen members from local Governments, environmental groups and industrial association in order to invite them to provide their comments on the draft version of the stewardship plan. Below is a summary of the information provided in response to these inquiries.

Bell administrative Equipment

Questions regarding the relevance on including to the Stewardship plan electronic equipment used by Bell for its own operation. As Bell centralizes the majority of its purchases in a warehouse in Ontario, Bell is considered being the first importer of electronic equipment even if the electronic equipment is not manufactured by Bell or not distributed in the British Columbia province. Bell pays the environmental handling fee for the equipment staying in Ontario and includes the equipment shipped in British Columbia to the Bell electronic Stewardship plan.

Equipment sold to customers

Bell will offer to its Business Market customers to recover imported Bell electronic equipment when required. Those recovered equipment will follow the same recovering process as our Network reverse logistic process.

For all consumer products that Bell is considered being the producer, as defined by the definition provided in section 1 of the Regulation, Bell has decided to join Electronics Stewardship Association of British Columbia (ESABC); with the exception of mobile devices which are already included in the Canadian Wireless Telecommunications Association (CWTA) Stewardship plan named "Recycle My Cell" Bell will join ESABC for all regulated customer facing equipment sold in British Columbia .



APPENDIX D : STAKEHOLDER LIST

AWI

Bell Canada – Bell Business Market

Bell Canada – Field Services

Bell Canada – Information Technology

Bell Canada – Network

Bell Canada Enterprises – Corporate Services

Bell Mobility – Network

Bell Mobility Channels – BRS, Mobility&Brand

British Columbia Ministry of Environment

Canadian Wireless Telecommunication Association

Carrefour environnement Saguenay

CFER

Computers for school

Electronic Stewardship Association of British Columbia

Encorp Pacific (Canada)

Ericsson

eStewardship.ca

FCM

GEEP

Newalta (formerly Nova Pb)

Northwestel

RCBC

Recypro

Tonolli Canada Ltd

Xerox