

# Regional District Kitimat-Stikine

## Solid Waste Management Plan

*Plan Summary and Implementation Status*

*Administration Report*

January 2014



# Regional District Solid Waste Management

## Plan Summary and Implementation Status Report

The Regional District of Kitimat Stikine's Solid Waste Management Plan was developed and submitted as a legal obligation to the Provincial Crown in 1995. Under Bill 58, "*The Waste Management Amendment Act*" all Regional District were required to submit Plans by December 1995.

This report has been prepared to assist the Regional District Board with respect to a Plan review inquiry.

The Board may view the complete Regional District Solid Waste Management Plan at <http://rdks.bc.ca/content/solid-waste-management-plan>.

The following Summary Report provides a segment from the Plan that summarized the Plan main objectives and strategies. Administration has reproduced these segments and highlighted the main approaches Administration's reporting on the implementation status of the respective Plan goals is inserted in blue throughout this segment of the Plan.

The Plan Summary and Implementation Status Report outlines Plan development including stakeholder consultation and involvement, incremental Plan implementation per Board approvals and resulting public information sharing on project updates.

Regional District of Kitimat-Stikine

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## Regional District of Kitimat-Stikine

### 1.0 INTRODUCTION

Under Bill 58, The Waste Management Amendment Act (1989), Regional Districts are required to develop and submit solid waste management plans on or before December 31, 1995. Such plans are to include measures that would permit the province-wide per capita weight of waste requiring landfilling to be reduced by 50% by January 1, 2000. These measures were to be based on the sequential hierarchy of the 3R's - reduce, reuse and recycle - plus recovery and residuals management. In 1992, Bill 29 further amended the Waste Management Act to expand the definition of municipal solid waste (MSW) to:

#### ⇒ Administration's Comments/Reporting

Please note this comment/response section is lengthy description of the Plan development process.

*Requirements for Regional Solid Waste Management Plans and a Summary of the Regional District of Kitimat-Stikine Plan Development Including Stakeholder participation and public consultation are described below.*

*Public and Technical Advisory Committees were established.*

*The Provincial guidelines required that Public and Technical Advisory Committees be appointed to advise the Regional District Board on matters relating to solid waste management planning, terms of reference for planning studies, strategies for public involvement, identification of solid waste options and review of consulting reports.*

*The Public Advisory Committee membership had to include the BC Environment Regional Waste Manager or their delegate and could include Regional District Staff and one or more members of the Board. In addition, the Board was required to solicit representation from the following sectors:*

- *Local environmental groups and recycling organizations*
- *Electoral areas and municipalities in the regional district*
- *Local business groups and rate-payers associations*
- *Unions and consumer groups*
- *Large commercial and institutional solid waste generators*
- *Operators or owners from private solid waste facilities*
- *Local school boards*
- *Technical Advisory Committee*

Insert #1

Regional District of Kitimat-Stikine

*Advertisements were placed in the local newspapers throughout the Regional District soliciting interest and the following were sent letters requesting representatives to participate on the Public Advisory Committee:*

- *Alcan Smelter and Chemicals; Isolite Stege Forest Products; Methanex; Eurocan Pulp and Paper; Bell Pole; Skeena Cellulose; Skeena Sawmills; Repap Carnaby; Ellsworth Bros. Logging; Overwaitea Foods; Canada Safeway; Super Value; Giant Foods; and, Liquor Distribution Branch*
- *Terrace Regional Health Care Society; Nisga'a Valley Health Board; Kitimat General Hospital; Wrinch Memorial Hospital; and, Stewart Community Health Association*
- *Terrace and District Chamber of Commerce; Stewart/Hyder Chamber of Commerce; Kitimat Chamber of Commerce; and, Hazelton and District Chamber of Commerce*
- *Kitimat Understanding the Environment Society and Skeena Valley Recycling Society*
- *School Districts No. 80, No. 88 and No. 92; and, Northwest Community College*
- *Terrace and District Labor Council; Thornhill Advisory Planning Commission; Steelhead Society of BC; and, BC Wildlife Federation*

*The Technical Advisory Committee membership also had to include the BC Environment Regional Waste Manager or their delegate and could include Regional District Staff and one or more members of the Board. In addition, the Board was required to solicit representation from the following sectors:*

- *Engineering and/or planning departments of the Regional District's member municipalities*
- *First Nations within and adjacent to the Plan area*
- *Interested provincial and federal ministries or agencies*
- *Organizations with experience in the collection, sorting, processing, transportation and marketing of recyclables*
- *Public Advisory Committee (non-government)*

Regional District of Kitimat-Stikine

*The following were sent letters requesting representatives to participate on the Technical Advisory Committee:*

- *27 First Nations including Band Councils, Tribal Councils, Hereditary Chiefs and Government Commissions*
- *Provincial Ministries including Finance and Corporate Relations; Municipal Affairs; Agriculture; Employment and Investment; Small Business and Tourism; Energy, Mines and Resources; Health; Transportation and Highways; Forests; Parks; Environment, Parks and Lands; and, Aboriginal Affairs*
- *Agricultural Land Commission*
- *Transport Canada – Terrace/Kitimat Airport*
- *Department of Fisheries and Oceans*
- *BC Buildings Corporation*
- *Indian and Northern Affairs Canada*
- *Environment Canada*
- *City of Terrace, Village of Hazelton, District of Stewart, District of New Hazelton and the District of Kitimat*

*In December 1993, the Board appointed the following interested individuals/representatives to the Public and Technical Advisory Committees:*

*Initial Public Advisory Committee was comprised of:*

- *School District No. 88 – Harry Eberts*
- *Kitimat Understanding the Environment Society – Wendy Clement*
- *Skeena Valley Recycling – Christine Foster*
- *Three Rivers Recycling – Martin Penner*
- *Kitimat-Terrace Labour Council – Bob Anderson*
- *Kitimat Chamber of Commerce – Lorna Lanctot*
- *Terrace and District Chamber of Commerce – Peter Hoffschild*
- *Terrace Resident – Jerry Reitman*
- *Hazelton and District Chamber of Commerce – Perry Williamson*
- *Kitwanga Community Association – Terry Elsworth*
- *BC Wildlife Federation – Gil Payne*
- *Thornhill APC – Carol Julseth and subsequently John Halley*
- *Terrace-Thornhill Toxic Trash Rejecters – George Hagen and Dale Berlin(alternate)*
- *Terrace Regional Health Care Society – Charlie Lindstrom*

Regional District of Kitimat-Stikine

- *Kitimat General Hospital – Linda Coles*
- *Overwaitea Foods, Kitimat and Terrace – Dennis Kinsey*
- *Canada Safeway – Eric Johanson*
- *Bell Pole – Clint Button*
- *Skeena Sawmills – Don Chesley and Lou Poulin (alternate)*
- *Ellsworth Bros. Logging – Gerry Elsworth*
- *Alcan – Bob Smart*

*Initial Technical Advisory Committee was comprised of:*

- *Kispiox Band Council – Brian Williams*
- *Kitamaat Village Council – Robert Robinson*
- *Tahltan Band Council – Gordon Franke*
- *Nisga'a Valley Heath Board – Birgit Murphy*
- *Ministry of Aboriginal Affairs – Heinz Dyck*
- *Ministry of Environment, Lands and Parks – Frazer McKenzie and Ed Rottmille(alternate)*
- *Ministry of Forests – Erle Holt*
- *Ministry of Health – Ron Craig*
- *Ministry of Municipal Affairs – A.A. MacTaggart*
- *Ministry of Transportation and Highways – David Fisher*
- *BC Agricultural Land Commission – Roger Cheetham*
- *Transport Canada – Darryl Laurent*
- *Environment Canada – Bob Shepherd*
- *Indian and Northern Affairs – Prashant Pandit*
- *Liquor Distribution Branch – Barb Barker*
- *City of Terrace – Stew Christensen*
- *Village of Hazelton – Charles Hamilton*
- *District of Stewart – Brian Woodward*
- *District of New Hazelton – Peter Weeber*
- *District of Kitimat – Tim Gleig*



*Regional District Board Steering Committee (overall guidance and direction)*

*General Plan Development Process*

*Stage 1 – Analysis of Existing System*

- *A description of the components and analysis of the existing Municipal solid waste management system, including social, environmental and economic impacts, was captured.*
- *The estimated percentage of the regional solid waste stream which was managed through reuse, recycling, recovery and residual management as of December 31, 1990 was documented.*
- *Information gaps to be addressed and management options to be evaluated in detail in the development of the Municipal Solid Waste Management strategies in Stage 2.*

*Stage 2 – Development of Strategies*

- *A detailed analysis of selected municipal solid waste management options including those identified in Stage 1*
- *A set of preferred options and recommended management strategies*
- *The justification for or against utilization of existing program, sites and facilities*
- *The social, environmental and economic impacts of the recommended strategies*
- *Operational requirements to meet the needs of an operational certificate for sites identified by the Ministry of Environment*
- *An estimate of the total capital and operating cost for all sites, facilities and programs*
- *Estimation of the true disposal cost for each component of the waste stream*
- *Cost recovery and financing mechanisms for all sites, facilities and programs*
- *The opportunities for cooperation with other Regional Districts in recycling and managing of solid waste*

- *Implementation measures such as bylaws, permits and licenses for operational and administrative control over sites, facilities and waste transporters*
- *Impediments to implementation of strategies which must be overcome*

### ***Stage 3 – Plan Preparation involved:***

- *Recommended strategies*
- *Implementation measures*
- *Site and facility operating requirements June 1994*
- *News Releases issued throughout the Regional District regarding Solid Waste Planning process, Advisory Committees and where to obtain further information.*
- *A team comprised of Associated Engineering and HBT Agra were authorized to proceed with Stages 1 and 2 of the Solid Waste Management Plan following a competitive proposal call*

### ***Plan Development Consultation and Engagement Summary***

#### ***November 1994***

*The Stage 1 Draft Report is provided to the Board along with schedule for public meetings.*

#### ***December 1994***

*Public meetings held in Terrace, Kitimat, Hazelton and Stewart.*

*Meetings with the Gitskan-Wet'suwet'en Government Commission and Kispiox Band; Village of Hazelton, District of New Hazelton, Two Mile Community Association and South Hazelton Water Works District; and, Nisga'a Valley Health Centre.*

#### ***February 1995***

*Stage 1 Penultimate Draft provided to the Board.*

## Regional District of Kitimat-Stikine

### March 1995

*Regional District Administration and consulting team meetings with Advisory Committees, Area Directors, Kitimat Councilors/Board Reps/Administration, Hazelton Councilors/Board Reps/Administration, Terrace Councilors/Board Reps/Administration and Gitskan-Wet'suwet'en Government Commission.*

*Stage 1 Final Report accepted by Advisory Committees and the Board. Report submitted to the Ministry of Environment.*

### June 1995

*Stage 2 Draft Report presented to public through public meetings held in Terrace, Kitimat, Hazelton and Stewart.*

### November 1995

*Board receives Stage 2. Following public review and further consideration, Final Stage 2 Report completed.*

*Stage 3 Meetings held with elected officials, Advisory Committees and the public. Following these meetings and public feedback/submissions, the Final Solid Waste Management Plan was completed.*

*December 1995 - Board approves the Solid Waste Management Plan and the Minister of Environment officially approves the plan.*

### ⇒ Administration Comments/Reporting: You are now resuming with the 1995 Solid Waste Management Plan text.....

- include demolition, land clearing and construction (DLC) waste;
- expand the scope of solid waste management planning to include recyclable material; and
- provide new enabling authority that would allow Regional Districts to implement solid waste management plans without having to go to the electorate for direct approval.

In accordance with the requirements of the Waste Management Act of 1989 and its later amendments, the Regional District of Kitimat-Stikine (RDK-S) has completed Stages 1 and 2 of the Plan development. Stage 1 involved the following:

## Regional District of Kitimat-Stikine

- description of the physical and political nature of the Regional District;
- documentation of the existing solid waste management system;
- development of the general options which could be used to help divert solid waste from landfills using the principles of reduction, reuse, recycling and recovery; and
- an assessment of existing landfills to determine their potential for further development within the Plan.

Stage 2 involved detailed examinations of the diversion options including:

- education and promotion requirements;
- reduction and reuse incentives;
- alternative recycling and composting programs;
- a preliminary evaluation of the economics of a waste-to-energy facility for the District of Stewart; and
- evaluation of alternative combinations of landfills and transfer stations that would maximize efficiency of residuals management within RDK-S.

In addition, Stage 2 included a preliminary development of a phased implementation plan for the recommended components of the Plan.

Stage 3 has involved building on the information in the Stage 2 report and refining and/or developing the necessary implementation and monitoring strategies, draft operational certificate requirements and bylaw-related information to create a Plan under which the Regional District can control the fate of its solid waste while striving to achieve the appropriate waste diversion goals. The December 1994 Ministry of Environment, Lands and Parks (MELP) document, "Guide to the Preparation of Regional Solid Waste Management Plans by Regional Districts" (hereafter referred to as the "Guidelines") contains a list of the required elements of the Plan and has been used in the development of this Stage 3 report.

Once a draft Plan is prepared, it must be reviewed by the existing public advisory committee (PAC) and technical advisory committee (TAC), before being sent to the regional MELP Environmental Protection manager for review and comment. The final draft will incorporate any necessary changes and will then be prepared for review by the public. After incorporating any changes resulting from the public review process, the Regional District will approve the Plan in principle and submit it to the MELP for review and approval. Following a request from the Minister, the regional MELP Environmental Protection manager will forward the final review and recommendation for consideration by the Minister. If the Minister is satisfied that the Plan is in accord with the Act and the Guidelines, the submitted Plan will be approved by the Minister. The approval letter would direct the Regional District to consult with the regional MELP Environmental Protection manager regarding the issuance of the operational certificates that would be associated with the operation of the sites and/or facilities specific to the approved Plan.

The following sections describe the strategies and policies that make up the RDK-S Solid Waste Management Plan. Section 2.0 contains a description of the guiding principles, Regional District objectives, and the policies and strategies that reflect these principles and objectives. Section 3.0 discusses the considerations for implementation of the strategies in Section 2.0. This includes the implementation schedule, target diversion

### Regional District of Kitimat-Stikine

rates, administrative considerations, potential staffing levels and plan monitoring procedures. Plan monitoring and dispute resolution procedures are also discussed. Section 4.0 contains a summary of Plan cost estimates, and cost recovery mechanisms necessary for effective implementation of the Plan. Section 5.0 contains operating strategies and requirements required to implement the Plan. These include mitigative measures required to overcome impacts of facilities, landfill siting methodologies and criteria, operating requirements for facilities, licenses for operators and risk assessment criteria for setting security bonds. Section 6.0 contains specifics about the various committees that will be required to assist in implementation of the Plan. This includes the makeup and roles of the committees, including terms of reference. Detailed cost estimates are contained in Volume 2 of this Plan, under separate cover.

## 2.0 PLAN POLICIES

### 2.1 GUIDING PRINCIPLES OF THE PLAN

Environmental guiding principles underlie all Plan policies and strategies and act as a guide and common base for making day-to-day decisions in the implementation stage of the Plan. Throughout the stages of the RDK-S planning process, guiding principles have been included in explicit and implicit forms. The final list of environmental guiding principles, as stated below, is based on the Stage 2 list and input from various groups within RDK-S.

- reduce the amount of waste generated to the greatest extent possible, through the 5 R's (in order of priority);
- ensure that waste is minimized in a most cost effective and environmentally safe manner;
- ensure that the remaining waste is disposed of in a cost effective and environmentally safe manner;
- ensure all individuals and businesses within RDK-S have access to information which will assist in making appropriate waste management decisions;
- ensure that the primary responsibility for waste is held by stakeholders (municipalities, institutions, businesses, etc.) and residents that generate the waste;
- ensure that all members of the public, to the greatest extent possible, have access to and benefit from the systems and facilities in the final waste management system.
- Plan implementation should permit flexibility so that the timing of implementation of Plan components can reflect the priorities and abilities of the RDK-S, its member municipalities and First Nations communities to finance and implement the Plan. Flexibility is also essential so that the RDK-S can choose to implement plan components either directly or through private firms or the non-profit organizations (NPO's) via a public proposal and/or tendering process.

## 2.2 REGIONAL DISTRICT'S PLAN OBJECTIVES

Regional objectives are to be reflected in the specific policies or strategies of the Plan. During the development of the Stage 1 and 2 reports, it has become evident that the RDK-S has certain objectives for its Plan. These objectives include the following:

- Encouraging the Provincial and Federal governments to develop and implement programs that promote reduction and reuse including encouraging manufacturers to reduce, reuse and/or recycle wastes that are created through inefficient packaging.
- Cooperating with the Province and/or industry in the implementation and operation of programs such as the paint stewardship program that target the safe handling and disposal of household hazardous products (HHP), provided that the funding and liability responsibilities remain with the sponsoring industry.
- Minimizing undesirable waste handling and disposal methods, including littering.
- Providing reasonable access to recycling and disposal facilities to all residents and businesses within RDK-S.
- Targeting materials coming from institutional, commercial and industrial (ICI) sectors for diversion through reduction and reuse, recycling and composting.
- Controlling the wastes generated within RDK-S but not necessarily through the direct provision of RDK-S services, i.e. fostering the development of private sector and/or non-profit organization initiatives, where appropriate, including the contracting out of Plan components such as recycling and/or composting through a proposal request or public tendering process.
- Cooperating with adjacent regional districts when such cooperation is mutually advantageous.
- Maximizing the use of existing landfill capacity, where appropriate.
- Replacing any disposal facilities that will have exceeded capacity during the term of the Plan.
- Developing remedial closure plans for closed landfills, as may be required by the regional MELP manager.

## Regional District of Kitimat-Stikine

- Designing, operating, closing and monitoring landfills and transfer stations in accordance with the MELP **Landfill Criteria for Municipal Solid Waste** or justified exemptions.
- Minimizing animal conflicts at landfills and transfer stations.
- Eliminating the open burning of municipal solid waste (including DLC), where possible.
- Developing a financial strategy for full cost recovery of the entire waste management system, including utilization of the user pay philosophy.

### 2.3 REGIONAL DISTRICT'S PLAN STRATEGIES

The following strategies and policies are based on the work completed in Stages 1 and 2 of the Plan and have considered the guiding principles and regional objectives in their selection.

#### .1 Administrative Concerns

##### .1 Jurisdiction

This Solid Waste Management Plan, once approved by the Minister of Environment, Lands and Parks, gives RDK-S power to implement the policies and measures outlined in the Plan. The 1992 Bill 29 authorizes the Regional District to exercise control over solid waste management within its boundaries. This may include authorizing the operation and administration of programs and sites by municipalities and other groups within RDK-S. RDK-S will not take responsibility for any waste disposed of on the property on which it was generated. Collection of waste and other materials will be the domain of member municipalities and the RDK-S (for the electoral areas). With some exceptions, reduction and reuse, recycling, composting and residuals management will ultimately be the responsibility of the RDK-S. Existing landfill owners will remain as before. As landfills close, RDK-S will become administrators of the regional Residuals Management System.

This Plan was produced with the cooperation and input from its member municipalities, stakeholders in the waste handling industry, environmental groups and members of the public.



## .2 Committees

**A Plan Monitoring Advisory Committee (PMAC)** and, perhaps, some task-oriented sub-committees will be formed to help the Regional District implement and administer the Plan. The PMAC will be responsible for ensuring that the waste management strategies are being implemented in accordance with the Plan, and that the target diversion rates are being accomplished. The PMAC would recommend alternate strategies to be implemented if targets are not being reached. **A landfill siting advisory sub-committee (LSAC)** could be formed to have input into the landfill siting exercise, to ensure that the outlined procedures are being followed, and that adequate public input is being obtained. **The Financial Working Committee (FWC)** from Stage 3 may be continued during the Plan implementation as a sub-committee that would review, on an annual basis, cost recovery mechanisms for implementation of the Plan. This would include determining how costs are recovered (user pay, taxes, grants and funding, tipping fees, etc.) and from whom (Regional District, municipalities, senior government, industry, consumers, etc.) **The LSAC and the FWC will report to the PMAC**, which will, in turn, report to the Regional District staff and/or Board. More information on the committees can be found in Section 6.0.

⇒ Administration's Comments/ Reporting

**Committees are formed to assist the Board with Plan implementation as part of the consultation process.**

Insert # 2

*PMAC - March 1996 – Board appoints individuals to the Solid Waste Management Plan Monitoring Advisory Committee following a call for expressions of interest.*

*The Plan Monitoring Advisory Committee acts in an advisory role to the Board and Administration in matters related to waste management and in monitoring the implementation of the solid waste plan.*

*Initial PMAC members included:*

- *Stew Christensen, Chair, City of Terrace*
- *Tim Gleig, P. Eng., Vice-Chair District of Kitimat*
- *Sharon Almgren, Electoral Area C Resident*
- *Dennis Flynn and Wendy Clement KUTE Rep*
- *Jerry Reitman Terrace Resident*
- *Patrick Bolin, P. Eng. Terrace Resident*
- *Jelena Grabovac, P. Eng. Kitimat Resident*
- *Len Gibson, P. Eng. Kitimat Resident*
- *Chia-Wen Hsu, M.D. Thornhill Resident*
- *Gil Payne Thornhill Resident*

- *Bill Watson* *Thornhill APC*
- *George Muldo* *Gitxsan Govt Commission*
- *Joy Flemming* *Village of Hazelton*
- *Frazer McKenzie, P. Eng.* *MOE*
- *Remi Odense, R.P. Bio* *MOE*
- *Roger Tooms* *Regional District*

**Landfill Siting Committees (LSC)**

*Also initiated in 1996; Landfill Siting Advisory Committees (sub-committees of PMAC) were established to assist with siting three new landfills.*

**Initial Terrace Landfill Siting Advisory Committee Members:**

- *Sharon Almgren*
- *Patrick Bolin*
- *Gil Payne*
- *Stew Christensen*
- *Alan Gilchrest – Terrace Resident*
- *Jerry Reitman*
- *Dr. Chia-Wen Hsu*
- *Bill Watson*
- *Tim Gleig*
- *George Hagen – Thornhill Resident*

**Initial Hazelton Landfill Siting Advisory Committee Members:**

- *George Muldoe*
- *Ron Goertzen*
- *Gil Wilson*
- *Joy Fleming*
- *Brian Fassnidge*
- *Peter Weeber*
- *Fred Roisum*

**Initial Meziadin Landfill Siting Advisory Committee Members:**

- *Sandy Payne*
- *Cleo Schwartz*
- *Greg Main*
- *Robert Hovey/Brian Balance*
- *Rose Smith*
- *Brian Woodward*
- *Tom Bond*
- *Bruce Brodie, Forestry Manager*

*Financial Working Committee (FWC)*

*The Financial Working Committee was established in 2003 to address the cost recovery of solid waste management projects within the Regional District. In 2013 the Financial Working Committee was re-established with members from all areas of the Regional District, including all member municipalities and First Nations Communities. The group met four times throughout the year to establish recommendations to the Board on cost recovery modeling.*

**3 Plan Review**

***As per Section 36 (2) of the Guidelines, the Plan should be subject to a comprehensive review every five years to ensure that the strategies in the Plan are still appropriate for the changing demographics of RDK-S. The reviews would be completed at the direction of the Plan Monitoring Advisory Committee.***

⇒ **Administration's Comments /Reporting**

**Insert # 3**

*The PMAC has assisted the Board on the introduction of the Plan and its implementation to date. The BC Ministry of Environment considers the continual work of PMAC and the Board's processes on Plan implementation to date to be a review of itself.*

*Further, in November of 2012, PMAC raised the question of a formal Plan review or revisions. PMAC deemed a Plan review to be unnecessary.*

*A BC Ministry of Environment Letter dated December 18, 2013 addressing the question of review of the SWMP is attached. It recommends implementation of Plan objectives and completion of current projects.*

*On January 15, 2014 PMAC made a recommendation to the Board to defer the question of a formal Plan review until January 2015.*

#### 4 Coordination with Other Groups

***RDK-S will encourage communication among all groups potentially affected by the Plan implementation, with the goal of coordinating efforts to the greatest extent possible.*** These groups include the following:

- Member municipalities;
- adjacent regional districts (including Bulkley Nechako and Skeena-Queen Charlotte);
- First Nations communities within RDK-S;
- operators of existing landfills;
- operators of existing recycling facilities and/or companies;
- the public; and
- other stakeholders.



#### Administration's Comments / Reporting

- *The PMAC Committee membership includes participation from many areas of the Regional District. Members are encouraged to engage their agencies, communities or organizations in information exchange with regard to any aspects of the Plan implementation and related activities of interest to their respective areas.*
- *Stakeholder outreach has been implemented throughout the last 18 years and will continue.*
- *Public updates and engagement with a broad list of stakeholders form part of current and ongoing communications strategies on all components of Regional District's integrated approach to solid waste management.*
- *Businesses in the Terrace area will continue to be actively engaged in waste diversion opportunities and strategies including "the Greening Business Toolkit", assistance with organics diversion (composting) and workshops.*
- *Administration participated in a Public Forum at NWCC on Integrated Solid Waste Management Plans.*
- *Current Board plans for the Terrace area include an increased level of industrial, institutional and commercial consultation on waste diversion.*

Insert # 4

## .2 Reduction and Reuse

***RDK-S shall formally encourage and insist that the Senior government develop and implement programs and policies which will encourage the reduction and reuse of waste materials.***

The priorities that RDK-S sees as paramount to achieving its waste diversion targets include the following Senior government jurisdiction programs:

- communication and promotion, in the form of "Power Smart"-style commercials, sticker campaigns, mail-outs, etc.;
- changing values and beliefs;
- education and technical assistance, primarily to the ICI sector;
- Waste Exchange information, including expanding access and funding for the existing federal and provincial waste exchanges;
- continuation and expansion of environmental labeling, such as the existing "Environmental Choice" program, labeling for household hazardous products, labeling which identifies the percent packaging by weight, identification of the destination of a product or its packaging (bluebox or bluebag, composting, hazardous, landfill) etc.;
- removal or reduction of subsidies on virgin materials;
- green taxes and charges to encourage reduction of difficult or hazardous products, e.g., the new "ecofee" on household paint;
- development of product standards which will reduce the amount of material or virgin material which goes into certain wasteful products;
- required waste audits and reduction plans for larger companies;
- reduction of packaging through initiatives such as the National Packaging Protocol, labeling and standards;
- increased emphasis of packaging programs on **reduction** and **reuse**, versus recycling; and
- increased funding for life cycle analysis (LCA) to enhance the knowledge of which products are environmentally superior.

### ⇒ Administration's Comments and Reporting

- *Regional District continues to liaise with and support growing Extended Producer Responsibility (ERP) and take-back programs.*
- *Administration participates as a member of the BC Product Stewardship Council (coalition of Regional Districts, provincial agencies and trade organizations that contribute to EPR in BC) who continues to advocate and develop stewardship strategies. RDKS has been a member of this council for a number of years.*
- *Regional District is actively working with Multi-Materials BC (MMBC) and the Province to enhance*

Insert # 5

*program benefit to RDKS. Regional District and their qualified professionals continue to liaise with MMBC to investigate options to potentially participate in an MMBC 'Take Back Depot' and/or processing facilities to provide convenient service to all sectors including residential, industrial, commercial and institutional.*

- *City of Terrace Council engaged in discussions regarding Terrace Area integrated Solid Waste Management programs and Plan implementation.*

***RDK-S shall direct staff to develop and disseminate educational and promotional material to the public and to businesses on effective ways to reduce waste.*** This would be done with the assistance of local recycling and environmental groups.

### ⇒ Administration's Comments / Reporting

Insert # 6

- *A pilot Zero Waste Outreach position was in place from January - November 2012.*
- *In 2013, the Board subsequently approved a three year Zero Waste Outreach Specialist position.*
- *Regional District continues to provide up to date information on diversion opportunities in the Hazelton and Terrace areas such as updated brochures, website and liaison.*
- *Business "Greening Toolkit" – a guide to assisting business in waste reduction is available on line and in printed form.*
- *Information sharing with industrial, commercial and institutional on waste diversion is ongoing.*
- *Educational and Promotional material is integrated into most public engagement sessions including workshops, public open houses, and in-house displays.*

Educational packages would be disseminated through various media (television, radio, newspaper) and also through mail-outs, Welcome Wagon and other community groups, etc. and would include information such as:

- informed consumerism:
  - choosing products with little or no packaging,
  - choosing non-disposable items,
  - choosing longer lasting items,
  - applying the "B.U.D." principle (i.e., Buy or Borrow only what you need, Use what you buy, and Dispose of what you cannot use in an environmentally responsible manner),
  - purchasing materials in bulk,
  - renting seldom used items,
  - refusing plastic shopping bags and carrying goods in a reusable bag owned by the consumer,
  - buying used items,
  - taking used items to reuse and repair stores, or charity organizations such as Salvation Army or Goodwill,
  - stopping junk mail deliveries to the home,
  - choosing products based on the materials used in the product or its packaging (lighter weight, single materials, renewable resources, etc.),
  - the use of backyard chippers/shredders to increase the diversion

## Regional District of Kitimat-Stikine

- of yard waste, and
- leaving mowed grass on the lawn (with the use of a mulching mower);
- information about backyard composting;
  - how to operate, trouble shooting,
  - types and costs of bins, advantages and disadvantages, and
  - building instructions for homemade compost bins,
- lists of reuse options for certain products and materials;
- lists of companies enabling reduction and reuse (scrap dealers, haulers, used product dealers, bottle depots, etc.);
- promotion of other RDK-S reduction and reuse programs;
- promotion of other RDK-S waste management strategies; and
- information on Provincially sponsored or instigated programs such as return facilities for paint, batteries, tires, waste paint exchanges, used oil depots, etc.

***RDK-S shall set tipping fees at regional landfill facilities to at least partially cover the costs of developing, operating, closing and monitoring the landfills.*** Other landfills in RDK-S but not owned by RDK-S may be required to match tipping fees with the closest RDK-S facility. Certain problem wastes may be charged a higher fee in an attempt to cover costs for handling and to reduce the quantity used. The lists of banned and higher-fee materials shall be reviewed annually by the Plan Monitoring Advisory Committee.

⇒ Administration's Comments / Reporting

- *Thornhill Tipping fees for solid waste are set in accordance with the City of Terrace Landfill fees. Liquid waste tipping fees are being considered.*
- *In 2013, Meziadin Landfill tipping fees were introduced and charged to industry related users. Fees are currently being reviewed to better reflect increased landfill activities and waste volume.*
- *Continued work with Financial Working Committee and community representatives to consider further fees through revised cost recovery mode is planned.*

Insert # 7

***RDK-S shall implement certain material bans at specific municipal solid waste landfills in the Regional District.*** Material bans would reflect the regional recycling and composting systems as implemented, and could include materials such as:

⇒ Administration's Comments / Reporting

*Current plan is to consider a ban on all materials under the Product Stewardship Programs at all new facilities. This prohibition is written into the most recent Landfill Operational Certificate – Hazelton Landfill Phase 2.*

Insert # 8

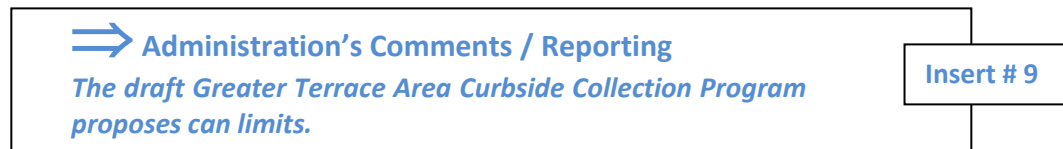


## Regional District of Kitimat-Stikine

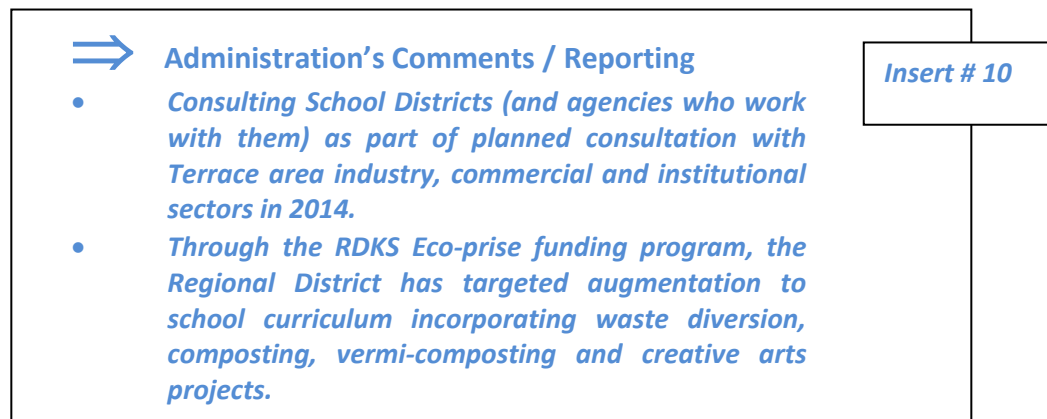
- old corrugated cardboard OCC);
- white goods without CFC's removed;
- yard and wood waste;
- certain DLC waste, such as wood, gypsum and land clearing debris (unless the site is a DLC landfill); and
- quantities of recyclable/returnable materials such as cans, bottles, certain plastics, etc.

Some of the wood and yard waste will be chipped and used as mulch on regional and municipal properties. The remainder will be composted in windows with other organics.

***For all areas serviced by a formal collection service, RDK-S and its member municipalities shall, through the advice of the Plan Monitoring Advisory Committee, set limits on curbside waste at a specific number of specific volume cans or bags.***



***RDK-S shall work with the local school districts. to promote and encourage curriculum changes with respect to waste management.*** A liaison will work closely in all the schools for the first few years of implementation, developing programs and assisting in education.



***RDK-S shall establish in-house reduction and reuse programs.*** This program will promote activities such as:

- use of ceramic mugs and other non-disposable dishes in place of Styrofoam and paper products;
- use of reusable coffee filters;
- double sided copying in reports and other office publications;
- use of electronic records and mailing;
- reduction of junk mail leaving and entering the office;
- smaller typeset for reports and correspondence; and

## Regional District of Kitimat-Stikine

- reuse programs for paper.

### ⇒ Administration's Comments /Reporting

*Expectations of in-house initiatives has met or exceeded plan objectives.*

- *Regional District utilizes a local recycling business to collect most recyclable materials on a weekly basis.*
- *Almost all office organics are diverted through a combined program of off-site composting, on-site vermi-culture (worm composting) and on-site use of an electric composter up to an average of 30 lbs. per week. These organics include recycled paper coffee filters.*
- *Meetings and hosting functions utilize dinner ware and utensils that are washable. Paper and Styrofoam products are no longer in use.*
- *Meetings and hosted functions off-site request use of dinner ware and utensils that are re-usable. Paper and Styrofoam products are discouraged and requested not to be used whenever possible.*
- *Regional District utilizes a 100% tree free paper (made from sugar cane) for most of its printing and copying. If discarded, this paper is either put into the recycling stream or added to the off-site composting stream.*
- *Staff is encouraged to establish and maintain default settings on office equipment for double sided printing, smaller margins on documents and electronic versions of reporting vs. printed material where possible; to shut off electronic equipment and fixtures when not in use to conserve and /or energy.*
- *Regional District utilizes caterers when required who support zero waste objectives and provide re-usable service and storage equipment.*
- *Regional District actively promotes in-house re-use programs including Waste Reduction Week in October and demonstrations at staff functions.*
- *Where possible, Regional District subscribes to bulk acquisition of supplies and materials to reduce waste of packaging and materials.*
- *Regional District utilizes BC Stewardship programs for all appropriate equipment and discarded supplies such as electronics.*
- *Where possible, public display materials are re-used.*

Insert # 11

***The above program will be encouraged in other government offices and private and public organizations within the RDK-S through the education program.***

⇒ **Administration's Comments /Reporting**

- *Administration has and continues to actively engage some other government offices, consultants and organizations on viable diversion alternatives and education on opportunities to adapt practices to incorporate diversion into work settings i.e. composting, 'blue box' programs, use of electronics and stewardship programs.*
- *Regional District developed and continues to promote the "Office Greening Toolkit" on line and in printed format.*

Insert # 12

***RDK-S shall require segregation of certain materials at all landfills in the Regional District.*** Materials to be set aside may include items such as truck tires, large metal objects, white goods, plastics, cans and bottles, auto hulks, and wood. In addition, community reuse areas will be encouraged, although not required. Community reuse areas would involve setting aside any household items which could be feasibly reused and that would not constitute a health hazard. Controlled salvaging of separated primary materials (metals, wood, etc.) will be encouraged. Scavenging from the active tipping face by members of the public would be banned.

⇒ **Administration's Comments /Reporting**

- *Regional District Landfills have incorporated designated segregation areas for tires, batteries, clean wood, metals, appliances and other materials for controlled salvaging.*
- *Implementation of the Plan includes detailed design of transfer stations and landfill to include specified segregation areas.*
- *Re-use area at Thornhill Landfill for last 20 years.*

Insert # 13

***RDK-S shall encourage the participation of local recycling and environmental groups, such as K. U.T.E. and the Three Rivers Recycling Society, in reduction and reuse education and promotion through grants and other funding support.***

⇒ **Administration's Comments /Reporting**

*Regional District continues to maintain and support Project Eco-prise (Funding program).*

Insert # 14

***RDK-S shall explore and encourage opportunities for private sector and non-profit society involvement in solid waste management.***

Regional District of Kitimat-Stikine

***RDK-S may assist in advertising and would encourage participation in materials and waste exchanges available to industry.*** Exchanges currently available include:

⇒ **Administration's Comments /Reporting**

*Regional District continues to maintain and support Project Eco-prise (Funding program).*

*Regional District is a member of the Recycling Council of British Columbia (RCBC) and financially supports the RCBC Waste Exchange.*

Insert # 15

- BC Waste Exchange, Vancouver
- Pacific Materials Exchange (Spokane)
- Industrial Metals Exchange (Seattle)

.3 Recycling

***RDK-S shall include education and promotion as high priorities to encourage participation in the regional recycling program.*** The mechanisms will be similar to the reduction and reuse education and promotion programs.

⇒ **Administration's Comments /Reporting**

*Regional District has created webpage information, brochures and other information packages for a number of years.*

*The Board's Zero Waste Outreach Specialist position continues to provide ongoing education and outreach to staff, the Board, other agencies and business as well as the general public. Outreach will continue to focus on diversion opportunities, waste reduction, composting and general awareness of ERP and take-back depots through a variety of mediums including brochures, webpages, demonstrations and participation at public events.*

Insert # 16

***RDK-S shall develop an in house procurement program for recycled content products.*** The procurement program will utilize practices such as:

- purchasing paper with a stated minimum post-consumer recycled content;
- where recycled content paper is not available, report stock should be recyclable and preferably unbleached;
- purchasing waste bins of recycled content that are smaller than typically used; and
- purchase plain paper fax machines as opposed to thermal paper fax

Regional District of Kitimat-Stikine  
machines.

⇒ **Administration's Comments /Reporting**  
*Regional District utilizes a 100% tree free paper (made from sugar cane) for most of its printing and copying. If discarded, this paper is either put into the recycling stream or added to the off-site composting stream.*

Insert # 17

***Member municipalities and other private and public organizations will be encouraged to develop procurement programs similar to that of the Regional District.***

⇒ **Administration's Comments /Reporting**

- *Zero Waste Outreach Specialist and other staff encourage similar protocols used at Regional District office for procurement practices.*
- *The Office Greening Toolkit is offered as a guide to waste reduction work settings and is available on-line and in printed format.*

Insert # 18

***RDK-S shall encourage its member municipalities to develop bylaws requiring new commercial, institutional and multi-unit and multi-family developments (greater than four units in one building) to include adequate space for integrated waste management.*** The space should include areas for storage of waste, recyclables and compostables.

***RDK-S shall make every effort to recycle as many materials as possible, to the extent that economics does not prevent their collection and processing.*** The Regional District will have a minimum set of materials that it will accept in its recycling depots, assuming markets allow. These materials will include the following:

- all grades of paper;
- all grades of cardboard; and aluminum beverage cans.

Other materials will be accepted as markets become available or are strengthened. These may include the following:

- specific plastics, e.g. HDPE, PET, etc.;
- commingled plastics;
- glass;
- textiles; and
- rubber.

⇒ **Administration's Comments /Reporting**  
*All Regional District Landfills have segregation areas for commercial salvaging.*

Insert # 19

## Regional District of Kitimat-Stikine

However, no materials will be accepted by the regional recycling program until a bonafide market has been secured for that material. This will prevent the costly storage and ultimate disposal of quantities of "recyclable" materials without markets.

***RDK-S shall continually search for new and better markets for materials.*** This may be done either solely or as a marketing cooperative with adjacent regional districts. Marketing may be done through recycling brokers or direct to markets, as appropriate for each material.

***The RDK-S shall develop a drop-off depot system for recyclables.*** The depots will be located in the Kitimat-Terrace-Hazelton corridor, with a number of bins in each community based on the anticipated quantity of materials. The number of bins required will be calculated based on a fill rate of one week. The bins could either be segmented 30 cu. yd. roll-off containers or separate materials bins. They would be located in high use areas (malls, plazas, gas stations, grocery stores, etc.). The program would target the populations in the corridor, but the bins would be available to anyone. Residents in more remote communities such as Stewart and Highway 37 north would be encouraged to bring recyclable materials with them when they travel into the corridor. Development of the appropriate central processing facility would be the responsibility of RDK-S, either directly or through an RDK-S call for proposals and public tendering process. Haulage of materials to a central processing facility will be contracted to a private hauler.

⇒ Administration's Comments /Reporting

*Pilot programs indicate drop-off facilities can be an expensive service. Regional District continues to liaise with MMBC to discover opportunities to develop reasonable and convenient participation for residents and other sectors. Administration feels that MMBC should eventually help provide the best level of diversion service.*

Insert # 20

***RDK-S shall encourage the private and non-profit sectors to pick-up office paper from commercial establishments and deliver this material to an appropriate recycling facility.***

***Under bylaw, RDK-S may develop a reserve fund to help finance any capital expenditures required to expand or upgrade the central recycling facility.***

***Regional District continues to work with local haulers and businesses to collect these products.***

⇒ Administration's Comments /Reporting

*A business plan and cost recovery model is in progress and will support required by-laws including capital reserve fund.*

Insert # 21

***RDK-S will encourage parks and/or resorts to include on-site drop-off facilities for recyclable materials, to be delivered to the regional recycling facility.***

⇒ **Administration's Comments /Reporting**  
*BC Provincial Parks has arrangement with "Encorp" and currently provides recycling bins in local camping and day-use facilities.*

Insert # 22

***RDK-S will continue to investigate the possibility of coordinating with other regional districts for joint processing and shipment of recyclable materials.***

***RDK-S may assist in advertising alternative recycling opportunities, operated by private enterprise or other groups, that are not a part of the regional waste management program.***

⇒ **Administration's Comments /Reporting**

- *Regional District continues to liaise with Ministry of Environment with respect to Product Stewardship programs and agent responsibilities such as outreach and advertisement.*
- *Zero Waste Outreach Specialist and Environmental Services Coordinator actively participate on the BC Stewardship Council and continue to provide information and updates to the RCBC outreach tools such as Re-cylopeida, Terrace Area ERP and Take-Back Depot (brochure), Hazelton Area ERP and Take Back brochure, webpages and other appropriate means to assist in public awareness of all opportunities.*

Insert # 23

***Collection and recycling of difficult wastes will be reserved for private enterprise.***  
 (Difficult waste includes auto hulks, tires, batteries, etc.).

***Member municipalities of RDK-S will not be discouraged from implementing a recycling program which involves more sophisticated technology than what the Regional District is utilizing, as long as the effective diversion rate is at least that obtained by the regional system.*** If costs are significantly higher, a Plan amendment and full public review may be required.

***RDK-S shall investigate the feasibility of, and may subsequently implement, a more sophisticated recycling system, if this is deemed necessary to attain the projected waste diversion targets.*** If costs are significantly higher, a Plan amendment and full public review may be required. ·RDK-S will investigate the opportunities available to coordinate with adjacent regional districts such as Bulkley Nechako or Skeena-Queen Charlotte.

.4 Composting

***RDK-S shall include education and promotion as a high priority to encourage participation in the regional composting program.*** The mechanisms will be similar to reduction, reuse and recycling education and promotion programs.

⇒ **Administration's Comments /Reporting**  
*Regional District provides education on composting including hands-on workshops. In addition to first hand expertise, information is available on-line and in printed format.*

Insert # 24

***RDK-S shall develop an in-house procurement program.*** The program will basically involve a commitment to utilize compost from the regional composting program for regional parks and other regional sites. Member municipalities will be encouraged to make similar compost utilization commitments.

***RDK-S composting programs will target as many organic materials as economically possible, while minimizing odour problems.*** Materials which will be targeted include residential food waste (in backyard bins); yard waste including leaves, trimmings, brush and limited quantities of grass; wood waste from demolition and renovation projects; and land clearing debris.

***RDK-S may provide, to most interested residents, backyard composting bins at a subsidized cost.*** This program would not be available to residents in areas where severe bear problems are perceived, such as the District of Stewart. RDK-S will take advantage of any funding opportunities provided by the provincial government. The split of the bin cost could be 1/3 for each of senior government, regional government and resident. RDK-S staff will research existing bin technology to determine the best, most cost effective bin for distribution. RDK-S staff will arrange storage and distribution of the bins as appropriate to ensure the greatest participation in the program. Educational/informational packages will be distributed with the bins.

⇒ **Administration's Comments /Reporting**  
*Backyard composting units are available for sale through Regional District and are sold to the public at subsidized pricing.*

*Hands-on instruction to community is available and information on a number of design options for home compost construction is available on the Regional District web-site.*

Insert # 25

***RDK-S may establish and maintain a compost demonstration garden staffed by qualified individuals.*** Depending on the success of the garden, gardens at



Regional District of Kitimat-Stikine  
other locations may be established.

⇒ Administration's Comments /Reporting

*Project Eco-Prise (funding program) has supported backyard composting demonstration gardens (Hazelton), composting workshops (Terrace) and school programs (New Hazelton).*

Insert # 26

***On establishing a compost garden, RDK-S may establish a composting hotline to respond to enquiries about operation of home composting bins and other local waste management issues.*** The hotline would be housed in the demonstration garden and operated by the garden staff.

⇒ Administration's Comments /Reporting

*Regional District instead offers website information on composting, design options and links to other expertise. In-house assistance is also offered.*

Insert # 27

***RDK-S will establish a yard waste composting program accessible to residents and businesses in the Regional District.*** The program will involve windrow technology at several locations, primarily at existing or closed landfill sites. Locations could include Iskut, Meziadin, Kitwanga, Hazelton, Rosswood, Terrace/Thornhill and Kitimat. Accepted materials will be non-food organic waste, such as brush, trimmings, leaves, grass (in low quantities), stumps and land clearing debris. Large pieces such as stumps will undergo volume reduction, e.g. in a chipper/hammermill contracted to RDK-S, which will be transported between sites. The program will be strictly on a drop-off basis at each windrow site, with (initially) no charge for materials. The final compost product will be utilized in Regional District operations and sold at low cost to buyers. Municipalities which own landfills will be encouraged to develop similar composting facilities on their sites.

⇒ Administration's Comments /Reporting

- *Regional District provided support to Northwest Community College in the acquisition of a community scale composting unit and continues to provide in-kind support for operation of this unit to divert organics from Terrace campus and college food preparation programs.*
- *Some opportunity for on-site yard and garden waste composting components exist at some Landfills.*

Insert # 28

***Member municipalities of RDK-S will not be discouraged from implementing a composting program which involves more sophisticated technology than what the Regional District is utilizing, as long as the effective diversion rate is at least that obtained by the regional system.*** If costs are significantly higher or the change in service is considerable, a Plan amendment and full public review may be required.

|  |  |
|--|--|
| <p>⇒ <b>Administration's Comments /Reporting</b></p> <ul style="list-style-type: none"> <li>• <i>City of Terrace provides curbside collection of yard and garden waste which is then composted at City owned property.</i></li> <li>• <i>Terrace Area Curbside Collection Draft program identifies organics collection as a future consideration.</i></li> </ul> | <div style="border: 1px solid black; padding: 2px; display: inline-block;">Insert # 29</div> |
|--|--|

*In the event that revenues from recycling paper and cardboard products decrease substantially for a sustained period of time, the RDK-S reserves the option of composting these materials as an alternative to stockpiling them until favourable market conditions return.* The RDK-S is aware that composting of these materials may require increased care regarding blowing litter and may have increased costs relative to yard waste composting.

*RDK-S shall investigate the feasibility of, and may subsequently implement, a more sophisticated composting technology, if this is deemed necessary to attain the projected waste diversion targets.* This technology may be in-vessel technology to capture more food and horticultural/wood waste. If a centralized technology is utilized, RDK-S will investigate the opportunities available to coordinate with adjacent regional districts such as Skeena-Queen Charlotte or Bulkley-Nechako. RDK-S will consider any private proposals for in-vessel composting that arise, and may consider a subsidy to any private operations. If costs are significantly higher or the change in service is considerable, a Plan amendment and full public review may be required.

#### .5 Energy Recovery

*RDK-S shall not, at this time, consider energy recovery as a component of its waste management system.* This option is not considered for economic reasons, based on the demographics of the Regional District.

*RDK-S reserves the right to review the economic and environmental viability of incineration in each Plan review (every five years).*

*Private sector proposals for incineration, energy recovery or co-generation within RDK-S boundaries shall be presented to RDK-S for approval.* Public input will be received on any proposals before approval. With any proposed incineration/energy recovery/co-generation project, the safe and environmentally sensitive disposal of ash and the quality of the discharged gases must be considered paramount.

#### .6 Residuals Management

**Existing permitted landfills will remain in operation as long as capacity,**

## Regional District of Kitimat-Stikine

environmental protection and economics allow. (1) A list of current landfills is presented in Table 2.1. Regional District, Municipal and/or First Nations landfills will continue to be operated by the operational certificate holder(s) until these landfills are closed. Subject to hydrogeological assessments and expansion potential being favourable and an inter-Band agreement being set-up, a single First Nations landfill, located near Laxgalts'ap (Greenville) (a proposed new landfill site) or Gitlakdamix (New Aiyansh) (an existing landfill) could service all of the Nass Valley.(2) Landfill action plans for all existing municipal waste landfills in the RDK-S is presented in Appendix A. (3)



## Administration's Comments /Reporting

Insert #30

1. *Small Lateral expansions have had to occur at the Kitwanga, Hazelton and Thornhill Landfills to accommodate the SWMP investigations and stakeholder consultation.*
2. *Administration coordinated the Nass Valley SWMP – November 1998.*
3. *Operation and Closure Plans developed for the Rosswood and Iskut Landfill.*

*Usk Landfill closed in 1995.*

**Table 2.1  
Existing Landfills**

| <b>Landfill</b>                        | <b>Owned/Operated by</b> | <b>Upgrades Required</b> | <b>Operational Certificate Required</b> | <b>Comments</b>  |
|--|--------------------------|--------------------------|---|--|
| Telegraph Creek                        | RDKS/First Nations       | Y                        | Y                                       | The old landfill is proposed to be closed. A new landfill is being negotiated.   |
| Hazelton                               | RDKS                     | Y                        | Y                                       | Closed as soon as a new site is available (2-5 years).   |
| Laxgalts'ap                            | First Nations            | N                        | N                                       | To be closed ASAP.   |
| Usk                                    | RDKS                     | N                        | N                                       | Closed.  |
| Terrace                                | City of Terrace          | N                        | Y                                       | Close as soon as an alternate site is available (2-4 years).   |
| Gitsegukla                             | First Nations            | N                        | N                                       | Closed.  |
| Kispiox                                | First Nations            | N                        | N                                       | To be closed ASAP.   |
| Kitwanga                               | RDKS                     | Y                        | Y                                       | To be closed in 8-10 years or when full.   |
| Bob Quinn                              | BCBC                     | Y                        | Y                                       | 20 year operation.   |
| Stewart                                | District of Stewart      | Y                        | Y                                       | 20 year operation (to be confirmed)  |
| Rosswood                               | RDKS                     | Y                        | Y                                       | 20 year operation.   |
| Thornhill                              | RDKS                     | Y                        | Y                                       | 5 to 20 year operation depending on hydrogeological evaluations, economics, public acceptance and availability of a new sub-regional site. |
| Kitimat                                | District of Kitimat      | Y                        | Y                                       | 20 year operation.   |
| Gitlakdamix                            | First Nations            | Y                        | Y                                       | 20 year operation.   |
| Iskut                                  | RDKS                     | N                        | Y                                       | 10+ year operation.  |
| Meziadin                               | RDKS                     | Y                        | Y                                       | New site to be developed.  |
| Thornhill/Terrace/<br>Kitimat Corridor | RDKS                     | Y                        | Y                                       | New 50 year landfill to be sited.  |

The Stage 2 evaluations of Greater Terrace landfilling options indicated that the most cost effective landfilling solution appeared to be closing down the Terrace landfill and expanding and upgrading the Thornhill landfill to accept all Greater Terrace municipal solid waste. However, this would be subject to the results of a hydrogeological and environmental evaluation of the Thornhill site conducted in 1996-97; the Ministry of Environment, Lands and Parks amending the Thornhill operational certificate, public review and RDK-S Board approval of this option. If the Thornhill site proves to be acceptable as the single Greater Terrace landfill site, it would be subject to a public review of the environmental, social and financial viability of the site, at least every five years. Since there may be insurmountable problems using the Thornhill site, during the first two years of plan implementation, siting of a new sub regional landfill that will ultimately serve Terrace, Thornhill and, perhaps, Kitimat would occur in parallel with the Thornhill evaluations. In the interim, both the Thornhill and Terrace landfills would continue to be operated.

Any new landfills in the RDK-S shall be designed, constructed, operated and closed in accordance with the BC **Landfill Criteria for Municipal Solid Waste** or justified exemptions. Existing landfills would be upgraded in accordance with the Action Plans contained in Appendix A.

⇒ Administration's Comments /Reporting

Insert # 31

*1996 - A news release was issued to the Regional District outlining the need to site three new landfills in the region (Terrace area, Hazelton area and Meziadin area) in accordance with the recommendation contained in the Plan. The Terrace area site was to be sited for potential Kitimat use.*

### Hazelton Landfill Phase 2 Siting Project

*The Plan recommended the replacement of the Hazelton Landfill with a new facility to service the Hazelton and Kitwanga area:*

*1996 - the Regional District, with the assistance of Associated Engineering and a Landfill Siting Advisory Committee, commenced with the Hazelton Landfill Siting Project. Six of 16 candidate sites were selected for preliminary investigations following a constraint mapping exercise using the MoE Landfill Siting Criteria, including the area immediately adjacent to the existing Hazelton Landfill.*

*1998 – preliminary investigations were carried out at these 6 sites. More focused assessment for fish and wildlife values were conducted at the Hazelton Landfill Expansion site.*

*1999 - the Landfill Advisory Committee short-listed three potential landfill site options for further investigation; A site across from Skeena Cellulose Carnaby Mill site, a site at Seaton Siding and the area adjacent to the existing Hazelton Landfill were considered for the next stage of analysis.*

*2000 - an Investigative Use Permit was secured to further investigate a Hazelton Landfill Expansion and following further investigations, a landfill concept was developed and the Regional District applied for the required Tenure and Operational Certificate in October 2000.*

- Concerns were raised by some First Nations representatives.*
- 2003 - Associated Engineering prepared a submission addressing issues of habitat and landfill alternatives. It included a review which ranked the higher potential landfill sites identified to date – the Carnaby Mill site, the Seaton Siding site and the Hazelton Landfill area.*

- *2003 – 2010 - Administration met with First Nations stakeholders including House Chiefs representing the Houses of Spoowk, Guuhadakw, and Yagosip. MoE also continued to confirm First Nation interests.*
- *2004 – BC Land, Air and Water Division (Crown Lands) offer the Regional District Land Tenure to develop the Hazelton Landfill Expansion on the condition that the MoE issues an Operational Certificate and further consultation with the Province and First Nations.*
- *October – 2010 Board approves, in principle, the Hazelton Phase 2 Landfill.*
- *May 30, 2013 MoE issues the Operational Certificate for Hazelton Phase 2.*
- *June 21, 2013 Board approves Administration to present the Draft Refuse Sites Cost Recovery Model to the residents in the Hazelton area along with solid waste plans including the Proposed Phase 2 Hazelton Landfill and Proposed Kitwanga Transfer Station concept.*
- *August 9, 2013 – Board approves Administration to prepare a Public Open House on November 6, 2013 to provide information on the Hazelton Area Integrated Solid Waste Plans.*
- *November 6, 2013 – Proposed Hazelton Area Integrated Solid Waste Management Plan, Public Open House, New Hazelton Meeting Centre.*
- *November 22, 2013 Board receives Public Consultation Summary report on the Hazelton Public Open House.*

#### Meziadin Landfill Siting and Development

*The Plan identified the need for a landfill to serve the Meziadin Junction area.*

*1996-2001-The Meziadin Landfill Siting Committee assisted the Regional District Landfill Siting Process. Landfill designed to accommodate District of Stewart's refuse in addition to increasing demand to meet camp and other industrial interests.*

*2001 – Landfill commissioned and gravel pit acquired to support operation.*

#### Terrace Area Landfill Siting and Development

*The Plan identified a need for a single landfill to serve the Greater Terrace area.*

- *1996 – Several areas to the south of Terrace were identified as potential candidate sites for a new landfill based on Ministry of Environment Landfill Siting Criteria.*
- *1996 – 1997 Preliminary geotechnical investigations and discussions resulted in a more detailed investigation of the area now referred to as the Forceman Ridge Landfill site.*
- *April 1998, the Board and some City of Terrace Councilors received project summary presentations from Tony Sperling of Sperling Hansen Associates and David Forgie of Associated Engineering. Dr. Sperling summarized the Thornhill Landfill Hydro-geotechnical Investigation and potential upgrading options. Dr. Forgie presented the alternative site selection process, including a development concept for the Forceman site.*
- *Board approves Administration to proceed with a public open house on the Thornhill Landfill Hydro-geotechnical investigations and Terrace Area Landfill siting project.*



- *May 1998 Public Open House - The following individuals were available to answer questions related to the Landfill Siting Project, the Thornhill Landfill Hydro-geotechnical Investigation and the Thornhill Landfill Buffer Zone.*
  - *David Forgie*                      *Associated Engineering*
  - *Tony Sperling*                      *Sperling Hansen & Associates*
  - *Bryony Hanson*                      *Sperling Hansen & Associates*
  - *Todd Zimmerling*                      *Applied Ecosystems –*  
*Conducted Fish and Wildlife*  
*Assessment at Thornhill*  
*Landfill and Forceman site*
  - *Frazer McKenzie*                      *Ministry of Environment*
  - *Stew Christensen*                      *PMAC Chair*
  - *Andrew Webber*                      *Regional District, Manager*  
*Development Services*
  - *Ted Pellegrino*                      *Regional District, Planner*
  - *Roger Tooms*                      *Regional District, Manager*  
*Works and Services*
  
- *1998 - District of Kitimat declines use of Forceman Ridge site in foreseeable future.*
  
- *1998-2000 – An upgraded Thornhill option and the Forceman site were compared on technical, financial and risk perspectives. The Terrace site was also considered as a potential candidate, and it was determined that the Terrace site should close.*
  
- *March 2000 – A workshop was held for the Board and Terrace City Council. Mr. Forgie presented the most recent information comparing the upgraded Thornhill facility and Forceman concepts.*
  
- *September 2000 – Board approved in principle, the development of the Forceman Ridge Landfill to serve the Terrace area, authorized Administration*

*to proceed with additional site investigations and permitting process, authorized establishing a cost recovery mechanism to finance the landfill, operations and closure prior to detailed design and construction.*

- *April 2002 - Regional District makes application for Land Tenure and Operational Certificate; Referral process initiated and project information circulated; Forceman Ridge Informational Brochure was developed based on information to date and circulated to Terrace area residents.*
- *November 2002 - Board accepts the Draft Operational Certificate and Tenure Offer and approves the execution of all necessary permits. The Board requests Administration to provide a Draft Refuse Site Financial Plan for discussion purposes. Some responses from First Nations require further investigation and discussion.*
- *2003-2004 – Initial First Nations Consultation and Information Sharing with the Kitselas, Kitsumkalum, Haisla and Lax Kwala’ams representatives.*
- *2005-2007 – First Nations Consultation and additional site investigations required to address interests raised.*
- *2008 – MoE issued Regional District “Second Notice of Intent to Issue Operational Certificate MR-17227”. The notice and OC were updated versions of what had been sent in 2002.*

*Following the Ministry of Environment issuance of the Forceman Ridge Landfill Operational Certificate, Administration met with Kitselas representatives to discuss the next steps in the development process. Administration felt it was important to continue involving Kitselas and has requested Kitselas to*

*work closely with the Regional District on the detailed design including the associated area rehabilitation plans and related wildlife activities element.*

- *August 2009 – Board directs Administration to evaluate landfill alternatives prior to proceeding with finalizing the Forceman Ridge Landfill development plans.*
- *September 2009 – Board approves the execution of a Kitselas Memorandum of Understanding (MoU) to guide the detailed design phase of the Landfill and compensate Kitselas Band for their participation.*
- *2010 – Board receives presentation on Landfill Alternatives Report and reviews Solid Waste Function Cost Allocation Alternatives.*
- *February 2010 – Board Workshop on the Refuse Sites Function.*

*Topics include:*

- *RDKS Solid Waste Management Plan (SWMP)*
- *SWMP Amendments and Required Process*
- *Current Landfill Facilities Status*
- *Landfill Siting Projects Update*
- *Forceman Ridge Landfill Alternatives Update*
- *Diversion Programs – Current and Proposed*
- *Current Cost Recovery and Apportionment*
- *Draft Business Plan – Future Cost Projections*
- *SWMP Advisory Committees*
- *June 2011 – Workshop on Forceman Ridge Landfill Site for Board, Lakelse Area Planning Commission, and PMAC.*
- *October 2011 – Thornhill Landfill and planned City of Terrace Landfill Tour for Board, Lakelse APC, MoE and PMAC.*

- *October-2011-Ministry of Forests, Lands and Natural Resource Operations (FLNRO) issues Tenure Offer. Board approves legal survey of proposed Forceman Landfill site.*
- *November 2011 – Board receives petition from public to reconsider the proposed Forceman Ridge Landfill Site and to engage the public prior to making a decision.*
- *November 2011 – Board requests Administration to prepare the detailed design for the proposed Forceman Ridge Landfill and to initiate a public information strategy through newsletters, newspapers, direct contact with affected citizen groups, web resources, and open house(s) to ensure the public is fully informed of the Regional District’s solid waste plans including long term landfilling plans, transfer stations, curbside collection, waste diversion initiatives, cost recovery and siting background and investigative materials used for Forceman Ridge.*
- *January 2012 – Board receives presentation on Lake property owner petition requesting the public be kept informed on the Forceman Ridge Landfill Project.*
- *March 23, 2012 Board approves the distribution of an updated Forceman Ridge Landfill Brochure, to hold a May 25, 2012 Public Open House to provide background information on the project and inform Terrace area residents of the Regional District’s intent to continue considering the Forceman Ridge Landfill as the sub-regional facility for the Terrace area. The information was put on the Regional District Kitimat-Stikine website and in local newspapers.*
- *May 15, 2012 – Proposed Forceman Ridge Landfill and Terrace Area Solid Waste Plans Brochure mailed to Terrace area residents and set the stage for Public Open House.*

- *May 25, 2012 – Project presentation and meeting with approximately 22 representatives from community groups, Regional District Committees along with consultants working on the project and RDKS staff.*
- *May 26, 2012 – Information Open House, Thornhill Community Centre.*
- *June 2012 – Board receives “May 2012 Public Communications Summary”.*
- *June 2012 – Board approves Administration to commence with detailed design of Forceman Ridge Landfill including monitoring and mitigation programs, Thornhill Transfers Station, Terrace Area Curbside Collection/Waste Diversion program including updated financial plan and report back to board.*
- *April 2013 – MoE continues to support SWMP and project progress and reiterates that the Terrace Landfill will be closed. It also confirms that the Thornhill Landfill (as alternate) would require an amendment to site authorization and include full First Nations and public consultation, detailed investigations such as groundwater modeling, impact assessment and the same level of technical review and adjudication applied to Forceman Ridge site.*
- *May 24, 2013 – Board approves public engagement strategy including an Open House to update area residents on the Terrace Area Integrated Solid Waste Management Plan.*
- *June 2013 – Public Forum held at Northwest Community College regarding Terrace Area Integrated Solid Waste Management Plans. Administration participates on panel.*

- *June 11, 2013 – Proposed Terrace Area Integrated Solid Waste Management including Forceman Ridge Landfill component, Public Open House, Thornhill Community Centre.*
  
- *June 21, 2013*
  - *Board receives the Public Consultation Summary related to the Terrace Integrated Solid Waste Management Plan.*
  
  - *Board also receives Ministry's letter with regards to the Ministry's comments on Solid Waste Management in the Greater Terrace. This letter becomes part a PMAC agenda posted publicly to the web and is also forwarded to the City of Terrace for Council's information.*
  
  - *Board authorizes 'Requests for Proposals' to complete the final design for the Forceman Ridge Landfill and Thornhill Transfer Station.*
  
  - *Board authorizes a 'Request for Proposal' to provide a Terrace Area Curbside Collection Service including a recycling component consistent with Multi-Materials BC (MMBC).*
  
  - *Board authorizes Administration to draft a "Terrace Area Curbside Collection Service Program in consultation with the City of Terrace for presentation to PMAC and the Board.*

⇒ **Administration Comments/Reporting: You are now resuming with the 1995 Solid Waste Management Plan text.....**

In incorporated areas, waste collection will remain a municipal responsibility. Landfills will have areas set aside for the storage of white goods, wood waste and vehicle hulks.

Dead animal pits and septage disposal facilities will be provided at landfills where these services are required.

Transfer stations may be implemented to service areas where landfills have been closed.

Where implemented, transfer stations will be of a design proven to function under the climatic conditions prevalent in the RDK-S and be resistant to wildlife. The transfer stations will be owned by the RDK-S and operations will be contracted to the private sector.

Closure plans will be developed, by the owner/operational certificate holder, for all existing permitted landfills. All closure plans for RDK-S landfills will be submitted to the Plan Monitoring Advisory Committee prior to submission to the Ministry of Environment Lands and Parks. Closure plans shall be in compliance with the BC Landfill Criteria, and shall include information, such as:

- the anticipated date of closure;
- works required to close the site;
- the final shape of the landfill;
- the end use of the landfill;
- environmental monitoring and controls required;
- a wildlife management plan; and
- estimated cost of closure and post-closure care.

For landfills with restricted access and supervision, operating hours shall be established that maximize service while minimizing costs.

Cover frequency for each landfill shall be as agreed with the Regional Manager of BC Environment and stipulated in the operational certificate.

If any problems with abandoned landfill sites are identified, the owner/operator will be responsible for the clean-up and closure procedures.

Household hazardous products (HHP) continue to be a concern that has no complete solution at this time. It is hoped that industry stewardship programs such as the paint-return program being developed by the Paint Care Association will be expanded to other HHP's including dry-cell batteries and pesticides/herbicides. In the interim the Plan education program will emphasize alternate and less hazardous products, and the B.U.D. principle (Buy or Borrow it only if it is truly needed, Use all and Dispose of it safely).

Untreated pathological biomedical waste and special waste will not be accepted at

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municipal landfills. The responsibility for ensuring proper disposal of special waste shall rest solely with the generator of the special waste.

RDK-S landfills will not accept products containing ozone-depleting substances (ODS). These must be removed by certified technicians or authorized removal companies.

RDK-S will support the concept of true industry stewardship with respect to the handling and recycling of household hazardous products and difficult-to-dispose wastes. The RDK-S will cooperate with the province and industry groups in developing drop-off facilities for problem wastes, but only to the point that the drop-off system is fully funded by the industry, and the RDK-S is absolved of any liability with respect to handling, storage, transportation and disposal of the material. Industry associations would be responsible for the ultimate market or disposal of any materials collected.

The RDK-S may exercise the right given to it by Bill 29, the Waste Management Amendment Act 1992, to control waste movement within its boundaries through the issuance of Waste Stream Management Licenses, Hauler Licenses and Recyclers Licenses.

### **3.0 IMPLEMENTATION**

Implementation of the strategies that have been put forward will be very complex. Considerations regarding implementation are outlined in this section. These include the following:

- solid waste stream targets;
- diversion targets;
- implementation schedule;
- administration, jurisdiction and responsibility;
- levels of staffing;
- Plan monitoring;
- contingency plans; and
- dispute resolution procedures.
- funding and priorities of the RDK-S, member municipalities and First Nations Bands

#### **3.1 DIVERSION TARGETS**

At the outset of the Plan, it is important that there be a target handling procedure for each material class and type in the waste stream. Table 3-1 indicates the intended objective for each material identified in the waste composition tables from Stage 2. All of the waste stream will be reduced and reused, with some streams targeted more than others (e.g. packaging waste is highly targeted, such as paper products and plastics).



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The materials with strong recycling markets will be recycled through regional drop-off and private recycling, with other materials being included as markets expand. The primary organics (food, yard and wood waste) will be composted through a combination of residential backyard composting and drop-off windrow composting. Any materials not handled through reduction, reuse, recycling or composting will be landfilled. The Plan Monitoring Advisory Committee will review these waste stream targets annually to identify potential modifications that reflect changes in markets or economics.

Certain target diversion rates, have been assumed for the each of the strategies outlined

in Section 2.0. The target diversion rates are as follows:

- a total of approximately 15.0% through reduction and reuse strategies, including
- approximately 10.0% through reduction and reuse strategies implemented by senior government and approximately 5.0% through reduction and reuse strategies implemented by RDK-S;

End of Solid Waste Management Plan Review Inquiry Summary Report