

LIVESTOCK WASTE TISSUE INITIATIVE

STRATEGIC PLAN

2005 – 2012

**Submitted by:
British Columbia Livestock Waste Tissue Initiative
Management Committee**

**Originally Produced June 27, 2005
Up-Dated August 28, 2008
Up-Dated January 23, 2009
Up-Dated February 22, 2010**

ACRONYMS

Acronyms used in either the Strategic Plan or the Work Plan are listed below:

AAFC	Agriculture and Agri-Food Canada
AI	Avian Influenza
BC	British Columbia
BCAC	British Columbia Agriculture Council
BSE	Bovine Spongiform Encephalopathy
CFIA	Canadian Food Inspection Agency
FADES	Foreign Animal Disease Emergency Support Plan
IAF	Investment Agriculture Foundation of British Columbia
LWTI	Livestock Waste Tissue Initiative
MAL	Ministry of Agriculture and Lands (British Columbia)
MBM	meat and bone meal
MENV	Ministry of Environment (British Columbia)
NIMBY	not in my back yard
OIE	Office International des Epizooties
PEP	Provincial Emergency Program
RFP	Request for Proposal
SRM	Specified Risk Material
UBCM	Union of British Columbia Municipalities

CONTACT:

Rick Van Kleeck, PEng
Coordinator, Livestock Waste Tissue Initiative,
Investment Agriculture Foundation of British Columbia
Phone: 604-556-3145
Fax: 604-556-3099
E-mail: rvankleeck@iafbc.ca

TABLE OF CONTENTS

TABLE OF CONTENTS	1
1. INTRODUCTION.....	3
1.1. DEFINITION OF THE PROBLEM	3
2. GOVERNANCE.....	3
2.1. DEVELOPMENT OF THE STRATEGIC PLAN	3
2.2. VISION, MISSION, PRINCIPLES AND VALUES	3
2.2.1. Vision	3
2.2.2. Mission	4
2.2.3. Principles and Values	4
2.3. TERMS OF REFERENCE	4
2.4. COST SHARING	5
2.4.1. Proposed Cost Sharing Strategy.....	5
2.4.2. In-Kind Support.....	5
3. ENVIRONMENTAL SCAN	5
3.1. BACKGROUND	5
3.1.1. BSE Control Measures, Canadian Food Inspection Agency	6
3.1.2. Effect on Rendering Industry and Clients	7
3.1.3. Costs.....	7
3.1.4. Transloading Site Issues	8
3.1.5. Possible Future Foreign Animal Disease Event	8
3.2. IMPACT / RISK.....	8
4. GOALS, STRATEGIES, BUDGET ALLOCATIONS, ACTIONS, OUTCOMES AND PERFORMANCE MEASURES	9
GOAL 1, SHORT TERM – MAINTENANCE OF SLAUGHTER INDUSTRY TO ALLOW FOR TRANSITION.....	9
GOAL 2, MEDIUM TERM – TRANSITION TO THE NEW REALITY	9
GOAL 3, MEDIUM TERM – UNDERSTAND THE RISKS AND RAMIFICATIONS (DON'T OVERREACT)	11
GOAL 4, LONG TERM – MINIMIZE COST / MAXIMIZE VALUE RECOVERED	11
GOAL 5, SUPPORT BC SRM MANAGEMENT PROGRAM	12
GOAL 6, MEDIUM AND LONG TERM – EMERGENCY EVENT MANAGEMENT	13
5. FINANCIAL STRATEGY	14
5.1. ADMINISTRATION BUDGET	14
5.2. PROPOSED YEARLY EXPENDITURES.....	15
6. COMMUNICATION STRATEGY	15
7. PERFORMANCE AND EVALUATION PROCEDURES.....	17
7.1. EXPECTED OUTCOMES.....	17
7.2. PERFORMANCE MEASUREMENT	17
7.2.1. Project	17
7.2.2. Accounting	18
7.2.3. Administration.....	18
7.3. STRATEGIC PLAN MODIFICATION	18

1. INTRODUCTION

1.1. DEFINITION OF THE PROBLEM

British Columbia (BC) businesses that generate or process animal tissue waste, e.g. slaughter plants, food processors, and renderers, must find ways to adapt to dramatic new costs of waste disposal or many will face financial failure. These costs result from the public response to Bovine Spongiform Encephalopathy (BSE) and the requirement to isolate ruminant waste and then manage its disposal to meet regulations governing livestock waste tissue management. Further, the 2004 Avian Influenza (AI) outbreak highlighted the lack of emergency disposal options for high volumes of dead stock. These factors significantly increase the risk to the environment and human and animal health of unsafe handling of livestock waste tissue and dead stock.

2. GOVERNANCE

2.1. DEVELOPMENT OF THE STRATEGIC PLAN

To guide the development of a Livestock Waste Tissue Strategic Plan, a Management Committee was established, with members from British Columbia Abattoir Association (BCAA), British Columbia Agriculture Council (BCAC), British Columbia Food Processors Association, Union of British Columbia Municipalities (UBCM), the rendering industry, and the Ministry of Agriculture and Lands (MAL). Ex-officio members are from Investment Agriculture Foundation of British Columbia (IAF), Ministry of Agriculture and Lands, Ministry of Environment (MENV), Canadian Food Inspection Agency (CFIA) and Agriculture and Agri-Food Canada (AAFC). The role of the Committee is to develop and then implement a strategic plan to put into place the knowledge and infrastructure to manage livestock waste tissue generated during the normal operation of slaughter facilities and during emergency events. The term of the committee will be until all the funds are committed or until the funds revert back to IAF in 2012.

Subject matter experts (such as staff from Health, Provincial Emergency Program (PEP), local governments or others) may be invited to present information to the Management Committee as necessary to aid the Management Committee in making project evaluation decisions.

2.2. VISION, MISSION, PRINCIPLES AND VALUES

2.2.1. Vision

All livestock waste tissue generators are able to dispose of or utilize livestock waste tissue in an efficient, cost effective manner, under normal and emergency situations, while operating in compliance with relevant legislation.

2.2.2. Mission

To assist British Columbia livestock producers, slaughter facility operators and renderers in their pursuit of sustainable waste tissue management methods by facilitating, supporting and coordinating: research, feasibility studies, pilot and demonstration projects, infrastructure development and transitional waste handling through strategic partnerships, education and awareness.

To have emergency management plans for the disposal of all livestock carcasses generated because of or during the management of an emergency situation in British Columbia. Emergency management disposal plans are able to be implemented in a timely fashion and are to integrate local, regional, provincial, and federal government responsibilities through strategic partnerships, education and awareness.

2.2.3. Principles and Values

The Management Committee values include: inherent right to respect and courtesy, respect of differences of opinion, and teamwork and collaboration.

Guiding principles include:

- a) The projects the Management Committee recommends for approval will be consistent with international protocols to enable normal trade patterns.
- b) The effect a project may have on the marketplace will be considered and only projects that do not unduly affect the marketplace will be considered for funding.
- c) Environmental sustainability is a requirement.
- d) Preference will be given to projects that have industry or community support where applicable.
- e) Projects that propose funding of capital items which result in significant public good will be considered more favorably.
- f) Fair opportunity for participation of all eligible applicants.
- g) Strategic partnerships will be sought out where possible.
- h) Adequate flexibility must be maintained to reallocate funding among the goals, strategies and actions to achieve the desired outcomes.
- i) Acknowledge and deal with conflict of interest situations.
- j) Research funding will be for projects that fill in information gaps that are of particular interest for unique British Columbia situations.
- k) As appropriate, provide support to and communicate with other initiatives that are addressing related industry issues.

2.3. TERMS OF REFERENCE

Attached at the end of this Strategic Plan are the Terms of Reference (dated January 23, 2009) for this Initiative. These terms of Reference were agreed to by the Livestock Waste Tissue Initiative (LWTI) Management Committee and Investment Agriculture Foundation of BC. It contains information on:

- a) Duties, Functions and Responsibilities for:
 - The Management Committee,
 - The LWTI Coordinator,
 - The Investment Agriculture Foundation of BC, and

- Committee Ex-officio Members
- b) Criteria for Project Adjudication
- c) Project Application Process
- d) Evaluating Progress Reports and Recommending Payment Process
- e) Completion of Projects
- f) Management Committee Meetings Guidelines and Procedures
- g) Decision Making Process
- h) Confidentiality
- i) Reimbursement of expenses or per diems
- j) Appointment to the Management Committee and Terms of Service

2.4. COST SHARING

Cost sharing partnerships will be sought where possible for all projects funded under this initiative. Partnerships with other eligible sources of funding are encouraged and all applicants must fully disclose all funding sources for each project.

2.4.1. Proposed Cost Sharing Strategy

To construct a cost sharing strategy that will result in successful implementation of the Strategic Plan the Management Committee developed the following principles:

- a) The percent of costs paid for by this initiative will be determined on a project by project basis.
- b) The key factor (but not only factor) used for determining percent funding will be the ratio of public good compared to public plus private good generated by the project.
- c) Industry contributions are a measure of buy-in.

2.4.2. In-Kind Support

In-kind support will generally be used to measure the level of industry support.

3. ENVIRONMENTAL SCAN

3.1. BACKGROUND

Pre-BSE, British Columbia dead stock from farms and waste from processing plants, butcher shops and the food service industry were inputs of value to the rendering industry. Upon rendering, they yielded tallow and meat and bone meal (MBM), most of which was used in livestock feeds and pet foods in both the domestic and export markets. Renderers either paid producers and processors for the dead stock or waste, or collected the material at no charge. Ruminant waste was treated in a similar manner to other wastes tissue, although ruminant material was identified within the waste stream and products rendered from it were not used for livestock feeds for ruminants (North America banned ruminant wastes in ruminant feeds in 1997, primarily because of the United Kingdom's experience).

The BSE incident and the subsequent AI outbreak highlighted another concern regarding the disposal of animal tissue waste, that the Province lacked emergency disposal options for high volumes of dead stock. The Province had a comprehensive Foreign Animal Disease Eradication Strategy in place well before the two events, and the strategy included a plan for disposal of animal carcasses in event of mass mortalities,

but it was clear from the AI experience that significant improvement was required for trouble-free implementation of the strategy when needed.

3.1.1. BSE Control Measures, Canadian Food Inspection Agency

Since the confirmation of BSE in a native-born animal in May 2003, Canada has significantly increased its targeted testing of cattle in high-risk categories advocated by the Office International des Epizooties (OIE). This effort is directed at determining the level of BSE in Canada, while monitoring the effectiveness of the suite of risk-mitigating measures in place. Canada's National BSE Surveillance Program document an extremely low level of BSE in Canada, with 16 positive animals detected to date.

Following the first detection of BSE in a native-born animal in Canada public health measures were enacted in 2003 to protect the safety (with respect to BSE) of beef produced in Canada. The removal of Specified Risk Material¹ (SRM), from all animals slaughtered for human consumption is the most effective single measure to protect consumers in Canada and importing countries from exposure to BSE infectivity in meat products.

The feed ban implemented in 1997 prevented the amplification of BSE in Canada's feed system. Additional regulations to enhance Canada's feed ban were enacted on July 12, 2007. The most important change is the removal of SRM from all animal feeds, pet food and fertilizer. The enhanced regulations also require a permit for transporting, accepting and disposing of SRM capable of transmitting BSE. This allows the CFIA to track and maintain continuous control over SRM, to ensure that it does not enter livestock feed, pet food or fertilizer.

Under the enhanced regulations, owners or operators of waste management facilities choosing to accept SRM in any form must apply for a permit from the CFIA. A CFIA permit is required to accept and dispose of:

- Slaughter wastes containing SRM
- Deadstock cattle containing SRM;
- Meat and bone meal made from deadstock cattle or SRM;
- Compost made from deadstock cattle or SRM.

There are specific construction and operating requirements for facilities handling SRM. Disposal must either **destroy or permanently contain** SRM. Proposed disposal procedures must be assessed by the CFIA to present, at most, a very low risk of potential BSE transmission. Accepted destruction technologies (when using specific operating parameters) are:

- Incineration
- Alkaline hydrolysis
- Thermal hydrolysis

The only acceptable containment technology is landfilling when using specific operating and site parameters.

A CFIA permit is also required to transport any SRM, including cattle carcasses containing SRM. A visible stripe must be applied down carcasses' backs, and all SRM must be stained. Waste management

¹ SRM are defined as: the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. If SRM is not removed from cattle deadstock, the whole carcass is considered SRM.

facilities must not accept cattle deadstock or SRM in any form from anyone not possessing a CFIA permit.

On May 22, 2007, Canada was officially categorized under the OIE's science-based system as a controlled BSE risk country.

3.1.2. Effect on Rendering Industry and Clients

British Columbia has only one large renderer, West Coast Reduction Ltd., which accepts waste material from producers and processors on Vancouver Island, and in the Fraser Valley, Okanagan and Thompson areas. West Coast Reduction Ltd. has operations in Vancouver, Calgary and throughout western Canada. The BSE rules and the closure of most borders for export of rendered ruminant products forced West Coast Reduction Ltd. to segregate its wastes, and a business decision was made to dedicate its Vancouver operation to poultry, swine and fish wastes, and to ship ruminant waste to its Calgary plant.

West Coast Reduction Ltd.'s decision necessitated operation of a site for transloading of ruminant dead stock and other waste materials from collector trucks to highway trucks for removal to Calgary. The additional transportation costs and operating costs for the transloading facility, combined with reduced markets and dramatically lower prices for rendered products, led to a cost-price squeeze for West Coast Reduction Ltd. that resulted in them no longer paying producers and processors for waste material, but rather charging cost recovery fees for collection and disposal.

Annually, West Coast Reduction Ltd. transfers an estimated 15,000 tonnes of ruminant and mixed ruminant material from approximately 285 businesses, located in the Lower Mainland, to its rendering plant in Calgary. This volume represents a very small portion of the Calgary rendering plant processing capacity. Approximately 9,000 tonnes per year of ruminant and mixed ruminant material are generated in BC from areas not serviced by West Coast Reduction Ltd.

3.1.3. Costs

Since 2003 (pre BSE) the cost for slaughter wastes pick-up has increased:

- Fraser Valley: from receiving a small income to a December 2009 fee of 7.5 cents per lb (\$165 per tonne) for non-SRM, and 12.5 cents per lb (\$275 per tonne) for SRM
- Vancouver Island: from free to a December 2009 fee of 12.5 cents per lb (\$275 per tonne) for mixed SRM and non-SRM.,
- Thompson/Okanagan area: from 7.5 cents per lb (\$165 per tonne) to a December 2009 fee of 8.5 cents per lb (\$165 per tonne) for non-SRM, and from 7.5 cents per lb (\$165 per tonne) to a December 2009 fee of 13.5 cents per lb (\$297 per tonne) for SRM.

The cost for Fraser Valley deadstock collectors for waste pick-up have increased from receiving a small income in 2003 to a December 2009 fee up to 12.5 cents per lb (\$275 per tonne).

Unless alternative commercial uses are found for un-rendered SRM materials, these costs could increase if ruminant meat and bone meal derived from SRM and mixed SRM material ceases to have any commercial value and has to be destroyed.

To some extent it appears that all generators of ruminant and mixed ruminant material are experiencing increased disposal costs. These charges have put pressure on all plants, and intense pressure on the profitability of ruminant slaughtering and processing facilities.

Cattle producers, already hit by severely reduced markets, saw revenue of \$500 to \$600 for a cull cow eliminated, and now (December 2009) face costs for cull cow or dead stock removal of \$105 to \$200 and \$170 per head respectively. These costs far exceed the costs of burying the animal on the farm, or leaving for predators.

3.1.4. Transloading Site Issues

Because of complaints by neighbours about temporary transfer sites located in Langley and Abbotsford, these sites were shut down by local governments, causing the province to establish a provincially owned site. The provincially owned transfer station commenced operations in February 2005 and is a temporary facility. The site's closure date has been extended to March 2010 to allow the private sector to continue the development of a permanent site acceptable to local government.

Access to the transloading site is over a bridge crossing the Sumas River. This bridge is compromised by weight restrictions, and access may be prohibited at any time, at the discretion of the City of Abbotsford.

3.1.5. Possible Future Foreign Animal Disease Event

The BSE experience in Canada to date has not resulted in the need for mass carcass disposal as was the case in the United Kingdom in the 1990's and the British Columbia AI outbreak of 2004. However, even though British Columbia had Foreign Animal Disease Eradication Strategy in place well before the BSE and AI events, and the strategy included a plan for disposal of animal carcasses in event of mass mortalities, it was clear from the AI experience that significant improvement is required for trouble-free implementation of the strategy when needed.

Local governments and regional districts have the primary role in emergency response, and are required to have an emergency response plan in place. Many of these plans include a component for an agriculture emergency, such as a foot and mouth outbreak, but many do not, or have plans which are not sufficiently comprehensive. The result is that most local governments are not prepared to fulfill their emergency response mandate. It is clear that better processes need to be in place to immediately and adequately safeguard human and animal health while protecting the environment. This can be achieved only through creating stronger relationships with local governments and regional districts, with all parties agreeing in advance to formal arrangements for mass carcass disposal capacity and responses tested for effectiveness.

3.2. IMPACT / RISK

In regard to the current state of animal tissue waste disposal and handling in British Columbia, and based on the foregoing, the following impacts/risks to human and animal health and the health of the economy and the environment have been identified and must be mitigated:

1. The current cost of waste disposal, although low compared to parts of Canada may be reduced to improve the competitiveness of the British Columbia slaughter, processing and food service industries.
2. The cost of ruminant dead stock disposal is a significant burden on producers and creates a situation favouring dead stock burial or leaving for predators, with the environmental hazards this poses.

3. Decisions regarding acceptance and handling of British Columbia waste transferred to Alberta are outside of our control.
4. The short term nature of the provincial transloading facility makes long term planning difficult for the food processing and food service industry in the Lower Mainland.
5. If an animal disease event occurs requiring mass carcass disposal, the Province will not be able to respond in an environmentally responsible manner owing to lack of disposal capacity, inadequate arrangements with local governments and disagreement on appropriate protocols for carcass management.

4. GOALS, STRATEGIES, BUDGET ALLOCATIONS, ACTIONS, OUTCOMES AND PERFORMANCE MEASURES

Based on the vision and mission statement and the environment scan the Management Committee developed six broad goals to guide this initiative over the seven year term. Below each of the broad goals are specific strategies, budgets allocation, outcomes and performance measures for each goal.

GOAL 1, SHORT TERM – MAINTENANCE OF SLAUGHTER INDUSTRY TO ALLOW FOR TRANSITION

Livestock producers and slaughter facility operators able to operate during a temporarily high cost disposal situation while awaiting the completion of a sustainable medium to long term disposal option.

Three and a half years have passed since the CFIA regulations were announced. January 2010, this goal is no longer needed, as the industry has adapted without the need for temporary assistance for waste management.

Strategy	Budget	Action	Expected Outcomes	Performance Measure
1.1. To allow the continuation of slaughter business by providing funding to implement short term solutions for waste tissue disposal until medium / long term solutions are in place.	Total LWTI \$ 200,000 De-committed \$ 200,000 Remaining \$ 0	1.1.1. Assist slaughter plant operators to develop temporary short term waste management solutions. 1.1.2. Provide financial support for temporary short term solutions for waste tissue management.	<ul style="list-style-type: none"> • Slaughter plants able to implement a short term contingency plan that address the financial constraints of slaughter industry and provide disposal options that meet federal and provincial requirements. 	<ul style="list-style-type: none"> • When required by the slaughter industry and when a sustainable medium / long term solution is being implemented, those slaughter plants stay operational. <p>[Completed]</p>

GOAL 2, MEDIUM TERM – TRANSITION TO THE NEW REALITY

Producers and processors adopting affordable livestock waste tissue management methods that are in compliance with Canadian Food Inspection Agency (CFIA) and Ministry of Environment legislation.

January 2010, this goal is no longer needed, as the industry has adapted to operating within the SRM regulations. Action items 2.1.2, 2.1.3, 2.2.3, 2.2.4, and 2.2.5 to find and implement medium term solutions have been moved to goal 4 strategies 4.2 and 4.3 to find and implement long term solutions.

Strategy	Budget	Action	Expected Outcomes	Performance Measure
2.1. Conduct feasibility and pilot study of promising technologies for commercial scale waste disposal.	Total LWTI \$ 400,000	2.1.1. Establish discharge criteria to meet MENV, Health and CFIA requirements.	<ul style="list-style-type: none"> • A clear understanding of the discharge requirements that need to be met for a technology to be used in BC. 	<ul style="list-style-type: none"> • Number of discharge criteria developed. [Completed]
	De-committed \$152,793	2.1.2. Conduct feasibility studies on potential technologies that have slaughter industry support.	<ul style="list-style-type: none"> • To have feasibility studies done for industry supported technologies. 	<ul style="list-style-type: none"> • Number of feasibility studies completed. [Completed]
	Remaining \$ 0	2.1.3. Demonstrate and/or test potentially feasible technologies through pilot projects.	<ul style="list-style-type: none"> • Knowledge of a technology's ability to treat tissue wastes in an affordable manner while complying with legislation. 	<ul style="list-style-type: none"> • Stakeholders fully informed about the technology pilot tested. [Completed]
2.2. To aid existing processors with on-site and communities with off-site infrastructure funding for capital works that will allow the processor to comply with CFIA and MENV waste disposal regulations.	Total LWTI \$1,055,000	2.2.1. Provide technical assistance to slaughter plant operators for on-site and to communities for off-site waste containment or destruction systems.	<ul style="list-style-type: none"> • Slaughter plant operators wishing to comply with waste disposal regulations and communities wanting to provide solutions to their slaughter industry, understand their waste containment or destruction options. 	<ul style="list-style-type: none"> • The number of slaughter plants and communities that understand their waste containment or destruction options. [Completed]
	De-committed \$1,037,209	2.2.2. Provide financial assistance to slaughter plant operators who are installing infrastructure to manage SRM separately from other wastes.	<ul style="list-style-type: none"> • Slaughter plant operators wishing to comply with CFIA SRM handling requirements able to adopt an affordable handling method. 	<ul style="list-style-type: none"> • The number of slaughter plants that are handling SRM separately from other wastes. [Completed]
	Remaining \$0	2.2.3. Provide financial assistance to slaughter plant operators who are installing infrastructure to manage waste containment or destruction systems.	<ul style="list-style-type: none"> • Slaughter plant operators wishing to comply with waste disposal regulations able to adopt an affordable disposal method. 	<ul style="list-style-type: none"> • The number of slaughter plants with on-site waste disposal. [Completed]
		2.2.4. Provide financial assistance to third parties who provide direct or indirect tissue waste disposal services to the slaughter industry to install infrastructure.	<ul style="list-style-type: none"> • More value is extracted from the tissue wastes or a more cost effective method of disposal is utilized. 	<ul style="list-style-type: none"> • The costs incurred by waste generators for waste collection or waste containment/ destruction by a third party are reduced compared to not implementing this action item. [Completed]
		2.2.5. Expedite where possible the permit approval process.	<ul style="list-style-type: none"> • Permitting for new capital works not unnecessarily delayed. 	<ul style="list-style-type: none"> • The number of permit applications assisted with. [Completed]

Strategy	Budget	Action	Expected Outcomes	Performance Measure
2.3. Improve understanding of the issue regarding economic development, health and emergency response with local governments and other stakeholders.	Total LWTI \$ 0.00 Remaining \$ 0.00	2.3.1. Direct an education/training program at local governments and other stakeholders.	<ul style="list-style-type: none"> Reduction of NIMBY reactions. Possible cost sharing of disposal options with local governments. 	<ul style="list-style-type: none"> Degree of increased understanding of stakeholders. [Completed]

GOAL 3, MEDIUM TERM – UNDERSTAND THE RISKS AND RAMIFICATIONS (DON'T OVERREACT)

Government, industry, and producers have a sound understanding of the risk of BSE to human and animal health, the environment and trade by 2007.

August 2008, this goal has been completed, as governments and industry have a clear understanding of the risks associated with SRM management and disposal.

Strategy	Budget	Action	Outcomes	Performance Measure
3.1. Conduct definitive, scientific risk assessment of the risk of BSE to human and animal health and the environment, adapting work already done elsewhere to BC environment.	Total LWTI \$ 41,896 Remaining \$ 0.00	3.1.1. Inventory of existing SRM management practices used and considered for use in BC. 3.1.2. Identify existing applicable risk assessments and conduct an information gap analysis. 3.1.3. Conduct risk assessments for the identified information gaps.	<ul style="list-style-type: none"> A risk assessment document for naturally contained landfills that will enable local/regional/provincial/federal governments and livestock tissue waste generators to make better decisions (related to the risk of BSE to human, and animal health and the environment). 	<ul style="list-style-type: none"> A risk assessment document produced on using naturally contained landfill for containment of SRM's. Information generated incorporated into CFIA permitting decisions for landfills in BC. [Completed]

GOAL 4, LONG TERM – MINIMIZE COST / MAXIMIZE VALUE RECOVERED

Identify alternate commercial uses/processes for livestock waste tissue that result in an improved financial position of livestock producers and/or slaughter facility operators by 2012.

Strategy	Budget	Action	Expected Outcomes	Performance Measure
4.1. Research to find alternate commercial uses for animal tissue waste.	Total LWTI \$ 100,000 Remaining \$ 100,000	4.1.1. Scan other jurisdictions for technology options or alternative uses for tissue wastes. 4.1.2. Research promising technologies and alternative uses for tissue wastes that if proven successful may be adopted in BC.	<ul style="list-style-type: none"> An increased understanding of the suitability of new disposal/utilization options to meet BC needs. 	<ul style="list-style-type: none"> An increase in the number of options that have the potential to be used in BC The number of research projects funded.

Strategy	Budget	Action	Expected Outcomes	Performance Measure
4.2. Conduct feasibility and pilot study of promising technologies that recover value for waste	Total LWTI \$ 450,000	4.2.1. Conduct feasibility studies on potential technologies that have slaughter industry support.	<ul style="list-style-type: none"> To have feasibility studies done for industry supported technologies. 	<ul style="list-style-type: none"> Number of feasibility studies completed.
	Remaining \$ 450,000	4.2.2. Demonstrate and/or test potentially feasible technologies through pilot projects.	<ul style="list-style-type: none"> Knowledge of a technology's ability to treat tissue wastes in an affordable manner while complying with legislation. 	<ul style="list-style-type: none"> Stakeholders fully informed about the technology pilot tested.
4.3. To aid existing processors with on-site and communities or private industry with off-site infrastructure funding for capital works utilizing technologies that recover value for waste	Total LWTI \$1,200,000	4.3.1. Provide financial assistance to slaughter plant operators, private industry and/or governments to install infrastructure.	<ul style="list-style-type: none"> More value is extracted from the tissue wastes or a more cost effective method of disposal is utilized. 	<ul style="list-style-type: none"> The costs incurred by waste generators for waste collection or waste containment/ destruction by a third part are reduced compared to not implementing this action item.
	Remaining \$1,200,000	4.3.2. Expedite where possible the permit approval process.	<ul style="list-style-type: none"> Permitting for new capital works not unnecessarily delayed. 	<ul style="list-style-type: none"> The number of permit applications assisted with.

GOAL 5, SUPPORT BC SRM MANAGEMENT PROGRAM

Support the province in the delivery of the BC SRM Management Program that is to assist the provinces beef processing sector in complying with the Canadian Food Inspection Agencies enhanced feed ban regulations (BC SRM Management Program expenses to be paid out by program end, now March 31, 2010).

Strategy	Budget	Action	Expected Outcomes	Performance Measure
5.1. Support the province in the delivery of the BC SRM Management Program.	Total LWTI \$ 0.00 Remaining \$ 0.00	5.1.1. Monitors the slaughter sector, and anticipates and identifies the implications of legislation and funding program decisions. 5.1.2. Evaluates waste management technologies and advises the province on options. 5.1.3. Guides, as an ex-officio, the BC SRM Management Program regarding program implementation and ongoing program and project management.	<ul style="list-style-type: none"> Province informed about the ramifications of their decisions. An increased understanding of the suitability of existing and new disposal/ utilization options to meet BC needs. Effective and efficient operation of the BC SRM Management Program. 	<ul style="list-style-type: none"> BC SRM Management Program achieves its goals

GOAL 6, MEDIUM AND LONG TERM – EMERGENCY EVENT MANAGEMENT

To support Federal, Provincial and Regional governments and industry in the development of plans and infrastructure to allow for efficient, affordable disposal of livestock and fish carcasses generated by any emergency event, and to test and exercise the plans and infrastructure.

Strategy	Budget	Action	Expected Outcomes	Performance Measure
6.1. Local governments able to fulfill their first response mandate for mass livestock carcass disposal generated from any hazard.	Total LWTI \$ 441,029 Remaining \$ 31,633	6.1.1. UBCM to administer a program for local governments in conjunction with local stake-holders to develop Emergency Plans for mass livestock carcass disposal for their communities.	<ul style="list-style-type: none"> Emergency plans in place for mass livestock carcass disposal for local governments with significant livestock. Provincial/regional local governments and industry understanding their roles in an emergency situation. 	<ul style="list-style-type: none"> The number of local governments that have suitable plans for handling mass livestock carcass disposal.
6.2. Local governments have capacity for emergency disposal for mass livestock carcass disposal generated from any hazard.	Total LWTI \$860,000 Remaining \$860,000	6.2.1. Provide grants to assist governments to implement landfill disposal solutions for their communities.	<ul style="list-style-type: none"> Increase capacity within local governments to handle mass carcass disposal generated from local livestock during an emergency event. 	<ul style="list-style-type: none"> Number of local governments able to handle mass livestock carcass disposal. The amount of carcass material that can be handled at the local level.
6.3. Salmon farms able to respond as an organization or industry to a mass fish carcass disposal generated from any hazard.	Total LWTI \$ 311,197 Remaining \$ 270,000	6.3.1. BC Salmon Farmers administer a project to develop Emergency Plans for mass farmed fish carcass disposal for their industry.	<ul style="list-style-type: none"> Emergency plans in place for mass farmed fish carcass disposal. Local/regional/provincial governments, and salmon industry understanding their roles in emergency mass livestock carcass disposal situation. 	<ul style="list-style-type: none"> Degree of readiness by aquaculture industry to handle mass farmed fish carcass disposal.
6.4. Provincial government able to fulfill its support mandate to federally and regional/local government led emergency responses. Province able to lead a response if required.	Total LWTI \$ 466,919 Remaining \$ 229,818	<p>6.4.1. Support the development of a new Foreign Animal Disease Emergency Support Plan (FADES) to reflect what was learned through BSE and AI outbreaks.</p> <p>6.4.2. Support the annual up-date and exercise of the plan</p> <p>6.4.3. Identify the gaps in disposal capacity throughout the province based on the results of the planning done in 6.1.1. and improvement made through 6.2.1.</p> <p>6.4.4. Determine the need for and possible locations of new</p>	<ul style="list-style-type: none"> Greater understanding of the roles and responsibilities of province and federal government agencies during a foreign animal disease emergency. Identify locations where the capacity is insufficient to handle a very large volume of local carcass material. Identify options suitable to overcome the local shortfall in capacity. 	<ul style="list-style-type: none"> A FADES plan published and communicated to all who need to know. Areas that have a shortfall in disposal capacity are identified. The area of the province with identified disposal options.

Strategy	Budget	Action	Expected Outcomes	Performance Measure
		carcass disposal options and suggest what those options are.		
		6.4.5. Conduct preliminary design of options identified in 6.4.3. Starting with the areas with the largest shortfall in capacity.	<ul style="list-style-type: none"> The most feasible option for each shortfall area and possible development and capital costs to correct the shortfall identified. 	<ul style="list-style-type: none"> The area of the province where the best option and costs to implement are known to overcome disposal shortfall.
6.5. Test and exercise the emergency response structure and plans to ensure the plans have the potential to succeed when implemented and to have personnel trained in emergency management duties.	Total LWTI \$ 298,303 Remaining \$ 232,451	6.5.1. Support local/regional/provincial /federal governments, producers, processors and other stakeholders to systematically test and exercise emergency response plans throughout the province and upgrade plans to reflect lessons learned from the testing and exercising.	<ul style="list-style-type: none"> Emergency response plans that have the best chance of success when implemented during a real emergency. A clear understanding of the roles of local/regional/provincial /federal governments, producer, processors and other stakeholders during emergency events. Trained personal throughout the province able to assist in the management of an emergency event. 	<ul style="list-style-type: none"> The number of emergency plans which deal with mass livestock carcass disposal that are exercised annually.

5. FINANCIAL STRATEGY

5.1. ADMINISTRATION BUDGET

The cost to administer the funds and projects for this initiative has been estimated at 15.8% of the total funds. The administration budget would cover the cost of three functions:

1. Initiative Coordinator (11.3% of budget)

Coordinator will drive the strategy, liaising with stakeholders, coordinating projects and initiatives and directing and managing the activities of this initiative. This position is full time until May 30 2008. The budget allows for a coordinator to work part time for the remainder of the initiative.

2. Management Committee (1.7% of budget)

Members of the Management Committee who are not being reimbursed for travel costs and per diems from the organization they represent will be compensated through this initiative. Meetings and conference calls are estimated to cost \$4,000 and \$500 respectively. The expected number of meetings and conference calls is as follows:

2005 (held)	3 meetings per year	2 conference calls per year
2006 (held)	5 meetings per year	4 conference calls per year
2007 (held)	3 meetings per year	2 conference calls per year
2008 (held)	2 meetings per year	1 conference calls per year
2009 (held)	2 meetings per year	1 conference call per year
2010	3 meetings per year	2 conference call per year
2011	2 meeting	2 conference call
2012	1 meeting	1 conference call

3. Financial Management (2.8% of budget)

Investment Agriculture Foundation of British Columbia will be responsible for the financial management of the funds.

Goal 7 MANAGE THE INITIATIVE

Strategy	Budget	Action	Expected Outcomes	Performance Measure
7.1 The coordinator to drive the strategy, liaising with stakeholders, coordinating projects and initiatives and managing the activities.	Total LWTI \$ 628,759 Remaining \$ 200,000	7.1.1. Attend educational events to improve the understanding of the issues related to this Initiative.	<ul style="list-style-type: none"> Quality proposals come to the Management Committee Management Committee aware of progress in strategies and action areas. 	<ul style="list-style-type: none"> Coordinator fulfills duties as outlined in LWTI Terms of Reference.
7.2 To have an engaged Management Committee who understand the issues and are able to implement the Strategic Plan.	Total LWTI \$ 73,989 Remaining \$ 15,820	7.2.1. Conference call or in-person meetings held to implement the Strategic Plan. 7.2.2. Arrange for meeting venues to allow for an educational component	<ul style="list-style-type: none"> Implementation of the Strategic Plan. Management Committee understand local issues Per Diem's and travel expenses paid in a timely fashion 	<ul style="list-style-type: none"> Administrative performance measures outlines in section 7.2.3 met. Full participation of Management Committee members in meetings.
7.3 To have financial administration and program guidance provided by Investment Agriculture Foundation of British Columbia (IAF)	Total LWTI \$ 142,417 Remaining \$ 3,000	7.3.1. IAF Board and staff provide program and financial guidance. 7.3.2. IAF provide financial management and services. 7.3.3. IAF sign off Contracts / Conditional Grant Agreements.	<ul style="list-style-type: none"> Program and financial obligations of this initiative met. 	<ul style="list-style-type: none"> Accounting performance measures outlines in section 7.2.2 met.

5.2. PROPOSED YEARLY EXPENDITURES

A summary of the proposed expenditures over seven years (based on a notional 7 years allocation of \$5,000,000) is shown in the table next page. Note on beginning and end of years fund balance for 2005 to 2008 are from the auditors report. Other information is either un-audited or future predictions.

6. COMMUNICATION STRATEGY

The purpose of the Communication Strategy is to:

- Raise awareness and understanding of the Strategic Plan and annual Work Plans among livestock producers, slaughter facility operators, Local and Regional governments and other stakeholders in the livestock waste tissue management sector.
- Promote participation in the strategic initiatives outlined in the plan, and help solicit project proposals.
- Report on the Management Committee progress towards fulfillment of the plan, including achievements in individual initiatives.
- Celebrate successes and promote a ‘culture’ of growth and optimism among British Columbia producers and processors.

Strategy	Project	Existing Expenditures					Proposed Expenditures		Project totals	Total By strategy
		2005	2006	2007	2008	2009	2010	2011/12		
Start Yr. \$		\$5,000,000	\$4,942,645	\$4,640,706	\$3,939,130	\$3,764,411	\$3,592,723	\$1,858,070		
1.1	New								\$0	\$0
2.1	001	\$18,600	\$6,200						\$24,800	\$247,207
	003	\$18,675	\$6,225						\$24,900	
	007		\$30,000						\$30,000	
	011		\$15,000						\$15,000	
	015		\$1,920						\$1,920	
	017			\$16,634					\$16,634	
	019		\$26,029	\$8,675					\$34,704	
	021		\$19,846	\$3,363					\$23,209	
	022		\$6,704	\$23,876					\$30,580	
	026				\$5,974				\$5,974	
	027			\$11,207	\$21,479				\$32,686	
	031				\$1,467				\$1,467	
	033				\$5,333				\$5,333	
2.2	009		\$9,926						\$9,926	\$17,791
	010			\$3,865					\$3,865	
	013		\$2,000						\$2,000	
	014				\$2,000				\$2,000	
2.3	Provided by Coordinator								\$0	\$0
3.1	024			\$41,896					\$41,896	\$41,896
4.1	New						\$75,000	\$25,000	\$100,000	\$100,000
4.2	New						\$300,000	\$150,000	\$450,000	\$450,000
4.3	New						\$550,000	\$650,000	\$1,200,000	\$1,200,000
5.1	Provided by Coordinator								\$0	\$0
6.1	018		\$49,235	\$7,661					\$56,896	\$441,029
	029			\$352,500			\$31,633		\$384,133	
6.2	040						\$50,000		\$50,000	\$860,000
	New						\$310,000	\$500,000	\$810,000	
6.3	020			\$41,197					\$41,197	\$311,197
	New						\$70,000	\$200,000	\$270,000	
6.4	005		\$100,220	\$27,527					\$127,747	\$466,919
	023			\$37,286	\$8,338				\$45,624	
	030				\$31,774				\$31,774	
	034					\$31,956			\$31,956	
	041						\$54,818		\$54,818	
	New						\$50,000	\$125,000	\$175,000	
6.5	035					\$44,236	\$20,493		\$64,729	\$298,303
	036					\$21,616	\$11,958		\$33,574	
	New						\$100,000	\$100,000	\$200,000	
7.1		\$62,837	\$98,741	\$110,826	\$89,578	\$66,776	\$100,000	\$100,000	\$628,759	\$845,165
7.2		\$17,983	\$13,062	\$12,912	\$8,232	\$5,980	\$9,000	\$6,820	\$73,989	
7.3		\$31,907	\$103,691	\$2,151	\$543	\$1,125	\$1,750	\$1,250	\$142,417	
Total Yr.		\$150,002	\$488,799	\$701,576	\$174,719	\$171,688	\$1,734,653	\$1,858,070	\$5,279,507	
\$ Increase		\$92,648	\$186,859	\$0	\$0	\$0	\$0	\$0	\$279,507	
End Yr. \$		\$4,942,646	\$4,640,706	\$3,938,130	\$3,764,411	\$3,592,723	\$1,858,070	\$0		

The Communication Strategy is an integral part of the Strategic Plan and will be implemented immediately upon approval to proceed. The Communication Strategy will include the following items:

- Announcement and promotion of the Strategic Plan.
- Solicitation of project proposals, including distribution of ‘how to apply’ information.
- Periodic updates / progress reports on individual initiatives and fulfillment of the Strategic Plan.
- Information support for the MAL, industry organizations, and local media.
- Outreach to communication channels of stakeholders.
- Publication and dissemination of project results by project proponents.

The Communication Strategy will expand upon an existing communications infrastructure furnished by the IAF and adopted by the Management Committee. This infrastructure utilizes internet technology as a primary vehicle, supplemented by an array of printed materials. Communicating through existing stakeholder organizations will be an additional component of the Communication Strategy.

The Communication Strategy will apply through the life of the Livestock Waste Tissue Initiative. Primary responsibility for its execution will rest with the Management Committee.

7. PERFORMANCE AND EVALUATION PROCEDURES

The fundamental success of the initiative will be determined by how well each project meets its goals and objectives. Collectively the projects will determine the success of the initiative.

7.1. EXPECTED OUTCOMES

For the parts of the Initiative relating to livestock producers and slaughter facility operators measures of success could include:

- a) Slaughterhouses, meat processors and other businesses impacted by SRM regulations not failing under the cost burden of waste disposal, and these operations will grow in both the short and long term.
- b) Livestock waste tissue handling and disposal measures throughout the province complying with all relevant legislation and trading requirements.
- c) An improved understanding and acceptance of suitable waste tissue disposal options by local/regional/ provincial governments (overcome the “not in my back yard” or NIMBY for waste tissue disposal).

Measures of how the Initiative has made positive change for the emergency management of carcass disposal include:

- d) Increase in the number of local governments having emergency management plans that deal with livestock carcass disposal.
- e) Completion of annual up-dates to the FADES plan.
- f) An improved understanding of roles and responsibilities by local/regional/provincial/federal governments, producers, processors and other stakeholders regarding livestock management and carcass disposal under emergency situations.

7.2. PERFORMANCE MEASUREMENT

7.2.1. Project

Project proponents will be required to submit a final report to the Management Committee providing information regarding: project description, key objective, benefits, project deliverables, outcomes, specific measures for how each project will be monitored and results evaluated upon completion of the project.

7.2.2. Accounting

Each project will be required to submit a budget and a final report demonstrating how dollars were spent accurately and efficiently. The financial records will be available for inspection by the Management Committee and IAF.

7.2.3. Administration

The Management Committee will develop administrative policies and procedures to be undertaken by the Initiative Coordinator to ensure fiscal responsibility, transparency and accountability. Annual reports will be submitted to IAF including:

- Comprehensive evaluation and status of the annual plan.
- Assessment of which strategic plan objectives and outcomes have been met by the projects completed and which have yet to be completed.
- Evaluation of projected vs. actual outcomes.
- Fiscal reporting

7.3. STRATEGIC PLAN MODIFICATION

Over time as projects are completed and new information becomes available there may be the need to change the strategic plan to better meet the broad goals of this initiative. The Management Committee can modify the Strategic Plan and move up to 20 percent of the funds out of an existing goal into another goal. If there is a significant change to this Strategic Plan or more than 20 percent of funds are moved out of an existing goal the new Strategic Plan will not be implemented until it has received approval from IAF.