

STRATEGIC PLAN 2014 – SUMMARY OF SESSIONS, JANUARY 30 – 31, 2014
BEAVER MUNICIPAL SOLUTIONS (BMS) – BEAVER REGIONAL WASTE
MANAGEMENT SERVICES COMMISSION

Overview

- Municipal solid waste disposal together with contaminated soil and class 2 special industrial waste disposal total 500,000 metric tonnes per year. One of largest landfills in western Canada
- Surplus funds from operations subsidize collection and disposal costs for municipal members
- BMS is one of largest employers in Beaver County
- Landfill operations, and supplementary services such as collection, transfer stations, trucking and mechanical services are professionally run and comply with safety and environmental regulations
- Successful financial results in 2011, 2012 and 2013 have permitted paydown in debt and cash purchase of income-producing assets (i.e. landfill and landfill equipment)
- 2014 – 2018 five year plan anticipates revenue growth from \$14.7 million to \$16.6 million, capital investments of \$22.7 million, \$5.3 million paid in dividends to municipal members and fully funded landfill closure liability (fund maintained at approximately \$4 million)

Enterprise Risks

- Environmental
 - External audits for certified programs require management to continuously monitor and improve operational systems to ensure environmental and safety regulation compliance.
 - Emergency Response Planning needs to be reviewed and updated including transportation response planning and catastrophic weather response (i.e. tornadoes).
- Reputational
 - Stakeholder relations – municipal members and community – require regular communications and sensitivity of BMS operations and growth plans to neighbouring residents.
- Financial
 - Expect drop in municipal solid waste from City of Edmonton. Minimum contract volume is 70,000 metric tonnes per year. 2013 Edmonton tonnage almost 150,000 metric tonnes. Contaminated soil tonnages expected to be strong in 2014, but cannot expect tonnages to be consistent year after year.
 - Risk to revenue is that annual revenues can drop to less than \$10 million per year over next five years with corresponding drop in capital investments and release of dividends to municipal members.

- BMS is in best financial position now to look at developing additional lines of business (LOB) that can provide alternative sources of income as well as promote regional economic development.

Corporate Growth Strategy

- Six LOB's to be pursued
 - Municipal solid waste disposal for smaller municipalities including offer of “turnkey solutions” for waste transfer stations, transport and landfill disposal.
 - Opportunity: Small municipalities closing landfills and lack project management skills to efficiently handle future disposal options. Example: successful contract with Beaver River Waste management Services Commission.
 - Strong possibility of handling waste from Lac La Biche County in next two years, or less. Other possibilities: Wetaskiwin; Strathcona County, private haulers operating in capital region.
 - Contaminated soil trucking bundled with disposal.
 - Major customers (i.e. Tervita) can hire BMS to handle trucking and disposal for one price, like BMS offers to municipal customers.
 - Opportunity: BMS has trucking fleet that can be expanded; contaminated soil contractors often do not have sufficient, flexible trucking resources available.
 - Mechanical repair and maintenance services.
 - BMS has invested in full service shop which will be registered as a Commercial Vehicle Inspection Facility.
 - Peak truck traffic through landfill scale can exceed 300 trucks per day
 - Opportunity: “Pass-by” traffic requires incidental repair and maintenance service; advertising available services can capture income-producing work that offsets operational repair and maintenance costs.
 - Have already done small work for City of Edmonton trucks and are registered as Fleet Management vendor.
 - Biosolids to fertilizer – BMS Nutrients

 - Expansion of biosolids land application project begun by BMS in 2013 can be constrained by search for appropriate properties.
 - Opportunity: Partnership with Lystek International, Cambridge, ON can provide access to process that converts municipal biosolids to Canada Food Inspection Agency (CFIA) fertilizer certification. No need for property specific environmental approvals.
 - Plant can service municipal customers from Edmonton, (City, Alberta Capital Region Wastewater Commission) to Red Deer to Camrose and can be located on BMS lands. Consider Beaver Co/member lagoons.

- Fertilizer product can reduce costs for local/regional agricultural producers.
- Possibility of licensing technology for other locations.

- Estimated \$8 million capital investment – 50-50 joint venture, can lead to \$4 - \$6 million in annual revenue (after 3 years with minimum 10,000 tonnes per year start-up); EBITDA can be over \$2 million per year once established
- To reduce start-up risks, seeking 50% funding from Climate Change Emissions Management Corporation.

- Waste to energy – BMS Renewables
 - Number of technologies piloted for liquid biofuels – Enerkem in Edmonton most prominent.
 - Opportunity: hydrothermal carbonisation – production of a coal substitute from waste (solid biofuel).
 - Canadian power plants > 200 MW production capacity require 5% of energy feedstock derived from renewable sources – Capital Power, TransAlta among Alberta power generators affected.
 - Partnership with Alberta Innovates – Technology Futures to develop pilot plant, \$300,000 investment before grants. Require pilot plant to develop project feasibility – confirm capital and operating expenditures for scaled up plant, and confirm waste sources, and biofuel marketing arrangements
 - Typical plant can produce 175,000 metric tonnes per year of solid biofuel – at current thermal coal prices, plant can generate annual revenue of \$11.9 million, if buyers found.

- Wastewater treatment and reuse for oil and gas producers – BMS Energy Services
 - Landfill growth in size is increasing requirement for treatment of both cell leachate since volumes greater than can be disposed of through evaporation via re-circulatory spraying
 - Landfill growth is also increasing sediment load on run-off water control ponds
 - In either case, wastewater treatment processes will be required – either trucked to off-site or processed by on-site equipment
 - Landfill previously requested to dispose of oil and gas production residuals from well site hydraulic fracturing operations.
 - Opportunity: fracturing fluid treatment, recycling and reuse employing state-of-the art mobile wastewater treatment technologies. O & G producers have limited fresh water supplies available and are

constrained by overcapacity frac water waste processing stand-alone facilities.

- Almost 50,000 wells using fracturing technology have been drilled/placed in production in Alberta over past five years – over 13,000 in 2013 alone. Flowback and produced waters from wells can vary from 200 cubic metres to over 2,400 cubic metres. Waters have to be disposed of at high cost to insufficient number of disposal facilities, if waters are not recycled for re-use.
- Partnership with Oreco Canada – has proprietary wastewater treatment mobile technology that is proven and is generating interest in cost-conscious O & G industry.
- Operating sites in western Alberta – Montney, Duvernay, Cardium shale gas and tight oil formations – Edson, Drayton Valley, Whitecourt, high probability site locations.
- Mobile equipment can be used for landfill wastewater treatment requirements, but offsetting revenue from O & G can cover landfill costs plus generate income similar to how additional capacity in landfill space is sold to non-members
- Technical expertise available – in-house and through partnerships.
- \$2.1 million capital investment for initial unit – annual estimates of income vary depending on percent utilization. Operating margin similar to landfill operations. See chart:

Hyd Frac Recycle Utilization - Estimated		90 day (25%)	180 day (50%)	240 day (66%)
Yr Revenue: Frac fluid volume treated	(daily per avg cu.m. excl mobilization)	\$ 1,230,000	\$ 2,470,000	\$ 3,300,000
Yr Operating Expenses inclg O/H & G&A	(disposal, trucking, chemicals, direct labour, fuel & equipment, incidentals)	\$ 600,000	\$ 1,000,000	\$ 1,300,000
Op Income		\$ 630,000	\$ 1,470,000	\$ 2,000,000

		\$	\$	\$
Depreciation (\$2.1M SLD)		<u>420,000</u>	<u>420,000</u>	<u>420,000</u>
		\$	\$	\$
		210,000	1,050,000	1,580,000
Tax (Allowance Est.)		<u>\$</u>	<u>\$</u>	<u>\$</u>
		<u>52,500</u>	<u>262,500</u>	<u>395,000</u>
		\$	\$	\$
Net Income		157,500	787,500	1,185,000
5 yrs accumulated		\$	\$	\$
		787,500	3,937,500	5,825,000

- Tax and legal liability issues, due diligence matters have to be researched – will require structuring of up to three corporate subsidiaries.
- Legislative approvals required from Alberta Government and support required from municipal members
- Opportunity for tremendous growth over the next five years.
- BMS financial position is very strong for funding of these opportunities.
- Rail spur into landfill site a future possibility but not an area of current focus.

Stakeholder Relations

- Policies for municipal dividend distribution, grants in lieu of taxes, good neighbour grant and community sponsorship grants were developed in 2013. Grants have been issued. Still waiting for Municipal Affairs approval for release of surplus funds.
- Regular and frequent communications to municipal members and neighbouring residents regarding BMS operations and growth plans are required to avoid miscues of the past.
- BMS needs to be more sensitive to neighbourhood concerns – Public Advisory Committee can become “public” face of BMS to community.
- BMS corporate growth can lead to economic development opportunities for municipal members.
 - Discussions have to take place with Beaver County regarding appropriate land-use bylaw amendments for BMS lands to develop synergy with Equity Industrial Park strategy of creating a Centre of Environmental Excellence.
 - Staff growth in BMS and subsidiaries will require expansion of office space – opportunity exists in Tofield to set up new HQ. New technical and professional staff are expected to come from Edmonton-area – Tofield location is better for staff recruitment; significant staff will still be based at BMS operations in

Beaver County near Ryley. Negotiations are required between developer, and Town of Tofield. A temporary leasing arrangement may be required until final construction plans are confirmed.

- o Alternatively, construction of new space can be considered for existing landfill site

Member Collection Systems and Transfer Stations

- Collection system and transfer station costs incurred for member services, exclusive of landfill disposal costs are over \$1 million per year. Offsetting revenue received from members and acreage customers is approximately \$400,000.
- Collection equipment, disposal bins and four transfer stations (Lindbrook, Tofield, Viking and Kinsella) are nearing the end of their economic life and have to be replaced. Expected replacement cost is over \$4.5 million.
- BMS charges members \$5.50 per household for collection pickup and disposal. Average throughout Alberta varies from \$21 to \$28 per household.
- Costs for transfer station services (mainly County residents) are covered by BMS.
- Contract rates for members have been frozen for 2014 pending discussions as to level of service to be provided including change out to waste totes/carts for “urban” areas and expansion of domestic recycling services (curbside and/or drop-off depot).
- Acreages can continue to be served via bins, or combination of bins with totes, but are transfer stations to be phased out?
- Open houses with residents and discussion with member Councils required to determine what service improvements are required, at what cost and at what subsidy.
- In the interim, bin repair/replacement program must be pursued (1 – 2 years) and required repairs effected at transfer stations

Human Resources

- BMS's rapid growth requires implementation of a performance metrics system to ensure goals are met and are aligned with organization goals.
- Compensation in Alberta economy is a consideration as is expansion of existing training program (Health, safety and environment program; specialized skills training).
- Managers have bonus compensation program; consultant can design equitable system that considers all employees.

SUMMARY – Strategic Plan Actions & Timeline

Enterprise Risks

- Complete safety audit certification Dec 2014
- Complete environmental audit re-certification Dec 2015
- Pursue additional lines of business to offset reliance on MSW and contaminated soil waste immediate

Corporate Growth Strategy

- Develop turnkey MSW solutions for municipalities
 - o Lac La Biche presentation Mar 2014
 - o Other municipalities (AAMDC/AUMA Sep 2014
- Pursue contaminated soil trucking
 - o Identify projects Apr 2014
 - o Evaluate need for expanded trucking Sep 2014
- Mechanical services
 - o Get CVIP registration May 2014
 - o Advertise services Jun 2014
 - o Evaluate need for expansion Dec 2014
- BMS Nutrients – biosolids to nutrients
 - o Submit CCEMC EOI proposal Feb 2014
 - o Complete existing Lyons application May 014
 - o If EOI successful, submit FPP May 2014
 - o Confirm municipal contracts May 2014
 - o If FPP successful, implement project Dec 2014
- BMS Renewables – waste to energy
 - o Develop MOU with Alberta Innovates Technology Futures Apr 2014
 - o Pursue funding for pilot plant Apr 2014
 - o If funding successful, implement project as required
- BMS Energy Services
 - o Mobile O & G wastewater treatment, pursue contracts immediately
 - o Test for landfill wastewater treatment applicability immediately
 - o If successful, purchase initial unit Mar/Apr 2014
 - o Implement business & set up on-site Jul/Aug 2014
- Require consultation with Alberta Government and municipal members – presentations Apr 2014

Stakeholder Relations

- Receive M.A. approval re surplus (dividends) imminent
- Declare 2014 dividends Apr 2014
- Engage consultant to review dividend distribution policy and good neighbor policy May 2014
- Review and recommend policy changes Nov 2014

- Implement Public Advisory Committee Apr 2014
- Discuss LUB and Centre of Excellence in Environment with Beaver Co Mar 2014
- Expand space for office staff May 2014

Member Collection System and Transfer Stations

- Presentations to Councils Apr 2014
- Public open houses Sep 2014
- Propose solutions to members Nov 2014

Human Resources

- Engage HR consultant Mar 2014
- Present recommendation Jun 2014
- Roll-out program Sep 2014