



Presentation to
York Region Environmental Services Committee
November 11, 2009
9:00 am

***Dongara is committed to
ensuring that our process will
be sustainable over the 20 year
contract to service the needs
of York Region***

Showing Our Commitment

- Additional Capital Investment targeting Throughput, Pellet Quality and Dust Control
- Emphasis on Manufacturing Excellence
 - Addition of Personnel in Key Roles
 - Manufacturing Procedural Improvements
- Aggressive Recycling Program regarding electronic waste

Additional Capital Investments

A multimillion dollar Capital Investment Plan, focused on improving throughput, pellet quality and dust control, is being considered by the Board this afternoon

- Improvements to mechanical sorting of waste, including improved finding and removal of e-waste
- Additional investment in lab testing equipment and environmental control / isolation
- Increased dust collection; capacity & pick-up points
- Completion – early Q2, 2010

Emphasis on Manufacturing Excellence

Addition of Personnel in Key Roles

- Duncan McTavish, P. Eng., MBA
Interim CEO, effective October 28, 2009

- Domenic Stalteri, P. Eng., MBA
VP Operations, effective November 2, 2009

- Manufacturing Operations Manager and Senior Manufacturing Engineering professional with 15 years of experience with Woodbridge Foam Corporation, a Canadian automotive manufacturing component supplier with 45 plants in 20 countries
- Professional Engineer (PEO) with a Bachelor of Mechanical Engineering,
- MBA (2009) with a focus on Strategy, Leadership and Change Focus
- Resident of York Region

Emphasis on Manufacturing Excellence

Procedural Improvements

- Operational Improvements including:
 - Preventative Maintenance Program
 - LEAN Manufacturing Approach
 - Workplace organization
 - Data-driven decision making and improved reporting
 - Planning
 - Shop Floor employee involvement
- New Weekly Reporting Forms for York Region staff – improved transparency
- More efficient procedure with UEM for York Region to identify unacceptable material

Aggressive and Immediate Program on Electronic Waste

- The new capital improvements will include additional finding and collection equipment
- Dongara urges York Region to develop their e-waste recycling program that will collect e-waste before it gets to the black bag



Pellet Users

- **Dongara is committed to producing a consistent quality pellet**
- **All pellets are shipped to approved sites only**
 - Off spec pellets to Covanta
 - Spec and near-spec pellets to REMASCO for testing
 - Testing at other permitted, in-province and out-of-province sites
- **Currently, we do not have any further shareable emissions data**
- **Pellet Quality is inconsistent primarily due to excess e-waste that the additional capital improvements and recycling programs will target**

Together, York Region and Dongara will achieve:

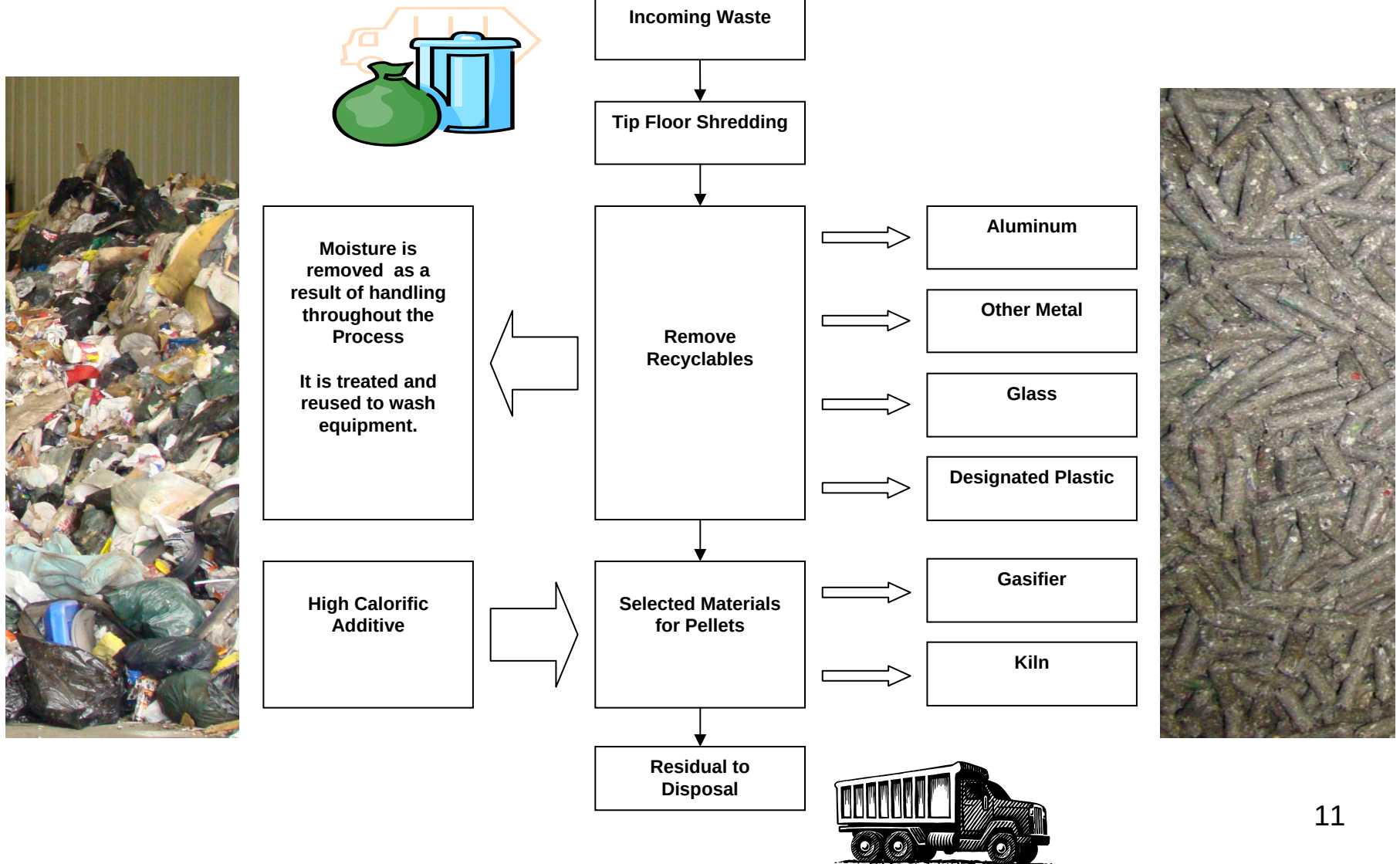
- Diversion of up to 100,000 tonnes of waste per year into a premier processing facility
- Provision of a clean, green energy fuel for fossil fuel users to improve their carbon foot print
- Minimization of the need for incineration and landfill (delaying the need for extended use of landfill)
- Reduction in the amount of truck traffic on highways
- Provision of local employment

Provincial Certificate of Approval

Rules We Must Follow

- Receive only municipal waste, including domestic residential waste, additives and source separated blue box material
- Typically receive Monday to Saturday 7am to 7pm
 - 24 hour receiving upon notification to the MOE in respect of emergency or seasonal issues
 - No restriction on shipping out of waste, pellets, or otherwise
- MSW received at the site must be processed within 48 hours. Waste shall be removed from the loading/unloading area for disposal within 48 hours during emergency situations, mechanical failure or process upsets
- Only 150 tonnes of residual waste on-site at any one time

Process Flow



Sort Area



Four major issues affecting operations over the last 16 months

- Electronics and Stainless Steel
- Bulky Items
- Moisture
- Dust Control

Electronics/Stainless Steel

- Electronics – mercury and lead, chlorine from the spray
- Stainless Steel – mainly chromium issues, pellet equipment damage
- Originally not able to identify where these contaminants were coming from. They were not in the audits we received, but we have been refining the audits and it is becoming more evident

What we have done to date:

- Added magnets and relocated magnets to more strategic locations
- Refined our audits to locate the root problems

Waste Material Variables

Comparison Between Studies/Audits

(Markham Study - Fall '04; Dongara/Sentinel Audit - Winter '09; Dongara/Torcan - Fall '09)

Stream/Materials	Markham Study	Dongara/Sentinel	Dongara/Torcan
ALL PAPER	14.70%	24.74%	18.69%
ALL PLASTIC (including hard and film)	15.70%	17.65%	18.66%
ALL GLASS (coloured and clear)	2.50%	3.59%	2.63%
ALL METALS (incl aluminum cans)	6.70%	3.93%	6.09%
ORGANICS (incl yard waste, sanitary, diapers, wood etc...)	39.10%	24.25%	15.08%
OTHER CONTAMINENTS (wood, textiles etc...)	18.30%		
TEXTILES (clothes, blankets etc...)		5.06%	7.88%
NON PROCESSABLE (stone, concrete, electronics, hazardous etc...)		8.87%	
NON PROCESSABLE (C&D, hazardous)			4.93%
RESIDUE (soil etc....)		5.26%	14.21%
BULKY ITEMS		3.30%	5.25%
CONSUMER ELECTRONICS			3.33%
MEDICATIONS (medical supplies, syringes etc....)			0.89%

Please note that the material streams in these audits are a bit different based on time and knowledge - not all streams are identical from audit to audit and some those that did not exist in other audits are marked in yellow.

Bulky Items

- Bulky items like mattresses and sofas were not able to be processed at the plant
- We were, by contract, obligated to accept them

What we have done to date:

- Last February we tested shredders which are working
- Improved shredders are required

Unacceptable Material

as defined in the York Contract

- Oversized Brush
- Appliances
- Oversized Lumber
- Tires
- Consumer Electronics
- Hazardous Waste
- Construction and Demolition waste
- Radioactive Materials
- Propane and Freon cylinders

Pictures of unanticipated waste that Dongara is obligated to accept





Moisture

- Issues with the pellet mills, lowers the temperature and effects pellet density
- Causes breakdowns from clogging, sticks to belts and equipment



Fire Department Concerns

Dust Control

The Vaughan Fire and Rescue have two major concerns:

- Staff at Dongara did not follow safety procedures as set out by our own report
- The existing debris and dust sitting on the floor around the equipment, on the equipment and on the vents in the factory

The Dongara Board and Senior staff believe that the additional capital investments, the personnel and procedural changes will ensure a sustainable long term success to service York Region and produce a consistent, quality product for pellet customers