

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON JUNE 7, 2017
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR - ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER
SUBJECT	MEMORANDUM OF UNDERSTANDING WITH TRY RECYCLING INC. AS PART OF THE LONDON WASTE TO RESOURCES INNOVATION CENTRE

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, with the support of the Director, Environment, Fleet and Solid Waste, the attached proposed by-law (Appendix A) **BE INTRODUCED** at the Municipal Council meeting to be held on June 13, 2017 to:

- a) authorize and approve a Memorandum of Understanding with Try Recycling Inc., with respect to advancing our joint waste to resources (waste management, diversion and/or conversion into products with beneficial uses) objectives with the mutual understanding that the combined expertise, influence and commitment are better applied together to support common goals attached as Schedule "A" to the by-law; and
- b) authorize the Mayor and the City Clerk to execute the Memorandum of Understanding authorized and approved in a), above.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Relevant reports that can be found at www.london.ca under City Hall (Meetings) include:

- Memorandum of Understanding with the University of Western Ontario (Institute of Chemicals and Fuels from Alternative Resources) as Part of the London Waste to Resources Innovation Centre (December 12, 2016 meeting of the Civic Works Committee (CWC), Item #8)
- Update and Next Steps: London Waste to Resources Innovation Centre and Green Shields Energy (October 4, 2016 meeting of the CWC, Item #10)
- Memorandum of Understanding with Green Shields Energy (Examining the Role of a Waste Conversion Technology) (February 3, 2015 meeting of the CWC, Item #5)
- Preliminary Concept for a London Waste to Resources Innovation Centre (February 3, 2015 meeting of the CWC, Item #4)

STRATEGIC PLAN 2015-2019

Municipal Council has recognized the importance of solid waste management, climate change, other related environmental issues and innovation in its 2015-2019 - Strategic Plan for the City of London ([2015 – 2019 Strategic Plan](#)) as follows:

Building a Sustainable City

- Strong and healthy environment

Growing our Economy

- Local, regional, and global innovation

Leading in Public Service

- Proactive financial management
- Excellent service delivery

BACKGROUND

PURPOSE

The purpose of this report is to provide Civic Works Committee and Council with a non-binding Memorandum of Understanding (MoU) to be signed by the City of London and Try Recycling Inc. (TRY).

In brief, the MoU sets out the mutual intentions of the City and TRY to advance their joint waste to resources (waste management, diversion and/or conversion into products with beneficial uses) objectives. The MoU is based upon the mutual understanding that the combined expertise, influence and commitment of the parties are better applied together to support their common goals. This particular MoU is for a General Arrangement (Step 1) noting that any Formal Agreements (Step 2) would come back through Committee and Council.

CONTEXT

Municipal Council's Strategic Plan 2015-2019

The London Waste to Resources Innovation Centre is listed as a component of London's Strategic Plan 2015-2019 under local, regional and global innovation.

February 9, 2015 Council Direction - London Waste to Resources Innovation Centre

At its February 9, 2015 meeting, Council approved and adopted the following recommendation with respect to the London Waste to Resources Innovation Centre:

- a) *the concept of a London Waste to Resources Innovation Centre BE APPROVED IN PRINCIPLE; it being noted that the Centre would build upon the numerous innovative activities that have already occurred to date and are being planned for 2015 and 2016;*
- b) *the Civic Administration BE DIRECTED to:*
 - i) *identify potential partners, projects, resource requirements and funders;*
 - ii) *obtain initial feedback from potential partners; and,*
 - iii) *develop a scope of work for the London Waste to Resources Innovation Centre concept;*

London Waste to Resources Innovation Centre (LWRIC)

The primary goals of LWRIC are to:

- build on the existing foundation of traditional and innovative projects to divert waste from landfill and create value added products from residues and waste;
- create a focal point (location or locations) for the ongoing examination of innovative solutions for waste reduction, resource recovery, energy recovery and/or waste conversion into value-added materials, chemicals, heat and power;
- establish partnerships and collaborations between government, academia and businesses to synergistically build on existing strengths to create opportunities to prevent waste, to create products of value from waste, and to solve existing waste management challenges; and
- be known as an innovative centre of excellence with shared facilities and resources providing leadership, implementing best practices, undertaking leading edge research, providing knowledge and support to industry, while educating and training students, researchers and postdoctoral fellows in the various fields of resource and waste management.

Current MoUs

The City has two signed MoUs as follows:

- Green Shields Energy (GSE) - a working relationship to explore the viability of a Gas Phase Reduction (GPR) technology for managing solid waste. This technology has already been proven to manage a range of material including pesticides, soil, sediment, sludge, high-strength oils, tar, watery wastes, wood wastes, brominated fire retardants, CFC refrigerants. It has not been thoroughly tested to handle mixed solid waste (household garbage), source separated organics (Green Bin) materials, mixed plastic waste, etc. GPR is a process for the conversion of organic material to methane rich gas also known as synthetic gas or syngas. The process comprises heating vaporized organic material in the presence of an excess amount of hydrogen gas and superheated steam to produce a methane rich fuel syngas. The syngas can be converted to various fuels or burned directly to create energy. The expiry date of this MoU is December 31, 2017.
- University of Western Ontario (Institute of Chemicals and Fuels from Alternative Resources - ICFAR) – a working relationship covering the broad sectors of solid waste management, biomass management and related sectors that produce waste materials. ICFAR is a research facility with proprietary technologies and expertise that have contributed to the successful conversion of a range of materials into energy, chemicals and inert materials. Western has identified Environmental Sustainability and Green Energy as an area of research strength and ICFAR/Western has various research interests in the field of biomass conversion technologies and management and wishes to coordinate R&D activities, including multi-disciplinary, multi-institutional waste-to-resource initiatives, for the purpose of using the broad expertise to valorize biomass and organic wastes into marketable products at the local, regional, Canada-wide and international levels. The expiry date of this MoU is December 31, 2019.

Direction of the Provincial Government

Waste Free Ontario Act, 2016

In November 2015, the Minister of the Environment and Climate Change (MOECC) introduced a new legislative framework for managing waste in Ontario under Bill 151, *Waste Free Ontario Act (WFOA)*. Bill 151 received Royal Assent in June 2016 and was proclaimed November 30, 2016.

Strategy for a Waste-Free Ontario: Building the Circular Economy

MOECC published the final Strategy for a Waste-Free Ontario: Building the Circular Economy in February 2017, a requirement of the WFOA, which outlines a road map for resource recovery and waste reduction for Ontario. It also:

- sets a vision and goals including interim waste diversion goals for 2020, 2030 and 2050;
- articulates key government actions to support implementation of the vision and goals; and
- identifies performance measures to measure progress towards achieving the vision and goals.

The Strategy focuses on moving Ontario towards a circular economy described as “a system where nothing is wasted and valuable materials destined for landfill are put back into the economy without negative effects on the environment.” This approach – a circular economy – has the potential to reduce greenhouse gas emissions, save and better utilize scarce resources, create jobs and create financial opportunities. To fulfil the vision, the Strategy has two visionary goals:

- a zero waste Ontario; and
- zero greenhouse gas emissions from the waste sector.

DISCUSSION

City staff have a longstanding working relationship with TRY through TRY's management (under contract) of the City's:

- Leaf and yard waste (handling, materials' preparation and composting) contract (until 2025 with possible extensions until 2027); and
- EnviroDepot (TRY North Depot, Clarke Rd and Oxford St) operations contract (until 2023 with possible extensions until 2025).

TRY also helps divert a large portion of Construction, Renovation and Demolition (CR&D) waste generated in London from disposal at the W12A Landfill site and other landfills through the operation of two CR&D recycling facilities.

Through this contractual and/or working relationship City staff and TRY have endeavoured to evolve the management and operations of leaf and yard materials and the Enviro Depots respectively in the following ways:

- Shifting from plastic bags to compostable bags for collection services; and
- Development of products for potential use as alternative daily cover (ADC) at the W12A Landfill.

As well TRY continues to work with the City on a number of voluntary initiatives including:

- London Composts (annual compost sales in support of local service groups);
- London Clean and Green;
- London Cares Curb Hunger Food Drive; and
- Newly re-formed London Plant a Row, Grow a Row initiative.

TRY and City staff have had discussions with respect to formalizing the ongoing relationship between the two organizations as part of LWRIC and the broad sectors of solid waste management and development of beneficial uses for waste materials. In the context of the Circular Economy there is ongoing interest in Ontario (*Waste Free Ontario Act 2016*) related to secondary resource management versus waste disposal, with the potential positive impacts on job creation, the green economy, climate change and energy conservation.

Step 1 – Memorandum of Understanding – General Arrangement

The first step in formalizing a working relationship with TRY is to enter into a non-binding MoU. The MoU sets out the short-term objective of collaboration between the City and TRY which would be to undertake testing and research; write and present reports; develop data/information; and work with industry, government and academic partners on the viability of a range of technologies and processes to create resources from waste that would normally be sent to disposal facilities. The proposed MoU is provided in Schedule A of Appendix A.

The responsibilities of the City listed in the MoU include:

- Share waste management knowledge and expertise with TRY and other partners;
- Assist with funding applications and discussions/negotiations with potential partners;
- Provide access to the boardroom room and education room in the Material Recovery Facility (MRF), W12A Landfill site and other City facilities;
- Participate in project development, design and/or implementation;
- Participate, when available, in discussions, tours and related activities;
- Provide solid waste materials, in appropriate quantities, for resource recovery;
- Participate and/or make available resources to assist with student research;
- Assist with reporting, being available for media interviews and related matters; and
- Keep London Municipal Council informed of progress.

The responsibilities of TRY listed in the MoU are to include:

- Share waste management expertise with the City;
- Undertake research and development projects, supported by possible grants and contracts, that focus on developing beneficial uses for waste materials such as:
 - Bulky items - reuse distribution, deconstruct and recycle, and/or find environmental value for mattresses, furniture and other bulky items,
 - Solid recovered fuel (SRF) - from size reduction of bulky and other items,
 - Compost products - explore organic materials like Bioset currently being landfilled or processed to a low value product that could be used to make specific 'boutique' finished products engineered for specialized applications, and
 - Developing engineered aggregate - that match or surpass the characteristics of specialty aggregates for drainage, asphalt and concrete (e.g., using coloured or low value glass from industry and residential sources).
- Conceptualize, develop, seek provincial permitting (as required) and carry out these projects, in close communication with the City;
- Act as window of access of industry expertise for the City, government agencies and potential industry partners and coordinate and lead projects and initiatives bringing together the appropriate teams to maximize synergies of expertise, infrastructure and resources; and
- Proactively engage in conversations with the City and with industry partners to ensure continuous review and improvement of current initiatives and development of new projects.

Step 2 – Formal Agreement for Demonstration Pilot Projects

The City and TRY will work together to develop a Formal Agreement(s) to undertake activities that involve capital works, contracts with funding agencies, contracts with secondary educational institutions, private companies and investors. Any Formal Agreement will follow the same approval processes as this General Arrangement and require Council approval.

ACKNOWLEDGEMENTS

This report was prepared with assistance from Mike Losee, Division Manager, Solid Waste Management. This report has followed the template for by-law approval and MoU signing approved by the City Clerk and Legal Services.

PREPARED AND SUBMITTED BY:	RECOMMENDED BY:
JAY STANFORD, M.A., M.P.A. DIRECTOR, ENVIRONMENT, FLEET & SOLID WASTE	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER

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Appendix A A by-law to authorize and approve a Memorandum of Understanding between Try Recycling Inc., and The Corporation of the City of London and to authorize the Mayor and the City Clerk to execute the Memorandum of Understanding

Schedule A Memorandum of Understanding
Attachment A Overview of City of London Solid Waste Management Facilities
Attachment B Overview Try Recycling Inc.

c Jim Graham (President and Owner), Try Recycling Inc., 11110 Longwoods Road, Delaware, Ontario, Canada N0L 1E0

Appendix A

Bill No.
2017

By-law No. A.-

A by-law to authorize and approve a Memorandum of Understanding between Try Recycling Inc., and The Corporation of the City of London and to authorize the Mayor and the City Clerk to execute the Memorandum of Understanding.

WHEREAS section 5(3) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS it is deemed appropriate for The Corporation of the City of London (the "City") to enter into a Memorandum of Understanding with the Try Recycling Inc., to undertake testing and research; write and present reports; develop data/information; and work with industry, government and academic partners on the viability of a range of technologies and processes to create resources from waste that would normally be sent to disposal facilities;

AND WHEREAS it is deemed appropriate to authorize the Mayor and the City Clerk to execute the Memorandum of Understanding on behalf of the City;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. The Memorandum of Understanding between The Corporation of the City of London and Try Recycling Inc., attached as Schedule A to this by-law, is hereby authorized and approved.
2. The Mayor and the City Clerk are hereby authorized to execute the Memorandum of Understanding authorized and approved under section 1 of this by-law.
3. This by-law shall come into force and effect on the day it is passed.

PASSED in Open Council June 13, 2017

Matt Brown
Mayor

Catharine Saunders
City Clerk

First Reading – June 13, 2017
Second Reading – June 13, 2017
Third Reading – June 13, 2017

Schedule A

Memorandum of Understanding

Between

The Corporation of the City of London (“City”)

And

Try Recycling Inc. (“TRY”)

Whereas the City has established a special policy area in the City’s Official Plan, referred to as the Waste Management and Resource Recovery Area, that plans for the continued evolution of the W12A Landfill and nearby lands into an “Integrated Waste Management Centre” that utilizes environmentally responsible and sustainable operations and practices and achieves a high standard of compatibility with its environs and neighbours;

Whereas the remaining life expectancy of the W12A Landfill as of January 1, 2017 is approximately eight and half years or less;

Whereas the City wishes to examine, support, conduct research and/or implement projects under the broad classification(s) of resource recovery, energy recovery and/or waste conversion within the special policy area, in other locations in London, or in collaboration with others outside of London as part of its continuous improvement system for solid waste management. The continuous improvement system is described in several public documents including City of London Continuous Improvement System for Waste Management (1997), A Road Map to Maximize Waste Diversion in London (2007) and Road Map 2.0 The Road to Increased Resource Recovery and Zero Waste (2013);

Whereas the City wishes to pursue projects, relationships and partnerships for the purposes of innovation, creativity, best practices and excellence in solid waste management and is proposing to operate, subject to final Municipal Council approval, under a banner known as the London Waste to Resources Innovation Centre (LWRIC);

Whereas TRY has a broad range of operational expertise in the area of waste to resource management;

Whereas TRY has proprietary and other expertise related to the successful conversion of a range of waste materials into products with beneficial uses, in particular, the conversion of organic wastes into compost and various construction, renovation and demolition (CR&D) wastes into beneficial products. TRY wants to extend its relationship and waste to resource expertise with the City for mutual benefits; and,

Whereas the City and TRY recognize that the framework direction for waste management and waste diversion in Ontario has been set through the *Waste Free Ontario Act, 2016* and the Strategy for a Waste-Free Ontario: Building the Circular Economy (February 2017).

1.0 Purpose of the Memorandum

This Memorandum of Understanding (“MoU”) is intended to set out the mutual intentions of the City and TRY to advance their joint waste management, diversion and/or conversion into products with beneficial uses objectives. The MoU is based upon the mutual understanding that the combined expertise, influence and commitment of the parties are better applied together to support their common goals. The MoU establishes the non-legally binding framework and set of principles for enhanced and focused coordination and collaboration to support their shared interests in waste conversion and resource and energy recovery.

The parties to this MoU acknowledge that if they wish to jointly carry out specific initiatives that may arise out of this MoU, they will have to engage in further discussion and prepare necessary agreements to define, authorize and execute, among other things, each party's roles and responsibilities, resource allocation and other details.

The MoU is not an exclusive arrangement and does not restrict either party from pursuing their mandates either on their own or in collaboration with any other party.

2.0 Short Term Objective

The short-term objective of the collaboration between the City and TRY is to:

- Build on the existing foundation of traditional and innovative projects to divert waste from the landfill and create value added products from residues and waste;
- Create a focal point (location or locations) for the ongoing examination of innovative solutions for waste reduction, resource recovery, energy recovery and/or waste conversion into value-added materials;
- Establish partnerships and collaborations between government and businesses to synergistically build on existing strengths to create opportunities to prevent waste, to create products of value from waste, and to solve existing waste management challenges; and
- Be known as an centre of excellence with shared facilities and resources providing leadership, implementing best practices, undertaking research, providing knowledge and support to industry in the various fields of resource and waste management.

3.0 General Arrangement

This MoU sets out the General Arrangement between the parties that will be the basis for working together.

The responsibilities of the City are to include:

- Share waste management knowledge and expertise with TRY and other partners;
- Assist with funding applications and discussions/negotiations with potential partners;
- Provide access to the boardroom room and education room in the Material Recovery Facility (MRF), W12A landfill site and other City facilities (Attachment A);
- Participate in project development, design and/or implementation;
- Participate, when available, in discussions, tours and related activities;
- Provide solid waste materials, in appropriate quantities, for resource recovery;
- Participate and/or make available resources to assist with student research;
- Assist with reporting, being available for media interviews and related matters; and
- Keep London Municipal Council informed of progress.

The responsibilities of TRY are to include:

- Share waste management expertise with the City;
- Undertake research and development projects, supported by possible grants and contracts, that focus on developing beneficial uses for waste materials, at the London Waste to Resources Innovation Centre and/or at its own facilities (Attachment B);
- Conceptualize, develop, seek provincial permitting (as required) and carry out these projects, in close communication with the City;
- Act as window of access of industry expertise for the City, government agencies and potential industry partners and coordinate and lead projects and initiatives bringing together the appropriate teams to maximize synergies of expertise, infrastructure and resources; and

- Proactively engage in conversations with the City and with industry partners to ensure continuous review and improvement of current initiatives and development of new projects.

4.0 Formal Agreement

The parties agree to work together to develop a Formal Agreement to undertake activities that involve capital works, contracts with funding agencies, contracts with private companies and investors. The Formal Agreement will follow the same approval processes as this General Arrangement.

5.0 Effective Date and Duration

This MoU will come into effect upon the date it has been signed by all signatories and will remain in effect until December 31, 2019. This MoU will be reviewed two months prior to the anniversary date and any agreed to changes added to the MoU. Substantive changes will trigger the approval process for the MoU and this determination is at the discretion of the City and of TRY.

A participant may withdraw from this MoU by providing a sixty (60) written notice to the other parties.

This MoU is subject to approval processes required by each of the parties.

DATED this _____ day of _____.

IN WITNESS WHEREOF:

THE CORPORATION OF THE CITY OF LONDON

By:

Name: Matt Brown
Title: Mayor

By:

Name: Catharine Saunders
Title: City Clerk

I/We have authority to bind the City.

TRY RECYCLING INC

By:

Name: Jim Graham
Title: President and Owner, Try Recycling Inc.

I/We have authority to bind the corporation.

Attachment A

Overview of City of London Solid Waste Management Facilities (www.london.ca)

The City contributes to the health of the environment and its citizens through appropriate collection and management of garbage, recyclables, yard materials, household special waste, and other designated waste materials. This involves providing pick-up and drop-off services within London, processing and creating products of value from compostable/recyclable/reusable materials; and disposing of garbage in an environmentally responsible manner, including the ongoing monitoring and management of closed landfills and other sites producing methane.

To support these services the City owns and operates an array of Solid Waste diversion and disposal assets valued at over \$64 Million. These range from public waste and recycling bins, to drop off depots and one active landfill (W12A) and many closed landfill sites.

The City also owns a centralized Material Recovery Facility (MRF) which provides recycling services to London and several neighbouring communities. The MRF was newly constructed in 2011 and is operated and maintained by an outside contractor.

Drop off locations (Community EnviroDepots) are provided for special wastes including household special waste, yard materials, electronics, scrap metal, tires, roofing, etc. Solid Waste is responsible for maintaining these assets in serviceable condition between replacement cycles, ensuring compliance with Provincial regulations and maintaining the continuity of solid waste services to the citizens of London and other customers.

General household waste is primarily collected by the City while recycling pick-up and processing services are contracted out. The City owns and operates a fleet of garbage truck.

The W12A Landfill consists of a number of assets including landfill cells, buildings, leachate and gas collection systems and stormwater management ponds. This facility operates within its Operation Plan, with additional disposal cells being brought online to accommodate waste in accordance with its Environmental Compliance Approval. Based on projected use, the current landfill will reach capacity in about 2023, at which point it will require an expansion (or other long term disposal solution) to provide the city with the space needed to meet its future needs.

The W12A buildings (Incl. Site Works & Equipment) includes the roads, curbs and landscaping as well as the administration, maintenance and scale house buildings. The W12A Leachate Collection System collects and conveys leachate for treatment. This system is capable of meeting the current City's needs and is expanded as new disposal cells are constructed. The Landfill Gas Collection System collects and conveys landfill gas to the on-site landfill gas flare for destruction. This system is capable of meeting current City's needs and is expanded as new disposal cells are constructed.

On-site W12A Stormwater Management Ponds and site drainage infrastructure collect and treat surface runoff from snow and rain that impact the site. Maintenance occurs on a planned basis, with investments identified through regular inspections.

Any expansion or examination of alternatives will be undertaken as per the requirements of the Environmental Assessment Act.

Buffer land is comprised of City owned land adjacent or near the W12A Landfill that has been acquired to provide an appropriate buffer from existing operations and to provide buffering for possible future landfill expansion and resource recovery facilities. It is expected that additional land will be acquired for these purposes over the next several years.

Attachment B

Overview of Try Recycling Inc.

Try Recycling Inc. (TRY) (www.tryrecycling.com) has been in the business of diverting waste from landfill since 1991. TRY's core business includes the receipt and recycling of construction, renovation and demolition (CR&D) waste, the receipt and composting of municipal leaf and yard material and the management of municipal EnviroDepots. Competition for these wastes, in particular CR&D wastes, from landfills has resulted in the development of cost effective and proprietary processing methods.

TRY's flag-ship facility is located on Clarke Road (21463 Clarke Road), adjacent to London's northeast border. Over the years this facility has been expanded and now includes two separate facilities for CR&D waste recycling and leaf and yard material composting. In 2008 TRY opened its second London based facility, the Community Environmental Recycling Centre on Dingman Drive (3544 Dingman Drive). Its focus is on recycling CR&D wastes.

The expertise of the TRY team includes developing methods to convert wastes into beneficial use products. In the case of CR&D wastes this includes proprietary methods to separate mixed CR&D wastes into its component parts, the further processing of these waste streams to generate new products (e.g., size reduction, blending) and the marketing of these products. As markets for recycled products can be volatile TRY has worked to develop at least two markets for each of its products. In the case of leaf and yard wastes, TRY converts these materials into AA compost products, Ontario's highest compost standard.

This expertise can be applied to new waste streams and to develop new products from existing waste streams at the London Waste to Resources Innovation Centre. There are a number of areas where TRY could deploy its expertise, from high level planning to actual product development and marketing.

Areas of Focus for MoU

TRY is in a unique position to assist the City reduce the amount of waste that is disposed, into the W12A Landfill, by identifying potentially divertible waste streams and developing conceptual plans to convert them into beneficial use products. Key potential waste streams include:

- Bulky waste materials including mattresses and furniture
- Blended organics including leaf and yard waste, biosolids, food waste (e.g., the use of Bioiset materials, a lime stabilized sewage sludge)
- Coloured and other industrial and residential low value glass

Facilities

On a case by case basis the conceptual plans can be operationalized by setting up pilot-scale and possibly full scale facilities to manage the above noted and potentially other divertible waste streams.

Processes

TRY will use its expertise to develop processes that could be used at W12A Landfill. Examples of this include:

- Developing a method to compost "Bioiset" (i.e., lime stabilized biosolids)
- Developing methods to recycle bulky items

Products

TRY will use the foregoing to develop new beneficial use products. This could include:

- Bulky Items - developing processes to manage, encourage reuse distribution, deconstruct and recycle, and/or find environmental value for mattresses, furniture and other bulky items that are currently being disposed in landfill. There could also

be opportunity to partner with non-profit organizations to provide labour for this process.

- Solid recovered fuel (SRF) (from size reduction of bulky and other items) – TRY currently creates fuel products for the greenhouse industry. There could be an opportunity to take unwanted (end-of-life) bulky items that are taking up landfill space and process them into a value added products for use as alternative fuels.
- Various compost products - explore organic materials like Bioset currently being landfilled or processed to a low value product that could be used to make specific 'boutique' finished products engineered for specialized agricultural applications. TRY is currently working with Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and some local farmers on projects that will show beneficial use from materials that were once destined for landfill but are now being used to help restore our soils.
- Developing engineered aggregate that match or surpass the characteristics of specialty aggregates for drainage, asphalt and concrete. This would include using coloured or low value glass from industry and residential sources to replace natural sand and gravels in a variety of specific uses.

TRY considers itself an industry leader and this requires Jim Graham, President and Owner of TRY, and the TRY Team to stay active in the waste diversion sector. TRY has never stepped away from the hard questions or hesitated to take the right steps to move its industry forward. TRY has assumed leadership roles with leading waste management organizations such as the Ontario Waste Management Association (OWMA) (past Chair) and Compost Council of Canada (past Board member).