Strategy for a

WASTE-FREE ONTARIO

Building the CIRCULAR ECONOMY

December 2016

FINAL DRAFT

Ontario

The province is seeking comments on this proposed final strategy.

This document incorporates the public and stakeholder feedback received on the previous draft, which was posted for consultation in November 2015. Once finalized, this strategy will serve as a road map to shift Ontario towards a circular economy and a zero-waste future.

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A. Transforming Ontario into a Leader

Each year, Ontario generates more and more waste. In 2014 alone, about 11.5 million tonnes were generated in the province[1] – that's nearly a tonne of waste per person in just one year.

For the last 10 years, three-quarters of this waste has been sent to landfill[2]. This figure has not changed in almost a decade.

At the same time, Climate Change has become a reality, with impacts being experienced across Ontario. In June 2016, Ontario released its Climate Change Action Plan. The plan describes the actions we will take over the next five years to fight climate change, reduce greenhouse gas pollution and help move us to a prosperous low-carbon economy.

The plan recognizes that managing how we use our resources will be a critical part of achieving these goals. It commits to reducing emissions from waste and moving Ontario towards a Circular Economy.

Sending valuable resources to landfill poses significant risks to both human and environmental health, and leads to unpredictable pricing increases, supply chain risks and growing pressures on virgin materials.

To change how we manage our waste, we must change our thinking. With a new mindset, Ontario has an opportunity to reduce emissions coming from waste, remove our reliance on virgin materials, enhance environmental protection and bring new economic growth, job opportunities and savings to consumers and taxpayers.

What is a Circular Economy?

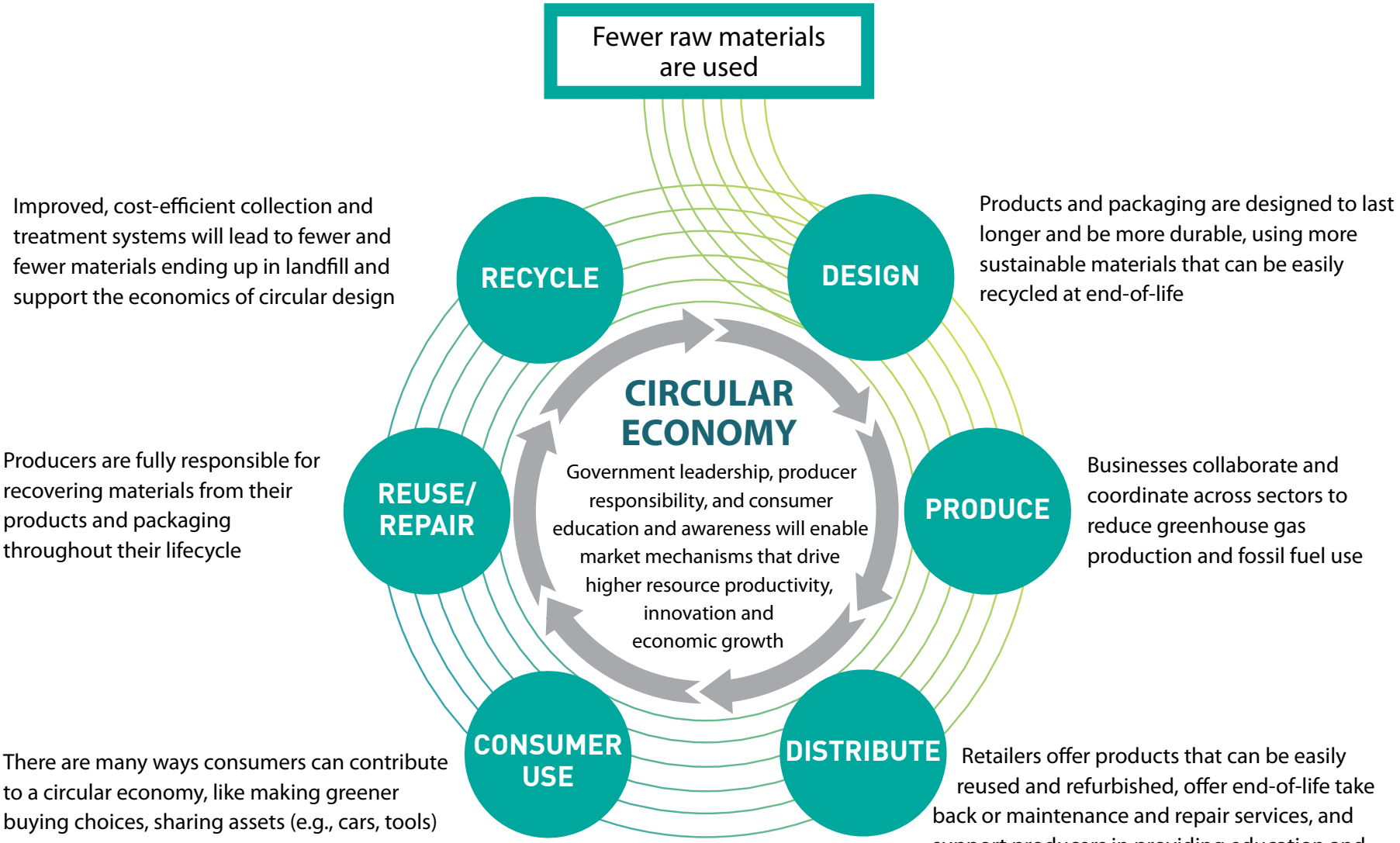
In the traditional waste management system, materials move through a linear 'make-use-dispose' process where they are manufactured from raw resources, consumed and ultimately sent to landfill. This model of consumption has become part of our culture. It has resulted in a 19 per cent increase in absolute greenhouse gas emissions between 1990 and 2014 as the amount of waste disposed in landfills has increased.[3]

A circular economy aims to eliminate waste – not just from recycling processes, but throughout the lifecycles pf products and packaging. A circular economy aims to maximize value and eliminate waste by improving the design of materials, products, and business models.

A circular economy goes beyond recycling, as the goal is not just to design for better end-of-life recovery, but to minimize the use of raw materials and energy through a restorative system.

In a circular economy, the value of products and materials is maintained for as long as possible. Waste is minimized and resources are kept within the economy when a product has reached the end of its life, to be used again to create further value.

What is a Circular Economy?



Improved, cost-efficient collection and treatment systems will lead to fewer and fewer materials ending up in landfill and support the economics of circular design

Products and packaging are designed to last longer and be more durable, using more sustainable materials that can be easily recycled at end-of-life

Producers are fully responsible for recovering materials from their products and packaging throughout their lifecycle

Businesses collaborate and coordinate across sectors to reduce greenhouse gas production and fossil fuel use

There are many ways consumers can contribute to a circular economy, like making greener buying choices, sharing assets (e.g., cars, tools) and repairing them, and offering them to others for reuse and refurbishing

Retailers offer products that can be easily reused and refurbished, offer end-of-life take back or maintenance and repair services, and support producers in providing education and awareness to consumers

Why Build a Circular Economy?

For Ontario to thrive, it is important that we move toward a more circular economy. This model affords a viable opportunity to successfully tackle environmental priorities, drive performance, innovation and competitiveness, and stimulate economic growth and development.

A circular economy protects the environment. A circular economy recognizes that Ontario's landfills do not have infinite capacity. Given the projected population growth and economic trends, it is forecasted that Ontario will need 16 new or expanded landfills by 2050 if no progress is made in resource recovery and waste reduction.[4]

Improved resource recovery will reduce greenhouse gas emissions and ensure potentially harmful materials are properly managed. Data tells us that increasing Ontario's organic waste diversion rate by about 10 per cent, from 38 per cent to 48 percent, would avoid an additional 275,000 tonnes of greenhouse gas emissions – the equivalent of removing almost 64,000 cars from Ontario roads each year.[5]

A circular economy will help Ontario stay competitive. Increasing waste diversion rates and improving resource recovery will help Ontario businesses stay competitive as the global economy becomes more resource productive. Producers will save money by using less material and through better end-of-life management for products and packaging.

Reducing reliance on raw materials will add significant value to the economy by creating or expanding the reuse and remanufacturing sectors. Businesses that collect, process and broker recovered waste materials and companies that manufacture and distribute products made with recovered materials stand to benefit from expanding markets for waste materials.

This shift will help save taxpayers money, create jobs and increase GDP. As the amount of material we throw away grows, the cost of collecting and managing residential waste, largely funded by municipal taxpayers, increases. According to Statistics Canada, local government expenditures for waste management in Canada increased from $1.8 billion in 2004 to $3.2 billion in 2012.[6] Studies have also shown that Ontario's existing waste diversion programs can create up to 10 times more jobs than waste disposal.[7] It is estimated that for every 1,000 tonnes of waste diverted in Ontario, seven jobs are created through the existing waste diversion programs.[8]

A circular economy drives innovation. Shifting to a circular economy encourages businesses to design long lasting, reusable and easily recyclable products. The reuse of products adds significant value to the economy by creating or expanding the reuse and remanufacturing sectors.

Ground-level innovation in this field will be driven by producers who are piloting business models based on extended product lifecycle thinking. These producers have the power to influence product design and effect change. Given their influence on global supply chains, producers have ability to accelerate collaboration globally and cross-sectors.

A Circular Economy is

an economy in which participants strive to:

- minimize the use of raw materials;
- maximize the useful life of materials and other resources through resource recovery; and
- minimize waste generated at the end of life of products and packaging.

Resource Recovery

means the extraction of useful materials or other resources from things that might otherwise be waste, including through reuse, recycling, reintegration, regeneration or other activities.

Source: Resource Recovery and Circular Economy Act

How Will We Achieve a Circular Economy?

A circular economy calls for a culture change. Our relationship with the products and services we purchase could be changed fundamentally under a circular economy. If consumer culture is changed, producers will be incented to produce products for easier repair, reuse, remanufacturing and recycling.

To shift to a circular economy, we need to change Ontarians' views about waste, to recognize the value in materials we would have once sent to landfill and acknowledge the influence of the linear economy on our lifestyle choices.

To achieve this shift, we will need the support and cooperation of all partners, including municipalities, producers, waste management service providers and consumers to develop an overarching strategy to guide this transformation.

A circular economy calls for a group effort. Changing to a circular economy requires cooperation amongst participants from sectors and regions across the province. New, innovative operating methods and opportunities to maximize the use of materials will come from cross-sectoral collaboration and bold leadership. Education and awareness are essential to nudge these changes and will be critical to support Ontarians' participation.

A circular economy calls for strong leadership. Scaling up to a circular economy will require government leadership. We need to change our policy framework. Traditional views about waste lead to a framework focused on end-of-life management and an inefficient diversion system. This has stalled progress in resource recovery and waste reduction.

In Ontario, there are a number of successful recycling programs. The Blue Box program – an internationally recognized recycling program – is available in 97 percent of households and keeps approximately 66 percent of residential printed paper and packaging from landfills. The Green Bin program, pioneered by municipalities, keeps food and yard waste from landfill and is available to more than half of Ontario households.

Since 2002, Ontario has also put in place a number of waste diversion programs, including programs to manage household hazardous materials, used tires and electronics. Together, these programs divert one million tonnes each year from landfills. These accomplishments were brought about by significant investments and innovation in service delivery and infrastructure.

This strategy provides the blueprint for Ontario to close the resource loop and transition to a system where valuable resources are recovered from the waste stream. This approach is a practical and progressive way to ensure the effective use of our resources, which is critical to an Ontario where strong environmental protection underlies a sustainable and strong economy.

Worldwide, leaders are beginning to introduce positive legislative drivers, such as waste prevention targets and incentives around eco-design, to promote products that are easier to reuse, remanufacture and disassemble. For example, the China Association of Circular Economy was established by government to encourage circular growth in the country,[9] while Scotland has issued its own circular economy blueprint.[10] In a highly significant move, the European Commission's circular economy framework has also introduced higher recycling targets and a landfill ban on recyclable materials across all 28 EU member states.[11]

Our Foundation for a Circular Economy

We have a new framework for recovering resources and reducing waste in Ontario.

To support a shift toward a circular economy, Ontario passed the Waste-Free Ontario Act, 2016. It enacted two acts: the Resource Recovery and Circular Economy Act, 2016, and the Waste Diversion Transition Act, 2016.

Under the new legislation, the province is moving toward a circular economy framework by establishing a producer responsibility regime. Combined with new and existing tools, such as those under the Environmental Protection Act, we are setting a strong foundation to transform the way we think about waste in the province.

The Resource Recovery and Circular Economy Act, 2016, enables the outcome-based producer responsibility regime to be established. This act:

1. identifies the provincial interest in resource recovery and waste reduction to provide overarching government direction;
2. establishes full producer responsibility by making producers environmentally accountable and financially responsible for recovering resources and reducing waste associated with their products and packaging; and
3. establishes the Resource Productivity and Recovery Authority to operate the Resource Productivity and Recovery Registry (i.e. data clearinghouse) and oversee producer performance by conducting compliance and enforcement activities.

In implementing the Resource Recovery and Circular Economy Act, 2016, Ontario will consider end-of-life materials as resources rather than waste, which will result in fewer raw materials being used and the production of long-lasting and reusable goods. This brings more opportunities to businesses and provides an incentive for future investment.

Through regulations, the government will establish requirements that producers will have to meet, such as reduction, reuse and recycling targets, service standards and promotion and education requirements.

Who are producers?

Producers are brand holders and/or others with a commercial connection to designated products and packaging in Ontario, such as first importers, wholesalers, retailers and e-tailers.

Municipal integrated waste management system

Ontario's municipalities deliver an integrated waste management system, collecting, processing, marketing and disposing of 4.9 million tonnes of material per year. Statistics Canada estimates that in 2012, Ontario municipalities spent $1.2 billion to manage waste.

This integrated waste management system manages 900,000 tonnes of printed paper and packaging; 18,000 tonnes of hazardous material and 900,000 tonnes of organic waste annually.[12]

Producers have a range of options in deciding how they will comply with regulatory requirements that will be set out in the regulations. A producer may choose to fulfil its obligations individually by finding innovative ways to have its designated products and packaging reduced and reused. Producers may also decide to manage materials at their end of life by recycling and reintegrating them into economy without disposal.

Producers may also decide to work together to meet producer responsibility requirements, including by aligning efforts across multiple provinces.

The Waste Diversion Transition Act, 2016, will facilitate a seamless transition of current waste diversion programs to the new producer responsibility framework. This will be done by allowing for existing waste diversion programs to continue operating without disruption until the wastes under those programs are transitioned to the new scheme. Once the wastes are transitioned, existing programs and the industry funding organizations that operate them will be eliminated.

The province recognizes that education and awareness are essential to changing people's traditional views about waste, influencing Ontarians' lifestyle choices, and supporting Ontarians' efforts in resource recovery. In addition to the new legislative framework we now have in place, the government will issue policy statements issue policy statements to provide clear direction on the provincial interest and set consumer service standards to ensure there are convenient and accessible community services related to waste collection and recycling to support Ontarians' participation.

New mechanisms to support this shift will be developed using an evidence-based approach, with extensive consultation with our valued stakeholders.

Source: National Inventory Report 1990-2014: Greenhouse Gas Sources and Sinks in Canada, Part 3, Environment and Climate Change Canada

Our Strategy to Achieve a Circular Economy

For Ontario to thrive, it must take advantage of resource recovery and waste reduction as economic drivers and factors in environmental protection. Building on our new foundation, the following outlines Ontario's strategy to achieve its transformation to a circular economy.

Vision

The vision for Ontario is one where waste is seen as a resource that can be recovered, reused and reintegrated to achieve a circular economy.

Goals

The goals are to achieve a **zero waste Ontario** and **zero greenhouse gas emissions from the waste sector**.

Zero waste Ontario is a visionary goal that provides the guiding principles needed to work toward the elimination of waste. It is a new approach that focuses on preventing waste in the first place rather than relying on traditional end-of-life waste management solutions.

The visionary goal of **eliminating greenhouse gases from the waste sector** will guide our priorities for resource recovery and waste reduction. It will help the province meet its climate change commitments and build a low-carbon economy while protecting Ontario's natural environment.

Achieving our goals will require a fresh approach to waste management and resource recovery — one that accounts for the shifting global context, recognizes the opportunities in a circular, low-carbon economy, and enlists the support of all Ontarians. New product design and management thinking will help Ontario avoid the volume and toxicity of waste materials, while conserving and recovering resources.

Ontario's resource recovery and waste reduction priorities focus on reducing, reusing, recycling and reintegrating materials into the economy.

To mark our progress and keep on track, we have set three interim goals:

Although energy from waste and alternative fuels are permitted as waste management options, these methods will not count towards diversion in Ontario.

The first four years of this strategy are dedicated to establishing the foundation for this fundamental shift and transforming the current system. Building on a strong foundation, we anticipate significant progress in the years to come.

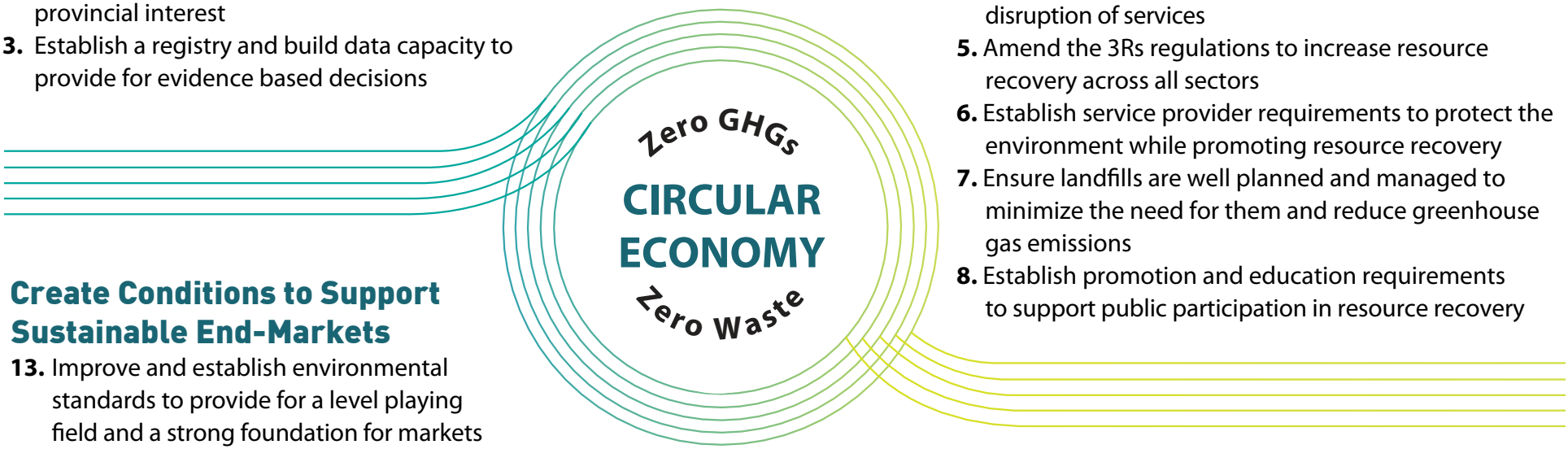
Objectives and Actions to Achieve Ontario's Vision

Enhance Provincial Direction and Oversight

1. Empower the Resource Productivity and Recovery Authority
2. Issue policy statements to provide clear direction on the provincial interest
3. Establish a registry and build data capacity to provide for evidence based decisions

Enable Efficient and Effective Recovery Systems

4. Transition existing waste diversion programs smoothly to new producer responsibility framework without disruption of services
5. Amend the 3Rs regulations to increase resource recovery across all sectors
6. Establish service provider requirements to protect the environment while promoting resource recovery
7. Ensure landfills are well planned and managed to minimize the need for them and reduce greenhouse gas emissions
8. Establish promotion and education requirements to support public participation in resource recovery



Create Conditions to Support Sustainable End-Markets

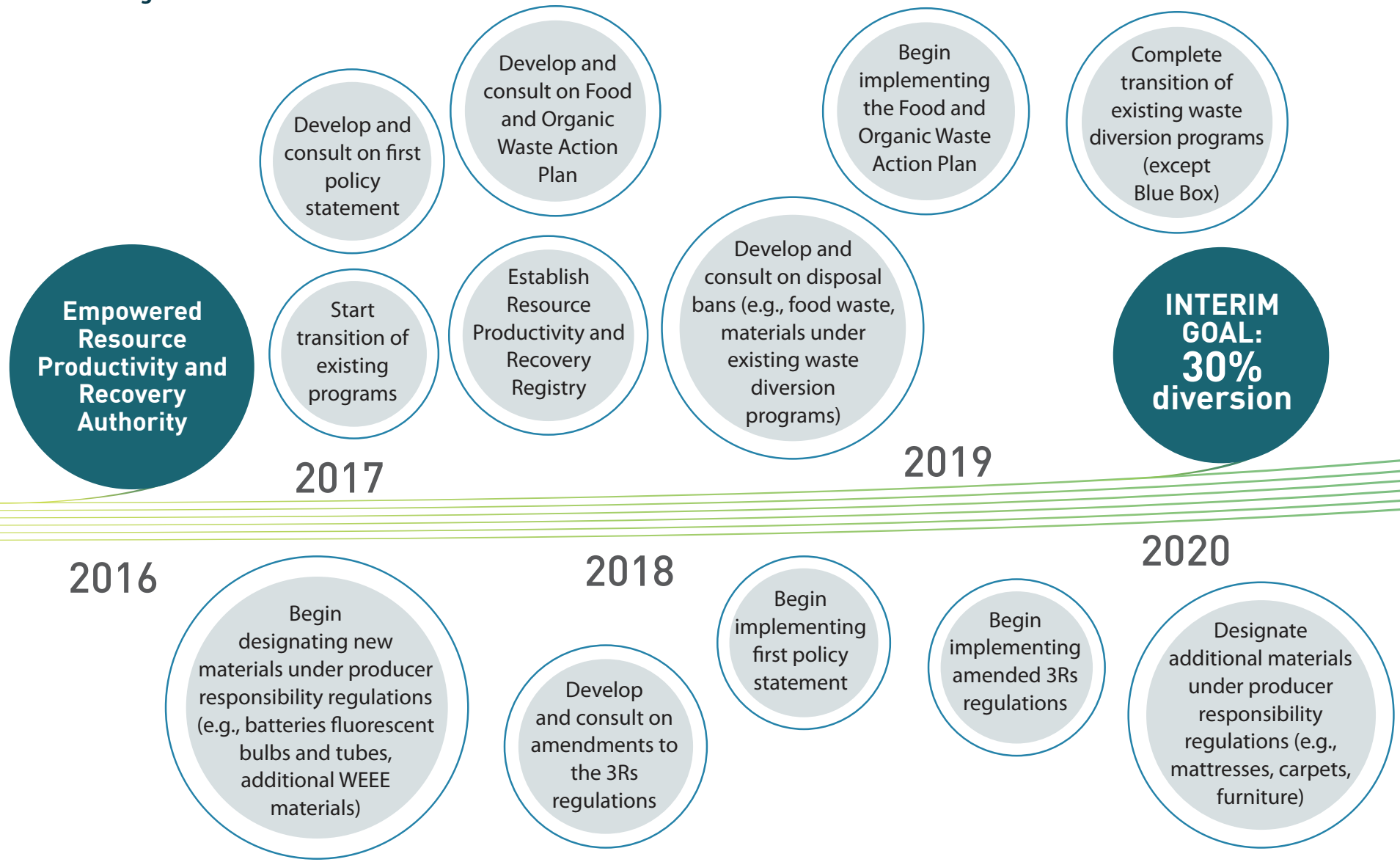
13. Improve and establish environmental standards to provide for a level playing field and a strong foundation for markets
14. Use green procurement practices to build market demand for recovered materials
15. Implement disposal bans to direct materials to end-markets

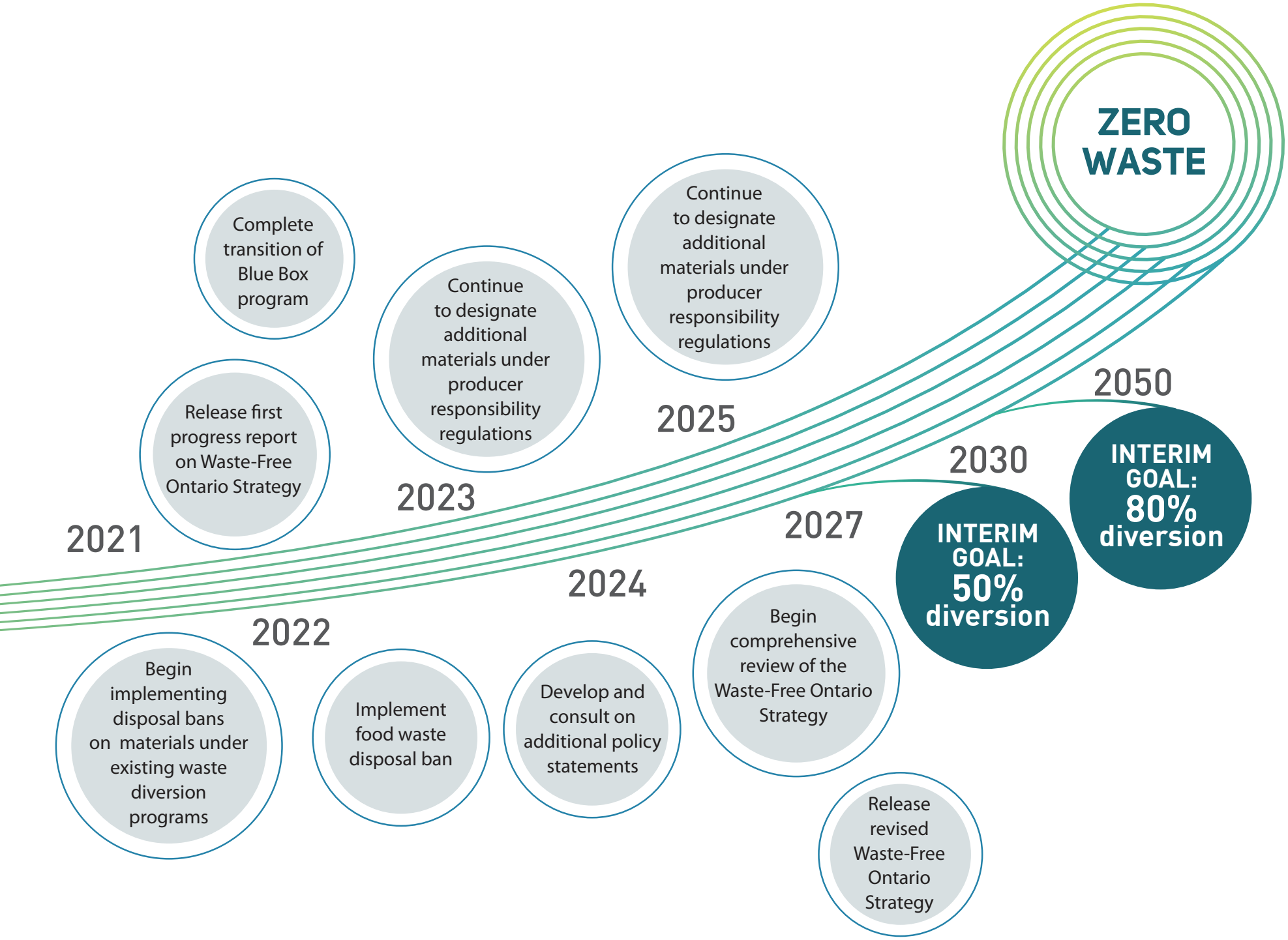
Increase Waste Reduction and Resource Productivity

9. Designate new materials to ensure producers are fully responsible for recovering more materials from products and packaging
10. Implement an action plan to reduce the volume of food and organic waste going to landfill
11. Implement an Excess Soil Management Policy Framework to increase the reuse of excess soil, while protecting human health and the environment
12. Adopt and implement modern regulatory approaches to build on and promote innovative best practices

Transforming Ontario into a Leader

The following timeline will guide our path toward achieving a waste-free Ontario:




ZERO WASTE
2021
Release first progress report on Waste-Free Ontario Strategy
Complete transition of Blue Box program
2022
Begin implementing disposal bans on materials under existing waste diversion programs
2023
Continue to designate additional materials under producer responsibility regulations
Implement food waste disposal ban
2024
Develop and consult on additional policy statements
2025
Continue to designate additional materials under producer responsibility regulations
2027
Begin comprehensive review of the Waste-Free Ontario Strategy
Release revised Waste-Free Ontario Strategy
2030
INTERIM GOAL: 50% diversion
2050
INTERIM GOAL: 80% diversion

B. Actions Towards a Waste-Free Ontario

Objective 1: Enhance Provincial Direction and Oversight

In order to move toward our visionary goals of zero waste and zero greenhouse gas emissions from the waste sector, we will need to know how to get there. Striving for a waste-free Ontario will require transformation and sustained leadership through broad, cross-cutting direction. This direction is critical for communicating requirements, priorities, goals, principles, best practices and desired outcomes.

We will also need to enhance oversight in resource recovery and waste reduction systems. Under the existing framework, Waste Diversion Ontario, a non-Crown, not-for-profit organization, oversees the waste diversion programs operated by industry funding organizations but has often had challenges because of lack of enforcement tools. This will need to be addressed in the new producer responsibility system.

To provide strong leadership, the government will need to enhance and better understand how we can build a circular economy in Ontario. Data gathering, analysis and communication will help us understand how far we have come and what else is needed to achieve our goals in order to make better evidence-based decisions.

Action 1: Empower the Resource Productivity and Recovery Authority

To enhance oversight within the new producer responsibility system, the province has overhauled Waste Diversion Ontario into the Resource Productivity and Recovery Authority, a non-Crown, not-for-profit organization. The Authority oversees producers' performance and the operation of existing waste diversion programs until they are transitioned to the new producer responsibility regime.

Key functions of the Authority under the new producer responsibility regime include operating a public-facing registry – a data clearinghouse – with information and data related to resource recovery and waste reduction activities as well as conducting compliance and enforcement activities.

The legislation provides the Authority with the tools for a graduated method of ensuring producer compliance with regulated requirements and a fair system that discourages non-compliance and prevents free-riders. Compliance and enforcement tools include inspection powers and the power to issue compliance and administrative penalty orders, and the ability to conduct investigations.

To operate the data clearinghouse, the Authority will collect information from responsible producers through registration and reporting. The intent is for the Authority to have the necessary data from the regulated community to effectively monitor and assess producers' performance.

The Authority will also be able to collect data related to resource recovery and waste reduction activities from municipalities, generators and service providers. The data will help the government make informed policy decisions, and help municipalities and businesses determine their resource recovery efforts.

Action 2: Issue policy statements to provide clear direction on the provincial interest

The province has established in the Resource Recovery and Circular Economy Act that it is in the provincial interest to have a system of resource recovery and waste reduction with a number of underlying aims. These aims were considered in the development of this strategy and are aligned with its goals, objectives and actions.

The underlying aims of the provincial interest are to:

- protect the natural environment and human health;
- foster the continued growth and development of the circular economy;
- minimize greenhouse gas emissions resulting from resource recovery activities and waste reduction activities;
- minimize the generation of waste, including waste from products and packaging;
- increase the durability, reusability and recyclability of products and packaging;
- hold persons who are most responsible for the design of products and packaging responsible for the products and packaging at the end of life;
- decrease hazardous and toxic substances in products and packaging;
- minimize the need for waste disposal;
- minimize the environmental impacts that result from resource recovery activities and waste reduction activities, including from waste disposal;
- provide efficient, effective, convenient and reliable services related to resource recovery and waste reduction, including waste management services;
- increase the reuse and recycling of waste across all sectors of the economy;
- increase opportunities and markets for recovered resources;
- promote public education and awareness with respect to resource recovery and waste reduction;
- promote cooperation and coordination among various persons and entities involved in resource recovery activities and waste reduction activities;
- promote competition in the provision of resource recovery services and waste reduction services; and
- foster fairness for consumers.

To provide further provincial direction on the matters of the provincial interest, the Minister of the Environment and Climate Change will issue policy statements. When undertaking activities related to resource recovery and waste reduction, provincial ministries, producers, municipalities, the Authority, and waste service providers will need to have regard to the provincial interest and will need to be consistent with any applicable resource recovery and waste reduction policy statements.

Policy statements are intended to advance the provincial interest and provide clear policy direction that will help further resource recovery and waste reduction in Ontario. They will also help coordinate decision-making across private and public sectors, where cooperation is integral to achieving resource recovery and waste reduction outcomes.

Policy statements may be used to provide policy direction on issues of broad importance across the production chain, guidance that applies to a wide range of actors or interests, or direction on emerging issues of concern to the province, municipalities or the private sector.

Actions Towards a Waste-Free Ontario

This approach will enable the province to provide overarching policy direction on the whole spectrum of resource recovery and waste reduction issues. For example, policy statements could be used to provide consistent direction to help:

- Establish principles for accessible and convenient recycling services;
- Guide the collection, reuse and recycling of materials;
- Establish criteria and principles to facilitate sustainable packaging;
- Guide reusing and recycling methods; and
- Implement efficient and effective approvals processes at both the provincial and municipal levels.

Policy statements will be developed using an evidence-based approach, with extensive consultation, including posting on the Environmental Registry and collaboration with stakeholders.

Action 3: Establish a registry and build data capacity to provide for evidence based decisions

Provincial leadership is dependent on good and reliable data as the foundation for providing evidence-based direction.

The province has gaps in knowledge and data regarding resource recovery and waste reduction throughout the product life cycle, including the complexity of end-of-life of products and packaging, the materials that require greater effort and the performance of sectors in recovering resources and reducing waste.

Having appropriate data is especially important in the industrial, commercial and institutional (IC&I) sectors, where there is not enough data to confirm the extent of waste reduction, reuse and recycling efforts.

Filling these knowledge gaps through comprehensive data and sound performance metrics is critical to building a better understanding of economic and environmental conditions and assessing policy and program needs. More specifically, better data will help to:

- assess the current situation of resource recovery and waste reduction and future needs;
- understanding where opportunities exist to recover resources and increase waste reduction;
- determine whether environmental standards are being met;
- improve our understanding of the composition of the regulated community;
- improve our understanding of the costs and benefits of resource recovery; and
- evaluate and assess our performance against targets.

There is much debate about the best approach to increase diversion in the IC&I sectors as there is no one-size-fits-all model to address the reduction, reuse and recycling of waste in these sectors. The province requires better data to understand which approaches work best and to make informed evidence-based decisions.

The province will fill data gaps by:

- requiring the Resource Productivity and Recovery Authority to establish a data clearinghouse (i.e. a registry) and collect important data from producers and other parties that conduct activities related to waste reduction and resource recovery (e.g., generators, service providers, and municipalities). These efforts will help the province effectively set targets and develop policies while the Authority monitors and assesses producer performance;
- requiring the Authority to make data available to the public and the province through its public-facing registry in accordance with any prescribed requirement;
- enhancing data collection, reporting and performance measurement from generators and service providers;
- better coordinating data-related measures across existing provincial approvals and requirements;
- identifying measures to better assess business-to-business diversion; and
- working with other stakeholders, including municipalities, industry associations, and not-for-profit groups to explore voluntary data sharing agreements, such as sharing data with the waste industry on current landfill sites and disposal capacity in Ontario.

Actions Towards a Waste-Free Ontario

The province will consult on potential mechanisms to collect and assess data, including regulatory requirements. The province recognizes that new reporting initiatives will require adequate lead time for businesses and affected parties to implement data collection measures and build on existing private sector financial and reporting cycles.

Sound data is the foundation upon which regulatory requirements may be imposed to help move towards a waste-free Ontario. As we develop comprehensive data related to resource recovery and waste reduction activities and consult with our stakeholders, it is expected that future amendments to this strategy could include more specific targets and timelines – allowing the province to set an effective and accountable path toward our goals.

Objective 2: Enable Efficient and Effective Recovery Systems

As we move towards full producer responsibility and a zero waste future, we need to make sure that we have the necessary building blocks in place for an efficient and effective resource recovery system that will save taxpayers money, reduce emissions from waste and reduce costs for companies and consumers, all while protecting environmental and human health. We also need to strengthen generator responsibility as set out under the Environmental Protection Act.

Recycling 1 aluminum can saves enough energy to run a TV for 3 hours, or one game of hockey.

Action 4: Transition existing waste diversion programs smoothly to new producer responsibility framework without disruption of services

In order to move toward a circular economy and address the challenges the province faces, existing waste diversion programs will be wound-up under the Waste Diversion Transition Act, 2016, and the wastes currently designated under these programs will be regulated under the producer responsibility framework under the Resource Recovery and Circular Economy Act, 2016. The transition process for each of the existing waste diversion programs will need to be seamless.

Under the Waste Diversion Act, 2002, four waste diversion programs were developed and operated by three industry funding organizations (IFOs):

- Blue Box operated by Stewardship Ontario;
- Municipal Hazardous or Special Waste (MHSW) operated by Stewardship Ontario;
- Waste Electrical and Electronic Equipment (WEEE) operated by Electronic Stewardship; and
- Used Tires operated by Ontario Tire Stewardship.

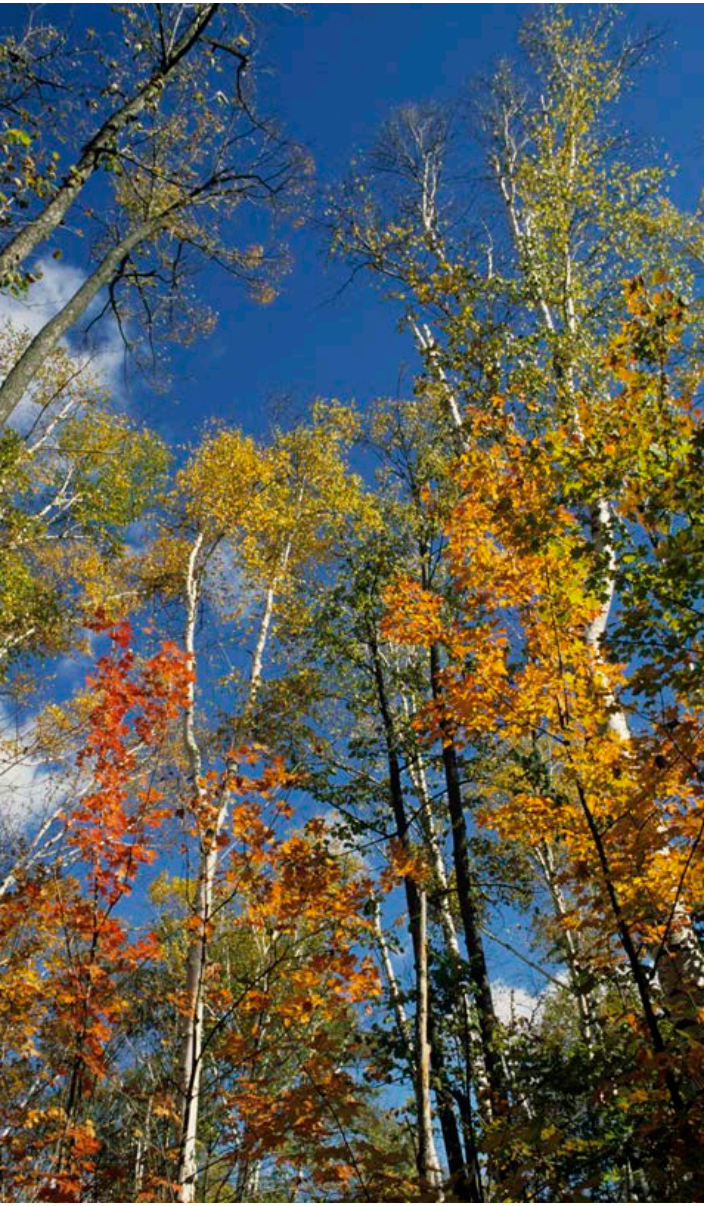
As well, four Industry Stewardship Plans have been approved under the Waste Diversion Act, 2002:

- Used Paints and Coatings;
- Pesticides, Solvents and Fertilizers;
- Automotive Materials Stewardship; and
- Soda Stream.

To ensure a smooth transition, these programs will continue to operate until they are covered under the new producer responsibility regime.

Transitioning each of the existing waste diversion programs to the full producer responsibility regime will be guided by the following core principles:

- Each waste diversion program will be directed by the Minister to transition in a manner that effectively addresses the unique considerations of each program.
- Ontarians' experience with and access to existing services will not be negatively impacted.
- Under the producer responsibility framework, consumer convenience will be maintained or improved, such as curbside collection of Blue Box materials.



- All stakeholders will be extensively consulted and engaged in the process.
- The government will lead the transition process.

Clear responsibilities will ensure everyone knows their role

Overall, the government will lead the transition process, including directing the wind-up of waste diversion programs and industry funding organizations and developing regulations to set the new producer responsibility requirements for materials of the existing programs.

Before the existing waste diversion programs and the industry funding organizations that operate them are wound-up, regulations will be developed under the new producer responsibility regime to identify responsible producers, designate materials and set clear regulatory requirements for those responsible producers and set clear timelines for when the new obligations to take effect.

As directed by the Minister of the Environment and Climate Change, each industry funding organization will work with stakeholders to develop a wind-up plan for their programs. Wind-up plans will deal with the assets, liabilities, rights and obligations of the existing programs and industry funding organizations. Once approved by the Authority, industry funding organizations will be responsible for the implementation of the plans. Industry funding organizations will be expected to wind-up operations in accordance with approved wind-up plans, and in accordance with regulations once they are developed. Industry funding organizations will continue to operate existing waste diversion programs until the programs are transitioned to the new producer responsibility regime.

To prepare to meet their obligations under the new producer responsibility regime, producers will be required to register with the Authority and will negotiate agreements with municipalities or service providers as needed to enable them to meet their obligations, individually, collectively or through third-party service delivery.

Existing programs under the Waste Diversion Transition Act, 2016, will end on the transition date set out in the approved wind-up plans. On the same date, producers will have to launch their own programs to meet applicable requirements under the Resource Recovery and Circular Economy Act, 2016 and its regulations. After program wind-up is complete, responsible industry funding organizations will be expected to wind themselves up in accordance with the approved wind up plans and regulations once they are developed. This will help ensure no disruption to services for Ontarians.

Stakeholders will be consulted at all stages of the transition process

Extensive consultation with producers (e.g., stewards), municipalities, the Authority, waste reduction service providers, industry funding organizations and the public will help determine when and how to transition. Consultations will include consideration of:

- potentially stranded assets and liabilities of programs, industry funding organizations and/or municipalities;
- timelines for wind-up of programs and industry funding organizations;
- material-specific regulatory requirements, such as resource recovery and waste reduction requirements, accessibility requirements, promotion and education requirements;
- how producers anticipate achieving their obligations under the legislation (e.g., likelihood of individual vs. collective approaches);
- data reporting and verification, data transparency, competition and fairness in the market place, burden reduction considerations; and
- how transition can make best use of existing public promotion and education efforts, to ensure consumers are aware of the programs being transitioned and continue to participate in resource recovery activities.

Blue Box transition requires collaboration among all relevant parties

To help ensure that services are maintained, the transition of the Blue Box program will require careful consideration. Cooperation among municipalities, producers, the Authority and Stewardship Ontario will be essential to ensure a smooth transition to the new producer responsibility approach. Considerations for consultation on the transition of the Blue Box program could include:

- roles and responsibilities for the operation of the Blue Box system;
- opportunities for municipal integrated waste management systems to support producer responsibility;
- how to address municipal contracts and assets, including existing contracts for collection and post-collection management and how to avoid stranded assets;
- opportunities to harmonize the materials collected across Ontario and the type of collection activities that are undertaken;

- opportunities to lower overall costs through greater harmonization in the collection and post-collection management; and
- the status of Regulation 101/94 under the Environmental Protection Act, which currently requires every municipality with a population of at least 5,000 residents to operate a Blue Box waste management system, prior to and after transition.

Action 5: Amend the 3Rs regulations to increase resource recovery across all sectors

Ontario's IC&I sectors (including construction and demolition) divert just over 13 per cent of their wastes.[13]

Ontario Regulations 102/94 (Waste Audits and Waste Reduction Work Plans), 103/94 (Industrial, Commercial and Institutional Source Separation Programs) and 104/94 (Packaging Audits and Packaging Reduction Work Plans) made under the Environmental Protection Act, commonly known as Ontario's 3Rs regulations, govern waste diversion in industrial, commercial and institutional (IC&I) sectors (e.g., hospitals, restaurants, and offices). Businesses view the three regulations as the policy framework for waste generator responsibility.

Ontario Regulations 102/94 and 103/94 require large IC&I establishments to identify the amount and types of waste they generate, develop waste reduction work plans, separate certain wastes at source and make reasonable effort to ensure that separated wastes are sent for reuse or recycling. Ontario Regulation 104/94 requires manufacturers, packagers and importers to audit their packaging practices and develop packaging reduction plans.

The 3Rs regulations also require multi-residential dwellings of six or more units to source separate recyclable wastes. Improving resource recovery from high-rise and other multi-residential dwellings is important as we continue to develop more compact communities.

Now more than 20 years old, the 3Rs regulations no longer adequately drive waste diversion. Their requirements are limited to large establishments and only select waste materials, and require only "reasonable efforts" to send source-separated wastes for recycling or reuse.

There is potential for much greater diversion in the IC&I sectors. The province is proposing to convene a stakeholder working group to steer a comprehensive review of the 3Rs regulations.

Amendments will consider matters related to:

- data gathering from regulated sectors;
- scope of the regulated sectors, size thresholds for facilities and dwellings, and designated materials;
- appropriate outcomes for sectors and subsectors;
- reporting and tracking requirements with transparency through public reporting;
- third-party monitoring, certification and audits;
- the role of promotion and education in improving IC&I diversion rates;
- performance measures that could be used to increase diversion;
- greater use of new technology and reduction in administrative burden; and
- exploration of complementary tools, such as producer responsibility and disposal bans, to recover resources and reduce waste.

Action 6: Establish service provider requirements to protect the environment while promoting resource recovery

Owners and operators of waste management systems and waste disposal sites provide waste management services to municipalities and businesses.

Requirements for these service providers, including the requirement to obtain environmental compliance approvals for waste management, including in relation to hauling, storage, processing, recycling, diversion and disposal, are set out in the Environmental Protection Act and its regulations.

Imposing regulatory requirements on owners and operators of waste management systems in a consistent and measured way helps to protect the natural environment, and ensures there is a level playing field among service providers.

The province will consider enhancements to regulatory requirements, including any applicable exemptions that apply to service providers when designating new products and packaging under the Resource Recovery and Circular Economy Act, 2016. Enhancements to the regulatory requirements will also be considered during broader reviews of the 3Rs Regulations and during the development of our path forward on organic wastes. The government wants to ensure that resources are being recovered from the waste stream in an effective and efficient manner, and in a way that does not lead to significant negative impacts on the natural environment.

To ensure a level playing field for service providers, the province will consider:

- adopting or promotion of national, international and industry standards;
- developing of provincial standards (e.g., recycling standards);
- enhancing of reporting, compliance and enforcement;
- reviewing existing standards to reduce administrative or regulatory burden to facilitate resource recovery;
- third-party monitoring, audits and transparency with public reporting; and
- a Modern Regulator approach to enhance service provider accountability, supported by compliance monitoring and enforcement. This will include:
  - reviewing existing standards, approval requirements and regulations with an eye to reduce administrative or regulatory burden on service providers in order to facilitate resource recovery;
  - third-party monitoring, audits and transparency with public reporting, and
  - modern regulatory initiatives to support emerging technology, innovation and streamlined approval processes.

End-of-Life Vehicles Standards

End-of-life vehicles may contain potentially hazardous substances. Not managing waste properly now can lead to expensive clean-ups of contaminated land and water in the future. To support waste diversion and environmental protection, Ontario implemented new regulations to standardize the management of end-of-life vehicle processing sites in the province, including new requirements (Regulation 85/16 and 86/16) related to depollution, waste storage, training, and record keeping. These regulations help ensure end-of-life vehicle processing and associated wastes are managed in an environmentally responsible manner.

Action 7: Ensure landfills are well planned and managed to minimize the need for them and reduce greenhouse gas emissions

In an economy that values its resources and promotes the efficient and effective recovery of products and packaging, landfills should be the last resort in the system to manage waste materials. This is not currently case in Ontario, as over 70 per cent of products at their end-of-life, packaging and other waste is sent to landfill.[14]

Ontario has approximately 850 operating landfills[15] and 1,525 closed landfills.[16] Given the projected population growth and economic trends, our ability to dispose of waste will become increasingly challenging. Without reducing the amount of waste generated, it is forecasted that Ontario will need to site 16 new or expanded landfills by 2050.[17]

While Ontario strives for a waste-free future, there will still be a need for landfill space as we work towards this goal. The province will look for innovative ways to reduce the impact that landfills have on the environment and slow the number of landfills needed within the next two decades. To minimize the impact of landfills on the environment, the province will encourage actions, in conjunction with its transition to a low carbon economy, to decrease greenhouse gas emissions from both new and existing landfills.

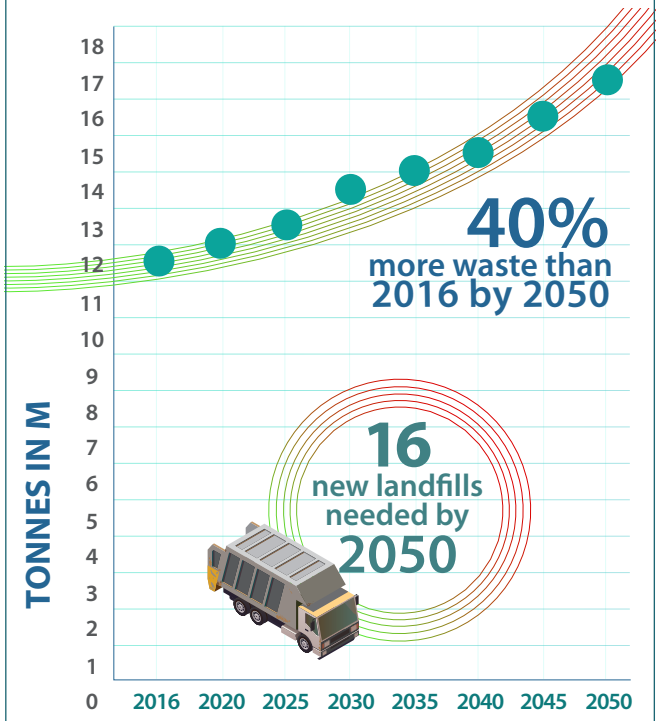
Approximately six per cent of Ontario's total greenhouse gas emissions come from the waste sector – 90 per cent of this is from landfill – and this number is increasing.[18] This gas is primarily methane generated by decomposing organic waste, which has a global warming potential 25 times greater than carbon dioxide (CO_2).[19] If Ontario is to seriously tackle climate change, including making progress on the Climate Change Action Plan, preventing greenhouse gas emissions from landfill must be a priority.

The provincial approach will be informed by a reliable data, identified and gathered with support from industry, which will provide for effective and evidence-based decision making.

Ontario will carefully consider the need and location of new landfills to help ensure that proposals for new or expanded capacity continue to undergo rigorous review to protect adjacent communities. Potential new landfills will need to be planned well to avoid over-supply of landfill capacity, and managed well to meet environmental standards and maximize the capture of greenhouse gases.

Historical and Projected Waste Generation in Ontario[20]

This chart depicts what could happen if waste continues to go to landfill at the current rate.



Estimate of new landfills needed based on current waste generation, diversion and waste exports and landfill capacities of the largest landfills in Ontario.

The size of landfills will also be considered to reduce the need for multiple new landfills and use landfill gas reduction facilities effectively.

Larger waste streams will also be targeted, increasing the diversion of organic waste and waste coming from the IC&I sectors, and landfill disposal bans for certain streams will be considered.

Ontario already has mandatory landfill gas controls set out in regulation to capture methane from landfills. Requirements are in place requiring landfill gas collection and controls for all new or operating landfills larger than 1.5 million cubic metres in size. Using the methane from landfills to produce electricity or other energy will provide benefits for homeowners and businesses.

A number of landfill sites are already taking advantage of this process. Ontario's Climate Change Action Plan will also consider offset credits for projects that effectively reduce or remove greenhouse gas levels in the environment including protocol development for landfill gas capture. Creation of offset credits will be based on the criteria set out in offset project protocols developed in conjunction with Quebec.

The province will encourage actions to capture and use this resource and consider the role that landfills can play in supporting cleaner, renewable electricity and natural gas supplies.

We will consult with stakeholders on planning for future landfills and the efficient management of existing landfills, including the benefits of promoting or expanding methane capture.

Ontario will continue to be a leading jurisdiction in setting strict landfill standards and requirements. This means continuing to protect drinking water by applying groundwater protection limits and design requirements for leachate collection systems that are unsurpassed by any other jurisdiction in North America.

Methane Capture

Currently, 31 landfills in Ontario have systems in place to capture landfill gas, which are expected to reduce total greenhouse gas emissions by 1.8 megatonnes by 2020.[21]

New landfill proposals will continue to be subject to rigorous environmental assessment processes under the Environmental Assessment Act and strict requirements for design, operation, closure, post-closure care and financial assurance under the Environmental Protection Act. These comprehensive requirements will ensure that the environmental risks of this landfilling legacy will be managed.

Action 8: Establish promotion and education requirements to support public participation in resource recovery

Promoting and improving public participation in resource recovery and waste reduction is an important part of ensuring that our resource recovery systems operate efficiently and effectively.

Provided with the right information, Ontarians can choose goods that are more durable, more recyclable or have less of an impact on the environment, and drive the market for these goods with their purchasing power. Information about best practices can also help Ontarians better manage the end-of-life products and packaging in order to generate less waste.

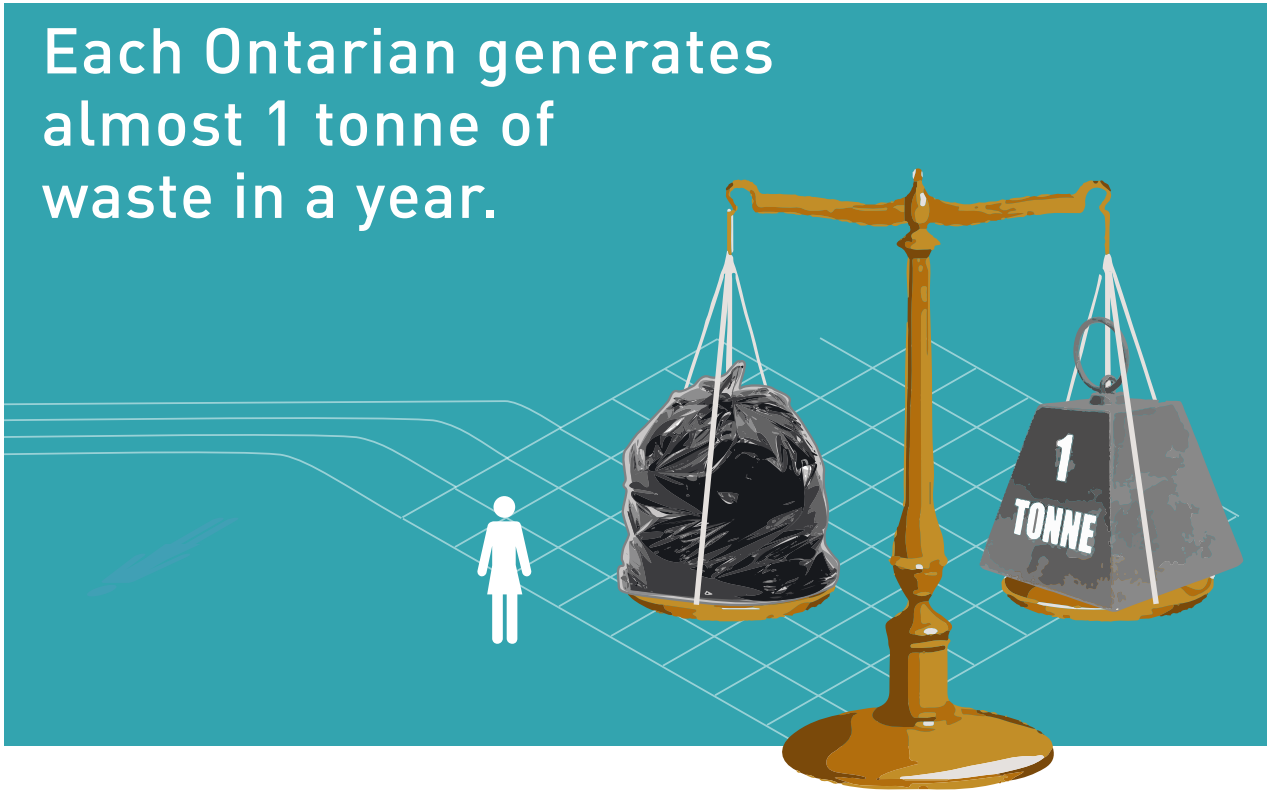
Waste generators in the IC&I sectors will benefit from knowledge about business-to-business markets for waste materials and the role source separation can play in reducing disposal costs.

Under the Resource Recovery and Circular Economy Act, 2016, the government will establish promotion and education requirements for producers to ensure that consumers are getting the information they need to properly participate in resource recovery efforts. Producers will have to fulfil these regulated requirements in order to help consumer participation.

The legislation requires the Authority to establish a registry to post relevant data and information and allow the public to access data and information, as appropriate.

The role that generators and service providers play in public education and awareness will also be considered. For example, as part of amendments to the 3Rs regulations, we will consider how generators and service providers can improve awareness efforts to drive larger volumes of waste to diversion.

The province will also look for other complementary measures to better understand and drive greater public participation in resource recovery, such as promotion and education tools to change behaviour (e.g., standardized waste receptacles).



Objective 3: Increase Waste Reduction and Improve Resource Productivity

Resource recovery and waste reduction contribute to economic development and job creation in a variety of ways. If we are to build a circular economy and reap its benefits, it is critical that we minimize raw materials use, maximize reuse of products and packaging and recycle a wider range of materials.

Residences, industrial facilities, commercial establishments, and institutions generate a wide variety of wastes. Paper and packaging, food and organic wastes, and construction and demolition materials are three large waste streams that require extra effort and targeted action.

Ontario will also use a variety of tools and take actions to incent businesses to show leadership and demonstrate efforts to increase resource productivity by reducing the use of raw materials and avoiding waste to maximize the recovery of materials at their end-of-life.

Action 9: Designate new materials to ensure producers are fully responsible for recovering more materials from products and packaging

The government will designate new materials under the new producer responsibility regime. When identifying potential candidate materials for full producer responsibility, the province will consider products and packaging where their recovery helps fulfil one or more of the following three broad results:

- recovering high-volume resource streams to increase diversion;
- keeping hazardous materials out of landfills to protect environment; and
- reducing domestic and global greenhouse gas emissions to fight climate change.

The province will assess candidate materials against specific criteria to determine their suitability for producer responsibility in Ontario.

Criteria to determine new materials under the proposed producer responsibility regime may include:

- economic and environmental opportunities, including the viability of existing or potential end-markets;
- infrastructure capacity, both existing and forecasted;
- Costs and benefits, including cost efficiency and program effectiveness;
- the effectiveness of ongoing diversion initiatives, including voluntary industry approaches, third-party efforts and the success in generator responsibility regimes;
- the experience of other jurisdictions, both in Canada and abroad;
- harmonization with existing international and national efforts;
- industry or sector interest in implementing producer responsibility; and
- alignment with other jurisdictions and/or the 2009 Canadian Council of Ministers of the Environment Extended Producer Responsibility Action Plan.

The province recognizes that not all materials are suitable for producer responsibility. To inform our decisions and help ensure appropriate materials are designated, the province will work with producers, municipalities, service providers and other stakeholders to gather data. Properly identifying products and packaging is essential to an effective regulatory framework and efficient approaches to resource recovery.

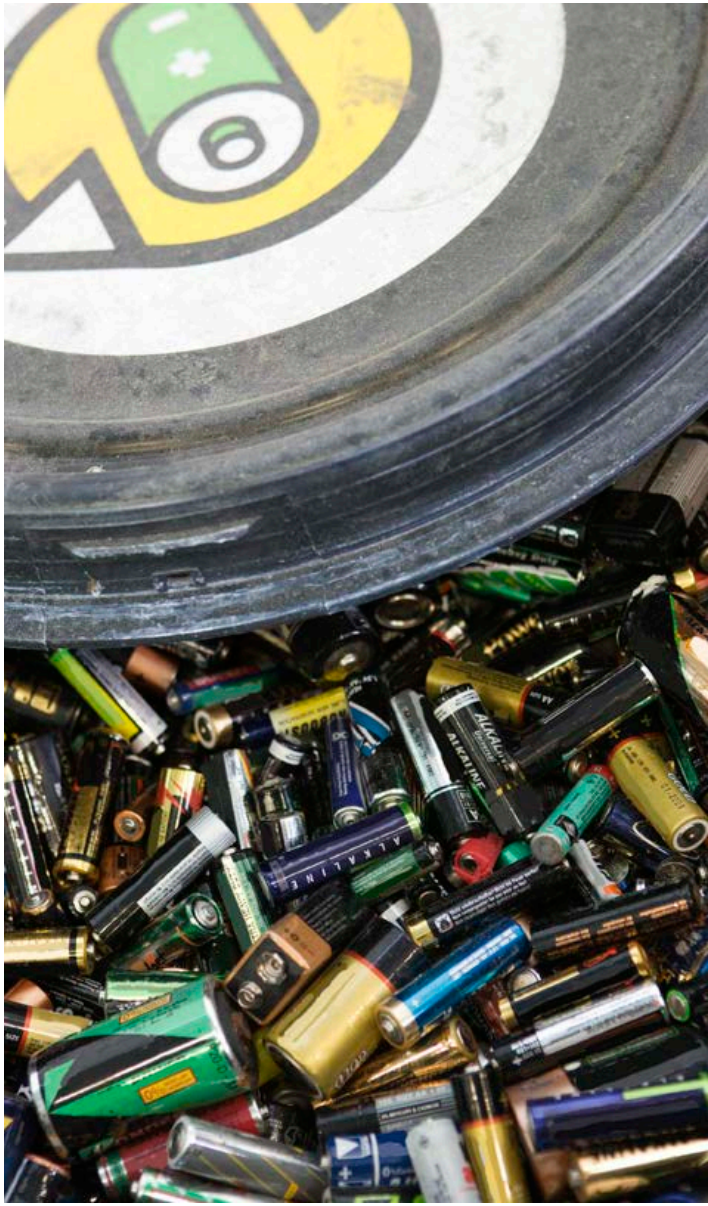
Ontario will also consider how the transition from the existing waste diversion programs to the new framework could facilitate or impede the designation of new materials for producer responsibility, including producers' capacity to manage obligations under both processes.

Materials will be designated through regulations made under the Resource Recovery and Circular Economy Act, 2016. Based on previous consultations, the first set of materials includes, but is not limit to:

- appliances
- electrical tools
- batteries
- fluorescent bulbs and tubes
- mattresses
- carpets
- clothing and other textiles
- furniture and other bulky items

Producer responsibility and generator requirements could complement each other in some circumstances. This is of particular interest for paper and packaging which accounts for about 55 per cent of waste generated.[22] Generators in the IC&I sectors are already subject to regulatory requirements for the end of life management of paper and packaging under the Environmental Protection Act. While some companies have made significant effort and achieved good results, overall diversion rates for IC&I paper and packaging remain low at 26 per cent.[23]

The province will consult with stakeholders on how to determine the best approach to increase diversion for paper and packaging in the IC&I sectors. Consultation is critical to ensuring that products and packaging are designated in an order and timeframe that sets a foundation for progress and allows producers, consumers, municipalities and waste service providers to adjust to the new requirements.



Action 10: Implement an action plan to reduce the volume of food and organic waste going to landfill

Organic waste makes up approximately one-third of Ontario's waste stream.[24] This includes organic waste generated at home, such as food waste and leaf and yard waste, and the food waste produced by IC&I sectors such as food processors, wholesalers, grocery stores and restaurants.

Significant amounts of organic wastes still end up in landfills.[25] When we send organic wastes to landfill, we lose valuable resources that could be used to support healthy soils and opportunities to reduce greenhouse gas emissions, including enhancing soil carbon storage through the use of compost.

Food waste is also about much more than what ends up in the landfill – wasted organics represent the resources embedded in food, including energy and water used to produce, process, transport, and sell them. About $31 billion worth of food is wasted in Canada annually.[26] Households are responsible for approximately 47 percent of this food waste. The remaining 53 per cent is generated along the supply chain, where food is grown, processed, transported, and sold.[27]

In 2014, Ontario's waste sector was responsible for 9.4 megatonnes of greenhouse gas emissions; approximately six per cent of the provincial total.[28] 90 per cent of these emissions came from solid waste disposal in landfills – of which most came from organic waste.[29] When organic materials are landfilled, they break down and emit methane, a greenhouse gas that is 25 times more harmful to our climate than carbon dioxide.

To address these issues, in Ontario's Climate Change Action Plan, the province reaffirmed its commitment to developing a plan to reduce food waste and organic materials going to landfill. The action plan will consider how best to support Ontario's climate change efforts, including:

- consideration of the entire supply chain, including pre-consumer and post-consumer organic wastes;
- consideration of recovery in high-rise and multi-residential dwellings;
- identification of regional infrastructure capacity and gaps;
- data gathering, public reporting and performance measures;
- third-party monitoring, audits and transparency through public reporting;
- regulatory actions (e.g., source separation requirements, disposal bans);

When organic materials are landfilled, they eventually break down and emit methane – a greenhouse gas that is 25% more harmful to our climate than CO_2.

- non-regulatory measures (e.g., streamlined approvals, consumer, processor and industry best practices);
- cost and benefit analysis, including cost efficiency and program effectiveness;
- collaboration between government and industry to update regulations and guidelines to reflect new technologies and promote new processes that support viable end markets.

The action plan will also consider the role of performance measures and targets for organic wastes. These will include measuring volumes of organic waste diverted from landfill, such

as the targets of up to 40 per cent by 2025 and 60 per cent by 2035 set out in Ontario's Climate Change Action Plan. Additional targets may include per capita measures of organic materials recovered and disposed.

Addressing organic wastes will require coordination among multiple players, including generators, municipalities and service providers to implement tools, such as disposal bans or source separation requirements. When taking actions to address organic waste, the province will also consider the many successful voluntary initiatives are already in place in the municipal and private sectors to avoid disrupting those initiatives.

A stakeholder working group will provide advice on the development of the action plan to ensure unique considerations inherent to organic wastes are addressed and to provide advice and recommendations to the government. The stakeholder working group will include representatives from key interests groups, such as municipalities, the waste management industry, producers, environmental groups, the agricultural community and generators of organic waste in the IC&I sectors.

Action 11: Implement an Excess Soil Management Policy Framework to increase the reuse of excess soil, while protecting human health and the environment

Excess soil – soil that is not needed on a site after it is excavated – is generated through many economically and socially important activities, such as infrastructure development, and is a valuable resource. It must be managed and moved in ways that protect our health and our environment while promoting its beneficial reuse.

There is currently confusion about what standards apply to the movement of excess soil and when excess soil may be deemed a waste. In the absence of provincial direction on standards for moving excess soil, in many cases, valuable soil resources are currently being treated as waste and sent to landfill. In order to promote the safe and beneficial reuse of excess soil, the province intends to clarify when it can be considered a waste and provide a new approach, including new standards, for the reuse of excess soil.

The province developed an Excess Soil Management Policy Framework. This document was finalized in 2016 and provides actions that the government will take in fostering more sustainable excess soil management.

The framework recognizes excess soil as a resource and promotes a system that strives for consistency, fairness, enforceability and flexibility. This framework embraces two key goals:

- protect human health and the environment from inappropriate relocation of excess soil
- enhance opportunities for the beneficial reuse of excess soil and to reduce greenhouse gas emissions associated with the movement of excess soil.

The framework recognizes the responsibility of the generator of excess soil, or the source site, to plan for its appropriate reuse and to track and record excess soil from source to reuse. This will be achieved through new regulatory requirements on source sites to prepare and implement excess soil management plans. The framework includes actions to develop technical direction, including new standards for reuse of excess soil, as well as requirements for tracking and registration related to excess soil movements.

Excess soil reuse must be considered earlier on in the process of planning for development and infrastructure. As part of the framework delivery, municipalities will be encouraged to develop strategies for reuse of excess soil as part of planning for growth and development.

Clarification and alignment will also be achieved through consideration of potential amendments to existing regulations related to brownfields redevelopment and inert fill as it applies to excess soil, both under the Environmental Protection Act.

Implementation of this framework will also consider new policy tools, such as policy statements under the new act. The implementation of the framework is being informed by advice and input from a multi-ministry team, an Excess Soil Engagement Group and standards, sampling and market support sub-groups.

Action 12: Adopt and implement modern regulatory approaches to build on and promote innovative best practices

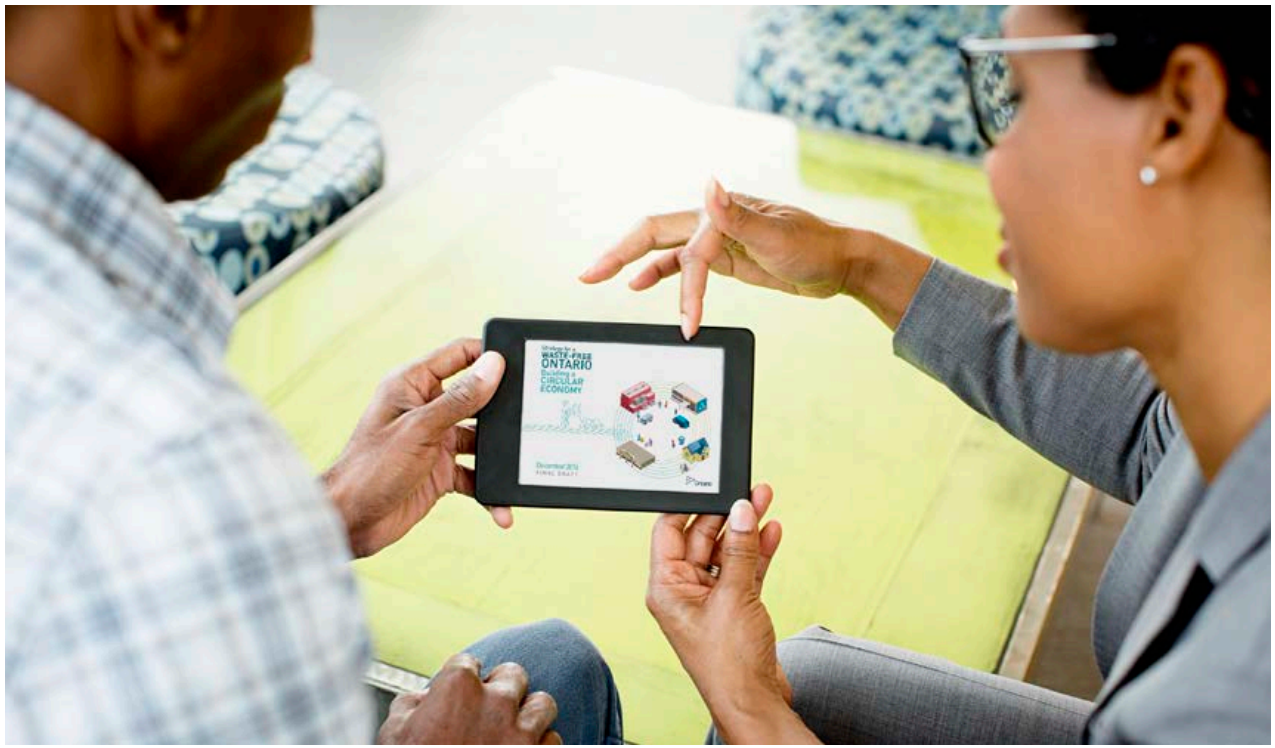
As Ontario continues to find new and effective ways of recovering our resources, the province must also ensure that we provide an effective and modern outcomes-focused regulatory environment that promotes industrial competitiveness, investment, innovation and growth.

The province will continue on its path to be a modern regulator by taking advantage of new technology and innovations. We will continue to work towards reducing barriers to adopting new innovative technologies and building an approval system for the future that focuses on environmental outcomes.

Legal requirements related to waste need to align with and promote the concept of a circular economy. They need to reflect increasingly integrated and sophisticated resource recovery operations, including using the best available processes and technology and innovative regulatory best practices.

Developing a risk-based approach for compliance and enforcement will also simplify legal requirements and business processes for activities that are lower-risk, less complex or have standard requirements, while continuing to protect the environment and human health. This increases the efficient and effective use of the province's resources while also providing better services and transparency to businesses and the public.

The province will continue to move forward with regulatory modernization efforts by reviewing existing regulations, policies and approaches, including consideration of developing resource recovery infrastructure and innovative and emerging technologies. This review will be undertaken with a view to building a circular economy that maintains a level playing field and increase the accountability of regulated parties and aligns with existing and future economic trends and industry and regulatory best practices.



Objective 4: Create Conditions for Sustainable End-Markets

Given the right conditions, materials can be recovered and re-integrated into the economy.

For this to happen, the cost to recycle must be more viable than the low cost of sending materials to landfill. More emphasis needs to be placed on stimulating the development of markets for these products to help close the resource loop.

Taking action to foster a supportive business environment for companies that utilize recovered resources within Ontario will help drive additional recycling, create more jobs, reduce greenhouse gases and extend the life of existing landfills.

Almost every plastic item we've made since the 1950s is still in our environment.

Action 13: Improve and establish environmental standards to provide for a level playing field and a strong foundation for markets

Environmental standards can assist in improving the quality and consistency of recovered materials and can help support end-markets for recovered materials. Standards take many forms – regulatory requirements, guidelines, best practices, and certification programs. Standards send signals to the market and influence what materials are recovered, how they are managed and how they are reintegrated into the economy.

The province is considering the role of modern environmental standards in providing greater certainty to markets, leveling the playing field, and supporting producer responsibility, generator responsibility, and service provider requirements to increase resource recovery, including:

- innovative, risk-based modern regulatory standards, such as developing environmental activity sector registry regulations for certain sectors, as opposed to obtaining environmental compliance approvals for such sectors;
- adopting national, international and industry standards;
- adopting new technologies and best practices;
- reviewing existing environmental standards to reduce regulatory burdens; and
- reviewing the regulatory and policy framework under environmental legislation, such as Regulation 347 under the Environmental Protection Act, which regulates the management of subject waste (e.g., liquid industrial waste, hazardous waste or specific treated characteristic waste), to align with new thinking about waste and to facilitate reduction, reuse and recycling efforts.

The province will consult with stakeholders as it undertakes this shift to identify which types of standards are most appropriate in Ontario.

Action 14: Use green procurement practices to build market demand for recovered materials

Our government has strong procurement policies in place that encourage and support purchasing green products and services that do not impact the environment, where applicable.

As we shift to a circular economy, government leadership in procuring goods and services that make use of recovered resources or include recycled content could help stimulate markets for recovered materials.

Some municipalities, universities and schools in Ontario's broader public sector have voluntarily adopted green procurement policies. A number of businesses in Ontario have also implemented policies that consider environmental factors in the procurement of goods and services.

We need to learn more about how our policies, programs and decisions can help send the right signals to shift the market toward greater recovery and reintegration of resources into new products and services.

The government will review its existing procurement policies to ensure that procurement rules enable the achievement of government objectives.

Action 15: Implement disposal bans to direct materials to end-markets

Disposal bans have been implemented across the world, including in some Ontario municipalities, to help drive diversion.

Prohibiting the disposal of particular wastes through regulation can help direct materials to reuse and recycling streams where infrastructure is already in place, or drive investment in diversion infrastructure and support the development end-markets. This is particularly effective when bans are phased in over time.

In assessing the viability of banning particular wastes from disposal and the applicability of disposal bans to support diversion efforts, the following factors will also be taken into account:

- materials best suited for early disposal bans;
- adequate and effective alternatives to disposal;
- costs and benefits;
- reporting and data requirements;
- existing infrastructure capacity and future needs;
- roles of producers, generators and service providers in supporting disposal bans; and
- innovative, risk-based modern regulatory approaches to compliance and enforcement.

The province received feedback on the need to look at disposal bans for certain materials, provided that bans are phased-in and accompanied by comprehensive implementation plans.

The first materials that could be considered for disposal bans, over the long-term, include:

- food and organic wastes;
- materials designated under existing waste diversion programs;
- beverage containers;
- corrugated cardboard and some paper materials; and
- fluorescent bulbs and tubes.

Disposal bans can only be effective, however, when consumers are aware of them and have access to means to avoid disposing of the banned materials, such as opportunities to send these materials for reuse, repurposing or recycling.

Promotion, education, consumer convenience and accessibility are all critical to the success of any disposal ban.

The province will consult in advance of proposing regulations with respect to disposal bans to determine prospective materials and to identify implementation and operational considerations.

C. Coordination, Collaboration and Implementation

Stakeholder feedback is critical to ensuring effective policy direction, appropriate performance measures, and a coordinated approach to implementing a range of policy tools.

The province is committed to hearing a variety of opinions about the tools and actions that are set out in the legislation and the strategy. We recognize that the path forward must consider and respect the roles and responsibilities of different parties and the success of existing efforts and will consult extensively to build on strengths and take a collaborative approach towards reaching our goals.

Effective waste reduction and resource recovery will only occur where tools are used and actions are implemented in a coordinated, integrated and consultative manner that reflects the unique considerations of particular waste streams or sectors.

The province will support municipalities and non-governmental initiatives that contribute to resource recovery and waste reduction. These initiatives are critical to identifying market opportunities, promoting more sustainable technologies, and finding new ways to close the resource loop.

Integrated tools and coordinated actions to achieve results

Elements of an integrated approach to increase diversion in residential sectors could include:

- producer responsibility to ensure waste reduction, value creation and effective recycling systems;
- municipal support through integrated waste management approaches; and
- service providers to ensure materials are properly managed and recycled.

Other examples for increased diversion in IC&I sectors include:

- generator requirements to ensure appropriate source separation and collection opportunities;
- producer responsibility to ensure waste reduction, value creation and effective recycling systems; and
- service providers to ensure materials are properly managed and recycled.

Partnerships can help support existing approaches and promote new ways of recovering resources and finding value in materials that would otherwise end up in landfills. Some materials, such as textiles and household consumer goods, present particular opportunities where linkages between waste generators, waste managers and non-governmental organizations can make great progress toward reducing the volume of waste managed by municipalities and the IC&I sectors.

This innovative work will also set the foundation for the province's transition to a circular, low-carbon economy. Think-tanks, academics, scientists and environmental organizations can help identify emerging challenges, innovative opportunities and potential areas for collaboration.

Selection, implementation and sequencing of multiple tools will require extensive consultation and flexibility to reflect the unique considerations inherent to particular waste streams or sectors. This approach will provide sectors with flexibility to choose the tools suitable for achieving the outcomes set by government and go a long way toward achieving our goals of zero waste and zero emissions from the waste sector.

The following pages outline the sequencing for implementing our actions.

Action	Currently Underway	Short Term (2017-18)	Medium To Long Term (2019 and Beyond)
Action 1: Empower the Resource Productivity and Recovery Authority	Empower Authority	Continue to build Authority's capacity	Continue to improve the Authority's capacity to fulfil its role
Action 2: Issue policy statements to provide clear direction on the provincial interest		Develop and begin to implement first policy statement	Develop and implement additional policy statements and review existing
Action 3: Establish a registry and build data capacity to provide for evidence based decisions		Establish Resource Productivity and Recovery Registry	Maintain and continue to improve the registry
Action 4: Transition existing waste diversion programs smoothly to new producer responsibility framework without disruption of services		Begin to transition existing waste diversion programs	Complete transition of existing waste diversion programs
Action 5: Amend the 3Rs regulations to increase resource recovery across all sectors		Develop and consult on amendments to 3R regulations	Implement amended 3Rs regulations
Action 6: Establish service provider requirements to protect the environment while promoting resource recovery		Develop and consult on improved service provider standards	Implement improved service provider standards

Coordination, Collaboration and Implementation

Action	Currently Underway	Short Term (2017-18)	Medium To Long Term (2019 and Beyond)
Action 7: Ensure landfills are well planned and managed to minimize the need for them and reduce greenhouse gas emissions	Improve landfill data by working with industries and Ministry of Finance	Improve landfill planning and management	Implement improved landfill planning and management
Action 8: Establish promotion and education requirements to support public participation in resource recovery		Begin setting promotion and education standards	Continue to set promotion and education standards
Action 9: Designate new materials to ensure producers are fully responsible for recovering more materials from products and packaging		Begin to designate new materials (e.g., batteries, fluorescent bulbs and tubes, additional WEEE materials,) based on priorities	Continue to designate additional materials (e.g., mattresses, carpets, furniture and other bulky goods)
Action 10: Implement an action plan to reduce the volume of food and organic waste going to landfill	Establish stakeholder working group	Develop, consult on and implement action plan	Implement additional actions
Action 11: Implement an excess soil management framework to increase the reuse of excess soil, while protecting human health and the environment	Release framework	Develop and consult on regulations, standards and guidance	Implement additional actions

Action	Currently Underway	Short Term (2017-18)	Medium To Long Term (2019 and Beyond)
Action 12: Adopt and implement modern regulatory approaches to build on and promote innovative best practices	Begin to identify and adopt modern regulatory approaches	Continue to identify and adopt modern regulatory approaches	
Action 13: Improve and establish environmental standards to provide for a level playing field and a strong foundation for markets		Develop and consult on new standards and adopt national, international and industry standards	Implement new standards
Action 14: Use green procurement practices to build market demand for recovered materials	Review existing policies	Develop and implement new/revised policies as identified by the review	Continue to implement new/ revised policies as identified by the review
Action 15: Implement disposal bans to direct materials to end-markets		Develop and consult on policies regarding disposal bans (e.g., materials under existing waste diversion programs, food waste)	Implement bans, providing time for industries to prepare

D. Measure and Evaluate Success

The success of our initiatives – not just reducing, reusing and recycling more waste, but also building economic growth through a circular economy – will depend on our ability to gather, assess and measure data. As a province, we need to know how resources are being used, managed, and reintegrated into the economy in order to set priorities and track our success.

To monitor and evaluate progress on the strategy's goals of zero waste and zero greenhouse gas emissions, the province has proposed a number of performance measures, including:

Move towards zero waste

- Reduce waste sent to landfill – as demonstrated by declining tonnes of waste sent to landfill (with a visionary goal of zero waste).

Move towards zero greenhouse gas emissions from waste sector

- Reduce greenhouse gas emissions from the waste sector – as demonstrated by declining tonnes of greenhouse gas emissions from the waste sector (with a goal of zero greenhouse gas emissions)
- Implement waste-related actions in Ontario's Climate Change Action Plan – as demonstrated by progress updates contained in regular reports on the Action Plan.

Support evidence based decision making

- Improve understanding of resources recovered and their value to improve decision making – as demonstrated by an increase in publicly available resource recovery data and the timely collection and reporting of this data.

Transition

- Empower the Resource Productivity and Recovery Authority to oversee producer responsibility – as demonstrated by the Authority's progress in establishing capacity and its oversight, compliance and enforcement activities
- Timely, smooth wind-up of programs under the Waste Diversion Transition Act, 2002 – as demonstrated by progress in winding up programs and industry funding organizations.

Target areas for greater diversion

- Effectively implement producer responsibility – as demonstrated by establishing new requirements and designating materials under the producer responsibility regime and evidence that producers are meeting requirements (through amount of compliance and enforcement measures needed)
- Effectively implement generator and service provider requirements – as demonstrated by the progress of the review and implementation of the 3Rs regulations, including generators and service providers meeting requirements
- Increase food and organic waste diversion – as demonstrated by progress in developing and implementing a framework to reduce food wastes, and an increase in the amount of food and organic wastes diverted from landfills. Potential targets could include 40 per cent of organic wastes diverted by 2025 and 60 per cent by 2035.

Create conditions to support sustainable markets

- Implement modern environmental standards – demonstrated by progress in developing and implementing the modern regulator initiative

E. Conclusion

Effective resource recovery and waste management are critical to a healthy and prosperous future for our province. By transitioning to a circular economy, where Ontario increasingly reuses and recycles the resources it already has, we have the opportunity to be leaders of a global movement toward a more sustainable model with significant economic, social and environmental benefits.

Making the transition will require a shift in how we think about waste. It will mean changing our perspectives, values and habits. A circular economy aims to eradicate waste, not just from manufacturing processes, but from our everyday lives.

Together with the Waste-Free Ontario Act, 2016, the Strategy for a Waste-Free Ontario will guide these changes and guide our progress over the next 10 years. It will move the province toward achieving our aspirational goals of zero waste and zero greenhouse gas emissions from the waste sector.

As we put this strategy into action, the province will consult on implementing the proposed actions with its valued stakeholders, including the waste management sector, urban, rural and northern municipalities, Indigenous communities, traditional large and small businesses, innovators, environmental non-governmental organizations and the farming community. We will look to other jurisdictions for best practices and lessons learned in the private, public and not-for-profit sectors to help inform the development of innovative circular economy solutions, such as new processes, products, policies and partnerships.

This strategy is the first step in a long-term process. Over the coming years, we can work together to transform our province and beyond to ensure a healthy, prosperous and green future.

Endnotes

1 Residential data for 2014 based on Waste Diversion Ontario.

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12 Association of Municipalities of Ontario, New Waste Reduction and Resource Recovery Framework Legislation, April 15, 2015. https://www.amo.on.ca/AMO-PDFs/Reports/2015/MOECC-LTR-New-Waste-Reduction-and-Resource-Recover.aspx

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27 The Cost of Canada's Annual Food Waste. VCM International, 2014. http://vcm-international.com/wp-content/uploads/2014/12/Food-Waste-in-Canada-27-Billion-Revisited-Dec-10-2014.pdf

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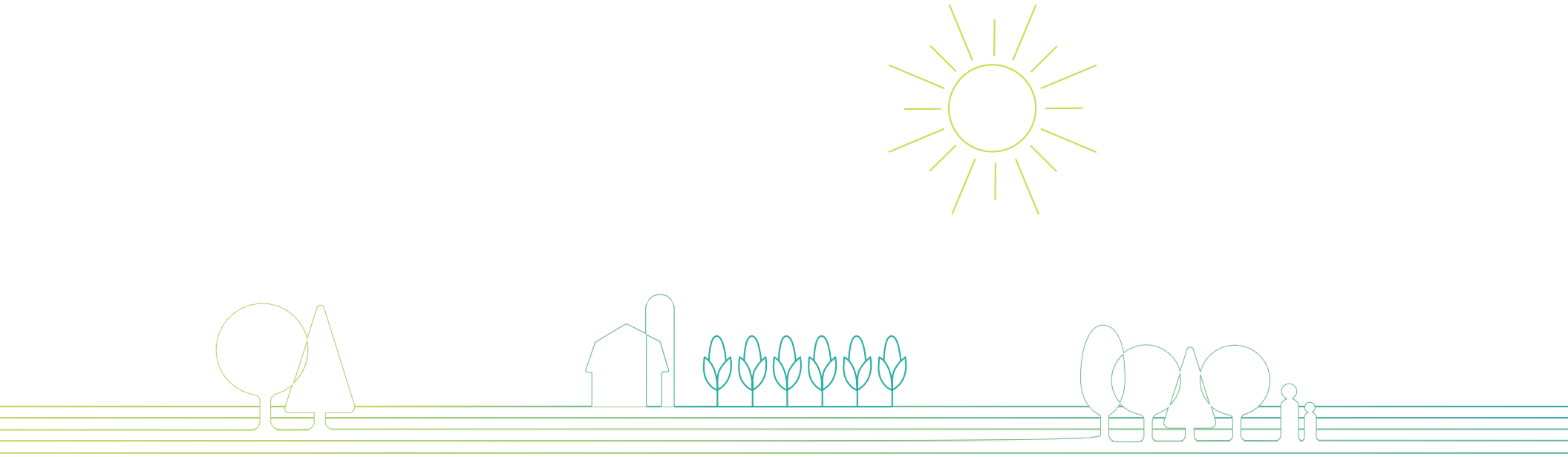

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