

The Edmonton Waste Management Centre



Edmonton's solid waste and sewage biosolids are processed at the Edmonton Waste Management Centre, a unique collection of advanced waste processing and research facilities.

Edmonton Waste Management Centre

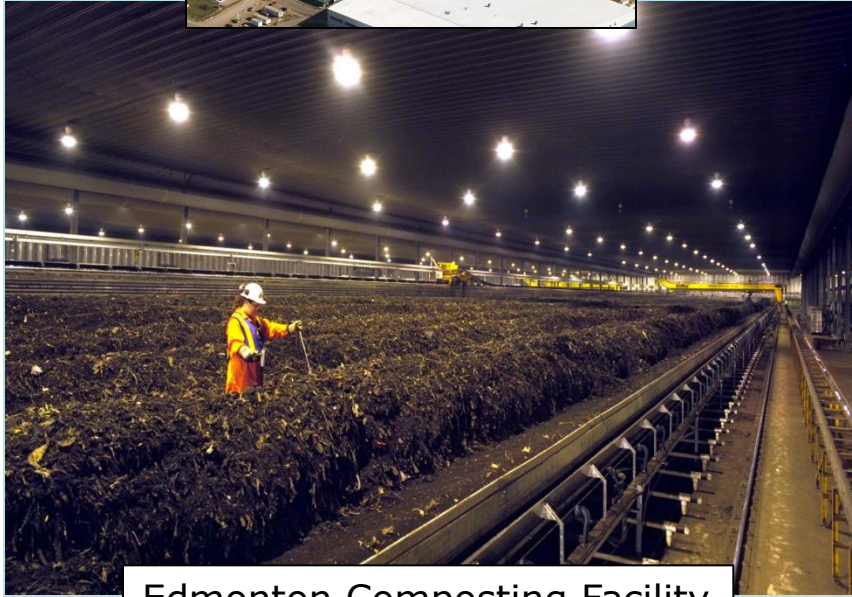


Integrated Processing and Transfer Facility

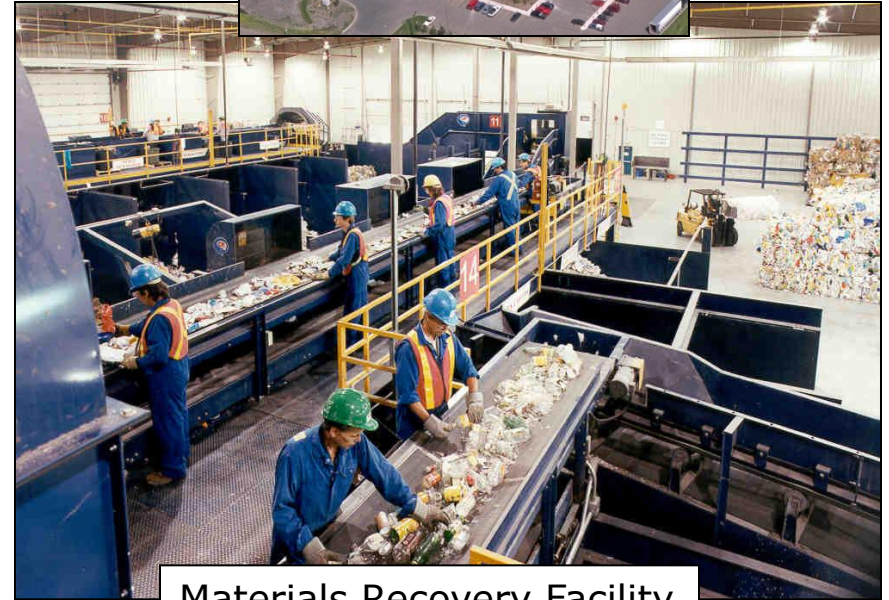
A main feature of the Centre is the Integrated Processing and Transfer Facility. There, incoming waste is organized into four categories:

- organics for composting,
- materials for recycling,
- materials for conversion to ethanol,
- waste for landfill

Edmonton Waste Management Centre



Edmonton Composting Facility



Materials Recovery Facility

Two other prominent features of the Centre are the Edmonton Composting Facility, which produces compost from residential and commercial waste, and the Materials Recovery Facility, where household recyclables like newspaper and metal cans are sorted and baled for market.

Edmonton Waste Management Centre



Edmonton Composting Facility

The Edmonton Composting Facility is the largest of its type in North America. It can process 200,000 tonnes of residential waste and 22,500 dry tonnes of sewage biosolids annually. It can produce approximately 80,000 tonnes of compost each year.

Edmonton Waste Management Centre



Materials Recovery Facility

Recyclables from Edmonton's Blue Bag and Blue Bin recycling programs are processed at a sophisticated Materials Recovery Facility (MRF), capable of processing 70,000 tonnes per year.

Thanks to its design, residents or commercial customers do not need to sort materials before putting them out for collection. All sorting is done at the MRF.

Edmonton Waste Management Centre

The Edmonton Waste Management Centre is also home to the world's first industrial scale facility to produce biofuels from municipal solid waste.

The Edmonton Waste-to-Biofuels Facility, built, owned and operated by Enerkem Alberta Biofuels, began operation in spring 2014.

Waste-to-Biofuels Facility



At full operation it can convert 100,000 tonnes of non-recyclable and non-compostable waste into 36 million litres of biofuels annually and help reduce Alberta's carbon dioxide (CO₂) footprint by six million tonnes over the next 25 years—the equivalent of removing 42,000 cars off the road every year.

Edmonton Waste Management Centre



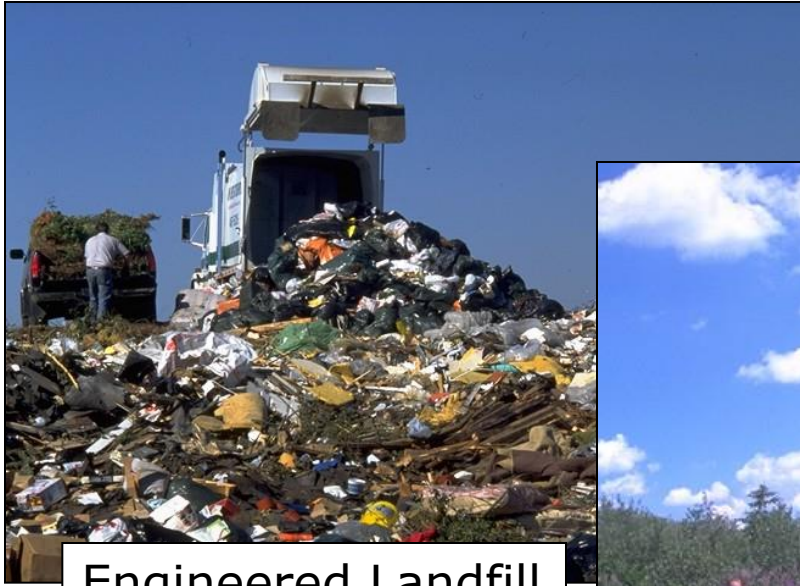
GEEP E-waste recycling facility



Electronic waste is recycled at the Global Electric and Electronic Processing Inc. (GEEP) recycling plant.

The 45,000 square foot facility can recycle 30,000 tonnes per year of old computers, televisions, and other electrical and electronic waste.

Edmonton Waste Management Centre



Engineered Landfill



Naturalized Revegetation

The Edmonton Waste Management Centre also features an engineered sanitary landfill which reached capacity in 2009 and is being converted into parkland.

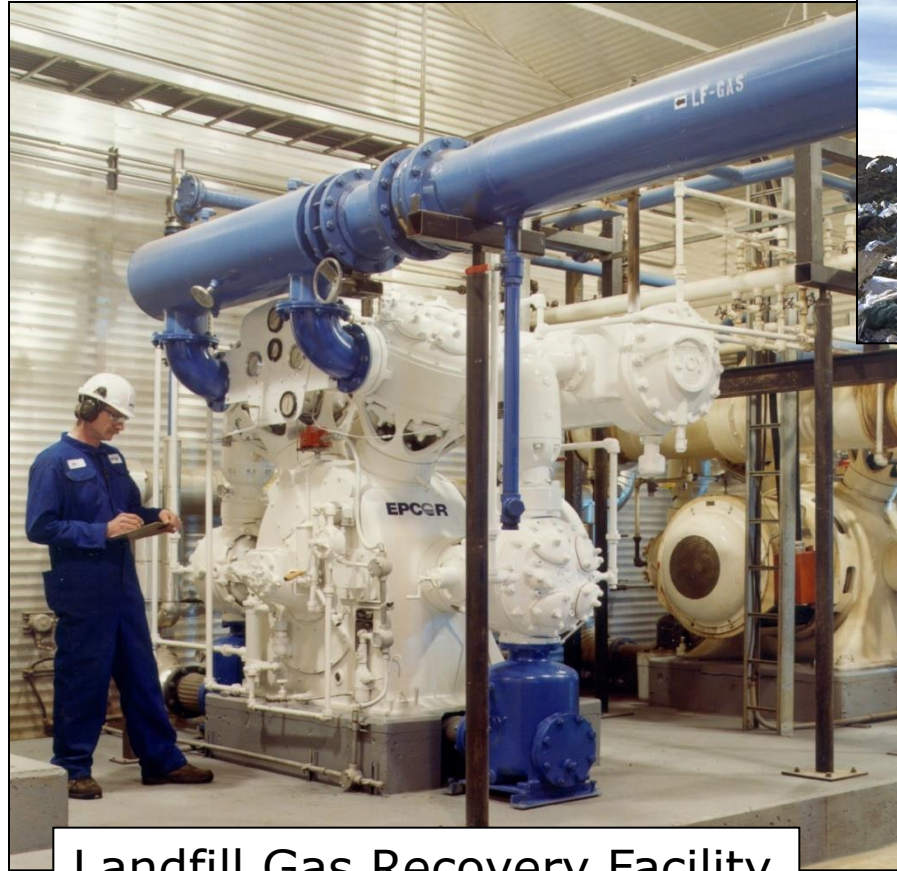
Edmonton Waste Management Centre



Leachate Treatment Plant

Liquids that settle to the bottom of the sanitary landfill, called leachate, are removed and treated so that they can safely be put into the sanitary sewer system. Chemical and biological treatment of the leachate is done at the facility pictured above.

Edmonton Waste Management Centre

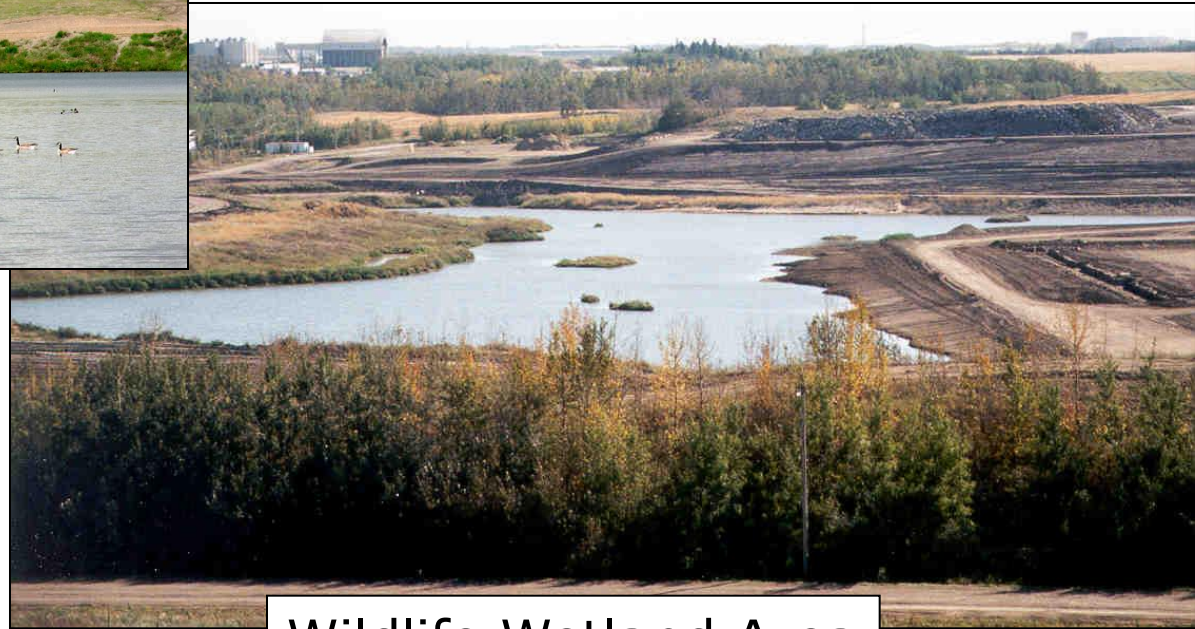


Landfill Gas Recovery Facility



Landfill gas, formed by decomposing waste inside the landfill, is recovered and cleaned for use as a fuel. A 4.8 megawatt facility on site produces enough electricity for 4,600 Edmonton homes annually.

Edmonton Waste Management Centre



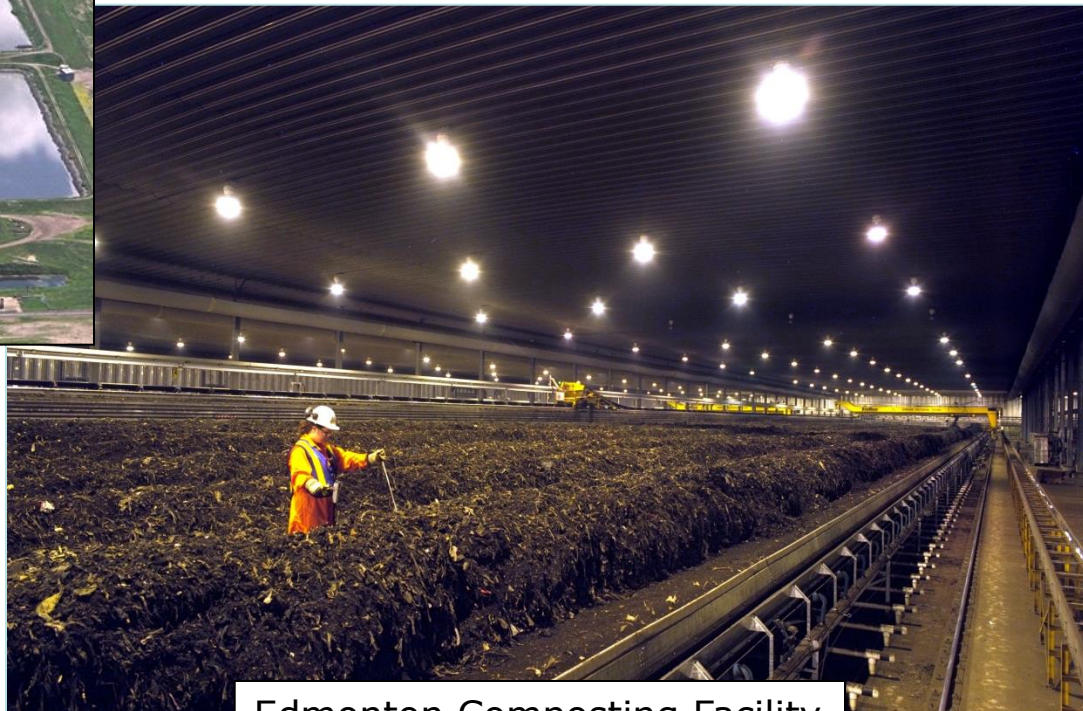
Wildlife Wetland Area

Deer, geese, ducks and other wildlife commonly visit the Edmonton Waste Management Centre. The five hectare lake on site is maintained as a natural habitat for these animals. The incorporation of such natural wildlife habitat is unique among Canadian waste management facilities.

Edmonton Waste Management Centre



Biosolids Lagoons



Edmonton Composting Facility

Biosolids from Edmonton's wastewater treatment plant are stored and settled in five sewage lagoons on site. Together with organic residential waste the nutrient-rich biosolids are used as feedstock for the Edmonton Composting Facility and associated outdoor composting operations.

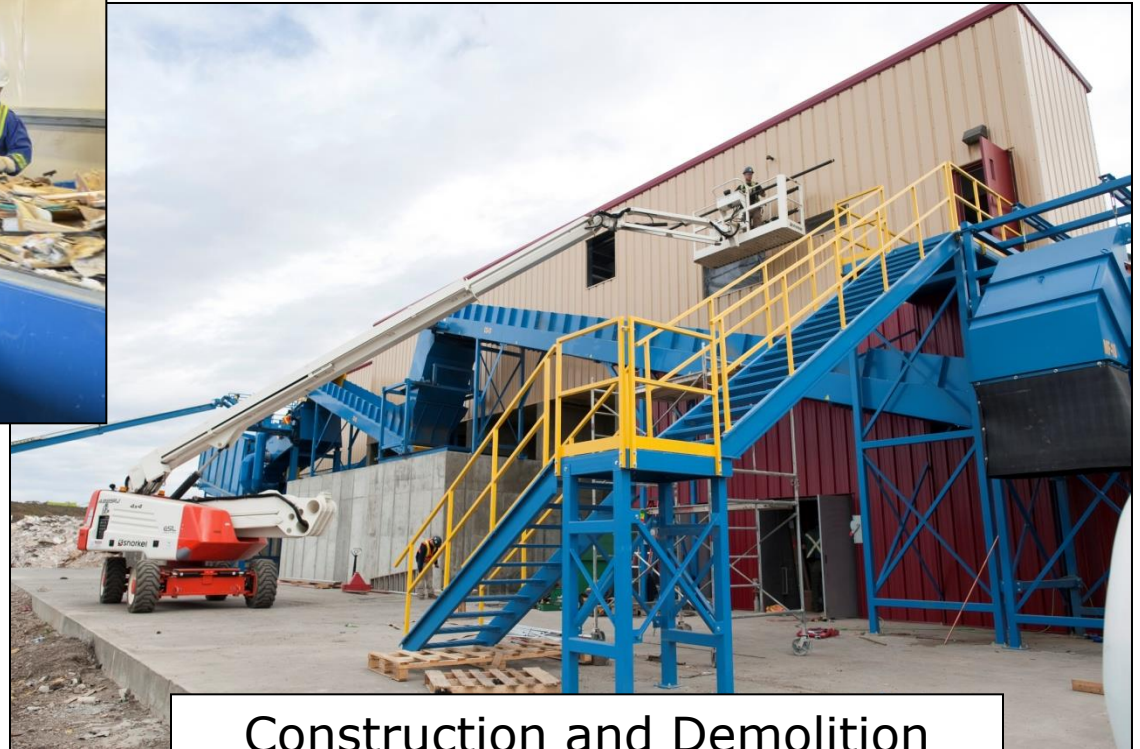
Edmonton Waste Management Centre



Construction and Demolition Waste Recycling

Segregated wood, drywall, asphalt shingles, concrete (non-commercial), metals, brush and trees are accepted for recycling at the Edmonton Waste Management Centre.





Construction and Demolition Waste Recycling Facility

Mixed loads of wood, drywall, asphalt shingles, concrete (non-commercial), metals, brush and trees are sent to a facility that uses mechanical and manual sorting to separate the material into various re-usable commodities.

Edmonton Waste Management Centre



**Advanced Energy
Research Facility**



This state-of-the-art research and development facility tests different waste feedstocks, such as railway ties, for gasification and conversion to methanol and ethanol at the Waste-to-Biofuels Facility.

Edmonton Waste Management Centre



Research and Development Facility

Research and development into a wide array of waste treatment processes is also carried out by the Edmonton Waste Management Centre of Excellence, a non-profit corporation dedicated to advancing and sharing waste management research and technology. (www.ewmce.com)

Edmonton Waste Management Centre



Teaching Theatre



Training Classrooms



The Edmonton Waste Management Centre also features a teaching theatre, classrooms and meeting rooms for general and technical educational activities.

Edmonton Waste Management Centre



1. Sanitary Landfill - Class II
2. Materials Recovery Facility
3. Edmonton Composting Facility
4. Integrated Processing and Transfer Facility
5. GEEP Electronics Recycling Facility
6. Landfill - Class III
7. Biosolids Storage Lagoons
8. Landfill Gas Recovery Facility
9. Construction and Demolition Recycling
10. Compost Curing/Marketing

11. Leachate Treatment Plant
12. Biosolids Composting
13. Equipment Maintenance
14. Waste to Biofuels Facility
15. U of A Hazardous Waste Facility
16. Research and Development Facility
17. Advanced Energy Research Facility
18. Operations Facility
19. Control Facility
20. Administration