

Construction and Demolition Waste Management and Disposal

Background

Saskatchewan's building and infrastructure history is over 100 years old. Many large building projects constructed in our cities, towns and villages during the boom years from 1908 to 1914 now require renewal or demolition. Recent economic and population growth has increased demand for new construction and demolition. Disposal costs for waste construction and demolition (C&D) materials – for which there are no alternate uses – are high at landfills, due to large volumes, weights and mixed waste types. These materials are costly to compact and cover. In some cases, owners of smaller landfills may be reluctant to accept C&D waste as large amounts of unexpected waste can quickly shorten the life of a landfill. The construction industry has been proactive in minimizing cost and construction material waste in the building of new structures. The potential for recycling or re-use of C&D material could significantly reduce waste disposal at landfills.

Building and Demolition Permits

The ministry encourages municipalities to include a section in their Building and Demolition Permits regarding the preferred handling of construction and demolition waste. Demolition waste includes all materials resulting from the dismantling of buildings or structures including roadways, bridges, parking lots or land re-development. (includes wood, drywall, brick, earth, metals, insulation, electrical and plumbing materials, siding, carpeting, roofing material, concrete, culverts and pipes). The permit should indicate

whether certain types of waste are accepted within the municipality (waste disposal ground or a transfer station). Demolition waste should be divided into waste streams that can be salvaged for reuse in their original form, or recycled for an alternate use. Only mixed unusable waste should be disposed of at a waste disposal ground.

Construction and Demolition Waste

The construction/demolition (C&D) material waste stream is defined as bulk refuse originating from construction, demolition, renovation and re-development projects not including asbestos, waste dangerous goods or material contaminated with waste dangerous goods.

C&D material can be separated into several categories, which allow for recycling and re-use. Although this may be time and labour intensive, material for re-use and recycling has increased in popularity and value. High disposal costs at waste disposal grounds can be avoided through material separation, which reduces its volume and weight.

Unauthorized Disposal

A permit is needed for the construction and operation of a waste disposal ground before any waste may be disposed. Construction or demolition waste which has been unlawfully disposed of at a non-permitted facility is a contravention of The Municipal Refuse Management Regulations and is in contravention of [The Environmental Management and Protection Act, 2010](#) (EMPA 2010) regardless if placed on private or public property. The burning of non-separated C&D waste is prohibited and is in contravention

of EMPA 2010 unless authorized in a permit. For more information on the requirements for establishing a landfill, transfer station or recycling facility please contact the Ministry of Environment.

Construction or demolition waste which has been unlawfully disposed of on private property in an urban and rural municipality may also be handled through local bylaws, which are governed by [The Cities Act](#) and [The Municipalities Act](#).

Construction waste or demolition waste that has been unlawfully disposed of on private property in a northern municipality should be handled by local bylaws through the northern municipality under Section 59 (nuisance buildings) of [The Northern Municipalities Act](#).

C&D waste (not mentioned in the table below) that is abandoned upon land that is owned by another person, land that is vested in Her Majesty in right of Saskatchewan or reserved or set aside for the use of the public or into or upon any water shall be considered littering and is subject to EMPA 2010.

More info?

For information on landfills that may take asbestos material, contact the area landfill or the Saskatchewan Ministry of Environment Client Service Office at Tel: 1-800-567-4224 (toll-free in North America) or 306-787-2584.

The following table identifies many of the construction/demolition wastes commonly generated in Saskatchewan and the potential re-use and recycling options for separated materials.

| C&D Activity | Separated Materials | Possible Re-use/Recycling |
|---|--|---|
| Road reconstruction | asphalt | crushed and mixed with new asphalt; fill material; road sub-base |
| | concrete (without rebar) | road sub-base; re-used in concrete; concrete blocks; fill material; rip-rap on roads/lagoons |
| | concrete (with rebar) | fill material; rip-rap |
| | separated rebar; metal signs; sign posts; guardrails; culverts | re-use for original purpose, processing at a steel mill |
| | fill materials (earth, gravel, sand) | clean fill material; landscaping material; landfill cover |
| Excavation/leveling | topsoil | landscaping; residential fill; landfill cover; agricultural |
| | sand | fill; residential; road construction |
| | stones | rip-rap; fill; landscaping |
| | earth contaminated with wood; buried utilities | fill; landfill cover; disposal at landfill |
| Site clearance | trees and brush | firewood; landscaping chips; composting; landfill disposal |
| | soils | landscaping agricultural and residential fill |
| | mixed concrete, rubble, sand and steel | land reclamation fill; landfill disposal |
| Building C&D Material - Reusable | clean bricks; whole Cindercrete blocks; concrete or stone facades; tiles; ceramics; concrete roofing tiles | re-use for original purpose; landscaping; permanent roadway construction in landfills |
| | undamaged windows, roofing and metal/vinyl siding; wooden cabinets, counters, flooring, staircases/trim; plumbing/electrical fittings; carpeting; clean insulation; wooden beams/facades | resale or donation for re-use |
| Building C&D Material - Recyclable | broken bricks, Cindercrete blocks; concrete roof tiles, concrete/stone facades, tiles/ceramics | landscaping; crushed clean fill for road sub-base, roadways and rip-rap; use for stabilization of roadbases or fill at landfills; clean fill for land reclamation |
| | broken window glass, glass fixtures | recycle at glass recycler, for asphalt mix or with rubber crumb |
| | broken wooden beams; trim; wood scrap; trees | chipping or shredding for landscaping; composting; fuel source |
| | metal girders, supports, rebar, damaged metal siding, roofing | recycle at a steel mill |
| | scrap aluminum door and window frames | sell to scrap dealer; recycle at an aluminum smelter |
| Building C&D Material - Disposal | mixed waste not suitable for separation; materials which cannot be re-used or recycled; asphalt shingles; linoleum flooring | disposal at an approved waste disposal ground (no waste dangerous goods) |
| | waste dangerous goods including asbestos | manifesting under Dangerous Goods Transportation legislation, treatment or disposal at approved sites using approved methods only |