
VOLVO
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Landfill cover

Main purpose:

- ❑ Protect humans and animals from direct contact with the waste.
- ❑ Prevent vertical infiltration of water into wastes that would create contaminated leachate.
- ❑ Minimise emissions of landfill gas through the surface of the cap (in combination with an active gas abstraction system)

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•Prevent vertical infiltration of water into wastes that would create contaminated leachate.

Function requirements

- ❑ Maximal water infiltration through barrier layer (quantitative requriement in the legislation)
- ❑Physical stability, strength (no landslides)
- ❑Durability (hundreds to thousands years)

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•Prevent vertical infiltration of water into wastes that would create contaminated leachate.

Environmental requirements

- ❑ Pollutants in the chosen materials
  - Exposure through dust or oral intake
  - Runoff to sorrounding water and groundwater
- ❑ Manufacturing and transportation of materials
- ❑ Use of natural resources

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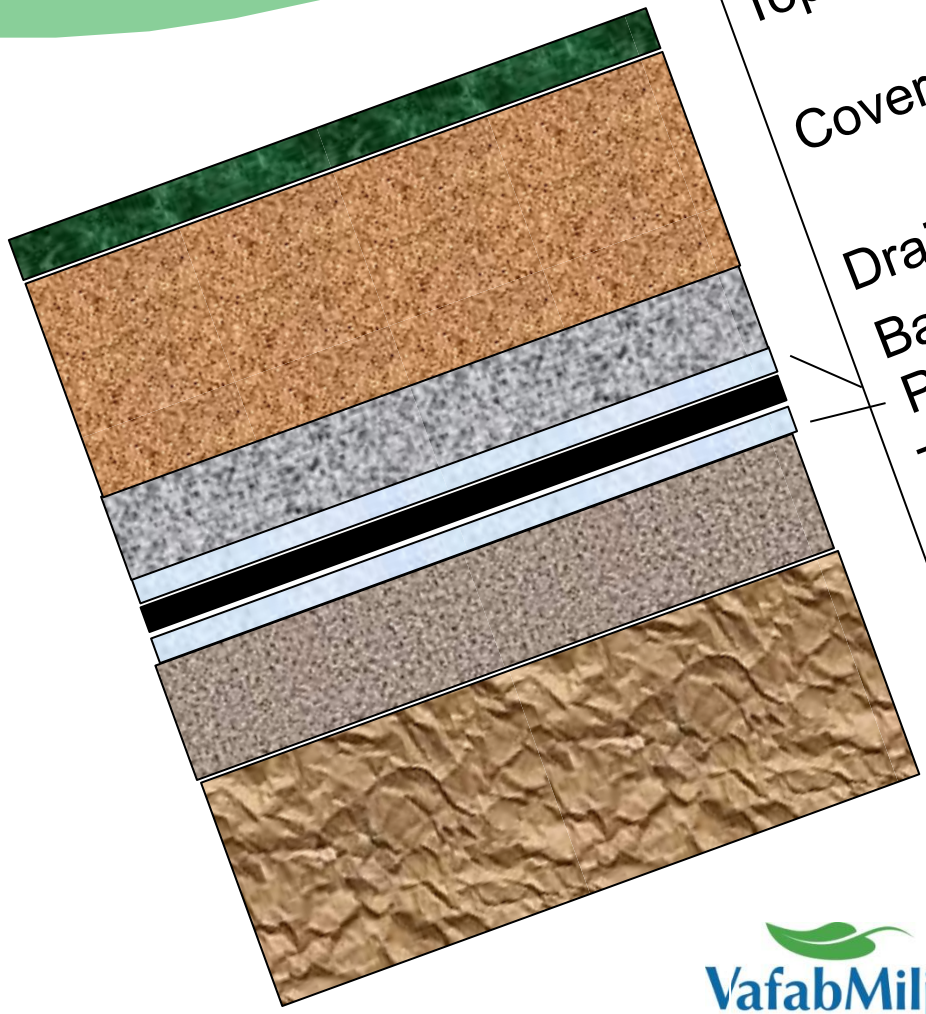
Typical construction



Top soil (0,2 m)

Cover soil (> 1,0 m)

Drainage layer (0,3 m)

Barrier layer

Protection layer (0,1 m)

Terrace layer

Waste

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Landfills in our region

Vätterskoga – 3 ha

Fagersta – 5 ha

Sala – 11 ha

Köping – 9+1 ha

Enköping – 11 ha

Västerås – 45 ha

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Costs

	2010	2015	2020	2025	Mkr
Enköping	(2014)				33
Västerås	(2027)				135
Sala			(2020)		33
Köping	(2014)				30
Fagersta		(2016)			15
S-berg	(2007)				12

Total cost: ca 260 Mkr

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Material consumption

Drainage layer

- 255 000 m^3
- Equivalent to one soccer pitch filled with 36 meters of material
- 19 600 semi trailers for transportation

Cover soil

- 850 000 m^3
- Equivalent to one soccer pitch filled with 120 meters of material
- 65 000 semi trailers for transportation

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