

**Environmental Mitigation Implementation Schedule  
WENT Landfill Extension**

**Appendix C4 – Waste Management**

EIA Ref	EM&A Log Ref	Recommended Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	When to implement the measures?	What requirements or standards for the measures to achieve?
<i>Waste Management</i>							
S6.5	WM1	<p><u>C&amp;D Materials</u></p> <p>Implement proper waste management measures during construction phase as stipulated in the Environmental Management Plan (EMP) in accordance with the ETWB TC(W) No. 19/2005 Environmental Management in Construction Sites.</p> <p>Implement a trip-ticket system to ensure that the movement of C&amp;D materials are properly documented and verified in accordance with ETWB TC(W) No.31/2004. Copies/counterfoils from trip-tickets (with quantities of C&amp;D Materials off-site) should be kept for record purposes.</p> <p>Appropriate waste management should be implemented in accordance with the ETWB TC(W) No 19/2005.</p> <p>Make provisions in Contract documents to allow and promote the use of recycled aggregates where appropriate. Ensure material balance in terms of excavated C&amp;D materials in the design of WENT Landfill Extension project. The contract specifications should specify no excavated materials should be removed from the WENT Landfill Extension site, but should be fully reused.</p> <p>Careful design, planning and good site management to minimise over-ordering and waste materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse.</p> <p>The DBO Contractor should recycle as much as possible the C&amp;D waste on-site through proper waste segregation on-site. Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills. Proper areas should be designated for waste segregation and storage wherever site conditions permit. Maximise the use of reusable steel formwork to reduce the amount of C&amp;D material.</p> <p>Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement. On-site sorting and segregation facility of all type of wastes is considered as one of the best practice in waste management and hence, should be implemented in all projects generating construction waste. The sorted public fill and C&amp;D waste should be properly reused.</p>	Good site practice to minimise C&D waste generation and reuse/recycle all C&D on-site as far as possible	DBO Contractor	Entire construction site	Construction phase	<p>Waste Disposal Ordinance</p> <p>ETWB TC(W) No.19/2005</p> <p>ETWB TC(W) No.31/2004</p>

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S6.5	WM1	<p><u>C&amp;D Materials (Cont'd)</u></p> <p>Excavated slope, stockpiled material and bund walls should be covered by tarpaulin until used in order to prevent wind-blown dust during dry weather, and to reduce muddy runoff during wet weather. Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.</p> <p>If any topsoil-like materials need to be stockpiled for any length of time, consideration should be given to hydroseeding of the topsoil on the stockpile to improve its visual appearance and prevent soil erosion.</p> <p>Nomination of approved personnel to be responsible for good site practices and making arrangements for collection of all wastes generated on-site and effective disposal.</p> <p>Training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concepts.</p> <p>Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.</p> <p>Prior to disposal of C&amp;D waste, wood, steel and other metals should be separated for re-use and/or recycling to minimise the quantity of waste to be disposed of to landfill. Proper storage and site practices should be implemented to minimise the potential for damage or contamination of construction materials.</p> <p>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. Minimise excessive ordering of concrete, mortars and cement grout by doing careful check before ordering.</p>	<p>Good site practice to minimise C&amp;D waste generation and reuse/recycle all C&amp;D on-site as far as possible</p>	<p>DBO Contractor</p>	<p>Entire construction site</p>	<p>Construction phase</p>	<p>Waste Disposal Ordinance</p> <p>ETWB TC(W) No.19/2005</p> <p>ETWB TC(W) No.31/2004</p>
S6.5	WM2	<p><u>Chemical Waste</u></p> <p>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</p> <p>Plant/equipment maintenance schedule should be designed to optimise maintenance effectiveness and to minimise the generation of chemical wastes. Where possible, chemical wastes (e.g. waste lube oil) should be recycled by licensed treatment facilities</p>	<p>Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment</p>	<p>DBO Contractor</p>	<p>Entire construction site</p>	<p>Construction, Operation, Restoration and Aftercare phases</p>	<p>Waste Disposal (Chemical Waste) (General) Regulation</p> <p>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</p>

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S6.5	WM2	<p><u>Chemical Waste (Cont'd)</u></p> <p>Containers used for storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulation.</p> <p>The storage area for chemical wastes should be clearly labelled and used solely for storage of chemical waste, enclosed with at least 3 sides, having an impermeable floor and bund of sufficient capacity to accommodate 110% of volume of the largest container or 20 % of total volume of waste stored in that area, whichever is the greatest, having adequate ventilation, being covered to prevent rainfall entering, and being arranged so that incompatible materials are adequately separated.</p> <p>Chemical waste should be collected by licensed waste collectors and disposed of at licensed facility, e.g. Chemical Waste Treatment Centre.</p>	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment	DBO Contractor	Entire construction site	Construction, Operation, Restoration and Aftercare phases	<p>Waste Disposal (Chemical Waste) (General) Regulation</p> <p>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</p>
S6.5	WM3	<p><u>General Refuse</u></p> <p>General refuse generated on-site should be properly stored in enclosed bins or compaction units separately from construction and chemical wastes.</p> <p>All recyclable materials (separated from the general waste) should be stored on-site in appropriate containers with cover prior to collection by a local recycler for subsequent reuse and recycling. Residual, non-recyclable, general waste should be stored in appropriate containers to avoid odour. Regular collection should be arranged by an approved waste collector in purpose-built vehicles that minimise environmental impacts during transportation</p> <p>Reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</p> <p>Aluminum cans should be separated from general waste stream and collected by recyclers. Proper collection bins should be provided on-site to facilitate the waste sorting.</p>	Minimise generation of general refuse to avoid odour, pest and visual nuisance	DBO Contractor	Entire construction site	Construction, Operation, Restoration and Aftercare phases	Waste Disposal Ordinance

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S6.5	WM3	<p><u>General Refuse (Cont'd)</u></p> <p>Office waste paper should be recycled if the volume warrant collection by recyclers. Participation in community waste paper recycling programme should be considered by the DBO Contractor, including waste paper, aluminum cans, plastic bottles, waste batteries, etc.</p>	<p>Minimise generation of general refuse to avoid odour, pest and visual nuisance</p>	<p>DBO Contractor</p>	<p>Entire construction site</p>	<p>Construction, Operation, Restoration and Aftercare phases</p>	<p>Waste Disposal Ordinance</p>
S6.5	WM4	<p><u>Sludge from Leachate Treatment Works</u></p> <p>Sludge should be collected by a licensed collector at regular intervals, to suit the operation schedule of the leachate treatment plant. The use of purpose-built sludge tankers can minimise the potential of environmental impacts during transportation.</p>	<p>Proper management of sludge arising from leachate treatment works to minimise the associated hazards on human health and environment</p>	<p>DBO Contractor</p>	<p>Leachate Treatment Works</p>	<p>Construction, Operation, Restoration and Aftercare phases</p>	<p>Waste Disposal Ordinance</p>