



Knockharley Landfill Limited

LANDFILL GAS ASSESSMENT

Knockharley Landfill - Project West





TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. IE0037027.9697

OUR REF. NO. IE0037027.9697-R17.V1

DATE: OCTOBER 2025

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QUALITY CONTROL

Issue/revision	First issue	Revision 1
Remarks	V0 DRAFT	V1
Date	23 September 2025	13 October 2025
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Project number	IE0037027.9697	IE0037027.9697
Report number	V0 DRAFT	V1
File reference	IE0037027.9697-R17.V0	IE0037027.9697-R17.V1

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APPENDICES

APPENDIX A

GASSIM2.5 MODEL PRINTOUT BUSINESS-AS-USUAL SCENARIO

APPENDIX B

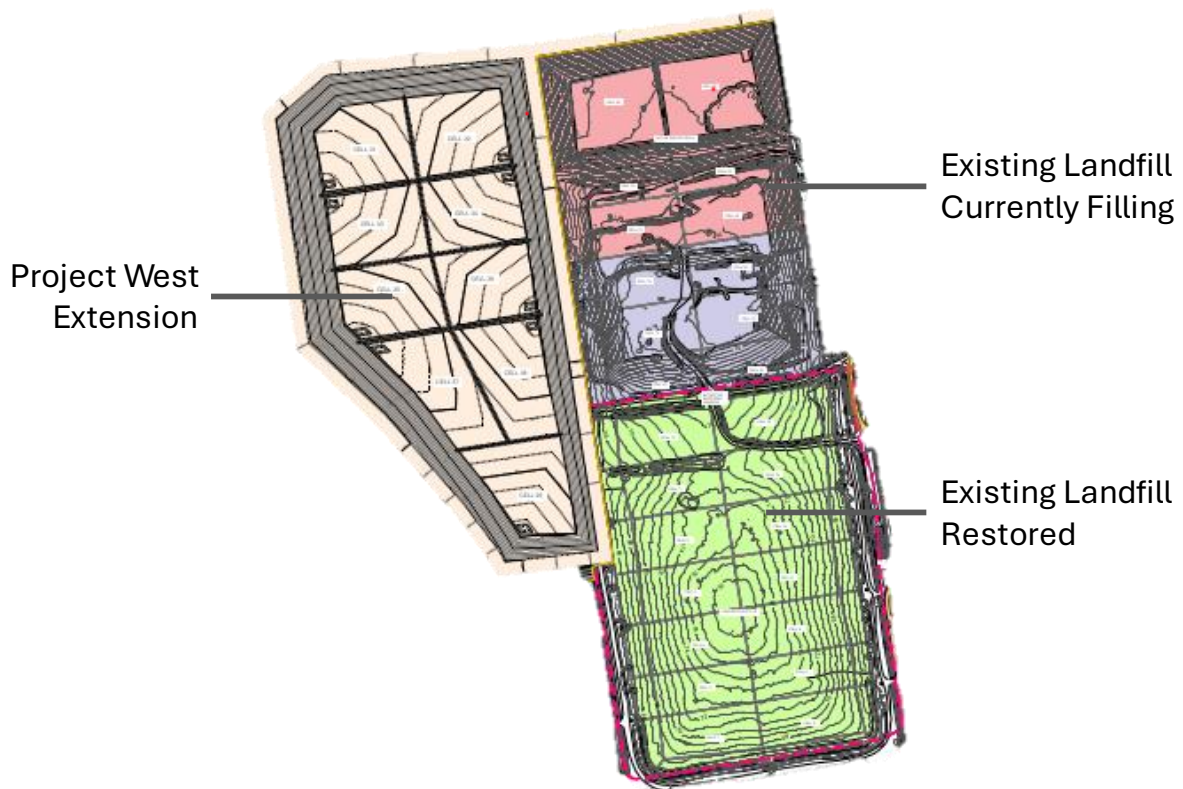
GASSIM2.5 MODEL PRINTOUT INCINERATOR OUTAGE SCENARIO

1 INTRODUCTION

The Knockharley Landfill facility is to be extended as part of the Project West proposal, and as a result, there will be an additional source of landfill gas (LFG) from the decomposition of the future waste fill. An LFG assessment is required to quantify the potential future generated and collectable LFG, and to assess whether the licensed flaring and power generation capacity¹ at the Site is sufficient to manage the gas, or whether additional gas engines or flares are likely to be required.

The Site has three flares with a total flaring capacity of 5,500 m³/h in addition to four engines for power generation, two Jenbacher 420 and two Jenbacher 320. **Figure 1** shows the existing Knockharley landfill and the proposed extension to the West that are subject to this gas assessment. The existing landfill is modelled to fill waste from commencement of filling in 2004 until 2028. The Western extension is modelled as receiving waste from 2029 until completion in 2043.

Figure 1 - Landfill Elements included in Gas Assessment



¹ Environmental Protection Agency (2023): Licence Registration Number W0146-04.

2 SCOPE OF WORK

GasSim Version 2.05.0008 (GasSim2.5) (Environment Agency, 2011), a computer software tool of the Environment Agency of England and Wales, has been used to model the potential LFG generation at the Site.

GasSim2.5 is a probabilistic model that relies on statistical distributions or probability density functions (PDFs) to characterise most of the input parameters and provides results as distribution outputs at various percentiles (%iles). These %iles specify the probability with which a certain value (e.g. gas production rate) will not be exceeded. For instance, if the 95%ile of a gas production rate distribution is given as 1,000 m³/h, there is a 95% chance that the actual production rate will be below or equal to 1,000 m³/h. It follows that there is also a 5% chance that the actual production rate will be above this. This assessment has been undertaken at the 50%ile which represents the most likely predicted outcome appropriate for assessing the potential gas resource of a landfill.

The model input data have been based on site-specific data where possible. Appropriate assumptions have been made and published data, including GasSim2.5 default data, have been used where site-specific data were not available or not considered appropriate.

The assistance of Knockharley Landfill Limited - the landfill operator - as well as Bioverda Power Systems Ltd - the gas plant operator - in the provision of data for this work is gratefully acknowledged. WSP has not independently verified any of the information supplied by either party to support this gas assessment review.

WSP has assessed two future waste input scenarios:

- Business-as-usual (BAU) Scenario whereby the future waste inputs consist of a similar breakdown as currently observed at the Site; and
- An Incinerator Outage (IO) Scenario assuming the Site will be taking untreated municipal solid waste (MSW) for up to six months to represent the potential effects of a prolonged IO in the Republic of Ireland.

WSP has used historic abstracted gas flow data to validate the GasSim2.5 model and establish a long-term gas collection rate for the Site which was applied into the future. The predicted future collectable LFG was compared to the treatment capacity to establish whether the existing gas plant is likely to suffice in treating LFG generated from the additional waste filled in the Western extension. WSP has taken a conservative approach in the modelling, including:

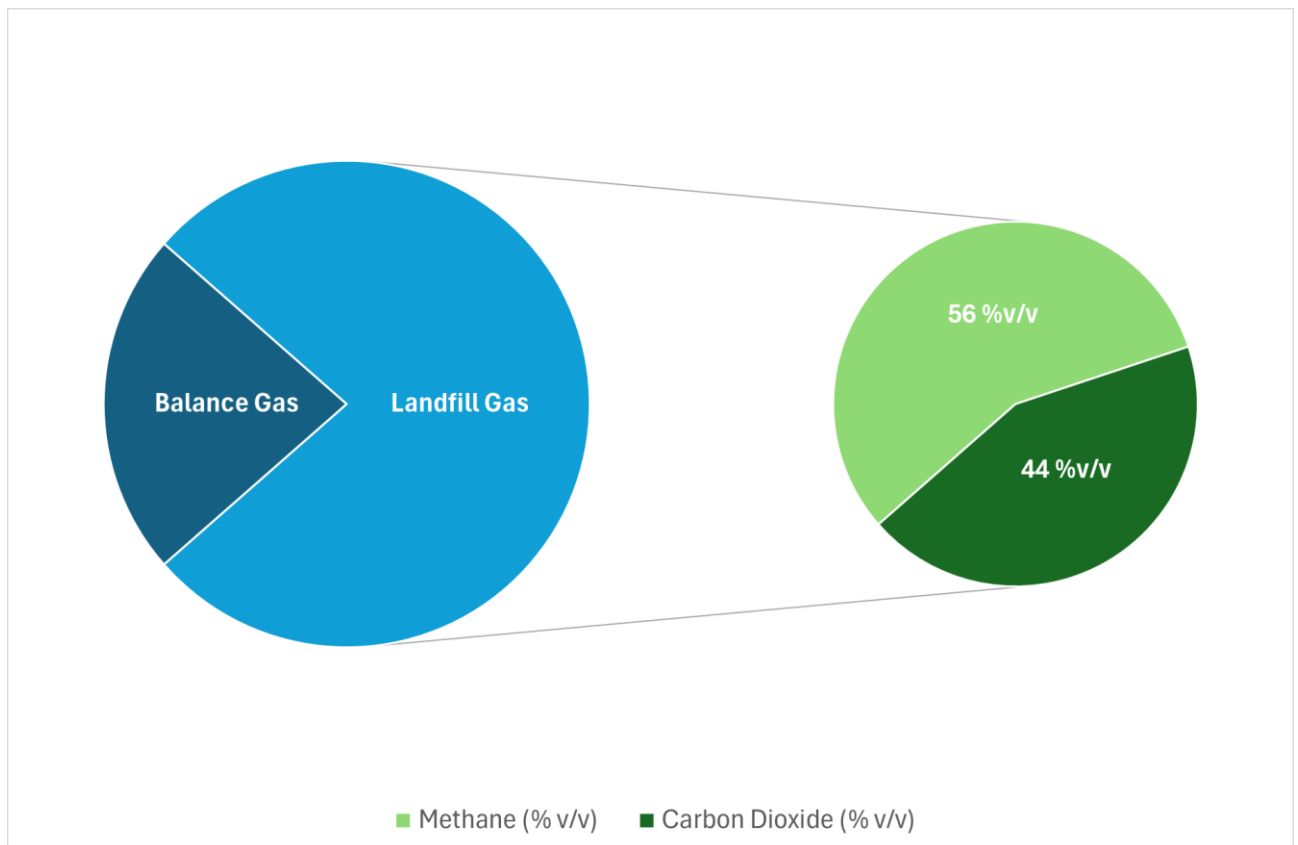
- WSP has not reduced the biodegradable content of the deposited waste and in particular the commercial waste stream during the modelled filling period; this is a conservative assumption as continued improvements in waste separation and pretreatment are likely to decrease the biodegradable fraction landfilled in the future; and
- WSP has assumed that the untreated MSW intake is required in the last year of filling (2043) in the IO Scenario; this is a conservative assumption as LFG generation is assumed to reach its peak in this year leading to an increase in potential maximum treatment capacity.

3 LANDFILL GAS

LFG is generated from biodegradable organic material present in landfilled waste as it undergoes microbial degradation and consists predominantly of methane (CH_4) and carbon dioxide (CO_2). The LFG is then diluted as atmospheric air is drawn into the landfill during gas abstraction. This balance gas consists of varying amounts of nitrogen and oxygen.

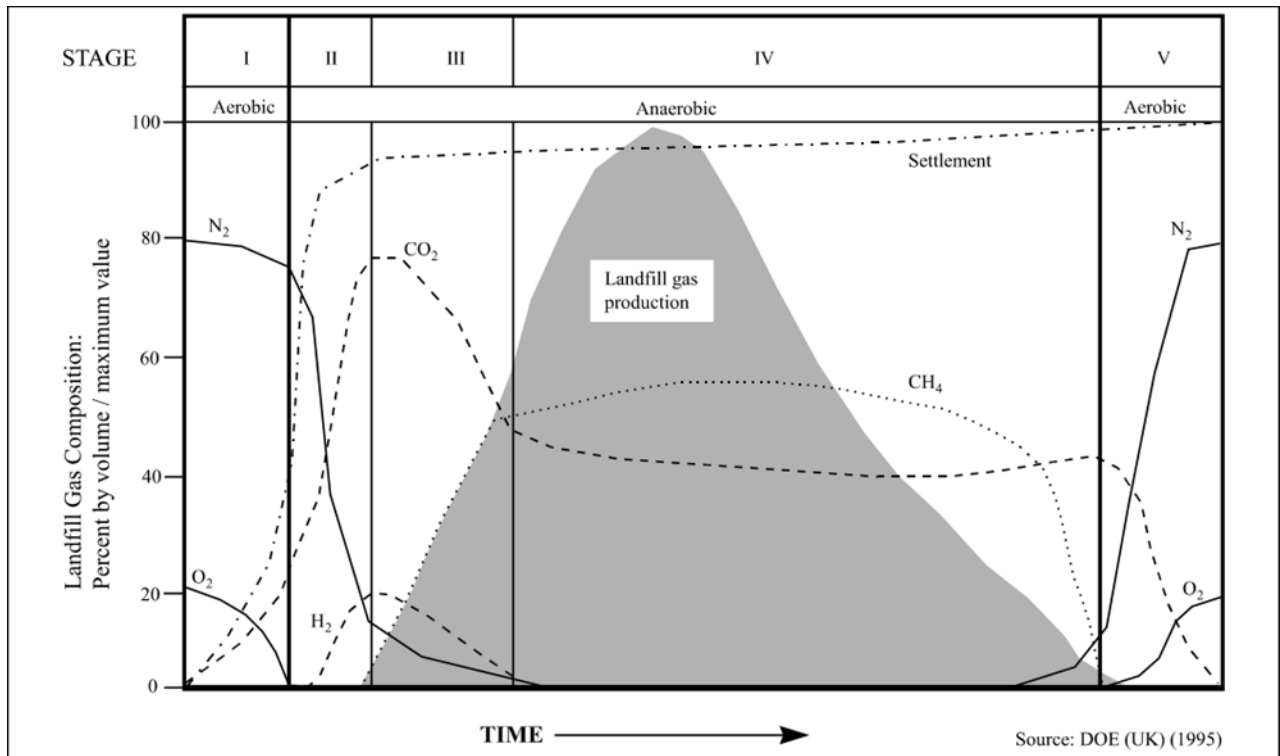
Based on monitoring data from the Site, the abstracted gas at Knockharley landfill consists of approximately 30% balance gas and 70% v/v LFG, the latter consisting of 56% v/v methane and 45% v/v carbon dioxide (**Figure 2**). In this assessment, LFG refers to methane and carbon dioxide flow only as modelled by GasSim2.5. Where balance gas is included, the assessment refers to total gas i.e. balance gas and LFG.

Figure 2 - Gas Composition at Knockharley Landfill



The idealised evolution of the gaseous intermediates and end-products that make up LFG from a single body of waste with time (from the moment of deposit) is shown in **Figure 3**.

Figure 3 - Idealised Representation of Landfill Gas Generation from a Single Body of Waste



The duration of each phase and the overall length of time taken for a body of waste to pass through the full degradation sequence varies considerably reflecting the influence of a wide range of factors such as waste composition and density, moisture content and distribution, pH and nutrient availability, and temperature, as well as the presence of toxic agents and chemical inhibitors². The time from placement of waste until measurable and recoverable methane gas generation (Phases I – III) is typically six months³. Gas is produced at a stable rate in Phase IV, during the operational phase and typically for about twenty years post closure; however, gas will continue to be emitted for fifty or more years after the waste is placed in the landfill⁴ and it may be many hundreds or even thousands of years, depending on the conditions at a landfill, until the composition of the LFG equals the composition of soil air⁵.

² Environment Agency (2004): Guidance on the Management of Landfill Gas (LFTGN 03).

³ Barry DL, Gregory RG and Harries C (2004). Minimising Methane Emissions from MSW Landfills. Applied Research Project funded by Shanks First, Biffaward, and the Environment Agency. 2 Volumes.

⁴ Crawford JF and Smith PG (1985). Landfill technology. London: Butterworths.

⁵ Defra (2018): Landfill Aftercare Scoping Study.

4 WASTE INPUT ASSUMPTIONS

The deposited waste is characterised in GasSim2.5 by defining the annual waste tonnage, the waste breakdown and the composition of individual waste streams. This information is used by the model to calculate the gas generation capability of the waste.

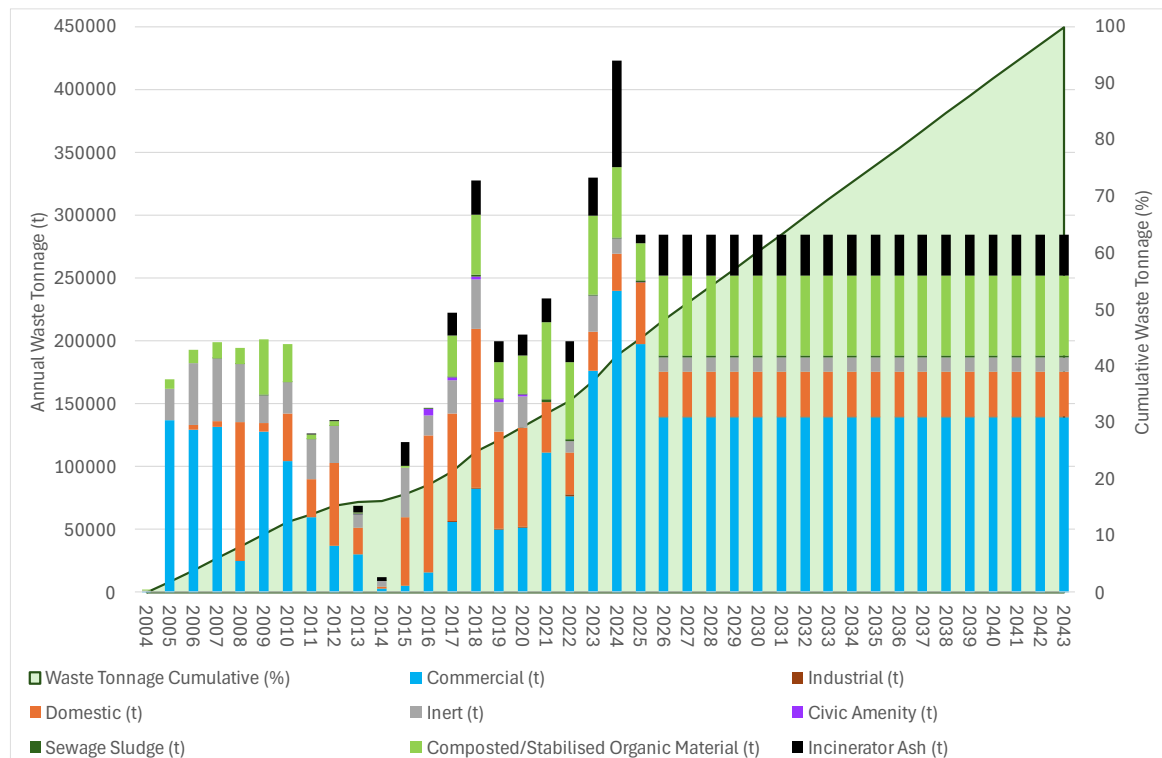
4.1 WASTE TONNAGE AND BREAKDOWN

4.1.1 BUSINESS-AS-USUAL SCENARIO

The modelled historic and future annual waste input tonnages and waste breakdown are shown in **Figure 4**. The waste breakdown is the proportion of the waste in different waste streams such as domestic, commercial, industrial, or non-degradable waste. Waste tonnages are historically variable at the Site. From 2025 onwards, the Site was modelled to receive waste tonnage in line with the regular permitted annual licence limit of 285,000 tonnes. It is understood that the Site has in the past received Contingency Capacity under National Waste Management Plan allowing additional waste tonnage above the annual licence limit, for example in 2023 and 2024. At the end of 2025, the Site will have received 45% of the total landfilled tonnage in the existing landfill and the Western Extension.

Historically, the waste inputs at Knockharley landfill are dominated by domestic and commercial waste as well as composted/stabilised organic materials and materials assumed to be inert i.e. non-biodegradable. Incinerator ashes have also been landfilled at the Site. In the future, the Site is assumed to continue to receive a similar mix of wastes under the BAU Scenario.

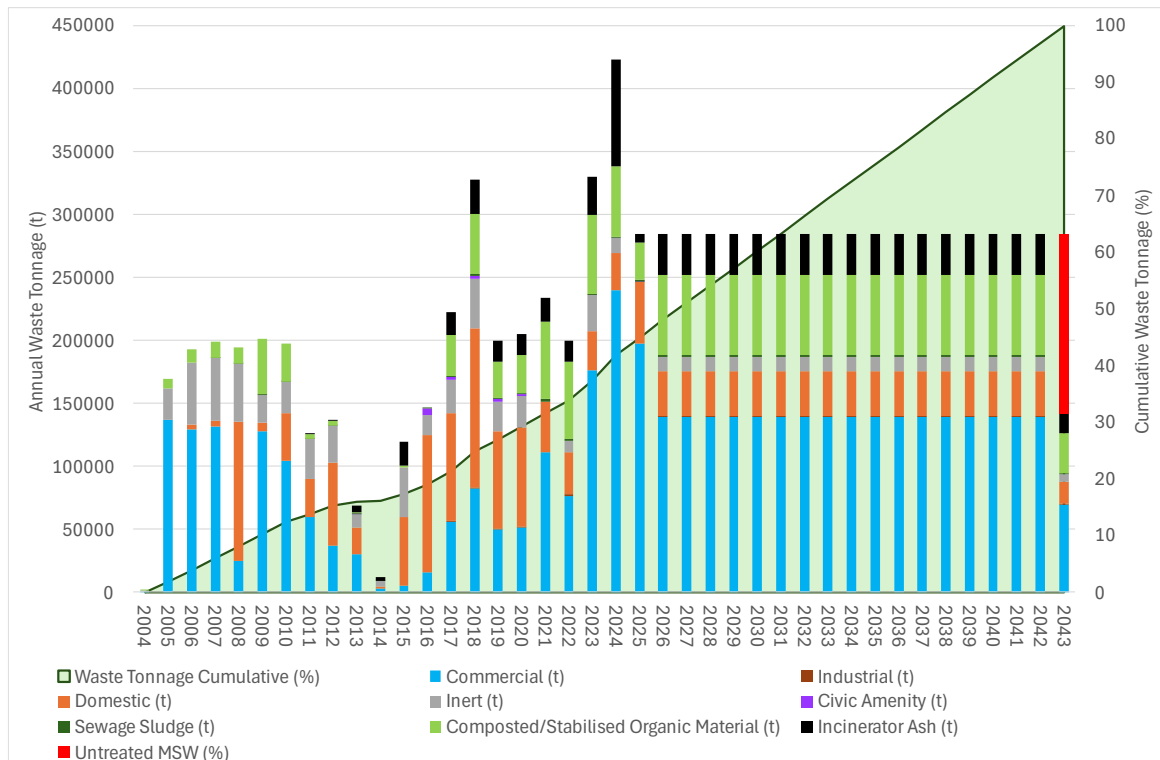
Figure 4 - Modelled Waste Tonnage and Breakdown BAU Scenario



4.1.2 INCINERATOR OUTAGE SCENARIO

The IO Scenario is the same as the BAU Scenario except for 2043. In the last year of filling this scenario assumes that for six months in the year of 2043 the Site is receiving a total of 142,500 tonnes of untreated MSW because of a prolonged IO in the Republic of Ireland (**Figure 5**).

Figure 5 - Modelled Waste Tonnage and Breakdown IO Scenario



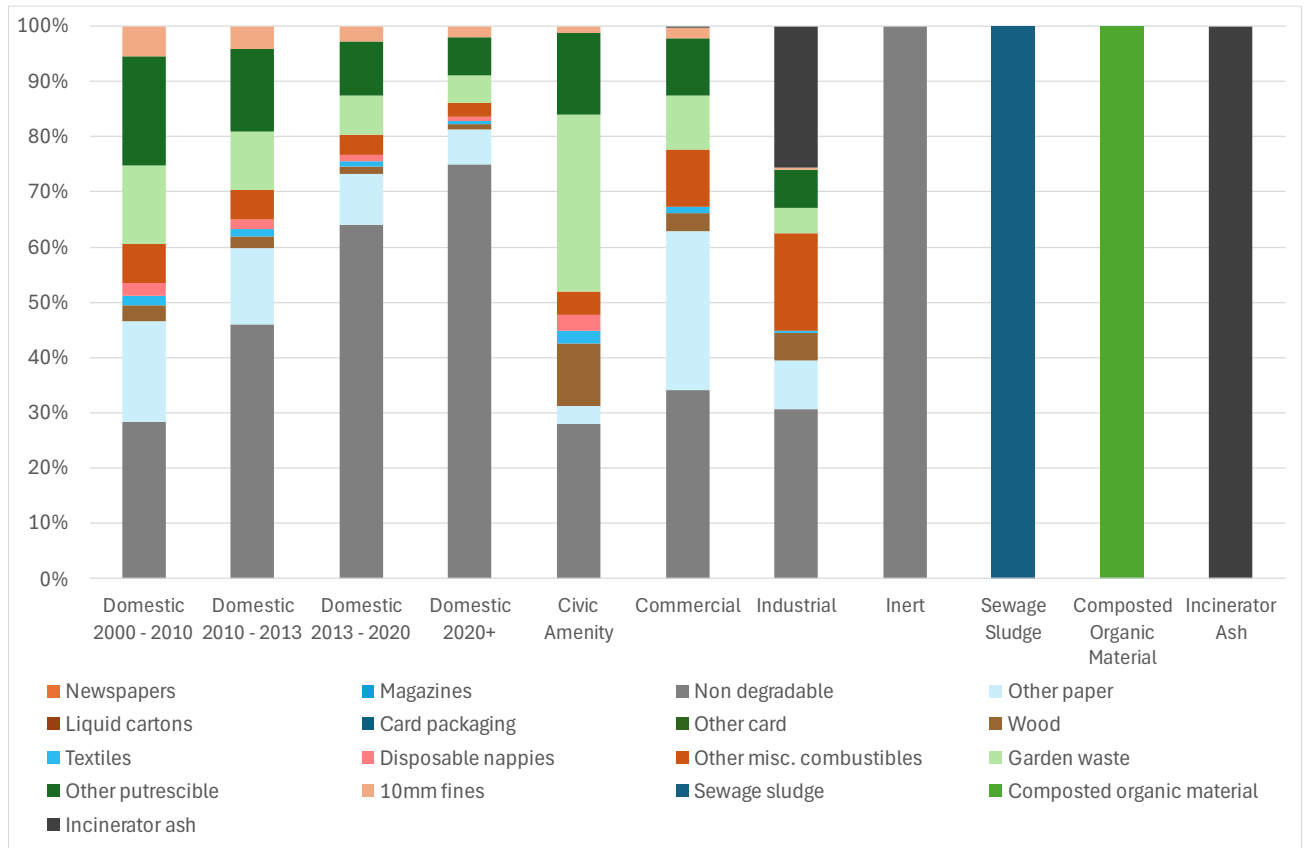
4.2 WASTE COMPOSITION

The model also requires the composition of each modelled waste stream. The waste composition is the proportion of waste fractions such as paper, wood, or textiles that make up the various waste streams (e.g. domestic, commercial). WSP has used the default waste streams pre-defined in Gassim2.5 for Northern Ireland. For domestic waste, GasSim2.5 provides a series of waste compositions to represent the waste diversion targets for biodegradable municipal waste set out in the Landfill Directive (Council Directive 1999/31/EC) which were applied in the modelling.

The untreated MSW filled in 2043 was represented as the Northern Ireland default domestic waste composition for the years 2000 – 2010, i.e. before diversion of biodegradable waste fractions and pre-treatment of municipal solid waste became more widely established. **Figure 6** depicts the waste composition of the GasSim2.5 default waste streams used in the modelling.

As shown, only approximately a third of the commercial waste stream, which makes up most future waste inputs (**Figure 4**), is assumed to consist of inert materials. This is a conservative assumption as continued improvements in waste separation and pretreatment are likely to decrease the biodegradable fraction in commercial waste and in general landfilled in the future.

Figure 6 - Modelled Waste Compositions



5 WASTE DEGRADATION ASSUMPTIONS

Within GasSim2.5, waste fractions are assumed to degrade at three different rates. The three default rates within GasSim2.5 cover slow, moderate, and rapid degradation depending on the degree of lignification of cellulose in the waste fraction, e.g.:

- **Slowly** degrading waste fractions include newspapers or textiles;
- **Moderately** degrading waste fractions include compost and nappies; and
- **Rapidly** degrading waste fractions include sewage sludge or fines materials.

For each annual waste input, GasSim2.5 partitions all available cellulose and hemi-cellulose into slowly, moderately, and rapidly degrading fractions. Each of the three degradability fractions is then assigned a degradation rate, k (units of y^{-1}) based on first-order kinetics. The relationship between the degradation rate, k , and the corresponding half-life for waste degradation is:

$$\text{Degradation rate, } k (y^{-1}) = \ln(2)/\text{half-life } (y)$$

The half-life is thereby the time required for the cellulose and hemi-cellulose to decay to 50% of its original mass. Factors influencing a landfill's moisture content include the local climate, moisture content of the landfilled waste, pre-treatment of the landfilled waste (e.g. shredding, trommel screening) and leachate management, in particular leachate recirculation.

The moisture content at the Knockharley landfill is likely to be high i.e. 'super wet' given the local climate and in addition the ongoing leachate recirculation practiced at the Site on capped areas. A 'super wet' degradation rate was also used previously to model Knockharley landfill by CRA Europe when auditing the Greenstar landfill gas portfolio energy assets⁶. **Table 5-1** details the degradation rates and half live assumptions applied.

Table 5-1 - Waste Degradation Rates used in Modelling

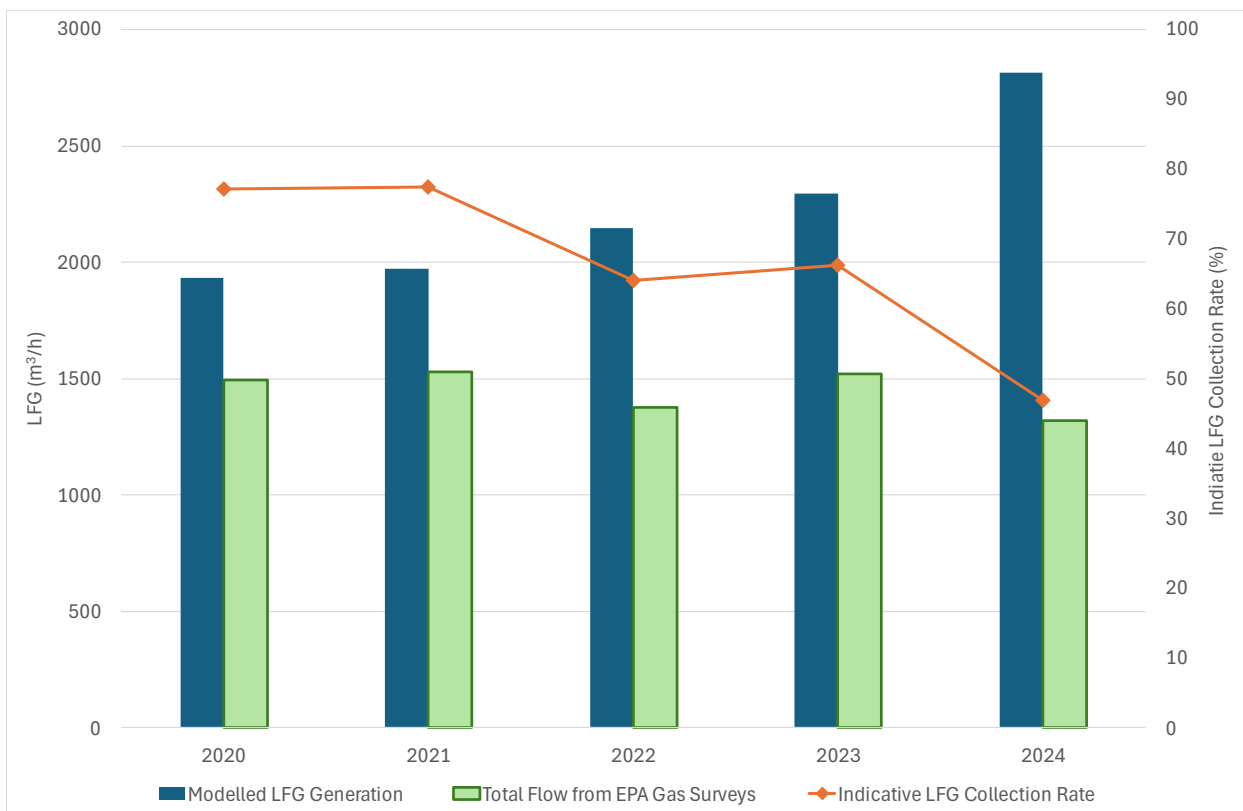
Waste Fraction Degradability	Probability Density Function of k-Value	Corresponding Half-Life Assumption (years)
Slow	UNIFORM (0.076, 0.116)	6 to 9
Moderate	UNIFORM (0.116, 0.694)	1 to 6
Fast	SINGLE (0.694)	1

⁶ CRA Europe (2014): Audit of Greenstar Landfill Gas Portfolio Energy Assets.

6 MODEL VALIDATION & INDICATIVE GAS COLLECTION RATE

The GasSim2.5 model was validated using 5 years of EPA annual LFG survey data (2020 – 2024) to establish actual LFG flow to the compound. **Figure 7** presents the modelled GasSim2.5 LFG generation curve compared to the abstracted LFG flow to engines and flares (excluding balance gas). The ratio between the modelled LFG generation and the abstracted LFG flow represents the indicative gas collection rate at the Site. The indicative gas collection rate from 2020 to 2023 is varying between 63% and 77% with an average of approximately 70%.

Figure 7 - Indicative Gas Collection Rate



In 2024, the ratio between modelled generation and abstracted flow reduces to 46%. This is assumed to be a temporary dip possibly related to the Contingency Capacity of additional waste tonnage received by the Site under National Waste Management Plan in 2023/24 (**Figure 4**).

In the model, the additional waste is generating gas in the same year as filling occurs however the gas may have not been able to be fully abstracted due to the inevitable time lag between waste filling and capping/gas well installation in the active cell. The indicative collection rate in 2024 is therefore not deemed representative of the long-term LFG collection rates at the Site which is expected to be approximately 70% in the operational phase.

The Site thereby falls within the typical collection efficiency rate range expected at modern, operational landfill sites with Defra assuming an LFG collection rate of 55% to 85% at modern UK

landfills⁷ and the US EPA assuming a typical range of 50% to 95% collection efficiency at sites meeting the US design standards⁸.

While WSP has not undertaken an independent Gas Audit of the Site, the provided Site documentation indicates that LFG management and odour control are embedded in the Site's licensing and operational procedures which is in line with maintaining a stable, long-term gas collection rate as assumed in the model validation:

Gas control is embedded in the Site's Environmental Management System following ISO 140001, for example:

- EMS-EMP-04 Landfill Gas Balancing/Monitoring⁹ details the method to be used for LFG balancing to achieve a well-balanced gas field and LFG monitoring to ensure that representative measurements of LFG are collected using appropriate safety procedures; and
- EMS-OP-19 Odour Management Plan¹⁰ details how long-term odour control will be achieved via the active gas extraction system that collects LFG under negative pressure which includes vertical wells at 25 metre lateral and longitudinal centres, sacrificial vertical pin wells as well as horizontal wells.

The Site's EPA licence¹ further details that:

- A maximum of two working faces can exist at the landfill at any time (in addition to one working face for the deposit of IBA waste);
- Each working face shall be no more than 25 metres long and 25 metres wide and no more than 2.5m in height after compaction;
- Daily cover of the active working face and intermediate capping to temporarily un-worked areas need to be applied; and
- Unless otherwise agreed, filled cells shall be permanently capped within 24 months of the cells having been filled to the required level.

⁷ Defra (2014): Review of Landfill Methane Emissions Modelling.

⁸ United States Environmental Protection Agency (2020): Landfill Gas Emissions Model (LandGEM).

⁹ Knockharley Landfill Ltd. (2023): EMS-EMP-04 Landfill Gas Balancing/Monitoring, Revision 4.

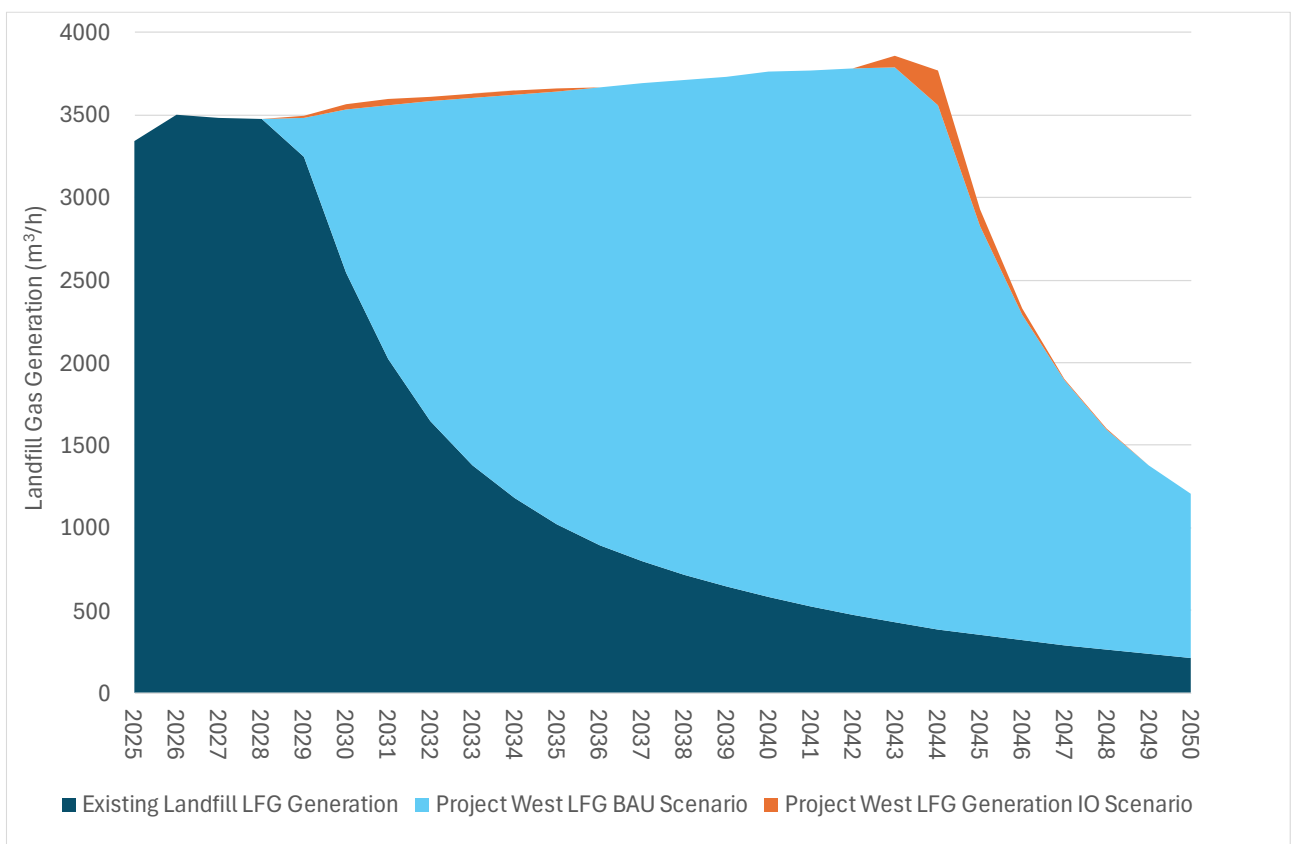
¹⁰ Knockharley Landfill Ltd (2025): EMS-OP-19 Odour Management Plan, Revision 8.

7 MODELLED LANDFILL GAS GENERATION

Figure 8 shows the modelled LFG generation from 2025 to 2050. In the BAU Scenario, the Western extension (light blue area) is modelled to start filling in 2029. While gas generation from the existing landfill (dark blue area) declines, gas from the Western extension is generated at increasing rates until the combined gas generation from the existing site and the Western extension peaks in the last anticipated year of filing, 2043.

In the IO Scenario, the untreated MSW modelled to be received at the Site for six months in 2043 (**Figure 5**) generates a small amount of additional LFG from 2043 onwards (orange area).

Figure 8 - Modelled LFG (CH₄ + CO₂) Generation

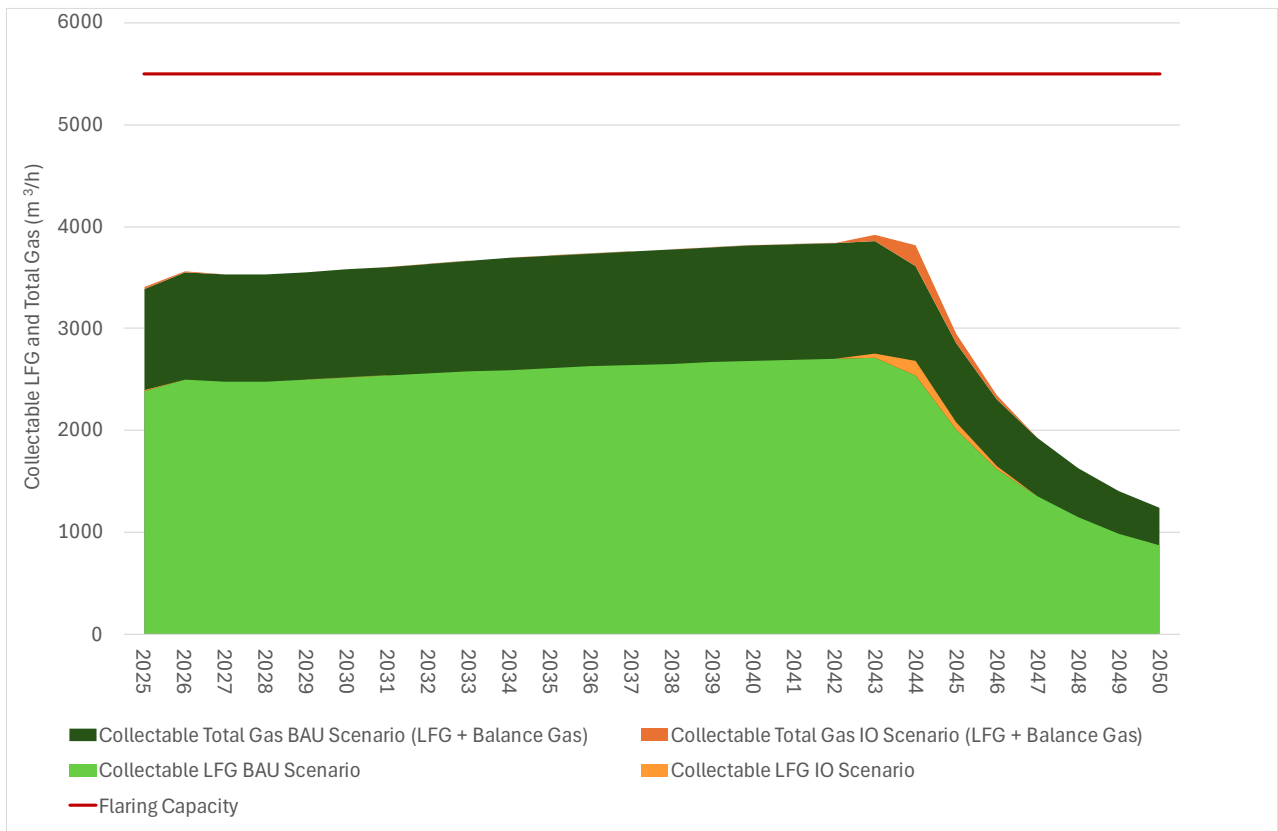


8 PREDICTED LFG AND TOTAL FLOW COLLECTION

Figure 9 shows the LFG collection modelled at a long-term collection efficiency rate of approximately 70% for both BAU and IO Scenarios. Also shown is the total gas flow rate to the compound assuming current balance gas levels of approximately 30%, again for both the BAU and IO Scenarios.

Figure 9 demonstrates that the current flare capacity of 5,500 m³/h is sufficient to treat the predicted future collectable LFG flow and future collectable total gas flow for both BAU and IO Scenarios.

Figure 9 - Predicted Collectable LFG and Total Gas



Under normal operational conditions, a proportion of the collectable gas will be used to generate power on Site. However, the current flaring capacity is sufficient to treat the collectable gas, even in the unlikely event that all four LFG engines are simultaneously non-operational.

As discussed earlier (**Section 2**), the modelled collectable gas rate represent a conservative scenario as WSP has not reduced the biodegradable content of the future waste inputs during the modelled filling period although continued improvements in waste separation and pretreatment are likely to decrease the biodegradable waste fractions landfilled over the coming decade.

Following final capping and installation of permanent gas collection infrastructure, the gas collection rate may increase post-closure from the currently assumed 70%. However, as the gas generation rates start decreasing post-closure as well (**Figure 8**), this should not lead to an increase in collectable LFG beyond the current flaring capacity.

9 CONCLUSION & RECOMMENDATIONS

The Knockharley Landfill facility is to be extended as part of the Project West proposal, and as a result, there will be an additional source of LFG from the decomposition of the future waste fill. An LFG assessment has been undertaken to quantify the potential future generated and collectable LFG and assess whether the current flaring and power generation capacity at the Site is sufficient to treat it, or whether additional gas engines or flare are likely to be required.

GasSim Version 2.05.0008 (GasSim2.5) (Environment Agency, 2011), a computer software tool developed by Golder (now WSP) for the Environment Agency of England and Wales, has been used to model the potential LFG generation at the Site. WSP has assessed two future waste input scenarios:

- Business-as-usual (BAU) Scenario whereby the future waste inputs consist of a similar breakdown as currently observed at the Site; and
- An Incinerator Outage (IO) Scenario assuming the Site will be taking untreated MSW for up to six months to represent the potential effects of a prolonged IO in the Republic of Ireland.

WSP has taken a conservative approach in the modelling, including:

- WSP has not reduced the biodegradable content of the deposited waste and in particular the commercial waste stream during the modelled filling period; this is a conservative assumption as continued improvements in waste separation and pretreatment are likely to decrease the biodegradable fraction landfilled in the future; and
- WSP has assumed that the untreated MSW intake is required in the last year of filling (2043) in the IO Scenario; this is a conservative assumption as LFG generation is assumed to reach its peak in this year leading to an increase in potential maximum treatment capacity.

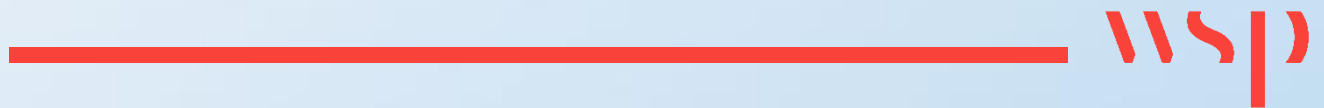
WSP has used historic abstracted gas flow data to validate the GasSim2.5 model and establish a long-term gas collection rate for the Site of approximately 70% which was applied into the future to derive predicted collectable gas rates for comparison with the gas treatment capacity.

The assessment concludes that the current flaring capacity of 5,500 m³/h is sufficient to treat the future collectable LFG flow and future collectable total gas flow (LFG + balance gas @ 30%v/v) for both, BAU and IO Scenario. Under normal operational conditions, a proportion of the collectable gas will be used to generate power on Site. However, the current flaring capacity is considered to be sufficient to treat the entire collectable gas in the future, even in the unlikely event that all four LFG engines are simultaneously non-operational.

WSP recommends that the gas assessment is reassessed periodically to update the waste input information, re-validate the model and confirm adequate gas treatment capacity is maintained at the Site in the future.

Appendix A

GASSIM2.5 MODEL PRINTOUT BUSINESS-AS-USUAL SCENARIO



ProjectDetails

Project Name	Project West BAU Scenario
Client	
Model	c:\users\ukjvs850\onedrive - wsp o365\desktop\knockharley\wip\gassim modelling\project west bau scenario.gss
Model Date	18/09/2025 12:11:24
Comments	
Start Year	2004
Operation Period	40
Simulation Period	150
Iterations	201

Confined Migration Pathway

Waste Composition

Year	Composition
2004	Northern Ireland 2000-2010 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(18.2)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(2.8)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(1.8)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(2.3)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(7.1)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)

Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(14.2)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(19.8)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(5.4)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(28.4)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2005	Northern Ireland 2000-2010 waste streams
2006	Northern Ireland 2000-2010 waste streams

2007	Northern Ireland 2000-2010 waste streams
2008	Northern Ireland 2000-2010 waste streams
2009	Northern Ireland 2000-2010 waste streams
2010	Northern Ireland 2010-2013 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(13.7)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(2.1)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(1.4)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(1.7)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(5.3)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(10.7)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(14.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)

Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(4.1)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(46.1)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2011	Northern Ireland 2010-2013 waste streams
2012	Northern Ireland 2010-2013 waste streams
2013	Northern Ireland 2013-2020 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(9.1)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)

Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.4)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(0.9)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(1.2)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(3.6)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(7.1)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(9.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(2.7)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)

Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(64.1)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2014	Northern Ireland 2013-2020 waste streams
2015	Northern Ireland 2013-2020 waste streams
2016	Northern Ireland 2013-2020 waste streams
2017	Northern Ireland 2013-2020 waste streams
2018	Northern Ireland 2013-2020 waste streams
2019	Northern Ireland 2013-2020 waste streams
2020	Northern Ireland 2020+ waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(6.4)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)

Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.0)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(0.6)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(0.8)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(2.5)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(5.0)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(6.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(1.9)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)

Decomposition (%)		SINGLE(57.0)
<i>Non degradable</i>		
Domestic		SINGLE(74.9)
Civic Amenity		SINGLE(28.0)
Commercial		SINGLE(34.1)
Industrial		SINGLE(30.7)
Inert		SINGLE(100.0)
Water (%)		SINGLE(0.0)
Cellulose (%)		SINGLE(0.0)
Hemi-Cellulose (%)		SINGLE(0.0)
Decomposition (%)		SINGLE(0.0)
<i>Calcium Sulphate (%)</i>		
Domestic		TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity		TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material		TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash		TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF		TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes		TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge		TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste		TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>		
Domestic		TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity		TRIANGULAR(0.3, 4.8, 8.2)
Commercial		TRIANGULAR(0.3, 4.8, 8.2)
Industrial		TRIANGULAR(0.3, 4.8, 8.2)
Inert		TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert		TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge		TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material		TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash		TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF		TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes		TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge		TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste		TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW		TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2		TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3		TRIANGULAR(0.3, 4.8, 8.2)
2021		Northern Ireland 2020+ waste streams
2022		Northern Ireland 2020+ waste streams
2023		Northern Ireland 2020+ waste streams
2024		Northern Ireland 2020+ waste streams
2025		Northern Ireland 2020+ waste streams
2026		Northern Ireland 2020+ waste streams
2027		Northern Ireland 2020+ waste streams
2028		Northern Ireland 2020+ waste streams
2029		Northern Ireland 2020+ waste streams
2030		Northern Ireland 2020+ waste streams
2031		Northern Ireland 2020+ waste streams
2032		Northern Ireland 2020+ waste streams
2033		Northern Ireland 2020+ waste streams
2034		Northern Ireland 2020+ waste streams
2035		Northern Ireland 2020+ waste streams
2036		Northern Ireland 2020+ waste streams
2037		Northern Ireland 2020+ waste streams
2038		Northern Ireland 2020+ waste streams
2039		Northern Ireland 2020+ waste streams
2040		Northern Ireland 2020+ waste streams
2041		Northern Ireland 2020+ waste streams
2042		Northern Ireland 2020+ waste streams
2043		Northern Ireland 2020+ waste streams
Justification:	[Changed]	Site-Specific

Trace Gases

No Combustion Products Selected

Existing Landfill

Infiltration		NORMAL(500.0, 50.0)
Justification:	[Changed]	Site-Specific

Waste Input

Year	Amount Deposited (t)
2004	SINGLE(1.39E+03)
2005	SINGLE(1.70E+05)
2006	SINGLE(1.93E+05)
2007	SINGLE(1.99E+05)
2008	SINGLE(1.94E+05)
2009	SINGLE(2.02E+05)
2010	SINGLE(1.98E+05)
2011	SINGLE(1.26E+05)
2012	SINGLE(1.37E+05)
2013	SINGLE(6.91E+04)
2014	SINGLE(1.22E+04)
2015	SINGLE(1.20E+05)
2016	SINGLE(1.46E+05)
2017	SINGLE(2.23E+05)
2018	SINGLE(3.28E+05)
2019	SINGLE(2.00E+05)

2020		SINGLE(2.05E+05)
2021		SINGLE(2.34E+05)
2022		SINGLE(2.00E+05)
2023		SINGLE(3.30E+05)
2024		SINGLE(4.23E+05)
2025		SINGLE(2.85E+05)
2026		SINGLE(2.85E+05)
2027		SINGLE(2.85E+05)
2028		SINGLE(2.85E+05)
Justification:	[Changed]	Site-Specific

Waste Breakdown

2004		
Commercial		SINGLE(65.0)
Inert		SINGLE(27.0)
Composted Organic Material		SINGLE(8.0)
2005		
Commercial		SINGLE(81.0)
Inert		SINGLE(15.0)
Composted Organic Material		SINGLE(4.0)
2006		
Domestic		SINGLE(2.0)
Commercial		SINGLE(67.0)
Inert		SINGLE(26.0)
Composted Organic Material		SINGLE(5.0)
2007		
Domestic		SINGLE(2.0)
Commercial		SINGLE(66.0)
Inert		SINGLE(25.0)
Composted Organic Material		SINGLE(6.0)
2008		
Domestic		SINGLE(57.0)
Commercial		SINGLE(13.0)
Inert		SINGLE(24.0)
Composted Organic Material		SINGLE(7.0)
2009		
Domestic		SINGLE(3.0)
Commercial		SINGLE(64.0)
Inert		SINGLE(11.0)
Composted Organic Material		SINGLE(22.0)
2010		
Domestic		SINGLE(19.0)
Commercial		SINGLE(53.0)
Inert		SINGLE(13.0)
Composted Organic Material		SINGLE(15.0)
2011		
Domestic		SINGLE(24.0)
Commercial		SINGLE(48.0)
Inert		SINGLE(25.0)
Composted Organic Material		SINGLE(3.0)
2012		
Domestic		SINGLE(48.0)
Commercial		SINGLE(27.0)
Inert		SINGLE(22.0)
Composted Organic Material		SINGLE(3.0)
Incinerator Ash		SINGLE(1.0)
2013		
Domestic		SINGLE(30.0)
Commercial		SINGLE(44.0)
Inert		SINGLE(16.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(1.0)
Incinerator Ash		SINGLE(8.0)
2014		
Domestic		SINGLE(15.0)
Commercial		SINGLE(23.0)
Inert		SINGLE(33.0)
Composted Organic Material		SINGLE(1.0)
Incinerator Ash		SINGLE(28.0)
2015		
Domestic		SINGLE(45.0)
Commercial		SINGLE(4.0)
Inert		SINGLE(33.0)
Composted Organic Material		SINGLE(2.0)
Incinerator Ash		SINGLE(16.0)
2016		
Domestic		SINGLE(75.0)
Civic Amenity		SINGLE(3.0)
Commercial		SINGLE(11.0)
Inert		SINGLE(11.0)
2017		
Domestic		SINGLE(39.0)
Civic Amenity		SINGLE(1.0)
Commercial		SINGLE(25.0)
Inert		SINGLE(12.0)
Composted Organic Material		SINGLE(15.0)
Incinerator Ash		SINGLE(8.0)

2018	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)

2019	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)

2020	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)

2021	
Domestic	SINGLE(17.0)
Commercial	SINGLE(47.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(26.0)
Incinerator Ash	SINGLE(8.0)

2022	
Domestic	SINGLE(17.0)
Commercial	SINGLE(38.0)
Industrial	SINGLE(1.0)
Inert	SINGLE(5.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(31.0)
Incinerator Ash	SINGLE(9.0)

2023	
Domestic	SINGLE(9.0)
Commercial	SINGLE(53.0)
Inert	SINGLE(9.0)
Composted Organic Material	SINGLE(19.0)
Incinerator Ash	SINGLE(9.0)

2024	
Domestic	SINGLE(7.0)
Commercial	SINGLE(57.0)
Inert	SINGLE(3.0)
Composted Organic Material	SINGLE(13.0)
Incinerator Ash	SINGLE(20.0)

2025	
Domestic	SINGLE(17.0)
Commercial	SINGLE(69.0)
Composted Organic Material	SINGLE(11.0)
Incinerator Ash	SINGLE(3.0)

2026	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)

2027	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)

2028	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
Justification:	[Default] Default Value

Trace Gases

No Trace Gases Selected

Waste Moisture Content

Degradation rate - Filling Phase	Super Wet
Justification:	[Changed] Site-Specific
Degradation rate - after change	Super Wet
Justification:	[Changed] Site-Specific
Waste Density	UNIFORM(0.8, 1.2)
Justification:	[Default] Default Value
Leachate Head	SINGLE(1.0)
Justification:	[Default] Default Value
Hydraulic Conductivity	LOGUNIFORM(1.00E-09, 1.00E-05)

Justification:	[Default]	Default Value
Effective Porosity		UNIFORM(1.0, 20.0)
Justification:	[Default]	Default Value
Adsorptive Capacity		UNIFORM(1.0, 5.0)
Justification:	[Default]	Default Value
Volume Recirculated		SINGLE(0.0)
Justification:	[Changed]	Site-Specific

Engineered Controls

<i>Cap</i>		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	Site-Specific
Cap Thickness	[Changed]	Site-Specific
Cap Hydraulic Conductivity	[Changed]	Site-Specific
<i>liner</i>		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	Site-Specific
Liner Thickness	[Changed]	Site-Specific
Liner Hydraulic Conductivity	[Changed]	Site-Specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		#UNDEFINED?

Geosphere

Ground Surface (mAOD)	50
Water Table (mAOD)	38
Geosphere Moisture Content	UNIFORM(2.0, 8.0)
Geosphere Porosity	UNIFORM(14.0, 49.0)

Project West

Infiltration		NORMAL(500.0, 50.0)
Justification:	[Changed]	Site-Specific

Waste Input

Year		AmountDeposited (t)
2029		SINGLE(2.85E+05)
2030		SINGLE(2.85E+05)
2031		SINGLE(2.85E+05)
2032		SINGLE(2.85E+05)
2033		SINGLE(2.85E+05)
2034		SINGLE(2.85E+05)
2035		SINGLE(2.85E+05)
2036		SINGLE(2.85E+05)
2037		SINGLE(2.85E+05)
2038		SINGLE(2.85E+05)
2039		SINGLE(2.85E+05)
2040		SINGLE(2.85E+05)
2041		SINGLE(2.85E+05)
2042		SINGLE(2.85E+05)
2043		SINGLE(2.85E+05)
Justification:	[Changed]	Site-Specific

Waste Breakdown

2029

Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)

2030

Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)

2031

Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)

2032

Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)

2033

Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)

Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2034	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2035	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2036	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2037	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2038	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2039	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2040	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2041	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2042	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
2043	
Domestic	SINGLE(13.0)
Commercial	SINGLE(49.0)
Inert	SINGLE(4.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(22.0)
Incinerator Ash	SINGLE(12.0)
Justification:	[Default] Default Value

Trace Gases

No Trace Gases Selected

Waste Moisture Content

Degradation rate - Filling Phase	Super Wet
Justification:	[Changed] Site-Specific
Degradation rate - after change	Super Wet
Justification:	[Changed] Site-Specific
Waste Density	UNIFORM(0.8, 1.2)
Justification:	[Default] Default Value
Leachate Head	SINGLE(1.0)
Justification:	[Default] Default Value

Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Effective Porosity		UNIFORM(1.0, 20.0)
Justification:	[Default]	Default Value
Adsorptive Capacity		UNIFORM(1.0, 5.0)
Justification:	[Default]	Default Value
Volume Recirculated		SINGLE(0.0)
Justification:	[Changed]	Site-Specific

Engineered Controls

<i>Cap</i>		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	Site-Specific
Cap Thickness	[Changed]	Site-Specific
Cap Hydraulic Conductivity	[Changed]	Site-Specific
<i>liner</i>		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	Site-Specific
Liner Thickness	[Changed]	Site-Specific
Liner Hydraulic Conductivity	[Changed]	Site-Specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		#UNDEFINED?

Geosphere

Ground Surface (mAOD)		50
Water Table (mAOD)		38
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)

Site Characteristics

Proportion to CO2 [%]		SINGLE(50.0)
Justification:	[Default]	Default Value
Proportion to CH4 [%]		SINGLE(50.0)
Justification:	[Default]	Default Value

Cellulose Decay Rates

		Slow	Moderate	Fast
Dry		SINGLE(0.013)	SINGLE(0.046)	SINGLE(0.076)
Average		SINGLE(0.046)	SINGLE(0.076)	SINGLE(0.116)
Wet		SINGLE(0.076)	SINGLE(0.116)	SINGLE(0.694)
Saturated		SINGLE(0.013)	SINGLE(0.046)	SINGLE(0.076)
Super Wet		UNIFORM(0.076, 0.116)	UNIFORM(0.116, 0.694)	SINGLE(0.694)
User Defined 2		UNIFORM(0.046, 0.076)	UNIFORM(0.076, 0.116)	UNIFORM(0.116, 0.694)
Justification:	[Changed]	Site-Specific		

Gas Plant

Engine/Flare Order	[Default]	No Flares/Engines in use
		Default Value

Trace Gas Plant

Justification:	[Default]	No Trace Gases Selected
		Default Value

Global Impact

Bulk Gases

Global Warming Potential		
Carbon Dioxide [t]:		1
Methane [t carbon dioxide]:		21
Hydrogen [t carbon dioxide]:		0
Justification:	[Default]	Default Value
Ozone Depletion Potential		
Carbon Dioxide [t trichlorofluoromethane]:		0
Methane [t trichlorofluoromethane]:		0
Hydrogen [t trichlorofluoromethane]:		0
Justification:	[Default]	Default Value

Lateral Migration

Bulk Gases

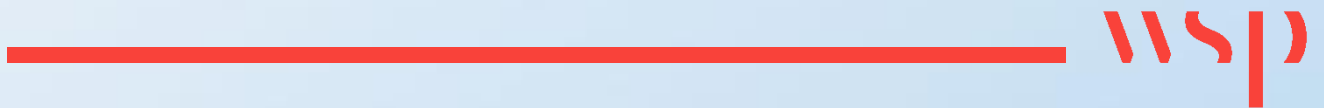
Air Diffusion Coefficients		
CO2 Dispersivity		SINGLE(0.1613)
CH4 Dispersivity		SINGLE(0.2192)
H2 Dispersivity		#UNDEFINED?
Justification:	[Default]	Default Value

Geosphere

<i>Cell</i>		Existing Landfill
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)
<i>Cell</i>		Project West
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)
Justification:	[Changed]	Site-Specific

Appendix B

GASSIM2.5 MODEL PRINTOUT INCINERATOR OUTAGE SCENARIO



ProjectDetails

Project Name	Project West Incinerator Outage Scenario
Client	
Model	c:\users\ukjvs850\onedrive - wsp o365\desktop\knockharley\wip\gassim modelling\incinerator outage scenario\project west incinerator outage scenario.gss
Model Date	18/09/2025 12:16:24
Comments	
Start Year	2004
Operation Period	40
Simulation Period	150
Iterations	201

Confined Migration Pathway

Waste Composition

Year	Composition
2004	Northern Ireland 2000-2010 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(18.2)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(2.8)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(1.8)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(2.3)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(7.1)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	

Domestic	SINGLE(14.2)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(19.8)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(5.4)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(28.4)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2005	Northern Ireland 2000-2010 waste streams
2006	Northern Ireland 2000-2010 waste streams
2007	Northern Ireland 2000-2010 waste streams
2008	Northern Ireland 2000-2010 waste streams

2009	Northern Ireland 2000-2010 waste streams
2010	Northern Ireland 2010-2013 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(13.7)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(2.1)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(1.4)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(1.7)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(5.3)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(10.7)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(14.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)

Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(4.1)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(46.1)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2011	Northern Ireland 2010-2013 waste streams
2012	Northern Ireland 2010-2013 waste streams
2013	Northern Ireland 2013-2020 waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(9.1)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)

Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.4)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(0.9)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(1.2)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(3.6)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(7.1)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(9.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(2.7)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	

Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	
Domestic	SINGLE(64.1)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2014	Northern Ireland 2013-2020 waste streams
2015	Northern Ireland 2013-2020 waste streams
2016	Northern Ireland 2013-2020 waste streams
2017	Northern Ireland 2013-2020 waste streams
2018	Northern Ireland 2013-2020 waste streams
2019	Northern Ireland 2013-2020 waste streams
2020	Northern Ireland 2020+ waste streams
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(6.4)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	

Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.0)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(0.6)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(0.8)
Civic Amenity	SINGLE(2.9)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(2.5)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(5.0)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(6.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(1.9)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)
Decomposition (%)	SINGLE(57.0)
<i>Incinerator ash</i>	
Commercial	SINGLE(0.2)
Industrial	SINGLE(25.5)
Incinerator Ash	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)	TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)	SINGLE(57.0)
<i>Non degradable</i>	

Domestic	SINGLE(74.9)
Civic Amenity	SINGLE(28.0)
Commercial	SINGLE(34.1)
Industrial	SINGLE(30.7)
Inert	SINGLE(100.0)
Water (%)	SINGLE(0.0)
Cellulose (%)	SINGLE(0.0)
Hemi-Cellulose (%)	SINGLE(0.0)
Decomposition (%)	SINGLE(0.0)
<i>Calcium Sulphate (%)</i>	
Domestic	TRIANGULAR(0.2, 0.35, 2.3)
Civic Amenity	TRIANGULAR(0.2, 0.35, 2.3)
Composted Organic Material	TRIANGULAR(0.2, 0.35, 2.3)
Incinerator Ash	TRIANGULAR(0.2, 0.35, 2.3)
Residues from MRF	TRIANGULAR(0.2, 0.35, 2.3)
Recycling Schemes	TRIANGULAR(0.2, 0.35, 2.3)
Chemical Sludge	TRIANGULAR(0.2, 0.35, 2.3)
Industrial Liquid Waste	TRIANGULAR(0.2, 0.35, 2.3)
<i>Iron (%)</i>	
Domestic	TRIANGULAR(0.3, 4.8, 8.2)
Civic Amenity	TRIANGULAR(0.3, 4.8, 8.2)
Commercial	TRIANGULAR(0.3, 4.8, 8.2)
Industrial	TRIANGULAR(0.3, 4.8, 8.2)
Inert	TRIANGULAR(0.3, 4.8, 8.2)
Liquid Inert	TRIANGULAR(0.3, 4.8, 8.2)
Sewage Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Composted Organic Material	TRIANGULAR(0.3, 4.8, 8.2)
Incinerator Ash	TRIANGULAR(0.3, 4.8, 8.2)
Residues from MRF	TRIANGULAR(0.3, 4.8, 8.2)
Recycling Schemes	TRIANGULAR(0.3, 4.8, 8.2)
Chemical Sludge	TRIANGULAR(0.3, 4.8, 8.2)
Industrial Liquid Waste	TRIANGULAR(0.3, 4.8, 8.2)
Untreated MSW	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 2	TRIANGULAR(0.3, 4.8, 8.2)
User Defined 3	TRIANGULAR(0.3, 4.8, 8.2)
2021	Northern Ireland 2020+ waste streams
2022	Northern Ireland 2020+ waste streams
2023	Northern Ireland 2020+ waste streams
2024	Northern Ireland 2020+ waste streams
2025	Northern Ireland 2020+ waste streams
2026	Northern Ireland 2020+ waste streams
2027	Northern Ireland 2020+ waste streams
2028	Northern Ireland 2020+ waste streams
2029	Northern Ireland 2020+ waste streams
2030	Northern Ireland 2020+ waste streams
2031	Northern Ireland 2020+ waste streams
2032	Northern Ireland 2020+ waste streams
2033	Northern Ireland 2020+ waste streams
2034	Northern Ireland 2020+ waste streams
2035	Northern Ireland 2020+ waste streams
2036	Northern Ireland 2020+ waste streams
2037	Northern Ireland 2020+ waste streams
2038	Northern Ireland 2020+ waste streams
2039	Northern Ireland 2020+ waste streams
2040	Northern Ireland 2020+ waste streams
2041	Northern Ireland 2020+ waste streams
2042	Northern Ireland 2020+ waste streams
2043	Northern Ireland 2000+ for Incinerator Outage Scenario
<i>Newspapers</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(48.5)
Hemi-Cellulose (%)	SINGLE(9.0)
Decomposition (%)	SINGLE(35.0)
<i>Magazines</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(42.3)
Hemi-Cellulose (%)	SINGLE(9.4)
Decomposition (%)	SINGLE(46.0)
<i>Other paper</i>	
Domestic	SINGLE(6.4)
Civic Amenity	SINGLE(3.3)
Commercial	SINGLE(28.8)
Industrial	SINGLE(8.8)
Untreated MSW	SINGLE(18.2)
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(87.4)
Hemi-Cellulose (%)	SINGLE(8.4)
Decomposition (%)	SINGLE(98.0)
<i>Liquid cartons</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Card packaging</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)

Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Other card</i>	
Water (%)	SINGLE(30.0)
Cellulose (%)	SINGLE(57.3)
Hemi-Cellulose (%)	SINGLE(9.9)
Decomposition (%)	SINGLE(64.0)
<i>Wood</i>	
Domestic	SINGLE(1.0)
Civic Amenity	SINGLE(11.2)
Commercial	SINGLE(3.3)
Industrial	SINGLE(5.0)
Untreated MSW	SINGLE(2.8)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(21.0)
Hemi-Cellulose (%)	SINGLE(11.0)
Decomposition (%)	SINGLE(75.0)
<i>Textiles</i>	
Domestic	SINGLE(0.6)
Civic Amenity	SINGLE(2.3)
Commercial	SINGLE(1.1)
Industrial	SINGLE(0.3)
Untreated MSW	SINGLE(1.8)
Water (%)	SINGLE(25.0)
Cellulose (%)	SINGLE(20.0)
Hemi-Cellulose (%)	SINGLE(20.0)
Decomposition (%)	SINGLE(50.0)
<i>Disposable nappies</i>	
Domestic	SINGLE(0.8)
Civic Amenity	SINGLE(2.9)
Untreated MSW	SINGLE(2.3)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Other misc. combustibles</i>	
Domestic	SINGLE(2.5)
Civic Amenity	SINGLE(4.2)
Commercial	SINGLE(10.4)
Industrial	SINGLE(17.7)
Untreated MSW	SINGLE(7.1)
Water (%)	SINGLE(20.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Garden waste</i>	
Domestic	SINGLE(5.0)
Civic Amenity	SINGLE(32.1)
Commercial	SINGLE(9.8)
Industrial	SINGLE(4.7)
Untreated MSW	SINGLE(14.2)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(25.7)
Hemi-Cellulose (%)	SINGLE(13.0)
Decomposition (%)	SINGLE(62.0)
<i>Other putrescible</i>	
Domestic	SINGLE(6.9)
Civic Amenity	SINGLE(14.8)
Commercial	SINGLE(10.4)
Industrial	SINGLE(6.8)
Untreated MSW	SINGLE(19.8)
Water (%)	SINGLE(65.0)
Cellulose (%)	SINGLE(55.4)
Hemi-Cellulose (%)	SINGLE(7.2)
Decomposition (%)	SINGLE(76.0)
<i>10mm fines</i>	
Domestic	SINGLE(1.9)
Civic Amenity	SINGLE(1.2)
Commercial	SINGLE(1.9)
Industrial	SINGLE(0.5)
Untreated MSW	SINGLE(5.4)
Water (%)	SINGLE(40.0)
Cellulose (%)	SINGLE(25.0)
Hemi-Cellulose (%)	SINGLE(25.0)
Decomposition (%)	SINGLE(50.0)
<i>Sewage sludge</i>	
Sewage Sludge	SINGLE(100.0)
Water (%)	SINGLE(70.0)
Cellulose (%)	SINGLE(14.0)
Hemi-Cellulose (%)	SINGLE(14.0)
Decomposition (%)	SINGLE(75.0)
<i>Composted organic material</i>	
Composted Organic Material	SINGLE(100.0)
Water (%)	SINGLE(30.0)
Cellulose (%)	UNIFORM(7.47, 9.59)
Hemi-Cellulose (%)	UNIFORM(7.47, 9.59)

Decomposition (%)		SINGLE(57.0)
<i>Incinerator ash</i>		
Commercial		SINGLE(0.2)
Industrial		SINGLE(25.5)
Incinerator Ash		SINGLE(100.0)
Water (%)		SINGLE(30.0)
Cellulose (%)		TRIANGULAR(0.5, 0.7, 1.5)
Hemi-Cellulose (%)		TRIANGULAR(0.5, 0.7, 1.5)
Decomposition (%)		SINGLE(57.0)
<i>Non degradable</i>		
Domestic		SINGLE(74.9)
Civic Amenity		SINGLE(28.0)
Commercial		SINGLE(34.1)
Industrial		SINGLE(30.7)
Inert		SINGLE(100.0)
Untreated MSW		SINGLE(28.4)
Water (%)		SINGLE(0.0)
Cellulose (%)		SINGLE(0.0)
Hemi-Cellulose (%)		SINGLE(0.0)
Decomposition (%)		SINGLE(0.0)
<i>Calcium Sulphate (%)</i>		
<i>Iron (%)</i>		
Justification:	[Changed]	Site-Specific

Trace Gases

No Combustion Products Selected

Existing Landfill

Infiltration		NORMAL(500.0, 50.0)
Justification:	[Changed]	Site-Specific

Waste Input

Year		AmountDeposited (t)
2004		SINGLE(1.39E+03)
2005		SINGLE(1.70E+05)
2006		SINGLE(1.93E+05)
2007		SINGLE(1.99E+05)
2008		SINGLE(1.94E+05)
2009		SINGLE(2.02E+05)
2010		SINGLE(1.98E+05)
2011		SINGLE(1.26E+05)
2012		SINGLE(1.37E+05)
2013		SINGLE(6.91E+04)
2014		SINGLE(1.22E+04)
2015		SINGLE(1.20E+05)
2016		SINGLE(1.46E+05)
2017		SINGLE(2.23E+05)
2018		SINGLE(3.28E+05)
2019		SINGLE(2.00E+05)
2020		SINGLE(2.05E+05)
2021		SINGLE(2.34E+05)
2022		SINGLE(2.00E+05)
2023		SINGLE(3.30E+05)
2024		SINGLE(4.23E+05)
2025		SINGLE(2.85E+05)
2026		SINGLE(2.85E+05)
2027		SINGLE(2.85E+05)
2028		SINGLE(2.85E+05)
Justification:	[Changed]	Site-Specific

Waste Breakdown

2004		
Commercial		SINGLE(65.0)
Inert		SINGLE(27.0)
Composted Organic Material		SINGLE(8.0)
2005		
Commercial		SINGLE(81.0)
Inert		SINGLE(15.0)
Composted Organic Material		SINGLE(4.0)
2006		
Domestic		SINGLE(2.0)
Commercial		SINGLE(67.0)
Inert		SINGLE(26.0)
Composted Organic Material		SINGLE(5.0)
2007		
Domestic		SINGLE(2.0)
Commercial		SINGLE(66.0)
Inert		SINGLE(25.0)
Composted Organic Material		SINGLE(6.0)
2008		
Domestic		SINGLE(57.0)
Commercial		SINGLE(13.0)
Inert		SINGLE(24.0)
Composted Organic Material		SINGLE(7.0)
2009		
Domestic		SINGLE(3.0)
Commercial		SINGLE(64.0)

Inert	SINGLE(11.0)
Composted Organic Material	SINGLE(22.0)
2010	
Domestic	SINGLE(19.0)
Commercial	SINGLE(53.0)
Inert	SINGLE(13.0)
Composted Organic Material	SINGLE(15.0)
2011	
Domestic	SINGLE(24.0)
Commercial	SINGLE(48.0)
Inert	SINGLE(25.0)
Composted Organic Material	SINGLE(3.0)
2012	
Domestic	SINGLE(48.0)
Commercial	SINGLE(27.0)
Inert	SINGLE(22.0)
Composted Organic Material	SINGLE(3.0)
Incinerator Ash	SINGLE(1.0)
2013	
Domestic	SINGLE(30.0)
Commercial	SINGLE(44.0)
Inert	SINGLE(16.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(1.0)
Incinerator Ash	SINGLE(8.0)
2014	
Domestic	SINGLE(15.0)
Commercial	SINGLE(23.0)
Inert	SINGLE(33.0)
Composted Organic Material	SINGLE(1.0)
Incinerator Ash	SINGLE(28.0)
2015	
Domestic	SINGLE(45.0)
Commercial	SINGLE(4.0)
Inert	SINGLE(33.0)
Composted Organic Material	SINGLE(2.0)
Incinerator Ash	SINGLE(16.0)
2016	
Domestic	SINGLE(75.0)
Civic Amenity	SINGLE(3.0)
Commercial	SINGLE(11.0)
Inert	SINGLE(11.0)
2017	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)
2018	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)
2019	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)
2020	
Domestic	SINGLE(39.0)
Civic Amenity	SINGLE(1.0)
Commercial	SINGLE(25.0)
Inert	SINGLE(12.0)
Composted Organic Material	SINGLE(15.0)
Incinerator Ash	SINGLE(8.0)
2021	
Domestic	SINGLE(17.0)
Commercial	SINGLE(47.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(26.0)
Incinerator Ash	SINGLE(8.0)
2022	
Domestic	SINGLE(17.0)
Commercial	SINGLE(38.0)
Industrial	SINGLE(1.0)
Inert	SINGLE(5.0)
Sewage Sludge	SINGLE(1.0)
Composted Organic Material	SINGLE(31.0)
Incinerator Ash	SINGLE(9.0)
2023	
Domestic	SINGLE(9.0)

Commercial		SINGLE(53.0)
Inert		SINGLE(9.0)
Composted Organic Material		SINGLE(19.0)
Incinerator Ash		SINGLE(9.0)
2024		
Domestic		SINGLE(7.0)
Commercial		SINGLE(57.0)
Inert		SINGLE(3.0)
Composted Organic Material		SINGLE(13.0)
Incinerator Ash		SINGLE(20.0)
2025		
Domestic		SINGLE(17.0)
Commercial		SINGLE(69.0)
Composted Organic Material		SINGLE(11.0)
Incinerator Ash		SINGLE(3.0)
2026		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2027		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2028		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
Justification:	[Default]	Default Value
Trace Gases		
		No Trace Gases Selected
Waste Moisture Content		
Degradation rate - Filling Phase		Super Wet
Justification:	[Changed]	Site-Specific
Degradation rate - after change		Super Wet
Justification:	[Changed]	Site-Specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Effective Porosity		UNIFORM(1.0, 20.0)
Justification:	[Default]	Default Value
Adsorptive Capacity		UNIFORM(1.0, 5.0)
Justification:	[Default]	Default Value
Volume Recirculated		SINGLE(0.0)
Justification:	[Changed]	Site-Specific
Engineered Controls		
<i>Cap</i>		
Cap Thickness		SINGLE(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	Site-Specific
Cap Thickness	[Changed]	Site-Specific
Cap Hydraulic Conductivity	[Changed]	Site-Specific
<i>liner</i>		
Liner Thickness		SINGLE(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	Site-Specific
Liner Thickness	[Changed]	Site-Specific
Liner Hydraulic Conductivity	[Changed]	Site-Specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		#UNDEFINED?
Geosphere		
Ground Surface (mAOD)		50
Water Table (mAOD)		38
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)

Project West

Infiltration		NORMAL(500.0, 50.0)
Justification:	[Changed]	Site-Specific

Waste Input

Year	Amount	Deposited (t)
2029	SINGLE	(2.85E+05)
2030	SINGLE	(2.85E+05)
2031	SINGLE	(2.85E+05)
2032	SINGLE	(2.85E+05)
2033	SINGLE	(2.85E+05)
2034	SINGLE	(2.85E+05)
2035	SINGLE	(2.85E+05)
2036	SINGLE	(2.85E+05)
2037	SINGLE	(2.85E+05)
2038	SINGLE	(2.85E+05)
2039	SINGLE	(2.85E+05)
2040	SINGLE	(2.85E+05)
2041	SINGLE	(2.85E+05)
2042	SINGLE	(2.85E+05)
2043	SINGLE	(2.85E+05)
Justification:	[Changed]	Site-Specific

Waste Breakdown

2029		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2030		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2031		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2032		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2033		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2034		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2035		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2036		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2037		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)
Composted Organic Material	SINGLE	(22.0)
Incinerator Ash	SINGLE	(12.0)
2038		
Domestic	SINGLE	(13.0)
Commercial	SINGLE	(49.0)
Inert	SINGLE	(4.0)
Sewage Sludge	SINGLE	(1.0)

Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2039		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2040		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2041		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2042		
Domestic		SINGLE(13.0)
Commercial		SINGLE(49.0)
Inert		SINGLE(4.0)
Sewage Sludge		SINGLE(1.0)
Composted Organic Material		SINGLE(22.0)
Incinerator Ash		SINGLE(12.0)
2043		
Domestic		SINGLE(6.0)
Commercial		SINGLE(24.0)
Inert		SINGLE(2.0)
Composted Organic Material		SINGLE(11.0)
Incinerator Ash		SINGLE(6.0)
Untreated MSW		SINGLE(50.0)
Justification:	[Default]	Default Value
Trace Gases		
		No Trace Gases Selected
Waste Moisture Content		
Degradation rate - Filling Phase		Super Wet
Justification:	[Changed]	Site-Specific
Degradation rate - after change		Super Wet
Justification:	[Changed]	Site-Specific
Waste Density		UNIFORM(0.8, 1.2)
Justification:	[Default]	Default Value
Leachate Head		SINGLE(1.0)
Justification:	[Default]	Default Value
Hydraulic Conductivity		LOGUNIFORM(1.00E-09, 1.00E-05)
Justification:	[Default]	Default Value
Effective Porosity		UNIFORM(1.0, 20.0)
Justification:	[Default]	Default Value
Adsorptive Capacity		UNIFORM(1.0, 5.0)
Justification:	[Default]	Default Value
Volume Recirculated		SINGLE(0.0)
Justification:	[Changed]	Site-Specific
Engineered Controls		
Cap		Single Clay
Cap Thickness		UNIFORM(0.9, 1.2)
Cap Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Cap	[Changed]	Site-Specific
Cap Thickness	[Changed]	Site-Specific
Cap Hydraulic Conductivity	[Changed]	Site-Specific
liner		Single Clay
Liner Thickness		UNIFORM(0.9, 1.2)
Liner Hydraulic Conductivity		LOGUNIFORM(1.00E-10, 1.00E-09)
Justifications		
Liner	[Changed]	Site-Specific
Liner Thickness	[Changed]	Site-Specific
Liner Hydraulic Conductivit	[Changed]	Site-Specific
Justification:	[Default]	Default Value
Methane Oxidation %		SINGLE(10.0)
Justification:	[Default]	Default Value
Land Raise Depth		#UNDEFINED?
Geosphere		
Ground Surface (mAOD)		50
Water Table (mAOD)		38
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)

Site Characteristics

Proportion to CO2 [%]	SINGLE(50.0)
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Justification:	[Default]	Default Value		
Proportion to CH4 [%]		SINGLE(50.0)		
Justification:	[Default]	Default Value		
Cellulose Decay Rates				
		Slow	Moderate	Fast
Dry		SINGLE(0.013)	SINGLE(0.046)	SINGLE(0.076)
Average		SINGLE(0.046)	SINGLE(0.076)	SINGLE(0.116)
Wet		SINGLE(0.076)	SINGLE(0.116)	SINGLE(0.694)
Saturated		SINGLE(0.013)	SINGLE(0.046)	SINGLE(0.076)
Super Wet		UNIFORM(0.076, 0.116)	UNIFORM(0.116, 0.694)	SINGLE(0.694)
User Defined 2		UNIFORM(0.046, 0.076)	UNIFORM(0.076, 0.116)	UNIFORM(0.116, 0.694)
Justification:	[Changed]	Site-Specific		

Gas Plant

Engine/Flare Order	[Default]	No Flares/Engines in use Default Value
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Trace Gas Plant

Justification:	[Default]	No Trace Gases Selected Default Value
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Global Impact

Bulk Gases

Global Warming Potential		
Carbon Dioxide [t]:		1
Methane [t carbon dioxide]:		21
Hydrogen [t carbon dioxide]:		0
Justification:	[Default]	Default Value
Ozone Depletion Potential		
Carbon Dioxide [t trichlorofluoromethane]:		0
Methane [t trichlorofluoromethane]:		0
Hydrogen [t trichlorofluoromethane]:		0
Justification:	[Default]	Default Value

Lateral Migration

Bulk Gases

Air Diffusion Coefficients		
CO2 Dispersivity		SINGLE(0.1613)
CH4 Dispersivity		SINGLE(0.2192)
H2 Dispersivity		#UNDEFINED?
Justification:	[Default]	Default Value

Geosphere

Cell		Existing Landfill
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)
Cell		Project West
Geosphere Moisture Content		UNIFORM(2.0, 8.0)
Geosphere Porosity		UNIFORM(14.0, 49.0)
Justification:	[Changed]	Site-Specific



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