THE STATES OF DELIBERATION
of the
ISLAND OF GUERNSEY

COMMITTEE *FOR THE* ENVIRONMENT & INFRASTRUCTURE
AND
STATES' TRADING SUPERVISORY BOARD

THE INERT WASTE STRATEGY AND
A PROPOSAL FOR A NEW FACILITY FOR MANAGING RESIDUAL INERT WASTE

The States are asked to decide: -

Whether, after consideration of the Policy Letter entitled 'The Inert Waste Strategy and a Proposal for a new Facility for Managing Residual Inert Waste' of the Committee *for the* Environment & Infrastructure and the States' Trading Supervisory Board, they are of the opinion:-

1. To approve the strategy for managing inert waste, as set out in Appendix 1 to the policy letter, which includes provision of future on-island facilities for residual inert waste, through means of either on-island coastal land reclamation or quarry infill.

2. To approve the further development of the 'preferred way forward' for the management of residual inert waste through land reclamation at Longue Hougue South, such option having been identified as one of the Best Practical Environmental Options, from a short list of possible options, in accordance with the Environmental Pollution (Guernsey) Law, 2004.

3. To delegate authority to the Policy & Resources Committee to approve expenditure on the 'Analysis and Design' stage of the Inert Waste project as identified in paragraphs 7.1 to 7.6 of this Policy letter, up to a maximum of £1.1 million, funded from the Solid Waste Trading Account.

4. To approve the draft Waste Management Plan, as set out in Appendix 2 to the Policy Letter, in accordance with section 31(3) of the Environmental Pollution (Guernsey) Law, 2004, which is amended from the Waste Management Plan approved by Resolution 1 of 1st August, 2014 on Article IX of Billet d'État No. XVI of 2014 to bring it up to date in particular to reflect-

   (a) the above proposals in relation to the strategy for managing inert waste, and

(b) the changes approved to the detail of the Solid Waste Strategy by the Resolutions of 16th February, 2017 on Article III of Billet d'État No. V of 2017.

The above Propositions have been submitted to Her Majesty's Procureur for advice on any legal or constitutional implications in accordance with Rule 4(1) of the Rules of Procedure of the States of Deliberation and their Committees.

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The Presiding Officer
States of Guernsey
Royal Court House
St Peter Port

9th November 2017

Dear Sir

1 Executive Summary

1.1 The Committee *for the* Environment & Infrastructure (C*fE*&I) has given consideration to and supported the recommendations made to it by the States' Trading Supervisory Board (STSB) in STSB's role as the Waste Disposal Authority (WDA). This joint Policy Letter sets out recommendations for: -

(a) A new Inert Waste Strategy, which complements and is consistent with the Solid Waste Strategy (set out at Appendix 1 of this Policy Letter);
(b) A replacement facility to manage residual inert waste (the preferred way forward being a site at Longue Hougue South); and
(c) Changes to the statutory Waste Management Plan (set out at Appendix 2 of this Policy Letter).

1.2 The current provision for management of residual inert waste includes disposal at the Longue Hougue Reclamation Site. This site will reach the end of its operational life when it reaches capacity, which is estimated around 2020 or 2021. No matter how much of the inert waste stream is reduced, re-used or recycled, there is a strong business need for a recovery or disposal service for residual inert waste, as the Longue Hougue Reclamation Site is nearing capacity. There is an urgent need therefore to progress to the next stages of the process to secure a replacement facility for the recovery or disposal of residual inert waste by 2022.

2 Introduction

2.1 The Committee *for the* Environment & Infrastructure is responsible for waste policy and strategy development, and periodic review of the Waste Management Plan, following recommendations made to it by the WDA. The Committee also advises the States on environmental and waste policy matters.

2.2 The States' Trading Supervisory Board (STSB), as the Waste Disposal Authority (WDA), has various statutory functions. The STSB is responsible for the day to day provision of waste and recycling services and facilities. These are delivered through Guernsey Waste and provided principally at operational level by States Works which are all parts of the STSB. The STSB is also responsible for implementation of the States agreed Solid Waste Strategy and the proposed Inert Waste Strategy again carried out through Guernsey Waste and States Works

2.3 One of the waste streams is inert waste. There is a helpful definition of Inert waste contained in legislation[1] i.e. "waste" which:

(a) does not undergo any significant physical, chemical or biological transformations,
(b) does not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution, and
(c) has insignificant total leachability and pollutant content and the leachate of which has insignificant ecotoxicity (in particular, not such as to endanger the quality of any water)."

2.4 Inert waste is produced from excavation, construction and demolition activities, and mainly comprises rubble, hard-core, concrete, bricks, tiles and other ceramics, clean soil, and mixtures of these items.

2.5 The STSB as Waste Disposal Authority ultimately has an obligation to ensure provision for inert waste management, particularly in waste streams that have no commercial value, such as residual inert waste, which includes construction or demolition rubble that cannot be re-used or recycled.

2.6 In recent years, Guernsey has relied on coastal land reclamation for the disposal of inert waste from construction and demolition activity. The Longue Hougue Reclamation Site, on the east coast of Guernsey, has received the island's inert waste since 1995. Recent surveys have indicated that the site is likely to be full by 2020/2021.

[1] Waste Disposal and Recovery Charges Regulations, 2017

2.7 The Solid Waste Strategy is primarily focussed on the management of household and commercial waste. It states that "Future inert waste disposal will be reliant on further land reclamation projects", which is limited in outlook and does not provide a strategic or sustainable direction for the future management of inert waste. A Strategy is therefore required to formalise the States' position on the overall approach to the management of the inert waste stream.

2.8 No matter how much of the inert waste stream is reduced, re-used or recycled, there will remain a need for recovery or disposal of the residual inert waste.

2.9 This Policy Letter sets out:

- The proposed new Inert Waste Strategy
- The preferred way forward to deliver a replacement facility for residual inert waste
- Proposed changes to the Waste Management Plan, proposed by the C*fE*&I following recommendations by the WDA, to reflect the proposed Inert Waste Strategy and other changes previously approved by the Resolutions of 16th February, 2017 on Article III of Billet d'État No. V of 2017.

3 Strategic & Legislative Context

3.1 Developing an overall policy approach to inert waste must recognise the existing related strategic policy and legislative framework. The work on the proposed Strategy and actions arising out of it have been influenced by the States Policy & Resource Plan, the Solid Waste Strategy, the Strategic Land Use Plan, and the Island Development Plan and developed in accordance with the provisions of the Environmental Pollution Law.

Policy & Resource Plan

3.2 The Policy and Resource Plan (P&R Plan), is a high-level strategic plan, developed in two phases, which lays down a framework of policy direction to guide the planning and coordination of the work of the States. It is the overarching policy tool which guides decision-making within the States.

3.3 Phase One of the P&R Plan was approved by the States in November 2016. This set out, at a high level, the vision for the Island in 20 years' time and what needs to be focused on over the next 5 years towards achieving the vision. Phase two of the P&R Plan was approved by the States in June 2017 and focuses in more detail on the priorities of the Principal Committees over the next 5 years to achieve the outcomes identified in Phase One.

Committee *for the* Environment & Infrastructure Policy Plan

3.4 The mandate of the CfE&I includes advising the States, and developing and implementing policy and strategy, regarding infrastructure and solid waste. Waste policy is one of five priority areas the Committee has identified as significant and critical to the delivery of the themes/outcomes in Phase One of the P&R Plan.

3.5 In this context, the Solid Waste Strategy is in the latter stages of implementation and is not, therefore, a priority for policy development. However, it does not give detailed strategic direction for the overall management of inert waste beyond the consideration of residual inert waste disposal. The CfE&I Policy Plan therefore recognises the need for an overarching strategy that provides a framework for the future that can be taken into account by Islanders and businesses and against which sound investment decisions can be made.

3.6 The CfE&I's Policy Plan includes a commitment to bring to the States an Inert Waste Strategy for the identification and delivery of optimal solution(s) for the management, use and disposal of Guernsey's inert waste over the next 20 years (in accordance with statutory process and key milestones within the project including high level Environmental Impact Assessments and resulting changes to the Waste Management Plan and Waste Strategy) - by the end of 2017.

3.7 This CfE&I key priority is underpinned by a number of P&R Plan Phase One themes and objectives, including:

- "Strong, sustainable and growing economy"
- "Mature International Identity"
- "Ensure we have fit-for-purpose infrastructure to deliver services appropriately"
- "Protect and enhance our natural environment".

Solid Waste Strategy

3.8 The Solid Waste Strategy adopted by the States is based on the Waste Hierarchy[2], an internationally accepted principle and guide to sustainable waste management. It identifies the preferred order for managing waste, with the aim of extracting maximum practical benefits from products and materials and generating the least amount of waste, namely:

- Prevention;
- Reuse;

[2] Waste Hierarchy: Directive 2008/98/EC on Waste (Waste Framework Directive), Article 4.

- Recycling;
- Recovery; and then finally,
- Disposal.

3.9 The States Solid Waste Strategy focuses on reducing residual waste (gradually increasing up to a 70% recycling target by the end of 2030) and prioritises measures to minimise the amount of household and commercial waste that requires treatment and disposal.

3.10 The Solid Waste Strategy sets out the objectives for the island's waste management, and as such sets the framework for management of inert waste.

3.11 The key provisions within the Solid Waste Strategy that are pertinent to the development of the Inert Waste Strategy are:

- Consider the waste hierarchy specifically for inert waste and adopt the most appropriate methods to manage inert waste;
- Land reclamation will likely be required for future inert waste disposal;
- A need to develop an environmentally, economically and socially sustainable waste strategy that is practicable and adaptable to meet Guernsey's needs currently and in the foreseeable future; and
- Ensure the Inert Waste Strategy complies with the legislative and planning processes for securing future sites.

Strategic Land Use Plan

3.12 The Strategic Land Use Plan (SLUP), issued in 2011, is a statutory document prepared by the former Strategic Land Planning Group[3] and approved by the States[4] and which formed part of the former States Strategic Plan. Responsibility for the review and preparation of the SLUP now rests with the CFE&I. It sets out a 20-year agenda for land use planning in Guernsey, and provides a high-level spatial planning framework to guide the preparation of Development Plans, setting out detailed, specific policies in relation to the management of development under those Development Plans. Any options for the management of inert waste which are to be included within the Strategy must be consistent with the policies of the SLUP. Specifically, the following, reflecting the purpose, core objectives and certain specific policies of the SLUP, have helped shaped the Strategy:

- Enable the wise management of island resources;

[3] Under the terms of the 2005 Planning Law (Part II, Section 5). It was prepared by the former Strategic Land Planning Group; this function transferred to the CfE&I in the reorganisation of States' Affairs in 2016.
[4] Billet d'État No. XIX of 2011.

- Enable support for policies relating to conservation of energy and reduction of the carbon footprint;
- Development is undertaken in a sustainable manner ensuring care for the island's physical environment;
- Identify more sustainable approaches to waste management to reduce greenhouse gas emissions;
- Minimise the production of waste;
- Areas of land reclamation can enhance the roles of the Main Centres or be required to accommodate strategic development with a high environmental impact;
- Provide additional capacity by extending existing or providing new infrastructure;
- The location of strategically essential development should have first priority in existing and new areas of land reclamation
- Development plans must identify sufficient land for future solid waste treatment solutions and associated infrastructure.

Island Development Plan

3.13 The Island Development Plan (IDP), approved by the States in November 2016, sets out detailed land planning policies for the whole of Guernsey. It translates the high level SLUP policies into practice. The IDP's principal aim is:

> *"To ensure land planning policies are in place that are consistent with the Strategic Land Use Plan and which help maintain and create a socially inclusive, healthy and economically strong island, while balancing these objectives with the protection and enhancement of Guernsey's built and natural environment and the need to use land wisely."*

3.14 As such, the IDP contains a number of policies with which the Inert Waste Strategy must be consistent, particularly regarding options for the management of inert waste:

- Development required to implement the Island's Waste Strategy will be supported where it is in accordance with all relevant policies of the Island Development Plan.

- The IDP recognises that Longue Hougue Key Industrial Area is an established location for waste management, including disposal of residual inert waste and proposals for facilities at this existing site would, in principle, be supported provided they do not prejudice the long term development of St Sampson's Harbour Action Area and accord with all other relevant policies of the Island Development Plan.

- Other than proposals for waste facilities at the current Longue Hougue Key Industrial Area, proposals for new waste facilities required as part of the States' Waste Strategy, including land reclamation, will be considered Development of Strategic Importance and so would have to considered, on a case by case basis, under the particular policies relating to such development.

- The IDP seeks to direct the development of other new waste management facilities towards designated Key Industrial Areas or Key Industrial Expansion Areas within the Main Centres and Main Centre Outer Areas. However, under the policy for Development of Strategic Importance, proposals for waste management facilities required as part of the States' Waste Strategy located elsewhere on the Island can also be considered on a case by case basis.

- IDP policies for sustainable design and construction and minimisation of waste at construction sites require the production of site specific waste management plans for some developments. These plans provide a key tool in the implementation of this Strategy.

Waste Management Plan

3.15 The Waste Management Plan, approved by the States, details the sites and facilities required for the management of all waste streams. The current Waste Management Plan only identifies the Longue Hougue Reclamation Site as the current facility for the disposal of inert waste and it is apparent that further sites for management of inert waste will be required in the future. The finite life of the current site is noted in the current Waste Management Plan.

Environmental Pollution Law, 2004

3.16 The Environmental Pollution (Guernsey) Law, 2004 (Environmental Pollution Law) requires identification of the Best Practical Environmental Options (BPEOs).

3.17 One of the duties of the STSB, as Waste Disposal Authority, under the Environmental Pollution Law is to identify the best practical environmental options for the recovery or disposal of waste.

3.18 The methodology adopted by the STSB to identify the BPEOs has at its core the protection of the environment. This is consistent with the general scheme of the Environmental Pollution Law, which relates to protection of the environment across land, air and water and defines pollution of the environment to include harm to human health and other living organisms. In

the UK, the accepted interpretation of the similar term ' Best Practicable Environmental Option' is "*the option that provides the most benefits or the least damage to the environment, as a whole, at acceptable cost, in the long term as well as in the short term*". The STSB, as WDA, has, therefore, adopted a process in identifying the BPEOs for management of inert waste, which is broadly based on the UK BPEOs process whilst taking into account the differences in the local legislation and circumstances.

4 Proposed Inert Waste Strategy

4.1 The Solid Waste Strategy reflects the waste hierarchy. However this is currently focused on the management of household and commercial waste, and provides limited information or guidance relating specifically to the inert waste stream. It states that "Future inert waste disposal will be reliant on further land reclamation projects". It was recognised that this focusses only on disposal of residual inert waste and does not provide a strategic or sustainable direction for the future management of inert waste for each of the levels of the waste hierarchy.

4.2 The proposed Inert Waste Strategy has been developed as part of the CfE&I's priorities for Phase 2 of the Policy and Resource Plan (June 2017), which was endorsed by the States of Deliberation earlier in 2017.

4.3 The States of Deliberation agreed for CfE&I to develop a strategy for inert waste to provide a more detailed framework for the inert waste stream for each level of the waste hierarchy.

4.4 Royal HaskoningDHV was appointed to support the development of the Inert Waste Strategy ('the Strategy'). In developing the proposed Inert Waste Strategy there were five key objectives:

- Striking an appropriate balance for Guernsey between delivering sustainable levels of waste minimisation/reduction, reuse and recycling and minimising residual inert waste for disposal;
- Identifying the best practical environmental options;
- Satisfying the needs of the island;
- Taking into account the views of stakeholders and interested parties; and
- Representing best value for money.

4.5 The proposed Inert Waste Strategy has been subject to a consultation process in order to ensure that States bodies, non-Governmental Organisations (NGOs) and the private sector, including the construction and demolition industry, were involved in the process of developing the Strategy. Consultation involved

stakeholder workshops and requests for feedback on a stakeholder consultation document covering the evidence base and approach to developing the Strategy, the Strategy itself, and the options which comprise the Strategy.

4.6 In developing the Inert Waste Strategy the approaches to inert waste management adopted by other island communities have been considered. This research was undertaken to determine if there were any island related best practice measures that could be adapted to suit the issues on Guernsey. The islands considered included Iceland, Isle of Man, Jersey, Malta, and St Helena.

4.7 It was apparent that none of the islands had a dedicated inert waste strategy upon which Guernsey could model its approach. Only one island included reference to inert waste within its strategic waste management policies. However in all islands reviewed, there appeared to be links between waste policy and planning policy. Only those islands which referred to EU legislation had targets for both waste and inert waste and these were the same as the EU targets for 2030 set at 70% for reuse, recycling or recovery by other means (with one exception which had a 90% diversion from landfill target).

4.8 The waste hierarchy was adopted by all of the case study islands. However there was evidence that other jurisdictions have made reference to amending the internationally accepted waste hierarchy to suit the requirements of specific island communities and the environmental impacts of each option.

4.9 In the Guernsey context it is recognised that, even if not identified at the project's inception, land created by land reclamation and infilling existing quarries potentially has a significant beneficial value in the future, and therefore where land reclamation and infilling existing quarries has potential future value these should be situated higher up the hierarchy than a site with no or little potential for future use which is simply a disposal site

4.10 In developing the Inert Waste Strategy, the specific set of circumstances (i.e. the needs of Guernsey) for a specific waste stream (inert waste) have been taken into account to recognise that this waste is a potential resource in the island context.

4.11 Based on all the research undertaken it is considered that there is latitude to depart from the waste hierarchy for land reclamation and infilling of existing quarries where there is beneficial value so that they are treated as elevated up the hierarchy and prioritised where they meet the requirements that are specified in the Inert Waste Strategy and would deliver the best overall environmental outcome and that this will not conflict with the overall aims and objectives of the waste hierarchy or of the Solid Waste Strategy.

4.12 This approach also reflects the references to land reclamation in the SLUP which highlights the potential to enhance the roles of the Main Centres or to accommodate strategically essential development or otherwise enable the objectives of the SLUP to be met through land reclamation. Similarly where residual inert waste can be diverted to strategic developments, where it is required, it is considered that it has a beneficial value which should be reflected in the position in the hierarchy.

4.13 The development of the Inert Waste Strategy has been particularly mindful of current ongoing work on other strategic projects and programmes, for example the Hydrocarbons Programme and the development of St Peter Port Harbour Action Area. Whilst there are specific time limitations around the current project to provide a facility for the management of residual inert waste due to the capacity of the existing reclamation site at Longue Hougue, generally the Strategy is intended to compliment and facilitate other Strategic projects. The identification of the preferred way forward for the provision of the next residual inert waste site has involved consideration of the potential value of land created and this will be further investigated when developing the Outline Business Case. Generally the Strategy will ensure that the potential benefits and value of land created to other strategic projects is taken into consideration when identifying future preferred ways forward.

4.14 The Strategy therefore proposes the following waste hierarchy for inert waste on Guernsey:

The Waste Hierarchy for Inert Waste

4.15 The Strategy recommends that in certain circumstances, coastal land reclamation or quarry infill using residual inert waste could be treated as 'recovery' rather than 'disposal'.

4.16 The Inert Waste Strategy is annexed in Appendix 1 for States approval.

5 Implementation of the Proposed Inert Waste Strategy

5.1 Section 4 has set out the overall principles of the proposed approach towards the management of inert waste through each of the tiers of the inert waste hierarchy over the next 20 years. The detailed Implementation Plan is set out in section 5.4 of Appendix 1 and proposes a phased approach to the implementation of the Strategy. The implementation of the short and medium term phases of the Strategy for managing Inert Waste involves -

(a) continuing to dispose of residual inert waste at the current Longue Hougue Reclamation Site until the site reaches capacity;

(b) the provision of guidance to parties involved in construction and demolition on the implementation of site waste management plans;

(c) collecting and compiling data from site waste management plans to better establish a baseline, with a view to setting targets for recycling and re-use;

(d) providing temporary solutions at the current Longue Hougue Reclamation Site, prior to the new facility becoming available;

(e) provision of a new on-island facility for residual inert waste through recovery (as defined in the Strategy, where for example, land reclamation has a beneficial value) firstly, and then to disposal via land reclamation or quarry infill with no beneficial value; and

(f) Any strategic projects, including land reclamation projects that could require inert waste could be actively identified for the diversion and use of material, prolonging the lifetime of any residual inert waste facility. The principles of the Inert Waste Strategy should be taken into account when developing all future States policy and strategic projects in terms of potential hierarchical uses for inert waste.

5.2 The Development & Planning Authority will be providing guidance for site Waste Management Plans in due course. The information contained in the site Waste Management Plans will form part of the monitoring framework set out in the IDP which was approved by the States in 2016. Other work and

initiatives to promote improved performance of inert waste management will be further investigated by the CfE&I and STSB.

5.3 The consideration of the options for the replacement and alternatives for residual inert waste are set out later in the next section of the policy letter.

6 Proposed Residual Inert Waste Replacement Facility

End of Life Forecasts

6.1 The forecasting approach, both of the expected end of operational life for the current Longue Hougue Reclamation Site and the anticipated operational life of other sites, is based on estimated tonnages per annum.

6.2 The annual tonnage forecasts are derived from a number of factors, but largely based on the 4 year average of historical data and potential pipeline projects. Royal HaskoningDHV arrived at three assumptions on the predicted end of operational life of the current Longue Hougue Reclamation Site (i.e. when the site reaches capacity) based on recent data (at July 2017).

(a) Worst case – January 2020
(b) Conservative case –September 2020
(c) Best case – March 2023

6.3 The current trend is downwards, whilst it is prudent to take a 4 year average.

6.4 However, the trend on inert waste volumes and the above estimates can change significantly, based on a number of different factors, including:

- the buoyancy of the construction industry;
- the number of large construction projects requiring demolition and excavation in the 'pipeline'; and
- the amount of inert waste re-used and recycled.

6.5 If the actual fill rate is slower than predicted (assumed at 110,000 tonnes per annum) for the new residual site options, this could reduce the payback on the capital investment; potentially a longer loan agreement and a higher gate fee to the end user. Sensitivity testing has been carried out on the lower rates of 80,000 tonnes and 60,000 tonnes.

6.6 The States may also wish to divert residual inert waste, where it is required, to strategic projects that may come forward including land reclamation. These may take immediate priority and will help to divert inert waste (if only for a short period of time) from more permanent solutions. This would also affect the time period for the recovery of capital investment for the core facility, and

whilst diverting residual inert waste to strategic projects may provide other benefits for the States a different economic model may be required as a result.

Investment Objectives

6.7 The investment objectives against which the recommendations have been assessed are to:

(a) Identify and deliver a new solution for the management of residual inert waste for the next 20 years, before the current residual inert waste management solution expires (estimated 2020 - 2021);
(b) Manage inert waste in accordance with the need to identify Best Practical Environmental Options, as required under the Environmental Pollution (Guernsey) Law;
(c) Deliver a solution(s) that complies with the States of Guernsey Waste Management Plan (WMP);
(d) Provide the most appropriate management and disposal route for inert waste, which is affordable to the end user; and
(e) Provide a flexible solution that enables prioritisation of re-use, recycling and recovery of inert waste, ahead of disposal, where beneficial uses can be found.

Best Practical Environmental Options

6.8 The WDA has a legal responsibility to identify the 'Best Practical Environmental Options' (BPEOs) for the recovery or disposal of waste, as required by the Environmental Pollution (Guernsey) Law, 2004. The WDA appointed Royal HaskoningDHV Ltd to undertake a High Level Environmental Impact Assessment and options assessment to assist in the identification of a short list of options and a 'preferred way forward', using an established 'BPEO' methodology[5].

6.9 The detailed options appraisal has involved a number of stakeholders at several workshop sessions to evaluate the BPEOs, developed from a long list of 50 indicative options (including off-island solutions) to a short list of 15 options. In particular the export of waste and the disposal of waste at sea were two high profile options that were considered and dismissed from consideration as viable options.

[5] The methodology adopted by the STSB to identify the BPEOs has at its core the the protection of the environment across land, air and water. The STSB has applied a BPEOs procedure based on the accepted interpretation in the UK of the similar term of 'Best Practical Environmental Option'; this establishes for a given set of objectives, the option that provides the most benefits or the least damage to the environment, as a whole, at acceptable cost, in the long term as well as in the short term.

6.10 The export of inert waste as an option was eliminated as regulatory, financial and logistical considerations made it very unlikely to be viable. Shipments could be treated as shipments for disposal of waste; therefore Guernsey would need to make a case to ship inert waste for disposal to the EU on the basis that Guernsey did not have and could not reasonably acquire the technical capacity and necessary facilities in order to dispose of the waste on-island in an environmentally sound manner[6]. This would be difficult to argue given Guernsey's relative wealth. At the same time Guernsey does not have the necessary infrastructure in place to enable the export of residual inert waste within the timeframe required before the current site reaches capacity and this would in any case be expensive to construct. In addition, shipment charges alone are likely to exceed the likely gate fee charges for management of inert waste on-island.

6.11 Disposal of Inert Waste at sea was eliminated as an option as regulatory and environmental considerations made this option unviable as it did not adhere to legal obligations and international best practice. Dumping inert waste at sea is highly regulated through the Food and Environmental Protection Act 1985, which was extended to Guernsey in 1987, and by international convention and only permitted after careful assessment of other disposal options and potential impacts. In addition to this the same logistical issues as export of inert waste would apply (see 6.10 above). These are associated with the loading of inert waste on to a vessel for transportation to a disposal location.

6.12 The remaining 15 options were subjected to a detailed Second Pass Assessment under the BPEOs process. The systematic assessment identifies options which provide the maximum environmental, economic and social benefits, as well as meeting technical and legislative constraints.

Critical Success Factors

6.13 Workshops were held with key stakeholders, including statutory consultees, staff, businesses, site users (customers) and non-government organisations (including environmental groups). Stakeholders also provided feedback on a subsequent consultation document. This resulted in an agreed set of socio-economic, environmental and financial objectives, criteria and indicators, informed by the Investment Objectives and the Critical Success Factors described below.

- Strategic fit & Business needs

[6] This basis is required under the EU Waste Shipment Regulation applying in the likely countries of import.

    - Continuity of provision of fit-for-purpose infrastructure and/or services for customers (replacement solution);
    - Provides a solution with adequate capacity for the recovery or disposal of inert waste for the next 20 years; and
    - Is consistent with the 'Waste Hierarchy' / best practice.

- Potential value for money

    - Reduce our carbon footprint through sustainable practices.
    - Maximise capacity value with capital investment (cost/tonne).

- Business/Amenity or other use of land after operational life of asset.

    - Inert waste can be diverted where practicable for strategic or 'beneficial' uses (e.g. land raising, land reclamation)

- Supplier capacity and capability

    - Ability of the market to respond would require at least 3 suppliers interested in tendering.

- Potential affordability

    - Affordability to end user (cost/tonne)

- Potential achievability & Social Acceptability.

    - Compliance with Best Practical Environment Options

- Can be delivered by 2021

    - Is acceptable to stakeholders

6.14 It is likely that any new residual facility will not be available until the end of 2022, (the beginning of 'medium term') due to the statutory processes and approval timescales. Therefore a short-term plan will be to stockpile residual inert waste at the existing site at Longue Hougue as well as initiatives to slow down the fill rate of the existing facility, by encouraging more re-use, recycling and recovery.

Short list of Site Solutions

6.15 Royal Haskoning assessed each option against the BPEOs criteria to produce a short list of site options. These were then subject to a sensitivity analysis against the cost criteria. This effectively reviewed the more expensive and mid-priced options in relation to the costs and affordability. This produced the final short list of options:

- Guillotine Quarry;
- Paradis/L'Epine Quarries;
- Longue Hougue South Land Reclamation;
- North of Mont Cuet/Creve Coeur Land Reclamation; and
- Les Vardes Quarry[7].

6.16 Key Stakeholders were consulted through workshop sessions where they reviewed the short list of sites and their relative advantages and disadvantages according to the overall business and operational benefits (or 'needs and wants'), investment objectives and critical success factors.

[7] None of the options available in the medium term are estimated to have a capacity for the next 20 years. Therefore an initial site will need to be followed by another site in the longer term. The solution will require a phased approach, with an initial site to meet the requirements for the medium –term, which is the focus of this Policy Letter, followed by a longer-term site or a combination of smaller sites the identification of which will be informed by regular monitoring and review and the development of further business cases.

Business and Operational 'Needs and Wants'

	BUSINESS	OPERATIONAL
NEEDS	• Somewhere to dispose of residual inert waste • Minimise Environmental impacts • A site that is available to ensure continuity of service • Cost Recovery • Financial cost certainty • Awareness of external, non-financial costs e.g. on future generations	• Good and safe access for large vehicles • Safe for operational staff and site users • Adequate capacity • Permanent "fill option" • Waste Management Licence
WANTS	• Low Cost • Potential Social Benefits at the end of the site's life (Amenity value) • Positive visual aspect (short/long term) • Potential flexibility in operation • Minimal site preparation requirements • Cheap – so as not to drive unwanted behaviour or dis-incentivise development	• Architectural salvage opportunities (potential income) • On-site Reuse/Recycling facilities • Minimise neighbour impacts (over and above waste licensing requirement)

Cost Benefit Analysis

6.17 A cost/benefit analysis was undertaken by the project team, using a tool for assessing risk and return for capital expenditures, in accordance with best practice[8]. This included an assessment of the benefits and critical success factors identified for the project. The Table below provides the ranking outcome of the assessment. The cost/benefit analysis supported the findings of the BPEOs assessment, that Longue Hougue South is the 'preferred way forward' for the medium term (indicated in Appendix 3).

[8] A tool for assessing risk and return for capital expenditures, as recommended by HM Treasury's 'The Green Book – Appraisal and Evaluation in Central Government' (2011).

20 year Service Options	Rank	Estimated Fee per tonne for Break-even
1. Longue Hougue South – followed by Les Vardes	**1**	(£25)
2. Longue Hougue South – followed by North of Mont Cuet/Creve Coeur	**2**	(£29)
3. North of Mont Cuet/Creve Coeur – followed by Les Vardes	**3**	(£31)

6.19 The whole life costs of building and operating a facility over 20 years (gross), including operational revenue costs are estimated at £65.5m for the preferred ways forward (both initial and follow on sites). The highest ranking option requires a gate fee that is less than the other options to recover the costs over 20 years.

6.20 Whilst the economic appraisal points to the potential solution for a 20 year period, this would entail the provision of two consecutive sites over that period, because no single option has been identified with a capacity of 20 years that would be available within the timescale required.

Summary of Option Appraisal

6.21 The conclusion from the assessment of the short listed sites following consultation with key stakeholders was that the Longue Hougue South site option is the preferred way forward for the medium term, as it offers the best fit, in terms of meeting the Critical Success Factors and the Investment Objectives.

6.22 Another possible site option, is North of Mont Cuet/Creve Coeur. However, this is a more expensive option than Longue Hougue South and has a smaller capacity and operational life (estimated operational life of 11 years compared with circa 13 years for Longue Hougue South). North of Mont Cuet/Creve Coeur remains a possible option going forwards, and is a useful back up to Longue Hougue South and has not been discounted at this stage.

6.23 Guillotine Quarry, Paradis and L'Epine quarries whilst having a number of advantages are disadvantaged by having a very small capacity and a number of logistical and other challenges.

6.24 Whilst Black Rock 2 featured on the short list, (following sensitivity analysis) it was subsequently discounted. This site includes a significant environmental constraint, as a habitat of importance for maerl (a type of seaweed). This option was therefore removed in the final assessment.

6.25 QEII Marina did not make the final short list based on the cost sensitivity analysis. This option would be unlikely to be available for use by 2023 due to the need to complete a Local Planning Brief for the St Peter Port Harbour Action Area (HAA) and the completion of statutory processes associated with this. This option could still be reconsidered in the future as an option for the longer-term, if it is identified as a strategic benefit within the HAA.

6.26 Whilst Les Vardes Quarry featured on the short list it will not be available for use by 2023, and so cannot be considered as the preferred way forward. This option could still be considered in the future along with other options. Should all barriers be removed, it is possible (whilst unlikely) that Les Vardes could be considered a medium term option if stock piling could be extended significantly. Subject to the removal of a number of significant barriers, including its current strategic allocation for water storage within the SLUP and IDP, it may be possible as a longer term option. This will be investigated further at the next phase of the project.

Overall Conclusion

6.27 The Longue Hougue South site option is preferred because it offers the best fit in terms of meeting the Critical Success Factors and Investment objectives. The indicative area is shown on the map in Appendix 3. It could be constructed to be available for operation by the end of 2022 and has the largest capacity of all options that are available in the necessary timeframe. It is also likely to have beneficial after use once it has reached capacity and can therefore be classed as recovery under the terms set out in the Strategy which is consistent to the priority given to recovery over disposal in the Inert Waste Hierarchy. The value of land created and detailed design options will be explored as part of the Outline Business Case for the preferred way forward, taking into account possible future uses of land created and how this might positively compliment and support other strategic projects.

7 Funding Option for Preferred Residual Inert Waste Replacement Facility

Short term Funding Arrangements

7.1 As set out in Proposition 3, the STSB is seeking delegated authority for the Policy & Resources Committee to release expenditure of up to £1.1m for the development of proposals – i.e. the 'Analysis and Design Stage' of the project.

This will enable the continued development of the 'preferred way forward' of Longue Hougue South.

7.2 The £1.1m costs can be funded by existing reserves in the Solid Waste Trading Account (SWTA), without recourse to General Revenue funding or a loan. The costs will be funded through the surplus of Inert Waste Gate Fee income that has accrued since 2014 within SWTA.

7.3 Subject to the approval of the propositions set out in this Policy Letter, including the further development of the 'preferred way forward' for the management of residual inert waste through land reclamation at Longue Hougue South, the Land Planning & Development Legislation requires the carrying out of Environmental Impact Assessments (EIA), and Environmental Statements setting out the findings of those assessments, which are estimated to take up to one year to complete.

7.4 The Inert Waste Project will then need to undertake a number of further statutory and best practice requirements to test whether the site and other aspects of the proposed project are suitable, in particular the initial solution design including how this might positively compliment and support other strategic projects, the planning inquiry on the Local Planning Brief for the site and associated professional fees. These will need to be undertaken before the policy recommendation and Outline Business Case (OBC) can be prepared and authorisation sought from the States to tender for suitable contracts and services.

7.5 This 'Analysis and Design' stage is estimated to cost £1.1m during the years 2018 to 2020 and comprises: -

Analysis and Design Phase Costs

Inert Waste Project: Professional Fees incurred prior to O.B.C.	Risk %	Risk £000s	Total £000s	Year 1 £000s	Year 2 £000s	Year 3 £000s
				2018	2019	2020
EIA Professional fees	20%	43	215	215		
Communications prof' fees	0%	-	50	50		
Planning Inquiry	50%	26	52		52	
Site Evaluation Fees	50%	31	62		62	
Other Professional fees	100%	128	128	20	108	
Site Design	50%	106	212			212
External Legal Counsel	20%	3	17		9	9
subtotal Fees before risk adjustment		337	736	285	230	221
Capital costs Risk adj (effective rate: 46%)			337	63	167	108
subtotal Fees including risk adjustment			1,073	348	397	329

7.6 The level of uncertainty as to the estimated cost of professional fees incurred during the analysis and design stage has an overall risk adjustment factor applied of 46%, spread across each line item. Where some initial quotations or indicative amounts have been provided, the risk adjustment percentage applied is lower. The 'Other Professional fees' figure of £128k has a risk factor of 100%, because at this stage in the project there are unknown risks regarding the extent or type of professional fees that may be required. Part of the figure is likely to include Quantity Surveyor expertise, Project management/ assurance and internal financial team cost recovery, during the OBC and FBC stages, in order to manage costs throughout the whole procurement process.

Longer Term Funding

7.7 At this stage of the project, the capital costs are estimated at circa £30m. This amount includes both the initial 'Design and Analysis' phase of £1.1m and the indicative Build stage costs of £28.8m. The Build stage costs will require a further decision making process before funding can be released (estimated 2020/21). The total of circa £30m capital costs will be funded by a loan and recovered through gate fee income.

7.8 These costs have been set out in the Strategic Outline Case have been subject to a Project Assurance Review. The estimated costs allow for an element of unknown or unquantifiable risk at this early stage of the project.

Affordability

7.9 The project, including capital and operational revenue costs, is self-funding over its expected life, through gate fees. The cost based on the current model of the solution, which excludes any future land value, will require that the gate fee would need to rise from its current value of £17 to £23 (2017 values at volumes of 110k). This compares to a gate fee of £212 for non-recyclable/non inert waste at Mont Cuet and £16 for non-recyclable inert waste at La Collette Reclamation Site in Jersey.

7.10 The value of land created will be explored as part of the Outline Business Case for the preferred way forward, taking in account possible future uses of any land created, particularly taking into account impacts on other planned strategic development, other strategic projects and programmes and how these may be facilitated and supported through the development of the preferred way forward and which may influence the detailed design options.

7.11 There is a risk to the Finance Case of annual waste volumes falling below their medium term average of 110k tonnes p.a. A sensitivity analysis on Finance estimates and cash flows has therefore been separately modelled, using an

assumption of lower residual inert waste arisings to estimate the gate fee and payback period, as shown in the table below:

Site	Annual volume assumption	Gate Fee 2017 values	Pay-back period
Existing Facility	NA	£17	
Longue Hougue South	110,000	£23	14 yrs
	80,000	£25	19 yrs
	60,000	£28	25 yrs

The table shows that payback of the loan would take longer, with a decrease in residual inert waste arisings at the facility, with 3 different volumes assessed. The lowest volume modelled assumes 60,000 tonnes of inert waste p.a. with a payback period of 25 years for the site at Longue Hougue South. This would have an implication on the estimated gate fee, as indicated.

8 Timescale and Implementation Plan for the Preferred Way Forward

8.1 The Strategy provides an implementation plan for all Inert Waste streams across the 'Waste Hierarchy'. The aspects of the implementation plan, relating to the provision of facilities for residual inert waste management will take the form of three phases: short, medium and long-term.

- **Short Term (five years)** Stockpiling of inert waste at the existing facility which can then either be:
    - Utilised, where it is required, for strategic or other projects that may come forward; or
    - Deposited at the new facility when available.
- **Medium Term (up to 15 years**) Provision of services and facilities at the proposed preferred first site, currently identified as Longue Hougue South.
- **Long Term (>15 years)** Further work will be required to explore a long term solution or solutions which will be informed by monitoring and review and considered in the context of other strategic projects.

8.2 The Inert Waste Project to deliver the medium term facilities at the proposed preferred first site has the following key milestones and outline target dates for delivery:

Key Milestones

Key Milestone	Completion Date
States Decision on Policy Letter	December 2017
Detailed EIA of preferred way forward (Phase 2 of Royal HaskoningDHV contract).	December 2018
Procurement for design of site	April 2018
Local planning brief (and Public Inquiry)	April 2020
Outline Business Case - phase 2 and policy letter decision on site	November 2020
Tender construction contract	March 2021
Full Business Case approval to tender solution (assuming delegated to P&RC)	June 2021
Award construction contract and final design	July 2021
Planning application	November 2021
Waste management licence & FEPA[9] licence	December 2021
Site construction	November 2022

8.3 There are a number of key milestones where there are risks that the project may not be able to proceed to the next stage, if the requisite approvals are not possible. If the detailed EIA or Planning Inquiry identifies serious environmental impacts or identifies other significant issues then the CfE&I may need to revert to the States with an alternative shortlisted option or options.

9 The Waste Management Plan

9.1 Under the Environmental Pollution (Guernsey) Law, 2004, the Committee for the Environment & Infrastructure are required to lay before the States a draft Waste Management Plan (WMP). The WMP is a statutory Plan which identifies the descriptions and quantities of waste for the disposal or recovery of which provision needs to be made, the methods and facilities for that disposal or recovery and the estimated costs and arrangements for recovery of costs of the same.

[9] Any land reclamation proposal will require a Food & Environmental Protection Act (UK) 1985 license, before rock armour can be deposited on the sea bed.

9.2 The Waste Disposal Authority are required to perform a set of statutory functions reflected in the WMP, including making arrangements for the reasonable provision of facilities for the reception and recovery or disposal of waste, including inert waste. It is also responsible for identifying best practical environmental options for the recovery or disposal of waste and making recommendations to the CfE&I in connection with possible amendments to WMPs.

9.3 The CfE&I has considered and accepted the recommendations made to it by the WDA to revise and update the WMP to reflect the Inert Waste Strategy together with amendments to reflect changes to the Solid Waste Strategy already approved by the States of Deliberation on 16th February 2017.

9.4 The amended version of the Waste Management Plan is included in Appendix 2 and is laid before the States and recommended for approval. Certain amendments are just to reflect changes to terms used in the Law and Plan which have had legal effect since December, 2015 including the change of name of the plan itself from the Waste Disposal Plan to the Waste Management Plan and of the name of public waste disposal sites to public waste management sites.

9.5 For clarification, the WMP is a Plan relating to management of the disposal and recovery of waste on the whole Island. It is very different document to the site Waste Management Plans described in the Island Development Plan, the latter being mandatory for some development projects during the demolition and construction phases on particular development sites. Site Waste Management Plans will help contribute to encouraging behaviour change and increase in re-use and recycling of inert waste, as described in the Strategy.

10 Engagement and Consultation

10.1 A series of stakeholder workshops and consultations have been completed. There have also been a number of presentations and briefings to statutory consultees at key stages of the development of the Inert Waste Strategy, the shortlisting of options and the identification of the 'preferred way forward'.

10.2 As part of the public engagement process, a Communications Plan has been approved by the C*f*E&I. The Plan will be delivered following publication and in the lead up to the consideration of this Policy Letter by the States Assembly. The activities will include briefing presentations, public drop-in sessions, media briefings, facility trips, on-line information and social media content.

10.3 A Project Assurance Review has been undertaken, to review the Strategic Outline Case (SOC) and to provide assurance to Treasury and the Project Team

at this key Gateway to the project. The (draft) Business Case Review of the Inert Waste Project (SOC) report has concluded that:

- The SOC is a detailed and comprehensive document that reflects the considerable amount of time and effort put in by the Project Team;
- There are many aspects of the SOC that meets with best practice, such as use of stakeholder workshops in the option appraisal process and the detailed economic appraisal analysis.

10.4 A number of recommendations were made in the report and have been considered and addressed.

10.5 The Business Case was considered by the Policy & Resources Committee on 31st October 2017.

10.6 The WDA has consulted with statutory consultees in making recommendations to the C*f*E&I in connection with the preparation of a revised Waste Management Plan[10] and the feedback received has been taken into account in finalising those recommendations. The responses received within the consultation deadline are contained in Appendix 4 of this Policy Letter.

10.7 The Law Officers of the Crown have been consulted and have provided advice and analysis throughout the development of the Strategy and the Strategic Outline Case. This has been key to minimising any potential conflicts with the relevant legislation and the statutory Waste Management Plan.

11 Conclusions

11.1 The proposed Inert Waste Strategy sets out the approach to the Waste Hierarchy for the inert waste stream and allows for a departure from the waste hierarchy for land reclamation/quarry infill so that it can be treated as recovery in certain circumstances. This was considered the most appropriate approach to this type of waste stream taking into account our particular circumstances including our island location. The development of this strategy ensures that the States of Guernsey will have a comprehensive framework for the sustainable and appropriate management of the inert waste stream.

11.2 The Inert Waste Strategy will cover the next 20 year period, whilst subject to regular reviews. Reviews together with improvements in data, should help ensure our approach to waste management remains fit for purpose over the much longer term.

[10] Consultation with certain States Committees and the Douzaines is required in connection with such recommendations under section 31(2) of the Environmental Pollution Law.

11.3 It is proposed that the Waste Management Plan is revised and updated to reflect the Inert Waste Strategy together with amendments to reflect changes to the Solid Waste Strategy already approved by the States of Deliberation on16th February 2017.

11.4 In view of remaining capacity at the current residual inert waste site at Longue Hougue and in line with the proposed Inert Waste Strategy and the legislative requirements for the WDA to identify Best Practical Environmental Options, work on the preferred way forward at Longue Hougue South needs to commence immediately. This includes the commissioning of detailed Environmental Impact Assessments and related Environmental Statements, the preparation of a Local Planning Brief and related public inquiry into that Brief, consideration of the potential future use of land created and its value and initial solution design including how this might positively compliment and support other strategic projects. These next steps are expected to cost up to £1.1million. The States are being asked to approve the carrying out and funding of this work.

12 Propositions

12.1 To approve the strategy for managing inert waste, as set out in Appendix 1 to the policy letter, which includes provision of future on-island facilities for residual inert waste, through means of either on-island coastal land reclamation or quarry infill.

12.2 To approve the further development of the 'preferred way forward' for the management of residual inert waste through land reclamation at Longue Hougue South, such option having been identified as one of the Best Practical Environmental Options, from a short list of possible options, in accordance with the Environmental Pollution (Guernsey) Law, 2004.

12.3 To delegate authority to the Policy & Resources Committee to approve expenditure on the 'Analysis and Design' stage of the Inert Waste project as identified in paragraphs 7.1 to 7.6 of this Policy letter, up to a maximum of £1.1 million, funded from the Solid Waste Trading Account.

12 4 To approve the draft Waste Management Plan, as set out in appendix [ ] to the Policy Letter, in accordance with section 31(3) of the Environmental Pollution (Guernsey) Law, 2004, which is amended from the Waste Management Plan approved by Resolution 1 of 1st August, 2014 on Article IX of Billet d'État No. XVI of 2014 to bring it up to date in particular to reflect -

(a) the above proposals in relation to the strategy for managing inert waste, and

(b) the changes approved to the detail of the Solid Waste Strategy by the Resolutions of 16th February, 2017 on Article III, Billet d'État No. V of 2017.

12.5 The above Propositions have been submitted to Her Majesty's Procureur for advice on any legal or constitutional implications in accordance with Rule 4(1) of the Rules of Procedure of the States of Deliberation and their Committees.

13 Committee Support for the Propositions

13.1 In accordance with Rule 4(4) of the Rules of Procedure of the States of Deliberation and their Committees, it is confirmed that the propositions above have the unanimous support of the Committee *for the* Environment & Infrastructure and of the States' Trading Supervisory Board.

13.2 In accordance with Rule 4 (5) the preparation and agreement of the propositions and content of the Policy Letter has involved joint working between the Committee *for the* Environment & Infrastructure and the States' Trading Supervisory Board. The Policy & Resources Committee has also been consulted on the propositions and Policy Letter.

Yours faithfully

Committee *for the* Environment & Infrastructure
B L Brehaut
President

M H Dorey
Vice-President

S L Langlois
H L De Sausmarez
S T Hansmann Rouxel

States' Trading Supervisory Board
C N K Parkinson
President

J C S F Smithies
Vice President

S J Falla MBE
Non-States Member

J C Hollis
Non-States Member

Appendix 1
Draft Inert Waste Strategy

1 Introduction

1.1 The States of Guernsey Inert Waste Strategy

1.1.1 This document sets out the strategy for the management of inert waste in Guernsey. This will complement the already approved Solid Waste Strategy. [11]

1.1.2 The following sections set out:-

The strategic context;

A summary of the background research which has been used to inform the Strategy;

The Strategy objectives and proposals; and

Recommendations for monitoring and review.

1.2 What is Inert Waste?

1.2.1 There is a helpful definition of inert waste contained in legislation[12] i.e. "waste" which:

(a) does not undergo any significant physical, chemical or biological transformations,

(b) does not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution, and

(c) has insignificant total leachability and pollutant content and the leachate of which has insignificant ecotoxicity (in particular, not such as to endanger the quality of any water)."

1.2.2 Inert waste is produced from excavation, construction and demolition activities, and mainly comprises rubble, hard-core, concrete, bricks, tiles and other ceramics, clean soil, and mixtures of these items.

[11] Billet d'Etat IV 2012, Billet d'Etat II, 2014, & Billet d'Etat V, 2017.
[12] Waste Disposal and Recovery Charges Regulations, 2017

1.2.2 Inert waste is produced from **excavation, construction and demolition** activities, and mainly comprises rubble, hard-core, concrete, bricks, tiles and other ceramics, clean soil, and mixtures of these items.

1.3 Why does the States of Guernsey need an Inert Waste Strategy?

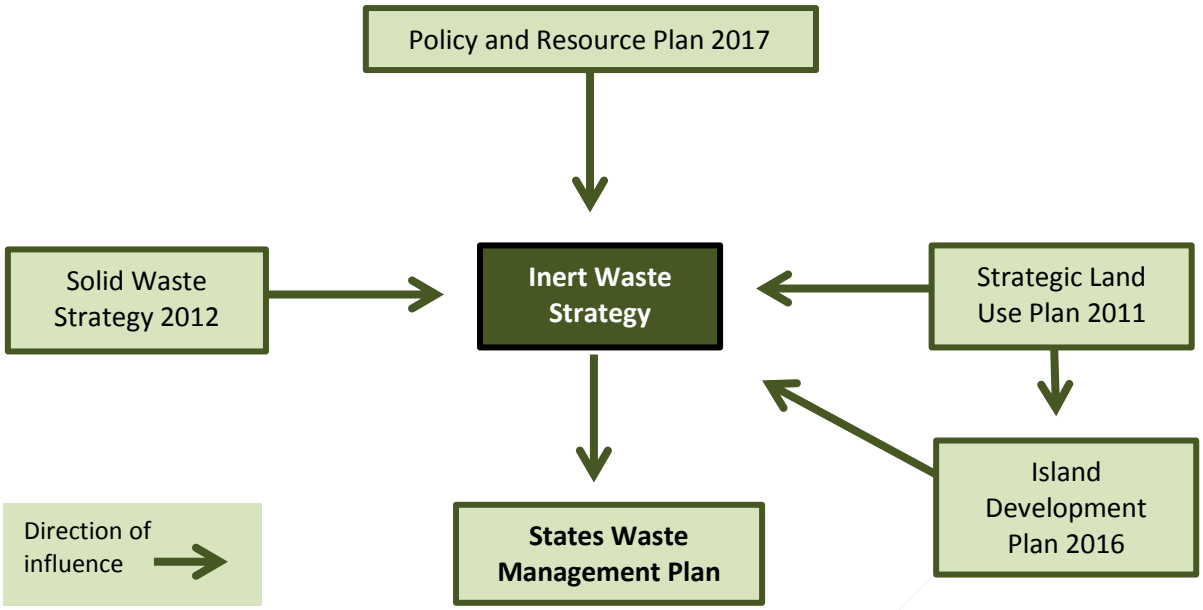
1.3.1 In recent years, Guernsey has relied on coastal land reclamation for the disposal of inert waste from construction and demolition activity. The Longue Hougue Reclamation Site, on the east coast of Guernsey, has received the island's inert waste since 1995. Recent surveys have indicated that the site is likely to be full by 2020/2021.

1.3.2 The Solid Waste Strategy is primarily focussed on the management of household and commercial waste. It focusses on disposal of inert waste and states that "*Future inert waste disposal will be reliant on further land reclamation projects*", which is limited in outlook and does not provide a strategic or sustainable direction for the future management of inert waste. A Strategy is therefore required to formalise the States' position in relation to inert waste, which complements the approved Solid Waste Strategy 2012, and which will provide a framework for the future which can be taken into account by Islanders and businesses and against which sound investment decisions can be made.

2 Strategic Context

2.1 The Strategic Framework

2.1.1 The Inert Waste Strategy sits within the existing related strategic policy and legislative framework that applies to the States of Guernsey (the States). This is summarised in the diagram below, along with the high-level relationships between individual elements.



2.1.2 The key policy instruments within the strategic framework, which have influenced the Inert Waste Strategy, are summarised below.

The Policy and Resource Plan

2.1.3 The Policy and Resource Plan (P&R Plan), is a high-level strategic plan, developed in two phases, which lays down a framework of policy direction to guide the planning and coordination of the work of the States. It is the overarching policy tool which guides decision-making within the States.

2.1.4 Phase One of the P&R Plan was approved by the States in November 2016. This set out, at a high level, the vision for the Island in 20 years' time and what needs to be focused on over the next 5 years towards achieving the vision. Phase two of the P&R Plan was approved by the States in June 2017 and focuses in more detail on the priorities of the Principal Committees over the next 5 years to achieve the outcomes identified in Phase One.

2.1.5 The mandate of the Committee *for the* Environment & Infrastructure (C*f*E&I) includes advising the States, and developing and implementing policy and strategy, regarding infrastructure and solid waste. Waste policy is one of five priority areas the Committee has identified as significant and critical to the delivery of the themes/outcomes in Phase One of the P&R Plan.

2.1.6 In this context, the Solid Waste Strategy is in the latter stages of implementation and is not, therefore, a priority for policy development. However, it does not give detailed strategic direction for the overall management of inert waste beyond the consideration of residual inert waste disposal. The C*f*E&I Policy Plan therefore recognises the need for an overarching strategy for the management of inert waste which identifies optimal solutions for the management, use and disposal of Guernsey's inert waste over the next 20 years including waste minimisation and prevention, reuse, recycling and recovery as well as disposal. It promotes the waste hierarchy for the management of inert waste.

2.1.7 This C*f*E&I key priority is underpinned by a number of P&R Plan Phase One themes and objectives, including:

- "Strong, sustainable and growing economy"
- "Mature International Identity"
- "Ensure we have fit-for-purpose infrastructure to deliver services appropriately"
- "Protect and enhance our natural environment".

2.1.8 The Inert Waste Strategy will also support the delivery of a key priority identified in the Committee *for* Economic Development's Policy Plan to: "Provide support to the construction industry through the active encouragement of strategic development and assisting in the removal of barriers to business, so that it can assist in the competitive and efficient delivery of sustainable economic growth"

2.2 Solid Waste Strategy

2.2.2 In light of best practice, the States have adopted the Waste Hierarchy[13] which is an internationally accepted principle and guide to sustainable waste management, as an overall approach to the management of all solid waste.

2.2.2 The Waste Hierarchy sets a high level priority order for the management of waste as: Prevention – Re-use – Recycling – Recovery – Disposal. (See

[13] Waste Hierarchy: Directive 2008/98/EC on Waste (Waste Framework Directive), Article 4.

diagram in section 5.4)

2.2.3 The States Solid Waste Strategy focuses on reducing residual waste (gradually increasing up to a 70% recycling target by the end of 2030) and prioritises measures to minimise the amount of household and commercial waste that requires treatment and disposal.

2.2.4 The Solid Waste Strategy sets out the objectives for the island's waste management, and as such sets the framework for management of inert waste.

2.2.5 The key provisions within the Solid Waste Strategy that are pertinent to the development of the Inert Waste Strategy are:
Consider the waste hierarchy specifically for inert waste and adopt the most appropriate methods to manage inert waste; Land reclamation will likely be required for future inert waste disposal; A need to develop an environmentally, economically and socially sustainable waste strategy that is practicable and adaptable to meet Guernsey's needs currently and in the foreseeable future; and Ensure the Inert Waste Strategy complies with the legislative and planning processes for securing future sites.

2.3 Strategic Land Use Plan

2.3.1 The Strategic Land Use Plan (SLUP), issued in 2011, is a statutory document prepared by the former Strategic Land Planning Group[14] and approved by the States[15] and which formed part of the former States Strategic Plan. Responsibility for the review and preparation of the SLUP now rests with the C*f*E&I. It sets out a 20-year agenda for land use planning in Guernsey, and provides a high-level spatial planning framework to guide the preparation of Development Plans, setting out detailed, specific policies in relation to the management of development under those Development Plans. Any options for the management of inert waste which are to be included within the Strategy

[14] Under the terms of the 2005 Planning Law (Part II, Section 5). It was prepared by the former Strategic Land Planning Group; this function transferred to the CfE&I in the reorganisation of States' Affairs in 2016.
[15] Billet d'État No. XIX of 2011.

must be consistent with the policies of the SLUP. Specifically, the following, reflecting the purpose, core objectives and certain specific policies of the SLUP, have helped shaped the Strategy:

- Enable the wise management of island resources;
- Enable support for policies relating to conservation of energy and reduction of the carbon footprint;
- Development is undertaken in a sustainable manner ensuring care for the island's physical environment;
- Identify more sustainable approaches to waste management to reduce greenhouse gas emissions;
- Minimise the production of waste;
- Areas of land reclamation can enhance the roles of the Main Centres or be required to accommodate strategic development with a high environmental impact;
- Provide additional capacity by extending existing or providing new infrastructure;
- The location of strategically essential development should have first priority in existing and new areas of land reclamation
- Development plans must identify sufficient land for future solid waste treatment solutions and associated infrastructure.

2.4 Island Development Plan

2.4.1 The Island Development Plan (IDP), approved by the States in November 2016, sets out detailed land planning policies for the whole of Guernsey. It translates the high level SLUP policies into practice. The IDP's principal aim is:

"To ensure land planning policies are in place that are consistent with the Strategic Land Use Plan and which help maintain and create a socially inclusive, healthy and economically strong island, while balancing these objectives with the protection and enhancement of Guernsey's built and natural environment and the need to use land wisely."

2.4.2 As such, the IDP contains a number of policies with which the Inert Waste Strategy must be consistent, particularly regarding options for the management of inert waste:

- Development required to implement the Island's Waste Strategy will be supported where it is in accordance with all relevant policies of the Island Development Plan.

- The IDP recognises that Longue Hougue Key Industrial Area is an established location for waste management, including disposal of residual inert waste and proposals for facilities at this existing site would, in principle, be supported provided they do not prejudice the long term development of St Sampson's Harbour Action Area and accord with all other relevant policies of the Island Development Plan.

- Other than proposals for waste facilities at the current Longue Hougue Key Industrial Area, proposals for new waste facilities required as part of the States' Waste Strategy, including land reclamation will be considered Development of Strategic Importance and so would have to considered, on a case by case basis, under the particular policies relating to such development.

- The IDP seeks to direct the development of other new waste management facilities towards designated Key Industrial Areas or Key Industrial Expansion Areas within the Main Centres and Main Centre Outer Areas. However, under the policy for Development of Strategic Importance, proposals for waste management facilities required as part of the States' Waste Strategy located elsewhere on the Island can also be considered on a case by case basis.

- IDP policies for sustainable design and construction and minimisation of waste at construction sites require the production of site specific waste management plans for some developments. These plans provide a key tool in the implementation of this Strategy.

2.4.3 In considering other locations, three areas have been designated in the IDP for specific future purposes and no development can be undertaken that would prejudice these potential future uses unless the designation is altered or removed by the States in accordance with statutory processes.

- Les Vardes Quarry, is safeguarded for possible fresh water storage,
- Land to the east of the airport is safeguarded for a possible runway extension,
- Land at Chouet Headland is designated for possible mineral extraction.
-

3 Current Situation and Challenges

3.1 Current Situation

Approach to Waste Management

3.1.1 The Solid Waste Strategy reflects the waste hierarchy. However this is currently focussed on the management of household and commercial waste, and provides limited information or guidance relating specifically to the inert waste stream. It states that "*Future inert waste disposal will be reliant on further land reclamation projects*". It is recognised that this focusses on disposal and doesn't provide a strategic or sustainable direction for the future management of inert waste for each of the levels of the waste hierarchy.

3.1.2 The local construction industry currently reuses, recycles and recovers some inert waste that is generated by building projects. However, data is not currently being captured by which to quantify these activities, or to identify any waste prevention measures that may be being implemented.

3.1.3 The Inert Waste Strategy aims to resolve this via the effective use of data collected through the site Waste Management Plans[16] now required for some developments by IDP policies (see 3.1.20 below).

3.1.4 Residual inert waste is inert waste that cannot be reused or recovered and which cannot be recycled. This material is currently deposited at the Longue Hougue Reclamation Site.

Capacity and trends at Longue Hougue

3.1.5 The States has collected data on inputs into the Longue Hougue residual inert waste facility since 1998. To determine the remaining life of the site, a capacity assessment was carried out in spring 2017. This predicted a 'best case' future arisings of 70,000 tonnes per annum. The latest survey data (at July 2017) has indicated a record low year (60,000

[16] The site waste management plans described in the Island Development Plan are mandatory for some development projects during the demolition and construction phases on particular development sites. These are different from the Waste Management Plan which is a Plan relating to management of the disposal and recovery of waste on the whole Island.

tonnes).

3.1.6 The amount of residual inert waste arising is linked to activity in the construction industry. The volumes entering Longue Hougue have declined in recent years, and this trend is expected to continue due to a number of factors. These include uncertainty associated with general market conditions and the consequences of the UK leaving the European Union. However, it is acknowledged that an upturn in development generally and/or the identification and commencement of major strategic development requirements could significantly alter the trends. Furthermore, the cost of primary materials being produced locally and those being imported, and the costs associated with disposal, means developers are likely to re-use as much inert material for construction purposes as possible. This will be further influenced by waste prevention, minimisation, recycling and recovery measures introduced by this Inert Waste Strategy.

3.1.7
The capacity assessment for the current residual disposal site at Longue Hougue predicted a maximum case, conservative case and best case remaining capacity to be **2.5 years, 3.2 years, and 5.7 years** respectively from July 2017 (i.e. at capacity in January 2020; September 2020; and March 2023). No matter how much of the inert waste stream is reduced, re-used or recycled, there is a strong business need for a recovery or disposal service for residual inert waste, as the Longue Hougue Reclamation Site is nearing capacity. There is an urgent need therefore to secure a replacement facility for the recovery or disposal of residual inert waste by 2022.

3.1.8 The States may also wish to divert residual inert waste, where it is required, to strategic projects that may come forward including land reclamation. These may take immediate priority and will help to divert inert waste (if only for a short period of time) from more permanent solutions but a different economic model may be required as a result as this could affect the time period for the recovery of capital investment for a core facility.

Best Practicable Environmental Option process

3.1.9 To fulfil the requirement for inert waste management, a wide range of

potential options have been considered to identify preferred future solutions. This optioneering process provided the methodology for the formulation of the Inert Waste Strategy, and used the Best Practicable Environmental Option (BPEO) process to identify the most appropriate approach. The methodology adopted to identify the BPEOs has at its core the protection of the environment. This is consistent with the general scheme of the Environmental Pollution Law which relates to protection of the environment across land, air and water and defines pollution of the environment to include harm to human health and other living organisms. In the UK, the accepted interpretation of the similar term "Best Practicable Environmental Option" is "*the option that provides the most benefits or the least damage to the environment, as a whole, at acceptable cost, in the long term as well as in the short term*". A process was, therefore, adopted in identifying the BPEOs for management of inert waste, which is broadly based on the UK BPEOs process whilst taking into account the differences in the local legislation and circumstances.

3.1.10 The BPEOs procedure establishes, for a given set of objectives, the option that provides the most benefits or the least damage to the environment, as a whole, at acceptable cost, in the long term as well as in the short term. It is important to note that the States Waste Disposal Authority (WDA) (a role performed by STSB) has a legal responsibility to identify the 'Best Practical Environmental Options' (BPEOs) for the recovery or disposal of waste, as required by the Environmental Pollution (Guernsey) Law, 2004.

3.1.11 The WDA appointed Royal HaskoningDHV Ltd to undertake a High Level Environmental Impact Assessment and options assessment to assist in the identification of a short list of options and a 'preferred way forward', using established 'BPEOs' methodology.

3.1.12 An original long list of 50 indicative options, ranging from off island solutions of exporting the waste or disposing of it at sea to on island solutions including a review of all existing quarries were independently assessed and screened against local constraints such as existing use, capacity and whether any protected designations or particular constraints apply to the site. This initially identified those options that were unviable due to capacity limitations, land use limitations, and/or a policy, regulatory, financial and logistical restrictions. This initial

screening ruled out certain options, including export of residual inert waste and disposal at sea.

3.1.13 The remaining on island options were then assessed using BPEOs evaluation criteria. These criteria included the economic, social and environmental implications of each option, using an appropriate assessment framework for Guernsey. This enabled the initial long list to be filtered down into a short list and a preferred way forward identified for the Inert Waste Strategy.

3.1.14 The criteria used for the BPEOs assessment, and the weighting factors applied to each criteria, were reviewed at stakeholder workshops in April 2017. The feedback from these were considered and appropriate adjustments were made to the criteria and weighting.

3.1.15 Based on the environmental and cost and affordability criteria selected options were identified as 'leading options' by virtue of their BPEOs score. None contained a major negative environmental constraint.

3.1.16 The options were further evaluated by a sensitivity analysis; and a workshop was staged for stakeholders in July 2017 to conclude a short-list of strategic options.

3.1.17 The sensitivity analysis has led to a revised ranking of the medium list of options, which consists of new residual site options, behavioural change options and temporary measures.

3.1.18 The management of inert waste will not focus on one residual site as a sole 20 year solution. The objectives of the Inert Waste Strategy will be achieved by a combination of solutions that take into account behavioural changes and new facilities in the most appropriate location.

3.1.19 The BPEOs process is reported in the States of Guernsey Inert Waste Management Strategy - Options Report - Stage 1, Task 3 (Royal HaskoningDHV, 2017). The recommendation of the evaluation was that on-Island land reclamation and infilling existing quarries would be the most appropriate method for residual inert waste management for Guernsey.

The Role of Site Waste Management Plans

3.1.20 The IDP sets out a requirement for the mandatory use of site waste management plans for some development projects during the

demolition and construction phases. These include demolition and rebuild of dwellings on a one for one basis, the demolition and rebuilding of redundant buildings or dwellings that have permission to be subdivided, or where development is for five or more dwellings or for any development of a minimum of 1,000 square metres of floor area. These plans will demonstrate how waste associated with the development process is to be dealt with and will provide a detailed breakdown of estimated waste arisings, and demonstrate how it will be minimised, reused or recycled / recovered (on or off the site), and how any residual will be dealt with.

3.1.21 The site waste management plans are fundamental to the implementation of the inert waste hierarchy and recording of inert waste data and therefore the success of the Strategy. They will help establish a baseline of how inert waste is managed in accordance with each step of the hierarchy.

3.1.22 Guidance will be issued by the Development & Planning Authority on how these plans will be completed.

3.2 Challenges

3.2.1 The development of the Inert Waste Strategy has presented a number of challenges, some of which have had an influence on the eventual outcome. Some of the key issues encountered are summarised below, along with any impacts.

Table 3.2 Challenges encountered during the development of the Inert Waste Strategy

Challenge	How this influenced the Strategy
Absence of data	There is no baseline data for inert waste other than residual deposits at Longue Hougue and recycled aggregates produced by Island Aggregates. The Strategy has identified the use of site waste management plans as the primary means of future data gathering.
Timescales for implementation	The 'worst case' lifespan for the Longue Hougue site of 3.1 years means an 'interim' solution is likely to be required to maintain residual inert waste management until a new solution is available. Consequently the Strategy has also identified options for the short term.

Challenge	How this influenced the Strategy
Regulation	The existing strategic framework for waste management sets the context for the Strategy. It will fill a perceived gap in the Solid Waste Strategy regarding inert waste. The consideration of options must follow the required environmental impact assessment processes.
Waste hierarchy	Currently, inert waste is managed across all elements of the hierarchy, but there is little information about how much is managed through prevention, reuse, recycling and recovery. The standard waste hierarchy definition of disposal would include land reclamation. However, in the Guernsey context, there is overlap with recovery due to the potential benefits associated with land created through reclamation (see below). The Strategy addresses this by adjusting the hierarchy in relation to inert waste.
Market	By adopting the waste hierarchy, the Solid Waste Strategy has provided a framework for increasing reuse and recycling options on the island. The Inert Waste Strategy will embrace an inert waste hierarchy. New opportunities may become available for the construction industry as a consequence.
Best Practice	Learning from best practice in other islands, such as setting realistic targets, providing temporary facilities to provide interim solutions and adopting relevant approaches to the waste hierarchy in accordance with EU law.
Strategy lifespan	Prior to stakeholder engagement, an initial Strategy plan period of 20 years was proposed. Feedback from consultation workshops asked for a much longer timeframe (i.e. 50-60 years) to ensure the Strategy was aligned with estimated lifespans for buildings. It was decided to retain the 20 year plan due to the major uncertainties involved with planning at such a protracted scale.

3.2.2 The existing situation regarding inert waste management on the island and the challenges which the island faces present a series of drivers for change which have influenced the development of the Inert Waste Strategy.

Table 3.3 Main drivers influencing development of the Inert Waste Strategy

Main drivers influencing development of the Strategy
- A gap in the strategic policy for waste management for Guernsey meaning inert waste is not adequately covered by the existing strategic framework; - Uncertainty over the future scenarios for inert waste management brought on by a lack of robust data on the issue; - A lack of understanding of the potential value of residual inert waste to strategic projects and the potential value of land created; - An absence of public awareness of the need to manage inert waste higher up the waste hierarchy; - Inconsistency in how the industry adopts the waste hierarchy for inert waste; and - A finite life for the existing residual inert waste management facility at Longue Hougue and the need for the development of a new solution.

4 Consultation & Learning from Best Practice

4.1 Consultation

4.1.1 The Inert Waste Strategy has been subject to a consultation process in order to ensure that States bodies, non-Governmental Organisations (NGOs) and the private sector are involved in the process of developing the Strategy. Consultation has taken the form of stakeholder workshops and requests for feedback on a stakeholder consultation document covering the evidence base and approach to developing the Strategy, the Strategy itself, and the options which comprise the Strategy. The following stakeholder consultation activities have been conducted during the development of the Inert Waste Strategy:

Table 4.1 Stakeholder consultation undertaken to inform the Strategy

Activity	Dates (2017)	Stakeholder Groups involved	Focus
Options Appraisal workshop	6 April	States bodies, NGOs, private sector representatives	- Presentation of the long-list of options to stakeholders. - Priorities when selecting preferred options. - Stakeholder comments on the long-list of options. - Stakeholder comments on the methodology used to achieve the long-list.
Stakeholder Consultation Document	15 May to 5 June	States bodies, NGOs, private sector representatives	- Identification of weighting for environmental criteria used in the BPEOs process. - Formal written feedback on the appraisal process.
Inert Waste Strategy development workshop	26 July	Members of the STSB and CfE&I, States bodies, NGOs, Construction Industry & other private sector representatives.	- Presentation of the approach to the Strategy to stakeholders. - Assessment of current positions regarding inert waste management. - Review of hierarchical options for inert waste. - Identification of constraints to inert waste management.

4.1.2 The stakeholder consultation process was used to influence decisions made during the development of the Inert Waste Strategy, especially decisions surrounding the selection of the short list of options and the relative importance of the environmental and technical criteria used to make this selection. The table below summarises the key recommendations from the stakeholder workshop which have influence decisions made with the Strategy.

Table 4.2 Outcomes of stakeholder consultation on the Inert Waste Strategy

Outcomes of stakeholder consultation on the Strategy
BPEOs process - Weighting for environmental criteria used in the BPEOs were modified, with affordability being given greater weighting. - Socio-economic value was seen as important, but there were questions about how this is valued and how it can be measured. **Waste hierarchy & the Strategy** - Requests for allowance to be built into the adoption of the waste hierarchy to 'flex' it for inert waste. - Recycling - material is not always available when needed. A 'reserve' of stockpiled material that could be processed for reuse may be a solution. - Targets for site-specific development were not identified as important, but collection of inert waste data was. It was anticipated that 2-3 years' worth of data should be collected before targets can be developed. - Timescales – 20 years is considered relevant for a Strategic purpose, but there needs to be a longer-focussed vision in the strategy up to 60 years hence factor in a 5 year review to consider the lifecycle of buildings and lack of natural stone or raw materials as a critical factor for the future. **Options for inert waste management** - The lead-in time for the options is important. - The need for industrial land in selected areas is identified as part of the 10 year plan. - Consideration of whether inert waste can be diverted to States strategic development/projects - Impact on quarrying by any strategic approach is viewed to be negligible.

4.2 Learning from Best Practice

4.2.1 Lessons can be learnt from the approach to inert waste management that have been adopted by other island communities. Research into the waste management strategies adopted in other island communities was undertaken to determine if there were any island related best practice

measures that could be adapted to suit the issues on Guernsey. The islands considered were:

- Iceland;
- Isle of Man;
- Jersey;
- Malta; and
- St Helena

4.2.2 The following observations relevant to inert waste management on Guernsey were derived from the review of policies adopted by other island communities:

- No island of those reviewed had a dedicated inert waste strategy upon which Guernsey could model its approach. Only one island included reference to inert waste within its strategic waste management policies. Therefore, the adoption of this Strategy for inert waste would be considered best practice amongst its peers;
- In all islands reviewed, there appeared to be links between waste policy and planning policy;
- Only those islands which referred to EU legislation had targets for both waste and inert waste and these were the same as the EU targets for 2020 set at 70% for reuse, recycling or recovery by other means (with one exception which had a 90% diversion from landfill target);
- All islands referred to a waste hierarchy;
- Research shows that there is evidence that others have made reference to amending the internationally accepted waste hierarchy to suit the requirements of specific island communities, and the environmental impacts of each option;
- A number of islands have seen a shift change in promotion of the waste hierarchy via targeted education;
- An option to consider is the use of temporary residual inert waste facilities if any new residual facility cannot be brought on line by the time the current Longue Hougue facility becomes full; and
- Research indicates that development led site waste management plans are likely to result in the decrease in quantities of residual inert waste sent to reclamation facilities.

5 Inert Waste Strategy

5.1 Overview

5.1.1 Although the Inert Waste Strategy generally promotes the waste hierarchy adopted for household and commercial waste set out in the Solid Waste Strategy this does not fit exactly to the circumstances for inert waste for Guernsey. Therefore, this Strategy includes a revision to the waste hierarchy for inert waste for Guernsey, to adjust it to facilitate the sustainable management of this waste stream over the next 20 years. In doing so it recognises the potential value of land created through land reclamation and infilling quarries and of the potential value of residual inert waste to strategic developments, where it is required, and other development projects. The reasons for the changes to the hierarchy for inert waste are set out below. The Strategy includes solutions to manage residual inert waste which cannot be prevented, reused, recycled or otherwise recovered when the current Longue Hougue facility becomes full.

5.1.2 The Strategy is set out to include short term interim solutions and a medium and long-term phase to cover the next 20 years. Although feedback from consultation workshops considered a much longer timeframe (i.e. 50-60 years) was appropriate it is considered that the 20 year horizon of the Strategy is nevertheless appropriate due to the major uncertainties involved with planning at such a protracted scale. The Strategy does include, however, recommendations for regular monitoring and review which will inform the future needs beyond the 20 year timeframe.

5.1.3 The approach has been informed through consultation and feedback with stakeholders and through careful consideration of current policy and legislation requirements as core principles.

5.1.4 The development of the Inert Waste Strategy has been particularly mindful of current ongoing work on other strategic projects and programmes, for example the Hydrocarbons Programme and the development of St Peter Port Harbour Action Area. The Strategy is intended to compliment and facilitate other Strategic projects and ensure that the potential benefits and value of land created to other strategic projects is taken into consideration when identifying future preferred ways forward.

5.2 Objectives

5.2.1 The key objective of the Inert Waste Strategy is to identify a preferred way forward that achieves the following:

- Striking an appropriate balance for Guernsey between delivering sustainable levels of waste minimisation/reduction, reuse and recycling and minimising residual inert waste for disposal;
- Identifying the best practical environmental options;
- Satisfying the needs of the island;
- Taking into account the views of stakeholders and interested parties; and
- Representing best value for money.

5.3 The Inert Waste Hierarchy

5.3.1 As explained above the waste hierarchy adopted for household and commercial waste set out in the Solid Waste Strategy does not fit exactly the circumstances for inert waste for Guernsey.

5.3.2 In the Guernsey context, it is recognised that, even if not identified at the project's inception, land created by land reclamation and infilling existing quarries potentially has a significant beneficial value in the future, and therefore where land reclamation and infilling existing quarries has potential future value these should be situated higher up the hierarchy than a site with no or little potential for future use which is simply a disposal site.

5.3.3 The waste hierarchy reflects international best practice as defined in the

European Waste Framework Directive[17]; however, this also provides scope for deviation from the hierarchy to encourage the options that deliver the best overall environmental outcome. In developing the Inert Waste Strategy, the specific set of circumstances (i.e. the needs of Guernsey) for a specific waste stream (inert waste) have been taken into account to recognise that this waste is a potential resource in the island context.

5.3.4 Based on all the research undertaken it is considered that there is latitude to depart from the hierarchy for land reclamation and infilling of existing quarries where there is beneficial value so that they are treated as elevated up the hierarchy and prioritised where they meet the requirements that are specified in the Inert Waste Strategy and would deliver the best overall environmental outcome and that this will not conflict with the overall aims and objectives of the waste hierarchy or of the Solid Waste Strategy.

5.3.5 This approach also reflects the references to land reclamation in the SLUP which highlights the potential to enhance the roles of the Main Centres or to accommodate strategically essential development or otherwise enable the objectives of the SLUP to be met through land reclamation.

5.3.6 Similarly where inert waste can be diverted to strategic developments, or other developments, where it is required, it has a beneficial value which should be reflected in the position in the hierarchy.

5.3.7 The Strategy therefore proposes the following waste hierarchy for inert waste on Guernsey:

[17] European Directive 2008/98/EC on Waste, Article 4

Site Waste Management Plans

5.3.8 Site waste management plans will be the main tool to promote the inert waste hierarchy. They will focus on providing measures to manage construction projects so that waste is managed in accordance with the hierarchy to encourage:

- Effective design and stock control;
- Reuse and refurbishment of existing infrastructure;
- Use of reclaimed materials and products;
- Use of renewable materials;
- Recycling of construction, demolition and excavation waste; and
- Procurement of products and materials with good practice levels of recycled materials.

5.3.9 Guidance will be issued by the Development & Planning Authority (DPA) to engage and inform the construction industry and other parties involved with building projects to ensure that these plans are completed in a consistent way.

5.3.10 This will not only deliver a consistent approach to the inert waste hierarchy but will enable the collection of data that will further influence decision-making on future targets and management options for inert waste as the Strategy beds in.

5.3.11 The Strategy promotes the following hierarchical approach for inert waste:

Prevention

5.3.12 Waste minimisation in the construction industry involves measures to design out waste prior to construction to minimise the consumption of finite natural resources as well as planning to limit waste arisings during the construction phase of a project.

5.3.13 It is recognised that measures for prevention can only go so far and that there will be inert waste arisings that require management according to other hierarchical options.

Re-use

5.3.14 The relevant approaches to re-use would be where an item or materials have carefully been removed with a specific purpose of being reused again for the same purpose, following minor treatment. This would include cleaning mortar from bricks and granite, or grout from fully intact tiles to enable these items to be used again, particularly where there is a specific characteristic of the materials that would support maintaining the relevant character of a building.

5.3.15 There is some limited evidence that this approach is already carried out on the island but further measures are required to collect data and improve this where practical.

5.3.16 However, reuse cannot be applied to mixed inert wastes, such as general hard-core and clean soil. These represent the majority of inert waste arisings, so hierarchical measures would need to focus on maximising recycling and recovery measures, in accordance with the needs of the island.

Recycling

5.3.17 The aggregates industry on the island are actively involved in recycling inert material as part of construction and demolition projects, particularly the recycling[18] of 'above-ground' materials, such as rubble,

[18] These recycling processes are implemented to generate low-grade fill material that aligns with specifications for secondary aggregate or low-grade primary material as provided for in Guernsey Technical Standards issued in accordance with the Building (Guernsey) Regulations, 2012.

hard-core and mixtures of concrete, bricks, tiles and other ceramics. Such activities are covered by the waste licensing regulations to ensure the recycling is carried out in a manner that does not pose an unacceptable risk to human health or the environment.

5.3.18 The Inert Waste Strategy promotes this practice by providing a framework via the effective use of site waste management plans.

5.3.19 These recycling activities do not apply to clean soils or mixed inert wastes that cannot be processed to appropriate Technical Standards for a defined market use. However, such material can be used beneficially where the development allows via recovery.

Recovery

5.3.20 Naturally occurring material that is excavated within a development can be used on a site for construction purposes. In reality, this already happens on the island. This Strategy for inert waste recommends that this practice continues because it is in the best interests of the islands sustainability to make the best use of materials excavated from the site and also it preserves natural resources that would have to be imported from elsewhere.

5.3.21 Excavated material that is not naturally-occurring, or other mixed inert waste, can be used for construction purposes, e.g. as low grade fill where it is demonstrated to be suitable for use.

5.3.22 Where excavated material is used in construction, this is technically considered 'recovery' and is a lower hierarchical option than recycling. Recovery is defined at a European level[19], which states that "*the essential characteristic of a waste recovery operation is that its principal objective is that the waste serves a useful purpose in replacing other materials which would have been used for that purpose, thereby conserving natural resources*".

<u>Land Reclamation/Quarry Infill and diversion of inert waste to strategic developments</u>

5.3.23 In the Island context, there is a potential benefit to land reclamation/quarry infill in the provision of future land, particularly where the location of such reclamation facilities can be demonstrated

[19] Abfall case (Abfall Service AG ASA) C-6/00), the European Court.

to provide land of value (socially, economically or environmentally), or a specific need for the land has been identified at a strategic level.

5.3.24 Land reclamation has in the recent past, been the option provided for the disposal of residual inert waste (i.e. inert waste that cannot be prevented, reused directly, recycled or otherwise recovered).

5.3.25 The use of residual inert waste for land reclamation/quarry infill is most usually considered to be disposal. However, in the Guernsey context, this does not attach sufficient value appropriate to the creation of potentially beneficial land, or to the value of inert waste where it is required for a strategic development project. Therefore, for the purpose of this Strategy, the 'recovery' tier of the waste hierarchy shall also include:

1. Inert waste required for a strategic development project,
2. Land reclamation/quarry infill with an identified future development use, and
3. Land reclamation/quarry infill which has a potential for future beneficial use in accordance with States approved policies.

Disposal

5.3.26 The requirements for handling residual inert waste at any new land reclamation or quarry infill site under recovery, as at the current Longue Hougue facility, will be subject to stringent waste acceptance criteria to ensure that the waste is appropriate for the purpose. Where residual inert waste fails to achieve these criteria, it will require disposal e.g. as specially controlled waste at an appropriate site.

5.3.27 Disposal of inert waste sits at the very bottom of the hierarchy. This Strategy identifies that an appropriate approach to the disposal of inert waste that cannot be prevented, reused, recycled or otherwise recovered is through quarry infill or land reclamation with no future beneficial use.

5.4 Phasing of the Inert Waste Strategy Implementation

The Strategy proposes a phased approach to implementation of the Strategy.

Short term (five years)

5.4.1 Continuing to dispose of residual inert waste at the current Longue Hougue Reclamation Site until the site reaches capacity.

5.4.2 The implementation of site waste management plans through the policies of the IDP which will provide the initial method by which the inert waste hierarchy will be applied to the activities and practices of parties involved with construction and demolition. This will be alongside the provision of guidance to parties involved in construction and demolition on the implementation of site waste management plans including:

- Consistency in how the site waste management plans will be compiled for each project;
- A simple tool for collating inert waste quantities in a consistent manner according to inert waste hierarchical options to facilitate data collection;
- Advice about when the site waste management plans will need to be submitted to the DPA; and
- Details about how the DPA will monitor and review such plans.

5.4.3 Collecting and compiling data from site waste management plans to better establish a baseline, with a review after three years with a view to setting targets for recycling and re-use. Data from site waste management plans will be compiled and published annually to enable the island's inert waste baseline to be established.

5.4.4 An increased level of information sharing will be promoted to ensure that the Strategy is implemented effectively. This will include:

- Circulation of inert waste management guidance and a range of other engagement, advice and education initiatives, to the Guernsey Building Trades Employers Association; Construction Industry Forum and other key stakeholders;
- Formalising an annual review and publication of data from site waste management plans and any site for the management of residual inert waste, to allow the construction industry to make informed decisions; and

- An annual survey of the construction industry to find out barriers/opportunities to effective management of inert waste according to the inert waste hierarchy as a consequence of implementing the Inert Waste Strategy.

5.4.5 Effective implementation of site waste management plans will be monitored by regular feedback with the construction industry to refine and improve data collection and consistency in application from practical experience. The Inert Waste Strategy promotes the roll-out supported by an education and awareness campaign to ensure that these plans continue to be deployed effectively on new construction projects.

5.4.6 Provide temporary solutions at the current Longue Hougue Reclamation Site, prior to the new facility becoming available if required. This Strategy concludes that stockpiling material at the existing land reclamation site at Longue Hougue is the most appropriate temporary solution for managing residual inert waste, until another solution becomes available.

Medium term (up to 15 years)

5.4.7 Whilst the amount of inert waste that is recycled and re-used can be maximised, there will remain a need to manage a proportion of residual inert waste on island either through recovery or disposal. The Inert Waste Strategy is to provide a new on-island facility for residual inert waste through recovery (as defined in the Strategy) firstly, then to disposal via land reclamation or quarry infill with no beneficial value. As part of any planning application process for waste disposal or processing facilities (other than small scale recycling or sorting facilities), it is recognised that Environmental Impact Assessments (EIA) and Environmental Statements will need to be undertaken in accordance with relevant legislation[20].

5.4.8 Data will also be used to determine the future life of facilities that have been developed for the management of residual inert waste and the effectiveness of the inert waste hierarchy.

[20] The Land Planning and Development (Environmental Impact Assessment) Ordinance, 2007

5.4.9 Once established, targets for recycling and re-use will be monitored annually.

5.4.10 Effective implementation of site waste management plans will continue to be monitored by regular feedback with the construction industry to refine and improve data collection and consistency in application from practical experience.

5.4.11 The Inert Waste Strategy assumes that in the first instance, the operation of the residual inert waste facility is the responsibility of the States but recognises that other potential services achieved by partnering with the private sector should also be explored.

5.4.12 Any strategic projects, including land reclamation, that could require inert waste should be actively identified as the use of material in this way would prolong the lifetime of any residual inert waste facility. The principles of the Inert Waste Strategy should be taken into account when developing all future States policy and strategic projects in terms of potential hierarchical uses for inert waste.

Long term (15 years plus)

5.4.13 The data collated during the short and medium term implementation of the Inert Waste Strategy will allow the States to review and update targets. Long-term monitoring and review of the Strategy will be measured against the metrics that will have been developed according to the baseline.

5.4.14 There may be a requirement to identify more than one site for residual inert waste management within the Strategy period (i.e. 20 years), and the selection of any further site/s should also take into consideration the longer term strategic requirements of the States both during and beyond the existing strategy period.

6 Monitoring and Review

6.1 Performance targets

6.1.1 Under proposals within the EU Circular Economy Package, there is an EU

target, set at 70%, for re-use, recycling and other material recovery of non-hazardous construction and demolition waste by the end of 2030[21]. Although the Inert Waste Strategy considers that this target could potentially be achieved in Guernsey if some land reclamation and quarry infill is considered recovery (in line with the principles identified in this Strategy), more data is required on the total amount of inert material that is generated at source, and how this is dealt with, before any performance targets can be determined which are appropriate for Guernsey.

6.1.2 The site waste management plans will provide the mechanism to collect data. Guidance will be provided by the DPA to set the appropriate format for the construction industry to provide inert waste data to enable effective establishment of the baseline.

6.1.3 Targets for each tier of the inert waste hierarchy should be implemented following three years of data collection after the adoption of the Strategy.

6.1.4 Data on inert waste management will be published annually and will be reviewed to enable more refined reporting once the baseline is established and effective monitoring targets are set.

6.2 Review

6.2.1 This Inert Waste Strategy is for a period of 20 years. Estimates and assumptions made to inform this Strategy will be monitored on an ongoing basis to ensure that the Strategy remains appropriate to Guernsey's needs.

6.2.2 A formal Inert Waste Strategy review will be undertaken every five years following the implementation of this Strategy. This review will take into account the evidence used in compiling this Strategy, and consider any insight gained from experience, including performance monitored against future targets that will be established once the baseline inert waste management data is better understood and a review of the appropriateness of those targets.

6.2.3 Progress on the implementation and delivery of the Inert Waste

[21] This excludes naturally occurring material defined in the European Waste Catalogue code 17 05 04 (i.e. soil and stone not containing dangerous substances)

Strategy and achieving targets will be reviewed and reported on an annual basis.

APPENDIX 2

States of Guernsey
Waste Management Plan

Approved by the States on *[insert date]*

Committee *for the* Environment & Infrastructure

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Document title:	Waste Management Plan
Status:	Draft
Drafted by:	Committee *for the* Environment & Infrastructure

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1. Purpose of the Waste Management Plan (WMP)

To identify the wastes generated by the Community for which provision for management needs to be made for the period of 20 years from [*insert date approved by the States*], detailing the methods to be used for the management of that waste, and related matters, in accordance with section 31 of The Environmental Pollution (Guernsey) Law, 2004 (as amended) ("the Law") (see Appendix 1). This Plan identifies all solid waste and certain liquid wastes which are specially controlled wastes[22] as waste for which provision for the recovery or disposal of which needs to be made by the Waste Disposal Authority.

This Plan outlines the methods for the management of wastes, including methods for the prevention, reuse, recycling, recovery and disposal of the various types of waste generated on Guernsey. The Plan excludes the management of waste water and agricultural farm slurry which are primarily recovered and disposed of through waste water infrastructure, spreading on agricultural fields or other methods and not at public waste management sites.

This Plan replaces the previous Waste Management Plan approved by the States of Guernsey in August 2014 (as appended to Billet d'État XVI 2014).

2. Context

2.1 Waste Types

For the purpose of this Waste Management Plan (WMP), the waste produced in Guernsey and requiring specific management is broken down into the following categories:

- Household Waste
- Commercial Waste (including Inert Waste)
- Specially Controlled Wastes (e.g. asbestos, batteries, florescent tubes, oils, chemicals, etc.).

2.2 Background

The States approved the Waste Disposal Authority (WDA) recommendations for the Best Practical Environmental Option (BPEO) for the management of solid waste, as set out in Billet d'État IV 2012, by approving a strategy based on high recycling and waste minimisation.

This was reflected in the Waste Management Plan approved by the States in August 2014, where the WDA recommended option for future waste management was endorsed by the former Environment Department as being within the Best Practical Environmental Options for

[22] Specially Controlled Waste is waste which is so dangerous or difficult to dispose of that special measures need to be taken in respect of it. Substances prescribed as specially controlled waste are set out in the Waste Control and Disposal (Specially Controlled Waste) Regulations, 2010.

Guernsey, described by the Environment Department as being minimisation followed by high recycling including kerbside, with either on or off island incineration with or without Anaerobic Digestion (or potentially In Vessel Composting) of food waste.

As the Solid Waste Strategy has been implemented several changes have been necessary due to a number of factors. Although these changes have not materially altered the objectives of the Solid Waste Strategy, the Waste Management Plan requires updating to include approved changes, such as those approved following Billet d'État No. V of February 2017 in particular in relation to management of food waste. Further changes are needed as the Longue Hougue Reclamation Site is nearing the end of its life.

The approved Solid Waste Strategy focusses on the management of Household and Commercial waste, but excluded detailed information on Inert Waste produced by the Construction and Demolition industry, largely due to existing facilities for managing this waste stream. An Inert Waste Strategy has therefore been developed to address the future management of Inert Waste and has subsequently been approved by the States. This strategy is detailed in Billet d'État [*] 201[*] [**to be inserted once known*]

This WMP, therefore, as well as identifying the existing waste disposal and management methods used on the island, also sets out the future methods proposed to be used in accordance with the BPEOs recommended by the WDA, subject to the various actions and approvals referred to the resolutions approved by the States on:

- **12th February 2014, on Billet d'État No II of 2014,**
- **16th February 2017, on Billet d'État No V of 2017, and**
- **[*insert date once known*], on Billet d'État [No *] 201[*] [**to be inserted once known*].**

2.2.1 Components of the Solid Waste Strategy and Inert Waste Strategy

The individual elements of the Solid Waste Strategy and Inert Waste Strategy includes, but is not limited to:

a. A strategy based on the Waste Hierarchy, as defined in the European Waste Framework Directive[23];
b. Waste Prevention and Minimisation;
c. 60% household recycling by the end of 2022, and 70% household recycling by the end of 2030;
d. Household kerbside collections for dry recyclables and food waste, with an option for small businesses to opt in to the kerbside collection scheme;
e. Provision of kerbside collection vehicles (if required);
f. Material Recovery Facility (MRF) for co-mingled dry recyclables collected via kerbside collections from households and small businesses;
g. MRF for commercial waste – for sorting and separation of waste for recycling;
h. A Household Waste Recycling Centre (formerly referred to as Civic Amenity site), incorporating Repair and Reuse;
i. A rationalised bring bank service, and recycling-on-go litter bins;

[23] Directive 2008/98/EC of the European Parliament and of the Council, Article 4.

j. Green waste reception and processing at Mont Cuet via windrows to create a soil conditioner;
k. A Transfer Station to receive:
    - residual waste from household and commercial sources that is not suitable for recycling, for processing into Refuse Derived Fuel (RDF) for export for energy recovery;
    - segregated food waste collected from household and commercial sources for pre-processing prior to export for treatment;
    - glass for recycling;
l. Export of RDF for off-island energy recovery via a R1 compliant Energy Recovery Facility (ERF);
m. Export of pre-processed food waste for off-island treatment via Anaerobic Digestion (or similar process);
n. Landfill of certain specially controlled/hazardous wastes only;
o. Storage of certain Specially Controlled Wastes that cannot be managed on-island;
p. Export of Specially Controlled Wastes for disposal via a Duly Reasoned Request acceded to by the Environment Agency in England or similar agreement with another relevant competent authority;
q. Incineration of certain hazardous wastes (either on or off-island) (e.g. animal carcases and clinical waste);
r. Site Waste Management Plans for construction projects, as defined in the Island Development Plan (IDP)[24];
s. Reuse and recycling of inert waste where possible, and where markets are available;
t. Recovery of inert waste through diversion from disposal routes for a specific project where inert waste is required; or through land reclamation or infilling of former quarries where there is a potential future beneficial use in accordance with States approved policies[25];
u. Disposal of residual inert waste (where no recovery option is available through land reclamation and/or infilling of former quarries with a defined or potential future benefit);
v. A household charging policy of a standing charge and pay as you throw element, and for the commercial sector cost recovery through gate fees;
w. Legislative requirements relating to the presentation of recyclates and other waste for collection limited to households and small business premises admitted

[24] Billet d'État No XXVII, 2016

[25] The 'Recovery' tier of the Waste Hierarchy is adapted to Guernsey's needs so that recovery is deemed to include land reclamation or quarry infilling where there is potential future beneficial use in accordance with States approved policies, recognising the reclaimed land as a future resource for the Island.

into the Parish kerbside collection services[26], with compliance encouraged by civil fixed penalty notices;

The Environmental Pollution (Guernsey) Law, 2004 has been amended by the Environmental Pollution (Guernsey) (Amendment) Law, 2015 ("the 2015 Law"), to enable the implementation of the various elements of the solid waste strategy detailed above. The majority of amendments came into force on 17 December 2015, the exceptions being amendments to:

(a) section 11 of the 2015 Law, in so far as it inserts a new section 32A (charging for waste management services) into the Environmental Pollution (Guernsey) Law, 2004, and

(b) section 24 of the 2015 Law (amendment to the Competition (Guernsey) Ordinance, 2012).

[26] Defined in relevant legislation as the Parish waste collection and transfer service.

3. The Plan

3.1 Description and quantities of waste

Under section 31(3)(a) of the Law, the draft Waste Management Plan is required to identify *the descriptions and quantities of waste for the recovery or disposal of which provision needs to be made during such period as may be specified.* The period specified in this Plan is 20 years starting from [*insert date approved by the States*]

The descriptions and quantities of solid waste currently requiring provision for disposal, recovery or other waste management are shown below:

Summary of 2016 Waste Arisings Data (tonnes)

Waste Category	Household	Commercial	Total
Inert Waste		81,312	81,312
Inert Recycling/Recovery		59,185	59,185
Inert Sub-Total		**140,497**	**140,497**
Residual Waste	13,190	25,860	39,050
Recycling	12,050	18,599	30,649
Sub-Total	**25,240**	**44,438**	**69,699**
Total Waste	25,240	184,941	210,196

A more detailed breakdown of quantities of waste is provided in Appendix 2.

Notwithstanding government policies on net inward migration, increasing the housing stock and growing the islands GDP, the WDA and the States has adopted zero waste growth in the BPEO evaluations. The Plan reflects this approach in setting out the quantities of waste for disposal, recovery or other waste management.

It should however be noted that the overall figures above represent a significant reduction compared to the figures included in the previous Waste Management Plan. This is largely down to a significant reduction in inert waste, although minor reductions in Household and non-inert commercial waste have also been experienced. The large reduction in inert waste represents variable activity within the construction industry. A shift to increased reuse and recycling of inert waste on construction sites is likely to have contributed the reduction in inert waste; however tonnages are not currently recorded.

3.2 Methods to be employed for the management of waste

Under section 31(3)(b) of the Environmental Pollution (Guernsey) Law, 2004 (the 2004 Law), the Waste Management Plan is required to identify the methods to be employed for the recovery or disposal of waste identified in section 3.1 above. Facilities for recovery as well as for final disposal have been identified.

3.2.1 Existing Facilities

The table below details existing key infrastructure in Guernsey for the management of solid waste, using 2016 data in the tonnage column. These sites are operated, where appropriate, under licences issued by the Director of Environmental Health and Pollution Regulation (the Director):

DESCRIPTION	LOCATION (WDA SITES ONLY)	OPERATOR	TONNES PER ANNUM
MRF (Commercial)	Fontaine Vinery	WDA	c. 4,000
MRF (Commercial)		Private	c. 21,000[27]
MRF (Dry Recyclables)	Fontaine Vinery	WDA	c. 2,500
MRF (Dry Recyclables)		Private	c. 9,000
Windrow Composting	Mont Cuet	WDA	c. 11,500
Civic Amenity Site	Mont Cuet	WDA	c. 1,000
Household Waste Recycling Facility (Temporary)	Longue Hougue	WDA	c. 2,000
Carcass Incinerator		States of Guernsey	c. 300
Healthcare Waste Incinerator		States of Guernsey	c. 600
Inert Waste	Longue Hougue	WDA	c. 81,000
Inert Recycling		Private	c. 13,000
Residual Landfill (Waste)	Mont Cuet	WDA	c. 27,000
Residual Landfill (Site Prep)	Mont Cuet	WDA	c. 43,000
Metal Recycling (including End-of-Life Vehicles (ELVs)		Private	c. 7,000
Specially Controlled Waste – On Island Disposal	Mont Cuet	WDA	c. 700
Specially Controlled Waste – Storage and Export for Recovery		States of Guernsey, Private	c. 1,600
Specially Controlled Waste – Storage and Export for Disposal		States of Guernsey, Private	Up to a maximum of 136[28])

In addition to the above, there are a number of smaller operations that manage waste material prior to being recycled or reused.

3.2.2 Existing Supporting Facilities and Services

In addition to the above facilities, the WDA also manages an interim dry recyclables kerbside collection scheme, and provides Bring Banks for the collection of further dry recyclables and a public drop off facility for green waste at Chouet Headland.

[27] Assumes Private facility is operating to capacity for permitted quantities of waste.

[28] Tonnages are specified in the Duly Reasoned Request (DRR), which is required under Article 11 of the Basel Convention and, as at the date of laying of this Plan, Article 41 of Regulation (EU) No. 1013/2006 in order for Guernsey to export specially controlled wastes to the UK for disposal.

3.2.3 Future Facilities

Based on current fill rates, and to enable windrow composting of green waste and the disposal of specially controlled waste to continue at Mont Cuet for the medium to long term, it is recognised that the disposal of residual waste at Mont Cuet is likely to cease to be a viable option beyond the end of 2018. Mont Cuet is also the last site licensed under the 2004 Law for the on-island disposal of specially controlled wastes.

The Solid Waste Strategy approved by the States (Billet d'État IV 2012) focuses on ensuring that waste is dealt with at the highest level possible in the Waste Hierarchy. This is to be achieved by minimising waste, increasing recycling and exporting residual waste for recovery.

To support this strategy, the following facilities are required:

DESCRIPTION	**LOCATION (WDA SITES ONLY)**	**OPERATOR**	**TONNES PER ANNUM**[29]
MRF (Commercial)		Private	TBC
MRF (Optional)	Longue Hougue	WDA	TBC
MRF (Dry Recyclables)		Private	c. 12,000
Windrow Composting Facility (with public drop-off area)	Mont Cuet	WDA	c. 12,000
Animal Carcass Incinerator		States of Guernsey	c. 400
Clinical Waste Incinerator (or alternative off-island facility)		States of Guernsey	c. 650
Waste Transfer Station to: 1. Process residual waste to produce RDF for export; 2. Process food waste for export; and 3. Prepare glass bottles for export	Longue Hougue	WDA	 c. 26,000 c. 4,000 c. 2,500
Residual Landfill (including on-island disposal of Specially Controlled Waste)	Mont Cuet	WDA	c. 2,000
Household Waste Recycling Centre (HWRC)	Longue Hougue	WDA	c. 4,000
Inert Waste Land Reclamation/Infill Site	Short Term – Longue Hougue, Medium Term – Longue Hougue South[30] Long Term – TBC.	WDA	c. 100,000[31]

[29] Tonnages are based on the estimated required capacity for each facility.
[30] Development subject to planning approval and the further approval of a full business case.
[31] The quantity of inert waste received for land reclamation fluctuates considerably.

Inert Waste Recycling		WDA / Private	c. 56,000[32]
Metal Recycling (including End-of-Life Vehicles (ELVs)		Private	c. 8,000
Specially Controlled Waste – Storage and Export for Recovery	Longue Hougue / Other	States of Guernsey / Private	c. 1,600
Specially Controlled Waste – Storage and Export for Disposal	Longue Hougue / Other	States of Guernsey / Private	Up to a maximum of 136 (as specified within the DRR)

3.2.4 Associated Future Facilities and Services

In addition to the above facilities, the solid waste strategy is reliant on:

- kerbside recycling (for dry recyclables and food waste);
- a rationalised bring bank network;
- recycling-on-go litter bins;
- a Repair and Reuse service (delivered through the HWRC);
- export contracts for RDF, pre-processed food waste and other recyclables;
- site Waste Management Plans for individual developments (as defined in the IDP), administered by the Development & Planning Authority;
- education and training programmes;
- data collection and analysis

3.2.5 Waste Flow Modelling Assumptions

Appendix 3 shows the waste flow model based on the 2016 waste arisings and 2015 waste composition analysis. Predicted tonnages assume the first full year of operation of new services and facilities required to deliver the waste strategy approved in 2012 will be 2019. A number of assumptions have been made in developing the model:

- Linear increases in recycling to achieve the 70% recycling target for household waste by the end of 2030. No step changes resulting from the introduction of new services/charges/legislation have been factored into increases in recycling performance;
- Waste wood that is currently shredded and mixed with waste soil/inert fines for use as cover material at Mont Cuet Landfill Site will return to the residual waste stream, as there will no longer be a requirement for this material. The soil/inert fines will be required to meet the waste acceptance criteria for the current WDA inert waste recovery/disposal site if alternative routes are not available;
- Alderney waste will continue to be received in Guernsey, and that the tonnages remain constant as Guernsey does not have influence over Alderney in terms of waste and recycling collections. Alderney Waste is assumed to have the same composition as Guernsey waste;

[32] Includes material previously used for Site Preparation and cover at the residual landfill site.

- An initial capture rate of 36% is assumed for food waste, increasing to 60% by the end of 2030. Assumed improvements in other recycling material capture rates are detailed against each material category;
- Litter is excluded from recycling rate calculations, as per revised UK methodology;
- Larger quantities of contaminated soil should be remediated in situ, or on site, with encapsulation on site if necessary. Only small quantities of such waste will be accepted at the Specially Controlled Waste cell at Mont Cuet Landfill Site in order to preserve this valuable void space.
- Some Site Preparation materials/cover (soil, hardcore, and waste tarmac) will continue to be required at sites operated by the WDA. Remaining material will be directed to other engineering/building projects or will be required to meet the Waste Acceptance Criteria at the current WDA inert waste recovery/disposal site.
- Fines from the production of 'Fragmentiser' Waste (from Scrap Metal Processing) will still be used as cover material for the Specially Controlled Waste cell at Mont Cuet Landfill Site. The remainder of this material will be exported for recycling/recovery.
- Tonnages for waste wood are based on historical data from waste audits and information provided by the private sector. With the introduction of Waste Management Licensing in 2010, the practice of burning at specific sites was ended. It was expected that this wood would return to the residual waste stream; however, evidence shows this not to be the case. Some wood has subsequently been used as blended cover material (see second bullet point above), but this use is not sustainable. From discussions with the industry, it is assumed that the remaining waste wood is being burnt in small quantities across the island, or is exported for recovery within baled RDF produced by the private sector.

- <u>Waste Derived Material - 6,000 tonnes</u>
  Approximately 6,000 tonnes per year of waste derived material will be spread on land after treatment. This material results from the processing of green waste. The ongoing long term viability of this process and the long term capacity of the island's soils to take up these additional outputs, without adverse impacts to the land and water resources is unknown. The WDA has assumed that this waste derived material will meet quality standards and would be applied to the land in line with nutrient management plans.

3.3 Estimated Financial Costs

Under section 31(3)(c) of the 2004 Law, the Waste Management Plan is required to identify the estimated financial costs of the management of waste by the methods identified in 3.2.

The costs detailed below are in relation to waste disposal and other waste management operations provided, managed, arranged or funded by or on behalf of the WDA. All private facilities detailed in sections 3.2.1 and 3.2.3 above will have a set gate fee or similar charging system to recover the costs of providing and operating such facilities.

3.3.1 Existing Operating Costs

It currently costs in the order of £6 million per annum to provide and operate the States owned key infrastructure and services for the management and disposal of solid waste (including recycling activities).

3.3.2 Future Operating Costs

The WDA estimates future costs for developing and operating waste management facilities and services, based on a 20 year strategy to be approximately £15 million per annum.

3.4 Recovery of the financial costs

Under section 31(3)(d) of the 2004 Law, the Waste Management Plan is required to outline arrangements for recovery of the estimated costs identified in 3.3 above.

3.4.1 Existing Cost Recovery Policies

Costs at public waste management sites managed by the WDA are recovered by way of gate fees[33] applied at the receiving facilities. Gate Fees are set annually by Regulations, and are based on the tonnage and type of waste being deposited, recovered or otherwise managed. The gate fees have been set by the WDA to encourage segregation of inert material and the segregation of materials for recycling. Contamination rates are applied at Mont Cuet for loads containing material that could have been segregated.

The income received from the gate fees at Mont Cuet and Longue Hougue covers the running costs of the two sites, along with the cost of running WDA managed recycling and segregation facilities.

It is noted that a proportion of the gate fees were used to cover the costs of previous solid waste strategy investigations and are currently being used by the WDA in implementing the solid waste strategy.

3.4.2 Future Cost Recovery Policies

As outlined in Billet d'État II of 2014 (paragraph 31.16), the following charges are proposed for domestic waste:

- The Douzaines will make a direct charge to the household for the costs of collections and transfer of waste, recyclables and food waste to licensed facilities based on a fixed charge per household. This is on the basis that the collection service represents a fixed cost regardless of how much waste is placed out by each household.

[33] In respect of household waste collected by the Parishes this is paid as at the date of approval of this Plan from the refuse rate levied by the Parishes .

- The WDA will directly charge households to cover the costs of processing the materials after collection and to pay costs of all other public waste management services and initiatives provided, arranged or funded by the WDA (i.e. the States), and made available to households and the commercial sector. This charge will comprise:

    - A charge per bag (pay-as-you-throw)
    - An annual fixed charge per household.

As outlined in Billet d'État II of 2014 (paragraph 32.2), commercial waste delivered to sites provided, operated, managed, arranged or funded by or on behalf of the WDA will be charged a gate fee at a per tonne per load rate to cover the cost of providing the service. Gate fees at the different facilities may be set at differential rates to encourage businesses to deal with their waste through methods such as re-use and recycling which are higher up the Waste Hierarchy than recovery and disposal.

As outlined in Billet d'État X of 2014 (paragraph 3.3), businesses producing waste of a similar nature or composition and of a similar or lower volume to that produced by households may have the opportunity to opt into the parochial waste collection and transfer service for black bag waste, recyclables and food waste, such businesses to be accepted by the Douzaines at their discretion, subject to available capacity within the collection services provided.

3.5 Public waste management sites

Under section 31(3)(e) of the 2004 Law, the Waste Management Plan is required to identify the sites or facilities provided, managed, arranged, operated or funded by or on behalf of the WDA where such recovery, disposal or other waste management operations are to take place ("public waste management sites").

Section 32(1) and (2) of the 2004 Law states that it is the duty of the WDA to make reasonable provision for the reception and disposal of waste at one or more public waste management sites (see Appendix 1) but that it need not make provision for facilities other than in respect of the public waste management sites identified in the current Waste Management Plan.

3.6 Existing Public Waste Management Sites

The following are existing WDA public waste management sites that are managed by the WDA or via arrangements with the private sector:

Civic Amenity Site (Mont Cuet)

A Civic Amenity Site is located at the entrance compound where the public can drop-off household waste (including black bag waste and bulky waste) and certain recyclable materials.

Household Waste Recycling Facility (Longue Hougue)

A temporary Household Waste Recycling facility is provided at Longue Hougue where the public can deposit potentially recyclable or reusable household waste.

Green Waste Processing Site (Mont Cuet)

Green waste processing, involving the composting of green waste using Windrows, is currently undertaken at Mont Cuet Landfill Site, with public drop-off of green waste at the nearby Chouet Green Waste Site. Soil conditioner produced by composting green waste is publicly available at the Chouet Green Waste Site.

Inert Waste Disposal Site (Longue Hougue)

Longue Hougue is a marine reclamation site. Only inert waste is accepted at this site as the material has direct contact with the marine environment.

Materials Recovery Facility (MRF) (Fontaine Vinery)

A facility is provided at Fontaine Vinery for the processing of dry recyclates collected from Bring Banks, and for the segregation of mixed commercial waste (excluding black bag waste) delivered directly to the facility.

Residual Landfill Site (Mont Cuet)

Mont Cuet Landfill Site is the only site on Guernsey in respect of which a licence is held under the Law (licensed site) for the disposal of mixed household and commercial residual waste. Licensed operations include the discharge of leachate via the leachate treatment plant and landfill gas control measures.

Specially Controlled Waste Disposal Site (Mont Cuet)

Mont Cuet is a licensed site for the disposal of certain specially controlled wastes.

Waste Oil Storage Site (North Side Oil Yard)

Waste mineral and vegetable oil will continue to be stored at the North Side Oil Yard prior to reuse on-island (e.g. as a biodiesel) or being exported for recovery.

3.7 Future Public Waste Management Sites

The following are WDA public waste management sites that will be managed by the WDA or via arrangements with the private sector following the implementation of the solid waste strategy and the inert waste strategy:

Household Waste Recycling Centre (Longue Hougue)

A Household Waste Recycling Centre is to be developed at Longue Hougue Land Reclamation Site, incorporating a repair and reuse service. This replaces the existing Civic Amenity Site at Mont Cuet Landfill Site and the temporary Household Waste Recycling Facility.

Green Waste Processing (Mont Cuet)

Green waste processing, involving the composting of green waste using windrows, will be undertaken on a capped area at Mont Cuet Landfill Site, with a public drop-off area for green waste also at this site. Soil conditioner produced by composting green waste will be publicly available from this site.

Inert Waste Disposal Site (Longue Hougue)

Inert waste will continue to be accepted for land reclamation at Longue Hougue Reclamation Site in the short term; however this site is expected to be completed in 2020/2021. Should a replacement facility not be available when this site is completed, some temporary stockpiling may be required at this site, with stockpiled materials being transferred to the replacement site once commissioned.

Following completion of the current Longue Hougue Reclamation Site, the preferred way forward for the delivery of a replacement facility has been identified as land reclamation at Longue Hougue South, subject to the adoption of a Local Planning Brief for the site, obtaining the relevant planning permission, waste management licence, other statutory consents and Business Case approvals.

This site has been identified as the preferred way forward following the development of an Inert Waste Strategy approved by the States of Guernsey on [date to be inserted], as detailed in Billet d'État [*] 201[*] [**to be inserted once known*]. This is based on identification of the Best Practical Environmental Options (BPEOs) for this particular waste stream. This process has also identified further options for the recovery/disposal of inert waste in the longer term, which will be reviewed and progressed as required in the future, subject to obtaining the necessary approvals and licences etc.

The recycling and/or reuse of inert waste shall take precedence over recovery or disposal of inert waste.

Materials Recovery Facility (MRF) (Dry Recyclables)

A facility is required by the WDA for the segregation of co-mingled dry recyclates collected from kerbside collections from households and small businesses that are admitted into the kerbside scheme, and from a rationalised bring bank service. This is to be provided by the private sector on behalf of the WDA. Provision is also made for a MRF to be operated by the WDA should this be required.

Materials Recovery Facility (MRF) (Mixed Commercial Waste)

A MRF is required to sort mixed commercial waste for the recovery of inert and recyclable materials. Provision is also made for a MRF to be operated by the WDA should this be required.

Residual Landfill Site (Mont Cuet)

Although it is proposed that residual household and commercial waste, excluding specially controlled wastes, should be exported as RDF to an energy recovery facility, there may be particular waste types requiring on-island disposal, or times when due to exceptional circumstances there is a need to dispose of residual wastes on-island.

As the last licensed landfill site, provision is maintained for such ad hoc wastes requiring disposal at Mont Cuet during the life of the approved Solid Waste Strategy.

Specially Controlled Waste Disposal Site (Mont Cuet)

Certain Specially Controlled Wastes requiring disposal on-island will be landfilled in an engineered cell at Mont Cuet Landfill Site.

Specially Controlled Waste Storage (Longue Hougue)

Certain Specially Controlled Wastes requiring recovery or disposal off-island will be stored in a specially engineered secure compound at Longue Hougue Reclamation Site.

Waste Oil Storage Site (North Side)

Waste mineral and vegetable oil will continue to be stored at the North Side Oil Yard prior to reuse on-island (e.g. as a biodiesel) or being exported for recovery.

Waste Transfer Station (Longue Hougue)

Residual household and commercial waste, excluding specially controlled wastes, will be received at the WDA Waste Transfer Station located at Longue Hougue Reclamation Site. It will then be exported for energy recovery after processing to produce a Refuse Derived Fuel (RDF). The Waste Transfer Station will also receive segregated food waste from both household and commercial sources for pre-processing prior to export for energy recovery at an anaerobic digestion (or similar) facility in the UK, and glass bottles and jars for bulking in advance of recycling.

4. Policy in Relation to Strategically Important States/WDA Facilities

Policy to be taken into account by the Director in making waste management licensing decisions in relation to private waste operations which may compete with the Waste Transfer Station.

Section 33(2) and (2A) of the 2004 Law require the Director to take into account this Waste Management Plan and consult with the WDA, the Constables of the Parishes and certain States Committees when considering an application for a licence, or for any variation of conditions of a licence, under the Law permitting the disposal of waste other than at a public waste management site or the carrying out of an operation which might divert waste from a public waste management site identified in this Part of the Waste Management Plan. Section 35(1) of the Law also requires the Director to attach to any licence permitting certain waste management operations all such conditions as appear to the Director to be necessary or expedient to ensure.....the sustainable management of waste in the longer term.

When consulted, section 33(3) of the 2004 Law clarifies that the WDA's representations to the Director are not confined to Section 15 of the 2004 Law (Grant or refusal of Applications), but may include the public interest in ensuring that waste is not without good reason diverted from public waste management sites. This applies to the States/WDA provided, operated and funded Waste Transfer Station (the States/WDA Waste Transfer Station).

The States policy is to impinge as little as possible on private waste operations whilst recognising that it is essential and in the public interest that the States/WDA Waste Transfer Station can remain available and economically viable in the long term to manage the waste identified in relation to those facilities in this Plan.

In a small jurisdiction such as Guernsey, given limited economies of scale and the relatively small quantities of waste to be managed, it may be in the public interest to restrict diversion of waste from the States/WDA Waste Transfer Station to private facilities, given the cost of providing public waste management facilities.

5. Plan Monitoring and Revision

As detailed under section 31(3) of the 2004 Law, the Committee *for the* Environment & Infrastructure shall from time to time, following recommendations made to it by the Waste Disposal Authority, lay before the States a draft Waste Management Plan for consideration.

Should any of the necessary Local Planning Brief, planning permission, waste licence, business case or other approvals and consents not be adopted, approved or granted, so as to allow delivery of the various elements of the waste strategy as detailed in Section 2.2.1 above, the WDA will consider whether it needs to recommend to the Committee *for the* Environment & Infrastructure any changes to the Waste Management Plan to enable the management of waste produced on Guernsey, following the procedure under the 2004 Law.

Appendix 1 Extract from 'The Environmental Pollution (Guernsey) Law, 2004'

Waste Management Plans

31. (1) The Waste Disposal Authority shall from time to time make recommendations to the Committee for the Environment & Infrastructure in connection with the preparation by the Committee for the Environment & Infrastructure for consideration by the States of draft Waste Management Plans.

(2) In performing its duties under subsection (1) the Waste Disposal Authority shall consult –

(a) the [Committee for the Environment & Infrastructure],

(b) the [Committee for the Environment & Infrastructure],

(c) the States [Committee for Economic Development],

(d) the Douzaine of each of the Parishes of Guernsey,

(e) the [Committee for Health and Social Care],

(f) the Director, and

(g) such other bodies or persons as it thinks fit.

(3) The Committee for the Environment & Infrastructure shall from time to time, following recommendations made to it by the Waste Disposal Authority, lay before the States a draft Waste Management Plan identifying –

(a) the descriptions and quantities of waste for the recovery or disposal of which provision needs to be made during such period as may be specified,

(b) the methods to be employed for its recovery or disposal,

(c) the estimated financial costs of such recovery or disposal,

(d) arrangements for the recovery of those costs, and

(e) the sites or facilities provided, managed, arranged, operated or funded by or on behalf of the Waste Disposal Authority where, subject to subsection (4), such recovery, disposal or other waste

management operations are to take place (**"public waste management sites"**),

and when such a draft Plan has been approved, with or without modification, by the States it shall become the current **"Waste Management Plan"** for the purposes of this Law.

(4) For avoidance of doubt the designation of a public waste management site by a Waste Management Plan –

(a) does not override the terms of any Development Plan, Subject Plan or Local Planning Brief for the time being in force under the Land Planning and Development (Guernsey) Law, 2005, or avoid the need for a planning inquiry to be held where required under that Law as respects nay amendment to such a Plan or Brief intended to enable the implementation of that designation, and

(b) does not absolve the Waste Disposal Authority from obtaining and complying with the conditions of any licence required pursuant to this Law in respect of its operation of that site.

Public waste management sites.

32. (1) Subject to the following provisions of this section, it is the duty of the Waste Disposal Authority to make such arrangements as may be necessary for the reasonable provision of facilities for the reception and recovery or disposal of waste at one or more public waste management sites in accordance with the Waste Management Plan.

(2) For the avoidance of doubt, in discharging its duty under subsection (1) the Waste Disposal Authority need not make arrangements for the provision of facilities for the reception and recovery or disposal of waste other than in respect of the public waste management sites identified in the current Waste Management Plan.

(3) In discharging its duty under subsection (1) the Waste Disposal Authority is entitled –

(a) to reserve particular sites for –

(i) particular descriptions of waste, or

(ii) use by particular categories of persons,

(b) to specify limited times at which, and other conditions subject to which, waste or waste of any particular description will be accepted at any site or any particular site, and

(c) to prescribe by regulations the charges or rates of charge and the basis on which charges must be paid as a precondition of its acceptance of waste, or of waste of any particular description,

and need not accept waste in respect of which all such requirements are not fulfilled.

(4) Regulations of the Waste Disposal Authority under subsection (3)(c) may for the avoidance of doubt and without prejudice to the generality of that subsection –

(a) prescribe charges with a view to recovering the capital, operational and administrative costs reasonably incurred by the States in providing facilities and services at all public waste management sites, and

(b) apply a discount or surcharge to a charge calculated on the basis of paragraph (a), based on the position in the waste hierarchy of operations carried on at the site, with the highest charge being in respect of sites where disposal is carried on.

(5) In this section and in section 32A "waste hierarchy" means applying the following waste hierarchy as a priority order –

(a) prevention,

(b) preparing for re-use,

(c) recycling,

(d) other recovery, including energy recovery, and

(e) disposal.

(6) In the exercise of its powers under subsections (3) and (4), and generally in its management of public waste management sites, the Waste Disposal Authority must –

(a) have regard to the current Waste Management Plan,

(b) comply with the conditions of any licence under this Law to which the operation is subject, and

(c) comply with all other obligations imposed on it by or under this Law and any other enactment.

Private waste management on land.

33. (1) Without prejudice to the generality of section 22(3)(a), an Ordinance making such provision as is mentioned in section 13 as respects the disposal of waste (or, whilst such an Ordinance is in force, any other Ordinance made under this Law) may –

(a) prohibit the disposal of any waste, or of any description or type of waste, otherwise than at a public waste management site,

(b) preclude the Director from granting licences permitting the disposal of any waste, or of any description or type of waste –

(i) except at a public waste management site,

(ii) except with the consent of, and in accordance with any requirements made by, the Waste Disposal Authority,

(iii) in excess of such volumes as may be specified in the Ordinance, or

(iv) at such locations, or other than at such locations, as may be specified or described in the Ordinance.

(2) In considering an application for a licence, or the variation of the conditions of a licence, under this Law permitting –

(a) the disposal of waste on land otherwise than at a public waste management site, or

(b) the carrying out of an operation which might divert waste from a public waste management site identified under that Part of the Waste Management Plan detailing policy in relation to strategically important Waste Disposal Authority facilities,

the Director shall comply with the requirements in subsection (2A).

(2A) The requirements referred to in subsection (2) are that the Director –

(a) shall not grant the application in contravention of subsection (1),

(b) shall take into account, in addition to the matters set out in section 15, the current Waste Management Plan, and

(c) shall consult, and have regard to any representations made by –

(i) the Waste Disposal Authority,

(ii) the Constables of the Parish concerned,

(iii) the Committee for the Environment & Infrastructure,

(iv) the Committee for Health & Social Care,

(v) the Committee, and

(vi) the Committee for the Environment & Infrastructure,

provided that compliance with this subsection does not modify the effect of section 23.

(3) For the avoidance of doubt, the representations of the Waste Disposal Authority to which the Director is obliged by subsection (2A)(c)(i) to have regard are not confined to the matters set out in section 15, but include the public interest in ensuring that waste is not without good reason diverted from public waste management sites.

Appendix 2 Waste data based on 2016 tonnages

The following information is based on 2016 waste arisings data (tonnes) provided by the WDA.

HOUSEHOLD			
Residual Waste			***13,190***
– 'Black bag' waste		11,312	
– CA Site / Bulk Refuse		1,878	
Recycling			***12,050***
– 'Dry' recyclables		6,769	
– 'Green' waste		3,862	
– Other Household Recycling		1,419	
TOTAL HOUSEHOLD			**25,240**
COMMERCIAL			
Inert Waste			***81,312***
– Inert Builders Waste		81,312	
Inert Recycling/Recovery			***59,185***
– Inert Recycling		12,936	
– Site Preparation Materials (Recovery)		46,249	
o Cover	32,933		
o Commercial MRF Output	7,360		
o Hard-core/Tarmac	5,956		
Residual Waste			***25,860***
– Compacted		4,863	
– Residual Commercial		9,177	
– Fragmentiser Waste (disposal)		142	
– Fragmentiser Waste (cover material)		1,019	
– Specially Controlled Wastes		427	
– Waste Wood		7,636	
– Healthcare Waste		588	
– Abattoir Waste		293	
– Exported as Refuse Derived Fuel		1,715	
Recycling			***18,599***
– 'Dry' recyclables		4,790	
– 'Green' waste		7,125	
– Recyclables (metal, pallets, WEEE)		5,345	
– Specially Controlled Waste (off-island recovery)		1,116	
– Fragmentiser Waste (recovery)		223	
TOTAL COMMERCIAL			***184,956***
TOTAL WASTE ARISINGS			***210,196***

The waste categories detailed above are currently processed as follows:

DISPOSAL AT MONT CUET[34]	TONNES
'Black bag' waste	11,312
CA Site / Bulk Refuse	1,878
Compacted (Commercial)	4,863
Residual Commercial	9,177
Fragmentiser Waste (on-island disposal)	47
Fragmentiser Waste (cover material)	1,019
Specially Controlled Wastes (on-island)[35]	411
SUB-TOTAL	**28,707**

DISPOSAL ELSEWHERE	TONNES
Fragmentiser Waste (off-island disposal)	96
Specially Controlled Waste (off-island disposal)[12]	16
SUB-TOTAL	**112**

LAND RECLAMATION AT LONGUE HOUGUE	TONNES
Inert Builders Waste	81,312
SUB-TOTAL	**81,312**

RECYCLED/RECOVERED WASTE	TONNES
'Dry' recyclables (Household)	6,769
'Green' waste (Household)	3,862
CA Site / Bulk Refuse	1,419
Inert Recycling	12,936
'Dry' recyclables (Commercial)	4,790
'Green' waste (Commercial)	7,125
Recyclables (metal, pallets, WEEE)	5,345
Specially Controlled Waste (off-island recovery)	1,116
Fragmentiser Waste (off-island recovery)	223
Export of RDF (off-island recovery)	1,715
SUB-TOTAL	**45,300**

ON-ISLAND TREATMENT	TONNES
Waste Wood	7,636
Healthcare Waste	588
Abattoir Waste	293
SUB-TOTAL	**8,517**

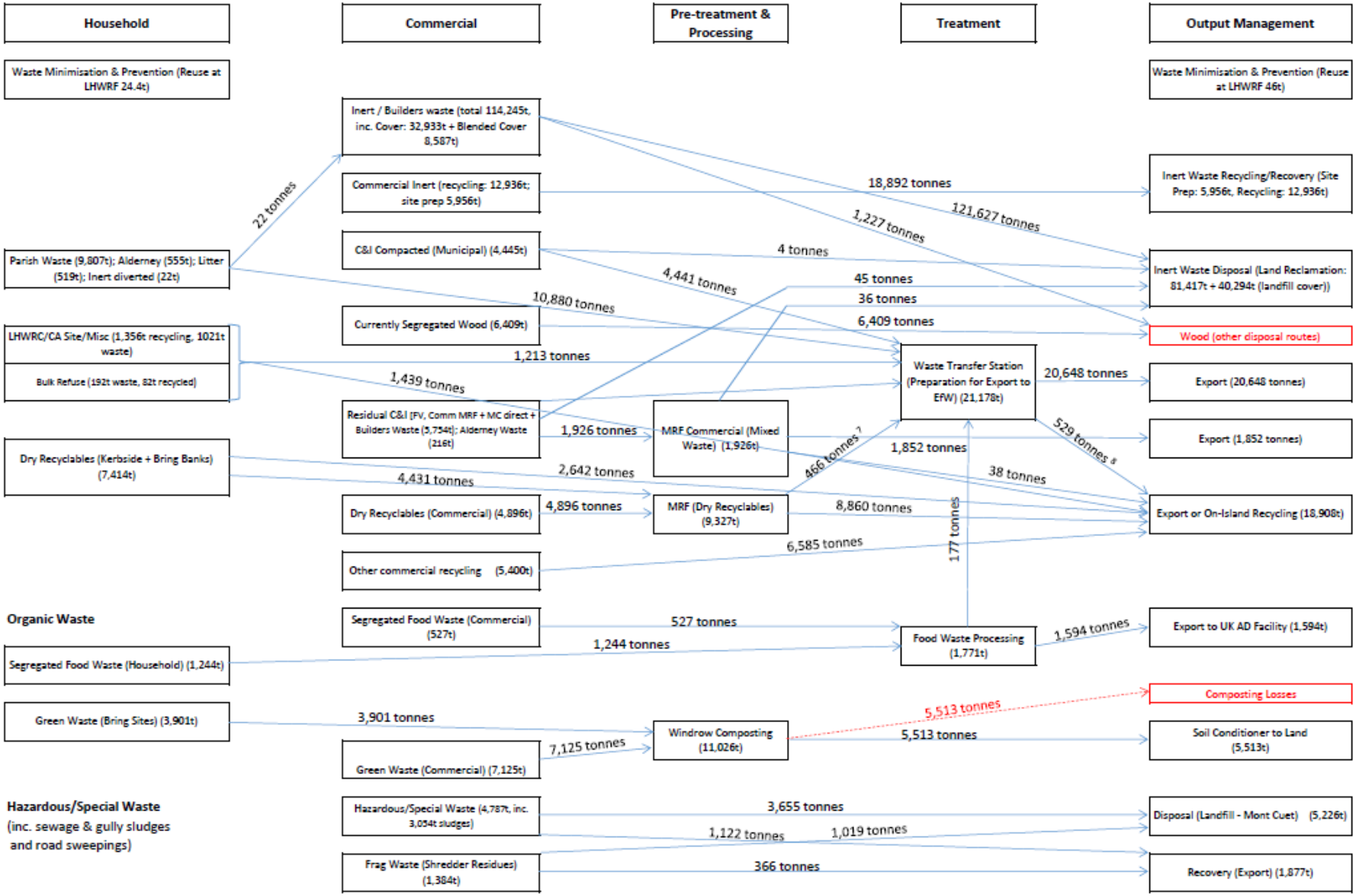
TOTAL	**163,948**

[34] Excludes site preparation materials

[35] Does not include bottom ash or Air Pollution Control residues generated by the clinical waste and carcass incinerators as raw data is provided for these waste streams.

Appendix 3 Waste Flow Model

WASTE FLOW MODEL - PREDICTED TONNAGES ON COMMISSIONING OF THE WASTE TRANSFER STATION, BASED ON 2016 DATA AND 2015 WASTE COMPOSITION ANALYSIS.



Appendix 4 Description of Facilities and Processes

Anaerobic Digestion
The processing of organic waste in the absence of oxygen in tanks resulting in the capture of biogas which is used to generate energy and a nutrient rich digestate that can be applied as a fertiliser to land.

Brink Banks
Bring banks and receptacles provided for the collection of recyclables/ recyclates.

Household Waste Recycling Centre (HWRC) (or Civic Amenity Site (CA Site))
A household waste recycling centre (HWRC) is a facility where the public can deposit household waste and recyclables. HWRC's are typically run by the local Government in a given area. Collection points for recyclable waste such as green waste, metals, glass and other waste types are available.

Kerbside Recycling
A service provided to collect recyclables and source segregated food waste put out in a prescribed manner and collected from the kerbside.

Materials Recovery Facility (MRF)
A Materials Recovery Facility houses operations that process incoming waste so that it may be recycled and/or directed to an appropriate treatment/disposal facility. Separation is achieved by a combination of manual and automated processes.

Refuse Derived Fuel
Residual waste that has been processed in preparation for transport to an energy recovery facility under European Waste Catalogue code 19 12 10: combustible waste (Refuse Derived Fuel (RDF)).

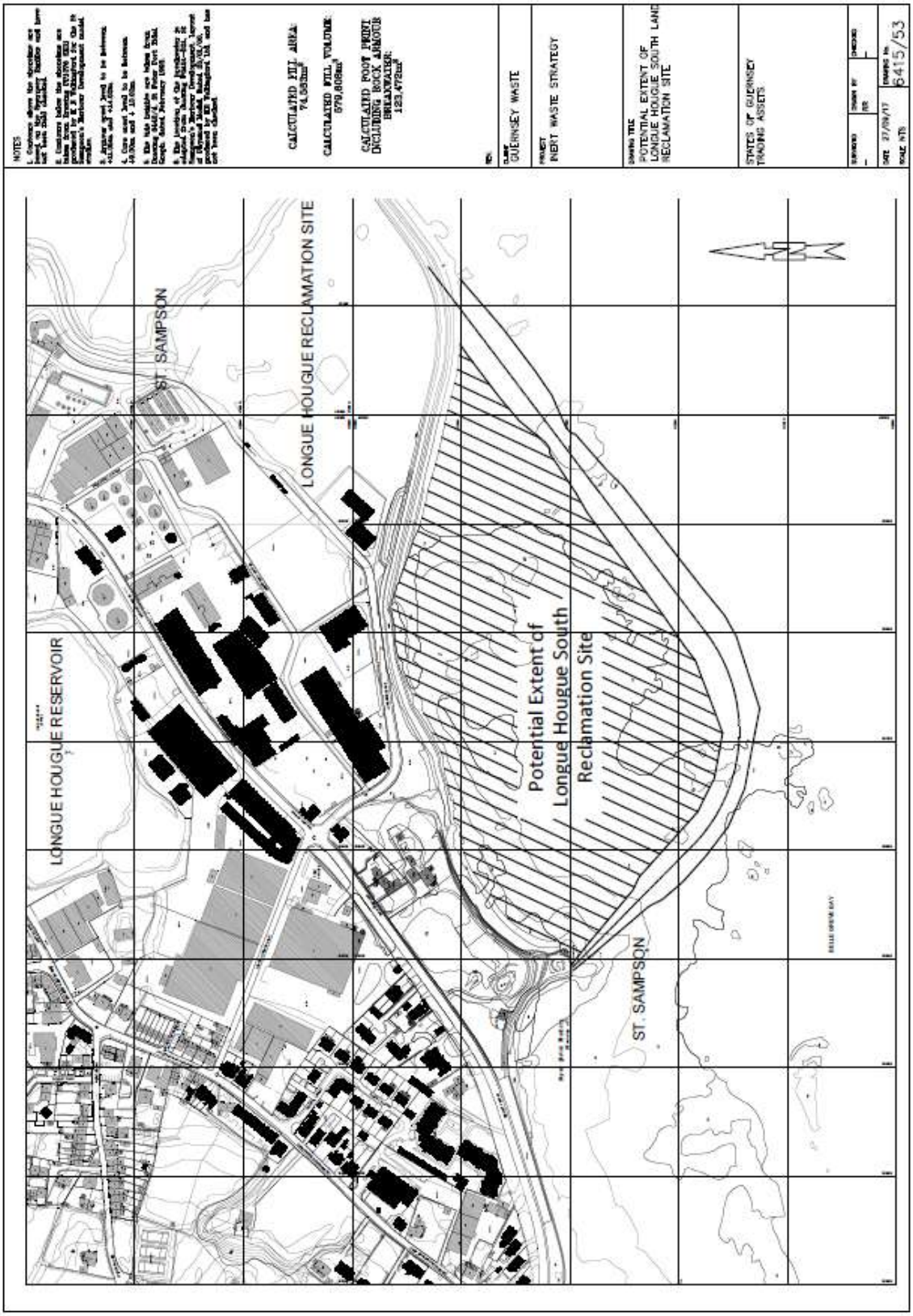
Repair and Reuse Centre
Facilitates the transaction and redistribution of unwanted, yet perfectly usable, materials and equipment from one entity to another.

Waste Transfer Station
The Waste Transfer Station will accept residual waste from both household and commercial sources. It will then be prepared for export as RDF to an off-Island energy recovery facility. The Waste Transfer Station may also receive other wastes for pre-processing in advance of distribution to an appropriate recycling, recovery, or disposal facility. In the case of the facility at Longue Hougue, segregated food waste will be received and processed into an "AD Soup" to enable transportation to an Anaerobic Digestion facility, and glass will be received for bulking for shipment to at glass recycling facility.

Windrow Composting
Windrowing is the composting of organic matter by piling in long rows (windrows), which are turned regularly to improve porosity and oxygen content once the required temperature is achieved (typically 65°C). This method is currently used to process both household and

commercial green waste, producing a soil conditioner which can be applied to the land. It is not suitable for food waste.

Appendix 3 Potential Extent of Longue Hougue South Reclamation Site



Appendix 4 **Waste Management Plan Consultation Letters of Response from Statutory Consultees**

Development & Planning Authority

Sir Charles Frossard House,
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planning@gov.gg
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Deputy Charles Parkinson
President
Waste Disposal Authority
Brickfield House
St Andrew
Guernsey
GY6 8TY

6th November 2017

Dear Deputy Parkinson

Consultation on Recommendations for a New Waste Management Plan

Thank you for consulting the Development & Planning Authority regarding proposed amendments to the Waste Management Plan.

The Authority has no comments to make about the proposed amendments, set out in your letter of 10th October 2017, in relation to its responsibilities and mandate.

However, the Development & Planning Authority is aware that considerable importance is placed, in both the draft Inert Waste Strategy and the recommendations of the Waste Disposal Authority in relation to the Waste Management Plan, on the production of site waste management plans, which are required by various policies in the Island Development Plan, and the analysis of data arising from them. These are seen as fundamental to the delivery of the Inert Waste Strategy.

Whilst the Authority has every intention to require site waste management plans and to analyse and report on the data arising from them, in view of the critical nature of the site waste management plans to the success of the Inert Waste Strategy, it would like to clarify that this can only be achieved within the limitations of the resources available to the Authority.

Yours sincerely

Deputy John Gollop
President
Development & Planning Authority

Copy: Deputy Gavin St Pier, President, Policy & Resources Committee

The Office of Environmental Health and Pollution Regulation
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envhealth@gov.gg
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Our ref: 20171103TC

Deputy Parkinson
Trading Assets Head Office
Brickfield House
St Andrew
GY6 8TY

3rd November 2017

Dear Deputy Parkinson

CONSULTATION ON RECOMMENDATIONS FOR A NEW WASTE MANAGEMENT PLAN

Thank you for your letter of 10TH October 2017 and for providing the opportunity to respond. In relation to the Waste Disposal Authority's recommendations to the Committee *for the* Environment & Infrastructure, I provide the following comments (as per the numerical references in your letter of consultation);

1. I support this recommendation.

2. Whilst I understand that a comprehensive options appraisal was necessary, for clarity I wish to qualify that options a – d would require a Waste Management Licence, as issued by our department. As I am sure the options appraisal will have concluded, it is highly unlikely that the export of inert waste for disposal (option e) would be legally viable. Disposal of waste at sea (option f) is controlled by The Environmental Pollution (Waste Control and Disposal) Ordinance, 2010 and the Food and Environmental Protection Act 1985 (Guernsey) Order, 1987 and it is highly unlikely to present the best practicable environmental option.

   I have no objection in principle to the insertion of the italicised text in the new Waste Management Plan but the suitability of the asterisked (*) site will have to be assessed once a site has been proposed.

3. I support recommendations a and b.

   Whilst the majority of effluent discharges will be controlled through the Water Pollution Ordinance (once commenced), the WDA will have a responsibility for liquid waste collected in relation to the hazardous waste collection service and for liquid wastes that are delivered to the Household Waste & Recycling Centre at Longue Hougue.

I would be grateful if these comments could be considered during the consultation for the Plan.

Yours sincerely,

Tobin Cook

Director of Environmental Health and Pollution Regulation

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Richard Evans. Action
cc Core List

RECEIVED
30 OCT 2017

Deputy Charles Parkinson
President
Waste Disposal Authority
Brickfield House
St Andrew
Guernsey
GY6 8TY

24 October 2017

Dear Deputy Parkinson

Thank you for your letter dated 10 October 2017 in respect of "Consultation on Recommendations for a new Waste Management plan".

The subject was discussed at a Douzaine meeting held on Monday, 23rd October 2017.

The Douzaine noted an Inert Waste Strategy will be presented to the States in December 2017 and accompanied by a new draft Waste Management Plan.

The Douzaine noted that in connection with the Inert Waste Strategy the conclusion had been reached that further Land Reclamation presently represents the best practical environmental option for the disposal of inert waste, but that other options should be reviewed in the longer term. The Douzaine agrees with this approach and looks forward to the details of the potential Land Reclamation sites being set out in the Policy Letter to be presented to the States. The Douzaine will doubtless take part in the Public consultation process to identify the most suitable site, if the Policy Letter is approved by the States.

The Douzaine have no comment to make on the proposed text to be included in the draft Plan.

The Douzaine also agree with the WDA recommended changes a. to d., set out in section 3. of your letter, to be made to the current Waste Management Plan.

Yours faithfully

Paul R. LePelley

P R le Pelley
Constable of St Sampson

Committee *for*
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Deputy C Parkinson
States' Trading Supervisory Board
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24 October 2017

Dear Deputy Parkinson

Consultation on recommendations for a new Waste Management Plan

Thank you for your letter of 10th October in relation to the new Waste Management Plan and for the helpful information that you provide in relation to the Plan's development.

I note that you are consulting with the Committee due to our mandated responsibility for the Office of Environmental Health and Pollution Regulation (OEHPR). On taking office in May of last year, the Committee were concerned that its responsibility for the OEHPR did not align with the Committee's broader mandate and responsibilities and concluded it was a better political fit to place the service with the responsibilities of the Committee *for* Environment & Infrastructure. The Committee *for* Environment & Infrastructure concurs with this assessment and have formally requested that the Policy & Resources Committee facilitate such a change.

Given this commitment to transfer responsibility for the OEHPR, the Committee does not consider it would be appropriate to formally comment in relation to the Environmental Health aspect of the proposed Waste Management Plan and that such consultation may be better directed either to the Committee *for* Environment & Infrastructure, or the statutory position of Director of Environmental Health and Pollution Regulation. To this end I have forwarded a copy of your letter to the President *of the* Committee *for* Environment & Infrastructure and Mr Tobin Cook, Acting Director of Environmental Health and Pollution Regulation requesting they reply to you directly.

Yours sincerely

Deputy Heidi Soulsby
President
Committee *for* Health & Social Care