

SECTION 14: WASTE MANAGEMENT

INTRODUCTION

- 14.1 Over the past thirty years the level of waste produced in Jersey has increased significantly. Waste represents a misuse of resources and changes in the way we manage it are central to achieving sustainable development. Jersey's island setting further reinforces the need for a sustainable approach to waste management. Although some recycling takes place at Bellozanne, there has been a reluctance to engage Islanders in the kind of recycling schemes that have become commonplace elsewhere in Europe although this is, in part, due to recycling initiatives being prejudiced by the small size of the Island and the associated economic and environmental impacts of transporting materials to recycling centres.
- 14.2 An evaluation of local household waste generation undertaken by the Public Services Department indicates that the municipal waste arising per capita for Jersey is in the order of 400kg per annum. This compares with the USA (730kg), France (470kg) and the UK (350kg). The reasons behind the relatively high level of waste production in Jersey relative to the UK include:
- the effects of modern consumerism;
 - the import of a high proportion of those consumer products;
 - the high level of property development and related activity on the Island; and
 - production of large volumes of agricultural waste.
- 14.3 The development of waste disposal facilities has largely been restricted to Bellozanne Valley. The solid waste management operations located in the valley include the incinerator plant and power station, sludge drier, oil recovery operation, hazardous waste collection and disposal, clinical waste incinerator, ash separation and treatment plant and ferrous and non-ferrous metal extraction.
- 14.4 Seventy percent of controlled wastes (principally inert commercial and industrial wastes) goes to the land reclamation site at La Collette. The picture is slightly different for municipal waste (which includes non-inert household, commercial and industrial waste), in that 70% goes to incineration from which energy is recovered. The incinerator plant in Bellozanne Valley includes a waste-to-energy recovery system and the electricity it generates provides power to the sewage treatment works. Excess energy generation goes into the Island's electricity grid.

- 14.5 The Planning and Environment Committee is well aware of the internationally accepted 'waste hierarchy' outlined in paragraph 14.10. Recycling initiatives in Jersey include composting, the separation of items such as aluminium, steel, textiles, telephone directories and nickel cadmium batteries from the waste stream for export and re-use and the recycling of scrap metal, agricultural polythene and pallet boards.
- 14.6 The decision whether to recycle materials or not depends upon a number of factors, including the availability of raw materials, energy consumption in collection and processing and any environmental implications. It is counter-productive to recycle if doing so has a greater impact upon the environment than disposing of the waste. Furthermore, a recycling scheme that might be cost-effective in the UK might not be viable in Jersey if the material has to be shipped out for recycling, even if there is considerable capacity to export materials in the ships going to the UK. The local market for recycled goods is another important consideration – for certain materials the economics of recycling become marginal and other waste management options further down the 'waste hierarchy' may be more appropriate. However, in an island where many lived through five years of German occupation and were forced to 'make do and mend', the lack of involvement by Islanders in re-use and recycling is disappointing.

Relationship to the Vision and Objectives

- 14.7 The Vision for Jersey is for an Island 'which has a visually pleasing environment, protected from undue danger and pollution, and where the wildlife, landscape and physical resources are sustained not compromised'. One of the objectives of the new Island Plan states that there is a need to 'minimise the impact of Island activities on the local and global environment, including the minimisation of production of waste, greenhouse gases and pollutants.'

Approach

- 14.8 This section of the Plan is concerned with solid waste management. Solid waste broadly includes industrial, construction and demolition wastes, commercial and household refuse, incinerator ash and agricultural, clinical and hazardous waste. Liquid waste (i.e. foul sewage) is dealt with in Section Thirteen – Natural Resources and Utilities.
- 14.9 Reducing the volume of solid waste produced and re-using materials wherever possible has both environmental and economic benefits. The development of a sustainable waste management strategy, where the amount of waste produced is minimised and best use is made of that which is produced, is vital. Land-use planning has an important rôle to play in this process.

- 14.10 There is an internationally accepted 'hierarchy' of waste management options, which ranked in order of environmental desirability, is as follows:

Waste Reduction

- by producing less waste and producing longer lasting and recyclable products;

Re-use

- reusable products, for example returnable bottles and reusable transit packaging;

Recovery (i.e. finding beneficial uses for waste)

- resource recovery – recycling of metals, plastic and glass;
- turning wastes into a useable product, for example composting of organic materials;
- energy recovery – producing energy either by burning waste or by recovering landfill gas;

Disposal

- by incineration or landfill without energy recovery.

This hierarchy reflects the principles of sustainable development.

POLICIES AND PROPOSALS

Waste Minimisation and Recycling

- 14.11 In order to conserve natural resources, it is important that waste minimisation and the recycling and re-use of resources are encouraged. Proposals for new developments should, where appropriate, include details of the means of waste collection and proposals for waste minimisation and recycling.

POLICY WM1 – WASTE MINIMISATION AND RECYCLING

The Planning and Environment Committee is intent on reducing the production of waste and, in considering proposals for new development, will seek to minimise levels of waste production and to increase the recycling, re-use and recovery of resources.

The Committee will normally only permit development where measures to recycle, re-use and recover as much as possible of the generated waste materials are employed.

Construction and Demolition Wastes Plan

- 14.12 Construction and demolition wastes form over 90% of Jersey's inert waste for disposal. Since 1996 the major route for disposal of this type of waste has been to the land reclamation site at La Collette. Reducing levels of construction and demolition wastes, and thereby increasing the lifespan of the land reclamation site at La Collette is important and requires immediate consideration. Certain types of development, for example basement car parks, involve the generation of large amounts of waste

material during construction and should be actively discouraged, where this cannot be recycled, re-used or recovered. From a sustainable development standpoint, encouraging re-use and recycling of construction and demolition wastes wherever possible will assist with the conservation of natural resources.

- 14.13 A proportion of the construction and demolition waste delivered to the land reclamation site at La Collette is currently recycled into secondary aggregates. Policy NR9 (Section Thirteen – Natural Resources and Utilities) encourages the production of secondary aggregates at suitable locations in the Island, for example on demolition sites and in industrial areas.
- 14.14 For development proposals which involve demolition and which generate a significant quantity of waste the Planning and Environment Committee will require the submission of a Waste Management Plan as part of the planning application. The Plan should identify the extent and type of waste likely to be generated by the development proposal and provide details as to how the waste is proposed to be dealt with. In accordance with Policy WM1, the Planning and Environment Committee will, through the use of Waste Management Plans, seek to ensure that waste generation is minimised and that the recycling, re-use and recovery of resources is maximised. Planning conditions and obligations may be used to control waste generation and disposal.

POLICY WM2 – CONSTRUCTION AND DEMOLITION WASTES PLAN

Any development proposals involving the demolition of major structures or removal of significant quantities of waste material during construction shall identify the means by which the waste material shall be re-used, recycled or disposed of either within or off the site.

The Planning and Environment Committee will require a Waste Management Plan to be submitted with all planning applications giving rise to significant quantities of construction and demolition waste. The measures contained in the Waste Management Plan shall be approved by the Committee and may be secured by planning obligations. Where such plans are not acceptable, permission will not normally be granted.

New and Expanded Waste Management Facilities

- 14.15 The disposal or treatment of waste in any form is often a controversial issue due to real or perceived adverse impacts on the environment. It is important that proposals for waste management activities are thoroughly assessed against a range of criteria and that any permissions are conditioned to mitigate environmental nuisance. The Planning and Environment Committee will require proposals for new and expanded waste management facilities to be subject to a full Environmental Impact Assessment, in accordance with Policy G5 of this Plan.

- 14.16 Composting is a long-term treatment option for green and agricultural wastes on the Island. In 1999, 27,000 tonnes of material were composted per annum, representing approximately 6% of the Island's waste. The main composting facility is at Crabbé on the north coast and is subject to a temporary planning consent.
- 14.17 Composting operations are one of the more sustainable methods of waste management but they need to be carefully controlled to prevent potentially negative environmental implications, such as odour and pollution of watercourses. The facility at Crabbé has experienced environmental problems resulting from traffic generation and water pollution. The Planning and Environment Committee recognise that there is a need for a long-term solution to be identified and that Crabbé is unlikely to be a suitable site in the longer term. Further work is needed to find an alternative site for centralised composting operations and the long-term management of organic waste.
- 14.18 Hazardous waste includes such substances as asbestos, industrial thinners, fly ash and agricultural chemicals. Jersey has a Memorandum of Understanding with the UK to export certain categories of waste (including hazardous waste) for treatment. Small quantities of asbestos have traditionally been land-filled in a former quarry site on the north of the Island, which has now reached the end of its operational life. Larger quantities have been exported to the UK to a licensed disposal site. A new local disposal facility is currently being planned on the land reclamation site at La Collette 2.
- 14.19 One of the problems of the incineration process in Jersey has been the waste residue (i.e. bottom ash from the grate and fly ash from the chimney). Whilst in some countries, for example Canada, incineration residues may be treated as toxic waste, it is also not uncommon for them to be disposed of by land-filling. However, in recent years there has been increased concern about the potential hazards posed by leachate from such sites. The main concern relates to the presence of heavy metals in the residue, which can be toxic at relatively low levels.
- 14.20 A programme of separation and treatment for the incinerator ash is now in place. The disposal of the treated ash at La Collette has been improved with ash placed in lined pits which are then sealed. The treatment process reduces the amount of ash for landfill to approximately 10% of the original. It is anticipated that in the near future the quality of the bottom ash produced through the incineration process will be sufficiently improved to allow it to be re-used in secondary aggregates and cement binding.

POLICY WM3 – NEW AND EXPANDED WASTE MANAGEMENT FACILITIES

Proposals for new waste management facilities and expansion of existing facilities will normally be permitted provided that the proposed development:

- (i) will not have an unreasonable impact on neighbouring uses and the local environment by reason of noise, vibration, odour, leachates, water or gas emissions, including any effects on quality or quantity of water supply and drainage;**
- (ii) will not have an unacceptable visual impact;**
- (iii) has satisfactory access in relation to the highway network, both during the working life of the facility and subsequent restoration, without detriment to local amenity;**
- (iv) there is an agreed programme of site management for the duration of the life of the facility;**
- (v) is in accordance with other principles and policies of the Plan.**

Proposals which do not satisfy these criteria will not normally be permitted.

The Planning and Environment Committee will require an Environmental Impact Assessment to be carried out for any development likely to have a significant effect on the environment in accordance with Policy G5.

Safeguarded Waste Site

- 14.21 In recent years there has been increasing acceptance across Europe that 'Energy from Waste' technology may be more sustainable than recycling for certain materials. The existing plant in Bellozanne Valley fails to meet emission standards and suffers from excessive 'downtime' as the two incinerator streams are nearing the end of their design life. Upgrading of the facility has not been found to be an economic option.
- 14.22 Two sites in Bellozanne Valley were initially considered for a new plant and, following public consultation with local residents in November 2001, a third and preferred site has been identified by the Public Services Committee. This is located within the existing waste management complex in the area presently occupied by refuse handling plant. That Committee's consultants have confirmed that the site is appropriately located and of sufficient size to accommodate the new plant. Accordingly, it is important that the site is safeguarded for the purpose.
- 14.23 An Environmental Impact Statement should form an integral part of any application for a new incinerator in line with Policy G5 of this Plan.

POLICY WM4 – SAFEGUARDED WASTE SITE

A site for a new 'Energy from Waste' Plant is safeguarded in Bellozanne Valley, as shown on the Island Proposals Map, subject to a satisfactory Environmental Impact Assessment.

Proposals for other uses on this site will not normally be permitted.

Land Reclamation and Landfill Sites

- 14.24 Traditional landfill opportunities have not been available in Jersey, with the result that the Island has increasingly turned to land reclamation. The principal location for waste disposal is the land reclamation site at La Collette 2. Approximately 90 of the 165 acres available have already been reclaimed. The life span of the La Collette land reclamation site was originally anticipated to be around twenty-five years but, due to increased filling rates, that life expectancy is now considerably reduced. At current rates of fill the reclamation site will be filled to the height of the surrounding sea wall as early as 2009, although the design life may be extended by up to three years through the creation of landform (superfilling) on the site above the sea wall.
- 14.25 The waste being disposed of in the land reclamation and landfill sites comprises the residue from waste streams (i.e. it is the remaining waste at the end of the waste hierarchy after waste minimisation, re-use, recycling, composting, anaerobic digestion and energy from waste has taken place). The types of waste include:
- flue gas treatment plant residue;
 - incinerator ash not used in construction; and
 - inert waste which cannot be re-used in the construction industry.
- 14.26 The Solid Waste Management Strategy produced by the Public Services Department identified a number of strategic options to be explored in more detail regarding future waste disposal:
- provision of additional space at La Collette;
 - quarry restoration;
 - identifying and developing further land reclamation sites;
 - export; and
 - sea disposal.
- 14.27 The most likely options are creating additional space at La Collette and quarry fill. The remaining options have been dismissed for a variety of reasons. Land reclamation sites are expensive to engineer and a new site would be environmentally damaging. Export of waste is expensive, and goes against the principles of proximity (that waste should generally be disposed of as near to its point of generation as possible) and sustainability. Finally, marine dumping of waste is not permitted under the terms of the Convention on the Protection of the North Sea and North East Atlantic (OSPAR).

- 14.28 The Solid Waste Management Strategy recognises the need to provide additional capacity for waste disposal in Jersey. The Strategy recommends that additional space be created at La Collette through land raising by developing a landform above the sea wall level. The control of dumping and adherence to international conventions are essentially operational matters, which will need to be addressed to the Public Services Department. The Strategy also recommends restoration at La Gigoulande Quarry. In view of the alternatives for solid waste disposal, landfill appears to be the most appropriate option.
- 14.29 The types of waste for disposal to La Gigoulande Quarry must be carefully considered in consultation with the Public Services Department and in line with the Solid Waste Management Strategy. Whilst the majority of waste would be expected to be inert, special consideration could be given to the appropriateness of using La Gigoulande for the disposal of certain non-inert wastes, including flue gas treatment residue and incinerator ash. The suitability of using La Gigoulande Quarry for landfill for waste will depend to a large extent on the findings of a hydro-geological impact assessment. There will be other impacts of such a proposal and it is important that a comprehensive Environmental Impact Assessment is undertaken in accordance with Policy G5 of the Plan.
- 14.30 Whilst it is anticipated that either or a combination of these options will be selected as the future way for landfill in the Island, there could be proposals from the private sector for the development and operation of landfill or land reclamation sites in Jersey.

POLICY WM5 – LAND RECLAMATION AND LANDFILL SITES

La Gigoulande Quarry is designated for use as landfill, subject to the outcome of an Environmental Impact Assessment.

The types of waste and methods of disposal at this site will be determined in accordance with the Public Services Department requirements and the Solid Waste Management Strategy.

Proposals which would prejudice the use of this site for landfill will not normally be permitted.

Proposals for landfill or land reclamation sites elsewhere in the Island will not normally be permitted.

Restoration of Land Reclamation and Landfill Sites

- 14.31 The Planning and Environment Committee will demand high and consistent standards of restoration of landfill and land reclamation sites at the earliest practicable date. There is, therefore, a need for an agreed programme of proposals for site restoration, aftercare and beneficial after-use to be submitted with any planning application. An Environmental Impact Assessment will be required.
- 14.32 Operators will generally be expected to agree the broad aims of the restoration scheme at the outset, to keep these aims under regular review throughout the period of use of the site, to prepare detailed proposals

within a year of the end of use of the site and to implement the scheme forthwith.

- 14.33 There has been a requirement to date at the La Collette land reclamation site to retain sufficient hard-core and aggregate within the site to ensure site stability. However, when superfilling of the site takes place, it will be possible to produce more secondary aggregate. As part of this process, further emphasis should be paid to the type of filling operation and the opportunity to remove further aggregates.

POLICY WM6 – RESTORATION OF LAND RECLAMATION AND LANDFILL SITES

Restoration and reuse of land reclamation and landfill sites will be a condition of development permission. Restoration of landfill or land reclamation sites will be required to commence at the earliest opportunity and where possible, proposals for restoration should demonstrate a positive enhancement of both the site and the landscape character of the area.

The Planning and Environment Committee will seek to enter into planning obligations with the operator to secure necessary restoration and landscaping works.