

## THE JERSEY ENVIRONMENT FORUM

### POSITION PAPER ON THE STATES OF JERSEY PUBLIC SERVICES DEPARTMENT'S SOLID WASTE STRATEGY - OCTOBER 2004

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#### 1. SUMMARY

- We wish to make observations from an environmental perspective, recognising that environmental and economic issues are not in opposition.
- The Solid Waste Strategy contains much that we agree with. However, we are very much at odds with the priorities and emphasis given to different aspects of the management of waste.
- The Environment & Public Services Committee should rigorously pursue the Waste Hierarchy and take every opportunity to reduce the volume of waste that enters the waste stream, and that reaches the final disposal stage.

Our Specific Recommendations are that the Environment & Public Services Committee should:

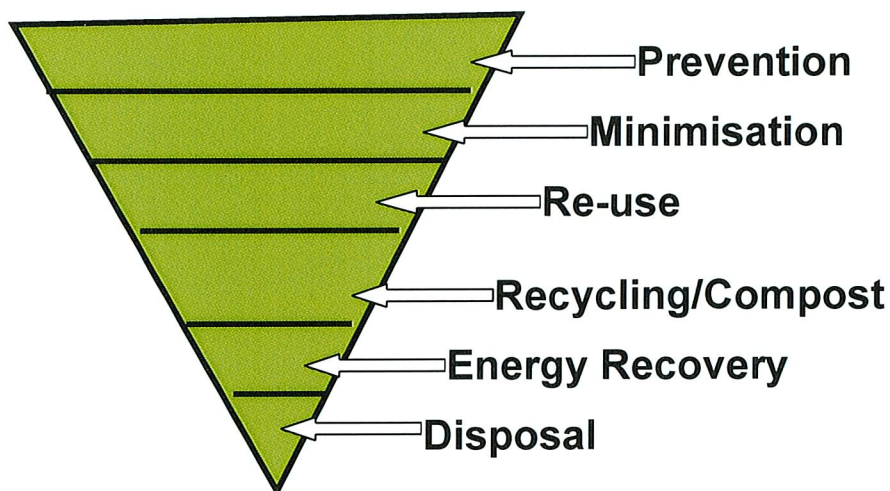
- 1.1 Give priority to waste prevention, reuse, recycling, and composting.
- 1.2 Establish initiatives to prevent waste arising and to reduce unnecessary packaging.
- 1.3 Encourage residents and businesses to abandon the purchase-consume-dispose habit.
- 1.4 Raise the public's awareness of its own roles in achieving waste management objectives.
- 1.5 Be more resolute in applying policies to discourage excavation as part of new development and in denying permission to demolish buildings.
- 1.6 Encourage residents and businesses to separate waste at source.
- 1.7 Establish a three-stream system for dustbin and trade waste, comprising:
  - Organic waste
  - Dry recyclables, and
  - Residual waste
- 1.8 Set out a programme to achieve advanced recycling. Set recycling targets and timescales for their achievement.
- 1.9 Establish a new, enclosed composting facility as soon as possible.
- 1.10 Stop the incineration of unsorted municipal waste.
- 1.11 Sort and remove all of the plastics and other synthetic products out of the waste stream. Only residual waste should reach the Energy from Waste stage.
- 1.12 Examine the options for Energy Recovery and Final Disposal of the residual waste.
- 1.13 Commission a 2 stream Energy from Waste plant that is up to 30% smaller than that proposed in the Strategy.

## How does the Solid Waste Strategy respond to these objectives?

Jersey has a good record in waste management. Treatment of liquid waste is recognized as leading the field. We sort and remove metals and glass from the waste stream and whilst many jurisdictions in the UK are just beginning to take measures to reduce their dependence on landfill, Jersey took that step many years ago. We are told that there is commitment from the public to recycling. These are sound foundations to build on. However, the solution put forward in the Waste Strategy is a convenient one rather than a desirable one.

We look at each of the criteria set out above by reference to the priorities of the **Waste Hierarchy**:

### The Waste Hierarchy.



## 2. PREVENTION AND MINIMISATION

- 2.1 Excessive waste generation represents a misuse of resources. Each year our waste production goes up by about 3%. Growth of 3% per annum equates to 40% over 12 years. It would be irresponsible not to act to counter the growth in waste arisings, particularly given the growth in population projected in the Strategic Plan. Nothing less than a change of culture is required to reduce the volume of waste that we create.

### Public Awareness.

- 2.2 A recently published booklet, **Dealing With Jersey's Waste** (Environment & Public Services Committee, September 2004) is a good step towards raising public awareness; we hope it will be widely distributed. The initiatives of PSD's Recycling Officer are excellent and should be encouraged and multiplied. This will be a long and arduous campaign for which resources and funding need to be diverted. Experience elsewhere has shown that only a proportion of the populace will understand the importance of their contribution and that maximum involvement is necessary to make the Strategy successful. Delivery of that success will lead to a reduction in the quantity of waste that needs to be processed and a corresponding lowering of taxes to pay for its disposal.

- 2.3 To reduce the volume of waste arising; we must change the throwaway mentality that prevails. Much contemporary production of 'white' goods and convenience food is characterised by excessive packaging. It has long been recognised that consumers can influence the nature of production of goods and of packaging by exercising their choice in the shops. There was a strong movement in the '90s towards more 'environmentally friendly' consumption but the momentum has recently been lost and needs to be re-stimulated. Consumers should be encouraged to choose goods with less packaging. Changes in attitude like this are leading to initiatives by manufacturers (particularly in the electronics industry) who take back obsolete goods and recycle some components before disposing of hazardous wastes like batteries in an acceptable manner.
- 2.4 The purchase-consume-dispose habit is well entrenched in all of us. Increasing the householder's responsibility for his or her own waste to the extent that they have to separate it provides an educational link between the generation of waste and its disposal. Home sorting of waste into separate waste streams will require considerable effort towards public education but will in itself help to make people understand the importance of exercising their choice in the marketplace.
- 2.5 The Strategy notes that States influence on producers outside of the Island will be limited. We recognise that is so, but there are measures that can be taken. The Strategy itself refers to the plastic bag tax introduced in 2002 in Ireland which reduced the use of plastic shopping bags by 90% in a period of only six months. In the 1980s the Danish Government prohibited non-refillable containers for beer and soft drinks on the grounds that non-returnable bottles are an unnecessary burden on the environment.
- 2.6 Written as early as 1989 the following paragraph sums up the situation as the author saw it then and usefully encapsulates an attitude that could change our throwaway culture:

*we have a huge store of capital locked up in goods produced to date which can be fed back for reprocessing. In the future, therefore, we could require no new raw materials, merely reusing those already extracted over and over again. However, to achieve this we must change the throwaway mentality that is part of our recent heritage.*

(J Cooper, August 1989, quoted in Reviving the City, Elkin & McClaren, 1991)

### **3. INERT WASTE.**

- 3.1 We welcome the measures in the Island Plan 2002 intended to reduce the volume of inert waste material destined for landfill. These include discouraging excavation, presumption against demolition and reuse of the products of demolition. Policies are well intentioned, but the Environment & Public Services Committee needs to be more resolute in applying its own policy in denying permission to demolish buildings.
- 3.2 It seems that no plans are in place for the next landfill site (after La Collette), but it is recognized that we will need to find a site for dumping inert waste. Further land reclamation of the shoreline is neither a sustainable or desirable option. Moreover, with the instatement of a Marine Protection Zone in 1995 (whereby there is a presumption against development within intertidal areas) and designation of the SE Coast as a Ramsar Wetland of International Significance in 2001, it is highly unlikely that any such projects would be permitted. A candidate area at St Aubin has been identified as an important winter refuge for migratory birds.

### **4. REUSE, RECYCLE**

- 4.1 Jersey already has a good record for recycling. Aluminium, steel and paper are recycled by private contractors whilst glass is currently used as aggregate in construction, for road making and for consolidating backfill at the reclamation site. A national survey carried out in 1993 showed that 60% of waste is potentially recyclable. Much more could be done.
- 4.2 Although the Strategy says that ....*Waste minimisation and recycling, with realistic and achievable targets, will be the mainstays of this Strategy....*the funding for recycling, prevention initiatives,

development of incentives is minimal. The report makes token reference to waste reduction and recycling and the public role in this. There is however very little discussion of or enthusiasm for these important aspects of waste management. In contrast the Hertfordshire Waste Strategy is upbeat and optimistic. It says, "*The strategy's cornerstone is treating waste as a resource, rather than something to be hidden away*"...There will be a move "*towards more sustainable waste management techniques.*" The States should encourage and support initiatives such as the Genuine Jersey campaign which promotes local produce, with considerably less packaging most of which is returnable to the farm and fewer energy transport costs due to a reduction in "food miles." Indeed a duty should be imposed on imported items which are available locally so as to offset packaging disposal costs.

- 4.3 We are told that it is not economically viable for an island community to recycle materials. But recycling is a cost-effective 'disposal' option as long as it requires less in government subsidy than land filling or incineration. Lower costs and therefore lower taxes, energy savings, and a cleaner environment are the true advantages. The failure to recognize this means that the funds allocated to recycling are not commensurate with the goal. It shouldn't be the case that it is not economically viable to recycle, because that means that it is economically acceptable to waste.

Accounting that says we cannot afford to recycle, fails to take into consideration the environmental costs. One of the greatest costs of not taking a more responsible attitude is simply the loss of the opportunity to use the material or product again. Assessments of the global impact of recycling have found that it has positive benefits arising from removing the impacts of primary materials extraction, processing and manufacture. This an example of a situation for which the expression *Think Global, Act Local* was coined; Jersey won't necessarily see the advantages of all of its actions but they have a wider benefit.

- 4.4 If the recyclables stream is considered a resource instead of waste, it can be seen from a different perspective. We should recycle although it may not seem 'economically viable' to do so. Surely it is better to send resources to a UK or European manufacturing centre, even if we have to pay to do so, rather than burn them so that more energy and pollutant is discharged to atmosphere and the inherent value of the material is lost after just one use.
- 4.5 Removing the recyclables from the stream also reduces the volume of waste that reaches the final stages of the waste process.
- 4.6 The States should set recycling targets and timescales for their achievement.

## **5. RATIONALISING COLLECTION**

### **5.1 Three Stream Waste Separation**

The Environment & Public Services Committee should establish a three-stream system for domestic and trade waste, comprising:

Organic waste  
Dry recyclables, and  
Residual waste

We consider the introduction of householder sorting of waste into three streams as central to achieving a reduction in the volume of residual waste. This should be set in motion urgently and given a high priority, particularly as it will require some persuasion of the public and is likely to take some time to implement.

- 5.2 The Strategy forms the view that the reorganisation of the Parish collection of waste is a 'medium to long term' objective. PSD see the division of collection responsibilities between the Parishes as a formidable obstacle to this objective, and the 'Bellozanne Covenant' as almost insurmountable. Separation of waste at source does not mean the centralisation of the collection service. It doesn't matter who does it, but the method should be standardised. A specification for the delivery of waste to the disposal facility should be drawn up requiring the separation of waste into three streams.

- 5.3 Existing 'bring bank' projects should be developed as they provide the 'cleanest' recyclables. But this alone cannot achieve sufficient separation of waste. Specialist recycling sites in each Parish with, if required centralised collection of certain elements, could improve recovery and efficiency. Local collections are appreciated by the residents and could lead to better segregation of waste at source. Separation of domestic and commercial collections is to be encouraged. Commercial waste has far less putrescible content than domestic, but can have greater volume. Cardboard must fall into this category.
- 5.4 The Forum supports the concept of "user pays" to fund the necessary expenditure on waste management. This could be coupled with incentives such as tax breaks for companies that meet standards of environmental best practice and for private households a rate surcharge on mixed collections.

## 6. COMPOSTING

- 6.1 The present composting facility at la Collette is badly placed. A new temporary site, away from a centre of population should be found as a matter of urgency.
- 6.2 A new enclosed composting facility should be established as soon as possible as set out in the Strategy. The facility should be capable of extension to accommodate an increasing proportion of the waste stream as sorting at origin becomes commonplace.
- 6.3 The current practice of the agricultural and horticultural industries in disposing of their own green waste should continue. They have demonstrated their ability to do so in an orderly manner and any waste disposed of at origin has to be encouraged. As with composting, there is the risk of carryover of pathogens and viruses but we believe that to retain the risk at source is preferable to spreading to new sites through compost distribution.
- 6.4 Green waste most probably enters the residual waste stream at present due to siting of the present facility and because the collection method does not allow for the inspection of every container. Separated three stream collection will overcome this in time. Collection sites, at East, West and central locations, perhaps with local shredding, should be considered. To encourage green waste composting a voucher system could be introduced; vouchers could be exchanged for soil improver.

## 7. ENERGY RECOVERY & DISPOSAL

- 7.1 We recognize the need to replace the incinerator as soon as possible. It is widely acknowledged that emissions are appallingly bad and would be reduced significantly by replacement with a state-of-the-art facility. Outfall from the existing incinerator chimney descends on Haute Vallée School and the surrounding residential area and farmland or is dispersed to aggravate global atmospheric conditions.
- 7.2 A paragraph early in the Strategy report sets the tone of great haste for replacing the incinerator: *The largest single issue will be the replacement for the existing Energy from Waste facility (EFW). This has to be progressed urgently, as the old plant must be replaced by 2008.* The Strategy also stresses that the facility will be the Island's only disposal route for **residual** solid waste and that no risk can be taken with its procurement or reliability in use. (The word residual is significant in this context).
- 7.3 Energy from Waste plants burn materials that could be recycled. There is less incentive to reduce, reuse or recycle. It is therefore important to have a three stream collection system in place so that all recyclable materials and those containing toxic or petrochemical compounds are removed from the residual waste stream. Only **residual** waste should reach the Energy from Waste stage.
- 7.5 Energy from Waste plants emit greenhouse gases, toxic emissions and fine particles of dust to the atmosphere contributing to global warming and impacting on human health. Dioxins, given off when plastics are burnt, are extremely toxic. And the toxic ash still goes to landfill. Figures in the Strategy report show that in 2002, 100,000 tonnes of waste were processed resulting in 17,000 tonnes of ash

deposited to landfill. The incinerator was state-of-the-art when it was first built; standards for the quality of emissions have risen and overtaken us. Is it reasonable to imagine the same will happen with a new incinerator and ever more stringent European Standards? It may ultimately become unacceptable to allow our toxic emissions to blow away somewhere else.

- 7.6 All waste disposal methods produce emissions; all are capable of achieving current standards for those emissions. The issue is not whether we should incinerate or use another method (such as pyrolysis or gasification), it is: how do we reduce the quantity of waste entering the waste stream and exclude those elements that produce the worst emissions? If these objectives are pursued the result will be to minimise emissions and reduce the scale (and cost) of the Energy from Waste plant. A small plant, relative to the waste stream, creates incentive for recycling; a large plant creates disincentive for recycling.
- 7.7 The Strategy claims that 5% of the Island's electricity can be provided by the Energy from Waste plant. But to consider an Energy from Waste plant as a power station rather than a waste facility is to de-emphasise the pollution control elements to the benefit of power generation. The costs of incineration should include the disbenefits of pollution and greenhouse gas emissions. To focus on the supply and use of electricity fails to consider the savings in energy to be made through the efficient use of embodied energy in materials. The electricity is a bonus; it should not be the *raison d'être* for the plant. European Directive 2001/77/EC states that *'the incineration of non-separated municipal waste should not be promoted under a future support system for renewable energy sources, if such promotion were to undermine the (waste) hierarchy'*.
- 7.8 **The energy produced by incineration is significantly less than the energy saved through recycling.** We recycle metals; now its time to recycle plastics and other synthetic materials. A recent study suggests that, whilst the energy obtained in waste incineration plants is around 19 Mj/kg for plastic, by way of comparison, feedstock processes achieve savings between 26 and 32 Mj/kg. We might have to stockpile (tyres, timber, etc), but what now appears a liability (waste) could, if stocked in suitable quantity, become an asset (material).

## 8. LIQUID WASTE

Jersey's management of liquid waste is (of necessity for a small island) technically advanced. The Solid Waste Strategy makes only passing reference to this subject (at paragraph 9, where it mentions the Liquid Waste Strategy). Seventy percent of the dried sludge, a by-product of liquid waste treatment, is currently burnt in the incinerator. The Strategy points out that in future all of the sludge will go to the Energy from Waste plant.

## 9. TIMESCALE

- 9.1 Paragraph 1 of the report states that the Environment & Public Services Committee has considered the...direction and policy framework for all aspects of the management and disposal of the Island's Solid Waste for the next 25 to 50 years.....This is a very ambitious task for such a period. The report acknowledges that such a timescale will require to be broken down into phases and that most of the measures proposed are for phase 1, the first 25 years. Why is the process running so late, with no capital set aside for its implementation?
- 9.2 We consider that, during the first 25 years of the Strategy's life, a fund should be set up for the implementation of phase two, likely to include replacement of the Energy from Waste plant currently under discussion.

## 10. PRIVATISATION

The Strategy does not consider private enterprise as an option for waste management in Jersey. The Forum recommends that this potential option be fully investigated.

## 11. WIDER, CHANNEL ISLANDS REMIT

- 11.1 The Strategy does not discuss the Island's waste management issue in a regional context. The Forum considers this a serious shortcoming and strongly advocates dialogue with Guernsey and Alderney who are also presently wrestling with identical issues.

## 11.2 TRANS-BOUNDARY MOVEMENT OF WASTE

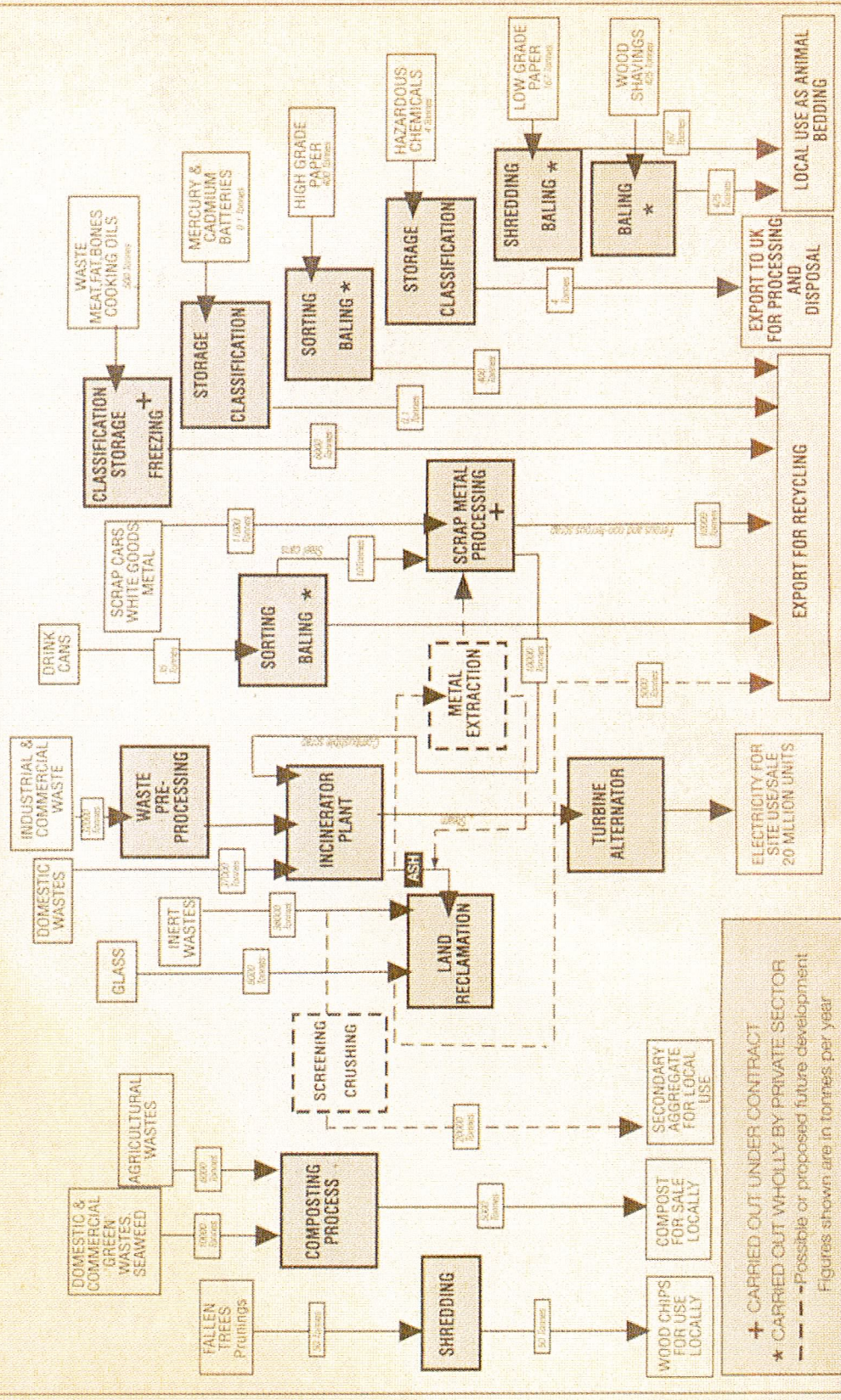
The Forum considers that investigation should be carried out into the possibility of transporting solid waste from the Islands to a neighbouring jurisdiction which might have the expertise and capacity to process it.

## **12. CONSTRUCTION INDUSTRY**

- 12.1 The diagram under paragraph 2.3.1 shows that the construction industry contributes almost one third of non-inert waste. Much of this is the result of lack of commitment to efficient working practices. A working party should be set up to address wasteful practice in the industry. Great improvement has been achieved in Health and Safety and the same could be done for waste.
- 12.2 The construction industry should discourage the use of timber preservatives containing heavy metals (such as CCA - copper chromium arsenic).

**WASTE REDUCTION AND RECYCLING CONFERENCE**

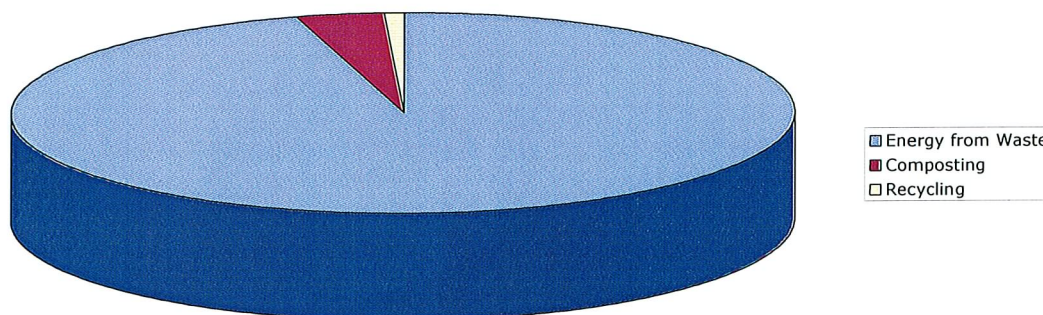
**SOLID WASTE DISPOSAL IN JERSEY**





### 13. CONCLUSIONS

13.1 Greater emphasis should be given to waste prevention, reuse, recycling, composting. Both resources and funds should be diverted from the bottom of the Waste Hierarchy (pursuit of a new Energy from Waste plant) to the parts of the hierarchy that come before (minimising, householder sorting, efficient collection, recycling and composting). The diagram below shows the proportionate allocation of expenditure proposed by the Waste Strategy.



13.2 Efforts should be put into prevention of much of the waste arising and to minimising packaging and prohibiting some goods at import. Potential reduction of consumer choice is a small price to pay for reducing taxes paid to process our waste. Reusing and recycling will reduce the volume of the waste stream. Only residual waste (after removal of recyclables and green waste) should go to the Energy from Waste plant. Reducing the waste stream means the Energy from Waste facility will be reduced in size. To consider the cost of recycling as prohibitive or unviable is a short-term view and unsustainable.

13.3 From an environmental viewpoint the emissions from the Energy from Waste plant are of prime concern. The Strategy includes a table that shows the great improvement in emissions obtainable with new technology compared to the existing plant. Emissions of Dioxins, for example, can be as much as 500 times less. However, emissions would be further reduced by sorting and removing all of the plastics and other synthetic and petrochemical products out of the waste stream.

13.4 In order to maximise resource recovery, we should, as our primary goals:

- Move immediately to implement source separated kerbside collection of kitchen and garden waste and other biodegradable materials (paper, card, textiles and wood), and hazardous household goods.

- Ensure there is disposal flexibility, capable of accommodating declining quantities of residuals according to the progress of diversion. This means that we need to have a form of disposal which does not require guaranteed streams of waste for its viability.
- Carry out regular reviews of progress towards the Strategy's objectives. Establish a process for benchmarking progress and performance with similar authorities in terms of size, demography and physical characteristics.

The graph on page 43 of the Waste Strategy shows three possible scenarios for the reduction of waste through prevention and recycling. Given the earlier statement in the report (Para 10, page ii) that "The main objective of the strategy must be on controlling the quantity of waste", the Forum considers that the forecast which reflects an intensive recycling strategy is the one that should inform its prediction for the volume of residual waste. By reference to the graph, it appears that the capacity of the energy from waste plant could therefore be reduced by as much as 30%.

**13.5 Best Practicable Environmental Option (BPEO)** – *the BPEO is the option that provides the most benefits or least damage to the environment as a whole, at acceptable cost, over the longer term as well as the short term. It is the outcome of a 'systematic and consultative decision-making procedure which emphasises the protection of the environment across land, air and water' (12<sup>th</sup> Report of the royal Commission on the Environmental Pollution, 1988).*

The Environment & Public Services Committee should satisfy itself that all options for the recovery of energy and final disposal are considered and that the chosen method complies with the criterion for the Best Practical Environmental Option.

## Appendix

The Policy & Resources Committee published **JERSEY INTO THE MILLENNIUM, A Sustainable Future**, in 2001. The document had the following to say about Waste Management (its worth quoting in full, but should of course be read in conjunction with other sections of the document):

### 11. Waste Management.

11.1 *Excessive waste generation represents a misuse of resources. Jersey produces about 430kg of waste per person per annum. This is above EU target levels of 300kg. The lack of suitable waste storage space means that disposal from domestic and especially commercial sources is an increasingly urgent issue for the island Community to address. Further land reclamation of the shoreline is not a sustainable option. The choice of the appropriate technology for the future disposal of waste must conform to the Best Practical Environmental Option (BPEO).*

11.2 *There is a significant public desire to adopt domestic recycling schemes to reduce per capita waste levels and every effort should be made to draw upon that goodwill since a sustainable waste management strategy is predicated upon achieving high recycling targets. The commercial, especially the building, sector could do more to minimise waste with suitable leads from the public sector. The widespread adoption of Environmental Management Standards (EMS) must be encouraged.*

### 11.3 Recommended Policy Options

*To obtain States approval for the waste management strategy developed by Public Services in conjunction with Carl Bro, with particular regard to the recommendations of Fichtner and Babbie to achieve advanced recycling, and subject to the BPEO technical option.*

*To raise public awareness of their own roles in achieving waste management objectives.*

*To set recycling targets and timescales for their achievement.*

*To work towards a co-ordinated and cohesive Island-wide waste collection service by 2010.*

*The Public Services Department to adopt the ISO 14001 EMS and encouragement to be given for its wider adoption in the private sector.*

*To support the initiatives being proposed by the Agriculture and Fisheries Committee to decouple subsidies from production.*

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- The Way Forward on Waste, Friends of the Earth, [www.foe.co.uk](http://www.foe.co.uk)

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