

SOCIÉTÉ JERSIAISE

ENVIRONMENT SECTION

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WASTE MANAGEMENT STRATEGY

It is perhaps not surprising that the Environment Section of the Société Jersiaise has for a considerable time had concerns over the problem of waste management. We believe that, although this is a problem that is nationally and internationally important, it is a particularly difficult problem for a small, relatively isolated community to deal with. At the same time, there are some aspects which may be easier to deal with simply because they are under the control of one authority and because the community is small enough to be given a sense of involvement and responsibility. We believe that community involvement is essential and that, without it, authoritarian attempts to control the problem will at best be less effective than they could be and at worst may fail to make impact and involve a waste of money.

We agreed with the policies adopted by the Planning & Environment Committee when the Island Plan was being drawn up and as they are expressed in the final draft. In particular, we support the internationally accepted 'waste hierarchy' of -

- (i) Waste reduction
- (ii) Re-use
- (iii) Recovery
- (iv) Disposal

We stress that this hierarchy *reflects the principles of sustainable development, and are enshrined within the legislation of the European Union and most civilised Western countries.*

It has to be recognised that, as to (i), 'Waste reduction', in an Island with little industrial activity and whose material products are predominantly agricultural and horticultural, there is little scope for producing less waste by making longer-lasting and re-cycleable products. Similarly, with (ii), 'Re-use', the island has no control of the design of imported products., although the promotion of re-usable nappies could have a significant effect. However, something can be done about (iii), 'Recovery'.

It appears that remarkably little metal and plastic is currently recovered at Bellozanne. In any new system of waste management, emphasis should be placed on recovery of metal (for which there is a good market) and on the avoidance of the current incineration of plastic.

Domestic Waste

We believe that there needs to be a major educational campaign that explains where and how public money can be saved - in other words, what part the public can play and what benefit they will obtain.

One step that might be taken would be the separation of rubbish by households before collection: this would make the separation at a collection/disposal centre more efficient and would reduce the cost of running any plant by maximising the re-cycling opportunities. It would require the distribution of separate containers for each household (perhaps after bulk purchase) and co-ordination of collection arrangements between the parishes and their contractors but if cost savings could be made at this stage and identified in parish accounts, there would be a greater chance of acceptance and co-operation than if the task of separation were simply to be seen as an unrewarding chore.

This would be putting into practice the 'polluter pays' principle, but the cost would no doubt be unpopular. Technology does exist that would remove not only the obligation for source selection but also the segregated collection. This course would obviously be more popular.

Organic waste

With the refusal of refuse collectors to accept garden waste etc, there is increasing evidence of 'green' flytipping. The encouragement of composting by households would only have direct and obvious benefits for those who have gardens but, indirectly, the removal of organic waste could make the processing more efficient and so helps to keep down running costs. These indirect benefits are examples of the importance of identifying and quantifying all the elements involved in waste management: changes in one field may have consequences in another - for instance, a reduction in the amount of material that has to be processed could mean that only a smaller plant need be bought.

The Island also has a problem with dealing with agricultural organic waste, notably the mountains of waste potatoes. This needs to be taken into consideration when looking for the most comprehensive answer to the problem of waste disposal.

Waste technologies

In 2002 the Société was pleased to host a public meeting addressed by Dr Haden-Taylor on the RCR STAG process with which he had been closely associated. The principle behind this process was considered to be convincing and we were disappointed to hear later that it had not found favour: it was understood that States Members and Officers who had visited plants in the UK had not been able to see in operation the complete system that it was felt was appropriate for Jersey. It was noted that, although neither of the plants met the total requirements of the Island, each had been tailored to meet the authorities' specific requirements and the two viewed systems could have been combined to meet the Island's requirements. It was understood then that other plants overseas could have been seen operating as required by the Island.

Since that meeting the UK government has endorsed the RCR STAG system. The Department of the Environment and the Department of Trade and Industry have actively campaigned and supported the promotion of this technology around the world as a viable and sustainable technology which is the only waste technology that complies with the reduction of carbon emissions program enshrined within the Kyoto Protocol.

We understand that a number of plants that exactly meet the Island's requirements have been supplied to authorities in China, Thailand and Brazil, while in England a London Borough has signed contacts, DEFRA guidelines have been updated and are matched fully by the STAG system.

In Thailand, the Government of Thailand has adopted the technology for all of their 75 provinces. In addition, the City of Johannesburg has selected the RCR STAG system, with local banks financing it with the British Government's help. In the UK, Mrs Thatcher privatised the waste industry many years ago and local authorities entered into long-term 20-year contracts. These contracts are now coming up for renewal and, driven by EU legislation, many waste contractors who have always preferred landfill as the most profitable option are now having to change their attitudes: all are promoting the RCR STAG system as the way to achieve the targets for recycling, diversion from landfill and renewable fuel.

None are promoting incineration which fails to achieve any of these targets.

The incinerator route is now estimated to cost £80 million and Crabbé or some similar facility will have to be kept going at a cost of £1 million. La Collette has only four years capacity for the incinerator ash which, despite promises from PSD to the contrary that the fly ash (that goes up the chimney) and the bottom ash are not commingled in disposal, in fact lie together in expensive pits operated at La Collette.

We are told that the cost of running the incinerator will be £80.40 per tonne which means £8.25 million a year, and that we have to borrow £80 million: even repaying it over 20 years would add a further £8 million a year to the waste disposal bill; with Crabbé this would add up to a bill of £17.25 million.

We believe that the RCR STAG system is available on lease for less than half of that figure, while the £3 million of recyclables and the £2 million of electricity that it will make will properly offset the cost of waste disposal: that would mean about £5 million for a low-impact system, no chimney of any size, all the valuables within our waste recycled and almost nothing going to La Collette - and no four-year time bomb as with an incinerator.

Although we are obviously not in a position to make a technical evaluation of this or any similar process, its international acceptability commends it and its principles are ones that we fully support - efficient separation of material into components that can be re-used wherever possible - the priority being given to recovery, with only minimum amounts being sent to incineration or landfill. These principles should be employed in whichever process is adopted by the Island. We trust that this locally-based company (whose taxable profits presumably already contribute substantially to the Island's economy and are likely to do so increasingly) will be re-appraised and, in common with all other submitted systems, be subjected to evaluation by an independent consultant.

As far as we are aware no public explanation has been given as to why the Stag process has not found favour. Instead, and for whatever reason, the impression has been given that a decision in principle has been taken to follow the incineration path even though there is continuing debate on the merits or de-merits of such a path. We believe that there should be public consultation on the principles on which decisions on the selection of an appropriate process should be made, with as much information as possible on the financing of the processes being made public.

Prior to that public consultation, there should be a further invitation for the submission of schemes for waste disposal and these should be accompanied by analyses from more than one independent consultant on the appropriateness of the various systems to the Island's requirements. Publicity should first be given to the details of these requirements in order that the public are satisfied that the correct brief has been drawn up on which submissions of interest can be based.

Inert Waste

The Island Plan notes that Construction and Demolition Waste form 90% of the Island's inert waste requiring disposal. We accept the argument advanced in the Island Plan that, once generated, there are few choices as to how this material can be disposed of. The Environment Committee's requirement that a Waste Management Plan should be submitted with all applications that give rise to significant quantities of such waste appears to be a sensible approach, but the increase in tipping charges is leading to contentious schemes of infilling. We therefore believe that considerably greater emphasis should be placed on efforts to reduce such waste by encouraging the re-use of buildings rather than demolition. The principle of 'sustainability' also recognises that demolition of structures implies discarding all the energy that was involved in the original construction: this loss may not be 'waste' in the terms that are used elsewhere in this Scrutiny but it is relevant to the thinking on which the need for a waste strategy is based.

It should be noted that this approach again is completely in accord with the internationally accepted 'waste hierarchy' that is referred to above: ie. that the priority should be to produce less waste in the first instance.

Liquid Waste

The Island has already achieved a high standard in its treatment of liquid waste. It is possible however that support could be given to schemes such as reed beds in areas not covered by the foul sewer system. This would help to reduce energy consumption for sewage treatment and the cost of extending the system.

Despite the flooding of Queen's Valley, the Island still has to run the expensive desalination plant, yet around 400,000 cubic metres of rainwater and sewage is mixed in the cavern and pumped to First Tower every day. This is processed and treated and then discharged into the bay at First Tower. The high levels of nitrate and phosphate in the water fertilise the sea lettuce's leaf growth and not root growth. The leaf growth snaps off and is brought in to the beaches and costs £300,000 a year to collect and dispose of.

We believe that the tripling of the plant at La Rosiere is being considered as a way to dilute the nitrate. This would be an expensive way of meeting EU and accepted WHO standards rather than tackling the problem nearer the source.

London recycles its water and so do many other cities as water is a valuable resource. Technology exists to treat this water to such a level of quality that it could be returned to the island's reservoirs. If the technology were put in place, all of that water could be treated, the sea lettuce problem could be cured, money could be saved at La Rosiere and possibly we would never have a water problem again.

Only a single brief mention is made in the Island Plan of 'the minimisation of production of waste, greenhouse gases and pollutants', and the only relevant Policy supports the principle but makes little detailed requirements: being a 'land use' document, that is not its role. We suggest, therefore, that a Waste Strategy should develop detailed recommendations as to how, in particular, savings of energy could be made. These would include means of encouraging energy-efficient construction methods in all developments, and supporting water conservation measures.

Although our imported electricity may not produce waste in the Island, the by-products from nuclear generators are an international burden and electricity generated on the Island produces greenhouse gases: the benefits and dis-benefits of alternative methods of electricity production should be explored. The Island Plan recognises that renewable energy schemes may have to be balanced against environmental protection: however, the first relevant Policy is only negative in that it specifies what will not be allowed, while the second policy looks principally at planning for energy-saving during the design stages of developments.

This approach should be extended by the adoption of positive government policies that encourage investigation and investment in alternative methods of energy generation, including wind power, tidal and wave power (especially appropriate to the Channel Islands' geographical situation), wood fuel from short rotation coppicing (an approach that could be applied to unused agricultural land), solar power, anaerobic digestion, and combined heat and power (CHP) schemes such as the STAG process.

Pollution

Pollution is the contamination of a wanted substance or process by an unwanted substance or process. Although the later substance may only be unwanted in the particular process, it is often the case that it is an unwanted by-product of another process, ie. a 'waste' product. It is thus important that monitoring of the production of pollutants should be considered as part of the waste management strategy.

The Island's water supply is now protected by the Water Pollution Law. The Island Plan protects water resources in so far as new development is concerned, but it would be appropriate if the Water Pollution Law were reviewed as part of a Waste Management Strategy. Associated with that should be an investigation into the possible reduction in demand for water that could be achieved by the avoidance of wastage. At present there is no incentive to reduce consumption unless payment is related directly to consumption.

Water-metering provides a means of encouraging a reduction in usage but can be a heavy burden on some consumers, especially some of the sick and those with large families and low incomes.

Reducing wastage could lead to a reduction in demand and thus to the cost of provision and the eventual need to increase reservoir capacity. A Waste Management Strategy would need to consider a number of inter-related factors affecting an essential human need.

Similarly, while night-time exterior illumination is necessary for security and personal safety purposes, poorly designed and inappropriate lighting can harm the environment by affecting the landscape, scenic quality and the view of the night sky. Light spill is thus a form of pollution and is a wasteful use of energy. Island Plan Policy would control new development but does not cover existing circumstances. A Waste Management Strategy should require that refurbishment should be to the tighter control standards.

A major complaint from visitors to the Island is the high density of motor traffic. Their objection is probably prompted chiefly by safety considerations and objectionable visual impact but their reaction will no doubt be based on comparison with a range of other living environments. It highlights the fact that Jersey has one of the highest car ownership levels in the world and so is especially vulnerable to consequences such as noise and air pollution. A Waste Management Strategy should consider how 'sustainability' principles can best be supported, taking into account the Island's particular traffic requirements.

Underlying all the man-made polluting factors is the problem of dealing with the contamination produced by waste disposal. The choice of a waste disposal process will have to place this consideration high on the list of priorities.

Finally, a Waste Strategy will need to recognise that the populations is likely to be allowed to increase at the rate of 500 for at least the next five years.

9.6.04



R. Anthony, Environment Section Chairman