

Isle of Wight Council

**Waste Sites
Assessment**

Feasibility Study of Shortlisted Landfill Sites

14 July 2010

Entec UK Limited

Report for

Planning Services/ Waste Management
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Isle of Wight Council

Waste Sites Assessment

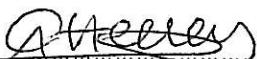
Feasibility Study of Shortlisted Landfill Sites

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V1	Draft to client	15.06.10
V2	Final to client	14.07.10

Executive Summary

Purpose of this Report

This report has been produced for the purpose of considering options that are available to the Isle of Wight Council to provide additional non hazardous landfill capacity.

The study considers the feasibility of providing additional non hazardous landfill capacity at two existing landfill sites on the Island; Standen Heath and Lynn Plantation . In addition, the report discusses the waste planning policy context for the Island and makes recommendations for the development of the Island plan's waste policies to deliver landfill capacity without overprovision.

The scope of the work which Entec were commissioned to undertake does not include an environmental assessment of the potential options, however where environmental constraints have been identified these are noted.

The results of the study indicate that the best option for future non hazardous landfill capacity on the Isle of Wight, when considering engineering opportunities and constraints, is an extension to the Standen Heath Landfill site.

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1. Introduction

1.1 Background and Aims of the Study

In February 2010, Entec UK Ltd was commissioned by the Isle of Wight Council's ('the Council') Planning Policy Team and Waste Management Team to undertake a feasibility study for the provision of additional landfill capacity at two potential sites.

This study was commissioned as a result of the Council's Municipal Waste Management Plan 2008-2011 and waste need modelling undertaken by Entec between August 2008 and August 2009, identifying the need for additional landfill capacity after 2015, when the current permitted void space will run out.

The findings and recommendations of this report will provide evidence and guidance to support the development of waste policies in the Council's Core Strategy Development Plan Document which forms part of the Local Development Framework (LDF), known as the Island Plan. As there is strategic and imminent importance of providing additional landfill capacity, there is a need to potentially allocate landfill site/s in the Core Strategy. The outcome of the study may also support the development of the Council's forthcoming Waste Management Strategy and waste contract procurement process.

The landfill sites considered in this feasibility study were shortlisted for potential non hazardous landfilling by a waste site options assessment undertaken by Entec in December 2008 and published for consultation in August 2009.

This report has considered two different options for providing additional non hazardous landfill capacity on the Island and the site references referred to were used in the December 2008 study. The two sites identified within the original study as being worthy of further examination were:

- The existing landfill site at Standen Heath (site LF12) which is currently the Island's only non hazardous landfill facility; and
- The inert landfill site at Lynn Plantation (LF13) in private ownership.

As part of this feasibility study, a meeting was held with the Environment Agency, Entec, and the Council's waste and planning team officers to determine the views of the Environment Agency regarding the potential sites. The Environment Agency has previously been consulted on the waste site options study outcomes and had not raised any objections. The meeting with the Environment Agency indicated that they would not have any objections on a hydrogeological or engineering basis.

This report recommends the most appropriate options for providing additional landfill capacity on the Island based on modelling the void required and considering site opportunities and constraints. The scope of the work which Entec were commissioned to undertake does not include an environmental assessment of the potential options, however where environmental constraints have been identified these are noted. We have also commented on further environmental assessment work which is required.

In addition, the report outlines the national and regional waste planning policy context for the Island; provides an analysis of recently adopted local landfill planning policy; and makes recommendations for the development of the Island Plan's waste policies to deliver landfill capacity without overprovision.

1.2 Additional Landfill Capacity Required

The waste needs modelling was carried out by Entec between August 2008 and August 2009. The assessment used a technique known as mass flow modelling to examine existing and future predicted tonnages of waste which would need to be managed. This was done by making assumptions in relation to the Island's waste growth; recycling and composting rates to be achieved and waste composition to establish future needs for facilities. Two scenarios of future facility requirements were identified based on a worst case scenario (six year delay in procuring and building new recycling, composting and recovery capacity) and a best case scenario (assumes additional facility capacity is readily available from 2009/10). The modelling was updated in August 2009 to model two different waste growth assumptions and to incorporate an updated waste compositional study.

The updated modelling identified that under the worst case scenario, a net void of up to 770,000 cubic metres (m^3) of landfill void would be required up until 2027. This is based on applying a household waste growth of 1.5% per year, IOW specific household waste composition and meeting recycling, composting and recovery targets outlined in the South East Plan. In order to provide this requirement, a gross void of around 1 million m^3 has been considered as part of this feasibility study to take account of engineering and daily and intermediate cover requirements. The modelling identified that under the best case scenario applying a household waste growth of 1.5% per year during the plan period 80,000 m^3 of void would be required. This equates to a gross void requirement of some 95,000 m^3 to allow for daily cover and engineering.

The gross void space identified under the worst scenario has been used to determine the feasibility of the two landfill sites providing this additional landfill capacity over the plan period up to 2027.

2. Site Feasibility

2.1 Standen Heath Landfill (LF12)

2.1.1 Site Context

Standen Heath is currently the Island's only operational non hazardous landfill which is operated by Island Waste Services Ltd. The western section of the site is currently being used for landfilling operations and the eastern section is the site of the household waste recycling facility, windrow composting and the now disused in vessel composting facility. The site is located south east of Newport close to the settlement of Arreton. The potential extension area of the site is 11.9 ha in area with an additional 3.1 ha potentially available although the additional area is currently part of a SINC (Sites of Importance for Nature Conservation) to the east of the main extension area. The area of land identified as a possible extension to the existing landfill site could potentially be extended by including part of the SINC on the eastern side of the site. The implications for the SINC designation are outside the scope of this study, however would need to be considered as part of an environmental assessment of the potential options.

The site operators were contacted and a site visit was arranged to walk over the site on 19 March 2010.

In terms of its potential use as a future landfill site, the site is adjacent the Island's current only non hazardous landfill site which has capacity until around 2014/15. The landfill is owned by Island Waste however the Council are in control of part of the possible extension area of the existing landfill site.

The Standen Heath extension is already served by existing infrastructure and has good road links due to the adjacent land use as a non hazardous landfill site.

In terms of planning constraints the site is not in a source protection zone and no part of the site is located on a major aquifer. The site also has the benefit not being within an Area of Outstanding Natural Beauty. The site is well located to the strategic road network and waste arisings. However the site has a number of potential constraints. There are a few residential properties within 500m of the site. The site is also adjacent to the Motkin Boundary. The Motkin Boundary is a hedgerow which runs along the north to south axis of the Island which may be Neolithic or bronze age. It could potentially be a scheduled monument although this will not be confirmed until tests to establish its age and relative importance are concluded. For the purposes of this study a 10m standoff has been maintained from the boundary.

2.1.2 Extension of the Landfill

The void space available has been calculated using LSS, a terrain modelling software package from McCarthy Taylor Systems Ltd. During the modelling phase, the following scenarios have been modelled;

1. Option 1 Maximum void space in the extension area only.

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2. Option 2 Possible smaller extension using only part of the extension area.
 3. Option 3 Maximum void space utilising both the extension area and the SINC.
 4. Option 4 Possible smaller extension using part of both the extension area and the SINC.

Each of these possible scenarios is detailed on Drawing S62 which also shows the current topography of the surrounding land and the location of the SINC. Each of the possible scenarios is discussed briefly below.

Option 1

Option 1 details the maximum void space available using all of the extension area. The gross void space available using this option is 1,395,000m³. Once engineering, capping and daily cover are removed, the net void available is likely to be in the order of 994,000m³. The net void has been calculated using very conservative parameters and assumes that no excavation will be undertaken prior to engineering the basal containment system of the landfill cells. It has also been assumed that a 1m thick capping system will be used and that 10% of the void space will be consumed by daily and intermediate cover. The advantages of this option are that the SINC is retained and the void space indicated to be required is made available. It is larger than the modelling indicates is required, therefore allowing for extension past 2027 if this is required. However due to its long, thin shape, the maximum waste thickness is limited and the maximum height is significantly less than the existing landfill at 86mAOD in order to retain stable and aesthetically acceptable side slopes, (the existing landfill is permitted to achieve 110mAOD).

Option 2

Option 2 is a similar scheme to Option 1 but does not use all of the extension area and produces a reduced visual impact due to a more natural shape than Option 1. Option 2 has a gross void of 1,103,000m³ and a net void of 745,000m³ following removal of capping, engineering and daily cover. Again the calculations for these volumes are fairly conservative. Option 2 still contain the void indicated as required in the modelling and will allow further extension to the landform of Option 1. As with Option 1, the SINC is retained but the waste thickness and final height are limited to 86mAOD due to engineering limitations and aesthetic reasons on side slope profiles.

Option 3

Option 3 is the largest of the four options and uses all of the void space of the extension area plus the land available in the SINC. The maximum gross void available if this option was to be selected is in the order of 2,582,000m³ with a net void of 1,945,000m³; again the net void is calculated in a conservative fashion. This option provides a maximum waste height of 107mAOD and is a landform that fits more closely with the existing site. This option is the most efficient use of the land that is potentially available at the Standen Heath site but it does mean that part of the SINC would be included. The Motkin boundary runs along the eastern boundary of this option, therefore a 10m standoff has been maintained along the boundary.

The void available using this option is significantly in excess of the void space indicated as being required by the waste modelling, however the extent of the extension can be varied to produce a lesser void and allows for options for further extensions following 2027.

Option 4

Option 4 takes the concept of Option 3 and reduces the size of the extension to align better with the void requirements suggested by the modelling. The gross void presented in Option 4 is 1,226,000m³ and the net void 950,000m³. Option 4 retains the benefits of Option 3 and allows the site to be further extended into the future. As with Option 3, Option 4 would include the SINC. Option 4 will allow the site to be further extended in the future towards the landform that is presented as Option 3.

2.1.3 Surcharging

The over tipping or surcharging of waste is the placement of waste onto previously capped wastes in order to increase the total void space within the landfill. Surcharging generally involves raising the height of the completed landfill and steepening of the waste slopes usually after primary settlement has occurred. At Standen Heath surcharging is unlikely to be cost effective as the volume of waste that could be accommodated is minor for the cost of removing the existing capping materials, placing a relatively thin layer of waste and recapping. The amount of waste which could be accommodated in this fashion would also be limited as any significant thickness of surcharged waste would result in excessive oversteepening of the waste slopes leading to stability concerns and an unusual looking landform. Surcharging at Standen Heath has, therefore, been discounted.

2.2 Lynn Plantation Landfill (LF13)

2.2.1 Site Context

The Lynn Plantation site was identified in the options report prepared by Entec on behalf of the Isle of Wight Council entitled ‘Assessment of Options for Waste Sites and Other Alternatives to Landfill on the Island’. The site is an existing inert landfill site and has permitted uses for the transfer of waste. The site is 8.39ha in size. The current site operators were contacted and a visit was arranged to walk over the site on 18 March 2010.

The Lynn Plantation site is already a landfill so no change of use is required. The site is not in the ownership of the council, however, anecdotal evidence suggests that the current site owner is receptive to the sale of the site. Due to the proximity to the Lynnbottom and Standen Heath sites, the Lynn Plantation site benefits from the existing transport links.

2.2.2 Extension to the Landfill

In order to calculate the remaining void space at the site and assess the feasibility of an extension to the existing site, a topographic survey was requested from the current operator, however this was not provided so modelling has not been undertaken on the Lynn Plantation site. During the site visit, discussions with the operator suggested that around 140,000m³ of void was remaining. This figure falls considerably short of the worst case scenario figure suggested from the waste modelling as being required. There is a possibility that some of the inert waste deposited at the site could be reprocessed and removed from the site for various purposes, however, there is a significant risk that as the site has been operating for some years that there is contamination within the deposited wastes that may not be considered inert under current legislation. The responsibility for dealing with these contaminants might become the responsibility of the council if the site was purchased and subsequently operated by the Council.

One option to increase the void space in the site would be to increase the maximum depth of waste deposited, the feasibility of this would depend on the currently approved restoration contours and the height of the existing power distribution lines that cross the site as a requirement to divert the power lines is likely to make the scheme uneconomic due to the high cost of power line diversion works.

Another option for increasing the available void space on the site is to extend the site to the north east or south, this would require additional land purchase. The site is in, and is surrounded by an Area of Outstanding Natural Beauty and is bordered to the north and east by SINCs. To the south a scheduled monument is present. In addition, the site is partially underlain by a high risk minor aquifer. All of these factors represent significant constraints to the extension of the site.

2.3 Summary of Options

The table below summarises the void space available within each of the outlined options at Standen Heath and the Lynn Plantation sites. Both gross and net void is quoted. Net void is assumed to be 90% of gross void to allow for daily/intermediate cover and a 1.0m thick capping layer.

Table 2.1 Summary of Extension Options

Site and Option	Gross Void (m ³)	Net Void (m ³)	Advantages	Disadvantages
Standen Heath				
Option 1	1,395,000	994,000	SINC Retained Required void available Potential for limited expansion	Inefficient shape Greater void than is required Limited site expansion following 2027 Limited waste volume to engineering required
Option 2	1,103,000	745,000	SINC Retained Required void available Potential for limited expansion	Inefficient shape Limited site expansion following 2027 Limited waste volume to engineering required
Option 3	2,582,000	1,945,000	Required void available Efficient use of space/engineering	Loss of SINC Greater void than is required

Table 2.1 (continued) Summary of Extension Options

Site and Option	Gross Void (m³)	Net Void (m³)	Advantages	Disadvantages
Option 4	1,226,000	950,000	Required void available Expansion potential Efficient use of space/ engineering	Loss of SINC
Lynn Plantation	140,000¹	N/a		

¹This figure was provided by the site manager. We have not modelled this site as survey information was not provided by the operator.

3. Waste Planning Policy Recommendations

This section sets out recommendations for the Council in developing their waste policies to deliver landfill capacity without overprovision. This has included an appraisal of the waste policy context relevant to the Isle of Wight and an analysis of other authorities adopted waste development policies. Since our study began it should however be noted that following the change of Government the Secretary of State for Communities and Local Government, Eric Pickles, has written to planning authorities in a letter dated 6th July 2010, announcing the revocation of Regional Spatial Strategies..

3.1 National and Regional Planning Policy Context

3.1.1 National Waste Policy

The need to increase the proportion of waste treated and divert waste from landfill is firmly embedded in national waste policy.

European Union (EU) Directives provide the overarching context for waste planning. The Waste Framework Directive (2006/12/EC and revisions in 2008/98/EC aims are to reduce the amounts of waste requiring treatment and encourage the use of waste as a resource; and the Landfill Directive (1999/31/EC) which requires substantial reductions in the quantities of waste which is landfilled, and encourages the diversion of non-recyclable and non-reuseable waste to other methods of treatment.

The Waste Strategy for England 2007 puts into effect the requirements of the Waste Framework and Landfill Directives at a national level by identifying a series of objectives and targets to achieve sustainable waste management. The Strategy identifies the role of stakeholders, such as the waste industry and local authorities, in delivering those targets and emphasises the importance of moving the treatment of waste away from landfill and up the 'waste hierarchy'.

Planning Policy Statement 10 sets out the national waste planning policy framework and how they can be achieved. It contains a number of 'key planning objectives' (at paragraph 3) and provides guiding principles for decision-making at the regional and waste planning authority levels. It states that waste planning authorities should prepare and deliver planning strategies that:

- *Help deliver sustainable development through driving waste management up the waste hierarchy;*
- *Provide a framework in which communities take more responsibility for their own wastes;*
- *Help implement the national waste strategy, and supporting targets;*

- *Help secure the recovery or disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest appropriate installations;*
- *Reflect the concerns and interests of communities, the needs of waste collection authorities, waste disposal authorities and business, and encourage competitiveness;*
- *Protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries;*
- *Ensure the design and layout of new development supports sustainable waste management.*

Paragraph 17 of the PPS requires waste planning authorities to identify in their development plan documents sites and areas suitable for new or enhanced waste management facilities to meet the waste management needs of their areas. With regards to identifying sites suitable for waste management, paragraph 20 suggests that waste planning authorities consider:

- Opportunities for on-site management of waste where it arises;
- A broad range of locations including industrial sites, looking for opportunities to collocate facilities together and with complementary activities.

In testing the suitability of potential sites against the criteria set out in paragraph 20, Annex E considers a number of key locational criteria that would be taken into account when considering site allocations or planning applications for waste management.

PPS10 also sets out a number of decision making principles for waste planning authorities to adhere to when preparing their waste planning strategies. This includes the need to monitor indicators and periodically review, at least every five years, waste planning strategies. This is especially required if there are signs of *under-provision of waste management capacity or over-provision of disposal options where these would undermine movement up the waste hierarchy*. Thus monitoring of the Island's waste policies is therefore essential to ensure over provision of landfill does not compromise the waste hierarchy.

3.1.2 Regional Waste Policy

The Isle of Wight is located within the South East region and therefore the Regional Spatial Strategy for the South East, the 'South East Plan' adopted in May 2009, formed part of the statutory development plan. However following the change of Government the Secretary of State for Communities and Local Government, Eric Pickles, has written to planning authorities in a letter dated 6th July 2010, announcing the revocation of Regional Spatial Strategies. This means local authorities do not need to take account of regional policy when making planning decisions and developing land use plans. The letter does state that Planning Authorities should continue to press ahead with their waste plans and provide enough land for waste management facilities to support the sustainable management of waste.

As discussed in section 1, the Isle of Wight commissioned Entec to test the benchmark figures for waste management provision set out in the South East Plan, prior to its revocation. The modelling identified additional capacity and estimated landtake requirements for various waste streams for both MSW and C&I waste and also the need for additional residual capacity

including landfill. This highlighted the need to plan for 770,000m³ additional landfill capacity over the plan period to 2026/27. The modelling was based upon meeting the South East Plan recycling, composting and recovery targets however it does provide a local evidence base to help plan for sustainable waste management.

3.1.3 Other Relevant Guidance on Developing Local Waste Policies

The South East England Partnership Board produced guidance for local planning authorities entitled, ‘Incorporating the minerals and waste elements of the South East Plan into development frameworks’. This guide was to assist planners in ensuring that the minerals and waste policy objectives of the South East Plan are effectively incorporated into their development plans although the SEP has been revoked it still provides helpful guidance.

The guidance discusses the differing levels of detail required for waste policies depending on the type of authority and the Development Plan Documents it is preparing. For unitary authorities not working jointly or preparing a separate waste development framework, which would apply to the Isle of Wight, authorities should:

aim to make provision for strategic minerals and waste policies in their core strategies. These unitary authorities tend to make provision for more detailed policies in subsequent DPDs such as a site allocations DPD or development management DPD. Where this approach is to be used, the minerals and waste policy section of the core strategy should briefly set out the overall spatial vision and strategic objectives including the spatial strategy for the future pattern of minerals and waste management. This should inform and in turn be informed by any relevant delivery strategies like the municipal waste management strategy (MWMS) whilst meeting the objectives of the waste priorities set out in the local sustainable community strategy.

The policies should be of a strategic nature, sufficient to give adequate guidance and spatial direction to subsequent DPDs, such as site allocations DPD where needed, whilst being consistent with regional and national level polices.

In relation to landfill diversion and provision the guidance suggests the Core Strategy should:

include a policy commitment that contributes to delivering the regional landfill diversion targets (includes recycling, composting and recovery targets) and meeting continuing but declining landfill requirements. This should include proposals for an appropriate mix of existing and future waste management facilities (by type, size, location) and provision of sufficient landfill capacity. The proposals should be supported by the evidence base drawn from various sources.

In terms of locating waste management facilities, the Core Strategy should:

Set appropriate criteria for locating new waste management sites and safeguard existing sites suitable for expansion. The locational choices made should be flexible to provide sufficient opportunities for the provision of a range of waste management facilities. Proposals should only be site-specific if strategic sites, central to the delivery of the spatial strategy, are being allocated. If the core strategy intends to give direction for subsequent Site

Allocations DPDs, it should give sufficient geographical direction and contain explicit criteria to identify waste management developments and facilities.

The guidance refers to the need for the Core Strategy to clearly set out how the spatial waste strategy will be delivered as part of its Delivery/Implementation strategy and also monitor the success of waste policies through appropriate indicators as part of a plan, monitor and manage approach. The Delivery/Implementation strategy should include details of when and by what means waste developments will be provided. In terms of when, this could include what can be achieved in the short, medium and long term over the plan period. The Isle of Wight Council could therefore identify in their Delivery Plan for the Core Strategy what landfill provision would need to be permitted in the short, medium and long term based on the information from the waste needs assessment. This could provide clarity for development control officers by identifying how much landfill capacity should be permitted and when.

Monitoring waste policies will be important to ensure that they are delivering and if found not to be, they can then be reviewed. Monitoring the amount of waste being produced and treated will allow the Isle of Wight Council to review the need to provide additional landfill capacity over the plan period and ensure waste is being moved up the waste hierarchy and overprovision of landfill is avoided.

3.2 Adopted Landfill and Other Relevant Local Waste Development Framework Policies

Entec has undertaken research of recently adopted Waste Core Strategies and Waste Development Plan Documents to identify examples of how landfill provision might be provided, controlled or limited by policy. This involved initially considering adopted waste development policies in the South East region and then, due to the limited number of waste development plans recently adopted in the South East, considering policies adopted by authorities in other regions.

Table 2.2 Selected Examples of Recently Adopted Waste Policy

Adopted Development Plan Document	Authority type	Relevant policies	Commentary
Hampshire Minerals and Waste Core Strategy Adopted July 2007	Two-tier	Policy S6 – Landfill	<p>This policy identifies the specific capacity of non hazardous landfill that will be required over the plan period and where it will be provided – Landfill Potential Area – identified on the Key Diagram.</p> <p>The policy stipulates that by 2015, the landfilling of untreated municipal waste will cease. Supporting text to the policy identifies that the proposed capacity targets for landfill should be considered in the context that there will be increased reuse, recycling, composting and recovery and treatment of wastes.</p>

Table 2.2 (continued) Selected Examples of Recently Adopted Waste Policy

Adopted Development Plan Document	Authority type	Relevant policies	Commentary
		Policy DC14 – Landfill	This development control policy requires all new landfill sites to provide initial pre-treatment of wastes or be restricted to accepting wastes that have been pre-treated. In the case of non-hazardous landfill, planning permission will not be granted unless there is appropriate pre-treatment to ensure recyclables and biodegradeable waste is recovered.
			Supporting text for the policy requires applications for landfill to provide details of how waste will be pre-treated/sorted; demonstrate how effective the pre-treatment/sorting process will be; and provide details of the control measures that will be put in place to ensure only pre-treated/sorted waste is accepted.
Wiltshire and Swindon Waste Core Strategy Adopted July 2009	Unitary joint working	Policy WCS3 Preferred Locations of Waste Management Facilities by Type and the Provision of Flexibility	This policy identifies the need to provide for void space capacity for the management of Industrial and Commercial waste (municipal void space is not needed) and specifically states the void space required over the plan period. In addition the policy identifies preferred locations for landfill which include adjacent to existing landfill facilities and as part of the restoration of mineral workings (where appropriate). The policy also allows sites not allocated to be considered subject to them meeting the objectives and policies of the strategy. This policy does require strategic sites to be supported by a full consideration of suitable alternative sites.
		Policy WCS5: The Wiltshire and Swindon Waste Hierarchy and Sustainable Waste Management	This policy sets out Wiltshire and Swindon's order of preference for the waste hierarchy with safe disposal via landfill and landraise as the least preferred treatment. In addition, it provides more detail on the types of recovery technologies it would prefer. The policy states that the Council will ensure developers demonstrate the most sustainable option for waste management has been promoted.
		Policy WCS7 Waste DPD Implementation, monitoring and review	This policy pledges that with key agencies and partners the Councils will provide a plan, monitor and manage approach to waste management in their area. The delivery and implementation plan for policies suggests that for overprovision the Councils will need to regulate the capacity that is released through monitoring planning applications in line with any updated waste capacity figures.
Wiltshire and Swindon Waste Development Policies DPD Adopted September 2009	Unitary joint working	Policy WDC13 Landfill	This policy identifies there is a need for additional landfill capacity either through existing or new sites. For planning permission to be granted this policy requires applications for landfill facilities to demonstrate that there is no other suitable waste management option higher up the waste hierarchy to ensure the pre treatment of waste occurs.
Wakefield Core Strategy Adopted April 2009	Unitary	Policy CS 15 Waste Management	This policy sets out a waste hierarchy for waste management in Wakefield detailing the methods of management and, where relevant, sites and types of facilities that are currently being used. Disposal is the least preferred method and the Council's existing landfill facility is identified as a facility to provide for this method of management.

Table 2.2 (continued) Selected Examples of Recently Adopted Waste Policy

Adopted Development Plan Document	Authority type	Relevant policies	Commentary
Wakefield Waste Development Plan Document Adopted November 2009	Unitary	Policy W8 Managing Residual Waste	This policy safeguards an existing landfill facility to meet the capacity need for final disposal of residual waste which is identified to be needed after 2018. Supporting text for the policy indicates that there is still a need to provide for landfill capacity albeit declining and that applications will be determined against policy W5 which is a criteria based policy. For planning permission to be granted this policy requires proposals to demonstrate that there is a defined need for the facility and that it is in accordance with the waste hierarchy.
Leicestershire Waste Core Strategy Adopted October 2009	Two tier/ Unitary	Policy WCS7	This policy provides the Council's strategy for determining planning applications for non inert landfill. The policy states <i>that planning permission will not be granted for new or extended non inert landfill sites unless the overriding need for the facility can be demonstrated; environmental benefits can be secured and the proposal does not cause unacceptable harm to the environment or communities</i> . The supporting text identifies the need to potentially allocate non inert landfill sites to ensure there is sufficient waste capacity for residual waste after meeting recycling and recovery targets and recognising that treatment facilities will take time to come on stream.

3.3 Recommendations

The appraisal of relevant national waste planning policy has identified that there is a need to manage waste in accordance with the waste hierarchy and not compromise recycling and recovery targets. The revocation of the RSS means that the Council is no longer required to comply with the policies and targets set out in the South East Plan. Local policies, however, should still provide for sufficient landfill capacity to ensure that residual waste following treatment can be disposed of and an appropriate mix of management facilities to meet regional and local management needs is provided for in Waste Development Plan Documents.

PPS10 and supporting guidance suggest that the capacity requirements should be supported by an evidence base founded on an analysis of relevant waste data and considering the need to meet regional recycling and recovery targets. The Council has developed the evidence base through the waste needs modelling identifying the landfill capacity requirement.

Furthermore, the use of monitoring indicators is highlighted within national and regional policy and guidance as essential to ensure over provision of landfill does not compromise the waste hierarchy. The adopted Development Plan Documents considered above provide a number of examples of potential monitoring indicators, a selection of which are set out in the following table.

Table 2.3 Selected Monitoring Examples

Waste Development Plan Document Policy	Monitoring mechanisms and indicators
Hampshire Minerals and Waste Core Strategy Adopted July 2007 Policy S6 – Landfill and DC14 – Landfill	<p>Core Output Indicator 6b: Amount of municipal waste arising and managed by management type (Recycling and Composting, Recovery and Treatment, Landfill) and the percentage each management type represents of the total waste managed.</p> <p>Output Indicator 14 Amount of waste disposed of at Non-Hazardous and Inert landfill sites.</p>
Wiltshire and Swindon Waste Core Strategy Policy WCS1: The Need for Additional Waste Management Capacity and Self Sufficiency and Policy WCS3 Preferred Locations of Waste Management Facilities by Type and the Provision of Flexibility	<p>Core Output Indicator 6a Capacity of new waste management facilities by type (Recycling and Composting, Recovery and Treatment, Landfill), becoming operable and/or gaining planning permission in the year.</p> <p>The plan suggests that the Councils will need to regulate the capacity that is released through monitoring planning applications in line with any updated figures. The indicators suggested are:</p> <p>Waste Arisings for:</p> <ul style="list-style-type: none"> a) Municipal; b) Industrial and Commercial; c) Construction and Demolition; d) Hazardous. <p>Capacity of new waste management facilities permitted (by type):</p> <ul style="list-style-type: none"> a) Recycling and Composting b) Recovery c) Landfill <p>Percentage of waste imported and exported for management</p> <ul style="list-style-type: none"> a) Non-Hazardous b) Hazardous c) Inert <p>Percentage of waste management facilities permitted outside of the preferred locations for each facility.</p> <p>Percentage of sites permitted for management not contained in the Site Allocations DPD.</p>
Wiltshire and Swindon Waste Core Strategy Policy WCS5: The Wiltshire and Swindon Waste Hierarchy and Sustainable Waste Management	Percentage of approved proposals that maximise the recovery of resources from waste, as percentage of total proposals received.
Wakefield MDC Core Strategy Policy CS15 Waste Management	Capacity of new waste management facilities by type
Leicestershire Waste Core Strategy Policy WCS7 Landfill	Amount of municipal waste arising and managed by management type, and the percentage each management type represents of the waste managed
	Number and annual throughput of new non-inert landfill sites with a target which requires throughput not to exceed any prevailing shortfall needed for the disposal of residual waste.

The analysis of the adopted waste planning policies indicates that other Councils also need to provide additional non hazardous landfill capacity and have addressed this need in their policies in a number of ways. This has included the following:

- Outlining the waste hierarchy and stipulating the preferred and least preferred waste management approaches;
- Requirement for planning applications for landfill to demonstrate there is an overriding or defined need for the new facility or extension to an existing facility;
- Requirement for planning applications for landfill to demonstrate that waste accepted at the site is to be pre-treated;
- Making a policy commitment to plan, monitor and manage approach to waste management which will be followed through by monitoring delivery and implementation – planning applications for waste management against up to date data for waste capacity needs.

None of the other authorities have specifically phased capacity at a particular site or across the plan period; however some have detailed the specific amount of capacity required within policies.

It is therefore recommended that in developing waste planning policies for the Island Plan, the Council could consider employing the mechanisms described above to ensure landfill capacity is provided without overprovision. This could be applied as follows:

- Providing a policy which promotes the management of waste in accordance with the waste hierarchy and sets out the likely landfill capacity requirement over the plan period – supporting text for the policy could suggest that this would be reviewed regularly (see below regarding updates to the waste needs modelling);
- Providing a policy which requires proposals for additional landfill capacity to demonstrate there is a need for this capacity and that the waste received is pre treated;
- Setting out a policy commitment to plan, monitor and manage the provision of waste management capacity on the Island;
- Within the Core Strategy delivery plan, provide robust monitoring indicators and outline how regularly the waste modelling data will be updated. The monitoring information and the modelling data would then be used to measure provision of landfill and the need for capacity and indicate any need to review policies to ensure the sufficient capacity is being delivered.

4. Conclusions

4.1 Recommended Option for Additional Landfill Capacity

The best option for future non hazardous landfill capacity on the Isle of Wight, when considering engineering opportunities and constraints, is an extension to the Standen Heath Landfill site. For Lynn Plantation, any potential extension is constrained by an aquifer, the AONB, Scheduled Monument, SINCs and power lines. On the basis of the information available the Lynn Plantation site is not considered to be able to supply sufficient void to satisfy the landfill void requirements for the duration of the plan.

The choice of the most effective option for the Standen Heath site is more complicated, as there are 4 viable options available that will meet the needs of the Island until 2027.

From a purely waste management point of view, Options 3 and 4 are the most effective options as they provide the greatest void space for the smallest engineering cost as the waste thickness will be significantly greater than Options 1 and 2 for a similar side slope profile. In addition, Options 3 and 4 provide the most effective use of land in terms of the life of the site as there will be potential void space available for a further operating period following the end of the current planning period in 2027 if this is required.

Options 1 and 2 are attractive as they avoid the SINC and provide for the capacity required for the plan period. Unlike options 3 and 4 they do not provide opportunities for significant additional void space, which may be required after 2027, due to the reduced width of the site causing the need for a reduced waste depth.

It is recommended that the Isle of Wight Council considers which option would be appropriate to pursue based on the factors discussed above. In order to decide which option to pursue further work will be required to consider the environmental effects of the options outlined. This is outside the scope of this study but could be undertaken through the SA/SEA process for the Core Strategy. This would need an environmental assessment process consistent with the Core Strategy SA objectives and also with the requirements of PPS10.

4.2 Waste Policy Recommendations

The appraisal of national and regional waste planning policy and guidance and the analysis of waste policies in adopted waste development plans has indicated that there are a number of ways in which local waste development plans can ensure that landfill capacity is delivered without overprovision. To achieve this it is recommended that the Council could consider the following for the Island Plan:

- Providing a policy which promotes the management of waste in accordance with the waste hierarchy and sets out the likely landfill capacity requirement over the plan period – supporting text for the policy could suggest that this would be reviewed regularly;

- Providing a policy which requires proposals for additional landfill capacity to demonstrate there is a need for this capacity and that the waste received is pre treated;
- Setting out a policy commitment to plan, monitor and manage the provision of waste management capacity on the Island;
- Within the Core Strategy delivery plan, provide robust monitoring indicators and outline how regularly the waste modelling data will be updated. The monitoring information and the modelling data would then be used to measure provision of landfill and the need for capacity and indicate any need to review policies to ensure the sufficient capacity is being delivered.

Drawing

