



**NON TECHNICAL SUMMARY
OF THE ENVIRONMENTAL STATEMENT**

**APPLICATION TO VARY EXISTING PLANNING
PERMISSIONS TO EXTEND UP TO THE END OF 2016
THE EXISTING PERMITTED
LANDFILLING OF HAZARDOUS WASTE AND LOW
LEVEL RADIOACTIVE WASTE, SOIL TREATMENT AND
OTHER ANCILLARY OPERATIONS AT
EAST NORTANTS RESOURCE MANAGEMENT
FACILITY, STAMFORD ROAD, NORTHAMPTONSHIRE**

MJCA report reference: AU/KCE/SPS/1612/01/NTS
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Introduction

Augean operate the East Northants Resource Management Facility (RMF) in Northamptonshire as a soil treatment and recycling facility and hazardous waste and low level radioactive waste landfill with clay extraction operations and associated infrastructure.

The East Northants RMF currently has four planning permissions for the landfill of hazardous waste, low level radioactive waste (LLW) with an activity up to 200 Bequerels per gram (Bq/g), the operation of the soil treatment and recycling facility and the operation of a landfill gas flare.

The planning consents for the landfill site state that it shall be progressively restored and completed not later than 31 August 2013 and the planning consent for the soil treatment and recycling facility states that it shall cease operating by 31 August 2013.

Following market studies, Augean concluded that due to the recession and the general reduction in the quantities of wastes which are deposited in landfill sites the site is unlikely to be completed by 2013. In order to complete and restore the site to its current permitted landform it is necessary to submit applications to seek an extension of time for operations to continue on site for a further three years.

Accordingly three planning applications are being submitted to Northamptonshire County Council for permission to vary conditions in the three current planning consents to extend the disposal of hazardous waste and LLW and the operation of the soil treatment and recycling facility until the end of December 2016.

This document summarises in non-technical language the information in the Environmental Statement which accompanies the applications for planning permission.



**The East Northants Resource
Management Facility**

The site is located approximately 1.7km east south east of Duddington and approximately 2.6km north of the village of Kings Cliffe at the location shown on Figure NTS1. The site is accessed via Stamford Road which runs north to the A47 and south to Kings Cliffe. The setting is generally rural with the majority of the land surrounding the site comprising open farmland or woodland.

About the developer

Augean provides specialist services in the treatment and disposal of our more difficult to manage wastes including hazardous waste, certain non-hazardous wastes and low level radioactive waste. The company is a market leader in investment in new technology and modernisation of the sector.

The proposals

The site layout and the boundaries of the existing planning consents are shown on Figure NTS2.

So that Augean can continue to provide a facility for the treatment and disposal of hazardous waste and low level radioactive wastes in the longer term, they are also submitting a full application for the extension of the soil treatment activities with an increase from the current consented capacity of 100,000tpa to 150,000tpa and the continuation of landfilling the current landfill void with hazardous waste and low level radioactive waste and the construction of a new landfill area and void extension within the current site boundary. Permission is being sought for the landfill and treatment operations to the end of 2026 along with the necessary extraction, stockpiling and exportation of clay and other associated activities. In accordance with the Planning Act 2008 Augean are submitting the full application to the Planning Inspectorate for a decision by the Secretary of State.

In order to allow for any delays in the determination of the full application submitted to the Planning Inspectorate and to make provision for the continuation of operations at the East Northants RMF site in the event that a final decision has not been made by the Secretary of State by the time that the operations at the site must cease in accordance with the existing planning consents, these three applications are being made to Northamptonshire County Council for permission to vary the conditions in the three current planning consents to extend the disposal of hazardous waste and low level radioactive waste and the operation of the soil treatment and recycling facility to the end of December 2016.

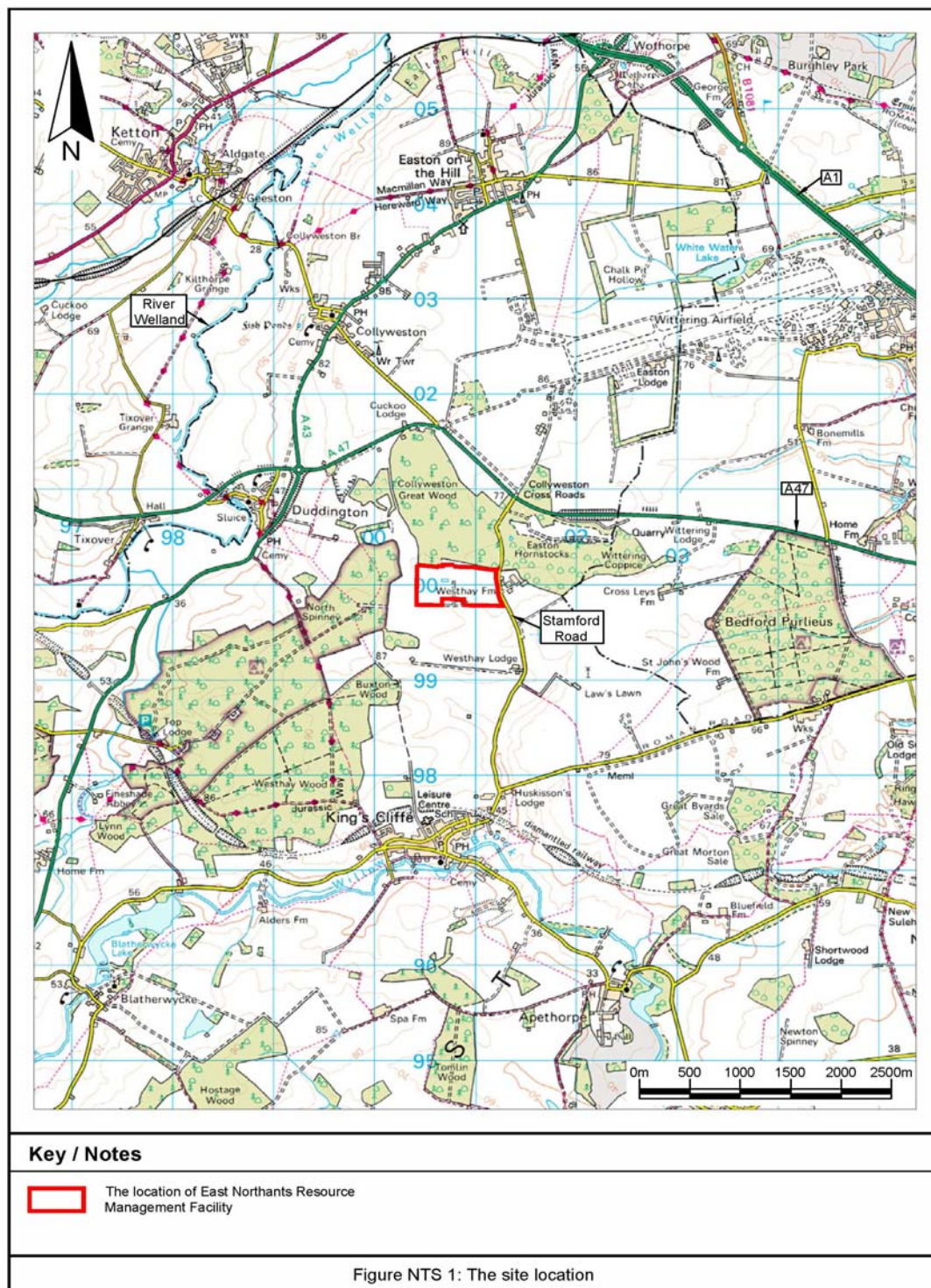
Public consultation

Extensive consultation has been carried out with local communities and key stakeholders as part of the development of the time extension and the full western landfill extension application proposals.

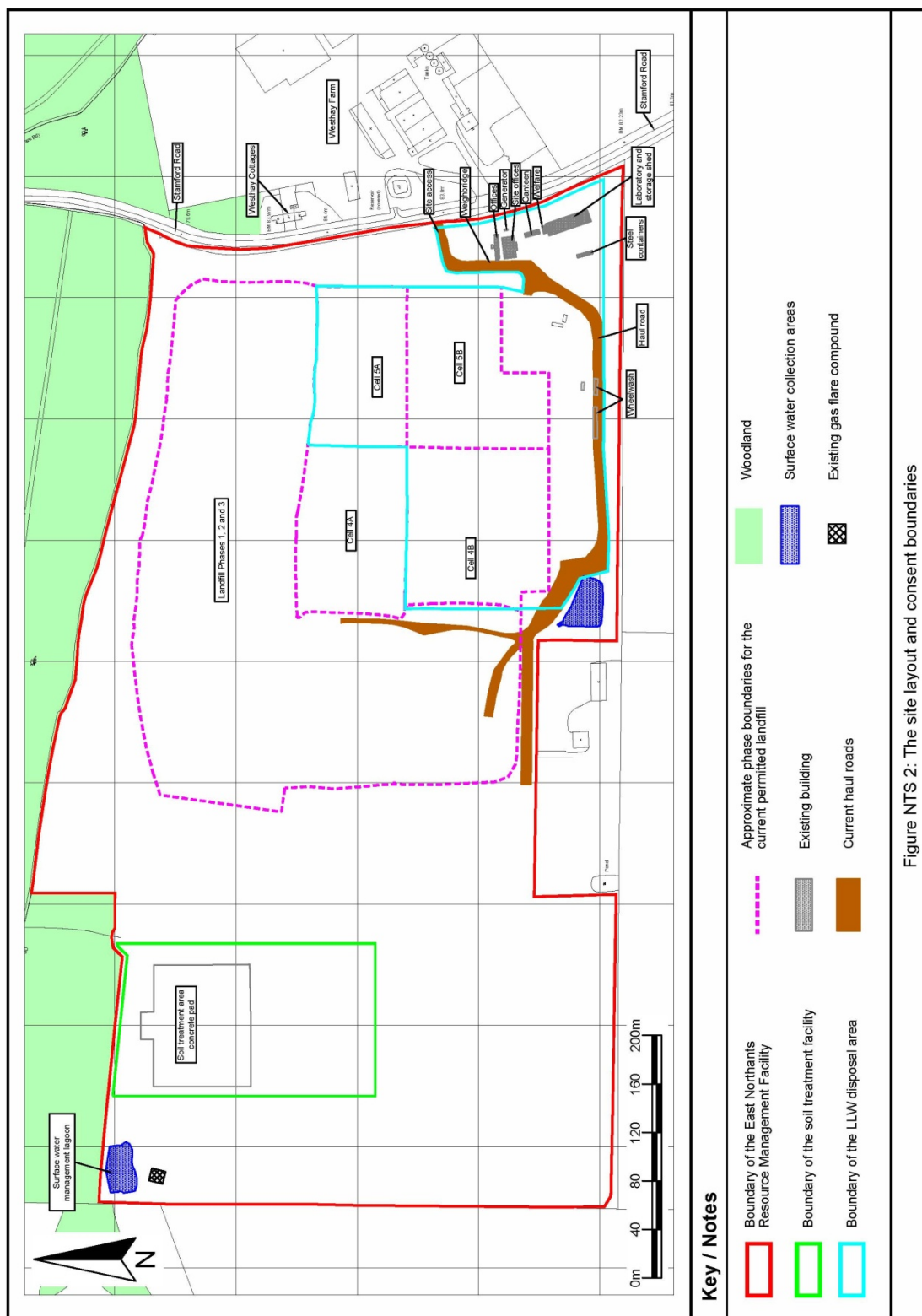
A series of consultation days were held in local villages, the site was opened to the public for a day and four topic workshops were held for interested people. Consultation was undertaken on the Preliminary Environmental Information Report for 2 months from May 2011 and further consultation was undertaken with a wide range of statutory and local consultees in December 2011 to January 2012. Full details of the consultation are presented in the Consultation Report which accompanies these applications.

Feedback from these events together with written and online feedback have been addressed and where appropriate incorporated into the application documents including the Environmental Statement.

Augean will continue to engage with all those with an interest in the proposals during and after the determination of the applications.



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Need for the proposals

The soil treatment and recycling facility is one of only two facilities in England and Wales providing a wide range of treatment processes. The landfill is one of only eight in England and Wales which can accept a wide range of hazardous wastes. It is the only hazardous waste landfill site in the East Midlands and there are no sites accepting a similar range of wastes in the East of England, the South East, London or the West Midlands. The locations of hazardous waste soil treatment facilities and landfill sites are shown on Figure NTS 3.

It is expected that the amount of hazardous waste produced annually in England and Wales will increase as the definition of hazardous waste is widened. Some of this waste can be reused, recovered or treated including at the soil treatment facility but there will be ongoing residues which can only be disposed of to landfill.

The decommissioning and clean up of the UK's nuclear power stations and associated facilities will create significant amounts of waste such as demolition rubble with low levels of radioactivity. The East Northants RMF landfill is one of only three sites in the UK that currently can accept LLW up to 200Bq/g for disposal and the only one in the south of the country. The other two facilities comprise

the Low Level Waste Repository (LLWR) at Drigg, Cumbria and the landfill site at Clifton Marsh, Lancashire. An in-house

LLW disposal facility at Dounreay in north east Scotland is currently under construction. The locations of the disposal sites and the power stations undergoing decommissioning are shown on Figure

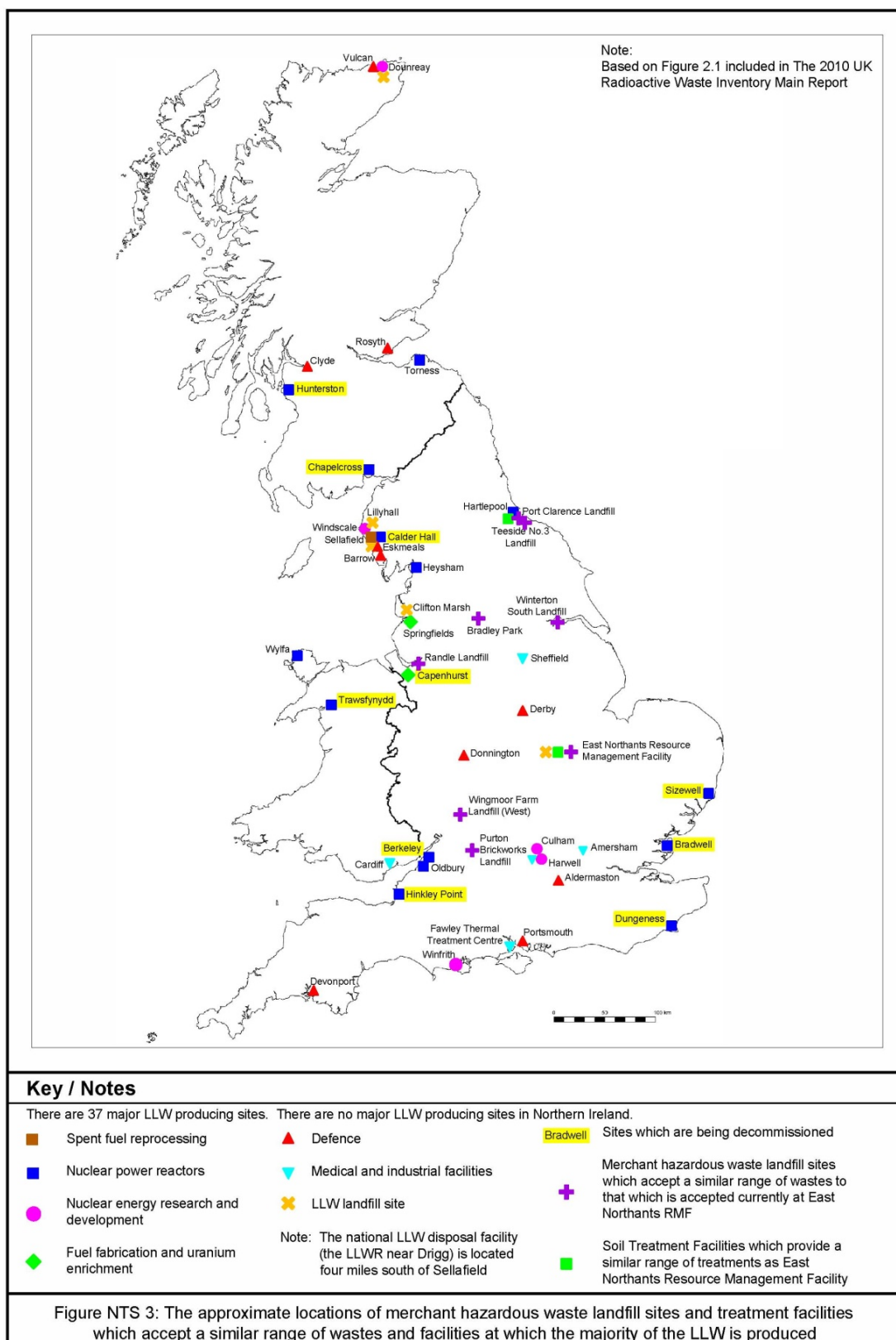
NTS3. The LLWR does not have the capacity to dispose of all the low level radioactive wastes which will be produced in the future from the decommissioning of the nuclear power stations and it is over engineered for the lower activity LLW which is currently deposited at the East Northants RMF.

There is a clear national, regional and local need for the continuation of the waste management operations at the East Northants RMF as recognised by the identification of the site as a strategic site of national importance in the Northamptonshire County Council Minerals and Waste Development Framework.

Alternatives

Alternative options to the proposals have been considered including the need to operate the site beyond 2013, alternative waste management methods, the development of East Northants RMF





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rather than alternative sites and the nature of the wastes that it is proposed will be accepted.

If no further development takes place the site will continue to be filled with hazardous waste and with LLW up to late 2013 but the approved restoration profile will not be achieved. The restoration profile that would be achieved is an unnatural shape, would be out of context in the landscape and would not integrate well with the surrounding topography. The preferred solution is not to cease landfilling operations at the site at the end of 2013 when landfilling is incomplete but to complete the site to the consented profile.

Producers of hazardous waste and LLW are required by legislation and guidance to manage their waste according to the Waste Hierarchy. This means they must find ways to avoid creating the waste in the first place and then in order of preference minimise, re-use, recycle or treat the waste which cannot be avoided. Even after the application of the hierarchy there still will be significant volumes of residual waste which have to be disposed of.

Every nuclear industry site which wishes to consign radioactive waste to landfill first has to demonstrate to the regulatory authorities that disposal to land is the best environmental option for that particular waste stream. The option of disposal of the material at the site where it is generated has to be

considered before it can be disposed of elsewhere such as at East Northants RMF.

Contaminated soil is excavated as a necessary part of the construction process at many development sites. Contaminated development sites are spread over a wide geographical area and are developed in preference to greenfield sites. The continuation of the use of the soil treatment and recycling facility and the

proposed increase in the capacity will allow developers to manage contaminated soils nearer the top of the Waste Hierarchy by recovering material for reuse, treating the residues and minimising the volume for disposal to landfill.

Clay will be extracted from the remaining unexcavated cell and together with currently stockpiled clay will be used in the construction of the clay containment system for the remaining landfill cell and exported for engineering use at the nearby Augean site at Thornhaugh and for general sale.

The East Northants RMF is the most suitable site available to Augean to provide a continued facility for the treatment and recycling of contaminated soils and continued disposal capacity for hazardous waste and for LLW from the nuclear and non nuclear industries.

Planning context

The proposals are in full conformance with national, regional and local planning policy regarding the treatment of contaminated soils, the disposal of hazardous waste and low level radioactive waste and the extraction of clay.

Environmental issues

An Environmental Impact Assessment of the effects of the development has been conducted by technical specialists. The scope of the assessments has been discussed and agreed with Northamptonshire County Council and the appropriate statutory consultees. The Environmental Impact Assessment has been undertaken for all aspects of the full application which includes the impacts associated with the time extensions. The Environmental Statement for the full application has been presented with these time extension applications for information. The results of the assessments are reported in the Environmental Statement and a summary of the findings is presented in this document.

The East Northants RMF is the subject of three Environmental Permits issued and regulated by the Environment Agency for the landfill of hazardous waste, LLW and the operation of the soil treatment and recycling facility. The Environmental Permits will continue to be implemented at the site and will be regulated by the Environment Agency for the extended period of site operations.

The risks and impacts have been assessed for the separate elements of the proposed development together with an assessment of the cumulative impact of the complete development and other known developments in the area. Conservative assumptions have been used throughout the risk assessments. People, wildlife and the environment potentially can be affected by hazardous waste, contaminated soils and LLW through direct contact with or exposure to the waste or indirectly through inhalation or ingestion of contaminated materials such as water or food. Substantial control measures form an inherent part of the design proposals to prevent or minimise the effect on people and the environment in the short, medium and long term.

The effectiveness of the control measures and the resultant impacts on the environment of disposing of hazardous waste and LLW and treating contaminated soils have previously been assessed for the current planning permissions and Environmental Permits and have been agreed and demonstrated to be acceptable and effective. Current procedures in use at the site for managing hazardous waste, LLW and contaminated soils will continue to be used for the current proposals.

Despite the proposals for rigorous control measures the potential exposure pathways have been analysed and assessments of the risk posed have been undertaken. Risk assessments have been carried out for situations which cover the operational and post operational period of the site together with the period in the long term when management of the site may

no longer be in place. The situations which are assessed include expected events as well as events and accidents which it is considered are unlikely to occur.

The potential routes for exposure to hazardous waste and radioactivity have been assessed for workers at the site, residents living at the boundary of the site, members of the public exposed indirectly for example through using water resources and people who may live on the site after its closure. The effects of exposure on plants and animals are also assessed.

The amount of radiation a person is exposed to is known as the dose. Legal dose limits which are protective of health have been set for workers and members of the public. Dose levels below the legal limits have been established from guidance and good practice. Augean have designed the site to achieve exposure levels below the legal limits. These lower levels are known as 'criteria' and have been applied in the risk assessments. To explain the risk criteria in context dose limits and dose criteria compared with natural radiation and more familiar exposure routes are shown below.

Exposure to radiation is measured in millisieverts per year (mSv/yr).

Exposure Limits	
Legal dose limit for workers	20 mSv/yr
Dose guidance level for exposure from uncertain intrusion events	3 mSv/yr to 20 mSv/yr
Legal dose limit for the public from non-natural sources	1 mSv/yr
Dose criterion for workers for these applications	<1 mSv/yr
Dose constraint for the public from a single source	0.3 mSv/yr

Design dose criterion for the public for these applications	<0.02 mSv/yr
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Natural Radiation	
Average annual exposure of the UK population from natural sources	2.2 mSv/yr
Average annual exposure in Northamptonshire from natural sources	3.6 mSv/yr
Average annual exposure in Cornwall from natural sources	7.4 mSv/yr

Comparative Doses	
Drinking bottled water (2l/day)	0.002 to 0.484 mSv/yr
Food; for example 100g of Brazil nuts	0.004 mSv
Dental x-ray	0.005 mSv
Chest x-ray	0.02 mSv
London to Los Angeles return flight	0.16 mSv
Medical abdominal CT examination	10 mSv
UK action level for Radon in homes	200Bqm ⁻³ (equivalent to approximately 10mSv/yr)

The exposure to hazardous wastes is assessed in a similar way with safe levels of emission based on criteria which are protective of health and the environment.

From an analysis of the environmental context and from views and information from the wide range of consultees it has been agreed that the environmental impact assessment should examine the

effects of the proposals with respect to the following issues:

- Population
- Socio-economic effects
- Air quality
- Ecology
- Water resources
- Landscape and visibility including cultural heritage
- Noise
- Transport
- Amenity .

Population

Risk assessments have been undertaken for site workers and members of the public for direct exposure to hazardous waste and LLW during normal operations as well as unlikely events and accidents in the short term as well as the long term.

Exposure to hazardous waste and contaminated soils will be minimised through continuation of current procedures which are implemented to control emissions to below environmental assessment levels which are protective of human health and the environment.

Exposure to LLW will be minimised through the continuation of the current procedures at the site which are implemented to minimise the doses of radiation to which workers and members of the public may be exposed. Notwithstanding this for each exposure situation for LLW it is shown that the doses of radiation to which workers and members of the public may be exposed are below the relevant assessment criteria for LLW.

In the conservative risk assessments carried out it is shown that there will be no unacceptable impact on human health as a result of the proposals.

The potential for indirect impacts on health as a result of the proposed development such as mental anxiety have been assessed. The proposals will not be permitted unless they are fully compliant with official guidance and criteria and the

risk assessments demonstrate to the satisfaction of all statutory consultees including the Environment Agency and the Health Protection Agency that the proposals do not present any unacceptable risks to human health or the environment. The proposals have been the subject of an extensive programme of community engagement to help Augean to understand the concerns of the community, to provide information on the proposals and to respond to the concerns raised. It is considered that there is no objective reason for significant indirect effects on health as a result of mental anxiety.

Socio-economic effects

The potential effects on the economy and community in a local and national context as a result of the proposed development have been assessed. The activities at the site result in a positive contribution to the local economy of approximately £500,000 per annum spent on local business services. Significant support is provided to the function of the Kings Cliffe village as a service centre and to support activities in other nearby villages through the Landfill Tax Contributions. Approximately £1.3million in contributions have been provided to date. No evidence has been identified of an adverse effect on the local economy as a result of the proposed development. It is concluded that the proposed development will not give rise to any significant adverse socio-economic impact on the local community and by the continued provision of safe, sustainable and cost effective waste management facilities will provide a beneficial socio-economic impact to regional and national businesses and the wider community.

Air quality

The combined effect of the individual elements of the proposed development has been considered. Emissions from the site will be controlled to levels which are below the relevant exposure criteria which are protective of human health. The management and monitoring of emissions

to atmosphere will continue to be implemented in accordance with the Environmental Permits and regulated by the Environment Agency. It is concluded that the proposed continuation of the site operations will have a negligible impact on air quality.

Ecology

Ecological surveys have been undertaken. All habitats and communities in the area of the currently consented landfill are of negligible biodiversity value and their loss will have no significant impact. In the western area of the site with the exception of some introduced plants other plants recorded are common and widespread species. In 2010 great crested newts were identified in the western landfill area and in 2011 were removed and relocated to the north of the site in accordance with the current planning consent and under a licence issued by Natural England. No other protected species inhabit the site. It is concluded that it is unlikely that there will be no negative impact on any protected species as a result of the proposed development.

To the north and north east of the site is the Collyweston Great Wood and an area of woodland known as Easton Hornstocks. Part of the Collyweston Great Wood and Easton Hornstocks comprise a Site of Special Scientific Interest and a National Nature Reserve. There is a negligible potential for the proposal to have a significant effect on the ecology at the SSSIs or the six non-statutory sites within 2km of the site.

An assessment of the radiological impact of the disposal of LLW at the site on a range of non-human species has been carried out. Based on the conservative risk assessment it is demonstrated that the risk to the wildlife and biodiversity at and in the vicinity of the site as a result of the disposal of LLW is not significant as the estimated radiation dose to wildlife is significantly under the conservative screening level at which there is no need

for more detailed assessment. The method of assessment is approved by Natural England and the Environment Agency.

It is concluded that there will not be any significant adverse effects on ecology and that there will be significant benefits to habitat development and biodiversity as a result of the restoration of the site.

Water resources

The combined effect of the individual elements of the proposed development has been considered through quantitative risk assessments. It is demonstrated that based on the engineered containment design of the site there will be no significant impact on groundwater quality beneath the site or at receptors down stream of the site as a result of the proposed time extension or the combined operations.

It is demonstrated that there will be no significant impact on surface water quality including at springs, in the Willow Brook or River Nene as a result of the proposed development. Accordingly there will be no adverse effect on the groundwater or surface water quality status in the vicinity of the site as designated in the River Basin Management Plan.

It is concluded that due to the controls and mitigation measures in place as part of the existing management systems at East Northants RMF the proposed development can be undertaken without significant adverse impact in the short, medium or long term on surface water or groundwater flow or quality.

Flood risk assessment

The site is not located in an area at risk of flooding from rivers or the sea. The current surface water management plan for the site includes provision for the management of surface water run off from the western landfill area and the capacity includes that anticipated as necessary due to more intense rainfall events as a result of climate change. It is concluded that the proposals will not result in an

increase in the flood risk at the site or in the surrounding area.

Landscape and visibility including cultural heritage

The site area already is disturbed as a result of current consented site activities. Accordingly there will be no direct impacts on cultural heritage resources at the site as a result of the proposed development. There are no designated cultural heritage assets within 1km of the site and there are no listed buildings or scheduled ancient monuments that are visible from the site hence it is concluded that there will be no indirect impacts on designated cultural heritage assets from the proposed development.

The site is generally well screened in the landscape hence it is considered that the effects of the proposed development on the landscape character and the visual impact on local amenity will be limited. The consented restoration proposals will give rise to beneficial effects.

Noise

The noise associated with the landfill operations, clay extraction, operation of the soil treatment plant and the gas flare have been assessed in noise prediction calculations. The noise assessment shows that the combined operations at the site can be completed within the current noise limits in the current planning permission which do not give rise to nuisance.

Transport

The proposed development will not give rise to any more traffic than is currently consented for the site. The traffic assessment takes into account potential other developments in the area. It is shown that the proposals will have a negligible effect on the operation of Stamford Road or the A47 including the junction with the A43.

The risk assessments undertaken include an assessment of the potential exposure to LLW following a vehicle accident and

the potential for exposure to spilled leachate that is contaminated with LLW. In the conservative risk assessments it is concluded that the doses of radiation to which the transport workers and members of the public would be exposed as a result of a dropped or spilled container of LLW or of leachate contaminated with LLW are below the relevant assessment criteria.

Amenity

The impact of the proposed development on the potential for nuisance caused by litter, odour, vermin, mud on the road and dust have been considered. It is considered that due to the current controls in use at the site which will continue to be implemented, the nature of the waste and meteorological conditions at the site the impacts as a result of litter, odour, vermin, mud on the road and dust will be negligible.

Conclusions

Extensive technical studies have been undertaken to define the environmental conditions of the site and the surrounding area on which to base robust assessments of the potential environmental impacts of the development.

Adopting standard assessment methodology it is demonstrated that the proposed development can be undertaken without significant adverse impacts including cumulative impacts on workers, local residents and the environment while providing the wider benefits of a significant strategic contribution to the safe, sustainable and economic management of hazardous wastes and LLW.

The full application documents can be viewed through the Augean website at <http://www.augeanplc.com/enrmf-project>