

APPENDIX CRK
Exhibition boards

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AUGEAN PLC

Augean is a leading company in the specialist waste management sector. It delivers a wide range of services in order to recycle, treat, recover and dispose of difficult to manage waste materials, including Low Level Radioactive Waste (LLW), in a responsible and sustainable way.

The company operates 15 sites across the UK and has owned and operated the ENRMF site since 2004.

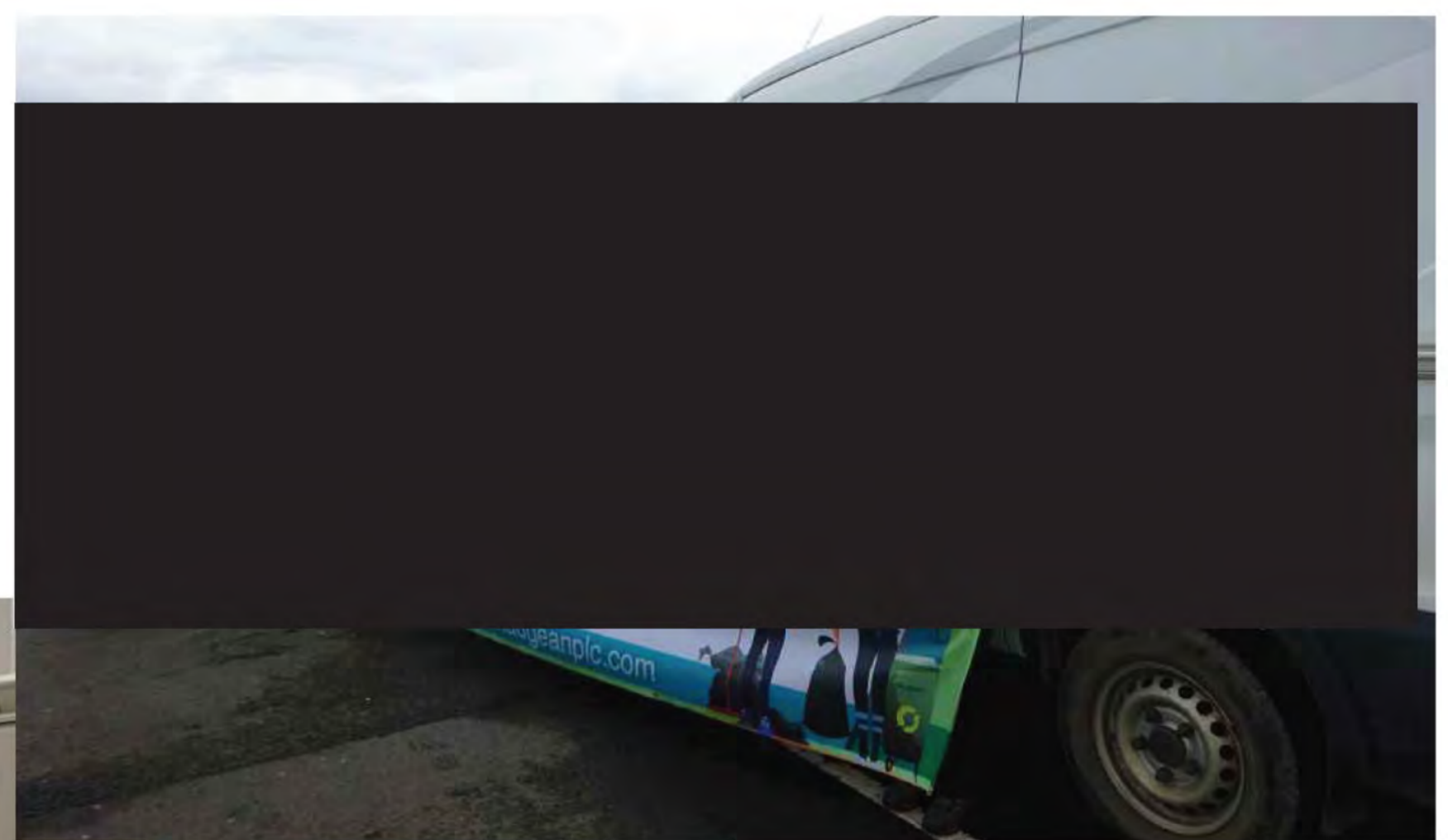
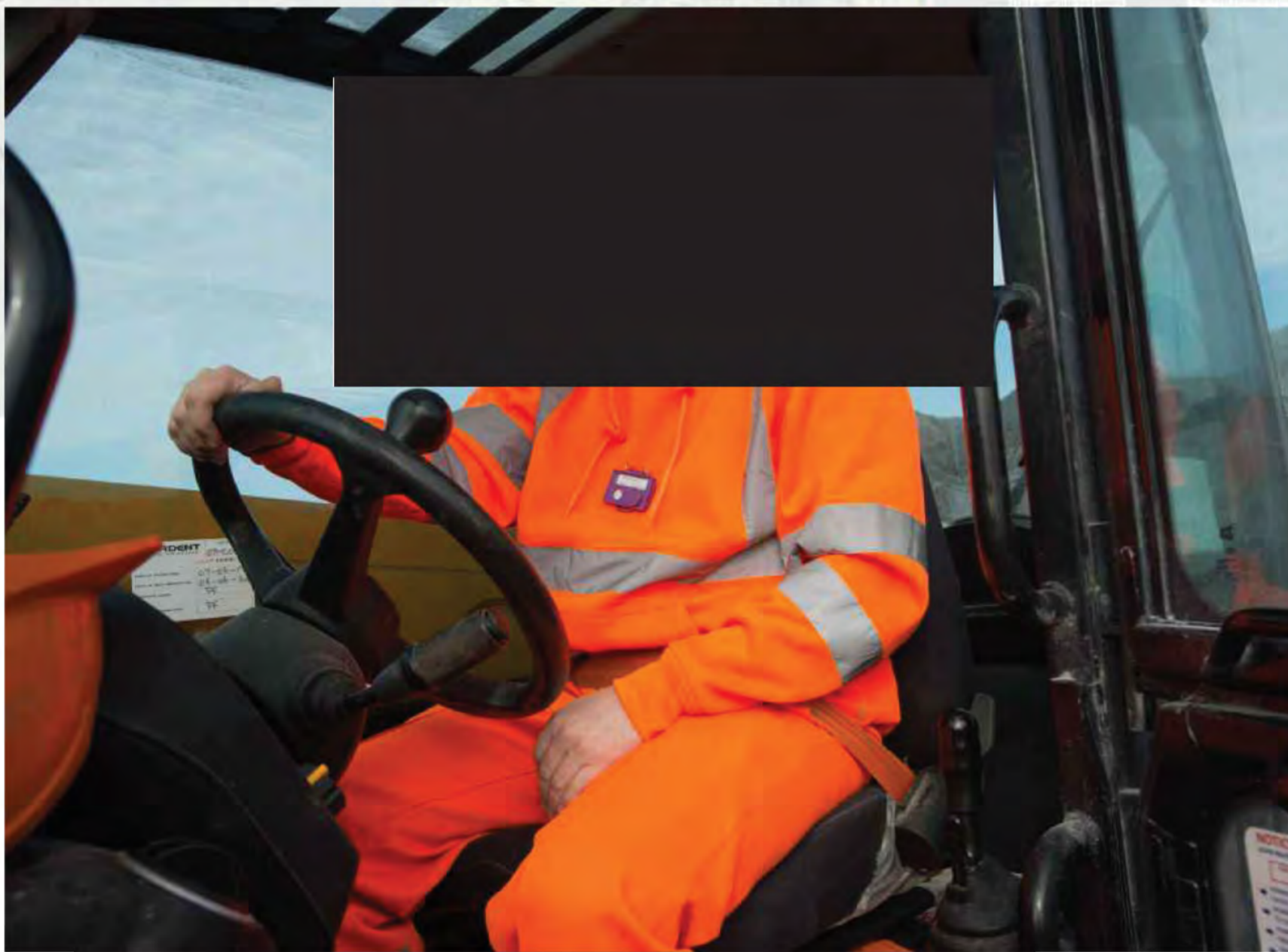
Augean is committed to conducting all its site operations in a responsible manner and is dedicated to programmes of improvement within the business by adopting the most up to date best practice and best available techniques for managing wastes that reduce the impact on the environment.

The company has high standards of health and safety, environmental and quality management which are certified by the British Standards Institution. The management systems include standard processes and procedures for routine operations as well as systems which are implemented in the event of any unplanned events.

Augean meets its obligations so that it can deliver its services in a way that is safe for local communities, the environment and employees.

The company's objectives are set out in the annual Corporate Social Responsibility Report which is available on our website: www.augeanplc.com

The Augean Community Fund and the ENRMF Fund support local projects. Details of recent projects that have been supported and more about the funds can be found later in the exhibition.



The East Northants Resource Management Facility



The ENRMF is an acknowledged part of the nationally significant infrastructure for the management of hazardous waste and low-level radioactive waste (LLW) and provides a strategically placed resource for wastes generated primarily in the centre and south of the UK.

The objective of waste management is to control wastes in a way that adequately protects human health and the environment, both now, when the waste is disposed, and in the future. The ENRMF provides a safe and appropriate facility with a highly skilled workforce specially trained to manage difficult types of waste.

The site comprises the active landfill site which includes restored and partially restored landfill areas together with a waste treatment and recovery facility.

There is existing infrastructure which includes the site entrance area, which is shortly to be upgraded, the weighbridge and waste reception facilities, site offices, welfare facilities, wheel and vehicle body washing facilities and a laboratory.

The site has Environmental Permits which are regulated by the Environment Agency. There are strict acceptance criteria which define what can and cannot be disposed to landfill.

Detailed procedures are in place before the wastes are accepted for dispatch to the site and further procedures are in place for when the wastes are delivered to the site to check that only permitted wastes are delivered and accepted.

The ENRMF is the subject of a Development Consent Order (DCO) which was granted in July 2013 and amended in June 2018 to increase the throughput of wastes at the waste treatment and recovery facility. The current DCO specifies that the site should be completed and restored by 31 December 2026.



The Proposed Application

In order to secure beyond 2026 capacity for the treatment and disposal of hazardous wastes and LLW to serve local, regional and national needs, Augean is proposing to construct an additional landfill void of approximately 2 million cubic metres to the west of the currently operated site.

80 per cent of the wastes accepted at the waste treatment and recovery facility and over 95 per cent of the waste accepted at the site for landfill over the last five years comes from the East Midlands, West Midlands, East of England, Greater London and South East regions. No new hazardous waste landfill facilities have been developed in these areas since the waste management activities at ENRMF were authorised in 2013.

While the implementation of the hierarchy of waste means that generally less waste will be landfilled directly, the treatment of waste results in increasing amounts of residues many of which are hazardous and can only be landfilled. National strategies for the management of hazardous wastes recognise that where there is no better recovery or treatment option landfill is the end point and the best available technique. The Government LLW policy likewise recognises that after the application of the waste hierarchy principles, final landfill disposal is the safe end point for LLW.



The other elements of the proposed development are:

- The winning and working of minerals in the western extension area in order to create the new landfill void and provide extracted materials for use on site as well as the exportation of clay and overburden for use in engineering, restoration and general fill at other sites.
- The temporary stockpiling of clay, overburden and soils for use in the construction of the engineered containment system at the site and restoration of the site.
- The direct input of waste into the landfill continuing at a rate of up to 150,000 tonnes per annum (tpa).
- An increase to the waste throughput of the waste treatment and recovery facility to 250,000tpa which is an increase of 50,000tpa compared with the currently consented rate.
- A total waste importation rate limit to the site for both the landfill and the waste treatment and recovery facility of 300,000tpa which is an increase of 50,000tpa compared with the currently consented total input rate.
- The continued disposal of LLW limited to that which typically has a level of radioactivity of up to 200 Bq/g.
- The diversion of some of the services that cross the western extension to alternative routes within the application area.
- No change in the operational hours of the site from those already permitted.
- A proposal for a coherent landform for the restoration of the existing landfill and the proposed extension comprising gently domed profiles.
- A nature conservation based after use of the site that includes wildflower grassland interspersed with areas of scrub and trees to integrate with the surrounding woodlands.
- Completion of the landfilling and restoration operations by December 2046. This is a provisional completion date that will be updated as part of the ongoing detailed design works and confirmed in the DCO application.

Preliminary Environmental Information Report (PEIR)

Augean is carrying out an Environmental Impact Assessment (EIA) of the proposal. As part of this pre-application consultation a Preliminary Environmental Information Report (PEIR) has been prepared to explain the potentially significant impacts and benefits of the proposed development. The purpose of this consultation is to seek views on this information from the local community as well as statutory consultees before finalising the design and the studies. The PEIR presents the environmental information collected to date and provides an initial assessment of any likely significant environmental effects.

Once the assessment work is complete Augean will submit an Environmental Statement (ES) with the DCO application. The ES will report on the likely significant environmental effects of the proposals identified in the EIA, the appropriate mitigation measures to be put in place where necessary and any residual effects. There will be further opportunities for reviewing and commenting on the development proposals once the application has been submitted.

In the relevant sections of the PEIR the options and alternatives that have been considered during the process which led to the selection of the western extension area and the development of the current extension proposals are explained. This includes assessment of the suitability of the site location and the identification of the constraints which affect the design of the

development. The consequent choices that have been made with respect to the design of the proposed operations, the containment engineering design, the restoration profile hence the void generated, the operational and management proposals and the design of the restored site are explained. The design parameters which are fixed at this stage are identified in the relevant sections of the report as those which are subject to further refinement and where options are still being considered.

This consultation provides an important opportunity for all consultees including the local community to engage and help inform aspects of the design of the proposed development. Responses to this consultation will be taken into account before finalising the proposals and submitting an application for a DCO to the Secretary of State.



The PEIR Findings

Potential impacts on human health

The potential for direct and indirect effects on the health of people living and working around the site if the site was to be extended has been assessed.

The nature of the operational activities and the wastes accepted at the site will not change significantly and, while they may take place over a larger area overall and for a longer time, the active area and intensity of operations at any one time would not be significantly different to the currently consented activities.

The potential impacts of non-radiological and radiological effects on people and the environment previously have been assessed as part of the process for granting the current DCO and Environmental Permits for the current hazardous waste and LLW landfill site and the waste treatment and recovery facility. The granting of these consents confirms that any impacts are considered to be acceptable.

There are three essential elements to assessing risk associated with emissions:

- a contaminant source which has the potential to cause harm to human health or the environment;
- a receptor which in general terms is something that could be affected adversely by the contaminant such as people, a water body or an ecological system; and
- a pathway or route by which a receptor can be exposed to and affected by the contaminant.

Each of the elements can exist independently but a risk can be present only where they are linked together so that a contaminant can affect a receptor by a pathway. The identification of risk in this way is referred to as the source-pathway-receptor methodology and the linked combination of contaminant-pathway-receptor is referred to as a pollutant linkage or exposure pathway. In order to understand and assess the potential risks associated with a proposed development it is necessary to identify the potential exposure pathways associated with emissions from the facility and to assess the effects that may

result from the identified exposures. A number of possible pathways which might have the potential to expose people to contaminants which might affect their health have been identified and are assessed through risk assessments including for routine as well as unexpected events (accidents). The risk assessments demonstrate that the potential exposure pathways can be controlled such that emissions remain below threshold limits that are set for the protection of people and the environment.

The full and detailed risk assessments that will be provided with the Environmental Permit applications will be scrutinised robustly by the Environment Agency and Environmental Permits will not be issued unless the Environment Agency is satisfied that the site can be operated safely and that the health of those living and working at or near the site is protected.

The ENRMF will continue to be monitored and regulated through Environmental Permits to confirm that it is operating in compliance with all appropriate standards. The results of the monitoring will continue to be made available on the company web site to provide confidence that the site is being managed effectively.



The PEIR Findings

Ecology and biodiversity

Extensive ecological surveys have been carried out at the site and further ecological surveys are currently being undertaken. The following aspects of the proposed western extension area have been identified as being ecologically important features

- The habitats and plant communities that provide habitat for important species including amphibians, reptiles, badgers and invertebrates.
- The amphibian and reptile populations.
- Bats, particularly in the adjacent woodlands.
- Badgers.
- The invertebrate populations particularly species using the margins between the site and the woodland.

The detailed design of the landfill extension area is currently being developed taking into account the findings from the ecology surveys and measures to protect the ecology on site will be included in the final design. The extension site area is largely agricultural land which typically has a low level of biodiversity. The restoration scheme is being designed to provide significant biodiversity gain. With the planned avoidance, protection and mitigation measures in place there will be no significant adverse impacts on biodiversity throughout the operational stage of the proposed development and there will be a large positive net gain in biodiversity on completion of restoration.



Landscape and visual impacts

A landscape and visual impact assessment has been carried out. The site is generally visually enclosed within the landscape. There may be partial distant views of infilling operations in the southern area of the western extension. After the restoration stage the significance of any visual effects will be beneficial due to the restoration of the site and the establishment of woodland and scrub vegetation which will merge well with the adjacent woodland. The assessment concludes that there will be significant beneficial impacts on landscape features and character as a result of the proposed restoration of the site.

Soil resources and agriculture

An assessment of the impacts on soil resources has been prepared. A survey has been undertaken to establish the quality of the soil of the present agricultural fields. As it is not proposed to return the site to agricultural use there will be a permanent loss of approximately 6 hectares of best and most versatile agricultural land and a loss of approximately 20 hectares of lower quality agricultural land as this will be given over to nature conservation purposes on restoration.

Archaeology and cultural heritage

A desk based study including an assessment of archaeological potential and the potential impacts on the setting of cultural heritage assets has been undertaken as well as a geophysical survey to identify any features of potential archaeological interest. The geophysical survey found very little that can be described as of archaeological interest. Trial trenching is currently being undertaken in the western extension area to verify if there are any features of archaeological interest. The preliminary conclusion is that the proposed development will have neutral, negligible or no significant effects on cultural heritage and archaeology.

The PEIR Findings

Water resources

An assessment of potential impacts on geology, hydrology and hydrogeology has been carried out. A detailed site investigation has been carried out with the drilling of numerous site investigation and monitoring boreholes to establish the geology and hydrogeology of the western extension area.



A swallow hole is present to the north west of the current landfill site

and there is evidence of other features in the limestone geology called dolines. The area of the dolines has been investigated using geophysical surveys. The extent of the proposed landfill will be adjusted to make sure that the engineered base and sides of the containment landfill will be suitably stable and will provide suitable protection to the quality of the groundwater underlying the site. It is concluded that there will be no significant impact on groundwater quality or flow beneath the site or at receptors nearby as a consequence of the proposed void extension.

Surface water from areas around the site will be collected in and channelled away from and around the landfill areas in a series of ditches. During the operational period all water on site which is in contact with wastes and which has the potential to be contaminated is retained on site. Collected site surface water is used for dust suppression, in wheel washes and in the waste treatment plant in place of mains water.

Flood risk assessment

An assessment of the potential impacts on surface water flow and flood risk near to the site has been carried out. The site is in an area which is not at risk of flooding from rivers or the sea. However, the design of the proposed surface water management scheme for the site will include provisions for climate

change especially the predicted increase in frequency and intensity of rainfall storm events. It is considered that based on the implementation of an effective management plan the proposed development can be undertaken without increasing the risk of flooding at or in the vicinity of the site.

Transport and traffic

The traffic numbers associated with the current activities at the site are being reviewed to confirm whether there will be any significant changes in the estimated average numbers of HGVs using the site as a result of the proposed development. The assumed probable number of movements is unlikely to change significantly as a result of this application, but the final assessment will be based on the detailed design of the phasing of the mineral excavation works which is being carried out at the moment. It was concluded at the time of the current DCO application that there would be no adverse impact on highway safety or capacity as a result of the operation of the landfill and treatment facility. This conclusion remains valid provided that the number of vehicle movements do not change significantly.



Noise

An assessment of the noise impact of the proposed operations at the nearest sensitive receptors has been carried out. Due to the coronavirus pandemic it has not yet been possible to carry out representative background noise monitoring as activities in the vicinity have not yet returned to normal. In the meantime, it has been agreed with the Local Authority that background noise monitoring data obtained for the previous application can be used as an estimate of current background noise levels. The results of the preliminary assessment suggest that there will be no significant or unacceptable adverse impacts at noise-sensitive premises in the vicinity as a result of the proposed operations.

The PEIR Findings

Air quality



The potential impacts on local air quality which have the potential to affect human health have been assessed

as well as potential impacts as a result of odour. The site is not located in an air quality management area which means that national air quality objectives are being met. Based on the control measures which will continue to be in place, the generation of fine airborne particulates as a result of the extraction and stockpiling of soils, clay and overburden and the proposed time extension and increase in throughput of the waste treatment and recovery facility will have negligible impact on air quality in the locality.

The wastes that are accepted at the site for landfill and treatment have a low level of organic carbon which means they have a limited potential for biodegradation and therefore limited potential for the generation of gases or vapours or to generate odour. With continued controls there will be no significant impacts on air quality associated with odour as a result of site activities.

Amenity

The potential effects on amenity of dust, mud on the road and lighting have been assessed. Dust emissions will continue to be controlled effectively using a range of control measures, the effectiveness of which will be confirmed

through regular monitoring at locations on the boundary of the site as specified in the Environmental Permit. Based on the wheel cleaning facilities and the proposed cleaning and maintenance



regime on the site and the adjacent Stamford Road, the risk of nuisance from the proposed development associated with mud and debris on the local road network is low. The lighting at the site is situated at the main reception and office areas as well as the treatment facility for both security and health and safety considerations. Mobile lighting is used on the operational landfill area only when needed. With the exception of security lighting the lighting will only be used during periods of low light and darkness when the site is operational and all lighting will be directed downwards to minimise the impact. It is considered that there will not be an unacceptable impact on amenity as a result of the continued operation of the site.

Socio-Economic impacts

An assessment of the socio-economic impacts of the proposed development has been carried out. The continued operations have a significant national and regional socio-economic benefit by supporting the need for the safe treatment of wastes, the safe disposal of hazardous wastes and disposal of LLW. It will result in a further significant positive contribution to the local economy and provide substantial support local villages and to the community through the two community funds. There is no evidence that there are any adverse socio-economic impacts but there is clear evidence of socio-economic benefits in the locality.

Cumulative impacts

The cumulative impacts of all the aspects of the proposals have been taken into account in the assessments of impacts on people and the environment. Based on the assessments carried out to date the findings indicate that there will be no unacceptable adverse effects on human health or the environment in the short, medium or long term.

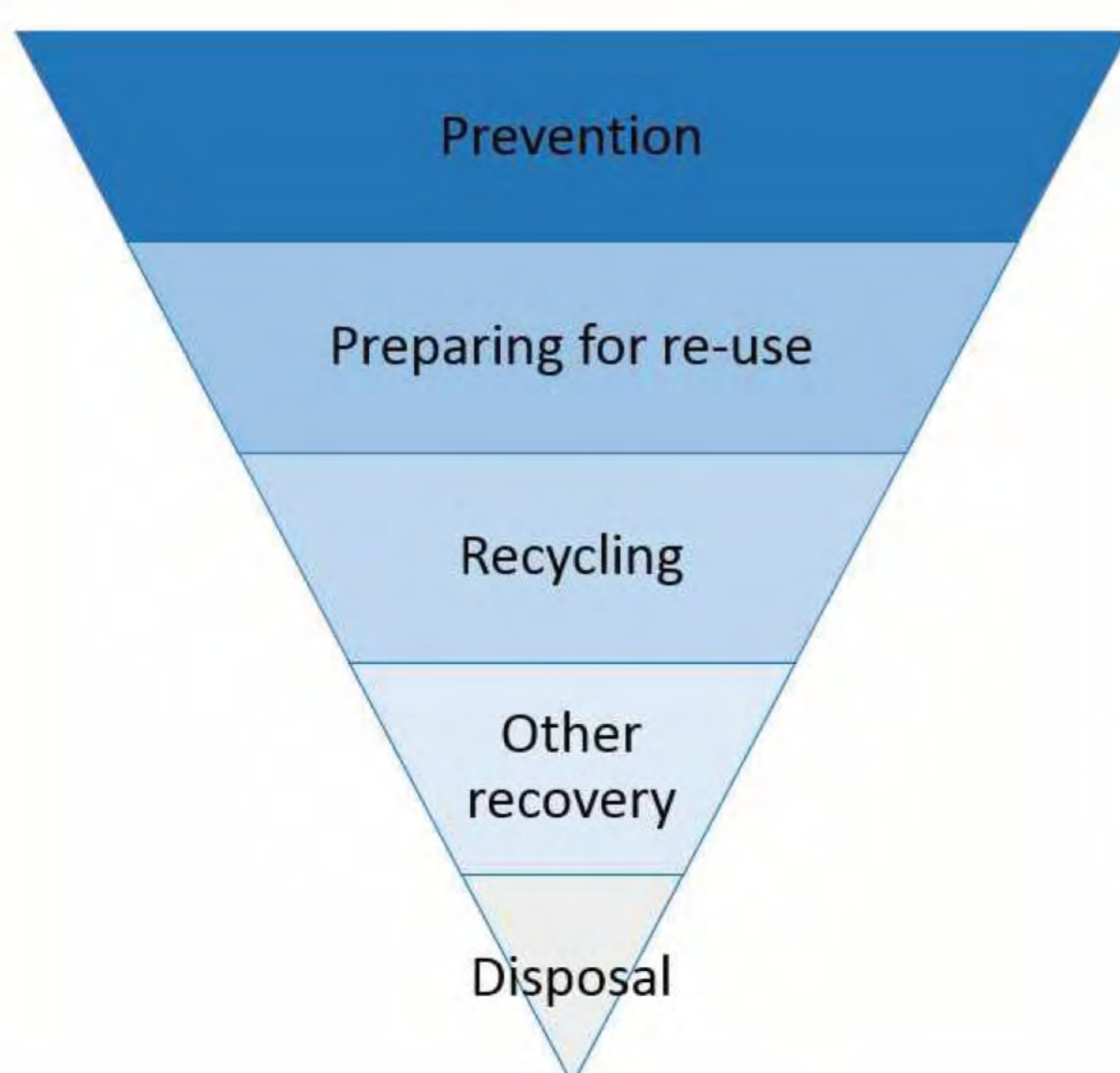
The full version of the PEIR and a Non-Technical Summary are available in the Further Information section of the online exhibition

Hazardous Waste

Hazardous waste refers to many common waste materials that are produced by modern industrial and commercial activities. It is defined as waste that has characteristics that potentially are harmful to human health or the environment. These types of wastes need to be expertly and safely managed. Risk assessments have been carried out for a wide range of different situations covering the operational lifetime of the landfill and the Waste Recovery Park, the post operational period for the landfill and in particular the long term future of the landfill when management of the site may no longer be in place.

Augean takes pride in its excellent compliance practices to ensure the safe and responsible treatment, recycling, recovery, reuse, or disposal of hazardous waste. The modern waste industry is highly regulated with a strong emphasis towards increasing sustainable practices which protect the environment, are safe and make the best use of resources.

Producers of hazardous waste and LLW are required by legislation and best practice guidance to manage their waste by exploring options for treatment or disposal in an appropriate manner in accordance with the waste hierarchy. This means in order of the most desirable outcomes, producers must seek to minimise, reuse, recycle or treat the waste. Even after the application of the hierarchy principles there will still be significant volumes of residual waste which have to be disposed of through the final option of landfill.



Typical hazardous wastes include:

- Construction and demolition wastes like contaminated soil, treated wood and asbestos.
- Electronic wastes such as fluorescent tubes, computer equipment and televisions.
- Industrial wastes like solvents, paint, varnish oils, cleaning cloths, filters and soiled protective clothing.
- Residue from other forms of waste treatment for example air pollution control residues or ash from incinerators or dewatered sludge from treatment plants.

The principle wastes that are disposed of in the hazardous waste landfill site at ENRMF are contaminated soils, asbestos, stabilised wastes and residues from recovery or treatment operations. No liquids, explosive, flammable, oxidising, corrosive or infectious wastes are accepted at landfill sites.



Low Level Radioactive Waste (LLW)

Low Level Radioactive Waste is waste that contains small amounts of radioactive content which typically comes from the decommissioning of nuclear power stations and from the oil and gas and mineral processing industries as well as science and research facilities, hospitals and manufacturing.

The waste is largely construction and demolition waste such as rubble, soils, crushed concrete, bricks and metals from the decommissioning of nuclear power plant buildings and infrastructure, small amounts of lightly contaminated miscellaneous wastes from maintenance and monitoring at these facilities such as plastic and metal and wastes from manufacturing activities, science and research facilities and hospitals where radioactive materials are used. The levels of radiation present in the waste materials are extremely low, and when handled in accordance with the site management procedures, the levels of exposure are safe for workers at the site, the local environment or members of the public.

It has been Government policy since 2007 for LLW to be disposed of into suitable landfill sites. This was the conclusion it came to after wide consultation. This policy preserves the life of the Low Level Waste Repository in Cumbria for LLW wastes with higher levels of activity that are not suitable for disposal in normal landfill sites. LLW has been accepted at ENRMF since 2011

The radioactive content of materials is measured in Becquerels per gram (Bq/g).

LLW has a radioactive content below 4,000 Bq/g of alpha activity or 12,000 Bq/g of beta or gamma activity. The waste accepted at ENRMF currently and that which would be accepted in the proposed western extension of the landfill is at the lower end of the activity range and typically has an activity of less than 200 Bq/g.

A series of risk assessments have been used to demonstrate that even under unlikely situations the

dose from radiation experienced by the public and workers does not exceed safe thresholds determined in guidance and legislation.

The radiological dose that is received by workers at the site and any members of the public who may be in the vicinity is strictly controlled. The waste that is accepted at ENRMF only results in radioactive exposure at the perimeter of the site that is a fraction of the exposure that everyone receives every day from natural background sources of radiation. Radiation exposure assessments use cautious assumptions to determine the amount of radioactivity that can be disposed of safely and considers scenarios that are unlikely to occur, such as dropped loads. The use of cautious assumptions ensures that the doses that are received are lower than predicted.

Augean has extensive experience of safely handling LLW at the ENRMF and can demonstrate through monitoring results that it has done so without any adverse effects on the environment or risks to the local community.



Waste Treatment and Recovery Facility

In recent years there have been significant changes in policy and legislation designed to limit the amount and types of wastes sent to landfill and to encourage an increase in treatment, recycling, reuse or recovery of waste. This is referred to as the waste hierarchy. There is increased customer and public interest in sustainable methods of waste management, and this has encouraged companies like Augean to take an innovative approach.

Augean seeks to continuously improve the services it provides by introducing new processes so they can continue to deliver the best environmental techniques and solutions for waste management. The company explores ways of improving existing techniques and ways in which it can increase the recycling and reuse of materials following treatment and to substitute wastes for products in processes saving material resources.

The waste treatment and recovery facility uses treatment technologies which includes physico-chemical treatment and bioremediation applying the best available techniques.

Before wastes are accepted at ENRMF for treatment a pre-acceptance assessment is carried out by sampling the materials and analysing their composition. This procedure establishes whether it is technically possible to treat the material, and to establish the most effective form of treatment for that waste stream. Materials which if after treatment will not meet acceptance criteria for re-use or disposal in a landfill will not be accepted at the waste treatment and recovery facility.



Soil Washing

Soil is washed with water (sometimes with additives) to remove contaminants and recover sand, gravel and soil forming materials. The soil washing plant removes heavy metals from contaminated soils, silts and sludges through a physico-chemical treatment process. Bulk soils are separated into coarse aggregates, sand and silt size fractions and then washed to remove surface contamination. 80 per cent of the output is clean aggregate or sand suitable for reuse. The contaminants present are concentrated into a smaller volume of material which is landfilled directly or following further treatment.



Stabilisation including immobilisation and neutralisation

The purpose of stabilisation is to fix mobile contaminants within the structure of the waste to reduce their polluting potential. The purpose of immobilisation is primarily to change the physical characteristics of the waste but the process can also encapsulate contaminants in the waste. The purpose of neutralisation is to moderate the pH of waste, usually to a neutral condition. Where the pH is a significant factor in the hazardousness of the waste it can be possible to generate a non-hazardous waste output. The outputs of all three processes commonly are managed by disposal in landfill but where the chemical nature of the material being treated and the treated outputs are suitable, the treated material can be recovered for a variety of uses.

Waste Treatment and Recovery Facility

Bioremediation

Soil is composted to remove organic contaminants and recover the soil. In a controlled environment, specific bacteria can be added to soils contaminated with organic compounds (hydrocarbons) to enhance the process. The degradation of petroleum type materials is promoted through the circulation of air and by controlling levels of moisture.

Environmental Benefits

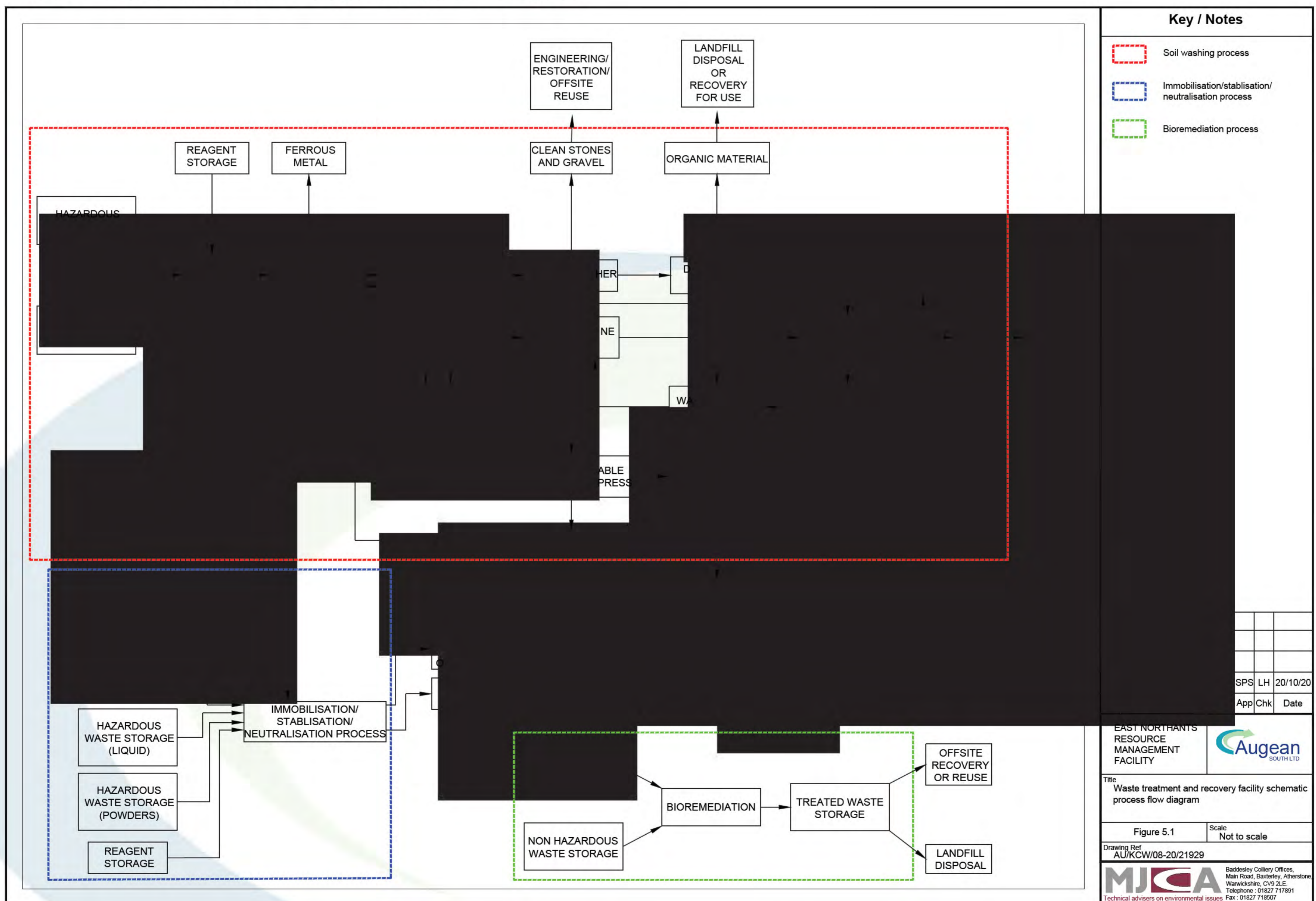
- The waste treatment centre can tackle a broad range of contaminants.
- Bioremediation provides the potential for recovery and reuse of 100 per cent of the soil.
- Soil washing provides the potential for recovery and reuse of 80 per cent of the input.

- Soil treatment is made available for the treatment of soils where on site treatment is not a viable option, thereby promoting the clean-up of contaminated land.

- Waste treatment is used as a pre-treatment to reduce contamination to acceptable levels and reduce polluting potential before landfilling.
- The use of clean water in the immobilisation processes is minimised by using landfill leachate from the site and collected site surface water runoff. This conserves fresh water resources and immobilises contaminants in the landfill leachate as they are fixed in a solid matrix and returned to the landfill.

- The treatment of wastes for recovery and reuse reduces the need for landfill of wastes.

Waste Treatment and Recovery Facility Flow Diagram



How people and the environment are protected

All waste management operations at Augean are the subject of strict health and safety, environmental and quality procedures which are certified and regularly audited internally and by the British Standards Institution.

Augean has a safety strategy for the responsible management of wastes which includes the following measures:

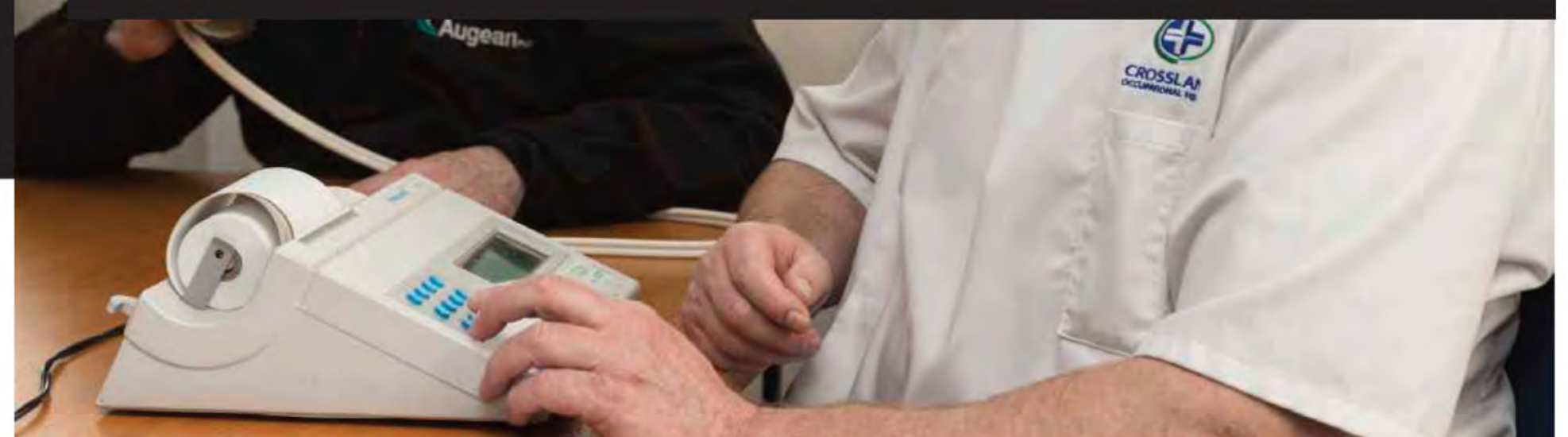
Robust risk assessments

To understand and manage health, environmental and safety risks associated with any development, risk assessments are undertaken. These can be simple qualitative assessments or involve complex modelling. For a risk to occur there must be a source of risk or hazard, a receptor that could be affected and a means by which the hazard reaches the receptor. This is usually referred to as a pathway. A key purpose of the risk assessment is to anticipate what might

happen in normal circumstances as well as to consider what might go wrong and show that unacceptable harm will not result even in that unlikely situation.

Risk assessments have been carried out for a wide range of different situations covering the operational lifetime of the landfill and the waste treatment and recovery facility, the post operational period for the landfill and in particular the long term future of the landfill when management of the site may no longer be in place.

The potential impacts on human health and the environment are examined through a series of assessments of different situations in which people or the environment might be affected. The situations assessed include normal operational activity as well as events or accidents that are considered unlikely to occur.



How people and the environment are protected

Waste pre-acceptance procedures

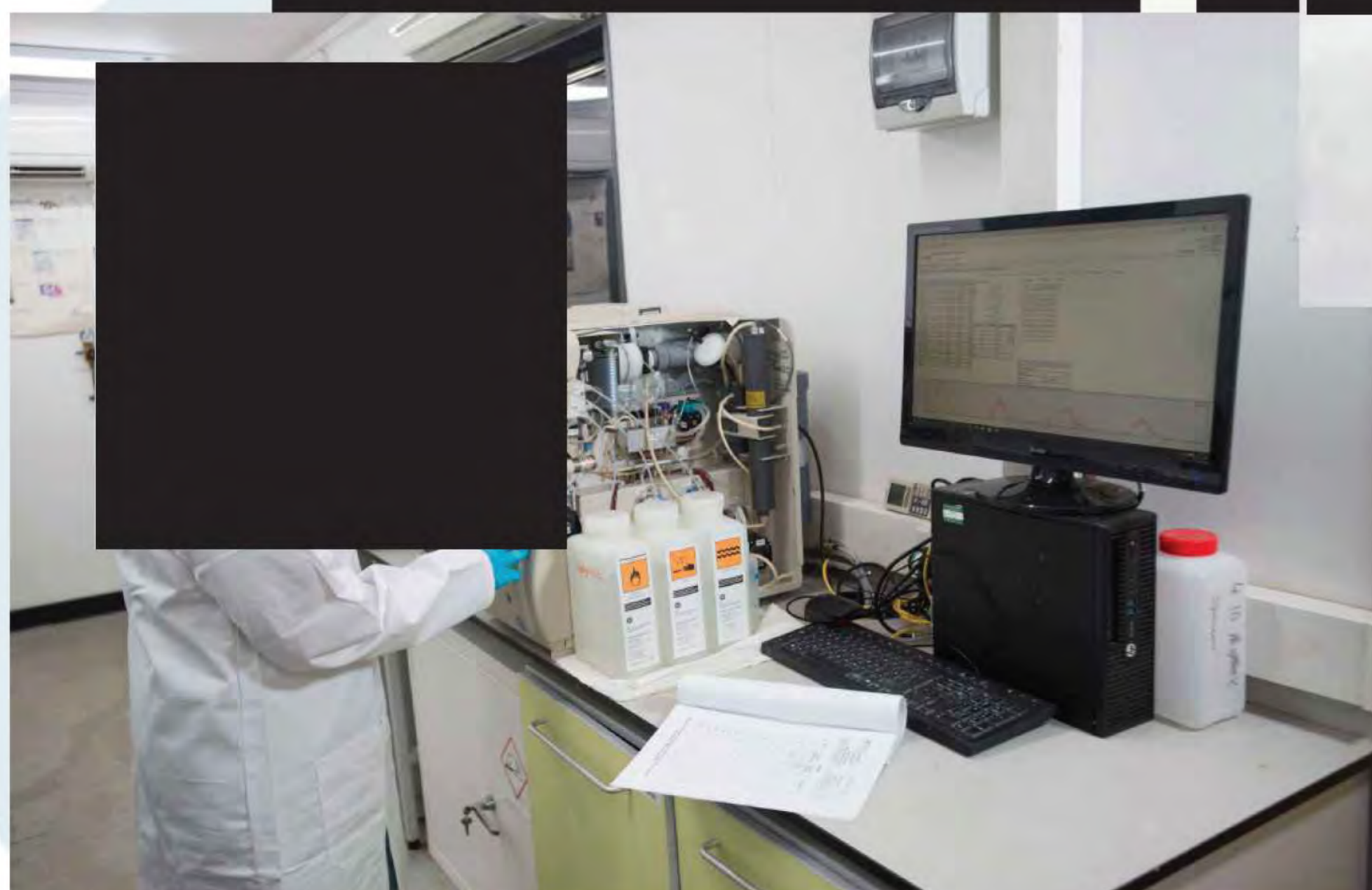
Before any waste is accepted for consignment to the site, Augean's technical assessment team go through a series of pre-acceptance checks to confirm whether it is suitable for treatment or disposal and is included in the detailed list of permitted wastes that is in the Environmental Permit.

Strict processes verify that each waste received can be handled in a safe and suitable manner. Additionally, all waste producers wishing to consign LLW to the site need to demonstrate to the Environment Agency that disposal at ENRMF is the best available option for their specific waste stream by meeting the criteria for Best Available Technique (BAT), which includes consideration of whether the site is the nearest appropriate facility for the management of that waste. BAT is a requirement of the Environmental Permit of both the consignor (i.e. the producer) and the receiver (i.e. Augean) of the waste.

It is a requirement of legislation that the waste management network shall enable waste to be recovered or disposed of in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health. Inevitably, where the management measures are more specialist, as they are at the ENRMF, there will be fewer such facilities therefore each such facility will serve a wider area.

Laboratory services

Augean's laboratory services are used to check and assess the chemical and physical properties of various waste streams to ensure that it is compliant with the waste acceptance criteria (WAC). They also provide technical support to site operations by undertaking sampling and testing to monitor site compliance. By thoroughly understanding the composition of waste through analysis and monitoring they can minimise the impact of the waste that is managed on the wider environment. Only once the pre-acceptance checks are complete will waste be booked into the site for disposal. Strict processes verify that each waste received can be handled in a safe and suitable manner. Augean has invested in the latest technology and in highly trained chemists to provide clients as well as the company with accurate information. The technical data and acceptance records are shared with the Environment Agency.

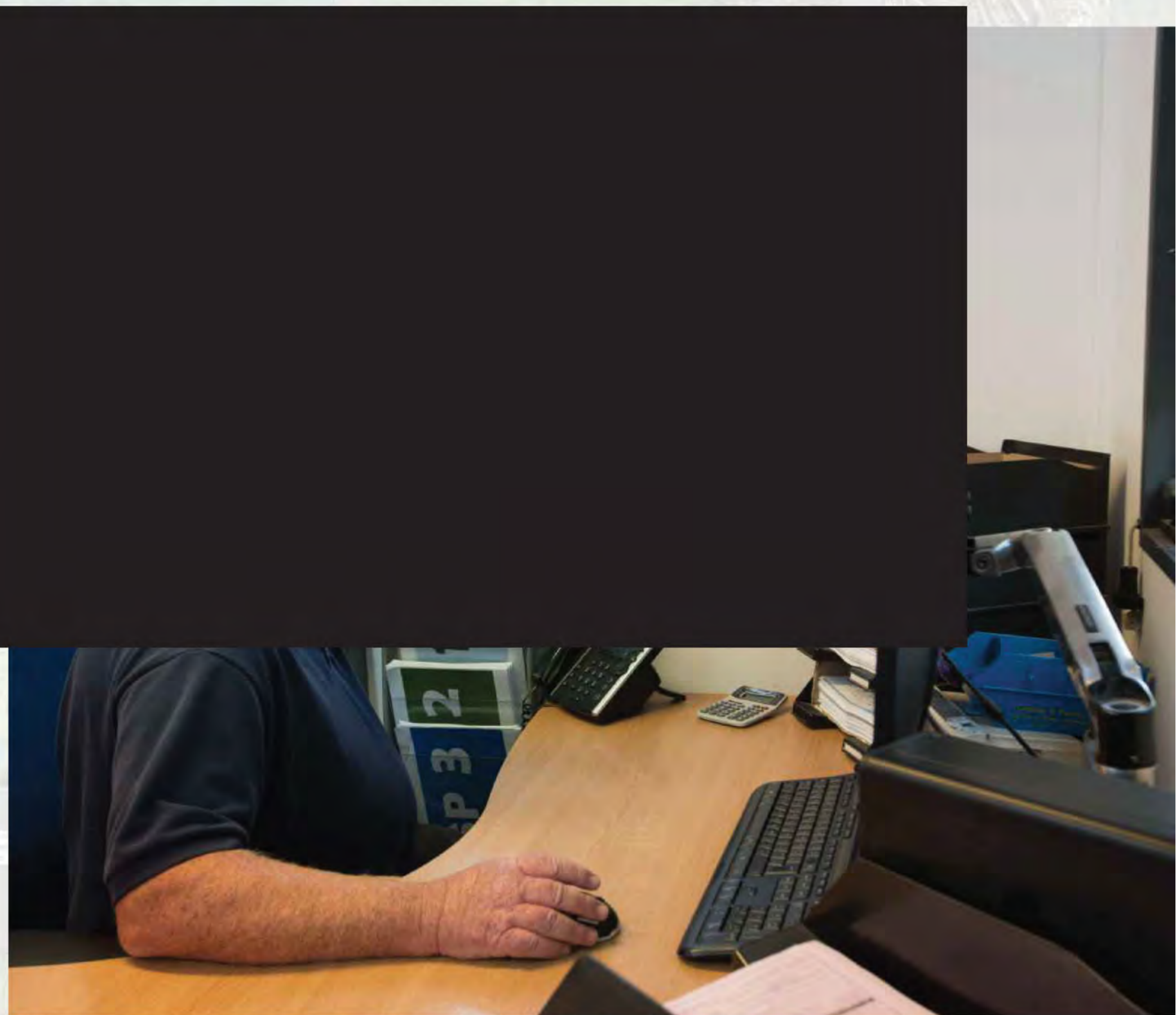


How people and the environment are protected

Transport

Transport routes to the site already are strictly defined so that wastes will not travel through residential areas. The current routing agreement which requires HGV traffic accessing the site from the local highway network to approach and leave the site only from and to the north, on the A47, will remain in place. The transportation of potentially hazardous materials including hazardous waste and waste with low levels of radioactivity is strictly regulated by the Department of Transport. It is the responsibility of the carrier of the waste to ensure that the waste is transported in accordance with the relevant transport regulations. All waste that is brought into the site is sheeted to avoid dispersal of dust in line with good transportation practice. Due to the limited activity of the LLW imported to the site most wastes do not need special forms of packaging or shielding during

transport other than to provide physical containment to avoid spillages, as for almost all types of waste.



Checks on arrival

When waste arrives at ENRMF the Consignment or Transfer Note for the waste load is inspected. Any waste that arrives at the site without being booked in is rejected or quarantined and the Environment Agency are informed. In the case of LLW, waste is received by specially trained Radiation Protection Supervisors who also check the physical condition of the consignment packages and the radioactivity emissions from the waste to make sure that they do not exceed expected levels.

Wastes destined for the treatment facility are transported to the treatment area for storage in contained areas prior to treatment. Hazardous waste received for the landfill is handled according to its composition. Construction waste that cannot be treated is taken directly to the landfill and covered daily. Waste streams such as asbestos are taken to specific areas of the landfill cell that are being worked and covered immediately. The location of wastes is recorded using GPS coordinates.

Once accepted LLW intended for landfill disposal will be taken and placed immediately in the landfill void and covered with suitable material. The location at which each consignment of waste is deposited also is recorded using GPS coordinates.



Landfill engineering

The landfill at ENRMF is designed and operated as a containment landfill in accordance with modern standards. It is engineered in such a way that the waste deposited is contained within cells formed of low permeability materials. This barrier system provides the necessary protection of human health and the environment.

Each cell is constructed with base and side wall lining systems formed of a combination of a low permeability engineered clay mineral liner and a geomembrane liner. The cell construction is designed to prevent contamination of ground and surface water that may be harmed by the migration of landfill leachate. Each cell contains leachate and landfill gas collection and monitoring infrastructure.

Once a landfill cell is completed it is sealed with a low permeability capping layer to minimise rainfall entry into the landfill and so control rates of leachate generation. The

low permeability capping layer is keyed-in to the low permeability side wall lining system to provide a continuous low permeability protective barrier.

The design of the site containment system is subject to approval by the Environment Agency in accordance with the Environmental Permit. The construction and engineering of landfill cells is carried out by specialist contractors overseen by a Construction Quality Assurance engineer. The cell lining and capping system is subject to testing at every phase of construction to confirm that the design specifications have been met, and that it will form the necessary protective barrier in an effective way.

Once construction is completed a report detailing the construction method, testing and laboratory results is submitted to the Environment Agency for approval before waste can be placed in the cell.



Monitoring

Monitoring of the environment around the site, including ground and surface water, soil and air is conducted in accordance with the site's Environmental Permits and as agreed with the Environment Agency, to confirm that the site is operating in compliance with all relevant environmental legislation.

In addition to the environmental monitoring required during the operational life of the landfill site and the waste treatment and recovery facility, there is a requirement for Augean to continue monitoring the landfill site after the site has closed and until the Environment Agency is satisfied that the site has stabilised. Augean is required by law to make funding available to provide sufficient resources for the site to be looked after following closure or in the unlikely event that the site operator is unable to do so.

Monitoring schemes are designed and implemented to confirm that the design, construction and operating methods applied at the site are effective in eliminating or controlling risks.

Monitoring technicians work to agreed programmes and protocols approved by the Environment Agency. The air and water around the site is sampled to gather

quantitative environmental data which is reported to the regulators at agreed periodic intervals.

Augean provide regular reports to the Environment Agency on environmental performance in respect of; landfill gas, air emissions, leachate, surface water, groundwater, dust, noise and radiation.

Workers at the site wear appropriate levels of personal protective equipment. Dosimeters are worn to provide reassurance to confirm that the radiation exposures received by the workers are in accordance with the predictions from the risk assessments. These are sealed units and are taken away for testing by Public Health England. There has never been any detectable level of radiation from the dosimeters that have been worn at ENRMF. Key monitoring data is available on the website: www.augeanplc.com



COMMUNITY SPONSORSHIP

The Augean Community Fund

Many communities within a 10-mile radius of ENRMF in Northamptonshire and Thornhaugh Landfill near Peterborough have benefited from funding from the Augean Community Fund. Since the creation of the Community Fund, just over £4 million worth of grants have been allocated. Funding is available for organisations and community groups up to a maximum of £50,000 per application for a diverse range of community projects and initiatives.

In 2019 alone, nearly £450,000 worth of Community Fund grants were awarded. These were:

- Kings Cliffe & Area Community Sports Project Limited, Active Play Space - £25,205
- Oundle Rugby Football Club Ltd, Clubhouse Extension and Improvements - £49,000
- Preston Village Meeting, Refurbishment of Preston Pond - £21,700
- South Luffenham Parish Council, Recreation Ground Improvements - £19,082
- Southwick Shuckburgh Arms Community Pub, Furniture and Garden Equipment Refurbishment Project - £7,726
- Castor and Ailsworth Cricket Club, Replacement Electricity Generator and Cricket Outfield Roller - £11,476
- Stamford Tennis Club, Floodlight Replacement - £8,175
- Barnack Parochial Church Council, Heating Project - £30,000
- Sutton Parish Council, Nene Way and Sutton Village Recreation Ground Improvements - £12,000
- Friends of Barnwell Country Park, Secure Compound Project - £50,000
- Thornhaugh and Wansford Parish Councils, Burial Ground Boundary Wall Repair - £5,000
- Folksworth, Washingley & Morborne Village Hall, Replacing Toilets and New Meeting Room - £50,000
- Thornhaugh & Wansford PCC, St Mary's Replacement Lead Roof and Alarm - £31,500
- Gretton Baptist Church, Replacement Heating System and Rebuild of Side Rooms - £25,000
- Ufford Park Cricket Club, Improvement of Outdoor Cricket Nets - £13,803
- Kings Cliffe Ex-servicemen's Social Club, Refurbishment - £50,000
- Weldon Adrenaline Alley, Adrenaline Rhythm Training Centre - £43,943



Exton Church Toilet and Kitchenette



Folksworth Village Hall Extension



COMMUNITY SPONSORSHIP

The Augean Community Fund is administered by Grantscape with qualifying projects decided by the Kings Cliffe Environmental Association (KCEA) and the Thornhaugh Environmental Association (TEA), whose members are community volunteers who are best placed to represent local priorities.

ENRMF Fund

Smaller grants, normally up to £5000, are also available through the East Northants Resource Management Facility (ENRMF) Fund, which was set up as part of the planning consent to accept Low Level Waste at the ENRMF site.

Unlike the Augean Community Fund, the ENRMF Fund can also be used towards overheads and salary costs for community projects and is also available to those within a 10-mile radius of the site, but with a preference to applications from within a 5-mile radius.

Since 2013, a total of 52 applications have been awarded funding to the value of £160,520.

The ENRMF Fund is currently administered by Northamptonshire County Council.



Glaphorn Village Hall Kitchen



Ferry Meadows - Help to Tackle Litter



Woodnewton Playground



Bainton Reading Room

GrantScape

Augean^{PLC}
COMMUNITY FUND

Augean
SOUTH LIMITED

Restoration

The preliminary design of the proposed restoration scheme for the site, once the operational life of the site is over, incorporates wildflower grassland interspersed with areas of scrub and trees which in time will extend naturally to provide more extensive woodland cover with glades and rides integrating with the surrounding woodlands and providing wildlife links between them.

The scheme includes an extensive network of hedgerows with occasional trees which would link areas of vegetation and mark field boundaries as well as delineating the route of a maintenance track along which a new footpath would extend.



Other footpath routes would provide circular walks and would link with public rights of way in the local area.

Waterbodies will be woven into the design at locations at the base of the raised landfill areas once the site drainage scheme has been developed.

The restoration scheme principles follow those for the current site which were designed with the Northants Wildlife Trust in order to match their requirements for adoption as a Local Wildlife Site and to meet several of the Northamptonshire Biodiversity Action Plan habitat creation targets.



Standoff of varying widths (depending on ecological constraints) from the edge of Collyweston Great Wood, comprising existing agricultural land. The standoff would provide a number of ecological functions through the works: foraging area for reptiles and amphibian populations, connecting GCN habitat between breeding ponds and hibernation sites, foraging & connectivity for badgers and woodrats from the adjacent ancient woodland.

Woodland blocks with shrubby edges together with scrubby areas/naturally regenerated woodland. This vegetation will develop and spread, and will eventually help to link Collyweston Great Wood with The Assarts.

Hedges across the site would add structure and provide linear green links between woodland and scrubby areas.

Proposed east to west footpath along track including additional circular route within grassland and woodland/scrub areas.

Area previously retained to calcareous grassland and scrubby tree/shrub species to remain as existing.

Track and footpath to utilise the existing site entrance.

Gas pipeline retained along existing route.

Existing hedgerow around the edge of the site to be reinforced and improved by additional planting, including trees.

Proposed woodland blocks with shrubby edges. Refer to text beneath the Key for native species palette.

Individual ponds located within lower land at edge of site.

and restored to neutral/calcareous grassland (depending on soil characteristics) which would be managed to promote the establishment and development of wildflower species. This would benefit nature conservation and biodiversity.

Proposed hedgerow with trees along the boundary of the Property and the Retained Land.

- KEY**
- PROPOSED RESTORATION CONTOURS (At 1m intervals)
 - EXISTING FOOTPATH
 - PROPOSED FOOTPATH
 - PROPOSED AS A WIDE TRACK FOR SITE AFTER-USE MAINTENANCE
 - PROPOSED LOCALLY NATIVE BROADLEAFED WOODLAND
 - PROPOSED SCRAMBUNAL RESTORATION BROADLEAFED WOODLAND WITHIN GRASSLAND AREAS
 - PROPOSED INDIVIDUAL TREE OR SMALL TREE GROUP
 - EXISTING HEDGEROW REINFORCED WITH TREES/SHRUBS
 - PROPOSED HEDGEROW
 - PROPOSED HEDGEROW WITH TREES
 - EXISTING AGRICULTURAL LAND TO REMAIN AS UNDISTURBED STANDOFF, TO PROVIDE A NUMBER OF ECOLOGICAL FUNCTIONS
 - EXISTING PRAECOX NEUTRAL/CALCAREOUS GRASSLAND TO BE RETAINED
 - PROPOSED NEUTRAL/CALCAREOUS GRASSLAND (Depending on soil type)
 - EXISTING POND TO BE RETAINED
 - PROPOSED POND (with surrounding marginally vegetation where possible)
 - INDICATIVE CROSS SECTIONS (Refer to Drawing No. ENORTH4203)

- Proposed Tree and Shrub Planting Palette**
The proposed planting blocks across the restored site landscape would be planted with a selection of the following tree and shrub species which are characteristic of the surrounding landscape:
- Trees:**
 Ash (Culivar resistant to dieback) - *Fraxinus excelsior*
 Field Maple - *Acer campestre*
 Pedunculate Oak - *Quercus robur*
 Silver Birch - *Betula pendula*
 Small leaved lime - *Tilia cordata*
 Wild Service Tree - *Sorbus torminalis*
 Wych elm - *Ulmus glabra*
- Shrubs/Scrub/Climbers:**
 Black briony - *Tamus communis*
 Blackthorn - *Prunus spinosa*
 Bramble - *Rubus fruticosus*
 Buckthorn - *Rhamnus cathartica*
 Dewberry - *Rubus caesius*
 Dog rose - *Rosa canina*
 Dogwood - *Cornus sanguinea*
 Elder - *Sambucus nigra*
 Goat willow - *Salix caprea*
 Gorse - *Ulex europaeus*
 Grey willow - *Salix cinerea*
 Hawthorn - *Crataegus monogyna*
 Hazel - *Corylus avellana*
 Honeyuckle - *Lonicera periclymenum*
 Ivy - *Hedera helix*
 Spindle - *Euonymus europaea*
 Spurge laurel - *Daphne laureola*
 Traveller's joy - *Clematis vitalba*
 Wayfaring tree - *Viburnum lantana*
 White briony - *Bryonia dioica*
 Wild privet - *Ligustrum vulgare*



0 10 20 30 40 50 60 70 80 90 100 METRES
SCALE 1:2500

Client: Augean

Site: EAST NORTHANTS RESOURCE MANAGEMENT FACILITY
 Project: PROPOSED WESTERN EXTENSION
 Drawing No: THE PRELIMINARY PROPOSALS FOR THE RESTORATION SCHEME FOR THE PROPOSED DEVELOPMENT
 Date: SEPTEMBER 2020
 Scale: 1:2500 @ A1
 File Ref: 208_208_ENORTH4203

Drawing No: ENORTH4203
 Revision: 0

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