Ford energy from waste

FORD ENERGY RECOVERY FACILITY AND WASTE SORTING AND TRANSFER FACILITY, FORD CIRCULAR TECHNOLOGY PARK

PLANNING
SUPPORTING STATEMENT

MARCH 2021

TERENCE O'ROURKE

Viridor

GRUNDON

FORD ENERGY RECOVERY FACILITY AND WASTE SORTING AND TRANSFER FACILITY, FORD CIRCULAR TECHNOLOGY PARK

PLANNING SUPPORTING STATEMENT

FORD ENERGY FROM WASTE LTD, GRUNDON WASTE MANAGEMENT LTD, VIRIDOR ENERGY LTD

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Summary

Introduction

S1 Ford Energy from Waste Limited, Grundon Waste Management Limited and Viridor Energy Limited (the joint applicants) have submitted a full planning application to West Sussex County Council (WSCC) for the construction and operation of an Energy Recovery Facility (ERF) and Waste Sorting and Transfer Facility (WSTF) on land at Ford Circular Technology Park, Ford, West Sussex.

S2 The proposed facilities are located at a site allocated for strategic waste management use in an up-to-date waste local plan and will help to address a current shortfall in sustainable waste management capacity in their catchment. They will help to meet the objectives of waste planning policy including net zero waste to landfill, and national and regional self-sufficiency.

S3 The ERF will also recover energy from waste that would otherwise be sent to landfill or out of the area (or the country) for recovery elsewhere. It will make an important contribution to electricity generation capacity (28 MW for export to the national grid) and brings potential for combined heat and power export to nearby businesses and homes.

S4 A previous planning application for a similar proposal (ref WSCC/036/20) has been withdrawn by the applicants, and this supporting statement is presented in support of a revised proposal in a new planning application. The revised proposals take into account comments received on the withdrawn application.

S5 The full planning application comprises a comprehensive suite of drawings and documents, providing extensive information on a range of social, economic and environmental subjects to explain and support the proposals.

S6 This document provides a summary of the main elements of the planning submission.

Key elements of the proposals

S7 The proposed replacement Ford ERF and WSTF provide the following:

- A two stream Energy Recovery Facility (ERF) with a capacity to treat up to 275,000 tonnes per annum (tpa) of residual commercial and industrial (C&I) and municipal solid waste (MSW).
- A Waste Sorting and Transfer Facility designed to treat up to 20,000 tpa, mainly by bulking recyclables and transferring them on for further processing elsewhere, but including an element of sorting of some mixed loads with the residual fraction going into the ERF
- A steam turbine generator that will generate approximately 31 MW of electrical power, of which approximately 28 MW will be exported to the local electrical distribution network and the remainder used within the ERF and WSTF. It will also be “CHP ready”, with the ability to export heat in the form of steam or hot water when an off-site recipient(s) is/are identified.
- Buildings and structures ancillary to the ERF and WSTF include gatehouses, weighbridges, air cooled condensers, maintenance workshops, portacabins, heat stations, storage tanks, bin stores, staff and visitor parking and internal roads.

- Facilities in the ERF that will be available to host groups of visitors, with access by appointment.
- Bunds and landscape planting that will screen the lower part of the buildings and the activity on the site at ground level, whilst providing enhanced biodiversity and tying in with the adjacent natural landscape features.
- A design of a high quality that respects local character, distinctiveness and sense of place in materials, site layout and building form.

The planning application

S8 Extensive information has been submitted in accordance with national and local requirements, to support the application and to provide sufficient information for the waste planning authority and their consultees to fully understand the proposals and assess their implications.

S9 This includes reflecting the advice received in pre-application meetings with the waste planning authority including the content of a Regulation 25 request regarding the withdrawn application, and the comments of statutory consultees in response to the withdrawn application ref WSCC/036/20.

The site

S10 The proposed development will provide for the comprehensive redevelopment of the Ford site. Formerly part of an airfield, the site has a more recent history of industrial and waste management operations, with Grundon currently operating a waste transfer station (WTS) on the site.

S11 There is already an extant planning permission for an energy from waste facility at the site, using gasification technology and with a treatment capacity of about 140,000 tpa, alongside a materials recycling facility (MRF) that would treat 60,000 tpa. To date, these facilities have not been built. The existing WTS operating at the site normally treats about 20,000 to 25,000 tpa.

S12 The access to the site has recently been improved by provision of a new access road, allowing the closure of previous access arrangements. The new road provides a better access and a s106 legal agreement allows for up to 240 HGV movements in and out of the site per day, and 120 in and out per day on Saturdays. This access will be used by the new facilities now proposed, and they will operate within these agreed HGV movements.

S13 The site is allocated in Policy W10 in the up-to-date West Sussex Waste Local Plan (WLP) 2014 as a strategic site for waste management use. The allocation does not exclude any particular type of facilities or technology, which is a matter for the waste management industry and the market.

S14 The existing and allocated waste management use of the site is safeguarded in the WLP and the Arun Local Plan 2018, meaning that other types of development in the area should not prevent or prejudice the existing and future allocated waste management uses.

Planning policy and environmental considerations

S15 The proposals are consistent with planning policy at all levels. The ERF and WSTF will enable the sustainable treatment of mixed residual waste supporting the diversion from landfill. The proposals will deliver key objectives of national policy and strategy, as well as meeting needs identified in the WLP. They will assist with delivering the waste hierarchy and will contribute to self-sufficiency in terms of both energy recovery and sustainable waste management. They will recover value from residual waste.

S16 The WSTF and ERF will use an allocated strategic waste site to help West Sussex to meet its objectives of maintaining net self-sufficiency in managing the transfer, recycling and treatment of waste generated in the county; to have a network of facilities to minimise transportation of waste; and working towards zero net waste to landfill by 2031. The proposal is wholly compliant with the adopted waste local plan (WLP).

S17 The ERF also contributes to the national need to provide energy infrastructure to assist in meeting energy demand and to contribute to security of supply. The ERF will generate about 31 MW of electricity and export about 28 MW of this to the grid. It will also generate heat that can be exported to potential offsite heat customers once such are identified and secured. There will be solar photovoltaics panels on both the WSTF and the ERF buildings, so the proposals therefore also contribute to national commitments to increase energy generation from renewable and low carbon sources.

S18 The WLP also sets out in Policy W10 a series of development principles that are expected to be addressed in the development of the site. All of these principles have been addressed and satisfied. The design of the proposals has also had regard to consultation with WSCC officers and local community representatives and site neighbours. Environmental issues have also informed and influenced the design of the facilities.

S19 The planning application is accompanied by an Environmental Statement (ES) that reports the findings of the environmental impact assessment (EIA) of the proposals. The ES reports on the assessment of environmental effects under these headings:

- Air quality, odour and dust
- Carbon and greenhouse gas emissions
- Health
- Community and social effects
- Cultural heritage
- Ground conditions and the water environment
- Landscape and visual effects
- Natural heritage
- Noise and vibration
- Traffic and transport.

S20 The non–technical summary of the ES, which accompanies this submission, has outlined the findings of the EIA. The proposals have taken account of the findings of the technical assessments and responded positively to the matters that were identified.

S21 In summary, the proposed ERF and WSTF will lead to changes to the local environment, but a range of measures are built into the design or will be put in place to minimise potential adverse effects and to enhance beneficial effects. The adverse

effects remaining after mitigation are limited to some landscape and visual effects, and effects on the setting of two designated heritage assets.

S22 None of these effects are substantial, and it is considered that these effects are not unacceptable in the context of the strong policy support and the high quality of the proposals.

S23 The proposed mitigation measures and the residual effects of the proposals that are predicted to remain after mitigation are presented in more detail in chapter 16 of the ES.

Consultation

S24 The applicants have been involved in detailed pre-application discussions with officers of West Sussex Council. The withdrawn application for a similar proposal at the site was also subject to consultation at pre-application stage, including public consultation, as well as consultation by WSCC on the application itself. WSCC also issued a request for further information on the withdrawn scheme under Regulation 25 of the EIA regulations.

S25 The issues raised in pre-application discussions and consultation regarding the withdrawn scheme have been used to help shape the revised proposals.

S26 A Statement of Community Involvement (SCI) has been submitted with the planning application providing details of the pre-application public consultation that has been undertaken by the applicants.

S27 Many of the issues raised in feedback from the pre-application public consultation and WSCC's consultation on the withdrawn application are addressed in the mitigation built into the proposals, such as the compliance with emission standards, the design of the buildings and layout, and holding to the existing HGV traffic limits and routing plan. The applicants are committed to maintaining an ongoing dialogue with stakeholders and other interested parties as the application progresses through the planning process.

Conclusion

S28 The overall conclusion is that the proposed ERF and WSTF will:

- Make a significant contribution towards meeting national, regional and local waste policy by providing efficient and modern facilities for the recovery of energy from waste, recycling and waste transfer, helping to meet identified shortfalls at a site allocated for waste management use
- Provide appropriate treatment capacity required to manage the residual municipal, commercial and industrial waste arisings from within the waste catchment area, including West Sussex and neighbouring historic counties, whilst also supporting recycling targets
- Reduce the amount of waste that is disposed of to landfill (landfill being the least sustainable solution), contributing positively to achieving landfill diversion targets and zero waste to landfill
- Provide an integrated and efficient waste management solution, incorporating both ERF and WSTF at one location
- Helping to ensure that waste is dealt with in proximity to where it arises as part of a national, regional and local network of facilities

- Generate 31 MW of electrical power, of which approximately 28 MW would be exported to the national grid, (enough to power about 68,000 homes)
- Provide predictable, controllable energy, thereby contributing to diversity and security of supply
- Secure an opportunity to provide heat to local communities and businesses as part of a future district heating network, subject to contracts and off-site infrastructure being in place
- Meet the requirements of national, regional and local policies in relation to climate change and energy, both in terms of its own use of energy, its electricity generation, and its ability to provide combine heat and power (CHP)
- Broadly conform with development plan policy at all levels
- Use a site allocated for strategic waste management facilities, in accordance with planning policy
- Provide a comprehensive redevelopment of a brownfield site
- Provide a high-quality design that respects local character, to house safe and modern facilities
- Provide investment in the local area and jobs during construction and operation, with opportunities for training and apprenticeships, contributing to a diverse local economy
- Not give rise to any unacceptable environmental impacts.

S29 For these reasons, the planning application should be approved. This will secure essential capacity for waste management and energy recovery and provide the wider benefits summarised above.

1.0 INTRODUCTION

1.1 This Planning Supporting Statement (PSS) is part of a set of documents submitted in support of an application for planning permission by Ford Energy from Waste Limited, Grundon Waste Management Limited and Viridor Energy Limited (the applicants) to West Sussex County Council (WSCC) for the construction and operation of an Energy Recovery Facility (ERF) and Waste Sorting and Transfer Facility (WSTF) on land at Ford Circular Technology Park, Ford, West Sussex.

1.2 A previous planning application for a similar proposal (ref WSCC/036/20) has been withdrawn by the applicants, and this supporting statement is presented in support of a revised proposal in a new planning application. The revised proposals take into account comments received on the withdrawn application.

1.3 This document describes the reasons for the planning application, summarises the main elements of the proposed ERF and WSTF, and considers the proposed development in the context of the development plan and other relevant material considerations.

1.4 The document establishes the case for the proposals and provides West Sussex County Council (WSCC), as Waste Planning Authority (WPA) and Local Planning Authority (LPA), with a summary of the main information that it requires to determine the planning application.

1.5 Much of the detail required by WSCC is contained in the accompanying Environmental Statement (ES) and Design and Access Statement (DAS), or other supporting documents. Duplication of information between documents has been minimised. Consequently, this document should be read in conjunction with these supporting documents.

The applicants

1.6 The planning application is made jointly by Ford Energy from Waste Limited, Grundon Waste Management Limited, and Viridor Energy Limited, as joint applicants.

1.7 Ford Energy from Waste Limited (Ford EfW) is a joint venture between Grundon Waste Management Limited (Grundon), the UK's largest family-owned waste management company and Viridor Energy Limited (Viridor), one of the largest resource management companies in the UK.

1.8 This is the second time that Grundon and Viridor have worked together to develop a modern, state-of-the-art, energy recovery facility that diverts non-recyclable waste from local authorities and businesses away from landfill, the existing example being at Lakeside near Slough.

1.9 The two businesses have a combined experience of 155 years in waste management, recycling and environmental services.

1.10 Grundon owns and operates the Ford Circular Technology Park site, employing 24 staff. The site already benefits from planning permission for a thermal treatment facility with energy recovery, using gasification technology, to treat about 140,000 tonnes per annum (tpa) of residual waste. This was granted in 2015 by West Sussex County Council. The permission also allows waste recycling and transfer facilities treating about

60,000 tpa of residual waste. Currently the site is occupied by a waste transfer station that normally treats about 20,000 to 25,000 tpa of residual waste. Grundon also owns and operates a number of other waste and recycling facilities.

1.11 Viridor has operated a materials recycling facility (MRF) nearby, to the south of the site, for eleven years. This MRF already manages about 100,000 tonnes per annum of recyclable waste from homes across West Sussex through a contract with WSCC. Viridor employs 71 staff at the MRF and about 19 staff who run the West Sussex recyclables contract and logistics. Viridor also owns and operates nine ERFs and a number of other waste and recycling facilities across the UK.

1.12 Ford EfW Limited (a joint venture) will own and operate the proposed ERF. Grundon Waste Management is the sole owner and operator of the existing WTS facilities and will continue to be the sole owner and operator of the proposed WSTF.

Environmental impact assessment

1.13 The proposed development falls within Schedule 1 of the EIA Regulations and the application is accompanied by an Environmental Statement (ES). This provides detailed information about the proposals, the site and potential environmental effects.

1.14 The scope and content of the ES reflects a scoping opinion issued by WSCC regarding the previous withdrawn application WSCC/036/20 and is further informed by WSCCs Regulation 25 request on that application. The ES includes details of how the matters raised in the Regulation 25 request have been addressed in the new application.

1.15 Ford EfW Limited has appointed a team of specialist consultants to undertake this work. Many of the technical appendices to the ES comprise detailed reports from these specialist consultants. The ES identifies various mitigating measures to reduce environmental effects.

Environmental permit

1.16 Whilst planning permission will enable construction of the ERF and WSTF to proceed, they will require authorisation from the Environment Agency under the terms of the Environmental Permitting Regulations 2010 before they can be operated. This authorisation will set out environmental standards for the operation of each plant, mainly relating to control of emissions to the atmosphere.

1.17 An application for an environmental permit for the ERF has been submitted in February 2021.

1.18 Since the planning and environmental permit applications are submitted under separate regulations, the granting of planning permission is not dependent on the granting of the environmental permit, and vice versa.

The planning application

1.19 This is a full detailed planning application, and includes the plans, drawings and documents listed below. The content reflects the requirements of legislation, the national planning application validation checklist, and the West Sussex local validation list. It also reflects pre-application discussion with officers of the Waste Planning Authority.

- Completed application form including ownership/ agricultural holdings certificate and notice
- Planning application drawings, as set out in table 1.1 below
- Planning supporting statement
- Environmental statement (see detail below*)
- Design and access statement
- Combined heat and power report
- Arboricultural impact assessment
- Statement of community involvement
- Habitat regulation assessment (screening)
- Aerodrome safeguarding statement
- Landscape implementation and management plan
- Lighting plan
- Outline surface water drainage strategy.

**Environmental statement (ES), includes:*

Non-technical summary	
Chapter 1	*Introduction*
Chapter 2	*Site description*
Chapter 3	*Proposed development*
Chapter 4	*Alternatives*
Chapter 5	*Environmental issues and methodology*
Chapter 6	*Air quality, odour and dust*
Chapter 7	*Carbon and greenhouse gas emissions*
Chapter 8	*Health*
Chapter 9	*Community and social effects*
Chapter 10	*Cultural heritage*
Chapter 11	*Ground conditions and the water environment*
Chapter 12	*Landscape and visual effects*
Chapter 13	*Natural Heritage*
Chapter 14	*Noise and vibration*
Chapter 15	*Traffic and transport*
Chapter 16	*Summary tables*
Glossary	

Technical appendix A	*EIA Scoping*
Technical appendix B	*Competent experts involved in the preparation of the ES*
Technical appendix C	*Air quality, odour and dust*
Technical appendix D	*Carbon assessment*
Technical appendix E	*Human health risk assessment*

Technical appendix F	*Cultural heritage*
Technical appendix G	*Ground conditions and the water environment (including FRA and surface water drainage)*
Technical appendix H	*Landscape and visual impact assessment*
Technical appendix I	*Natural heritage*
Technical appendix J	*Noise and vibration*
Technical Appendix K	*Traffic and transport assessment*
Technical appendix L	*Outline construction environment management plan*

TABLE 1.1 List of drawings

Drawing ref:	**Title**	**Scale**
TOR-E010	Planning application boundary	1:10000@A3
264101/E03	Site location plan	1:2500@A3
Existing site		
PL100	Existing Site Plan	1:1000@A1
PL101	Existing Site Layout	1:500@A1
Proposed site layout		
PL105	Proposed Site Plan	1:1000@A1
PL106	Proposed Site Layout	1:500@A1
PL107	Proposed Masterplan	1:1000@A1
PL108	Fencing Layout	1:500@A1
Proposed floor/roof plans		
PL110	ERF + WSTF Lower Ground Floor Plan -1.50m	1:250@A0
PL111	ERF + WSTF Ground Floor Plan +0.00m	1:250@A0
PL112	ERF + WSTF Level 1 + 4.00m	1:250@A0
PL113	ERF + WSTF Level 2 + 8.00m	1:250@A0
PL114	ERF + WSTF Level 3 +10.00m	1:250@A0
PL115	ERF + WSTF Level 4 +15.00m	1:250@A0
PL116	ERF + WSTF Level 5 + 20.00m	1:250@A0
PL117	ERF + WSTF Roof Plan	1:250@A0
PL120	Ground Floor Admin Workshop +0.00m	1:100@A1
PL121	First Floor Admin Workshop +4.00m	1:100@A1
PL122	Second Floor Admin Workshop +8.00m	1:100@A1
PL123	Third Floor Admin Workshop +12.00m	1:100@A1
PL124	Fourth Floor Admin Workshop +16.00m	1:100@A1
PL125	Fifth Floor Admin Workshop +20.00m	1:100@A1
Sections		
PL200	Existing Site Sections	1:500@A1

PL201	Proposed Site Sections	1:500@A1

Main building elevations

PL300	ERF North Elevation	1:250@A1
PL301	ERF East Elevation	1:250@A1
PL302	ERF South Elevation	1:250@A1
PL303	ERF West Elevation	1:250@A1
PL304	ERF South Elevation ERF only	1:250@A1
PL305	WSTF North and East Elevations	1:250@A1
PL306	WSTF South and West Elevations	1:250@A1

Site elevations

PL310	North Site Elevation	1:500@A1
PL311	East Site Elevation	1:500@A1
PL312	South Site Elevation	1:500@A1
PL313	West Site Elevation	1:500@A1

Ancillary building/structure elevations

PL350	ACC Elevations	1:200@A1
PL351	ERF Weighbridge Gatehouse Plans and Elevations	1:100@A3
PL352	WSTF Office And Welfare Elevations	1:100@A3
PL353	ERF Fire Water Tank Elevations	1:100@A3
PL354	ERF Pump House Plan Elevations	1:100@A3
PL355	Diesel and Ammonia Tank Elevations	1:100@A1
PL356	Substation and Transformer Elevations	1:100@A1
PL357	Wash Area Elevations	1:200@A1
PL358	WSTF Fire Water Tank Elevations	1:100@A3
PL359	WSTF Pump House Plan Elevations	1:100@A3
PL360	Fuel Tank and Adblue Elevations	1:100@A3
PL361	Cycle Shelter Plan and Elevations	1:100@A3
PL362	Rainwater harvesting tank elevations	1:100@A3
PL363	Fencing Elevations	1:100@A3

Landscape design

2829-01-001 Rev D	Landscape Softworks General Arrangement	1:500@A1

Additional illustrative drawings (for information, not for approval)

IL500	Traffic Movement Drawing	1:500@A1
IL510	Vehicle Tracking Layout	1:500@A1

2.0 SITE AND SURROUNDINGS

Site description

2.1 The site, known as Ford Circular Technology Park, is currently owned by Grundon and is located at the former Ford Airfield in Arun District, West Sussex. It is an existing waste management site with planning permission for a materials recycling facility (MRF) with a capacity of 60,000 tonnes of waste per annum (tpa), and a residual waste treatment facility (RWTF), with a capacity of 140,000 tpa and using a gasification technology to recover energy from the residual waste inputs (application reference: WSCC/096/13/F).

2.2 The approved facilities have not yet been built, although the permission has been implemented and the site the site currently operates as a WTS that typically handles between 20,000 and 25,000 tpa).

2.3 Site access is via an access road from the public highway at Ford Road. This access road came into use in January 2020.

2.4 The application site covers an area of 6.72 hectares. It is partially used for the existing WTS operations and partially vacant. The existing WTS building is located towards the centre of the site and portacabins, parking, weighbridge and containers associated with this operation are situated to the west of the WTS. There are two vacant former hangar buildings towards the north of the site and a large area of hardstanding is situated towards the south and east of the site. The site is flat and approximately 6.7 m above ordnance datum (AOD).

2.5 The application site boundary also encompasses the access road leading from the south east corner of the site to Ford Road.

Surrounding land uses

2.6 The site is surrounded by flat agricultural land to all sides other than to the south and south west, where the adjacent land is in use for recreation (playing pitches). The Ford Wastewater Treatment Works (WWTW) operated by Southern Water, and a Materials Recycling Facility (MRF), operated by Viridor, lie beyond the playing pitches to the south, and the Flying Fortress indoor play area and the Arun Arena indoor football facilities lie beyond the pitches to the south west. Further west are the Ford Airfield Industrial Estate and residential properties in Rollaston Park on the edge of Yapton. To the east, beyond agricultural land, are residential properties in Rodney Crescent and an art studio (the Mill Studio). To the north is agricultural land and a small area of hardstanding owned by Grundon. Beyond the agricultural land are some residential and employment properties on Ford Lane.

2.7 The closest residential properties to the edge of the main site (not including the access road) are at Ford Lane approximately 210m to the north east; Rodney Crescent approximately 410m to the east, Nelson Row approximately 500m to the southeast; and Rollaston Park approximately 490m to the west. The wider locality includes the settlements of Yapton to the west, and Climping to the south.

2.8 Land to the south on the former Ford Airfield runways and adjacent land is used as a market or for car boot sales on Thursdays, Saturdays and Sundays.

2.9 The site is surrounded by a strategic housing allocation identified in both the adopted Arun District Local Plan (site SD8) and the Ford Neighbourhood Plan. There is currently an outline planning application lodged with Arun District Council for the development of 1500 new homes, a quantity of employment buildings, and associated community facilities and access arrangements on part of the site SD8 allocated area (application reference F/4/20/OUT) surrounding the ERF/WSTF application site.

2.10 There is also a current planning application with Arun District Council for reconfiguration of the Ford Airfield market arrangements (application reference ref. F/5/20/PL).

2.11 There are several public rights of way in the vicinity of the site to the north, including footpaths 366 and 366/1, which pass north-south to Ford Lane, and footpath 200/3, which leads from Ford along the site's north eastern edge and joins footpath 363, which leads to Yapton.

Planning and environmental designations

Planning

2.12 With the exception of the access road, the application site is identified as a strategic waste site in policy W10 of the West Sussex Waste Local Plan (April 2014), as shown in policy map 1 of that document, (Site north of Wastewater Treatment Works, Ford). This means that the site is acceptable, in principle, for the development of waste management facilities subject to consideration against other policies of the plan and development principles set out in the supporting text to the policy.

2.13 Policy map 2 (Arundel, the Six Villages and Surrounding Area) of the Arun Local Plan 2011-2031 (July 2018) identifies the main part of the site as a County Waste Local Plan strategic waste site allocation. The existing access road passes across a strategic housing allocation (policy SD8) that surrounds the application site. The entire application site is within the built-up area boundary as defined on policy map 2. Policy SD SP2 applies within this boundary, and states that development will be permitted subject to consideration against other policies of the local plan.

Environmental features and designations

2.14 There are no environmental or cultural heritage designations on site. There are some features of interest in the surrounding area, summarised below.

2.15 There is a scatter of listed buildings in Ford, Yapton, Climping and surrounding countryside, and Scheduled Monuments at Climping and Tortington.

2.16 There are no watercourses on or near the site; the nearest is a field drain approximately 440 m to the east, which drains into the River Arun around 900 m to the east of the site.

2.17 The site is in flood zone 1 and is largely at very low risk of surface water flooding, although there are small areas of low to medium risk in the west and north.

2.18 The site is not within a groundwater source protection zone or drinking water protected/safeguard area. It is underlain by bedrock that is classified as a principal aquifer of intermediate groundwater vulnerability. The superficial deposits beneath the site are classified as a secondary A aquifer.

2.19 The site is not covered by an air quality management area.

2.20 The site is not covered by any landscape designations. It is approximately 2.2 km from the southern edge of the South Downs National Park at its nearest point. The Yapton Church Lane and Main Road / Church Road conservation areas are approximately 1 km and 1.3 km away.

2.21 The site lies within the Chichester to Yapton Coastal Plain landscape character area, as identified in WSCC's (2003) West Sussex Landscape Character Assessment. Key characteristics of this area include a low-lying, flat, open landscape, a low density of hedgerows and hedgerow trees with occasional shelterbelts, large-scale arable farming and market gardening, long views to Arundel and the Downs, frequent urban fringe influences of horse paddocks, light industry and disused airfields, with busy minor and major roads, and light industry in the countryside at Ford and Tangmere.

2.22 The Arun Landscape Study (2006) identifies local landscape character areas in the district. The site lies within character area 29: North of Yapton Coastal Plain and the report notes that Ford Lane provides an urban influence on this character area, which comprises predominantly arable fields of varying size and enclosure, with parkland and recreation adjacent to Yapton. It also states that the large industrial buildings on the disused aerodrome, together with Ford prison, have an urbanising impact on the adjacent arable landscape.

2.23 The Duncton and Bignor Escarpment Special Area of Conservation (SAC), an international nature conservation designation, lies approximately 9.8 km to the north. There are two nationally designated nature conservation sites within 5 km of the site: Climping Beaches Site of Special Scientific Importance (SSSI), 2.8 km to the south east, and Arundel Park SSSI, 4.2 km to the north east. There are no locally designated nature conservation sites within 2 km of the site.

Planning history

2.24 The application site has been subject to previous development proposals. This is summarised below.

2.25 The planning history dates back to 1967 when planning permission was granted on land adjacent to the existing hangars at the site for a concrete batching plant and the storage and manufacture of pre-cast concrete and building materials. The hangars themselves have been the subject of several planning permissions for various industrial and commercial uses.

2.26 In 1987, a building for the production of building blocks was granted planning permission by Arun District Council with subsequent variations/additions to the building up until 1998. In 2003, planning permission was granted for the continued use of the block factory building allowing for production on a 24-hour, 7 day a week basis.

2.27 The aerated block factory was the subject of a long period of production until 2010 when the works were closed and decommissioned.

2.28 In September 2013, Arun District Council determined three applications for Certificates of Lawfulness for a Proposed Use or Operation in relation to the two hangar buildings and the aerated block factory building. These certificates confirmed the established use of the buildings for general industrial activities.

2.29 More recently, the key permissions are

- WSCC/096/13/F – Proposed development and operation of a waste treatment facility (approved 09/01/15 subject to s106 agreement controlling hours, volumes and routing of HGVs).
- WSCC/027/18/F – Proposed new access road and variation of existing S106 to vary permitted hours, volumes and routing of HGVs (approved 15/08/19).

2.30 These provide the permissions for the existing waste use at the site and for the approved (but not built) gasification plant, and for a new site access road that is now built and in use as the sole site access.

2.31 The associated s106 variation establishes that there can be 240 HGV movements a day (two way) via the new access.

Withdrawn application WSCC/036/20

2.32 The most recent planning history item at the site is a withdrawn application - WSCC/036/20 - for "Demolition of existing buildings and structures and construction and operation of an energy recovery facility and a waste sorting and transfer facility for treatment of municipal, commercial and industrial wastes, including ancillary buildings, structures, parking, hardstanding and landscape works". The application was submitted in July 2020 and withdrawn in April 2021.

3.0 CONSULTATION AND RESPONSE

3.1 As there has been a previous planning application for the joint applicants' substantially similar proposal at the site (withdrawn application WSCC/036/20) there has been a considerable amount of consultation with the Waste Planning Authority (WPA), statutory consultees and the local community regarding the proposal. This includes pre-application consultation on the withdrawn application, consultation by the WPA whilst the withdrawn application was live, and pre-application consultation on the revised proposals.

3.2 This chapter of the PSS provides an overview of the approach taken to the consultation, the feedback raised by consultees, and the applicants' response to key themes arising in the feedback.

3.3 The consultation on the submitted application and discussion with WSCC officers highlighted that the landscape and visual impact, together with the associated impact on the setting of designated heritage assets, was unlikely to be found acceptable.

3.4 These comments have been used to influence the redesign of the proposals for this new submission. The new submission has also taken the opportunity address the wider range of comments received on a number of issues.

Consultation on the withdrawn application

3.5 Prior to the submission of the withdrawn application, the joint applicants carried out a five-week community consultation programme, preceded by pre-application engagement with local stakeholders to introduce the project.

3.6 A range of tools were used, including:

- briefings and targeted communications with local political stakeholders, including parish councils and local ward councillors from both West Sussex County Council and Arun District Council
- a newsletter distributed to 2,809 local homes and businesses (every address within a 2km radius of the site
- advertisements in local media and posters on notice boards in the area
- a project website including an online feedback form (and a downloadable version of the form with a freepost address for posting)
- an exhibition event, which was cancelled due to Government advice on social distancing; however, the exhibition panels and associated information were published on the project website
- a dedicated telephone helpline and email (promoted on all consultation materials)
- a site visit to an operational energy recovery facility, for parish councils and local ward councillors.

3.7 In addition, following the close of the consultation period, an update was provided to a meeting of a Local Liaison Committee that was established as a link between the site operators and local community representatives.

3.8 A significant amount of feedback has also been received during the WPA's consultation on the application itself. This includes the detailed comments of statutory consultees,

the public, and the WPA. The latter includes a Regulation 25 request for further information in relation to the content of the Environmental Statement, and for other points of clarification.

Consultation prior to the new application

3.9 Prior to submitting the new application, the joint applicants have also carried out the following:

- pre-application discussion with officers of the WPA and their advisers on landscape, heritage and highways
- an update newsletter distributed to 2,809 local homes and businesses (every address within a 2km radius of the site) in March 2021 to provide information about the redesigned proposal and its submission
- a presentation to the Local Liaison Committee in March 2021 outlining the revised proposals
- an update to the project website regarding the latest position and the new submission.

3.10 Many of the issues raised in feedback from consultation are addressed in the mitigation built into the proposals, such as the compliance with emission standards, the design of the buildings and layout, and holding to the existing HGV traffic limits and routing plan.

3.11 The following section outlines how the consultation responses received by WSCC on the withdrawn application have been addressed in the revised proposals.

Response to the Regulation 25 request

3.12 The WPA issued an EIA Regulation 25 request for further information, in relation to the withdrawn application, in November 2020, together with a request for other information for clarification purposes. This request is based on the consultation responses received from statutory consultees as well as the WPA's own comments.

3.13 This new planning application has adopted these information requests as part of the required scope of the new application. The Regulation 25 request sought additional information across a range of topic areas:

- traffic and transport
- cultural heritage
- public rights of way
- trees
- landscape and visual (design, baseline, assessment of effects)
- visualisations
- air quality and emissions
- South Downs National Park

3.14 All of these topics and the detailed comments of the relevant statutory consultees in each case have been considered in informing the redesign of the proposals, where relevant, and the information requested has been provided where this is still relevant to the revised proposals. Further details are provided in the Environmental Statement (ES)

as to where the required information to address the information requests can be found in the ES and / or other application documentation.

3.15 WSCC's EIA Regulation 25 request letter, that includes the request for information for clarification purposes, is also included in appendix 1 of the ES.

Visual impact and related comments

3.16 The additional request for information for clarification purposes, that accompanies the Regulation 25 response from the WPA, states that there were significant concerns about the scale, bulk and height of the building(s) and stack. This was a matter also raised in discussion with the WPA and is reflected in the comments from consultees.

3.17 The WPA considered there to be a need for additional measures to reduce the visual impact, and strongly advised that further consideration is given to this matter, including consideration of the overall design, with a view to minimising the height of the buildings and further mitigation achievable through the choice of colour and materials palette and extended landscaping provision.

3.18 The WPA also asked for an explanation/demonstration that the buildings cannot be constructed below the existing ground level and alternative technology options which may enable a lower and/or smaller buildings to be designed.

3.19 The WPA refers to concerns, and in some cases disagreement, with the conclusions of the Environmental Statement and supporting technical appendices, particularly so in relation to the landscape and visual impact assessment and impacts on heritage.

3.20 The WPA asked for an explanation of why the plant has to be the size proposed, and whether a smaller capacity facility could not deliver any substantive reduction in the buildings' height and scale.

3.21 The WPA asked that opportunities for landscaping and tree planting that have been considered, both on and off-site, should be identified. The relationship with the Ford Strategic Housing Allocation site will be particularly critical, as well as the impact on the nearby heritage assets and public rights of way, particularly to the north-west, north and east of the site.

Applicants' response

3.22 In response to this, the applicants have revisited the design of the proposals. The revised design shows a number of significant changes to address the issues raised and was arrived at following a fundamental review of the proposals rather than incremental changes to the submitted scheme.

3.23 This includes reconsidering the selected technology to determine what changes can be made to reduce the size of the ERF, seeking to create more space on site for landscape works, revisiting the potential to sink some elements into the ground without affecting groundwater, as well as reconsideration of the role of the WSTF, the amount of HGV parking to be provided, and the building forms, colours and textures.

3.24 Some of the taller building elements are now to be constructed partly below existing ground level, to a limited degree, this limited extent dictated by the underlying geology

and potential for impacts on groundwater. Further details on the groundwater issue are provided in the ES at Chapter 11.

3.25 Extensive consultation with the potential technology providers has been an important part of the redesign process, to ensure the feasibility of the revised scheme.

3.26 The proposal is for an ERF that uses the specific technology proposed (moving grate incineration), based on market and operational considerations. It would not be appropriate to compare this with other technologies that would be less suitable for the market and/or that would not attract finance, or that would be more difficult to finance, as this would be unrealistic.

3.27 However, by splitting the waste stream across two lines, each with its own furnace and grate, boiler and flue, it has been possible to reduce the height of the ERF significantly. This is because the main factor governing the height of the ERF is the height of the boiler, and a twin line facility can treat the same capacity with two smaller boilers rather than a single larger boiler.

3.28 Whilst considerably more costly to construct and operate than the single line originally proposed, this provides a robust, bankable proposal. Combined with a degree of sinking into the ground, it allows the applicants to minimise the height and the size of buildings as far as possible, whilst allowing for efficient operation.

3.29 The changes have been successful in addressing the matters raised. Whilst recognising that the ERF building, by its nature, is a large structure, the resulting design changes have successfully reduced the visual impact in response to the concerns raised by the WPA and consultees.

3.30 It is notable that the tallest part of the main ERF building is now at 38.5 m above existing ground level, as compared with 51.2 m for the withdrawn proposal, a reduction of 12.7 m. Note that the stack height is determined by air dispersal modelling to meet the required emissions standards, and this has not changed at 85 m.

3.31 The size of the ERF and the WSTF have been reduced in this revised proposal without any reduction in the capacity, assisted by sinking the ERF building into the ground and moving to a two-line process.

3.32 Reducing the capacity of the ERF further would not deliver a further reduction in scale of the buildings. Indeed, there are examples of ERFs in the UK that have lower capacity but are taller. With two lines, each processing half of the proposed throughput (so about 137,500 tpa each) the size of the furnace, grate, boiler, and related equipment requires a building of the height proposed and this has been minimised as far as possible. A single line plant at 137,500 tpa would have a significantly reduced capacity but the same height. The ERF building would be slightly narrower with only one line, but this would have little difference on the perception of its overall size.

3.33 The proposed throughput is also sized to meet commercial considerations in relation to the market and financial viability. Only by reducing the capacity significantly could any significant further height reduction be made.[1] This would not be commercially viable,

[1] Note that an ERF with a capacity of only 180,000 tonnes per annum (tpa) was granted permission on appeal in February 2020 at the Former Wealden Works, Horsham (ref: APP/P3800/W/18/321896527) and this has a height of 36m and a 95m flue stack. This compares favourably with the Ford ERF, at a similar building height of 38.5m and

would not meet the need for waste management facilities in the area, and would be a poor use of a strategic waste site that can deliver a higher level of capacity. In terms of providing required waste management capacity, the proposal is robust, deliverable, and makes the best use of the site.

3.34 With the change to two lines and sinking some parts of the ERF below ground level, other key changes to the proposals include:

- a generally compact building form, minimising spare space and headroom around internal plant and equipment
- significantly reduced footprint of the WSTF, reduced space for HGV parking, and shared use of weighbridges and roads, to allow more space on site for landscape works to help screen the buildings
- reduction in laydown/maintenance space for the ERF and reduction in external storage space for both the ERF and WSTF
- a different arrangement and orientation of the buildings on site, and revised vehicle circulation, to maximise space available to the north, west and east with regard to views from nearby heritage assets and other receptors, including the future new residential areas associated with the strategic housing allocation
- increased landscape bunding and planting on the north, west, and east parts of the site to screen lower parts of the buildings in the most sensitive views
- revised colours and textures to assist in assimilating the proposals into the landscape in both near and distant views.

Design and access statement

3.35 The WPA asks that the Design and Access Statement (DAS) should demonstrate that the design has taken into account issues raised by consultees and the opportunities that have been considered to deliver a building that contributes positively to the character and quality of the area and promotes community acceptance of waste facilities through high quality design.

3.36 In response, the above measures in paragraphs 3.21 to 3.32 are further discussed in the DAS.

Landscape on northern boundary

3.37 The WPA asked for clarity on what, if any, landscaping provision is proposed to the northern boundary of the site and the teardrop shaped area to the northwest. This should identify what is proposed in relation to existing conifers, what if any screening at a lower level would be provided along this boundary, and how this would be maximised.

3.38 In response, the landscape screening along the northern boundary generally has been increased in the revised proposals, including both earth mounding and new planting, and this has been maximised. The existing conifers are off site, but the proposed bund and planting within the site provides another layer of screening in addition to these.

with lower 85 m stacks, and that has capacity for 275,000 tpa. Note also that at Horsham the bunker is 9m below ground and the boiler hall 3.65 m below ground.

Note that the teardrop shaped area to the northwest is not now included within the application site boundary, and there are no proposals for it.

Development principles

3.39 The WPA asks for an updated appraisal of how the development is seen to accord with the individual 'development principles' for the 'Site north of Wastewater Treatment Works, Ford', a requirement of the West Sussex Waste Local Plan (April 2014), Policy W10, where necessary, drawing evidence from the Environmental Statement.

3.40 In response, the appraisal is updated for this revised proposal and is included in this document in chapter 7 regarding compliance with development plan policy, with reference to evidence in the ES findings where appropriate.

Adjacent housing site

3.41 The WPA asks that the applicants and the developer of the adjacent site should seek to cooperate to produce proposals that work together and incorporate adequate mitigation across the two schemes. The provision of noise, odour and lighting contours and mapping of sun light/overshadowing on the Ford Strategic Housing Allocation site needs to be explicitly addressed, showing which, if any areas of the allocation would be affected or the use of which would be sterilised.

3.42 In response, the proposals include mitigation in relation to the presence of the Ford Strategic Housing Allocation, including a revised layout that seeks to maximise the distance between the process buildings on site and the site boundaries closest to the proposed housing area, schools and commercial buildings. This includes significant bunding, planting, and acoustic fencing.

3.43 It is noted that the developers of the adjacent site have also changed their proposed layout to locate houses further back from the site boundary closest to the waste site, with a wider buffer than previously. The combined effect of the two sets of changes is a betterment over the previous arrangements.

3.44 Information about noise, odour, lighting and sunlight/overshadowing is included with this planning application to address the effects on the adjacent housing proposals.

3.45 The effects of the ERF and WSTF on the current outline housing layout at time of writing (March 2021), with regard to noise, odour, lighting and overshadowing, are predicted to be insignificant.

3.46 Whilst the proposals for the ERF and WSTF have maximised the potential for significant screening in relation to the proposed new residential area, the applicants note that the proposed housing development provides little screening to the waste site boundary, and that more could be done by the addition of mounding and planting in the widened buffer.

3.47 The joint applicants for the ERF and WSTF are very willing to meet the housing site applicants to discuss how this can be addressed more effectively and have made this known.

Waste storage

3.48 The WPA has asked the applicants to confirm if there is a need for a minimum volume of residual waste to be stored on site to allow continuous generation of electricity and how is this managed.

3.49 In response, it is confirmed that the waste bunker is sized to provide for capacity equivalent to approximately five days of waste storage which provides flexibility around periods when there are no waste deliveries. This therefore allows for the continuous generation of electricity for up to five days with no deliveries.

Update on need

3.50 The WPA has asked that the applicants provide an updated assessment of need and the sources of waste to be managed, taking into account the latest West Sussex Joint Minerals Local Plan and Waste Local Plan: Monitoring Report 2018/19.

3.51 In response, it is confirmed that an update in relation to the latest West Sussex AMR 2018/19 information is provided at Chapter 5 of this document.

HGV impact on amenity

3.52 The WPA has asked for an assessment of the impacts on amenity for properties and highway footpath users along the route of HGVs in the light of the changes as a result of use of larger HGVs now proposed. This does not appear to have been addressed or is not apparent in the previous submitted noise and vibration assessment

3.53 In response, assessment of HGV noise is provided in the ES at chapter 14. Negligible effects are predicted for both construction and operational HGVs. it is noted that there is no accepted standard methodology for assessing HGV noise to footpath users and therefore it is not proposed to provide any additional assessment on this point.

Risk of major accidents

3.54 The WPA has asked for consideration of the risk of major accidents, which has been raised as an issue by a number of consultees and third parties.

3.55 In response, an Environmental Risk Assessment has been prepared for the environmental permit application. An extract/summary from this document is included as an appendix to the ES.

Other consultation responses

3.56 The WPA has asked that, in addition to specific consultation responses referred to in their Regulation 25 request and associated request for other clarification, the applicants are encouraged to review all consultation responses and third-party representations received in respect of the planning application and provide responses to the key issues raised.

3.57 In response, it is confirmed that the joint applicants have reviewed all of the comments made and have prepared a summary of key themes and responses to them. Many of them relate to matters addressed above.

3.58 A summary of the key issues is provided, with responses, in an appendix to this document (Appendix 1).

Conclusion

3.59 The proposals in the planning application have been subject to a considerable level of consultation with the planning authority, statutory consultees and the local community. This has happened over the course of pre-application consultation by the applicants on the withdrawn application and consultation by the planning authority on the application itself, as well as, most recently, updates to the local community regarding the submission of the revised proposals.

3.60 The applicants have taken account of the matters raised in this consultation in preparing the revised proposals, that include some significant changes to the design to take account of the views expressed.

3.61 The proposals in this application therefore represent the outcome of a thorough and wide-ranging consideration of the comments of statutory consultees and the local community.

4.0 DESCRIPTION OF THE DEVELOPMENT

4.1 The full description of development given on the planning application form is:

> *Demolition of existing buildings and structures and construction and operation of an energy recovery facility and a waste sorting and transfer facility for treatment of municipal, commercial and industrial wastes, including ancillary buildings, structures, parking, hardstanding, and landscape works.*

4.2 This is the same description as for the withdrawn application WSCC/036/20.

Differences to the withdrawn proposals

4.3 In discussion with WSCC officers following the consultation on application WSCC/036/20, the applicants were advised that the landscape and visual impact of the scheme, and associated impact on the setting of designated heritage assets, was unlikely to be acceptable. This conclusion arose from consideration of the comments of statutory consultees as well as WSCC's own assessment. The key issues in this respect were the potential impacts arising from the height, massing and design of the main ERF building.

4.4 The applicants undertook a redesign process and analysis of related technical issues to address the comments raised. A revised scheme with a reduction in height and changed layout with more landscape screening was discussed with WSCC officers at a series of meetings in November and December 2020, and January 2021. In November 2020 WSCC also issued a Regulation 25 request for further information (under the EIA Regulations) and a request for other non-EIA related clarifications.

4.5 The proposals were revised with reference to the content of the Regulation 25 request and subsequent discussions with WSCC on the revised layout and design. The redesign resulted in significantly lower buildings and a significantly reduced area for the WSTF element, amongst other changes, as reported in chapter 3 of this document regarding the consultation process.

4.6 The revised layout provides a different arrangement and orientation of the buildings, that, along with the reduced footprint of the WSTF, allows increased landscape bunding and planting on the north, west, and east parts of the site to help screen the buildings in the most sensitive views. The building form has been made as compact as possible and colour and texture has been revisited to ensure that the visible parts of the buildings are as unobtrusive as possible. A key element of the redesign has been the inclusion of two process lines rather than one, which results in a smaller boiler height for each line, allowing a lower boiler hall than for the original single line proposal.

4.7 In seeking to reduce the height of the proposals the applicants also explored lowering the buildings into the ground, an approach previously avoided in the withdrawn application because of the potential impact on groundwater, but now revisited in seeking the best design solution to address the landscape, visual and heritage concerns.

4.8 The technical studies confirmed that there would be significant impacts on groundwater that place a limit on how far the buildings can be lowered into the ground, and a balance has been struck in the final design. This design includes a limited amount of sinking into the ground that avoids the potential for adverse groundwater issues but

allows the taller elements of the building such as the boiler hall to be further reduced in height above ground level.

4.9 It was clear that, whilst the proposal itself had not changed in terms of the description of development and the site, a substantial submission of revised drawings and associated technical work would be necessary. The applicants therefore decided to withdraw the application and to submit a revised proposal as a new planning application.

4.10 The new application is for development of the same character and the same description of development, and on the same site, as application reference WSCC/036/20.

4.11 The main changes from the withdrawn application are:

- a different arrangement and orientation of the buildings on site
- significantly reduced footprint of the WSTF
- reduced space for HGV parking
- revised vehicle circulation
- increased landscape bunding and planting on the north, west, and east parts of the site
- a more compact building form
- reduced building height for the ERF
- two process lines at the ERF rather than one, expressed externally as two flues
- revised colour and texture
- parts of the ERF are below ground level.

The proposals in this planning application

4.12 The following provides a summary of the key elements of the current proposals. A more extensive description is included in chapter 3 of the ES accompanying the planning application.

4.13 The proposed Ford ERF and WSTF will provide a high efficiency modern waste management facility with a combined annual capacity of 295,000 tonnes. The ERF (capacity 275,000 tonnes per annum) will process residual commercial and industrial (C&I) waste and municipal solid waste (MSW), mainly from West Sussex but also from the historic counties of Hampshire, Surrey, and East Sussex, including Portsmouth, Southampton, and Brighton and Hove. The WSTF (capacity 20,000 tonnes per annum) will process a range of plastics, metals, wood, paper / cardboard, inert construction waste, soils, and similar wastes from households and businesses in the same catchment.

4.14 The ERF is designed to meet R1 'recovery' status as set out in the Waste Framework Directive. This is a design standard that ensures that the ERF can be classed as a recovery facility in terms of the waste hierarchy that sets energy recovery as preferable to disposal of waste. The ERF is expected to generate approximately 31 MW of electrical power, of which approximately 28 MW will be exported to the local electrical distribution network (equivalent of powering approximately 68,250 homes) and the remainder will be used within the ERF.

4.15 The ERF will also be able to export up to 10 MW_{th} of heat in the form of steam or hot water, and the applicants have identified potential heat customers, subject to final assessment and agreeing commercial terms (see the CHP report submitted with the application).

4.16 Solar panels on the roofs of both buildings will generate up to 745 MWh per annum of electricity that will contribute to the daily power needs on site.

4.17 The ERF will have two streams (each stream having its own waste hopper, combustion chamber, turbine, and stack) in a building located centrally on the application site. The ERF building will also include visitor, administrative and welfare facilities.

4.18 The waste sorting and transfer facility (WSTF) will be located to the south western corner of the application site.

4.19 There will be other buildings and structures that are ancillary to the ERF and WSTF – these include: a gatehouse, weighbridges, air cooled condensers, electricity transformer, pump houses, storage tanks (diesel, fire water), staff and visitor parking, and internal roads.

4.20 Drawing PL106 shows the site layout and the location of the various buildings and structures. Drawings PL310 to PL313 show the proposed site elevations. Individual building elevations and floorplans are also provided on the range of submitted drawings.

4.21 The L-shaped ERF building will be 128.8 m long and 124 m wide (including roof overhang), with the highest point above the boiler hall at 38.5 m above ground level. The 85m twin flues will be situated at the southern end of the building. The majority of the ERF buildings and structures will be positioned 1.5m below ground level, with the waste bunker extending to 3 m below ground (both figures being finished floor levels).

4.22 The WSTF building will be 60 m long and 43.8 m wide, and up to 16.1m in height relative to ground level.

4.23 The ERF, WSTF and other buildings / structures on site will be constructed using the same or similar palette of materials and colours (where appropriate) to provide a harmonised appearance.

4.24 A detailed description of the design and materials for all buildings is provided in the Design and Access Statement. This document also provides illustrative views of the proposed buildings to assist in understanding what the buildings will look like when they are in place. Full details of all of the buildings are shown on the application drawings.

4.25 Drawing 2829-01-001 shows the proposed landscape planting and earth mounding along the boundaries of the site. This will help to screen the lower part of the buildings and the activity and circulation of vehicles on the site at ground level, as well as providing biodiversity resources.

4.26 An indicative surface water drainage strategy is provided in the Flood Risk Assessment (see ES Technical Appendix G). The proposed surface water network includes four below ground cellular storage tanks. Surface water will then flow through a light liquid separator and be discharged at greenfield runoff rates into the unnamed land drain to the east of the site, using an existing outfall.

The ERF building

4.27 The ERF building will house twin lines of plant process equipment including:

- waste reception system consisting of access ramp, waste reception hall and storage bunker
- two waste feed cranes and grabs, and furnace feed hoppers
- two grates, furnaces / combustion chambers, auxiliary burners
- two boilers
- a steam turbine
- two flue gas treatment plants
- two flue stacks (85 metres high)
- two residue handling systems
- a feed water treatment system
- heat station
- diesel generator
- switch room
- control and monitoring systems
- workshops
- mechanical stores
- office, welfare and education facilities.

4.28 The south facing slope of the roof will also be fitted with approximately 3,360m². of solar panels.

4.29 The heat station will, in the future, enclose plant that transfers heat generated by the combustion process off-site to heat users. The site layout has been designed to enable combined heat and power (CHP) pipework to be installed relatively easily beneath site roads once customers are identified.

4.30 The administration, welfare and visitor provision will include a reception area, general office / meeting room space, welfare facilities and a visitor facility. The visitor facility will include a multi-functional meeting / seminar room. The visitor facility will provide the opportunity to promote the importance of sustainable waste management to the local community.

4.31 The air-cooled condensers, which return low-pressure steam from the turbine to water, will be situated to the south west of the turbine hall outside the main ERF building. The condensers will be situated on an elevated platform to allow air flow around them. The top of the condensers will be at 23.50m above ground level.

4.32 Further details of the process are provided in chapter 3 of the ES.

The WSTF building

4.33 The WSTF incorporates separate bays for the sorting and bulking of different waste types and a baled recyclates store.

4.34 The flat / low pitched roof to the WSTF will be fitted with approximately 1140 m^2 of PV solar panels.

4.35 Adjacent to the WSTF building will be a two storey, prefabricated modular office and welfare building 10 m long and 3 m wide and 6.6 m high, a quarantine bay, mobile plant parking bays and a small car park (five spaces). To the west of the WSTF building is a vehicle wash area and vehicle refuelling area.

Gatehouse and weighbridges

4.36 There will be a single storey gatehouse at the entrance to the site, serving both the ERF and the WSTF. The gatehouse will be 16.6 m long, 3.2 m wide and 4.25 m high.

4.37 There will be five weighbridges, three for incoming vehicles and two for exiting vehicles. All vehicles carrying waste, residues or process materials will be required to weigh in and out of the facility.

4.38 The layout of the site allows for bypassing all the weighbridges by staff and visitors.

Ancillary development

Parking

4.39 Parking for 60 cars, including four spaces for mobility impaired users, is provided to the north east of the main ERF building. The hatched area to the west of the ERF has been designated as a minibus / coach drop off / temporary parking area (there is space for up to two minibuses or one coach) to cater for larger groups of visitors attending the site. All visits will be by prior appointment. Thirty-two secure spaces for bicycles and up to seven motorcycle spaces will also be provided to the north of the ERF building for use by staff and visitors.

4.40 A further 5 car parking spaces, including one space for mobility impaired users, will be provided to the south east of the WSTF, for the use of WSTF staff.

4.41 All of the staff, visitor and maintenance contractor car parking spaces will be provided with electric charging points to encourage the uptake of electric vehicles.

Maintenance shutdown / 'outage' area

4.42 A workshop building is located to the north west of the site. The building, 50 m long, 16.1 m wide and 9.2 m high, will include a full complement of tools and spares required for the usual operation and maintenance of the ERF plant. During periods of shutdown of the ERF, the contractor laydown area towards the south east of the air-cooled condensers will provide flexible space for the equipment and facilities that are needed during these temporary periods.

Electrical distribution

4.43 Under normal operating conditions, the power requirements of the ERF and the WSTF will be supplied by the steam turbine generator and PV solar panels with the balance exported to the grid. The ERF will operate a separate electrical distribution system for internal power distribution and export power via a single grid connection. The ERF will

export power to the grid under the conditions imposed by an export agreement established with a local network operator.

4.44 The local network distribution operator (Scottish and Southern Electricity (SSE)) will be responsible for connecting the ERF to the national grid. It will be responsible for obtaining any permissions or permits required to develop the necessary connection infrastructure.

4.45 It has been assumed that the 12.1 km connection route indicated by SSE in correspondence with Ford EfW Limited in April 2020 is likely to be the route selected for the cable connection to the Crockerhill sub-station.

4.46 The steam turbine generator will generate electrical power at 11 kV and will be connected to the facility's 11 kV power distribution system and then to the 33 kV SSE network through a step-up transformer situated to the south east of the site.

Telecommunications and data systems

4.47 The telecommunication systems to be provided at the site will comprise telephone connections, broadband internet connections, CCTV and signal cables for the fire alarm. The cables will run from the proposed development site, along the existing access road and then connect to the existing cable network in Ford Road.

Surface water

4.48 Given the location of the site within a high vulnerability zone of a principal aquifer and potentially high groundwater levels, sustainable urban drainage systems (SUDS) are not a practical option for dealing with surface water runoff. It is therefore proposed that surface water runoff is discharged into cellular storage tanks prior to discharging at greenfield runoff rates into a land drain to the east of the site.

4.49 The proposed attenuation system will provide 2,400 m3 of attenuation storage volume, which has been designed to contain the 1-in-30 year critical storm event, including 40% allowance for climate change without causing any flooding to the site. Any exceedance flows beyond the 1-in-30 year critical storm event will be managed on site by allowing shallow ponding (i.e. approximately 150 mm average depth) in particular external hardstanding areas. This will ensure there is no increase in flood risk downstream as a result of the proposed development.

4.50 Surface water from the existing access road will be collected using a mixture of kerbed drainage, gullies, carrier pipes and a soakaway / infiltration tank.

4.51 A more detailed description of the surface water drainage arrangements for the site and flood risk is included within the Flood Risk Assessment which is submitted as part of the application.

Foul water

4.52 Under normal operations there will not be any liquid process emissions from the ERF. In the event that excess process effluents are generated, such as during periods of maintenance, these will be collected and discharged to sewer in accordance with a trade effluent consent which will be secured from Southern Water.

4.53 Subject to formal approval from Southern Water, it is proposed to discharge all foul water from the proposed development, which will principally be from domestic sources, to Southern Water's wastewater treatment works to the south of the site.

Potable / mains water

4.54 The proposed ERF and WSTF will connect to existing pipes in Ford Road, via the existing access road. The incoming water supply will be separated into industrial water, fire-fighting water and potable water.

4.55 The ERF requires water for the steam cycle / boiler, the flue gas treatment plant and the incinerator bottom ash quench. Water for the boilers needs to be demineralised and so the facility will be equipped with a demineralised water treatment plant system.

4.56 Both the ERF and the WSTF will have fire water tanks.

Access and circulation

4.57 All vehicles will access the proposed ERF and WSTF from Ford Road, using the existing site access road. On site circulation is shown in figure 3.9 of the ES.

Security

4.58 A 2.4 m high paladin fence will extend around the outer perimeter on its west, north, and part of the east boundaries. A 3 m high timber acoustic fence will provide boundary security along the southern perimeter, with a 5 m high stretch of timber acoustic fence providing perimeter security from the bottom of the north eastern bund to the south east corner of the site.

4.59 Supervised CCTV will monitor the site entrance and boundary, and staff in the ERF gatehouse will monitor people and vehicles entering the site.

Lighting

4.60 The lighting design will provide safe working conditions in all areas of the development area, whilst minimising light pollution and the visual impact on the local environment. A mixture of wall-mounted and column mounted luminaires will be used. The access road from Ford Road is already illuminated by column mounted luminaires. The luminaires used on site will not project light above the horizontal plane and will be rated to minimise glare.

Climate change adaptation and greenhouse gas emissions

4.61 The ERF includes the following measures to reduce greenhouse gas emissions and minimise vulnerability to climate change:

- The facility will generate energy through the combustion of residual waste, displacing this from landfill and providing a relatively low carbon energy source. The generation of low carbon energy can assist in the reduction of greenhouse gas emissions by displacing more carbon-intensive energy sources such as coal and natural gas
- The proposed ERF will generate 31 MW of electricity, 28 MW of which will be exported to the local grid

- The facility will have the capability to export heat in the form of steam or hot water, when suitable off-site users are secured in the future
- The southerly facing flat, low pitch roofs of the ERF and WSTF buildings will be fitted with 4500 m^2 of photovoltaic panels. Such an array is expected to generate between 663 - 745 MWh per annum and will therefore make a further contribution to renewable energy generation at the site
- All staff, visitor and maintenance contractor car parking spaces will be provided with electric charging points to encourage the use of electric vehicles.
- The facilities will use LED lighting, which will reduce electricity use
- Rainwater will be harvested from the roof area to supply site activities / processes where appropriate. In addition, water-efficient fittings will be specified for the staff facilities
- Bottom ash from the ERF will be sent offsite and used to make aggregates suitable for construction and road projects, while the flue gas treatment residues (FGT residues) will be recycled into carbon negative aggregate/blocks
- It is proposed that the carbon negative blocks will be used where possible in the construction of the ERF and WSTF, which will reduce the use of primary resources in the development.
- The application site is in flood zone 1 and is largely at very low risk of surface water flooding, although there are small areas of low to medium risk in the west and north of the site
- The surface water drainage strategy incorporates a 40% allowance for climate change and four below ground attenuation crates that will store surface water prior to discharge at greenfield run off rates
- The facilities will be built in accordance with the requirements of the prevailing Building Regulations in relation to target emission rates of CO_2 and target fabric energy efficiency rates.

The basic ERF process

4.62 Incoming waste will be delivered to the ERF in bulk transfer vehicles and weighed on arrival at the site before proceeding up a short ramp to the elevated tipping hall.

4.63 Once the waste has been tipped into the waste bunker, the delivery vehicles will exit the ERF via the same ramp and have their weight recorded again at the exit weighbridge prior to leaving the site.

4.64 The storage capacity of the bunker will be equivalent to approximately five days of waste storage which provides flexibility around periods when there are no waste deliveries.

4.65 Two crane grabs will transfer the waste from the bunker into feed hoppers to feed the combustion chambers. The combustion chambers will use reciprocating grate systems to agitate the fuel beds and promote good burnout of the waste, ensuring a uniform heat release.

4.66 The combustion control system will regulate the combustion conditions, and thereby minimise the levels of pollutants and particulates in the flue gas before flue gas treatment (FGT).

4.67 Bottom ash is the burnt-out residue from the combustion process. The bottom ash will fall from the end of the grates into water quenches that cool the hot ash such that it does not represent a fire or dust risk. It is then transferred via conveyors to a storage area. Ferrous metals and oversized items will be removed.

4.68 Further detail of the process is available in chapter 3 of the ES.

Energy recovery

4.69 The ERF will be equipped with a single steam turbine generator. Heat will be recovered from the flue gases by means of a water tube boiler integral with the furnace. The heat will be transferred through a series of heat exchangers. Superheated steam will then be supplied to a high efficiency turbine which, through a connecting shaft, will turn a generator to produce electricity.

4.70 Up to 10 MWth of heat from the ERF facility will be available for export to existing and potential local heat users. Depending on the requirements of any heat users, either high pressure steam or hot water could be supplied.

Flue gas treatment

4.71 Flue gases generated from the combustion process will be cleaned before being released into the atmosphere to the appropriate standards required to protect human health and the environment.

4.72 The residue from the cleaning processes, known as FGT residue, will be collected in fully enclosed hoppers and stored in a sealed silo.

4.73 Following cleaning, the treated flue gas will be discharged to atmosphere via the flues. The flue gases released will be compliant with the standards required to protect human health and the environment and will meet all requirements set by current, stringent legislation, and limits set by the Environmental Permit.

Residues and ashes

4.74 The process will result in two separate ash streams: IBA and FGT residues. IBA (bottom ash) is a recyclable non-hazardous waste. The IBA will be taken off site and used to make sustainable aggregates suitable for construction projects and road construction. 100% of the bottom ash from the proposed facility will be used for secondary aggregate production.

4.75 The FGT residue will be sent off site and used to create a lightweight, high quality, sustainable carbon-negative aggregate which is used to make building blocks as well as in other construction material products. The FGT residue will be removed from site in enclosed tankers.

4.76 Oversize and ferrous material will also be separated from the IBA streams on site and collected separately. It may be possible to achieve some degree of metal recovery and / or use as aggregate from the oversize material through off-site processing. The ferrous material will be recycled off-site.

Emissions monitoring

4.77 Emissions from the flues will be continuously monitored using a continuous emission monitoring system (CEMS) and reported in accordance with the Environment Agency's (EA) requirements for the operation of the facility.

4.78 In addition, periodic monitoring (at a frequency that will be agreed with the EA) will be undertaken of pollutants which are not able to be monitored continuously, such as metals and dioxins and furans.

Raw material handling and storage

4.79 In addition to the residual waste that will be tipped into the ERF bunker, the following raw materials will be required for ERF process operations:

- Hydrated lime
- Powdered activated carbon (PAC)
- Ammonia
- Water treatment chemicals
- Fuel oil.

4.80 Various maintenance materials will be stored and used in small quantities.

4.81 All liquid chemicals stored on site will be kept in bunded controlled areas with a volume of 110% of stored capacity.

The WSTF

4.82 The WSTF incorporates separate bays for the sorting and bulking of different waste types. The WSTF will take MSW and C&I wastes collected from local householders, businesses and industries.

4.83 Vehicles arriving at the WSTF with waste will be weighed and then designated a tipping bay depending on the source and content of each load. Once the content of each load has been deposited within a bay, vehicles will leave the site via the weighbridge to the north of the weighbridge office. Site operatives, where possible and if required, will then manually sort through the waste in each bay to segregate different recyclable waste types and leaving only non-recyclable residual waste.

4.84 The different recyclable wastes recovered from each load will then be transferred into different bays for bulking and onward transfer to a suitable offsite recycling facility for further treatment.

4.85 The residual wastes (i.e. those items of waste that cannot be further re-used or recycled) will be bulked up and transferred to the adjacent ERF. The WSTF will have an annual throughput of up to 20,000 tpa. It is anticipated that approximately one third of the waste processed at the WSTF will be transferred to the ERF as non-recyclable waste.

4.86 To the south east of the WSTF a bay will be designated for unacceptable wastes to be quarantined, pending immediate onward transfer if required. This will include an area to isolate hot loads at risk of catching fire or already on fire.

Operating hours

4.87 The ERF will operate 24 hours a day, seven days a week, except during periods of annual maintenance. The majority of deliveries and collections will be received / made between 06:00 and 20:00 hours Mondays to Fridays and 08:00 and 18:00 hours on Saturdays. However, some deliveries and / or collections will take place outside of these hours to take account of traffic conditions, to prevent the build-up of waste at the WSTF and following holiday periods or for other operational reasons.

4.88 The WSTF will also operate from 06:00 to 20:00 Mondays to Fridays, 08:00 to 18:00 on Saturdays.

Staff

4.89 The ERF will be operated and managed by qualified and trained personnel. A total of 54 full-time staff will be employed. There will be a high degree of automation in the facility, with all processes controlled from a central control room. The weighbridges will also be fully automated with, vehicle recognition systems and traffic barrier control systems.

4.90 It is assumed that the ERF will operate with a total of five shifts (with three operational shifts per day, two maintenance shifts per day and all administrative staff working during the day shift). Each day shift team will include 5 operational staff and 8 maintenance staff, and each night shift will include a total of 5 staff, who will be led by experienced engineers who will have the responsibility for managing the operations outside of office hours.

4.91 The existing WTS operations currently employ a total of 24 full time staff. The proposed WSTF will retain four of these jobs on site, with 20 (associated with HGV drivers) being relocated.

4.92 As well as those to be directly employed at the proposed site, there will also be additional off-site jobs that are supported by the proposals, for example in head or regional offices.

Vehicle movements and trip distribution

4.93 The average daily operational HGV movements are forecast to be 109 each way (i.e. 218 HGV movements in total).

4.94 It is anticipated that the trips associated with movement of waste to the site will follow a daily distribution with a peak in late morning and early afternoon, with minimal trips to site during the traditional peak hours on the main highway.

4.95 The ERF will operate 24 hours per day, with the shift changeover taking place outside of the peak traffic flow hours on the public highway. WSTF staff will work on a single shift basis, with start and finish times varying depending on the unique nature of each individual role. Overall staff traffic generation will be minimal.

4.96 Due to the nature of the facilities, it is anticipated that most of the visitor trips will be made outside the conventional peak hours and amount to a few each month.

4.97 All vehicles will use the existing access road, Ford Road south and the A259. There is an existing s106 (deed of variation) dated 13 August 2019 that addresses the routing of

HGVs to and from the site, in the context of the extant planning permission. This agreement also addresses limits on the number of HGVs leaving and entering the site and the hours within which they can do this; the recording of HGVs and reporting to WSCC; and the ability to request alternative routing by prior approval in some circumstances.

4.98 The applicants do not propose any changes to the agreed HGV movements or routing arrangements. The applicants are willing to enter into a new s106 agreement to secure the HGV routing and consider that the number and timing of HGV movements can be addressed in planning conditions.

4.99 The draft heads of terms for the routing agreement are outlined in Appendix 4 to this document. Drafting of such an agreement will be addressed in the period after submission of the application and prior to a decision on it.

Visitor facilities

4.100 Facilities will be available for visits by local interested parties during the normal day shift opening hours, by prior arrangement. Grundon and Viridor have a history of supporting education and research projects. Audio-visual presentations might include the operation of the ERF and the WSTF, and wider environmental awareness topics. The potential for selectable live CCTV feeds from parts of the facility showing activities taking place in real time may also be made available. All materials will be managed to promote awareness and education about the ERF and WSTF.

Maintenance

4.101 The ERF and WSTF will operate a detailed maintenance programme to ensure systems and equipment operate safely, effectively and reliably.

Abnormal operating conditions

4.102 The ERF will be designed to avoid the need for regular shutdowns but if any incident is likely to endanger personnel, or there is a risk of serious damage to the facilities, or a complete power failure, an emergency shutdown will be instigated.

4.103 The ERF and WSTF will be equipped with comprehensive fire protection and detection systems. An underground fire main will encircle both the ERF and WSTF. An above ground water tank will also be installed.

Odour and dust controls

4.104 The buildings and operational practices are designed to ensure that emissions of odour and dust are minimised. This includes use of negative pressure, odour control and dust suppression systems, processes enclosed within buildings, and door closures when there are no waste deliveries.

4.105 There will be a first in–first out approach for waste delivered to the WSTF and waste will not be allowed to deteriorate on site. General waste that cannot be re-used / recycled will be sent to the ERF for treatment within 48 hours. Food waste will be stored at the WSTF for up to 1 week prior to transfer to a suitably licensed waste management facility for processing.

4.106 The site access road will be properly maintained, and regular checks will be carried out on road conditions. Cleaning will be carried out as necessary. Vehicles will also be checked to ensure that they are clear of loose waste and that their loads are secure.

4.107 The operation of the ERF will be regulated by the Environment Agency under the conditions of an Environmental Permit. This will include conditions to control dust and odour emissions from the site.

Noise controls

4.108 The majority of equipment with potential to create noise will be inside the buildings. Very high levels of acoustic insulation will be installed around the turbines and generator sets. Other potentially noisy equipment such as fans and motors will also be insulated. The air-cooled condensers (ACCs) are located to take advantage of the barrier effects of the buildings in relation to noise sensitive receptors located (or potentially located) to the north and west of the site.

4.109 On-site circulation has been designed to minimise the need for vehicles to reverse and use of reversing alarms.

4.110 Bunds and acoustic fences at the site boundaries will also help to reduce noise. Noise level checks will be carried out on a regular basis in operational areas where high noise levels may be present. Early warning of increasing noise levels will result in a noise reduction or mitigation programme.

Pest control

4.111 The bunker will be enclosed and under cover thereby reducing access to waste for birds and the tipping halls have been designed so as to eliminate roosting points for birds.

4.112 Routine cleaning and good housekeeping at both the ERF and the WSTF will reduce the potential for the facilities to provide an attractive environment for vermin. In the event that pests are identified, an action plan will be developed to eliminate or reduce the potential for nuisance to neighbours.

4.113 The ERF tipping hall and the WSTF tipping bays will be washed periodically and standard pest control methods will be implemented.

Litter controls

4.114 All vehicles carrying waste into or out of the ERF and WSTF will be covered. The delivery and storage of all waste within buildings on site further minimises the potential for wind-blown litter to occur.

Construction

ERF and WSTF construction programme and activities

4.115 The total site preparation and construction programme for the ERF and WSTF is expected to last for approximately 51 months.

4.116 The existing WTS operations are to continue uninterrupted for the duration of the construction and ERF commissioning programme, and all construction laydown and car parking requirements are to be accommodated on site. Construction activities will therefore proceed as follows:

- Phase 1 – Construction of the WSTF
- Phase 2 - Demolition of the existing WTS
- Phase 3 – Excavation and removal of material from site
- Phase 4 - Construction and commissioning of the ERF
- Phase 5 - Construction of the earth bunds and landscaping

4.117 The framework CEMP provided in technical appendix L of the ES sets out the high-level mitigation measures that will be applied during the site preparation and construction period to avoid adverse impacts on the receiving environment.

Work hours

4.118 Construction work audible outside the site boundary will take place during standard hours e.g. 07:00-19:00 hrs Monday-Saturday, with no work on Sundays. Delivery of oversize plant and equipment, internal fit out, internal works and other non-intrusive works, may take place outside of these times. Extraordinary events such as concrete pours may also need to take place outside these hours, as by their nature they need to be continuous.

Construction employment

4.119 The number of people employed on site at any one time will vary across (and within) the construction phases.

4.120 During Phase 1 there is anticipated to be a peak workforce of 35. During demolition works (Phase 2) and during excavation (Phase 3) constant workforces of 12 and 9 are expected respectively. During Phase 4, construction of the ERF, the workforce is expected to average 292 and peak at 496. The earth bunding and landscaping work (Phase 5) is expected to generate a peak workforce of seven.

Construction traffic

4.121 All site preparation and construction related vehicles will use the existing access road, via Ford Road south and the A259.

4.122 At the overall vehicle peak in month 40 there will be 708 daily movements (i.e. 354 movements to the site and 354 movements from the site). Of these 708 total movements, 566 will be passenger car movements (i.e. 283 movements to the site and 283 movements from the site) and 142 will be HGV movements (i.e. 71 movements to the site and 71 movements from the site).

4.123 Considering HGVs on their own, the peak number of movements will be towards the end of the construction programme and total 238 daily movements (i.e. 119 movements to the site and 119 movements from the site). It is important to note that for the majority of the construction period, the number of HGV movements will be much lower and at all times the HGV movements will remain within the movement cap

imposed by the access road planning permission that stipulates no more than 240 HGV movements to and from the site on the access road per day.

Construction equipment and laydown areas

4.124 A wide range of equipment will be required during the different construction phases, including excavators, dump trucks, cranes, hoists, mobile elevating work platforms, forklift trucks, concrete pumps, piling rigs, compressors, generators and pumps.

4.125 The construction activities will require laydown areas for storage and limited pre-assembly of components. The location and size of laydown areas will vary throughout the programme.

Site cabins, welfare and parking

4.126 During all construction phases the site will require an area in which to place cabins, which will house site management and welfare facilities for construction workers. The area towards the north west corner of the site, where earth mounding, landscaping and the pond will ultimately be located is proposed for this use.

4.127 Car parking is also required for construction workers. The excavated material will be removed off site (rather than stored on site) and the areas that will eventually form the perimeter earth bunds and landscaping will be used for parking.

Environmental protection measures during construction

4.128 An environmental risk assessment will be undertaken of all construction activities (over and above that undertaken as part of the EIA process). Control measures will be introduced to remove or reduce identified risk to an acceptable level. The detailed CEMP that will be prepared in due course will cover all construction activities. The CEMP will encompass standard best practice approaches to construction and all the relevant mitigation measures identified by the EIA process and set out in the ES. Typical environmental and nuisance considerations and proposed control measures are presented in the framework CEMP (ES technical appendix L).

Commissioning

4.129 Commissioning will take place in two stages: 'cold' and 'hot' commissioning. Cold commissioning involves confirming that all items of plant and equipment function as intended. During hot commissioning the ERF will be operated with waste inputs to verify that the treatment technologies achieve the required aims.

4.130 At the end of hot commissioning the ERF will then undergo performance testing to verify that the facilities achieve their contractual performance requirements prior to independent certification. After this the ERF will be deemed ready for full service.

5.0 NEED AND CAPACITY

5.1 The NPPW (para 7) only requires applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities, where proposals are not consistent with an up-to-date local plan.

5.2 The West Sussex Waste Local Plan 2014 (WLP) identifies a shortfall in residual waste recovery capacity. There are no existing operational waste management facilities in West Sussex that can meet this shortfall, and the provision of new infrastructure is required to meet this need.

5.3 The WLP therefore allocates sites in Policy W10 for residual waste management to meet the shortfall. The application site is one such allocated site.

5.4 Paragraph 6.2.8 of the WLP, in line with the NPPW, says that there will be no requirement for applicants to demonstrate a quantitative or market need for a proposal on a site allocated in Policy W10; this is because they have been allocated to meet identified shortfalls in waste management capacity to deliver the objective of net self-sufficiency.

5.5 For these reasons it is considered that the proposal for an ERF and WSTF is consistent with an up-to-date local plan, and that there is no policy requirement to demonstrate that a quantitative or market need exists. Nonetheless, the need for a particular scheme is also a material consideration that weighs heavily in its favour in the planning balance.

5.6 The waste sorting and transfer element of the proposal is already operational at the site, and the proposals include a new WSTF to allow the waste sorting and transfer activity to continue at the same level as currently (circa 20,000 tonnes per annum). The need for this is to secure a like for like replacement of a facility that already provides a valuable local service.

National need

5.7 There is a need for the provision of additional waste management infrastructure in England that is capable of recovering energy from residual wastes that cannot practicably be recycled, diverting this material away from landfill and maximising the benefit of energy recovery from waste in the UK.

5.8 Defra national waste statistics recognise that there are significant volumes of residual arisings (both household and C&I wastes) being generated.

5.9 Based on figures for waste collected and managed, it is clear that whilst energy recovery is playing an important part in managing residual waste, more needs to be done to divert more of the 11 Mt (in England) of residual waste that is currently sent to landfill to energy recovery instead in line with the waste hierarchy.

5.10 These conclusions are further reinforced by the recent publication of the cross-Parliamentary report entitled ‘No Time to Waste: Resources, Recovery and the Road to Net-zero’ (July 2020) in respect to the need for additional EfW capacity in England. It recognised that whilst the Resources and Waste Strategy had been based on DEFRA modelling suggesting that there was sufficient EfW treatment capacity to 2035, this was based on a set of assumptions. These being that the export of RDF material would

remain stable, that England will meet its waste recycling target of 65% by 2035 and that there will continue to be a reliance on landfill to dispose of residual waste.

5.11 The inquiry investigation found that the RDF export market was unlikely to be stable for various reasons, including the introduction of European import taxes on RDF, and concluded that the UK should no longer be exporting RDF waste, but instead should prioritise the acceptability of EfW through greater heat off-take.

5.12 It heard that there is mounting expectation that England would not meet its 65% recycling target for 2035, until 2048. Regardless of when the 65% target would be met, the inquiry concluded that there would remain a baseline of 35% of residual waste, which is likely to grow as population increases, and that ensuring that sufficient EfW capacity exists would be key to avoiding reliance upon landfill in the future.

5.13 The report noted that the Committee on Climate Change has recommended that a more ambitious target should be adopted, for an end to the landfill of biodegradable waste by 2025; a decade sooner than the Resource and Waste Strategy previously outlined and modelled towards.

5.14 The inquiry accepted that there was much uncertainty around these factors, but overall whilst over-capacity should be avoided, the greater risk is continued landfill due to insufficient capacity. Additional EfW capacity will be required if we are to be sufficiently ambitious on driving down landfill.

5.15 It noted that the risk of insufficient feedstock for future EfW lies with the private investors; and market dynamics can be expected to avoid this.

5.16 Overall, there is a compelling national need case for the provision of new energy recovery facilities to divert more residual waste away from landfill or export.

The interface with recycling

5.17 The applicants (Grundon and Viridor) are in the business of providing holistic recycling and waste management solutions. They do not only operate energy recovery facilities, but also numerous recycling facilities too. One of the applicants, Viridor, currently holds the contract with WSCC for managing its recyclable waste and has a materials recycling facility processing 100,000 tpa on a site at Ford close to the application site and sharing its access.

5.18 Their business is transforming domestic and commercial waste and recyclables into high quality raw materials and renewable energy. This makes a big contribution to improving the UK's resource efficiency.

5.19 In the applicants' nationwide business activities, and in the waste management sector generally, energy recovery goes hand in hand with quality recycling, paving the way for a transition to a circular economy. Waste prevention and resource efficiency solutions are core to the applicants' business strategy, and see significant and increasing investment, to help to address the challenge of depleting natural resources, putting more recycled material back into a low-carbon, circular economy.

5.20 There are always unrecyclable waste streams (the residual remaining after processing or via source segregation) that need secure and reliable treatment. Energy recovery facilities provide that.

5.21 More (and better quality) recycling leads to more rejects from recycling and sorting facilities, which then need reliable and affordable treatment. For these residual wastes, which would otherwise be disposed of to landfill, energy recovery is the more sustainable solution.

5.22 Energy recovery therefore provides a well-regulated and essential waste treatment for the residual materials where recycling is not appropriate. It also offers a source of secondary raw materials (aggregates from bottom ash, metals) and energy for the circular economy.

5.23 So energy recovery complements recycling, by treating the residues from recycling facilities and the non-recyclables from separate collection.

5.24 Energy recovery also contributes to the mitigation of climate change by diverting waste from landfill to reduce the greenhouse gas emissions that arise from landfill.

The need in West Sussex

5.25 The WLP is consistent with national policy in the NPPF and also with the National Planning Policy for Waste (NPPW). Its strategic objectives include working towards zero net waste to landfill by 2031 and maintaining net self-sufficiency in managing the transfer, recycling and treatment of waste.

5.26 The WLP identifies a shortfall in recovery capacity of 270,000 tonnes per annum and allocates strategic sites to meet this. These sites are considered to be acceptable in principle for waste management development, subject to consideration of detailed matters when planning applications are made.

5.27 Recovery capacity in this instance relates to the treatment of residual waste left over after various types of pre-treatment have been carried out, such as source segregation of recyclables or other forms of pre-processing that would recover recyclables from the waste stream.

5.28 The most recent available Annual Monitoring Report produced by West Sussex County as the Waste Planning Authority covers the period 2018/19 (AMR2018/19). It identifies in para 5.21 that operationally, there is a shortfall in recovery capacity of 270,000 tonnes per annum. This is the same shortfall as that identified in policy W1(d) of the WLP, indicating that there has been no delivery of this capacity to date, since the plan was adopted in 2014.

5.29 Whilst it also refers to 320,000 tpa that is permitted but not operational, leading to a potential surplus, there can be no guarantee that this permitted capacity will be provided.

5.30 This permitted capacity includes a 140,000 tpa gasification facility at the application site. However, this gasification facility will not be built as the market and commercial considerations are not favourable. It is now proposed to provide energy recovery at the site in the form an ERF using moving grate technology, a more reliable, proven and fundable commercial solution that is part of this planning application.

5.31 The remaining 180,000 tpa of permitted capacity relates to an ERF allowed on appeal in February 2020 at the former Wealden Brickworks at Horsham. This has not yet been implemented and there can be no certainty that this will be built out. There is a

significant difference between securing permission for capacity and delivering operational capacity on the ground. In addition to needing to secure an Environmental Permit the costs of building an ERF are significant and the complexities of the build add to the financial risk. Financing the build of an ERF can therefore be a significant barrier to delivery, especially without the comfort of a contracted long term waste supply.

5.32 Given the operational shortfall of 270,000 tpa there remains a significant need for recovery capacity in West Sussex.

5.33 An ERF of 275,000 tpa capacity, as proposed, will provide for the operational shortfall in West Sussex identified in the 2018/19 AMR, and make a significant contribution to meeting objectives of net zero to landfill and net self-sufficiency.

Net self sufficiency

5.34 The WLP recognises that the movement of waste is based on commercial decisions that do not respect political boundaries. It states at paragraph 2.9.1 that:

" *Private waste companies, especially the larger ones, are likely to take a national or a regional view on the location of their facilities and do not necessarily look at West Sussex as a discrete and self-contained market. Consequently, there is a need to look at the cross-boundary movement of some waste streams and to look at opportunities for the management of waste that may lie outside the WPA's area.*"

5.35 The WLP states at 2.9.3 that the County is a net importer of waste as a whole across all waste streams, and that the majority of movement is with the adjoining waste planning authorities (Hampshire including Portsmouth and Southampton, Surrey, and East Sussex including Brighton and Hove).

5.36 Whilst the WLP does not make specific provision for waste imports, it clearly acknowledges that cross boundary movement is not only necessary for commercial market reasons but is also a significant factor in the existing position in West Sussex, with net importation being a key characteristic when the plan was adopted.

5.37 It is noted in the WLP that this is likely to reduce as existing landfill capacity in the County reduces over time. Indeed the 2018/19 Monitoring Report shows that in 2018 the county had become a net exporter of all waste. Exports of household and commercial waste to landfill were 125,078 tonnes in 2018. (table 15 in the report). The picture will continue to change as the waste moves according to markets.

5.38 Hence whilst the WLP makes specific provision for managing West Sussex's own waste arisings, there is a recognition that imports from surrounding areas are also a factor, and that net self-sufficiency means seeking to at least provide for its own arisings rather than excluding imports from outside the County.

5.39 This balancing of imports and exports is considered to be consistent with the principles of net self-sufficiency, and there are no reasons why it should not continue if that is what the market currently requires in order to make the best use of existing waste management infrastructure.

Technology choice

5.40 The WLP is in line with national policy in recognising that it is for the market to determine the most appropriate combination of facilities and technologies to come forward to meet need; it is not prescriptive of any particular type of facility or technology. The proposed moving grate process for the Ford ERF is a proven and bankable technology.

Capacity and size

5.41 Para 7.3.8 of the WLP says that in theory the allocated site has the physical capacity to deliver a single built facility (up to c.250, 000tpa) or a number of smaller facilities; however, the actual waste management capacity achieved on the site would depend upon the specific type of facility/facilities and the chosen technology or technologies.

5.42 The application provides for two facilities, an ERF and a WSTF that together provide 295,000 tpa of capacity. Whilst this is greater than the c.250,000 tpa stated in the WLP, it is noted that the figure stated is approximate and is not a cap. It is acknowledged in the WLP that capacity will depend on the specific proposals. The implication from the WLP is that the allocation is not limiting capacity at the site to 250,000 tpa and hence provision in excess of 250,000 tpa is potentially acceptable.

5.43 It is notable that the building size, massing, height and footprint of the facilities as proposed would not be changed by limiting the throughput to 250,000 tpa. Importantly the proposals will be able to operate with 295,000 tpa and keep within 240 HGV movements in and out each day, as currently allowed by the s106 agreement.

5.44 The capacity of the WSTF (about 20,000 tpa) is similar to the current operations at the existing WTS at the site and will serve a similar market. The main difference is that the existing WTS simply bulks waste imports and sends them on for further treatment or disposal at other facilities. The proposed WSTF will sort the imported waste to remove recyclables for onward transfer, with the residual component sent to the new ERF on site.

5.45 The Ford ERF has been designed to treat up to 275,000 tonnes of residual waste material per year. The ERF will operate as a merchant waste management facility, meaning that it will be funded and constructed on the basis of securing waste from a range of sources under commercial arrangements within the competitive waste market.

Sources of supply

5.46 The proposed ERF could source almost all of its throughput from within West Sussex, given the level of operational shortfall in the county (270,000 tpa) identified in the 2018/19 AMR. Indeed, the applicants consider that between 85% to 100% of the capacity of the Ford ERF could be sourced from fuels generated within West Sussex, based on their own research that shows that there is potentially up to 283,000 tonnes available.

5.47 Note that, in terms of balancing for net self-sufficiency in the county, the ERFs capacity counts in full irrespective of the sources of arisings it receives.

5.48 The applicants are confident that contracts can be secured for a significant proportion of the West Sussex residual waste shortfall (C&I and MSW), given that the location at

Ford is central to the county's urban coastal strip and easily accessible from the county's other main urban areas.

5.49 The ERF will potentially secure residual waste arisings from within a reasonable catchment area by road that will include neighbouring historic counties. This is reflected in current practice whereby the County receives imports from these areas. The prohibitive costs associated with transporting waste by road over long distance mean that imports from further afield are unlikely to be economic.

Proximity principle

5.50 Both the self-sufficiency and proximity principles are enshrined in Article 16 of the Waste Framework Directive (WFD) and are implemented in UK law by the Waste (England and Wales) Regulations 2011. The self-sufficiency principle requires that most waste should be treated or disposed of within the region that it is produced.

5.51 The proximity principle means that waste should be recovered or disposed of as close as possible to where it is produced. This means at one of the nearest facilities with available capacity, rather than at the absolute closest, which may or may not have such capacity. Currently much of West Sussex's residual waste is exported out of the county for disposal in landfill, for recovery in energy recovery facilities in the UK, or as Refuse Derived Fuel (RDF) to continental Europe for energy recovery.

5.52 In addition to processing waste from West Sussex, it is expected that some waste inputs to the application site at Ford would also be brought to the site from the adjoining historic counties of Hampshire, Surrey and East Sussex (this area to include Portsmouth, Southampton, and Brighton and Hove).

5.53 This would be in line with current practice, and the need for regional self-sufficiency and the proximity principle to allow waste to be treated at one of the nearest available facilities. The amounts involved and the precise origins of the waste will depend on future contracts won and the available capacity in the region.

5.54 The applicants' assessment of the availability of residual waste across the catchment, based on data from 2018 and 2019, is that there is between 1 million and 1.25 million tonnes available, of a type suitable for treatment in the Ford ERF. This includes the non-hazardous, solid, combustible mixed waste that remains after recycling, and that is either:

- currently sent to landfill, within or outside the catchment, or
- sent for energy recovery outside the catchment, including refuse derived fuel (RDF) sent outside the UK.

5.55 Even with assumptions about increased levels of recycling to achieve the government's target of 65%, the applicants' analysis is that there remains a significant level of residual waste remaining in the catchment; between 0.70 million tpa and 1 million tpa.

5.56 Given the additional availability of suitable residual wastes from the adjoining counties, including current RDF exports outside the UK, amounts sent to landfill, and amounts sent outside the region for energy recovery, there will be ample fuel available for the ERF without impacting on recycling levels, and a clear need for the capacity it will provide.

Assessment

5.57 The policy and legislative context clearly support the need for the WSTF and ERF. The proposals will deliver key objectives of national policy and strategy, as well as meeting needs identified in the WLP. They will assist with delivering the waste hierarchy and will contribute to self-sufficiency (in terms of both energy recovery and sustainable waste management). They will recover value from residual waste.

5.58 The WSTF and ERF will use an allocated strategic waste site to help West Sussex to meet its objectives of maintaining net self-sufficiency in managing the transfer, recycling and treatment of waste generated in the county; to have a network of facilities to minimise transportation of waste; and working towards zero net waste to landfill by 2031.

Need: energy

5.59 The ERF also contributes to the national need to provide energy infrastructure to assist in meeting energy demand and to contribute to security of supply.

5.60 The NPPF states at paragraph 154 that "When determining planning applications for renewable and low carbon development, local planning authorities should… not require applicants to demonstrate the overall need for renewable or low carbon energy and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions".

5.61 The ERF will generate about 31 MW of electricity and export about 28 MW of this to the grid. It will also generate heat that can be exported to potential offsite heat customers once such are identified and secured, and there is a combined heat and power (CHP) report submitted with the planning application that identifies the potential for this.

5.62 Under current national energy policy and guidance (see Chapter 6 for more information on national policy and guidance) the energy produced by the ERF can be classed as low carbon because part of the feedstock is biodegradable and therefore renewable. For example, National Policy Statement for Energy (EN-1) recognises that energy produced from the biomass fraction of waste is renewable. The National Policy Statement for Renewable Energy Infrastructure (EN-3) also provides guidance in respect to energy from waste. This confirms that electricity generation from renewable sources of energy is an important element in the Government's development of a low-carbon economy.

5.63 There is therefore an immediate need for renewable and low carbon energy infrastructure to be consented and built with a view to supporting Government's policies on sustainable development, including mitigating and adapting to climate change, transitioning to a low carbon economy, minimising fuel poverty and contributing to a secure, diverse and affordable energy supply.

5.64 The proposals in the planning application will contribute to national commitments to increase energy generation from renewable and low carbon sources, to assist in tackling global climate change. As well as the energy generation from the ERF itself, there will also be solar photovoltaics panels on both the WSTF and the ERF buildings.

The role of energy from waste

5.65 Importantly, energy from residual waste is recognised in national policy guidance as being capable of contributing towards the UK's renewable and low carbon energy needs. In this context there is a demonstrable national need for development that contributes to this, such as the proposed ERF.

5.66 The proposed ERF is designed for the export of up to 10 MWth of low carbon heat to nearby heat users, subject to technical and economic viability, as well as about 31 MW of electricity, 28MW of which will be exported, providing renewable/low carbon electricity to the national grid.

5.67 The CHP report submitted with the planning application sets out the potential range of nearby heat users including HMP Ford (Ford prison) and Rudford Industrial Estate, as well as new development associated with the Ford strategic housing allocation in the Arun Local Plan (1500 homes and associated employment land and other facilities). Initial discussions have been held with the developer of the latter and with HMP Ford to highlight the opportunity for a potential heat export arrangement.

5.68 As outlined in the CHP report the ERF includes a turbine that will be "CHP ready" and will have space for the necessary heat plant and pumps to facilitate heat export. The applicants have the ability to install pipework to the public road at Ford Road, along the line of the site access road, although pipework would not be installed until heat customers have been secured.

5.69 Without planning permission and an environmental permit, it is difficult to achieve commitments from potential customers for the heat. Discussion with potential heat users will be entered into once there is certainty of supply (i.e. with a planning permission for the ERF and an environmental permit in place). The intention would be to enter into a heat supply agreement with commercial terms and associated arrangements for delivery.

5.70 Whilst secure arrangements with potential customers cannot be achieved until the ERF is constructed and operational, the proposals are fully enabled to achieve heat supply and the applicants are committed to pursuing this.

Conclusions on energy need

5.71 The above evidence supports the following conclusions in respect to energy need:

- current national energy and renewable energy policy recognise that the biodegradable fraction of residual waste, if treated by means of energy recovery, is renewable energy and contributes towards meeting renewable energy targets
- there is a need for a wide mix of energy infrastructure, including energy from waste facilities such as the proposed ERF, to increase national energy security
- there is a need for more investment in building and extending heat networks
- there is a need for new energy projects that will contribute towards meeting the UK's carbon reduction budgets.

5.72 The proposals will address all of the above. Helping to meet this energy need is a material consideration that weighs in favour of granting planning permission.

Overall conclusion on need and capacity

5.73 The proposal for the ERF at Ford will avoid non-recyclable wastes being disposed to landfill; recover renewable/lower carbon energy; have potential to provide heat to nearby businesses and other premises; and recover secondary materials including aggregates and metal.

5.74 Substantial weight should be given to the benefits of meeting identified needs. In general terms the identified needs can be defined to include the following elements:

- a clear national need for waste management infrastructure
- the need to move from disposal to higher levels of the waste hierarchy (e.g. recovery, including not just energy but also the recovery of secondary materials such as aggregates and metals derived from the incinerator bottom ash)
- the need to meet the objective of net zero waste to landfill
- the need to address the identified shortfall in recovery capacity
- the need to have a network of facilities to help meet local and regional self-sufficiency and the proximity principle
- a need for lower carbon energy and heat generation capacity.

5.75 More specifically in West Sussex:

- the need to manage large volumes of residual waste generated in the county that can be diverted to energy recovery in line with the waste hierarchy, noting that the WLP and its most recent Monitoring Report 2018/19 identifies an operational shortfall of 270,000 tpa.
- the need to move away from a reliance on a combination of landfill (that is rapidly declining in capacity) and the export of waste out of county, as proposals for other recovery capacity that have been granted permission have failed to come forward to date
- the need to contribute to local climate change and energy policy objectives by providing local energy and heat.

5.76 These factors, both individually and cumulatively, demonstrate that there is a clear and compelling need for the proposed ERF, that there is a quantitative and market need for a new waste management facility of this type in West Sussex, and that it meets needs in line with national and local policy regarding sustainable waste management and energy generation.

5.77 The applicants are confident, from a commercial market perspective, that there is more than sufficient residual waste in the county and surroundings areas to provide feedstock for the proposed ERF at Ford. The proposal is economically viable, deliverable and resilient. The facility is well placed to secure future residual waste contracts, meeting both existing and future need. It is also well placed to deliver energy to the national grid; and to provide heat to nearby potential heat customers.

6.0 NATIONAL POLICY AND GUIDANCE

Introduction

6.1 It is important to note that given that the proposals are located on a strategic site identified in the adopted development plan for development for waste management, including of the type proposed, the principle of development is accepted. The focus is therefore on the acceptability of the details of the proposals rather than the principle of development.

6.2 This chapter provides a summary and assessment of the national policy frameworks, strategies and guidance that are deemed to be relevant to this application.

6.3 The proposals have been developed in the context of the following policy areas:

- Waste Management
- Planning
- Environment
- Energy

6.4 This chapter examines the national level, summarising the relevant policies concerning the issues listed and providing an assessment of the proposals to demonstrate compliance.

National legislation

Environmental Permitting Regulations (EPR)

6.5 The Environmental Permitting Regulations (England and Wales) 2010 were introduced to control certain activities which could harm the environment or human health or conservation sites. The 2010 regulations effectively combined the Pollution Prevention and Control (PPC) and Waste Management Licensing (WML) regulations.

6.6 The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 transpose the IED into UK law. The Environmental Permitting (England and Wales) Regulations 2016 consolidated the 2010 regulations, although these were further amended in 2018.

6.7 Under these regulations, and the underpinning IED, the proposed ERF and WSTF are required to obtain environmental permits (EP) and operate within the specified parameters.

Compliance with the EPR

6.8 Pre-application discussion has taken place with the Environment Agency in respect to obtaining an EP for the ERF. The EP application was submitted in February 2021. This will provide the local planning authority with confidence that the facilities will operate within strict controls and not give rise to any unacceptable environmental effects in accordance with the EPR.

Waste (England and Wales) Regulations

6.9 The WFD has been transposed through the Waste (England and Wales) Regulations 2011 (as amended). These set out, inter alia, provisions in respect to waste prevention programmes, waste management plans, duties in relation to waste management, the use of waste as a resource and the duties of planning authorities.

6.10 Part 5 (paragraph 12) places a duty on an establishment that deals with waste to take all reasonable measures to apply the waste hierarchy. A departure may be made so as to achieve the best overall environmental outcome where it is justified by 'life-cycle thinking' on the overall impacts of the generation and management of the waste.

6.11 Paragraph 4 (Part 1 of Schedule 1) sets out the following requirements in relation to the key waste management principles of self-sufficiency and proximity:

"a) To establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households, including, where such collection also covers such waste from other producers, taking into account best available techniques.

b) The network must be designed to enable the European Union as a whole to become self-sufficient in waste disposal and in the recovery of mixed municipal waste collected from private households, and to enable the United Kingdom to move towards that aim taking into account geographical circumstances or the need for specialised installations for certain types of waste.

c) The network must enable waste to be disposed of and mixed municipal waste collected from private households to be recovered in one of the nearest appropriate installations, by means of the most appropriate technologies, in order to ensure a high level of protection for the environment and human health."

Compliance with Waste (England and Wales) Regulations

6.12 The proposed ERF and WSTF will make a significant contribution towards the UK meeting the requirements of these regulations, as part of an integrated network of installations for the recovery of mixed municipal waste collected from private households, contributing towards the UK's self-sufficiency in respect to the recovery of mixed municipal wastes. Without the proposed ERF, and in the absence of other recovery facilities, it would be more likely that waste would need to be exported from the catchment or from the UK for treatment.

6.13 This is a significant material consideration in support of this planning application for the facilities.

Town and Country Planning (Environmental Impact Assessment) Regulations

6.14 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 transpose changes made to EU Directive 2011/92/EU under EU Directive 2014/52/EU into UK law and specifically relate to certain developments that are usually given planning permission through the town and country planning system.

6.15 They provide a high level of protection for the environment and help integrate environmental considerations into the preparation of proposals for development to

reduce their impact on the environment. The 2014 amendments to the EIA Directive were made to simplify the rules for assessing the potential effects of projects on the environment, to lighten unnecessary administrative burdens; and to improve the level of environmental protection, with a view to making business decisions on public and private investments more sound, predictable and sustainable in the longer term.

6.16 The most significant changes made under the 2017 regulations relate to:

- The introduction of joint and/or co-ordinated procedures for projects which are subject to assessment under the EU Habitats, Birds and EIA Directives.
- Amendments to the environmental factors to be considered with EIA with the term 'human being' has been replaced by the term 'population and human health'; the term 'fauna and flora' has been replaced by 'biodiversity' and the addition of a new requirement to consider, where relevant, the effects on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters.
- A new requirement for the ES to be prepared by competent experts and that the reviewing authority has or has access to sufficient expertise to examine the ES
- Revisions to information provided on decision notices and during the decision-making process
- Where appropriate decisions to grant consent should include monitoring measures.

6.17 The 2011 Regulations (Schedule 4 Part 1 clause 4), required ESs to include:

"A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from—

(a) the existence of the development;

(b) the use of natural resources;

(c) the emission of pollutants, the creation of nuisances and the elimination of waste."

Compliance with EIA Regulations

6.18 An EIA and its associated ES have been undertaken in full accordance with the provisions of the 2017 EIA regulations.

Water Resources Act (WRA)

6.19 The (WRA) 1991 is the legislation by which the UK regulates water resources, water quality and flood defence. Amended in 2009 it broadly covers two main areas of regulation in respect to:

- Permissions to abstract water from existing water resources
- Consents to discharge of material into controlled waters.

Compliance with the WRA

6.20 The proposed ERF and WSTF are designed to minimise their demand on water resources and avoid the need for discharge of water off-site, through the efficient recovery and re-use of water within the process. Where required, all appropriate consents will be obtained to ensure the ERF and WSTF will operate fully within the WRA regulations.

Habitat and Species Conservation Regulations and Acts

6.21 The Conservation of Habitats and Species Regulations 2017 consolidated the 2010 regulations (as amended). These transpose Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (the EC Habitats Directive) and elements of the Wild Birds Directive for England and Wales.

6.22 The regulations provide for the designation and protection of 'European sites', pursuant to the Habitats Directive, being Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

6.23 The Ramsar Convention (1971) protects wetlands of international importance for birds. Whilst an international convention that sits outside of EU Directives, it is Government policy for Ramsar sites to be regarded as 'European sites' and thus afforded the same protection.

6.24 Internationally designated sites are also subject to the Section 28 of the Wildlife and Countryside Act (WCA) 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000. The CRoW Act and the Natural Environment and Rural Communities Act (NERC) 2006 together place a duty on decision makers to have regard to the conservation of biodiversity in England, when performing their normal functions.

6.25 Sites that are considered to be of national or local ecological importance, including Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR) are protected under a combination of the WCA 1981 (as amended) and the National Parks and Access to the Countryside Act 1949.

6.26 Protected species of animals and plants are those listed within Schedules 1, 5 and 8 of the WCA 1981 (as amended), with European protected species being listed in Schedules 2 and 5 of the Conservation of Habitats and Species Regulations 2017. Protection is afforded by the Protection of Badgers Act 1992.

Compliance with Habitat and Species Conservation Regulations and Acts

6.27 The project has been subject to a HRA screening process (see the screening document submitted with the application) which has concluded there will be no likely significant effects on interest features of the single European site in the vicinity, either alone, or in-combination with other plans and projects.

6.28 The EIA has undertaken an assessment of habitats and protected and non-protected species present on the site. This has concluded that the proposed development with mitigation would not have an unacceptable impact on biodiversity interests.

Air Quality Standards Regulations 2010

6.29 The Air Quality Standards Regulations, which came in to force in June 2010, transposed into UK legislation the requirements of Directive 2008/50/EC and 2004/107/EC relating to ambient air quality. Their objective is to improve air quality by reducing the impact of air pollution on human health and ecosystems. This is achieved by setting air quality standards for key pollutants and requiring air quality standard plans to be produced to demonstrate how air quality standards will be achieved and maintained.

6.30 The 2010 regulations were amended under the Air Quality Standards (Amendment) Regulations 2016 to capture changes made, under EU Directive 2015/1480/EC, to the technical standards regulating how air quality is monitored, to ensure that the methods used, and data collected is more accurate and reliable.

Compliance with Air Quality Standards Regulations

6.31 The EIA has undertaken an assessment of the potential effects of the proposed development on air quality. This has concluded that will be no significant increase in the levels of traffic-related pollutants and no significant effects on air quality as a result of emissions, either at sensitive residential receptors or designated nature conservation sites.

Environmental Protection Act 1990

6.32 The Environmental Protection Act (EPA) 1990, makes provision for the improved control of pollution arising from certain industrial and other processes, which included waste management.

6.33 However, several of the Act's provisions relating to integrated pollution control and air pollution control (Part I), contaminated land (Part IIA), radioactive substances (Part V) and nature conservation (Part VII) have been replaced by more recent environmental legislation.

6.34 Relevant provisions of the Act, for this planning application, include Part II (waste on land) which imposes a duty of care on any business or person who produces, carries, keeps, treats, disposes of, or imports controlled waste, to do so safely, and Parts III and IV that make provisions addressing statutory nuisances and litter.

Compliance with the EPA

6.35 The proposed ERF and WSTF will be fully capable of meeting all EPA requirements.

National planning policies, strategies and guidance

6.36 This section provides an overview of these policy frameworks, highlighting parts that are considered to be most relevant to the proposed ERF and WSTF. The relevant national planning policy documents, strategies and guidance are:

- National Planning Policy Framework, 2019
- National Waste Management Plan for England, 2021
- National Planning Policy for Waste, 2014

- Our Waste, Our Resources: A Strategy for England, 2018
- Energy from Waste – A Guide to the Debate (DEFRA) February 2013
- Revised Overarching National Policy statement for Energy (EN-1) July 2011
- National Policy Statement for Renewable Energy Infrastructure (EN-3) July 2011.

National Planning Policy Framework 2019

6.37 The revised National Planning Policy Framework (NPPF) was published in 2019, replacing the 2012 and 2018 NPPFs. The revised NPPF sets out the overarching national policy framework for achieving sustainable development, providing guidance for both plan-making and decision-making and addressing specific topic areas.

6.38 Whilst the revised NPPF does not provide any specific policy guidance on waste, it does cover a number of other wider planning policy matters, which are relevant to the proposed development.

6.39 These include:

- Achieving sustainable development
- Building a strong, competitive economy
- Promoting healthy and safe communities
- Promoting sustainable transport
- Achieving well designed places
- Meeting the challenges of climate change, flooding and coastal change
- Conserving and enhancing the natural environment
- Conserving and enhancing the historic environment.

6.40 Each of these are considered in turn below.

Achieving sustainable development

6.41 The NPPF[2] states that the purpose of the planning system is to contribute to the achievement of sustainable development. The NPPF[3] sets out the three overarching objectives to achieve sustainable development. These are:

a) *An economic objective - to help build a strong, responsive and competitive economy*

b) *A social objective - to support strong, vibrant and healthy communities*

c) *An environmental objective - to contribute to protecting and enhancing our natural, built and historic environment*

6.42 The NPPF[4] carries a presumption in favour of sustainable development, which is defined in paragraph 11. This advocates that decision making should apply a presumption in favour of sustainable development. For decision making this means approving development that accords with an up-to-date development plan, or where there are no

[2] NPPF paragraph 7
[3] NPPF paragraph 8
[4] NPPF paragraph 10

relevant development plan policies, or the policies are out of date, unless there are policies within the framework which provide a clear reason for refusing permission, or the adverse impacts of granting permission would demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole.

6.43 The proposed ERF and WTSF are inherently sustainable, designed to perform an important role within the waste hierarchy and the UK's network of sustainable waste management facilities. They will manage residual waste that would otherwise go to landfill (the least sustainable option) thus reducing the amount of waste landfilled and maximising the value of waste by recovering energy from waste that cannot practicably be re-used or recycled.

6.44 The revised NPPF[5] requires all decisions on proposed development to be approached in a positive and creative way, and for local planning authorities to work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. All decision-makers should seek to approve applications for sustainable development where possible.

6.45 The NPPF[6] encourages early engagement to improve the efficiency and effectiveness of the planning system, leading to better coordination between public and private resources and improved outcomes for the community. Applicants are encouraged to proactively engage with the local planning authority, local community and statutory and non-statutory consultees at an early stage. Greater benefits can be achieved by resolving issues at the pre-application stage enabling decisions to be made in a timely manner, reducing the scope for unnecessary delays and costs.

6.46 The applicants have participated in a pre-application consultation with West Sussex County Council (WSCC), Arun District Council, and Ford, Yapton and Climping parish councils. It has engaged with stakeholders including the local community through newsletters and a project website providing information about the proposals. A public exhibition was planned but was cancelled due to government requirements about social distancing during the covid-19 pandemic, but the exhibition material was made available on the website. Further details of the pre-application consultation and community engagement undertaken, and the feedback received, is provided in chapter 6 of this document and in the Statement of Community Involvement (SCI), submitted as part of the application.

6.47 The scope of information required by WSCC and other stakeholders, has been addressed through the pre-application process. An Environmental Statement (ES), explaining the results of the EIA, has been submitted with the application.

6.48 This approach has ensured that the local planning authority and other technical bodies have been consulted upon the proposed scope and methodology of the EIA, and that this was agreed at an early stage in the process. This accords with NPPF policy, in demonstrating that the right information has been provided, and reducing the scope for decision-making to be unduly delayed by requests for additional information.

[5] NPPF paragraph 38
[6] NPPF paragraphs 39 to 41

Building a strong competitive economy

6.49 The government expects the planning system to support sustainable economic growth. The NPPF[7] requires significant weight to be placed on the supporting economic growth and productivity, in decision making, and account to be taken of the local business needs and wider opportunities for development.

6.50 The proposed ERF and WSTF will make an important contribution towards the local, regional and national economies. They will support local jobs and recover recyclable materials that are reprocessed and fed back into the economy as well as provide recovery of energy. The facilities will contribute to economic growth through the provision of employment and opportunities to supply goods and services.

6.51 The construction workforce will vary in size depending on phase of construction and specific activities within phases. Based on projects elsewhere of a similar size, it is expected that the construction workforce will rise to a peak at around 496 workers in the peak month, then dropping away thereafter. Further details are provided in chapter 3 of the ES.

6.52 Skilled labour will be supplied by sub-contractors. There will be opportunities for local workers to be employed.

6.53 The ERF will employ a total of 54 staff, mostly in a shift pattern. The WSTF will employ a total of 4 staff.

6.54 There will also be additional jobs supported by the proposals off-site, for example in head or regional offices.

6.55 In addition, there will potential for apprenticeships and training, to which all three of the applicants are committed.

6.56 The proposals therefore contribute to NPPF economic objectives, which should be afforded weight and supported.

Promoting healthy and safe communities

6.57 Government policy[8] requires policies and decisions to help achieve healthy, inclusive and safe places, whilst also facilitating the provision of local services to enhance the sustainability of communities and residential environments.

6.58 The proposed ERF and WSTF will be an important part of the local, regional and national waste management system, serving the needs of local communities and managing waste in a sustainable way, minimising the environmental impacts associated with the landfill of residual waste.

Promoting sustainable transport

6.59 Transport should be considered at an early stage in development proposals, so that the impact of development on transport networks can be addressed and opportunities to

[7] NPPF paragraph 80
[8] NPPF paragraphs 91, 92 and 95

exploit existing and proposed transport infrastructure can be explored. Opportunities to promote walking, cycling and public transport should also be promoted.

6.60 National policy[9] requires the environmental impacts of traffic and transport infrastructure to be identified, assessed and taken account of, together with appropriate opportunities for avoiding and mitigating any adverse effects, and for achieving net environmental gains.

6.61 The proposals at Ford will use a recently constructed access road and junction and will not require any further transport infrastructure off site. All of the car parking spaces will be provided with electric vehicle charging capability, and there will be ample cycle parking at both the ERF and the WSTF. The proposal will operate within the current limit of 240 HGV movements (two-way) per day. The findings of the Environmental Statement (ES) are that there will be no significant traffic and transport effects arising from the proposed development.

6.62 The proposed facilities are in accordance with NPPF guidance on transport and movement and this is considered in more detail in the Transport Assessment and the ES.

Achieving well designed places

6.63 The NPPF[10] is clear that the creation of high-quality buildings and places is fundamental to what the planning and development process should achieve. It states that good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.

6.64 The guidance[11] also requires planning decisions to ensure that developments will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development and are visually attractive as a result of good architecture, layout and appropriate and effective landscaping.

6.65 More generally, the NPPF[12] requires that when determining applications, great weight should be given to outstanding or innovative designs which promote high levels of sustainability or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings.

6.66 The design approach taken by the applicants minimises the volume and massing of the proposed facilities and in so doing seeks to minimise visual impact when viewed from key views. The overall aim has been to create a design which is contextual, compact, functionally efficient, and an environmentally responsible development with a coherent and consistent design theme being applied to both the ERF and the WSTF.

6.67 The design solution has been determined by a number of principal requirements established from the outset and include:

- Ensuring that the main functions of the buildings are achieved in a sustainable manner;

[9] NPPF paragraph 102
[10] NPPF paragraph 124
[11] NPPF paragraph 127 (parts a and b)
[12] NPPF paragraph 131

- Embracing a clear design vision to develop a refined architectural solution which best mitigates its visual impact within its setting; and
- Developing an efficient and safe site layout for all users.

6.68 The resulting design is characterised by high quality architecture and the use of good quality materials. Whilst the buildings are inevitably large in scale, given their function, the design aims to fit in with the surrounding area as much as possible. This includes keeping the buildings as low as feasibly achievable, partially sinking them into the ground so far as ground constraints allow and having strong horizontal rooflines to match the horizontal flatness and lines of the local landscape. It also uses colours and textures carefully chosen to blend in, and earth mounding and new planting to help root the buildings in the landscape.

6.69 The buildings are of a higher standard of design than those currently on the site or those approved on the site, and also when compared with many of those of a similar industrial type in the locality. They therefore, by their example, will play a role in helping to raise the standard of design generally in the area.

6.70 The proposals fully accord with NPPF guidance on design. As such great weight should be attributed to this in determining this application.

Meeting the challenges of climate change, flooding and coastal change

6.71 The NPPF[13] requires the planning system to support the transition to a low carbon future in a changing climate, including renewable and low carbon energy and associated infrastructure. When determining planning applications for renewable and low carbon development, it also states[14] that local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and should approve the application if its impacts are (or can be made) acceptable.

6.72 The thrust of the NPPF guidance is to promote, foster and encourage rather than restrict renewable energy and low carbon energy development.

6.73 Under current policy guidance, the proposed ERF will provide a form of lower carbon energy, by virtue of the biodegradable fraction of the residual waste being classed as renewable. By recovering energy from waste that would otherwise go to landfill (which produces landfill gas, a greenhouse gas)[15] the ERF will contribute towards the generation of decentralised renewable/low carbon energy in accordance with the objectives of the NPPF.

6.74 The NPPF directs new development away from those areas at highest risk of flooding. The proposed site is predominantly located in flood zone 1, the lowest risk area. The proposed drainage strategy makes allowance for climate change.

6.75 The proposals in the application are therefore in accordance with NPPF guidance on meeting the challenges of climate change, flooding and coastal change

[13] NPPF paragraph 148
[14] NPPF paragraph 153
[15] Overall, treating residual waste in energy recovery instead of landfill saves about 200kg of CO_2e per tonne of waste treated, which is just one of the reasons why energy recovery remains the preferred option.

Conserving and enhancing the natural environment

6.76 The NPPF[16] establishes that the planning system should contribute to and enhance the natural and local environment.

6.77 The landscape and visual effects of the proposals have been fully assessed within the Landscape and Visual Impact Assessment (LVIA) forming part of the EIA. This concludes that there will be adverse effects on some landscape and visual receptors, but this must be seen in the context of the allocation of the site for the use proposed, and the benefits it will bring in terms of sustainable waste management, amongst other matters.

6.78 Government policy recognises that all proposed energy infrastructure is likely to have visual effects for many visual receptors around proposed sites and therefore it is necessary to judge whether the effects outweigh the benefits of the project[17].

6.79 The proposed development provides an increase and enhancement to the tree cover on the site through the proposed landscaping scheme.

6.80 In respect to habitats and biodiversity, the NPPF[18] requires local planning authorities to apply the following principles when determining planning applications.

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused
- Development on land within or outside a Site of Special Scientific Interest (SSSI), and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted.
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

6.81 The site is not subject to any European, national or local ecological designations, nor does it include any significant habitats or large populations of protected species. The ES finds that none of the expected effects on ecological receptors on or off site are significant.

6.82 In addition, the proposed development is calculated to have significant positive impact on the biodiversity value of the site compared to baseline levels. As such the proposal accords with the NPPF.

[16] NPPF paragraph 170
[17] Paragraph 5.9.18 of NPS EN-1
[18] NPPF paragraph 175

6.83 In respect to ground conditions and pollution, the NPPF states that planning decisions should ensure that a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination[19].

6.84 The ES submitted with the application identifies appropriate remediation proposals and finds that no significant residual risks are predicted in association with ground conditions.

6.85 The NPPF requires that planning decisions[20] should ensure that new development is appropriate for its location, taking account of the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site, or the wider area to impacts that could arise from the development. In doing so they should:

- Mitigate, and reduce to a minimum, potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life
- Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- Limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

6.86 On air quality matters, the NPPF[21] requires planning decisions to have regard to sustaining and complying with relevant limit values or national objectives for pollutants, taking account of the presence of Air Quality Management Areas (AQMA), Clean Air Zones, and the cumulative impacts from individual sites in the local area.

6.87 The NPPF[22] is clear that the focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively.

6.88 All relevant aspects related to land contamination and stability, potential pollution to land, water and air (including noise and light), and impact on natural heritage have been comprehensively assessed in detail within the EIA and are found to accord with the NPPF.

Conserving and enhancing the historic environment

6.89 The NPPF[23] considers heritage assets an irreplaceable resource, to be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.

6.90 There are no designated archaeology assets or scheduled monuments on the site. However, there are such features nearby, and the site is partly within an Archaeological

[19] NPPF paragraph 178
[20] NPPF paragraph 180
[21] NPPF paragraph 181
[22] NPPF paragraph 183
[23] NPPF paragraph 184

Notification Area, so there is also potential for discovery of archaeological deposits during construction.

6.91 An assessment of the impact on nearby heritage assets has been undertaken in accordance with NPPF guidance. The ES shows that, following completion of the construction works and completion of mitigation measures, there will be some adverse effects on the setting of three nearby listed buildings. However, this must be weighed against the benefits of the proposals in securing sustainable waste management and low carbon energy generation.

Conclusions on compliance with the NPPF

6.92 It has been demonstrated above, and through the ES and other supporting documents that the proposal for the ERF and WSTF is sustainable development and is compliant with the NPPF when read as a whole. This is a significant material consideration that should be afforded weight in support of the proposals.

Waste

Our Waste, Our Resources: A Strategy for England (2018)

6.93 This strategy aims to move the UK to a more circular economy, essentially by keeping resources in use for longer and extracting maximum value. It focuses on particular waste problems such as single use plastics, confusion over recycling systems and a reduction in packaging waste.

6.94 The strategy is framed by natural capital thinking and guided by two overarching objectives:

- To maximise the value of resource use; and
- To minimise waste and its impact on the environment.

6.95 The strategy is supported by five strategic principles, the most relevant to this application being *'to prevent waste from occurring in the first place and manage it better when it does'*.

6.96 It highlights [24] that the UK continues to rely on landfill, with 12 million tonnes of municipal waste sent to landfill in 2016. This is a major concern, and the strategy aims to eliminate biodegradable waste to landfill. Importantly, it recognises that growth in energy from waste and alternative waste treatment infrastructure will be expected to divert further waste from landfill.

6.97 In addition to improving recycling rates and reducing greenhouse gas emissions from the landfill of biodegradable waste, the strategy seeks to drive greater efficiency of EfW plants.

6.98 The strategy confirms that the government will work with industry to secure a substantial increase in the number of energy from waste plants that are formally recognised as achieving recovery status, and will ensure that all future EfW plants achieve recovery status (R1 status).

[24] Page 20

6.99 The strategy indicates that on current waste projections, further market investment in residual waste treatment infrastructure is welcomed. It states:

> *"We particularly encourage developments that increase plant efficiency, minimise environmental impacts whilst upholding our existing high standards of emissions control, and progress technologies that produce outputs beyond electricity generation where these are demonstrated to be environmentally sound and economically viable".*

6.100 The proposed ERF and WSTF will have a valuable role within the waste hierarchy, reducing the amount of waste disposed of to landfill and recovering energy in a sustainable way. They will help to maximise the value of residual waste as a resource and minimise its impact on the environment.

6.101 The plant will be CHP enabled, but even without CHP delivery will operate to a high efficiency, having achieved the R1 recovery status, subject to Environment Agency confirmation.

6.102 The CHP report submitted with the application identifies the opportunity to establish CHP links to potential local heat users, including HMP Ford and Rudford Industrial Estate.

6.103 The CHP report includes the R1 calculation in an Appendix. The R1 efficiency is calculated as 0.83 without any heat export. With 3.56 MWth heat export, which is the average heat demand required by the identified heat users, the R1 efficiency is found to be 0.86. Both scenarios are above the threshold for new incineration plants (0.65). Therefore, the ERF will meet the definition of recovery with or without any heat export.

6.104 The ERF and WSTF will contribute towards meeting the 2018 waste strategy objectives of driving up the efficiency of energy from waste and recovering greater value from residual waste. The application is entirely consistent with the 2018 waste strategy for England.

National Waste Management Plan for England 2021

6.105 The Waste Management Plan for England (WMPE) provides an analysis of the current waste management situation in England and evaluates how the Plan will support implementation of the objectives and provisions of the Waste (England and Wales) Regulations 2011.

6.106 The WMPE does not introduce new waste management policies, but rather its aim is to bring current waste management policies under the umbrella of one national plan. This includes reference to the waste hierarchy, of which other recovery forms an important part in diverting waste from landfill.

6.107 The government wants to work closely with industry to secure a substantial increase in the number of energy from waste plants that are formally recognised as achieving recovery (R1) status, and to ensure all future energy from waste plants achieve recovery status. It is also targeting energy from waste incinerators to produce heat for heat networks as this substantially reduces their emissions by making use of the otherwise wasted heat to displace gas boiler heating.

6.108 The government supports efficient energy recovery from residual waste and the WMPE states that energy from waste is generally the best management option for waste that

cannot be reused or recycled in terms of environmental impact and getting value from the waste as a resource. It plays an important role in diverting waste from landfill.

6.109 The WMPE also reflects the 'proximity principle'. This requires a network of waste management facilities to be established to enable waste to be disposed of, or be recovered, 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.

6.110 The WMPE cross refers to the government's Resources and Waste Strategy that promotes efficient energy recovery from residual waste. It notes that the government does not express a preference for one technology over another, since local circumstances differ. It welcomes further continued investment in energy from waste facilities that raises efficiency standards and minimises impacts on the environment.

Compliance with WMPE

6.111 The proposed ERF and WSTF fully accords with the objectives of the WMPE as it provides a modern waste management facility that provides important infrastructure in line with the strategic objectives.

National Planning Policy for Waste (NPPW) 2014

6.112 This provides national planning policy for waste to be read in conjunction with the NPPF 2019 and Waste Management Plan for England (WMPE) 2013.

6.113 It provides detailed waste policies building upon the WMPE framework, which sets out the government's ambition to work towards a more sustainable and efficient approach to resource use and management. It states[25] that positive planning plays a pivotal role in delivering this country's waste ambitions, the most relevant in the case of this application being:

- Delivery of sustainable development and resource efficiency, including provision of modern infrastructure, local employment opportunities and wider climate change benefits, by driving waste management up the waste hierarchy
- Provision of a framework in which communities and businesses are engaged with and take more responsibility for their own waste, including by enabling waste to be disposed of or, in the case of mixed municipal waste from households, recovered, in line with the proximity principle
- Helping secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment.

6.114 The NPPW[26] provides specific guidance for the determination of waste planning applications. Waste planning authorities should inter alia:

- Only expect applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities where proposals are not consistent with an up-to-date local plan.

[25] NPPW paragraph 1
[26] NPPW paragraph 7

- Consider the likely impact on the local environment and on amenity against the criteria set out in appendix B of the NPPW and the locational implications of any advice on health from the relevant health bodies. Waste planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies
- Ensure that waste management facilities in themselves are well-designed, so that they contribute positively to the character and quality of the area in which they are located
- Concern themselves with implementing the planning strategy in the local plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced.

Compliance with the NPPW

6.115 The proposals provide sustainable, modern and efficient waste management infrastructure, that enables waste from households and businesses to be recovered in proximity to where it arises, in accordance with the proximity principle, without endangering human health and without harming the environment.

6.116 The proposals support NPPW policy, including helping to push the management of waste further up the waste hierarchy and ensuring that waste is dealt with at the nearest appropriate installation (the proximity principle).

6.117 The site is allocated for strategic waste uses in the adopted development plan and is located close to other waste management facilities. There are no overriding physical or environmental constraints to development. It is also well located to the strategic road network, which already accommodates waste movements.

6.118 The ES and supporting material consider the cumulative impact of the proposed facilities. Whilst some adverse effects will occur, when balanced with strong policy support and the benefits of the proposals it can be concluded that the facilities as proposed would be acceptable.

6.119 Given that the site is allocated in the development plan for the use, the NPPW says there is no requirement to demonstrate market need.

6.120 The buildings are of a high quality architectural design that responds to the character of the area, particularly by seeking to integrate the inevitably large buildings into the landscape by the use of substantial earth mounding and planting to provide screening, lowering the tallest building elements into the ground as far as possible without unacceptable impacts on groundwater, and use of high quality materials allied with appropriate forms, colours and textures to ensure that the buildings blend in as much as possible. The design quality of the buildings is also superior to the existing buildings on the site and to other nearby non-domestic buildings in the surroundings. The proposed design fully meets the NPPW design guidance.

6.121 Overall, in respect to planning for sustainable waste management the proposal is fully compliant with the NPPW.

Energy from Waste – A Guide to the Debate (DEFRA) February 2013

6.122 DEFRA's guide on energy from waste was first published in 2013 and updated in 2014 to include an additional chapter setting out the future direction for energy from waste. It provides a helpful starting point for discussions about the role energy from waste might have in managing waste, highlighting issues for discussion, available options and the process for decision making.

6.123 The DEFRA guide is focused on the thermal treatment of mixed residual waste. This is defined as the waste that is left over when all recycling possible has been undertaken and when it is considered that the environmental or economic costs of further separating and cleaning the waste are greater than any potential benefit of doing so.

6.124 Given that residual waste comprises various materials, the guide clarifies that only the energy generated from the recently grown materials (biodegradable) in the mixture is considered to be renewable. Energy from residual waste is therefore a partially renewable energy source, sometimes referred to as a low carbon energy source.

6.125 The guide re-affirms the use of the waste hierarchy and the role of energy from waste within it. It notes that when comparing energy recovery with landfill, the most important factor is their potential contribution to climate change. It highlights two simple rules:

- The more efficient the plant is at turning waste into usable energy the better
- The proportion of the waste that is considered renewable is key – higher renewable (biodegradable) content makes energy from waste inherently better than landfill.

6.126 It concludes that:

"Energy from waste is therefore better than landfill, providing the residual waste being used has the right renewable content and is matched with a plant that is efficient enough at turning the waste to energy. These considerations should be at the heart of any proposal".

6.127 The guide states that energy from waste can co-exist with high recycling and low landfilling, provided sufficient flexibility is provided in contracts, plants and processes to adapt to potential long-term changes in waste arisings and composition and continue to drive waste management further up the hierarchy. It concludes that energy from waste need not necessarily compete with recycling.

6.128 Energy from waste is recognised as not just being about waste management but also an energy source, highlighting that:

- The energy it produces is a valuable domestic energy source contributing to energy security
- As a partially renewable energy source it can also contribute to our renewable energy targets which are aimed at decarbonising energy generation
- It has the added advantage that it is non-intermittent, so it can complement other renewable energy sources such as wind or solar.

6.129 The guide recognises that most EfW plants currently only generate electricity, but that more are looking to use the heat generated through CHP. It recognises that in making

effective use of heat, it is possible to deliver higher efficiency and deliver upon the government's objective to capture more energy from less waste.

6.130 The ERF and WSTF proposed at Ford will deliver the benefits of energy recovery and landfill diversion and will be capable of delivering efficient waste management and energy recovery, with the ERF securing R1 status (subject to confirmation by the Environment Agency), whilst also having future potential to serve adjacent and nearby areas with heat.

6.131 The proposals will drive waste up the waste hierarchy, by reducing landfill disposal, and include (at the WSTF) a recycling component; overall the proposals will complement rather than compete with re-use and recycling.

6.132 The facilities will also recover residual metals for onward reprocessing and re-use, whilst the bottom ash and flue gas treatment (FGT) residues will both be recovered through conversion to secondary aggregate materials and building construction materials (e.g. concrete blocks).

6.133 The guide importantly states in respect to emissions and public health impact that:

"The emissions clean-up step ensures that all the waste gases emitted from the plant meet the very tight limits placed on them by EU legislation. As a result, energy from waste plants contribute only a small fraction of both local and national particulate and other emissions."

And

"The potential health implications of emissions are often a major focus of concern, hence the tight regulation of the emissions and the high priority Government gives to the ongoing process of conducting, evaluating and disseminating high quality science. Public Health England (PHE) has reviewed research undertaken to examine the suggested links between emissions from municipal waste incinerators and effects on health. It notes that modern, well-managed incinerators make only a small contribution to local concentrations of air pollutants. The PHE's view is that while it is possible that such small additions could have an impact on health, such effects, if they exist, are likely to be very small and not detectable".

6.134 The proposed facilities will meet all statutory standards relating to emission and public health. The ES and other supporting documents together demonstrate that the proposals would have no significant effects on air quality and/or human health.

6.135 The guide requires that regard be had to the proximity principle, which requires all waste for disposal and mixed municipal waste (i.e. waste from households) to be recovered in one of the nearest appropriate facilities. It does accept that this principle should not be over-interpreted, stating that it does not require using the absolute closest facility to the exclusion of all other considerations. This is deemed to ensure that existing capacity is used effectively and efficiently, and importantly helps maintain local flexibility to increase recycling without resulting in local overcapacity.

6.136 The proposals provide an ERF and WSTF in proximity to several sources of waste arisings in West Sussex and adjacent areas. The proposals are entirely consistent with the proximity principle and should be afforded substantial weight in decision making.

6.137 With respect to planning applications, the guide states that:

"Early engagement with the community by developers before submitting a planning application is firmly advocated. Developers need to be responsive to the concerns of the community and many of the issues identified in this guide could be raised; developers should be ready and able to address them. In turn, communities should recognise and be realistic about development constraints such as those around location and costs".

6.138 In the context of the withdrawn application WSCC/036/20, the applicants undertook consultation with the waste planning authority, statutory and non-statutory stakeholders, local interest groups and the local community. The submission of that application has led to further comments on that proposal from all groups, including the public.

6.139 There has been further consultation with the planning authority regarding how to address the comments made, in particular on the need for redesign to address comments on landscape, visual and heritage issues, but also regarding other aspects of the proposals. This includes a Regulation 25 request and other requests for clarification or further information.

6.140 These comments have been addressed through the redesign of the proposals and resubmission in this new full planning application (see chapter 4).

6.141 Energy from waste facilities must obtain an environmental permit (EP) to operate. The proposed ERF and WSTF will operate within the remit of separate EPs for each facility. In order to provide certainty on environmental matters, EP applications have been submitted to the Environment Agency in February 2021.

Overall compliance with DEFRA energy from waste guidance

6.142 The applicants have considered the DEFRA guidance, and have demonstrated through this application that the proposals are consistent with the approach advocated in so far as they would enable the sustainable treatment of mixed residual waste supporting the diversion from landfill. Furthermore, given its ability to secure R1 recovery status and future potential for CHP the ERF will be highly efficient in delivering energy from residual waste that cannot be recycled.

Energy White Paper May 2007

6.143 The government's Energy White Paper (EWP), sets out the challenge of tackling climate change through reductions in greenhouse gas emissions and increased low carbon energy, whilst securing future supply.

6.144 Government policy places significant weight to the provision of renewable and low carbon energy. Planning applications for renewable and low carbon energy developments should be looked upon favourably. It should not be necessary for developers to consider the need or justify the location of new renewable energy development.

6.145 The EWP confirms the government's support for distributed energy and supports CHP, including the recovery of energy from waste. Paragraph 5.3.44 states that:

"Generating energy from that portion of waste that cannot be prevented, reused or recycled has both energy and waste policy benefits. Energy generated either directly

from waste or through the use of a refuse derived fuel has benefits for security of supply. In addition, the biodegradable fraction of waste is a renewable resource."

6.146 The proposed ERF will ensure that energy is recovered from the treatment of residual waste that cannot practicably be prevented, reused or recycled, also contributing to reductions in greenhouse gas emissions (through diversion of waste from landfill) and to UK energy security.

Revised Overarching National Policy Statement for Energy (EN-1)

6.147 This National Policy Statement for Energy (EN-1) sets out national policy for energy infrastructure that falls within the remit of the Infrastructure Planning Commission (IPC). However, paragraph 1.2.1 indicates that EN-1 is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).

6.148 EN-1[27] states that future large-scale renewable energy generation is likely to come from various sources, including energy from waste. It confirms that the principal purpose of the combustion of waste, is to reduce the amount of waste going to landfill in accordance with the waste hierarchy and to recover energy from that waste as electricity or heat. It adds that only waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill should be used for energy recovery. Also, energy produced from the biomass fraction of waste is renewable.

6.149 It highlights the potential for CHP derived from EfW, whereby waste heat is used to drive electricity generation and steam/lower grade heat is supplied to customers via heat networks. It recognises that this approach can reduce the amount of fuel otherwise needed to generate the same amount of heat and power separately. Using less fuel to generate the same amount of heat and power reduces emissions, particularly CO_2[28].

6.150 The proposed ERF accords with EN-1 by facilitating the generation of energy from residual waste, the reduction of greenhouse gas emissions associated with disposal of waste to landfill and providing the potential to use CHP.

National Policy Statement for Renewable Energy Infrastructure (EN-3)

6.151 Whilst EN-1 provides a primary basis for decision making on nationally significant infrastructure project applications, the National Policy Statement for Renewable Energy Infrastructure (EN-3) provides specific guidance in respect to energy from waste. It confirms that electricity generation from renewable sources of energy is an important element in the government's development of a low-carbon economy. EN-3 can be a material consideration in decision making on relevant applications made under the Town Country Planning Act 1990 (as amended).

6.152 EN-3 guidance also confirms that the recovery of energy from the combustion of waste, where in accordance with the waste hierarchy, will play an increasingly important role in meeting the UK's energy needs. Where the waste burned is deemed renewable, this can also contribute to meeting the UK's renewable energy targets. Further, the

[27] EN-1 paragraph 3.4.3
[28] EN-1 paragraph 4.6.3

recovery of energy from the combustion of waste forms an important element of waste management strategies in both England and Wales.

6.153 Part 2 provides assessment and technology specific information, covering aspects such as:

- Climate change adaptation - should be resilient to risk of flooding
- Good design for energy infrastructure - should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology
- Factors influencing site selection - these include proximity to grid connection, existing transport routes and opportunities for multi-modal transport where possible, potential for CHP, national designation, green belt and previously developed land.
- Energy from waste impacts in respect to landscape and visual, noise and vibration, odour and vermin, waste management, residue management, and water quality and resources.

6.154 The application site is not subject to significant flood risk, whilst the proposed design (as detailed in the Design and Access Statement) is of high quality and takes account of landscape and visual, noise and ecological matters. Whilst there are some residual landscape and visual adverse impacts, the development does not give rise to any impacts that are considered to be unacceptable when balanced against the benefits of sustainable waste management and recovery of energy.

6.155 EN-3[29] states that energy from waste facilities should have a viable connection to a transmission network. The proposed ERF will have access to a suitable and viable grid connection as identified in the ES.

6.156 EN-3 requires that new energy from waste facilities should be located in the vicinity of existing transport routes. It also states that applications should incorporate suitable access leading off from the main highway network.

6.157 The application site has a recently constructed new access road that provides access to the strategic road network. The proposals will not require any changes to this access arrangement. This accords with EN-3 guidance.

6.158 The proposed ERF will be CHP enabled and will achieve R1 recovery status. The proposals can therefore fully meet the EN-3[30] guidance regarding CHP.

6.159 The application site is not located within any nationally designated areas, nor does it significantly affect the historic environment to an unacceptable degree, and therefore accords with EN-3[31] guidance.

6.160 All potential impacts have been considered through the EIA and reported in the ES submitted with the application. This concludes that the majority of the potential impacts can be mitigated. It is considered that the few residual effects reported in the ES are acceptable.

[29] EN-3 paragraph 2.5.22
[30] EN-3 paragraph 2.5.26 and 2.5.27
[31] EN-3 paragraphs 2.5.33 and 2.5.34

Overall compliance with EN-1 and EN-3 guidance

6.161 Whilst related to energy from waste projects that are considered under DCO procedures, the EN-1 and EN-3 guidance can be a material consideration for energy from waste projects determined through the Town and Country Planning Act. The proposal is deemed to comply with EN-1 and EN-3 national energy planning policy.

Committee on Climate Change

6.162 The Climate Change Committee (CCC) is an independent, statutory body established under the Climate Change Act 2008.

6.163 Its purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.

6.164 In October 2020, the Government published the "Government Response to the Committee on Climate Change's 2020 Progress Report to Parliament – Reducing UK emissions".

6.165 The Government recognises the need to divert waste from landfill. In response to the CCC recommendation to "Legislate (in England via the Environment Bill) for and implement a ban on landfilling of municipal & non-municipal biodegradable wastes from 2025", the report states "The Government is already committed to implementing measures that will remove a large proportion of biodegradable waste from the residual waste stream, such as through implementing separate food waste collections and consistency in the recycling system through the Environment Bill. This will deliver a reduction in volumes of biodegradable waste to landfill or other residual treatments. Remaining waste will increasingly be treated by alternatives to landfill, such as energy from waste plants and waste-to-transport fuels."

6.166 Recommendations for the Sixth Carbon Budget were published by CCC in December 2020. They specified increased carbon reduction targets for the period 2033-2037 and set out the requirements and actions to reach these targets. The requirements and targets still recognise EfW plants to play a part of the long-term waste disposal plan for the UK. There are requirements to increase overall recycling rates within the UK and reduce overall residual waste volumes. However, the Sixth Carbon Budget recognises that the maximum recycling rates are uncertain and none of the modelled scenarios have 100% recycling; it is expected for there to always be a level of residual waste which will require disposal. Therefore, there will be a requirement for EfW in the long term.

6.167 The Government envisages a future energy generation mix where renewables dominate, which includes generation from EfW plants. The continued development and investment in low carbon technologies will be key in achieving a net-zero future. The intermittency of renewables is recognised and there is support for base-load low-carbon generating plants. Consequently, EfW (which supplies a steady and reliable source of lower carbon energy) would play a key role in UK renewable power generation and contribute to achieving a net zero future.

Conclusions on national policy and guidance

6.168 The proposals for the ERF and WSTF at the Ford site are supported in principle by national policy and guidance in relation to the need for sustainable waste management and energy generation infrastructure. This is deserving of substantial weight in favour of the proposals.

6.169 The proposals also meet the national policy and guidance regarding the consideration of proposals in the decision-making process, particularly with regard to environment, transport and amenity considerations. The ES provides the details of how the impacts in these areas have been assessed and concludes that there are few residual effects after mitigation. Those residual effects are not considered to be unacceptable in the context of the strong national policy and guidance support for the proposals, which carries substantial weight. How the proposals meet the environment, transport and amenity considerations is addressed in more detail in the following chapter regarding the development plan.

7.0 DEVELOPMENT PLAN POLICY

7.1 Under the provisions of the Planning and Compulsory Purchase Act (PCPA) (2004) the current development plan at the site location comprises the following:

- West Sussex Waste Local Plan (2014)
- West Sussex Joint Minerals Local Plan (2018)
- Arun District Local Plan 2011-2031 (2018)
- Ford Neighbourhood Development Plan (2019)

7.2 The key development plan policies of relevance to the proposed development are addressed below, along with an assessment of how the proposals comply with the policy requirements.

7.3 Please note that no policies of the West Sussex Joint Minerals Local Plan are considered relevant to the application so, whilst part of the current development plan, there are no further references to this document.

7.4 The most relevant development plan policies are those of the West Sussex Waste Local Plan (WLP). The WLP was prepared to be consistent with the National Planning Policy Framework (NPPF) and covers the period to 2031. It was reviewed by WSCC in 2019 and this review concluded that the WLP remains relevant and effective.

7.5 The WLP is consistent with national policy in the NPPF and also with the National Planning Policy for Waste (NPPW).

7.6 As explained in chapter 5 of this document on need and capacity, the WLP identifies a shortfall in recovery capacity of 270,000 tonnes per annum (see policy W1(d) of the WLP) and allocates sites at Policy W10 to meet this.

7.7 These sites in Policy W10 are considered to be acceptable in principle for waste management development, subject to consideration of detailed matters when planning applications are made. Whilst adopted in 2014, the latest monitoring report indicates that the shortfall in operational recovery capacity remains at 270,000 tpa.

7.8 The WLP, in line with national policy, is not prescriptive of any particular type of facility or technology. It also says that there will be no requirement for applicants to demonstrate a quantitative or market need for a proposal on a site allocated in Policy W10.

7.9 The policy and legislative context clearly support the need for the WSTF and ERF. The proposals will deliver key objectives of national policy and strategy, as well as meeting needs identified in the WLP. They will assist with delivering the waste hierarchy and will contribute to self-sufficiency (in terms of energy recovery and sustainable waste management). They will recover value from residual waste.

7.10 The principle of development having been established, this chapter focuses on the site specific and development management policies that apply to the development of the site as proposed.

7.11 It commences with consideration of compliance with Policy W10 of the WLP that identifies the application site for waste management uses of the type proposed, and its associated development principles.

7.12 It also includes reference to relevant findings from the Environmental Statement submitted with the application, to provide evidence to support this compliance.

W10: Strategic Waste Allocations

7.13 Policy W10 of the WLP identifies five sites to address the shortfall in transfer, recycling and recovery capacity.

7.14 The application site is one of these identified sites, referred to in the policy as "site north of Wastewater Treatment Works, Ford" and shown in the WLP on Policy Map 1.

7.15 Part c) of the policy states that proposals at the sites must accord with the policies of the WLP and also satisfactorily address development principles for each site as set out in supporting text.

7.16 Para 7.3.1 of the WLP states that a detailed technical assessment by WSCC of the sites in identified W10 has identified no overriding constraints, and that potential adverse impacts can be prevented, minimised, mitigated or compensated for to an acceptable standard.

7.17 The planning application and its supporting documents provide information that supports the WLP's position on this for the Ford site, as will be seen below.

7.18 Para 7.3.3 of the WLP specifies that wherever possible, proposals for facilities involving thermal treatment should include the generation and distribution of heat and power.

7.19 The proposed Ford ERF provides a form of thermal treatment and incorporates a steam turbine that will generate heat and power. Electricity will be exported to the national grid. The turbine will also have heat offtake capability and space is reserved in the layout for heat plant, and pipework is provided to the site boundary at Ford Road to facilitate export. Opportunities to export to nearby potential heat users, subject to commercial terms, are also being actively explored (see the CHP report that accompanies the application).

7.20 Para 7.3.8 of the WLP indicates that the site has the physical capacity to deliver a single built facility (up to circa 250,000tpa) or a number of smaller facilities. It indicates that the actual waste management capacity achieved on the site would depend upon the specific type of facility/facilities and the chosen technology or technologies.

7.21 The planning application provides two facilities, an ERF and a WSTF that together provide 295,000 tpa of capacity.

7.22 Whilst this is greater than 250,000 tpa, it is noted that the figure in the WLP is qualified with 'circa'. This means that it can be treated as an approximate amount, and that there is therefore an implied acknowledgement that capacity will depend on the specific proposals. The implication is that a provision in excess of 250,000 tpa is potentially acceptable, all things considered.

7.23 As discussed in chapter 5 of this document, it is notable that the building size, massing, height and footprint of the facilities as proposed would not be changed significantly by

limiting the throughput to 250,000 tpa. Such a limitation would not materially affect the findings of the Environmental Statement. Importantly the proposals will be able to operate with a throughput of 295,000 tpa and keep within 240 HGV movements in and out each day, as currently allowed by the existing s106 agreement regarding the site access.

7.24 The size and capacity of the proposals are therefore in line with policy W10 expectations.

Meeting the W10 site-specific development principles

7.25 Para 7.3.9 of the WLP sets out a series of principles that are expected to be addressed in the development of the site. The design of the proposals has had regard to these principles and also to consultation with WSCC officers and local community representatives and site neighbours (see chapter 4 regarding consultation). Environmental issues have also informed and influenced the design of the facilities.

7.26 The development principles for the Ford site are as follows, accompanied by a commentary on how each is addressed. This includes reference to the findings of the Environmental Statement on specific topics where this is relevant.

Development of the site to be comprehensive.

7.27 A comprehensive development of the site is taken to mean that the whole site is used to the full, and that best use is made of it to maximise its capacity in pursuit of the WLP's strategy and identified needs.

7.28 This best use includes the provision of waste management facilities to meet the identified needs of the WLP within the environmental limits of what is reasonably possible at the site. The proposals meet the other identified development principles and provide space for on-site mitigation that is required. This includes provision of landscape screening as well as other on-site requirements such as drainage features.

7.29 The proposed ERF and WSTF and the various ancillary buildings and structures, earth mounding, planting and drainage features, will occupy the entire site, providing a comprehensive development as required. The design and layout and how they make best use of the site is further described in the Design and Access Statement.

7.30 The proposed development therefore demonstrably meets this first development principle.

Comprehensive landscaping scheme required.

7.31 A comprehensive landscape scheme is taken to mean one that maximises the opportunities to provide landscape on site, taking a creative approach which recognises a well-designed landscape as an essential element in the delivery of a successful development.

7.32 Against this background, the proposed landscape scheme aims to reduce the visual impact, helping to integrate the development into the landscape and providing screening and softening, including mitigation of negative visual effects.

7.33 It uses a careful selection of materials and plant species to complement and enhance the local landscape, and careful design of the mounding in conjunction with the planting

design to ensure it is not perceived as an alien or unnatural form when viewed from outside the site in the wider landscape.

7.34 Combinations of materials, design features and planting will help to create high quality places around the site, providing visual, historical and ecological links with the area. This includes use of flint walls, paving and water features reflecting the line of the former Chichester and Arundel canal across the site, and meadow planting. The high standard of new planting and materials adds character to the development and helps it to integrate with the surroundings

7.35 The earth mounding and planting with native species helps to improve the physical environment, combining to reduce and buffer noise. It provides enhanced biodiversity, for example by providing food plants for wildlife and nesting or roosting opportunities for birds, as well as new habitats, on a site that currently has little biodiversity.

7.36 It provides space for mitigating some of the effects of climate change, through the integrated drainage design.

7.37 There are also locations where benches are provided for staff or visitors, where they can enjoy the landscape.

7.38 The redesign of the layout has sought to maximise the amount of earth mounding and screening in key locations in relation to the presence of nearby listed buildings to the north east and the proposed new housing area to the north and west.

7.39 The landscape planting includes conservation grassland, scrub, trees and drifts of gravel to provide a varied habitat as well as providing screening and softening of the views of the site from adjacent areas.

7.40 These planted areas will also integrate with existing landscape features offsite, such as the existing vegetated bund next to the site boundary to the east, the tree belt to the north, and the existing small strip of woodland next to the south western boundary.

7.41 This comprehensive landscape scheme is considered to be fully compliant with this development principle of W10.

Assessment of impact on the listed buildings to the north and possible mitigation required.

7.42 The presence of the listed buildings to the north (and elsewhere in the vicinity of the site) has been recognised and assessed in the ES.

7.43 Those referred to in this principle are taken to be, specifically, the grade 2 listed Place Farm, and Grade 1 listed St Andrew's Church, Ford, both located to the north/north east of the site.

7.44 Given their distance from the site (more than 200m and 700m respectively) there is no direct physical impact on these buildings, so the impacts considered are visual, in relation to the settings of these buildings.

7.45 Following comments on the withdrawn application, the redesign for this submission has worked hard to minimise the visual impacts on these buildings. This includes a substantially lower ERF building, achieved in part by sinking it into the ground, subject to the limitations of groundwater, and by reviewing the internal process design to

minimise the size of the building envelope. It also includes a horizontal roofscape to better reflect the dominant flatness of the coastal plain and existing linear landscape features, a change in colour palette and textures to better blend in with the landscape, and a change in layout and the amount of development footprint to allow more space for landscape mounds and planting to assist in screening at lower levels.

7.46 The assessment in the ES concludes that there will be a small change to the qualities and character of the setting of the Grade 1 church as a result of the development. There is intervening vegetation that, along with the proposed mounding and new planting, provides effective screening of the proposals, although higher parts will still be visible to a small degree.

7.47 The buildings at Place Farm are relatively close to the proposed ERF/WSTF, and with little intervening landscape planting or topographical features to provide natural screening of the proposals a degree of visual impact is inevitable, given the size of the ERF building and the height of the flue stack in particular.

7.48 Nevertheless, the proposals do include a significant earth mound and planting that will screen the lower parts of the building. The height of the mounding plus the planting that, when mature, will together reach to about 18-20m in height when viewed from Place Farm, will provide a substantial amount of screening and softening of the proposals at lower levels.

7.49 The ES concludes that the alteration to the qualities and character of the setting of the house will be a medium magnitude of change.

7.50 Given the refinements to the layout and design of the ERF and WSTF that have reduced the building height to the absolute minimum that is possible on the site, given the constraints, the proposal is considered to be a significant improvement over the withdrawn scheme.

7.51 The provision of a high-quality design in terms of building form, colour and choice of materials, and the provision of substantial screening by mounds and new planting, has the result of minimising the visual effects as far as possible and taking into account other constraints such as the need to avoid impacts on groundwater.

7.52 In accordance with this principle, the impacts have been assessed, and the possibilities for mitigation, largely through design, have been fully explored and included to provide the best possible result.

7.53 Noting that the WLP policy W10c requires that development should "satisfactorily address the development principles'", it is therefore considered that notwithstanding the residual impact in relation to the listed buildings at Place House and at St Andrew's Church, the proposed development therefore achieves a satisfactory level of compliance with this principle.

If substantial new ground excavations are proposed, low-level archaeological mitigation required.

7.54 There will be substantial new ground excavations as the proposed development will be sunk, in part, below the existing ground level.

7.55 Archaeology has fully been addressed in the ES and the scope of this assessment has been informed by WSCC's EIA scoping opinion, direct dialogue with the County Archaeologist and the comments received in consultation on the withdrawn application at the site.

7.56 The assessment concluded that the effects on archaeology can be wholly mitigated through an agreed programme of targeted investigation and subsequent preservation by record. The knowledge gained in that process is predicted to result in a moderate, beneficial effect.

7.57 In addition, the site has elements that attest to its former use in two distinct periods of transport history (associated with the canal and the airfield). The heritage will be celebrated, and its awareness increased by the implementation of a number of enhancement and heritage interpretation measures within the proposals. This results in a moderate, beneficial effect.

7.58 The development of the site as proposed will be accompanied by a written scheme of investigation (WSI), to be agreed with the County Archaeologist prior to commencement, to investigate and record any archaeology that may be found. The applicants are content to have a planning condition to this effect.

7.59 Noting that the WLP policy W10c requires that development should "satisfactorily address the development principles'", it is considered that with a planning condition in place to secure the WSI, the proposed development achieves a satisfactory level of compliance with this principle.

Assessment of impacts on the water environment (major aquifer) and possible mitigation required.

7.60 The proposals include excavation below ground but have been designed to avoid direct impacts on the major aquifer. The extent of excavation has been limited to ensure that it does not extend into the aquifer to avoid any direct impacts.

7.61 This has been a key consideration in balancing the drive to achieve the lowest possible building height, for landscape and visual reasons, against other potential environmental effects, such as those on groundwater.

7.62 Impacts on water environment are addressed in chapter 11 of the ES, along with ground conditions.

7.63 With proposed mitigation measures in place (for example undertaking an intrusive ground investigation, completion of a foundation works risk assessment and remediation strategy, which will include groundwater and surface water monitoring and the implementation of a construction environmental management plan) no significant residual risks are predicted in relation to ground conditions and the water environment. No cumulative effects are predicted either.

7.64 The mitigation measures are included in an Outline Construction Environment Management Plan (CEMP) provided as a technical appendix to the ES. A detailed CEMP can be provided once a contractor is on board to carry out the works. With the specified measures in place, no significant residual risks are predicted in association with ground conditions, the water environment or flood risk.

7.65 In accordance with this principle, the impacts have been assessed, and the possibilities for mitigation have been fully explored and included to provide the best possible result.

7.66 It is considered that the proposed development therefore achieves a satisfactory level of compliance with this principle, as required by policy W10c.

Assessment of impacts on the amenity of users of public rights of way and possible mitigation and enhancement required.

7.67 A single public right of way (footpath) runs through the north eastern part of the site, at the site boundary, and there are others in the vicinity. The public footpath follows the existing concrete road leading from Ford Road westwards into the site, up to a point where it turns north to leave the site. The section of concrete road over which the path passes will be retained in full within the site and is accommodated in the site layout. The path will not therefore require diversion. It will be separated from the operational site area by the perimeter security fence.

7.68 In general, users of the public rights of way are deemed to be less sensitive receptors than occupants of residential properties, because their experience is temporary and transitory as they pass through an area.

7.69 The proposed buildings and the site layout have been designed to minimise amenity impacts such as noise, odour and dust nuisance, with all processes enclosed in buildings, and site circulation and building positions being laid out to provide shielding and to minimise vehicle reversing as much as possible. Equipment and plant that generates noise will also be provided with noise insulation. A range of design and management measures are included to avoid nuisance arising from odour, dust, pests and litter.

7.70 There is also a combination of bunds, new planting and acoustic fencing around the site to further minimise noise and provide visual screening of site activity and vehicle movements.

7.71 The assessment in the ES concludes that with these mitigation measures in place there will be no odour, air quality, or dust effects on path users.

7.72 Regarding visual amenity, the main buildings and the twin flue will be visible to varying degrees, and particularly for users of some parts of the public right of way network close to the site.

7.73 Existing industrial development, including the site itself, is already experienced in views from some of the paths, and the proposals will be in keeping with this industrial character of this part of the area, but the proposed development is of a larger scale and it is this aspect that would mainly give rise to the effects on those views.

7.74 Taking into account that the experience is temporary and transitory as pedestrians or riders pass through an area, there will be adverse landscape and visual effects on users of some parts of the public right of way network close to the site.

7.75 However, the form, materials and colours of the buildings have been designed to minimise visual impact and the landscape measures will, particularly in the closer views, also help reduce the perceived massing and scale, screening the lower levels and softening the appearance of the development.

7.76 In accordance with this principle, the impacts have been assessed, and the possibilities for mitigation, largely through design, have been fully explored and included to provide the best possible result.

7.77 The impacts on the amenity of users of the rights of way in the area are therefore considered to be satisfactorily addressed in compliance with this principle and policy W10c.

Assessment of impact (e.g. traffic, noise, odour) on the amenity of dwellings to the north, east and south west and possible mitigation required.

7.78 The impacts on amenity are addressed in the ES, and the dwellings to north, east and south west are addressed in the assessment of these. This includes air quality, odour and dust; traffic; and noise and vibration.

7.79 The proposed buildings and the site layout have been designed to minimise amenity impacts such as noise, odour and dust nuisance, with all processes enclosed in buildings, and site circulation and building positions being laid out to provide shielding and to minimise vehicle reversing as much as possible. Equipment and plant that generates noise will also be provided with noise insulation. A range of design and management measures are included to avoid nuisance arising from odour, dust, pests and litter.

7.80 There is also a combination of bunds, new planting and acoustic fencing around the site to further minimise noise and provide low level visual screening of site activity and vehicle movements.

7.81 All site traffic will enter and leave the site via the recently constructed site access to Ford Road, so traffic will not pass close to the dwellings to the north, east and south west of the site.

Air quality, including dust and odour

7.82 The ES reports the results of an air quality assessment that has been undertaken to address the emissions from the proposed development, including dust and odour.

7.83 A series of points chosen to represent areas sensitive to impacts from the proposed development are identified. This includes nearby dwellings. Where necessary, additional analysis of dispersion contour plots has been undertaken to understand the spatial distribution of impacts.

7.84 A range of best practice measures will be put in place to control the effects on sensitive receptors from increased dust generation during construction.

7.85 The study concludes that the dust risk during construction and operation is low to negligible. This includes consideration of dust from site activities and processes as well as from vehicle exhausts.

7.86 It is also concluded that the overall process emissions associated with the operation of the ERF is predicted to have a negligible and not significant effect on human health, including emissions from vehicles as well as the ERF itself.

7.87 The odour source potential is considered to be small as the planned odour containment and mitigation measures embedded in the design of the ERF and WSTF, as detailed in

chapter 3 of the ES, are intended to prevent an unacceptable level of odour beyond the site boundary.

7.88 It should be noted that as part of the environmental permit for the proposed development, all emissions, including fugitive dust and odour, would be required to be controlled to ensure there is no impact beyond the installation site boundary.

7.89 The magnitude of odour effects at nearby dwellings is assessed as negligible and not significant.

Noise

7.90 The noise assessment identifies noise sensitive receptors around the site including existing nearby dwellings. Current noise measurements were taken at these locations and noise emissions during both construction and operation of the proposals were calculated.

7.91 The results of the noise and vibration study show that predicted demolition and construction noise levels will result in mostly short-term, negligible effects, with the exception of short term slight adverse effects at one receptor. This is not considered to be significant.

7.92 It is expected that demolition and construction heavy goods vehicle traffic noise will result in short term, negligible effects, which are also not considered to be significant.

7.93 The predicted operational daytime noise levels show no effects or negligible effects for all existing receptor locations. No effects or negligible effects were also predicted for the majority of noise sensitive receptors at night-time, with the exception of dwellings at Ford Lane and Nelson Row, which may experience slight effects between 6 - 7am when site-related heavy goods vehicles will be operational. The 'night-time' noise measurement period includes 6 - 7am. This is not considered to be significant.

7.94 It should be noted, however, that the existing site operations at the WTS generate noise, as well as noise from the arrival and departure of HGVs and refuse collection vehicles. Therefore, it is considered that as there are already impulsive characteristics to the noise present on site during the day and early morning (6 – 7am) when HGV movements and sorting of waste is occurring, the predicted effects may not occur.

7.95 Best practicable means will be implemented during the demolition and construction phase of the development, to minimise the noise and vibration effects at receptors nearest to the construction works.

7.96 Noise mitigation measures have been designed into the proposed development. The majority of equipment with potential to create noise will be housed inside the main ERF and WSTF buildings and will include measures to contain noise from the noisiest elements. Within the ERF high levels of acoustic insulation will be installed around the turbines and generator sets. Other potentially noisy equipment such as fans and motors will also be insulated. The site has been designed to provide maximum distance between the low-speed fans on the air-cooled condensers that are situated in the south east corner of the site and the residential receptors.

7.97 The proposals include significant areas of earth mounding. In combination with acoustic timber fencing, this will provide effective noise and visual screening around the site's perimeter, towards the west, north and east.

7.98 All unloading and loading of vehicles will be undertaken inside the ERF and WSTF buildings, and vehicle access for delivery of waste or collection of ash or recyclable materials will be restricted to normal working hours. Both the ERF and WSTF have been designed to include one-way vehicle circulation systems, which also reduces the need for reversing vehicles and reversing alarms.

Traffic

7.99 Regarding traffic, all construction or operational vehicles will leave or access the site via the recently constructed new site access to Ford Road. This arrangement means that no site traffic will pass the dwellings to the north, east and south west of the site.

7.100 No construction or operational vehicles will be permitted to leave or access the site from the northern stretch of Ford Road. There is an existing routing agreement in place to this effect and this will be extended to cover the ERF and WSTF development.

7.101 The operational traffic flows will fall within the permitted heavy goods vehicle cap in the s106 legal agreement attached to the planning permission for the new access road (120 heavy goods vehicle movements to the site and 120 heavy goods vehicle movements from the site between 6am to 8pm Monday – Friday and 60 heavy goods vehicle movements to the site and 60 heavy goods vehicle movements from the site between 8 am to 6pm on Saturdays).

7.102 Whilst it is noted that there will be an increase in heavy goods vehicle movements on Ford Road/Church Lane (south of the site access road) overall compared to the current baseline, this is within the approved HGV traffic levels for the site and there are no significant adverse effects anticipated as a result of the proposed development.

7.103 There would be little change in severance, pedestrian delay, amenity or fear and intimidation resulting from the change in traffic movements against the existing background traffic. The overall significance of effect for pedestrians is therefore considered to be slight adverse, and not significant.

7.104 Overall, there are no significant effects anticipated as a result of the construction or operation of the proposed development. No additional mitigation measures beyond those already incorporated into the proposed development would be required during either the construction phase or for the operational proposed development. No changes are proposed to the local highway network, footways / cycleways or access to public transport services.

7.105 The impact of site traffic during construction and operation has been assessed in the ES with regard to noise and air quality, and as reported above there will be no significant effects.

Conclusions

7.106 In accordance with this principle, the impacts have been assessed, and the possibilities for mitigation have been fully explored and included to provide the best possible result.

7.107 There will be no significant odour, air quality, dust, traffic or noise effects on the amenity of dwellings to the north, east and south west. It is therefore considered that this principle is therefore satisfactorily addressed, in compliance with policy W10c.

The cumulative impacts of traffic, noise and odour on the environment and local communities to be satisfactorily addressed and mitigated as required, taking into account all existing, permitted, allocated, or proposed development within the wider area.

7.108 Potential for cumulative effects with other proposed and consented developments, plus some sites allocated in the Arun Local Plan that are in the vicinity of the proposed site, has been assessed for each environmental topic where relevant (see individual topic chapters in the ES). The projects in table 5.5 of the ES have been included in the 'cumulative effects' assessment. The locations of these cumulative projects are shown on figure 5.2 of the ES.

7.109 Not all projects are relevant to all of the environmental topics; the projects that have been considered are clarified in each assessment. The list of projects has been discussed with WSCC and has been informed by the comments of consultees.

7.110 The assessments conclude that there will be no cumulative noise, traffic or odour effects on the environment or local communities, with the proposed mitigation in place.

7.111 In accordance with this principle, the impacts have been assessed, and the possibilities for mitigation have been fully explored and included to provide the best possible result.

7.112 It is therefore considered that this principle is satisfactorily addressed, in compliance with policy W10c.

Assessment of the possible closure of the existing access north of Rodney Crescent and the use of an alternative access to the site from Ford Road.

7.113 The access north of Rodney Crescent is already closed for site traffic and a new site access is in use, located further south and providing access to Ford Road.

7.114 This principle has therefore been superseded by this new arrangement, which already provides benefits in terms of removing site traffic, and any associated effects, from the vicinity of residential properties in Rodney Crescent.

7.115 This principle is therefore no longer relevant, and the assessment of possible closure is no longer an issue.

Assessment of impact of additional HGV movements on highway capacity and road safety, including at the Church Lane and A259 junction and possible mitigation required.

7.116 An existing s106 legal agreement related to the new site access road allows up to 240 two-way HGV movements per day and 120 per day on Saturdays. This provides the baseline measure of the current level of HGV movements that any additional movements should be measured against.

7.117 The applicants intend that the proposed development will continue to operate within these limits. There will therefore be no additional HGV movements to assess over the current baseline.

7.118 Traffic and transport is addressed in the ES and includes assessment of highway capacity and road safety. A Transport Statement is also submitted with the application. Both have taken account of a scoping exercise with the Highway Authority, and also take into account comments made on the withdrawn application.

7.119 The assessment includes consideration of the Church Lane and A259 junction. It concludes that no significant traffic and transport effects are predicted overall as a result of the proposed development.

7.120 In accordance with this principle, the impacts have been assessed, and the possibilities for mitigation have been fully explored and included to provide the best possible result.

7.121 It is therefore considered that this principle is therefore satisfactorily addressed, in compliance with policy W10c.

A routing agreement is required to ensure vehicles enter and exit via Ford Road to the south, and not to or from the A27 to the north. Access via Rollaston Park/B2233 for HGVs should also be prevented.

7.122 The applicants are content to have a routing agreement in line with this principle, which is facilitated by the new site access to Ford Road that is now in use and that already operates a restriction on HGV traffic movements to the north, all HGV traffic turning south out of the new junction with Ford Road.

7.123 This is secured in an existing s106 agreement, and the applicants will enter into a new agreement that carries this forward for the new permission. Note that the access via Rollaston Park is now closed, so is effectively already prevented.

7.124 The requirements of this principle have therefore been satisfied, where they remain of relevance, in compliance with policy W10c.

Conclusion on development principles

7.125 In conclusion, the development principles have all been satisfactorily addressed, as required by Policy W10(c) of the WLP.

Safeguarding

7.126 Part d) of the policy W10 says that the allocated sites will be safeguarded from any development either on or adjoining the sites that would prevent or prejudice their development (in whole or in part) for the allocated waste management use or uses.

7.127 It is noted that Policy W2 of the WLP also seeks to safeguard existing waste management sites in general, including in the context of proposals for new development on neighbouring land that may prejudice their continuing efficient operation.

7.128 W10 (d) and W2 are relevant in the context of a strategic housing proposal at Ford (allocated in the Arun Local Plan and subject of a live outline planning application at the

time of writing) and its relationship with the proposed (and existing) waste management activities at the application site, both of which are safeguarded by these policies.

7.129 This WLP strategic policy context supports the principle that the new homes at Ford should be located an appropriate distance from the waste site boundary, and the new housing proposals should mitigate for potential effects on new residents as a result of their location in proximity to the strategic waste site. This is a consideration in the assessment of how the application interacts with the housing proposals.

7.130 This matter is addressed in Appendix 2 of this document.

Other development plan policies

7.131 Other relevant development plan policies and how the proposals address them are explained below. These are mainly development management policies that are designed to ensure that there would be no unacceptable harm to amenity, character, and the environment or to other material considerations from waste development proposals

7.132 The Arun Local Plan was adopted in 2018 and sets out the vision for the future of the district, and guides development to achieve that vision. Whilst it does not include waste policies that affect the determination of the application, that being the domain of the WLP, other policies are considered relevant where they relate to economic, social and environmental matters, and the management of development in the area.

7.133 The Ford Neighbourhood Plan was made in 2019 and is in general conformity with the strategic policies contained in the WLP 2014 and the Arun Local Plan 2018.

7.134 Many of the development management policies of the Arun Local Plan and the Ford Neighbourhood Plan have equivalents with a similar aim to the Waste Local Plan (WLP). policies.

7.135 Hence a topic-based approach is taken to consider the WLP policy first, then refer to any similar Arun or Ford policies that over the same or similar topics, with a brief commentary if necessary, to address any slight variations in the policy approach.

7.136 Where there are relevant Arun or Ford policies that do not have an obvious direct equivalent in the WLP, these are addressed at the end of this analysis.

7.137 Reference is made to the findings of the Environmental Statement (ES) where necessary to show how the specific policy requirements have been complied with.

Landscape and character

Policy W11: Character

7.138 Policy W11(a) states that proposals for waste development will be permitted provided that they would not have an unacceptable impact on the character, distinctiveness, and sense of place of the different areas of the County and that they reflect and, where possible, reinforce the character of the main natural character areas that have been identified.

7.139 Policy LAN DM1 (Protection of Landscape Character) of the Arun Local Plan has similar aims, as well as seeking to protect the setting of the South Downs National Park, a subject that is addressed under the commentary on WLP Policy W13 below.

7.140 The site is located within WSCC's landscape character area SC9 - Chichester to Yapton Coastal Plain. It is part of an existing area of industrial development that is an acknowledged part of the character of the Ford area. This includes some large-scale industrial style buildings. Given this context, the proposed development will fit into this existing industrial character.

7.141 However, it is acknowledged that the proposed development includes elements that will be larger than any existing buildings in the locality. The design of the proposals is a key area of built-in mitigation in this respect.

7.142 It is also pertinent that the site is surrounded by a large strategic housing allocation in the Arun Local Plan, that will also affect and change the local character (reference Policy H SP2 & H SP2c – Strategic Site Allocations; also Ford Neighbourhood Plan Policy SA1 –Ford Airfield). The interrelationship of the proposals for the ERF and WSTF with this strategic housing proposal is addressed in Appendix 2 of this document.

7.143 These local plan and neighbourhood plan policies are relevant because they identify a strategic housing allocation at Ford (SD8) that surrounds the application site. The allocation is for 1500 new homes, employment, ancillary commercial and retail facilities, and schools and other community facilities. The interrelationship of the proposals for the ERF and WSTF with the strategic housing proposals is addressed in Appendix 2 of this document.

7.144 With regard to character, it is notable that the site and the surrounding housing area will become a single large built-up area, and the Arun Local Plan includes both the strategic waste site and the strategic housing site within the proposed built-up area boundary under Policy SD SP2 – Built-up Area Boundary. This states that development should be focused within the Built-up Area Boundaries and will be permitted, subject to consideration against other policies of this local plan. As the site is located within one such Built Up Area Boundary, this policy supports development, subject to the wider consideration referred to.

7.145 The design provides a building of high quality and was led by the project architect assisted by the wider engineering and environment team, with close working with the landscape and visual assessor, landscape architect, and heritage experts. The design process was also influenced by the consultation responses on the withdrawn application, and subsequent discussion with officers of the local planning authority and their landscape and heritage advisers.

7.146 In terms of effects on local character, the quality of design of the buildings sets them apart from the other industrial buildings in the surrounding area and it embraces the principles of current WSCC and CABE/Design Council design guidance for waste related infrastructure projects. The DAS explains the evolution of the design and options considered, including explanation of both the response to site constraints and the landscape and visual receptors, the comments of the local planning authority and statutory consultees, and the technical constraints encountered. The design is also discussed in the context of the design policies below.

7.147 The overall proposals are also screened on three sides (west, north and east) by substantial earth mounds and landscape planting, including in key views from heritage assets. The new planting provides habitat, low-level screening and reinforcement of landscape structure in the area, linking to adjacent landscape planting where this is present. This reflects, and will help to reinforce, the character of the area. No important features or characteristics of the area will be lost.

7.148 The careful selection of materials, textures and colour also helps to blend the buildings visually into their context. Reflections of local character have been incorporated within the design with the use of areas of flint walling which will add visual texture.

7.149 The layout also reflects the position of the former Portsmouth and Arundel Canal where it crosses the site. A water feature is provided in a recess in the perimeter bunding to the west to mark the former alignment of the canal. Blue translucent paving is provided in the parking area on the eastern side of the ERF building that is also on the alignment. Further information on how the layout and design reflects the site's heritage is provided in the Design and Access Statement.

7.150 The building sits in a flat coastal plain landscape and the form of the building reflects this character, with the building sitting as low as possible with flat roofs to emphasis the horizontal plane. Whilst a building of this scale cannot be lost in the local landscape, and cognisant that the withdrawn proposal, which sought to stand out as a landmark, was not welcomed, it is considered that all efforts to minimise scale and mass and integrate with the local character have been taken and have resulted in the best possible design solution.

7.151 The significant new planting proposed on large areas of earth mounds around the west, north and east sides of the site are considered to not only screen the lower levels of the buildings in key views and soften the appearance of the buildings, but also to provide significant biodiversity benefits and will enhance the local environment in this regard, noting that this is a brownfield site.

Landscape and visual impact assessment

7.152 A landscape and visual impact assessment (LVIA) has been undertaken and it assesses the impacts of the proposals on the immediate landscape character area as well as other landscape character areas in the wider area. These are derived from character assessments prepared for Arun District Council, West Sussex County Council and the South Downs National Park Authority. At total of 18 landscape character areas are included in the assessment. The results are reported in full in the ES.

7.153 With regard to the effects on the site itself, the LVIA concludes that the increased scale of the buildings in comparison with those currently present, balanced with the high quality of the design and landscape areas which will improve the appearance, character and distinctiveness of the site, will be beneficial in terms of the landscape qualities of the site.

7.154 Regarding the wider area, the conclusions are that there will be adverse effects on some landscape character areas and on some visual receptors, which is inevitable given the large scale of the buildings and the height of the twin flue. However, this must be seen in the context of the allocation of the site for the use proposed, the changes in local character that will result from the large strategic housing allocation and other

development in the area, and the benefits the ERF and WSTF will bring in terms of sustainable waste management and generation of energy.

7.155 In this context, whilst the ERF and WSTF will be larger than the existing buildings, and those that have planning permission at the site, their impact on character, distinctiveness and sense of place, in an area subject to significant planned change, will not be unacceptable, and the impact on the site itself can be viewed as beneficial.

7.156 The Inspector allowing a planning appeal (Ref: APP/P3800/W/18/321896527) for a similar ERF on a site at Horsham found that the Horsham proposal, although substantially larger than other individual buildings locally, can be said to integrate with adjoining land uses and would not be out of place. The same can reasonably be said of the Ford proposal, being of a similar scale and located in an area with other commercial/industrial built development nearby and allocated in the WLP for what amounts to an intensification of the existing use.

7.157 The Inspector considered that the recently approved 'land north of Horsham' residential development would extend the suburban influence of Horsham in the local landscape, and its sensitivity to change should therefore be regarded as low. This is a similar context to Ford, where the proposed new community surrounding the site would have a similar suburbanising effect and resultant reduction in sensitivity to change.

7.158 The Inspector did not dispute that there would be some adverse landscape and visual impact at Horsham. However, he considered that this would not be unacceptable.

7.159 Whilst the landscape context differs, the applicants consider that the same conclusion can be reached for the Ford proposals. There is some adverse impact identified in the LVIA results, as set out in the ES, but when balanced against the substantial benefits of the proposals this would not be unacceptable.

7.160 The following are relevant considerations in this:

- the need to have operational waste management capacity to meet identified shortfalls
- the use of a site allocated in the adopted Waste Local Plan for the proposed purpose
- the ability to generate energy
- the opportunity and potential to supply heat to existing and potential new heat customers in the vicinity of the site
- the inherent sustainability of the proposal in providing a combination of environmental, social and economic benefits
- the high quality of the design
- the efforts that have been made to minimise the visual impacts through design.

7.161 Part (a) of policy W11 and equivalent requirements of the Arun Local Plan are therefore met, as the impact on the character, distinctiveness, and sense of place is not unacceptable when weighed against the benefits.

7.162 Policy W11(b) also seeks to protect the separate identity of settlements and the distinctive character of towns and villages, avoiding development that would lead to their actual or perceived coalescence.

7.163 The Arun Local Plan allocation that surrounds the site will effectively create a new settlement with a built-up area boundary (already identified in the Arun Local Plan) that includes the site. The proposals themselves are on a free-standing existing waste management site and do not extend beyond the existing boundary and will not themselves cause any actual or perceived coalescence. It is therefore considered that part (b) of W11 and equivalent requirements of the Arun Local Plan are therefore also met.

Design

W12 – High Quality Development

7.164 Policy W12 states that proposals for waste development will be permitted provided that they are of high quality. Paragraph 8.3.2 states that quality of development is not just about what it looks like, it is about a whole range of aspects which in combination make a development fit for its current or future purpose as well as fitting with its surroundings. These range from the materials it uses and its energy efficiency through to its relationship with adjoining land uses.

7.165 Broadly equivalent policies in the Arun Local Plan (ALP) and the Ford Neighbourhood Plan (FNP) include Policy D SP1 – Design, Policy D DM1 – Aspects of Form and Design Quality of the ALP, Policy ECC DM1- Renewable Energy, and Policy ECC SP2 – Energy and Climate Change Mitigation and Policy; and EE10 – Quality of Design of Commercial Buildings of the FNP. The commentary below on compliance with Policy W12 also addresses the requirements of these ALP and FNP policies where relevant.

7.166 The design of the ERF and WSTF is undoubtedly of high quality. The buildings are designed by an architect with a long track record of high-quality design of buildings of this type and takes account of the relevant national and local design guidance and policy.

7.167 Feedback on the withdrawn application for a similar proposal at the site has been carefully considered and incorporated into the revised proposal in this application and has served to further enhance the design quality achieved.

7.168 The architect has worked closely with the applicants, the project engineers, plant and machinery providers, and the applicants' environment advisers to ensure that the best possible design has been arrived at in balancing operational needs and site constraints with the relevant policy context, feedback from pre-application discussions, and comments of the consultees. This is explained further in the DAS and in chapter 3 of this document. In addition, the process design contained within the buildings is state of the art for these types of facilities.

7.169 Part (a) of Policy W12 seeks integration with and, where possible, enhancement of adjoining land-uses, and to minimise potential conflicts between land-uses and activities.

7.170 The ERF buildings contain some large process elements that dictate their height and mass, but these have been designed to be the minimum possible size and are partially sunk into the ground. Compared with the withdrawn scheme, the switch to a two-line facility from a single line, whilst more costly, has allowed the boiler heights to be reduced. Combined with an approach to limit the space provided around the internal process equipment and sinking the boiler hall into the ground as far as groundwater

constraints would allow, this has achieved a significant reduction in height from 51.2m to 38.5 m for the main ERF building.

7.171 The layout changes and revisions have created more space for landscape screening through measures that include; re-orienting the buildings by 45 degrees to provide more space to the north east and north west corners towards existing and proposed dwellings and other sensitive receptors; removing HGV parking areas; significantly reducing the footprint of the WSTF; wrapping the ERF in an L-shape; and a reduced outage/laydown area. These have enabled generous and robust landscape provision, so the proposals are more fully integrated with the landscape context.

7.172 The immediately adjoining land uses are currently farmland and open-air recreation, with other industrial and waste uses in close proximity and inter-visible with the site. However, in the context of the Arun Local Plan strategic housing allocation that surrounds the site, it is clear that the adjacent and nearby land uses will change to include more housing, employment and related uses.

7.173 The existence of the housing allocation itself, made in full knowledge of both the existing waste site, its strategic waste allocation, and extant permission for an increase of activity, including thermal treatment, at the site, shows that there is full recognition and acceptance by planning policy at all levels that waste management buildings of this type can be integrated with the proposed new residential area.

7.174 The site is self-contained and has an access shared with other waste and industrial uses, and this helps to minimise potential conflicts between existing and proposed land-use and activities.

7.175 The applicants for this application believe that this integration can be achieved and have taken account of the future advent of new housing development in the design and layout of the ERF and WSTF proposals. This includes provision of significant earth mounding and landscape planting in the north western part of the site that is closest to the proposed new housing area.

7.176 The proposals will integrate well with this context. The site is self-contained and has an access shared with other waste and industrial uses, and this helps to minimise potential conflicts between existing land-use and activities.

7.177 Part (b) of the policy requires that proposals should have regard to the local context including:

- the varied traditions and character of the different parts of West Sussex;
- the characteristics of the site in terms of topography, and natural and man-made features;
- the topography, landscape, townscape, streetscape and skyline of the surrounding area;
- views into and out of the site; and
- the use of materials and building styles.

7.178 All of these matters have been considered in the design of the proposals, as described in the DAS and the landscape and visual impact assessment. For example, the locally characteristic use of knapped flint walls is included in the materials palette, and there

are reflections of the former presence of the Portsmouth and Arundel Canal crossing the site, in the design of the earth mounding, landscape and paving.

7.179 The flat landscape of the coastal plain and its linear horizontal features has influenced the flat roofed design and the achievement of the lowest possible building height commensurate with site conditions. There are many industrial buildings in the area, including on-site, and the building form is not untypical of this, although the scale of the ERF is inevitably larger than most.

7.180 The use of materials has been a key part of the design considerations to help the buildings to integrate with the surroundings. Colour and textures have been carefully chosen with this in mind.

7.181 Part (c) requires that development considers measures to maximise water efficiency. This has been addressed in the proposals. Rainwater will be collected and used on site to support site activities / processes where appropriate. Process water will be recycled. The water use in the administration and welfare elements will follow latest building regulations standards for low flow taps and showers, and low flush toilets.

7.182 Part (d) requires that there should be measures to minimise greenhouse gas emissions, to minimise the use of non-renewable energy, and to maximise the use of lower-carbon energy generation (including heat recovery and the recovery of energy from gas).

7.183 The proposals include an ERF that will generate electricity, and has potential to supply heat, recovered from a renewable/low carbon source (in relation to the biodegradable portion of residual waste). As such the recovery of energy from residual waste is recognised in current national policy guidance as a form of low carbon energy generation. The ERF will meet all its own energy requirements from this process, as well as exporting energy to the electricity grid, with potential to export heat to nearby heat customers if these can be secured and commercial terms agreed.

7.184 The Ford ERF is close to a number of potential heat customers including the Ford Prison and nearby industrial users (both existing and proposed), as well as there being potential for a heat network to serve residential customers in the adjacent strategic housing area. The applicants consider there is an opportunity to establish a suitable heat network that could serve some or all of these potential customers.

7.185 The applicants will seek to secure heat contracts once there is a planning permission and environmental permit in place. A considerable level of investment is required to install a heat network and it would be inappropriate to implement the installation until such a contract is secured, not least because a district heating system will work best If the final detailed design is matched to the type of demand that it will serve.

7.186 One of the joint applicants, Viridor, already generates 51 MW of heat at its Runcorn ERF for exclusive use by the nearby INOVYN chemical manufacturing site and has recently (February 2021) agreed proposals to supply a new heat network In Exeter from its existing Exeter ERF. This will support the Exeter Local Plan's mixed-use development at South West Exeter that will see up to 2,500 new homes in the area plus a new school campus, shops and community facilities.

7.187 Viridor is also participating in a new £26.5m district-heating network in Cardiff and will provide heat generated at its Trident Park ERF to the network. The first phase of the heat network will initially provide heating to a number of large buildings in the city and

could be operational within two years of installation works beginning. The first £15 m of funding to secure the first phase has been confirmed in August 2020, with loans from the Welsh and UK governments.

7.188 Viridor also plans to supply heat from its Beddington ERF in South London to new homes in nearby Hackbridge, where it already supplies heat from landfill gas engines, and operates a number of CHP-ready ERFs at other locations, including, with Grundon, at Lakeside near Slough.

7.189 In November 2020 Viridor announced a partnership with low carbon heating provider Vattenfall to work together to capture heat from Viridor's ERFs across the UK. Vattenfall already works with ERF owners and operators in Europe. The approach being taken by Viridor and Vattenfall aligns well with UK Government policies that support the roll out of district heating in urban areas. The Government's successful flagship Heat Networks Investment Programme and the proposed Green Heat Networks Fund specifically target collaborations between waste heat sources and heat network operators.

7.190 This demonstrates knowledge, commitment and a track record for the applicants to build on in seeking to secure a heat network that will use the heat from the Ford ERF.

7.191 A greenhouse gas (GHG) assessment has been carried out and is reported in the ES. This assessment has shown that the proposals will have a net carbon benefit when compared to the baseline.

7.192 In addition, when comparing a range of sensitivities to account for varying grid displacement factors and landfill gas capture rates there remains a net benefit associated with the proposals. This net benefit is considered to be significant when compared to the total carbon emissions in West Sussex from 2018 and the Industrial and Commercial Other Fuels sector within West Sussex from 2018.

7.193 The proposals will have a positive effect to reducing carbon emissions when compared to the baseline and contribute to the achievement of the GHG reduction targets.

7.194 The potential for additional mitigation through the introduction of carbon capture use and storage (CCUS) technologies may become available during the operational life of the ERF.

7.195 CCUS and its implementation is a relatively new technology in the UK, so the infrastructure of the process, such as regulatory frameworks and available markets for recovered carbon dioxide, are not yet established. The Government has ambitions to establish greater take up in the UK and is creating clusters to kick start the development and validity of CCUS. Over time the technology and associated infrastructure will develop.

7.196 Viridor has announced that it has become the first in its sector to join the Carbon Capture and Storage Association (CCSA), emphasising the company's commitment to pursuing net zero goals.

7.197 Taking this into consideration, the applicants will continue to review the feasibility of retrospectively installing a CCUS system as these technologies develop, subject to commercial and economic feasibility.

7.198 Part (e) requires that there should be measures to ensure resilience and enable adaptation to a changing climate.

7.199 In line with national and local policy, the resilience of the proposals to climate change has been considered. This has been carried out to demonstrate that it has been planned in such a way to take into account projected changes in climate.

7.200 The development will require Environmental Permits (EP) to operate. It is designed with a high level of energy efficiency and to use energy and water efficiently, and the applicants will be required to maintain records of their consumption within the process. The heat export capacity means that as soon as there are heat offtake agreements in place, the ERF can be a provider of heat to the local community and further offset carbon emissions from alternative heat sources. The export of heat in the form of hot water or steam, and periodic reviews of the viability of CHP implementation are requirements of the EP.

7.201 The design includes electric vehicle charging points on site. This encourages and provides the opportunity for staff or visitors to use electric vehicles.

7.202 The south-facing roofs of the ERF and WSTF buildings will be fitted with 4,500 m^2 of photovoltaic panels. Such an array is expected to generate approximately 663 - 745 MWh per annum and will therefore make a further contribution to renewable energy generation at the site.

7.203 The lighting scheme adopts LED luminaires, which offer significant energy savings and provide a high degree of optical control.

7.204 Bottom ash from the ERF will be used to make aggregates suitable for construction and road projects, while the flue gas treatment residues (FGT residues) will be recycled into carbon negative aggregate (or Manufactured LimeStone (M-LS)) that can be used to make carbon negative building blocks.

7.205 The ERF and WSTF have been designed to withstand increases in temperature; The main ERF building is required to be well ventilated to deal with the heat generated within certain process areas and the buildings and process systems are designed with movement joists, which account for expansion and shrinkage in fluctuating temperatures.

7.206 The building will be constructed to tolerate increasing storm patterns, including higher winds.

7.207 The grid connection and associated cables are underground. This protects them from any above ground damage from storm or wind events and the cables are designed to be resilient to water and so would not be impacted by any flooding events.

7.208 The ES concludes that the projected climate change effects over the lifetime of the development would have negligible to minor significance for key vulnerable receptors and as such the development is considered to be appropriately designed to adapt to impacts arising from climate change.

7.209 In addition, the development provides additional resilience to the local electrical distribution grid and end users to deal with outages across the generation and distribution network.

7.210 Overall, the requirements of policy W12 and equivalent requirements of the Arun Local Plan and Ford Neighbourhood Plan are therefore met.

Protected landscapes

W13 – Protected Landscapes

7.211 This policy mainly concerns development within protected landscapes, which do not occur at the site. However, part (b) allows for waste development located outside protected landscapes to be permitted provided that they do not undermine the objectives of the designation, and therefore requires consideration.

7.212 The nearest protected landscape to the site is the South Downs National Park (SDNP), the boundary of which is about 2.25 km to the north of the site, at its closest point. The purposes of the National Park are to conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and to promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

7.213 A landscape and visual assessment has been undertaken. This notes that the ERF and its flue stack and periodically, the visible plume, will appear as a new distant structure in a setting that includes very significant areas of development at Littlehampton, Middleton on Sea and Bognor Regis, industrial buildings and large-scale land uses such as solar farms and glasshouses / polytunnels. There are also other distant large-scale structures such as high-rise buildings at Littlehampton and Bognor Regis and a large gas holder at Littlehampton.

7.214 This contrast between the tranquil downs and developed coastal plain is acknowledged in the SDNP 'View Characterisation and Analysis (2015) paras 3.22-3.27.

7.215 Taking into account its established context within a wide area that includes much visible development, which is an acknowledged characteristic of views, the susceptibility of the SDNP to the specific changes associated with the ERF and WSTF is considered to be medium.

7.216 The development is designed to minimise its visibility and perceived scale, so that together with the elevation and distance of the viewpoints in the SDNP, it will not be readily noticeable in views. It will occupy a very small proportion of the extensive landscape that forms the wider setting of the SDNP.

7.217 The conclusions of the LVIA are that there will be slight, slight to moderate or moderate effects on some receptors located in the National Park, which reflects the high sensitivity of the National Park as a receptor. However, this must be seen in the context of the allocation of the site for the use proposed, and the benefits it will bring in terms of sustainable waste management, amongst other matters.

Assessment of impact on SDNP objectives

7.218 It is considered that the reference to "objectives of the designation" in this policy equates to the statutory purposes of a National Park as follows:

- Purpose 1: To conserve and enhance the natural beauty, wildlife and cultural heritage of the area.

- Purpose 2: To promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public.

7.219 Both purposes ostensibly relate to actions (conserve, enhance, promote) in the National Park itself, not to any setting or hinterland, and the Park has defined boundaries. The application site is 2.25 km distant from the SDNP at its closest point, so the proposed development should not have any direct impact on either purpose, let alone undermine them. However, there may be indirect effects arising from intervisibility of the development and the SDNP, or emissions from it.

7.220 The proposals at the Ford site have therefore been assessed against these purposes as follows.

Purpose 1: To conserve and enhance the natural beauty, wildlife and cultural heritage of the area.

7.221 With regard to natural beauty, it is noted that there is no definition of the concept of natural beauty in the relevant legislation. However, Natural England has sought to address this in the context of its criteria for carrying out designation reviews (Reference: Guidance for assessing landscapes for designation as National Park or Area of Outstanding Natural Beauty in England, 2011), and has developed a list of factors that contribute to natural beauty. The document states at paragraph 6.6 that "It provides a practical framework for an evidence-base which assists in making judgments about natural beauty in a rigorous and transparent way".

7.222 Whilst it has a specific purpose to inform the designation process, this framework is potentially useful in considering how the ERF and WSTF proposals address this purpose of the National Park, in relation to natural beauty.

7.223 The framework uses six factors related to natural beauty, and these have been considered as follows.

7.224 *Landscape quality: this is a measure of the physical state or condition of the landscape.* It is apparent that the proposed development will have no direct or indirect impact on the physical state or condition of the landscape in the SDNP. It is located some distance from the boundary of the SDNP (2.25 km at the closest point) and the ES reports no effects arising from emissions or traffic that might reach the SDNP and affect the condition of its landscape. There is therefore no prospect that the proposed development will undermine this aspect of the natural beauty of the SDNP.

7.225 *Scenic quality; the extent to which the landscape appeals to the senses (primarily, but not only, the visual senses).* The framework includes sub factors and example indicators that relate to views and viewpoints.

7.226 The primary consideration here must be the scenic quality of the SDNP landscape itself. The SDNP is an area designated for its natural beauty, and the boundary is drawn with that in mind. Hence the scenic quality of the SDNP relates first to the appeal of that designated landscape. Views towards other unprotected landscape that may be visible beyond the boundary must be secondary to this.

7.227 Matters to take into account include sense of place, the presence of striking landforms, visual interest in patterns of land cover, aesthetic qualities, and memorable views and eye-catching features.

7.228 As the ERF/WSTF proposal is not within the SDNP designated area, and indeed is some distance from it, it will not affect the extent to which the designated landscape itself appeals to the visual senses. Further, the development would not be present in the view of one part of the SDNP landscape from another part, in a way that could affect the extent that the landscape appeals to the visual senses.

7.229 From this it can be concluded that against this primary consideration there will be no effect of undermining the scenic quality of the SDNP landscape.

7.230 It is acknowledged that cross boundary views can make a contribution to the experience of the scenic quality of the SDNP, but this is not as important to the natural beauty of the SDNP as the inherent scenic quality of the SDNP landscape itself.

7.231 The extent to which the designated landscape's scenic quality is influenced by other landscape that is visible from within it, but beyond its boundaries, is therefore a further, but secondary, consideration.

7.232 The landscape outside the SDNP boundary is not itself a protected landscape, and in the coastal plain south of the SDNP there is a very large amount of urban development and there are proposals in adopted local plans for significant additional new development.

7.233 There are views towards the site from the SDNP, although the site is located some distance from the SDNP (2.25km to the nearest point on the boundary, and even further away than this in many available viewpoints). In many popular viewpoints on the high ground of the SDNP the site is lost in the context of the wider coastal plain and its associated urban areas.

7.234 The contrast between the tranquil downs and the developed coastal plain is acknowledged in the SDNP ‘View Characterisation and Analysis (2015) paras 3.22-3.27. The proposals do not alter this characterisation.

7.235 The views that currently exist towards the site's location and the wider unprotected landscape beyond the SDNP boundary will not be physically obstructed by the proposals, and therefore remain fully available to all potential viewers. The proposals will have no direct impact on the ability to experience these views and any secondary contribution that the visibility of the wider landscape outside the SDNP may be considered to make to the scenic quality of the protected landscape itself.

7.236 The change in the views from the SDNP has been considered in a landscape and visual assessment (LVIA) that is reported in Chapter 12 of the ES accompanying this planning application. This shows that the proposals will be visible as a small change in the distance, in some of the views from the higher ground in the SDNP towards the sea.

7.237 The coastal plain includes other distant large-scale structures such as high-rise buildings at Littlehampton and Bognor Regis and a large gas holder at Littlehampton as well as numerous glasshouses and polytunnels that occur as lighter incidents within the wider landscape. It is noted in the LVIA that most of these visible features existed prior to the designation of the area as the SDNP and given the scale of the coastal plain and the distance, it would seem that there is scope for a small number of other large structures to be introduced without significantly altering the scenic character or quality of the landscape.

7.238 In addition, the development is designed to minimise its visibility and perceived scale, so that together with the elevation and distance of many of the viewpoints, it will not be readily noticeable in most views. Generally, it will occupy a very small proportion of the view of the extensive unprotected landscape that forms the wider setting of the SDNP looking towards the site.

7.239 Given the sensitivity of the SDNP as a receptor, the LVIA findings are that there will be some slight or slight to moderate effects on the views towards the proposals from within its bounds. This includes from a very small part of the lower part of the SDNP that is closest to the site, close to the SDNP boundary, where the view is less elevated and does not include extensive existing urban development. In this very small area, there is likely to be a moderate increase in the amount of visible development.

7.240 However, generally the LVIA states that "there is scope for large structures to be introduced without significantly altering the scenic character or quality of the landscape".

7.241 To conclude, it is considered that the views of the ERF and WSTF from the SDNP are generally distant views in which the proposed development, where visible, is a very small component of a much larger assemblage of landscape components, often in wide-ranging panoramic views, including a large expanse of unprotected landscape and other urban development. The development, its colouring and associated landscape planting is designed to minimize and soften its visibility and perceived scale.

7.242 It is considered that scenic quality of the SDNP landscape would not be affected to an unacceptable degree. The proposals would therefore not have an undermining effect on this aspect of natural beauty in relation to the statutory purposes of the SDNP.

7.243 *Relative wildness; the degree to which relatively wild character can be perceived in the landscape makes a particular contribution to sense of place.* This includes matters such as a sense of remoteness and relative lack of human influence. Noting that the proposals are located some distance outside the SDNP, the only possible influence might be in views, where such are available, towards the site from the SDNP, looking across the intervening unprotected landscape.

7.244 Representative viewpoints towards the site, as shown in the LVIA reported in Chapter 12 of the ES, demonstrate that there is already significant urban influence in the views out from the SDNP to the south in this location. In this context the proposals will not increase or decrease the relative wildness of the SDNP and will therefore have no undermining effect on this aspect of natural beauty.

7.245 *Relative tranquility: the degree to which relative tranquility can be perceived in the landscape.* The proposals, being outside the SDNP and distant from it, will not affect any contributors to tranquility (such as natural landscape, natural sounds, peace and quiet, the night sky) at locations within the SDNP.

7.246 Detractors from tranquility such as urban development are already present in available views from the SDNP towards the site. Where the site may be visible from the SDNP in some viewpoints at night, the lighting will be seen in the context of substantial existing lighting in the coastal plain and will not add significantly to this. The 'dark sky' areas in the SDNP will not be affected by the development. The proposals will have no direct or indirect impact on this aspect of natural beauty.

7.247 *Natural heritage features: the influence of natural heritage on the perception of the natural beauty of the area.* The only potential wildlife and habitat impacts at the National Park arise from potential for changes in air quality as a result of emissions from the ERF. Effects on internationally and nationally designated and protected habitats located in the National Park have been assessed and reported in the ES. The results show that there are no significant impacts.

7.248 The proposals will have no direct or indirect effects on habitats, species, or sites of interest in the SDNP, so do not undermine this aspect of natural beauty.

7.249 *Cultural heritage: the influence of cultural heritage on the perception of natural beauty of the area and the degree to which associations with particular people, artists, writers or events in history contribute to such perception.* The proposals will have no direct or indirect effects on built environment, archaeology, historic landscapes types, or land management practice in the SDNP and do not undermine this aspect of natural beauty.

7.250 Taking all of the above into account, the proposals do not undermine this first purpose of the designation of the National Park, to conserve and enhance the natural beauty, wildlife and cultural heritage of the area.

Purpose 2: To promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public

7.251 The proposals have a neutral impact on this purpose. The site is located some distance outside the National Park boundary and the proposals do not detract from the ability of the National Park Authority to promote opportunities for understanding and enjoyment of the special qualities of the National Park by the public.

7.252 Given its location some distance away, the development will have no adverse effects on rights of way and other recreational access routes within, or giving access to, the National Park.

7.253 In conclusion, the proposals will not therefore undermine the objectives of the national park designation and so comply fully with Policy W12.

7.254 The site is some distance from the AONBs at Chichester Harbour and the High Weald and is not likely to be visible from either. The proposed development will not therefore undermine the objectives of their designation either.

Setting of Arundel

7.255 The Arun Local Plan includes Policy LAN DM – The Setting of Arundel. This policy aims to protect the setting of Arundel. Whilst the site is not within the area shown on the proposals map as a defined setting where development will be restricted, the policy generally seeks to protect views outward from the town.

7.256 Views from Arundel are addressed in the landscape and visual impact assessment and reported in the Environmental Statement.

7.257 Receptors in Arundel will experience views of some of the larger industrial features in the distance, such as the Littlehampton gas holder, which is a distant feature in views from some of the steeper north / south facing streets such as King Street, Parson's Hill and Kings Arms Hill, but to place these views in overall context, for the most part, views

within the streets of Arundel are enclosed, so that those wider views are only experienced occasionally, or when visiting the castle keep, which has the most expansive view available.

7.258 Impacts will mainly arise from the introduction into a very limited number of views of the ERF (and flues) appearing as a new structure in the coastal plain. This is of a larger scale than other buildings in the landscape but will occupy only a small part of such views. In views from Arundel Castle Keep, the focus of the views south is the Arun floodplain where the relatively open and flat landscape allows long views towards the sea. The form, materials and colours of the structures have been designed to minimise visual impact and the landscape measures will help to assimilate the development with the landscape.

7.259 In the LVIA it is concluded that, for both residents and visitors to the town, in the limited instances that views are available towards the proposals, there will be a moderate effect.

7.260 It is considered that this is acceptable in the context of the wider benefits of the proposals in meeting waste management needs on a site identified for this purpose in accordance with the adopted WLP, and that the requirements of Arun Local Plan Policy LAN DM are met.

Biodiversity

W14 – Biodiversity and Geodiversity

7.261 Parts (a) to (c) of this policy seek to protect areas or sites of international biodiversity importance, avoid adverse impacts on areas or sites of national biodiversity or geological conservation importance and areas, sites or features of regional or local biodiversity or geological conservation importance.

7.262 There are no such sites, areas or features on the application site, although there are such in the vicinity. The Arun Valley Ramsar, Special Area of Conservation and Special Protection Area is approximately 10.17 km north east of the proposed development. Duncton to Bignor Escarpment Special Area of Conservation is approximately 9.9 km north.

7.263 Due to the distance of the site from the nearest Special Area of Conservation and Special Protection Area, chapter 13 of the ES regarding natural heritage found that no effects will arise during construction. In addition, the air quality modelling showed an extremely low contribution of pollutants at the distances involved and therefore no significant effects were identified once the development is operational.

7.264 Ford Ancient Woodland is a priority habitat and is located approximately 1.3 km to the north of the proposed development site. As for the aforementioned protected sites, the ancient woodland is sufficient distance from the site and main access routes for there to be no effects from the construction phase, and air quality assessment found that there would be no significant effects with the development in place.

7.265 The development site itself largely comprises colonised hardstanding, with small areas of unconnected, poor, semi-improved grassland, scrub, a non-native hedgerow, scattered trees and buildings, all of which are considered to be of low value ecologically. A range of common invertebrate species are likely to be present and

breeding birds may use the exiting scrub vegetation and hedgerows for nesting purposes.

7.266 Overall, there will be a total loss of habitats present within the proposed development area. The overall magnitude of change is small, and the unmitigated effect is assessed as being slight and not significant.

7.267 Habitats within the proposed development site are likely to support common and widespread invertebrate species, which provide a foraging resource for bats and birds. The construction phase will result in the loss of all habitats where invertebrates may be present. The site is of low importance for invertebrates, the magnitude of change is small, and the unmitigated effect is assessed as being negligible and not significant.

7.268 The proposed habitat mitigation planting scheme will result in the creation of an additional 1.66 ha of habitat compared to baseline levels. Furthermore, the habitats created will be of higher biodiversity value than the existing habitats. This will reduce the overall magnitude of change from the total loss of habitats to negligible and the effects to slight and not significant.

7.269 In addition to the mitigation habitats to be created on site, additional habitat and species-specific features will be created and installed to provide enhancements for the site. These will include: 0.83 hectares of native mixed woodland, 0.37 hectares of pollinator-rich grassland, 360 m of ground-based green walls (i.e. gabion walls planted up with climbers), 10 pear trees, 14 English oaks, 27 standard oaks, a wildlife pond planted with native aquatic vegetation, five bat boxes integrated into the walls, 15 bird boxes to encourage nesting by swift, house sparrow and wagtails, and five bug hotels.

7.270 There are therefore no significant adverse effects in relation to ecology. The measures set out above will be included in a landscape and ecological management plan for the site, which will specify the long-term management strategy for the proposed habitats and ensure they reach their target condition and are maintained at that condition.

7.271 Cumulative effects from the proposed development and other proposed developments nearby were assessed as having no significant effects on local ecological receptors.

7.272 Part (e) seeks, where appropriate, the creation, enhancement, and management of habitats, ecological networks, and ecosystem services. The site currently has limited on site biodiversity resources. A comprehensive view of tree issues has been taken account of in the design process, and the development will not have a negative impact on existing trees. The proposals for the ERF and WSTF include new planting around the site boundaries that includes new native planting to create habitats that will be attractive to a range of species. The proposals are also accompanied by an arboricultural assessment that shows that there will be no removal of any significant trees or hedgerows.

7.273 The proposals provide for new planting that will increase the biodiversity of the site. The proposed habitat mitigation planting scheme for the site, will result in the creation of an additional 1.66 ha of habitat compared to baseline levels. Furthermore, the habitats created will be of higher biodiversity value than the existing habitats.

7.274 There will be a 763.12% net gain in the biodiversity value of habitats at the site post-development and a 390.34% net gain in the biodiversity value of the hedgerow units post development. These figures do not consider non-habitat creation measures such

as the proposed bird, bat and bug boxes. Therefore, the proposed development is calculated to have significant positive impact on the biodiversity value of the site compared to baseline levels.

7.275 Broadly equivalent policies in the Arun Local Plan (ALP) and the Ford Neighbourhood Plan (FNP) include Policy ENV SP1 – Natural Environment, Policy ENV DM4 – Protection of Trees of the ALP, Policy ENV DM5 – Development and Biodiversity and Policy EH1 – Protection of Trees and Hedgerows of the FNP. The commentary above on compliance with Policy W12 also addresses the requirements of these ALP and FNP policies where relevant.

7.276 The proposal is therefore in accordance with policy W14 and equivalent requirements of the Arun Local Plan and Ford Neighbourhood Plan policies referred to are also met.

Historic environment

W15 – Historic Environment

7.277 This policy seeks the conservation of, and the avoidance of adverse effects upon, known and unknown heritage assets.

7.278 Regarding the proposals, impacts on cultural heritage have been assessed and reported in chapter 10 of the ES.

7.279 This reports that there are no designated heritage assets anywhere on site. The two former hangars on the site are examples of a standard and common building type, have been extensively altered and are in the greatly changed setting of the redeveloped airfield.

7.280 The assessment concludes no significant effects on many of the designated heritage assets in the vicinity of the site, arising from effects on their setting, including Arundel Castle, Tortington Priory, Climping Church, and Climping, Yapton and Lyminster conservation areas.

7.281 However there is an adverse effect predicted at the closest listed building (grade II) to the site, Place Farm, approximately 210 m north - north east. The proposed development will lead to the alteration to some qualities and character of part of the setting of the house, which is considered to be an adverse effect.

7.282 In addition, there are also adverse effects at St Andrew' Church at Ford, approximately 725 m east of the site, a grade I listed building. The alteration to the qualities and character of the setting of the church as a result of the development are considered to be an adverse effect.

7.283 This also applies at St Mary's Church, Yapton, approximately 1.1 km west of the site and listed grade I. The alteration to the qualities and character of the wider setting of the church are considered to result in an adverse effect.

7.284 The impact on the settings of these three assets is essentially a result of the visual presence of the ERF building and their relative proximity to it in a flat landscape, and is therefore inevitable given the size of the building and the height of the twin flues.

7.285 However, this must be seen in the context of the allocation of the site for the use proposed, and the benefits it will bring in terms of sustainable waste management, which are given substantial weight. The impacts will therefore not be unacceptable.

7.286 The Inspector allowing an appeal (Ref: APP/P3800/W/18/321896527) on a similar proposal at a site at Horsham in February 2020 attached considerable importance and weight to each instance of harm to the significance of a designated heritage asset. However, he nonetheless considered that the proposal would make a substantial contribution towards meeting the identified need for waste recovery facilities and would be located on a site allocated for such purposes in an up-to-date development plan.

7.287 He considered that these public benefits of the scheme would significantly outweigh the associated harm to the significance of designated heritage assets. He therefore concluded that the effect of the proposal on the significance of designated heritage assets would be acceptable.

7.288 Whilst the specific assets and impact assessment differ, these general findings and conclusions of the Inspector on matters relating to heritage assets can reasonably be applied to the Ford proposal too, and that the effect of the proposal on the significance of designated heritage assets would be acceptable.

7.289 An adverse effect is predicted on the archaeology/geoarchaeology resource, but this will be wholly mitigated through a programme of investigation. Preservation by record is a sufficient and policy-recognised form of mitigation that can adequately mitigate the predicted effect.

7.290 Indeed, this will result in a moderate significant beneficial effect through the knowledge gained as a consequence of the site works.

7.291 The application site was once crossed by the Portsmouth and Arundel Canal, but there are no remnants of it, these having been removed in construction of the Ford Airfield. These are undesignated heritage elements that attest to the site's former use in two distinct periods of transport history.

7.292 The archaeological context reported in the ES has examined the canal and airfield archaeology on site. The design of the site layout includes features that acknowledge the alignment of the former canal at the eastern and western boundaries of the site, helping to celebrate its former presence and increase awareness of it. This includes a water feature in a recess in the earth mounding on the western side of the site on the line of the former canal, and blue translucent paving where the line of the former canal lies under the parking provision to the east of the ERF building.

7.293 Other measures include:

- The reception area will have educational displays – some of which will reflect the aviation history of the site between 1917 and 1959 along with audio visual presentations
- Educational resources envisaged will focus a proportion of their resource on the transport history of the canal and aviation importance of the site
- The rectangular pond proposed in the break in the landscape bund on the western site boundary will have a basic heritage interpretation board installed adjacent to it, equipped with a QR code that allows further information and visualisations about the

development and the history of the site to be explored. This should be produced in conjunction with any interested local history group(s)

- Opportunities either with local schools or the local history groups to get them involved in a local community art installation and design project will be explored

7.294 Taken together these enhancement and heritage interpretation measures will result in a moderate beneficial effect, which is significant.

7.295 Broadly equivalent policies in the Arun Local Plan (ALP) and the Ford Neighbourhood Plan (FNP) include Policy HER SP1 – The Historic Environment, Policy HER DM3 – Conservation Areas (part f only), Policy HER DM5 – Remnants of the Portsmouth and Arundel Canal, and Policy HER DM6 – Sites of Archaeological Interest of the ALP. The commentary above on compliance with Policy W15 also addresses the requirements of these ALP policies where relevant.

7.296 Overall, the effects on the historic environment will not be unacceptable and the requirements of policy W15 will be met.

Air, soil and water

W16 – Air, Soil, and Water

7.297 This policy seeks to prevent unacceptable impacts on air, soil and water resources.

Air quality, including dust and odour

7.298 The assessment of the operation of the ERF reported in chapter 6 of the ES included modelling the concentrations of a range of pollutants in the flue gas emissions. The flue gases will undergo a series of rigorous treatments that will clean the gases to a safe level before they are released to the atmosphere, and this will be enforceable in law through limits set in the Environmental Permits that are issued by the Environment Agency. The flue gas treatment system will therefore be designed to ensure that the ERF operates well within strict limits. The air quality modelling shows that there will be no significant effects on air quality, human health or designated nature conservation sites as a result of emissions from the ERF.

7.299 A range of best practice measures will be put in place to ensure that there will be no significant effects on sensitive receptors from increased dust generation during construction. It is considered that with the implementation of these measures there would not be any significant effects.

7.300 The air quality assessment concludes that traffic levels during the construction and operation of the proposed facilities will not cause significant effects on air quality.

7.301 There is the potential for dust and odour to arise during operation of the proposed facilities due to the delivery and unloading of waste materials. However, the potential for nuisance to arise will be very limited due to the containment and mitigation measures inherent in the design of the ERF and WSTF.

7.302 There is no risk of significant cumulative effects in relation to dust, odour or emissions.

7.303 In conclusion, the proposed development is not predicted to give rise to significant environmental effects on air quality, human health and odour.

Soil

7.304 Chapter 11 of the ES covers ground conditions and the water environment. There will be excavation to create a change in level at the site. However, any potential impacts on soil will be addressed through mitigation.

7.305 A construction environmental management plan (CEMP) will include best practice measures to manage potential effects associated with ground conditions and the water environment. An outline CEMP is provided in technical appendix L of the ES.

7.306 The measures will include the preparation of a pollutants, water and sediment management protocol to inform construction works, which will set out measures such as the following:

- Minimise storage of hazardous chemicals on site and, where storage is necessary, use anti-pollution measures such as bunded trays or leak-proof containers
- Use designated refuelling sites, located away from open water
- Any cleaning materials or chemicals used during the construction phase are not to be hazardous to the water environment
- No storage of potentially contaminating materials in areas liable to water inundation
- Use of electrical power, rather than diesel, where possible
- Design of construction methods to minimise disturbance to, and mobilisation of, sediment
- Controlled washing down of plant while on site
- Implementation of piling design with tight quality assurance / quality controls
- Oil spill kits to be kept on site, and site staff trained in their use
- Minimisation of dewatering requirements by programming excavation works to be as short as possible. The need for an environmental permit to undertake dewatering will be established and the necessary applications made as required
- Development of a waste soils management strategy
- Development of a materials management strategy
- Development of an asbestos management and health and safety plan (if necessary)

7.307 It concludes that with proposed mitigation measures in place no significant residual risks are predicted in relation to ground conditions. No cumulative effects are predicted on ground conditions either.

Water

7.308 The ES (chapter 11) includes an assessment of potential impacts on the water environment. This concludes that with implementation of a detailed construction environment management plan and surface water and groundwater monitoring in place, no significant residual effects are predicted in relation to the water environment. No significant cumulative effects are predicted either. The likely mitigation is explained in paragraph 7.267 above.

7.309 Overall, there will therefore be no unacceptable impacts on air, soil, and water, as required by policy W16.

7.310 Broadly equivalent policies in the Arun Local Plan (ALP) include Policy W SP1 – Water Policy W DM1 – Water Supply and Quality, and Policy QE DM4 – Contaminated Land. The commentary above on compliance with Policy W16 also addresses the requirements of these ALP policies where relevant.

Flooding

W17 – Flooding

7.311 This policy seeks to avoid any increase in flooding. Flood risk is addressed in the ES chapter 11 and the accompanying Flood Risk Assessment.

7.312 Environment Agency indicative flood risk mapping shows that the proposed site is entirely located in Flood Zone 1, i.e. it is at low risk of flooding from rivers, and the risk of flooding from surface water within the site boundary is considered to be low.

7.313 Based on existing groundwater level data the shallowest depth of groundwater has been recorded at 4 mAOD, therefore the potential for the proposals to interact with groundwater is anticipated to be likely, given the proposed depths of the excavations. Therefore, a slight adverse effect is predicted, which will not be significant.

7.314 The proposed sustainable drainage system (SuDS) measures at the site include lined, below ground cellular storage tanks (with an impermeable membrane to avoid potential groundwater ingress) ensuring adequate volumetric and discharge management of surface water runoff. Additionally, the quality of the surface water discharged off site will be managed by the implementation of light-liquid separators within the proposed new surface water drainage network.

7.315 A detailed maintenance regime will be put in place for the drainage system by the site management team, including regular inspections, removal of sediment and debris and repair as necessary. Regular inspections will also be in place for any waste temporarily stored at the WSTF in relation to the drainage network. With the proposed surface water drainage system in place, no significant adverse effects are predicted on surface water quality post-construction.

7.316 The drainage detailed design will incorporate light-liquid separators to aid in containing oil, diesel, petrol etc that may be deposited on the surface of the hard-landscaped areas that may be mobilised during rainfall events. Negligible changes are predicted for both aquifers and the River Arun resulting in no significant adverse effects.

7.317 Although the proposed construction will create a barrier to groundwater flow, groundwater will flow around this, with no overall loss in water quantity. Notwithstanding this, a barrier to groundwater flow will be created, which may result in groundwater mounding on the up hydraulic gradient side of the buried structure. However, groundwater mounding is unlikely to pose a significant issue given that minimal construction below the water table is proposed.

7.318 With regard to flooding, the site lies outside the 1-in-100 year floodplain and the proposed development will not give rise to a reduction in floodplain storage. Therefore, negligible changes and no significant adverse effects are predicted.

7.319 The proposed attenuation system will require 2,400 m3 of below ground attenuation storage volume designed to contain the 1-in-30-year critical storm event, including 40%

allowance for climate change without causing any flooding to the site. Discharge rate from the site will also be restricted to the 1-in-30 year greenfield runoff rate.

7.320 It is considered appropriate to manage surface water volumes in excess of the 1-in-30 year event (including 40% climate change allowance) on site by allowing shallow surface water ponding (~ 150 mm average depth) on managed external hardstanding areas, thereby not increasing flood risk downstream as a result of the proposed development.

7.321 Overall, no significant effects on flood risk are predicted as a result of the proposed development and the built development will not be at risk from flooding. The proposals meet the requirements of Policy W17.

7.322 Broadly equivalent policies in the Arun Local Plan (ALP) and the Ford Neighbourhood Plan (FNP) include Policy W DM2 – Flood Risk of the ALP and Policy EH4 – Surface Water Management of the FNP. The commentary above on compliance with Policy W17 also addresses the requirements of these ALP and FNP policies where relevant.

Transport

W18 – Transport

7.323 Part (a) of this policy seeks that, where practicable and viable, rail or water transport should be made use of.

7.324 With regard to the proposals, the site is identified in the WLP policy W10 as a strategic waste management site and is not adjacent to any rail or water transport infrastructure. The accompanying site-specific principles in the WLP do not require or advise the investigation of rail or water transport at the site.

7.325 It is considered that in this instance the use of rail or water transport is not practicable or viable.

7.326 In accordance with part (b) of the policy regarding having adequate transport links, it is noted that the site is a strategic site in the WLP, and an operational waste management site with controls in place to limit the number of HGVs and also on traffic routing. The transport links to the site are deemed to be adequate to serve the development.

7.327 The proposals are a secure waste management facility, to which the public will not have general access other than by prior arrangement to the education centre. However, workers and visitors will have provision for safe pedestrian and cycle access, including cycle parking to meet the required standards. The visitor facilities include minibus parking space and provision for access for those with mobility impairments.

7.328 Part (c) addresses details of routing, capacity, safety and site circulation and management that are addressed in the ES in the description of the proposals and the traffic and transport chapter (chapter 15), and also in the Transport Assessment.

7.329 No construction or operational vehicles will be permitted to leave or access the site from the northern stretch of Ford Road. There is an existing routing agreement in place to this effect and this will be extended to cover the ERF and WSTF development.

7.330 The operational traffic flows will fall within the permitted heavy goods vehicle cap in the s106 legal agreement attached to the planning permission for the new access road (120 heavy goods vehicle movements to the site and 120 heavy goods vehicle movements from the site between 6am to 8pm Monday – Friday and 60 heavy goods vehicle movements to the site and 60 heavy goods vehicle movements from the site between 8 am to 6pm on Saturdays).

7.331 Whilst it is noted that there will be an increase in heavy goods vehicle movements on Ford Road/Church Lane (south of the site access road) overall compared to the current baseline, this is within the approved HGV traffic levels for the site and there are no significant adverse effects anticipated as a result of the proposed development.

7.332 An assessment of the existing Church Lane / A259 roundabout is presented in the Transport Assessment (ES Technical Appendix K). The junction assessment demonstrates that the Church Lane / A259 roundabout has capacity issues without construction phase traffic in 2025, and the addition of construction traffic has minimal impact on the roundabout's performance. Modelling has not been undertaken for the operational phase, given that traffic flows through the junction are anticipated to be lower during the operational phase compared to the construction phase. It is understood that a mitigation scheme has been secured to increase capacity of this roundabout.

7.333 There would be little change in severance, pedestrian delay, amenity or fear and intimidation resulting from the change in traffic movements against the existing background traffic. The overall significance of effect for pedestrians is therefore considered to be slight adverse, and not significant.

7.334 Overall, there are no significant effects anticipated as a result of the construction or operation of the proposed development. No additional mitigation measures beyond those already incorporated into the proposed development would be required during either the construction phase or for the operational proposed development. No changes are proposed to the local highway network, footways / cycleways or access to public transport services.

7.335 The conclusion is that no significant residual traffic and transport effects are predicted as a result of the proposed development. The traffic routing will adhere to that agreed in the s106 legal agreement attached to the existing planning permission for the site access road. In consideration against the requirements of Policy W18 (c), the proposals are not unacceptable and will not have adverse impacts.

7.336 Broadly equivalent policies in the Arun Local Plan (ALP) include Policy T SP1 – Transport and Development and Policy T DM1 – Sustainable Travel and Public Rights of Way of the ALP. The commentary above on compliance with Policy W18 also addresses the requirements of these ALP policies where relevant.

Public health and amenity

W19 – Public Health and Amenity

7.337 This policy seeks that lighting, noise, dust, odours and other emissions do not have unacceptable impacts on public health and amenity; that public rights of way are safeguarded; and that a site liaison group be established.

7.338 Impacts on public health and amenity are addressed in the ES. The emissions from the ERF at the point of maximum impact for agricultural, allotment and residential receptors (both adult and child) were assessed.

7.339 The human health risk assessment concluded that there will be no significant adverse health effects at any of the sensitive receptors considered, including farms, allotments, residential properties (existing and future) and schools (existing and future), as a result of the proposed development. No cumulative effects were identified.

7.340 All lighting on site will use LED lighting that is directed downwards and with cut off beams to minimise light spill, shielded at lower levels by the earth mounding and new planting. The windows in the administration block will have a blind system to minimise spill from office lighting.

7.341 A number of measures have been incorporated into the building design and operational procedures to minimise effects from dust, odour releases and noise. This is addressed above in relation to the development principles of policy W10. The ERF will be operated to stringent standards and no significant amenity issues are envisaged, with the proposed mitigation in place.

7.342 Public rights of way remain physically unaffected by the proposals. Whilst the proposals do not provide any new paths, the single footpath PROW that exists just within the north eastern site boundary will not be physically affected by the development.

7.343 A site liaison committee already exists, and the applicants will ensure that this continues to operate.

7.344 The proposals therefore fully comply with the requirements of Policy W19.

7.345 Broadly equivalent policies in the Arun Local Plan (ALP) and the Ford Neighbourhood Plan (FNP) include Policy QE SP1 – Quality of the Environment, Policy QE DM1 – Noise Pollution, Policy QE DM2 – Light Pollution, and Policy QE DM3 – Air Pollution of the ALP and Policy EH8 – Light Pollution and Policy GA1 – Footpath and Cycle Path Network of the FNP. The commentary above on compliance with Policy W19 also addresses the requirements of these ALP and FNP policies where relevant.

Cumulative impact

W21 – Cumulative Impact

7.346 This policy seeks to avoid an unreasonable level of disturbance to the environment and/or local communities as a result of waste management and other sites operating simultaneously and/or successively. This may affect the phasing of work.

7.347 The site currently operates as a waste management site. Cumulative effects with the proposed ERF and WSTF have been addressed in the ES under each environmental topic. A number of development proposals have been identified that are planned, with planning permission or proposed, in the local area, and this has been derived in discussion with WSCC and relevant consultees. The list of cumulative projects is included in the ES at table 5.5 and shown on a map in figure 5.2.

7.348 The findings of the ES are that there will be some cumulative effects related to landscape and visual impacts and associated heritage impacts.

7.349 However, there are no cumulative effects predicted during construction or operation with regard to noise, air quality, odour, dust, water environment, or traffic. It is therefore clear that there will not be an unreasonable level of disturbance to the environment and/or local communities, in line with this policy, and therefore no phasing concerns regarding simultaneous or overlapping development of this site with others identified.

Aerodrome safeguarding

W22 – Aerodrome safeguarding

7.350 Policy W22 states that proposals for waste development will be permitted provided that they will not adversely affect the operational integrity or safety of aviation facilities.

7.351 An aerodrome safeguarding statement is included with the planning application. This reports that Goodwood Aerodrome and NATS were both consulted on the withdrawn proposals and both confirmed no objection to the proposals, on the basis of the 85m flue stack.

7.352 The revised proposals in this planning application have the twin flues at the same level of 85m. As reported in the aerodrome safeguarding statement, consultation with Goodwood Aerodrome has confirmed that this raises no objection or other issues.

Other relevant policies of the development plan; Arun and Ford

7.353 Policy EE1 of the Ford Neighbourhood Plan supports extension of existing employment buildings, subject to no unacceptable harm to amenity and environment.

7.354 Whilst the proposals in the planning application are not an extension of a building, they are expansion of a local employment generating use, so should also be supported on the same basis.

7.355 As shown above with regard to compliance with the policies of the development plan as a whole that relate to amenity and the environment, the applicants consider that there is no unacceptable harm arising from the proposals at the Ford site. The residual effects of the proposed development are limited to some landscape and visual effects and related heritage effects.

7.356 When balanced with considerations such as planning policy at all levels, the level of mitigation proposed to address other impacts, the high quality of the design to achieve the smallest possible scale of buildings, the benefits of sustainable waste management and energy generation, as well as the real opportunity for heat use as well as electricity generation, this amounts to no unacceptable harm.

7.357 This means that this proposal to provide the expansion of an existing local business activity should be supported, in line with this policy.

7.358 Policy EE3 of the Ford Neighbourhood Plan seeks to ensure that new development does not conflict with existing businesses. The supporting text provides an example of new residential development being located away from existing businesses that generate noise or odour.

7.359 This is relevant in the context of the strategic housing proposal at Ford and its relationship with the existing (and proposed) waste management activities at the

application site, which is an existing business. This policy supports the idea that the new homes at Ford should be located an appropriate distance from the waste site boundary, and the new housing proposals should mitigate for potential effects of the existing site activity on new residents.

7.360 Policy WM DM1- Waste Management of the Arun Local Plan states that, in accordance with the West Sussex Waste Local Plan, there will be a general presumption against any development which may harm or prejudice the operation of existing and allocated waste facilities and infrastructure.

7.361 This is relevant in the context of the strategic housing proposal at Ford and its relationship with the existing (and proposed) waste management activities at the application site. This policy supports the principle that the new homes on the strategic housing site at Ford should be located an appropriate distance from the waste site boundary, and that the new housing proposals should provide their own mitigation for potential effects arising from the existing, approved and allocated operations at the waste site on new residents, so as not to harm or prejudice the waste operations.

Overall conclusion on compliance with the development plan

7.362 In conclusion it is considered that the proposals satisfy all policies of the WLP and related equivalent policies and other relevant policies of the Arun Local Plan and the Ford Neighbourhood Plan, taken as a whole. The proposals satisfy the development principles of Policy W10 of the WLP in particular and are not unacceptable with regard to the other relevant policies across the range of the development plan at all levels.

8.0 CONCLUSIONS

8.1 Section 38 of the Planning and Compulsory Purchase Act 2004 requires that the determination of this planning application should be made in accordance with the development plan, unless material considerations indicate otherwise.

8.2 Important material considerations for this planning application include national planning policy and guidance, national, regional and local waste management and energy policy and strategy, other policy and strategy, and the views of stakeholders, including statutory and non-statutory organisations and the community.

8.3 The applicants undertook an extensive review of the development plan and other material considerations and concluded that the main planning considerations that are relevant to this planning application cover three broad themes of policy regarding waste and energy, which largely establish the need for the ERF and WSTF and the strategic site allocation; the site specific principles identified in the Waste Local Plan (WLP) for the development of the site; and the general development management policies of the development plan, covering general sustainability, environmental and amenity issues.

Waste and energy policy

Waste

8.4 National legislation sets recycling targets with a waste management preference of firstly reducing, then recycling, recovery (e.g. energy), and finally disposal (e.g. landfill). There is an established need, expressed in national and local policies, for facilities to divert residual waste arisings away from landfill. The ERF lies within the energy recovery level of the hierarchy, the WSTF in recycling. Together they will manage around 295,000 tonnes of commercial and industrial (C&I) waste and municipal solid waste (MSW) per year. Its diversion from landfill will reduce greenhouse gas emissions.

8.5 The proposed ERF and WSTF is located at a site identified in the adopted West Sussex Waste Local Plan for strategic waste management development to meet an identified shortfall in operational recovery capacity of 270,000 tpa in the most recent Waste Local Plan Monitoring Report. This shortfall exists after recycling targets have been taken into account and is therefore required to be addressed to provide for the appropriate management of residual waste after recycling has been carried out.

8.6 The need for residual waste management capacity to meet an identified shortfall, and the use of a strategic site identified for this purpose in an up-to-date waste local plan, are material considerations to be given substantial weight in decision making.

Energy

8.7 The benefit of the facilities will also be felt in terms of energy recovery, with environmental benefits in terms of reducing carbon emissions and other greenhouse gas emissions from landfill.

8.8 The proposed ERF will be capable of generating approximately 31 MW of electrical power, of which approximately about 28 MW would be exported to the national grid, the rest (3MW) being used to power on site activity. The exported 28 MW will provide enough low carbon electricity for about 68,000 homes.

8.9 Solar PV panels on the roofs of the buildings will also contribute to the day-to-day energy needs of the ERF and WSTF.

8.10 The proposed ERF will have combined heat and power (CHP) capability. Up to 10 MW_{th} of heat, in the form of steam or hot water, could be supplied to future nearby customers thereby reducing the need to burn fossil fuels and helping to reduce heating costs. The applicant has identified potential heat users in the vicinity of the site and will actively explore taking this further, subject to commercial terms.

8.11 National energy policy supports the recovery of energy from the combustion of waste where it is in accordance with the waste hierarchy and expects this to play an increasingly important role in meeting the UK's energy needs. The ERF will provide predictable, controllable energy, thereby contributing to the diversity and security of supply. The ERF will also meet the requirements of development plan policies in relation to climate change and energy, both in terms of its own use of energy, its electricity generation, and its ability to provide CHP. These are significant material consideration in support of the proposals.

8.12 Delivering sustainable development is a key objective of national planning policy and is a central theme of the strategic objectives of the local development plan. The National Planning Policy Framework (NPPF) confirms that great weight should be given to the delivery of sustainable development objectives and that there is a presumption in favour of sustainable development where this is deemed compliant with other policy.

8.13 The proposals will deliver benefits in relation to waste management and energy that have both environmental and social components and will also deliver 54 jobs directly at the site and others at regional/head office level, bringing the associated economic benefits, including the benefits of using local supply chain. The proposals are a significant investment in the local area. They will therefore overall bring environmental, social and economic benefits, and are demonstrably a sustainable development in this respect.

8.14 The recovery of energy from residual waste in the form of electricity, coupled with the potential to capture additional benefit through future opportunities for the implementation of CHP, thus contributing towards climate change mitigation objectives, and is itself designed with climate change resilience built in.

8.15 Together these represent significant material considerations that should be afforded considerable weight.

Site specific principles

8.16 The site-specific principles identified in the WLP for the development of the site have all been satisfied. This includes comprehensive site development, a comprehensive landscape scheme, and a range of assessments of environmental and amenity matters as specified in the supporting text to policy W10.

Development management policy, environment and amenity

8.17 This document has shown how the requirements of the development management policies regarding environmental and amenity matters have been addressed, with reference to the ES findings.

8.18 The overall environmental effects of the project are successfully addressed through high quality design and mitigation, and whilst there would be some adverse impacts that are not able to be mitigated further, this would not be unacceptable. The residual impacts are mostly localised and are clearly outweighed by the benefits of the proposals.

Benefits

8.19 The ERF and WSTF proposals:

- Make a significant contribution towards meeting national and local waste policy by providing efficient and modern facilities for the recovery of energy from waste, recycling and waste transfer, helping to meet an identified operational shortfall at a site allocated for waste management use
- Provide appropriate treatment capacity required to manage the residual municipal, commercial and industrial waste arisings from West Sussex, whilst also supporting recycling targets
- Reduce the amount of waste that is disposed of to landfill (the least sustainable solution), contributing positively to achieving landfill diversion targets and zero waste to landfill
- Provide an integrated and efficient waste management solution, incorporating both ERF and WSTF at one location
- Help to ensure that waste is dealt with in proximity to where it arises as part of a national, regional and local network of facilities
- Help to achieve the objective or net self-sufficiency in managing the transfer, recycling and treatment of waste generated in West Sussex
- Generate 31 MW of electrical power at the ERF, of which approximately 28 MW would be exported to the national grid, (enough to power about 68,000 homes)
- Generate additional renewable energy from roof mounted solar photovoltaics to assist with on-site energy consumption
- Provide predictable, controllable energy from the ERF, thereby contributing to diversity and security of supply
- Meet the requirements of national, regional and local policies in relation to climate change and energy, in terms of its own use of energy, its electricity generation, and the opportunity to provide combined heat and power
- Could provide up to 10 MW_{th} of heat to local communities and businesses as part of a potential future district heating network, subject to contracts and off-site infrastructure being in place
- Use a site allocated for strategic waste management facilities, in accordance with planning policy and the stated site development principles
- Broadly conform with development plan policy at all levels, including those relating to environmental and amenity effects
- Provide a comprehensive redevelopment of a brownfield site
- Provide buildings of a high-quality design, that respond to and respect local character, to house safe and modern facilities in a way that minimizes their presence as far as possible
- Include a generous landscape setting that helps to integrate the buildings in the wider landscape and mitigate or reduce much of the visual impact
- Provide significant biodiversity gain

- Provide significant economic investment in the area, and provide jobs during construction and operation, with opportunities for training and apprenticeships, contributing to a diverse local economy.

8.20 The proposals will not give rise to any unacceptable environmental impacts and are in line with planning policy when considered against the development plan as a whole and taking account of relevant material considerations. The benefits above are themselves material considerations that weigh substantially in favour of the proposals. For these reasons, the planning application should be approved.

APPENDIX 1

CONSULTATION SUMMARY AND APPLICANTS' RESPONSE

Summary of comment	Applicants' response
Location	
Inappropriate location for this type of facility	The location is identified in the adopted Waste Local Plan as a site for strategic waste infrastructure, and this includes facilities of this type, subject to meeting the requirements of the policies of the WLP.
The proposed location is against WHO guidelines on siting incinerators	The WHO document referred to was prepared to provide advice about siting of small-scale clinical waste incinerators associated with small health facilities in remote locations around the world, and such incinerators would not have any flue gas treatment. The proposed location at Ford, with a modern ERF that provides flue gas treatment to meet the required UK standards as required by the Environment Agency, is not covered by these WHO guidelines.
Size	
Size unacceptable in a rural area, it will be overbearing	The site is within the defined built-up area in the adopted Arun Local Plan (ALP). When the surrounding Strategic Housing Allocation is built out the site will be surrounded by urban development. An outline application has been submitted for a large part of the allocated housing site and will include 1500 homes, new employment buildings and associated ancillary development. Given the concerns expressed regarding the size of the facility proposed in the withdrawn application WSCC/036/20, the applicant has reviewed the project and has achieved a considerable reduction in the height of the main ERF by almost 13 metres, and also reduced the footprint of the WSTF. This is reflected in the current full planning application. The proposal has been designed with a landscape setting that will help to root it in its context and reduce its apparent size and visual impact. It is therefore considered that the size of the proposal, whilst inevitably large scale given its nature, will be acceptable, and will not be overbearing.
Size unacceptable next to proposed new residential area	Given the concerns expressed regarding the size of the facility proposed in the withdrawn application WSCC/036/20, the applicant has reviewed the project and has achieved a considerable reduction in the height of the main ERF by almost 13 metres, and also reduced the footprint of the WSTF. This is reflected in the current full planning application. The proposal has been designed with a landscape setting that will help to root it in its context and reduce its apparent size and visual impact. It is therefore considered that the size of the proposal, whilst inevitably large scale given its nature, will be acceptable, and will not be overbearing. The proposed residential area should itself be designed take account of the presence of the strategic waste site in its midst.

It is oversized	Given the concerns expressed regarding the size of the facility proposed in the withdrawn application WSCC/036/20, the applicant has reviewed the project and has achieved a considerable reduction in the height of the main ERF and also reduced the footprint of the WSTF. This is reflected in the current full planning application. The buildings are the minimum effective and efficient size for the proposed throughput and this will meet identified operational shortfalls in sustainable waste management infrastructure.
Appearance and visual amenity	
Unsightly in views from the South Downs National Park (SDNP)	A redesign of the proposals has achieved a considerable reduction in the scale and mass of the buildings, has changed their proposed form and orientation, and has reviewed the colours and textures to be used. Whether something is unsightly or not is a subjective judgement. The applicants consider that the proposal, whilst visible in the far distance in some views from the SDNP, is not unsightly in such views.
Unsightly in views from Arundel	A redesign of the proposals has achieved a considerable reduction in the scale and mass of the buildings, has changed their proposed form and orientation, and has reviewed the colours and textures to be used. Whether something is unsightly or not is a subjective judgement. The proposal is generally not visible from Arundel, although there are a very few locations where it would be seen in the distance. The applicants consider that the proposal, whilst visible in the distance in a limited number of views, is not unsightly in views from Arundel.
Highest landmark along the south coast, will impact the character of the coastal plain	The revised proposals have been assessed in the context of landscape character of the coastal plain. Compared with the proposals in the withdrawn application, there has been a considerable reduction in the scale and mass of the buildings, changes to their proposed form and orientation, and a review of the colours and textures to be used. The impact of the current proposals on the coastal plain landscape character is considered to be acceptable. Note; the flues, at 85m, are half the height of Portsmouth's Spinnaker Tower (170m) which is the highest landmark along the south coast. The i360 viewing tower on the seafront in Brighton is 162m high, and the chimney at Shoreham Power Station, also on the coast, is 100m high. The ERF and WSTF is located about 2.75 km inland from the coast.
Massive landscape impact	The revised proposals show a considerable reduction in the scale and mass of the buildings, have changes to their proposed form and orientation, and there has been a review of the colours and textures to be used. There is also increased space for earth mounds and new

	planting within the site to screen the lower levels, to soften the visual appearance and to help the proposals to integrate with the surroundings. The effects are therefore considered to be acceptable, particularly when balanced against the benefits of sustainable waste management and energy generation, to meet an identified operational shortfall.
Need a better design	The design has been reviewed and has resulted in a considerable reduction in the scale and mass of the buildings, changes to their proposed form and orientation, and a review of the colours and textures to be used. Whilst the aesthetics of design is subjective, the new design has addressed related concerns about height and scale, landscape and visual impacts, and heritage impacts. The resulting design is therefore demonstrably better in response to those concerns.
Height unacceptable in a low-level environment	The proposals have been reviewed and there has been a considerable reduction in the height of the buildings. The proposal has also been designed with a landscape setting that will help to root it in its context and reduce its apparent size and visual impact.
It does not blend in; it is not in harmony with the landscape	The proposals have been reviewed and there has been a considerable reduction in the height of the buildings, changes to their proposed form and orientation, and a review of the colours and textures to be used. The proposal has been designed with a landscape setting that will help to better integrate with its context. Overall, the revised proposals will better harmonise with the landscape.
Significant visual impact on existing neighbouring properties	Compared to the original proposals against which these comments were made, there has been a considerable reduction in the height of the buildings, changes to their proposed form and orientation, and a review of the colours and textures to be used. The proposal has been designed with a landscape setting that will help to better integrate with its context and reduce its visual impact. The effects are therefore considered to be acceptable, particularly when balanced against the benefits of sustainable waste management to meet an identified operational shortfall.
Conflicts with protected views and vistas in the Walberton Neighbourhood Plan	The applicant has reviewed the proposed protected views in the Walberton Neighbourhood Plan, noting that the plan is not yet 'made'. It is not considered that the proposals will be in conflict with any of these proposed protected views, should they be confirmed as such following the examination of the plan.
Will dominate Yapton's eastern boundary	The proposals have been reviewed and there has been a considerable reduction in the height of the buildings, changes to their proposed form and orientation, and a review of the colours and textures to be used. The proposal has been designed with a landscape setting that will help to better integrate with its context and reduce its visual impact.

	It is considered that this will alleviate the concerns expressed.
Risk of a visible plume	There may be a visible plume under some atmospheric conditions and an assessment of this is included in the air quality documents accompanying the application. However, any plume will be a transient and temporary feature and will not have any significant impacts. Note that the extant permission for gasification plant at the site also includes a flue that would also bring a similar risk of a plume.
Loss of light and overshadowing	The application includes sun path modelling that illustrates the predicted overshadowing produced by the proposed development during the spring equinox and summer and winter solstices. This shows that shadowing will be very limited during the spring and summer equinox. Neither existing properties nor the proposed residential development adjacent to the site will experience increased overshadowing during these times. Existing properties are not predicted to experience increased overshadowing during the December solstice either, except late in the afternoon when a small number of properties to the north east will experience a brief period of overshadowing as the sun sets. Proposed dwellings to the north west of the site will experience overshadowing in the morning, but this will pass by 11:00, except for a small section of the very thin shadow associated with the proposed stack, which will pass by 13:00. Given these extremely limited predicted periods of overshadowing, which will be restricted to winter when the sun is low in the sky, there be no significant loss of light or overshadowing, as a result of the proposals.
Traffic and movement	
Will increase HGV movements on rural roads	The current site operations are limited to a maximum of 240 HGV movements per day. The proposed ERF and WSTF will also be subject to this limit so there will be no increase in what is already allowed. The HGVs will be directed to use Ford Road/Church Road south to the A259 when exiting the site and the reverse on arrival. There therefore will be no increase of use of rural roads.
Traffic will conflict with traffic from the new residential area and will generate pollution	The traffic will not conflict as the access to the ERF/WSTF site is separate from the residential site access. The current site operations are able to generate up to 240 HGV movements a day and the proposals will not exceed this. The impact on emissions from vehicles using the site will therefore not be any greater than the current position would allow. However, it is noted that the residential traffic generation will all be additional traffic, so this would bring additional emissions. This is a consideration for the planning application for these new homes.

Road network overloaded and can't take more traffic	The planning permission for the new access road to the site allows that current site operations are able to generate up to 240 HGV movements a day. The ERF and WSTF proposals will not exceed this. There will not be any more traffic arising from the proposals than is already allowed.
Local roads not suitable for HGV traffic	The planning permission for the new site access road includes a traffic routeing agreement to avoid unsuitable roads and the ERF and WSTF traffic will adhere to this. In accordance with the agreement, HGVs will be directed to use Ford Road/Church Road south to the A259 when exiting the site, and the reverse on arrival.
No proposals to improve road infrastructure; safety issues	The planning permission for the new site access road includes a traffic routeing agreement to avoid unsuitable roads and the ERF and WSTF traffic will adhere to this. This is in place to avoid unsuitable roads and associated potential for safety issues to arise.
Need to better recognise needs of equestrians	The possible needs of equestrians have been considered in the walking, cycling and horse-riding assessment submitted with the application. It is noted that there are no equestrian facilities (bridleways, stables etc) within one kilometre of the site. Therefore, there are no equestrian facilities to connect with any wider networks outside the study area.
Should provide links for walking, riding and cycling	The possible need to provide links for walking, riding and cycling of equestrians has been considered in the walking, cycling and horse-riding assessment submitted with the application. It is noted that there are no equestrian facilities (bridleways, stables etc) within one kilometre of the site, so there is nothing to link to, or between, in the immediate area. The study has also not identified any specific opportunities for improvement to pedestrian and cycle access relevant to the proposed development itself. It is however noted that there are opportunities to improve cycle and pedestrian connections within the study area (and beyond), and that these opportunities should be considered as part of any wider strategy/package of measures, coordinated by WSCC.
Need to contribute to the canal greenway project	The applicants are aware of the project and have considered how the development of the site may assist. However, there are limited opportunities given that the applicants have no control of any land outside the site boundary that might contribute to the greenway. The applicants have nevertheless been able to reflect the previous existence of the canal by marking its location in the design of the earth bunding on the western boundary, where a recess will be provided to accommodate a water feature ; and on the eastern side of the ERF building there will be blue translucent paving in the car park on the line of the canal.

Need to make provision for residents of Rollaston Park to access Ford station	The proposals do not affect or alter any existing public rights of way or permissive routes. The proposals will not affect the ability of residents of Rollaston Park who may currently walk to the station to be able to continue to use their current route.
Impact on strategic housing site	
The proposals will affect the capacity of the new residential area adjacent to deliver the required amount of new homes and will affect housing land supply	Both the strategic housing allocation and the strategic waste site are allocated in local plans for their respective development, which demonstrates that there is a general acceptance that both uses should be able to co-exist without undue impacts on the other. There is no evidence that the ERF/WSTF proposal will affect the delivery of the new homes or affect the housing land supply.
Prejudice delivery of affordable homes on adjacent land by the Community Land Trust	It is unclear why it should be claimed that the proposal will prejudice the delivery of the affordable homes on adjacent land, and it is not specified where this adjacent land is located. Assuming it is part of the strategic housing allocation, then the above points apply.
Planning policy and precedent	
Waste Local Plan strategy is no longer relevant given recent approval at Horsham and the intentions of the Environment Bill regarding air quality, recycling and the circular economy	The WLP is the adopted local plan that governs this type of development, and permissions granted on other sites or the intentions of the Environment Bill do not alter this. Also note that whilst an ERF has been approved on appeal at Horsham, there is no guarantee that this facility will be built out, nor does it mean that another strategic site should not provide a similar facility. The Environment Bill requires further passage through government before it becomes law.
There is already permission for a gasification plant at the site so this is not needed.	Whilst there is a permission for a gasification plant, this has not been built. The existence of a permission does not itself negate the need for other facilities. Without the implementation of the permission to achieve an operational facility, the need remains.
Contrary to several planning policies	The proposals are in line with, and not considered to be unacceptable in relation to, the relevant planning policies of the WLP, Arun District Plan and Ford Neighbourhood Plan when taken as a whole. This is addressed in full in the planning statement submitted with the application.
Proposed capacity exceeds the WLP capacity for the site	The WLP does not specify a cap on the capacity to be provided at the site. It refers to circa 250,000 tonnes per annum, and that this is dependent on the type of facility, the technology used and the ability of the site to accommodate the facilities in line with planning policy. The proposals, whilst providing for 295,000 tpa, fit on the site and are broadly in line with planning policy. Generally, it is good practice to make best use of available sites and indeed the planning authority has encouraged a comprehensive development. Note that a facility to treat only 250,000 tpa would not be of a reduced size. Also, throughput of 295,000 tpa

	would be achieved at the site within the current HGV traffic movement limits (240 per day).
Need a comparison with the gasifier impacts	A comparison is not needed. The proposal for the ERF and WSTF should be treated on its own merits. It is not a case of having to make a choice between two alternatives so it is not clear how a comparison with the impacts of a different proposal that has not been built and is unlikely to come forward would assist. The impacts will differ in some respects but that is because they are different projects with different characteristics. However, in key areas there are similarities, for example both will meet the required emissions standards, both will adhere to the obligation not to exceed 240 HGV movements a day, and both will adhere to the same lorry routeing agreement.
Overprovision of waste facilities in W Sussex	The latest annual monitoring report for the West Sussex Waste Local Plan shows that there is an operational shortfall of 270,000 tonnes per annum in recovery capacity such as that comprising the proposed ERF. The proposed WSTF will allow the existing waste sorting and transfer activity to continue at the site, at the same level of throughput. There is no evidence of overprovision.
Correlation between high rates of incineration and low rates of recycling	On the contrary, countries with higher reliance on EfW than landfill provide evidence that EfW goes hand in hand with the best recycling performances. The countries with the highest and above average recycling rates, are the ones with more EfW and less landfill. Many of the countries with exemplary recycling rates also have relatively high energy recovery rates. Germany has the highest recycling rate in the world at 66% and incinerates 32% of its waste. Austria recycles 58% of its waste and incinerates 38%. The Netherlands, Switzerland and Belgium all have recycling rates of 53%, with incineration rates of 46%, 48% and 45% respectively. This is because the energy recovery process has diverted non-recyclable waste from landfill rather than diverting recyclable waste from recycling. Parts of the UK have replicated this trend albeit at a more localised scale. Data from Defra's local authority collected waste annual results tables show that West Sussex County Council had, in UK terms, a relatively high rate of household waste recycling and composting in 2018/19, at 51.9%. This indicates that recycling and composting are well established in the area, and this is alongside a move away from landfill to EfW reliance for residual waste. All local authorities have statutory and locally adopted recycling targets, together with financial incentives and penalties aimed at landfill diversion. These factors work together to encourage recycling. There are practical limits to recycling and not everything potentially recyclable can realistically be recycled. The UK target for recycling 65% of municipal solid waste by 2035 set out in the government's (2018) Our Waste, Our Resources: A Strategy for England will still leave

	35% of waste requiring an alternative form of management. The West Sussex Waste Local Plan highlights that the council has a target of zero waste to landfill by 2031, so this leaves a need for other forms of management such as energy recovery.
Why can't the extant permission be built out instead	The extant permission for a gasification facility does not provide a commercial solution in the current marketplace. It is therefore not likely to come forward.
Should not bring waste from out of county	There is no prohibition in policy or guidance at any level on cross boundary movements of waste between local authority areas. Currently the county already imports waste from out of county, as reported in the Waste Local Plan. The plan also recognises that the movement of waste is based on commercial decisions that do not respect political boundaries.
Air quality, noise and light pollution	
Queries regarding the level of toxic materials predicted at local sites e.g. schools	The air quality assessment reported in the ES and technical appendices shows the likely deposition of emissions from the ERF. The levels are well within the required standards in all cases.
Worst case scenario for air quality may be underestimated	The scenario is not an underestimate, it's the worst case, and therefore an upper-level estimate. In reality the worst case is unlikely to reflect day to day operations that will show lower emissions.
Detrimental effects on health from increased air pollution	Public Health England's (PHE) risk assessment is that modern, well run and regulated municipal waste incinerators are not a significant risk to public health. PHE considers that while it is not possible to rule out adverse health effects completely, any potential effect for people living close by is likely to be very small. Their view is based on detailed assessments of the effects of air pollutants on health and on the fact that these incinerators make only a very small contribution to local concentrations of air pollutants.
Will increase CO_2 emissions	When compared with the alternative of sending the residual waste to landfill, the ERF will release less CO_2 to the atmosphere, so will reduce emissions.
Planning application makes no reference to the Environmental Permit application	The Environmental Permit application for the ERF was submitted to the Environment Agency in February 2021. This is a separate process to the planning application, and neither is dependent on the other.
Pollution of crops	The air quality assessment reported in the ES and technical appendices shows the likely deposition of emissions from the ERF. The levels are well within the required standards in all cases. There will be no pollution of crops.
Questions about validity of the noise assessment method and results	A fresh noise assessment has been carried out for the revised proposals and to take account of the detailed comments of the Environmental Health Officer on the previous scheme.
Should use SCR not SNCR as flue gas treatment	SNCR flue gas treatment is demonstrated to provide the appropriate level of treatment to meet and exceed

	the required emissions standards. There is therefore no need to use SCR.
Increased light pollution	The lighting of the site has been designed to avoid light levels that would amount to pollution.
Increased noise pollution	The noise assessment concludes that levels will be acceptable at the sensitive receptors around the site, with mitigation in place that includes earth mounding and acoustic fencing.
Biodiversity/ecology	
Construction will erode wildlife habitat	There is little wildlife habitat on the site as it is mostly covered in buildings and hard standing. Note that that there will be a 763.12% net gain in the biodiversity value of habitats at the site post-development and a 390.34% net gain in the biodiversity value of the hedgerow units post development. These figures do not consider non-habitat creation measures such as proposed bird, bat and bug boxes. Therefore, the proposed development is calculated to have significant positive impact on the biodiversity value of the site compared to the existing position.
Safety	
It presents a major incident hazard	A major accident risk assessment has been prepared for the environmental permit application. Information from this is include as an appendix to the Environmental Statement submitted with the planning application. This identifies the risks and explains how this will be managed.
Heritage	
Adverse effect on an ancient monument (ref to Tortington Priory)	The site is located about 2.7 km from Tortington Priory. The heritage assessment has identified no significant impacts arising from the revised proposals.
Potential for significant harm to views from Arundel Castle	The site is located about 4.5 km from Arundel Castle. The heritage assessment of the revised proposals concludes that the proposals will appear as a distant structure that will occupy a very small part of a much wider view. The alterations to the qualities and character of the setting of Arundel Castle are considered to result in a slight adverse effect, which is not significant. There will be no significant visual intrusion within the registered parkland, and the character and appearance of the town's conservation area will remain unchanged. There will therefore be no significant harm to views from Arundel Castle.
Local economy and housing market	
Adverse impact on tourism	The Environmental Statement includes an assessment of the potential effects on tourism (see the chapter on Community and Social Effects). It concludes that the proposed development will not significantly alter the overall visitor experience. No significant effects are therefore predicted on tourism as a result of the proposed development.
Ford market may suffer	There is no basis for suggesting that the market may suffer. The operation of the ERF and WSTF will have no

	impact on the market site or its ability to continue to operate as a market.
Negative effect on house prices	The Environmental Statement includes an assessment of the potential effects on house prices (see the chapter on Community and Social Effects). It refers to existing studies that suggest that the proposed ERF is not likely to have an adverse effect on property prices in the local area, either in relation to existing properties or the proposed residential development adjacent to the site at Ford Airfield. This conclusion is supported by the Inspector's appeal decision on the proposed ERF at the Former Wealden Brickworks in Horsham (appeal reference: APP/P3800/W/18/3218965), in which the Inspector states that "there is no evidence before me to demonstrate that other energy from waste developments within or adjacent to a developing urban area have adversely affected either house prices or the demand for housing in an area." Given the above, it is considered that the proposed development will have a negligible effect on house prices and housing supply in the local area that will not be significant, both in terms of existing properties and future developments.
Flood risk	
The development will bring a risk of flooding	Environment Agency indicative flood risk mapping shows that the proposed site is entirely located in Flood Zone 1, i.e. it is at low risk of flooding from rivers and the risk of flooding from surface water within the site boundary is considered to be low. Surface water drainage has been designed so that it will not lead to flooding off site.
Carbon, energy generation and CHP	
Incineration has a higher carbon intensity than the conventional use of fossil fuels, and significantly higher than what most people would consider 'low carbon'	The Defra publication "Energy from Waste - a Guide to the Debate" says that energy from residual waste is " a partially renewable energy source, sometimes referred to as a low carbon energy source". Energy from waste is above landfill in the waste hierarchy because of its superior performance in reducing greenhouse gas emissions. The UK Government's Resources and Waste Strategy recognises that energy from waste is generally the best management option for waste that cannot be reused or recycled in terms of environmental impact and getting value from the waste as a resource. It promotes the greater efficiency of energy from waste plants through use of the heat generated in district heating networks or by industry, and by seeking an increase in the number of plants obtaining R1 recovery status. The proposed ERF is in line with this strategy; it is CHP ready and is designed to achieve the R1 recovery status.
No confirmation from EA that the project will meet the R1 standard to qualify as an energy recovery project	The confirmation that R1 is met will be part of the environmental permit (EP), an application for which was submitted to the Environment Agency in February 2021.

	The EP application includes information that shows that the R1 standard will be met for operation in electricity only mode as well as with heat export, the latter being subject to securing future heat customers.
CHP delivery needs more effort	Note that one of the applicants, Viridor, is experienced in CHP delivery, being actively engaged in this at other ERFs in the UK. The application includes a CHP report, that indicates how heat could be delivered to nearby heat customers that have already been identified. However, this can only be firmed up once there is planning permission (and an environmental permit) for the ERF. This is because actual heat delivery requires supply contracts to be in place and a prerequisite for this to happen is that there has to be certainty of supply. The applicants will be keen to progress discussions about potential heat supply with interested customers and other relevant agencies, once the ERF is approved.
Pest control	
Vermin problems, including seagulls	The proposal include means of addressing pest control, including design to minimise opportunities for pests to access the waste storage areas, and eliminate roosting points for birds; plus a robust cleaning regime, visual checks and application of standard pest control methods. This is described further in paragraphs 3.140 to 3.142 of the Environmental Statement.
Regulation	
Who will regulate operation, everything from traffic routing, vehicle size and numbers, emissions, waste inputs, chemicals used, fire hazards etc	WSCC as both Waste Planning and Highway Authority will be responsible for regulating matters relating to traffic and vehicles. The Environment Agency will be responsible for regulation of matters such as emissions, waste inputs, fire and other hazards, through the environmental permit regime.

APPENDIX 2

DISCUSSION OF MAIN ISSUES IN THE HORSHAM APPEAL DECISION LETTER

Discussion of main issues in the Horsham appeal decision letter

A2.1 Pre-application advice indicated that the main issues arising from an appeal regarding development at the Former Wealden Brickworks by Britanniacrest Recycling Ltd should be considered.

A2.2 The appeal (Ref: APP/P3800/W/18/321896527) was approved in February 2020 and was in relation to a planning application (application reference: WSCC/015/18/NH) that was refused by WSCC planning committee on 11 July 2018).

A2.3 The proposed development comprises a recycling, recovery and renewable energy facility and ancillary infrastructure at a site in Langhurstwood Road, Horsham, West Sussex.

A2.4 The proposal replaces an existing WTS (up to 230,000 tpa capacity) with a new recycling facility and ERF with the same combined capacity (50,000 tpa recycling, 180,000 tpa recovery).

A2.5 The proposal therefore has some similarities with this planning application in that it involves re-development of an existing waste site that is identified as a strategic waste site in the WLP. It provides a new ERF using similar technology. It is also adjacent to a large new housing development identified in the local plan. The ERF building is of a similar scale, although the Ford building will be slightly taller (38.5m as compared with 36m at the tallest part of the building), and the flue stack shorter (85m as compared with 95m), than at Horsham.

A2.6 The Inspector's conclusions in allowing the appeal are therefore potentially of assistance in considering some of the issues and the planning balance.

A2.7 The main issues identified in the Inspector's report are:

- consistency with the aims of local and national waste management policy
- the effect on the character and appearance of the area
- the effect on the living conditions of the local community, with particular reference to public perception of harm to health in relation to air quality
- the effect on significance of heritage assets and if there is any harm whether this would be outweighed by public benefits of the scheme.

A2.8 Taking each in turn these issues are considered below to draw conclusions of relevance to the determination of the current application.

Waste management policy

A2.9 It is noted that the Inspector found that the policy in the WLP is up to date, relevant and effective.

A2.10 In the context of the need to meet shortfalls in capacity identified in the plan, the Inspector concluded that it appeared likely that there remains a significant shortfall in recovery capacity.

A2.11 The benefit in meeting an identified need was recognised by WSCC, and the Inspector considered that it attracts substantial weight. *This is a general finding that also applies*

to the proposals at the Ford site, so there should also be substantial weight given to this factor.

A2.12 The Inspector noted that at Horsham, whilst the exact sources of waste are not yet known as contracts have not yet been secured, the plant is designed to achieve R1 recovery status. This is an important factor in the need to move waste management up the waste hierarchy. *The same conclusion can be reached for the Ford proposals as the submitted CHP Ready Assessment report demonstrates that R1 status can be achieved.*

A2.13 The Inspector gave little weight to the concern that the provision of energy from waste capacity may result in waste being managed further down the waste hierarchy than would otherwise be the case. It is clear that government policy continues to support energy from waste, and that locally there is a significant shortfall in recovery capacity. This general conclusion is also of relevance to consideration of the Ford proposals.

A2.14 In conclusion on this main issue, the Inspector found that R1 status, and the contribution towards meeting an identified need for recovery facilities on a site allocated for such facilities in an up-to-date WLP, weigh substantially in favour of the scheme.

A2.15 This conclusion is highly relevant to the proposals at Ford, where the same weight substantially in favour of the scheme would apply.

Character and appearance

A2.16 It is noted that the Inspector found that the West Sussex High Quality Waste Facilities SPD (2006) is not consistent with the NPPF and is unduly restrictive in its requirement that development does not detract from the character of the County's rural areas, thereby placing a high level of protection on landscape irrespective of its value. It is given little weight as a result. Hence the applicants consider that little weight should be given to the SPD in this respect when considering the Ford application.

A2.17 The Inspector finds that the Horsham proposal, although substantially larger than other individual buildings locally, can be said to integrate with adjoining land uses and would not be out of place. The same can reasonably be said of the Ford proposal, being of a similar scale and located in an area with other commercial/industrial built development nearby and allocated in the WLP for what amounts to an intensification of the existing use.

A2.18 He judged that it would be reasonable to regard the form and appearance of the proposed development as high quality. Following the Inspector's analysis, the applicants consider that the proposals at Ford should also be judged as high quality; the proposals have been very carefully considered and composed, in terms of detailed design, site layout, materials and consideration of local character.

A2.19 The Inspector considered that the recently approved 'land north of Horsham' development would extend the suburban influence of Horsham in the local landscape, and its sensitivity to change should therefore be regarded as low. This is a similar context to Ford, where the proposed new community surrounding the site would have a similar suburbanising effect and resultant reduction in sensitivity to change.

A2.20 The Inspector did not dispute that there would be some adverse landscape and visual impact at Horsham. However, he considered that this would not be unacceptable.

A2.21 *Whilst the landscape context differs, the applicants consider that a similar conclusion can be reached for the Ford proposals.* There is some adverse impact identified in the LVIA results, as set out in the ES, but when balanced against the benefits of the proposals in meeting identified needs on an allocated site, and the recovery of renewable / low carbon energy and heat from residual wastes, this would not be unacceptable.

Living conditions

A2.22 The Inspector notes that, whilst there is no dispute that public perception of harm is a material consideration, the factors informing the weight to be attributed to it include the existence or otherwise of objective justification for the concern and the degree to which land use consequences would flow from the perception of harm.

A2.23 This is a general point that should inform the judgements made on the Ford proposals too.

A2.24 The Inspector found that the air quality results in the Horsham ES are likely to be conservative such that actual environmental concentrations will be likely to be lower and the conclusion of no significant impacts can be given significant weight.

A2.25 This is also the conclusion of the Ford ES on air quality, where the results can also be treated as conservative.

A2.26 In the context of attempts by objectors to invoke the precautionary principle, the Inspector found this would not be justified given the ES conclusions and the lack of objection from the Council's Director of Public Health, and the Public Health England (PHE) statement on modern municipal waste incinerators dated 15 October 2019 that such facilities are not a significant risk to public health. He concluded that the Horsham proposal would be unlikely to have a significant adverse effect on public health.

A2.27 The Inspector found no evidence that other energy from waste developments within or adjacent to a developing urban area have adversely affected either house prices or demand for housing in the area.

A2.28 He found that it is unlikely that many people would move away or not move to the area as a result of the proposal, and that there is no compelling evidence that businesses would be deterred from relocating to the area, also noting that waste management activities already exist in large part.

A2.29 He gave only limited weight to the perception of harm to public health and concluded that the scheme would not give rise to a significant conflict between land uses in the area. The effect on living conditions of the local community with respect to air quality and public perception would be acceptable, and there is no conflict with policies W12, W16, or W19 of the WLP in this respect.

A2.30 *The Inspector's findings and conclusions on these general matters relating to living conditions can reasonably be applied to the Ford proposal too, given the similar context.*

Heritage assets

A2.31 The Inspector attached considerable importance and weight to each instance of harm to the significance of a designated heritage asset. He nonetheless considered that the proposal would make a substantial contribution towards meeting the identified need for waste recovery facilities and would be located on a site allocated for such purposes in an up-to-date development plan.

A2.32 These public benefits of the scheme would significantly outweigh the associated harm to the significance of designated heritage assets. He therefore concluded that the effect of the proposal on the significance of designated heritage assets would be acceptable.

A2.33 *Whilst the specific assets and impact assessment differ, these general findings and conclusions of the Inspector on matters relating to heritage assets can reasonably be applied to the Ford proposal too, and that the effect of the proposal on the significance of designated heritage assets would be acceptable.*

APPENDIX 3

INTERRELATIONSHIP WITH STRATEGIC HOUSING ALLOCATION AT FORD (SD8)

Interrelationship with strategic housing allocation at Ford (SD8)

A3.1 The application site, which is an existing waste management site and an allocated strategic waste site in the West Sussex Waste Local Plan 2014 (WLP), is surrounded by a site for a proposed new community identified in the Arun Local Plan 2018 (ALP) as strategic housing site SD8. This strategic housing site is also reflected in Policy SA1 of the Ford Neighbourhood Plan 2019 (FNP). It provides for 1500 new homes and related employment and community facilities.

A3.2 The ALP allocation for the strategic housing site came after the adoption of the WLP and the 2015 approval of a planning application for a MRF and RWTF at the Ford strategic waste management site. Strategic housing site SD8 was therefore confirmed in the full knowledge of the existing waste management activity at the site, the proposed intensification of use via the 2015 approval, and the strategic waste allocation in the WLP that allows for expansion of activity at the site to a throughput of circa 250,000 tpa.

A3.3 Notably the throughput estimate in the WLP is not expressed as a limit and does not rule out a higher throughput. Nor does the WLP allocation limit the type of facility(ies) or the waste management technology to be used.

A3.4 The development plan allocations in both the WLP and the ALP therefore see the potential for the strategic waste site, both in its current form and possible future configuration with additional and/or intensified uses, and the strategic housing area to sit successfully side by side.

A3.5 The WLP, the ALP, and the FNP (and indeed the NPPF and NPPW) all contain policies that protect existing and allocated waste management sites from new development that might prejudice the implementation of the waste hierarchy and/or the efficient operation and development of waste facilities.

A3.6 The ALP allocation for SD8 includes a generous area of land for the proposed housing capacity and associated commercial and community facilities, meaning there is ample scope to have new housing set well back from the waste site boundaries to avoid impacts on the existing (and potential) waste management activity, with appropriate landscape buffers or non-residential uses in the intervening area. This would allow the necessary separation that would meet the requirements of the national and development plan policies in this respect.

A3.7 The applicants at the waste site consider that a successful co-existence can be achieved, subject to good planning and design, and careful consideration of mitigation on both sides.

A3.8 The applicants have therefore been careful to consider the design of the proposals for the WSTF and ERF in the context of the existing baseline of the current waste management activities, and the change that will come with the establishment of the new community. This is on the reasonable assumption that policy will be followed and that the new community proposals will incorporate their own mitigation. The applicants discussed this with the developers of the new community prior to submission of the withdrawn planning application, emphasising the need for both developments to be designed to be a 'good neighbour' to the other, and pointing out opportunities for potential heat supply to the new community through a new heat network.

A3.9 Planning applications have been submitted for the new community (application reference: F/4/20/OUT) and for related changes to the operations at Ford Airfield market (application reference: F/5/20/PL).

A3.10 The outline application for the new community originally provided very little evidence to demonstrate how the proposed residential and employment uses can be compatible with the existing, consented (but not yet built) and future strategic waste related operations. The joint applicants for the ERF and WSTF, that includes Grundon, the current site operator, objected to the strategic housing site application on this basis and are aware that the WPA also expressed concerns about this in its consultee comments to Arun District Council about application F/4/20/OUT.

A3.11 The key concern is that the proposed development in F/4/20/OUT did not appear to take account of the existing or permitted operations at the site. This could lead to potential for the amenity of new residents to be unnecessarily affected by existing or consented site operations that might cause noise, dust or odour as part of the legitimate functioning of the processes currently carried out and allowed at the site.

A3.12 The failure to address this matter properly in the context of the existing and consented operations at the site means in turn that there is potential for similar issues in relation to any future additional development, intensification, or change in operations that might be allowed through the implementation of the Waste Local Plan policy for the site.

A3.13 The joint applicants suggested that there are opportunities to design mitigation measures into the housing scheme to take account of the existing and consented uses at the Circular Technology Park site. It is considered that such measures would also be relevant in mitigating future development at the site.

A3.14 These measures include, but are not limited to, a revised layout and the provision of a standoff/buffer zone to locate new residences further from the site boundary, hard and soft landscaping in the intervening buffer zone, and provision of acoustic fencing.

A3.15 In addition, the joint applicants suggested that as the extent of the strategic housing application only takes up a proportion of the area allocated under SD8, there is plenty of room in the allocated land area to accommodate the housing numbers proposed in the application whilst delivering a scheme which doesn't prejudice the current, permitted and future strategic waste management activities.

A3.16 It was suggested that the housing layout could be reconfigured to provide an optimum distance between sensitive receptors and the application site, considering, noise, odour and air quality, and screen planting, and based on realistic assumptions for the current and approved waste activities.

A3.17 The potential impact of the ERF and WSTF proposals on the adjacent strategic housing area was considered in the design process for the withdrawn application (WSCC/036/20) for an ERF and WSTF at the waste site and sought to provide a good neighbour to the proposed housing site in this respect.

A3.18 In arriving at a redesigned proposal for the revised application in March 2021, the joint applicants have achieved further improvements to help to minimise potential for adverse effects on the future residents of the new homes.

A3.19 This includes increased distance of the ERF and WSTF buildings from the site boundary closest to the proposed new homes, a large reduction in the size of the WSTF building and associated parking for HGVs, significantly increased earth mounding and landscape planting, and a significant reduction in height of the main ERF building. This is considered to be a positive response to address the relationship of the waste site to the strategic housing site.

A3.20 In turn, the joint applicants are aware that the promoters of the housing site have submitted revised parameter plans that locate the nearest new homes further away from the waste site boundary, reflecting the need to respect the presence of the existing, permitted and potential future waste uses at the site.

A3.21 It is also noted that there is now a waste infrastructure statement submitted in support of application F/4/20/OUT in February 2021 that includes defined mitigation to address potential impacts on new residents. This includes a widened buffer zone to the waste site boundary and design measures to help to address potential noise impacts in particular, this to be considered again in more detail at the reserved matters stage, with a planning condition to that effect.

A3.22 It is notable that the ES for the ERF and WSTF proposals has included an assessment of the cumulative effects with the Landings development, based on the current masterplan at the time of writing and as referenced in the waste infrastructure statement discussed above. This includes assessment of two noise receptor locations in the masterplan area and concludes that there would be negligible to slight noise effects at these locations, which is not significant. A negligible and not significant odour impact is also predicted.

A3.23 The changes on both sides are considered to be a significant step to demonstrate that, as provided by the development plan, the development of the two strategic allocations can sit together to achieve an acceptable outcome on both sides.

APPENDIX 4

SECTION 106 AGREEMENT DRAFT HEADS OF TERMS

Appendix 4

Section 106 agreement draft heads of terms

Lorry routing:

- written details of the prescribed route to be provided to all HGV drivers, including details of prohibited roads, and site speed restrictions
- provide a plan showing the route
- signage of the prescribed route
- details of the prescribed route to be placed on company websites
- restrictions and exceptions on use of prohibited roads
- complaint procedures
- logging and reporting complaints and actions taken.