POWERFUEL

Portland energy recovery facility

Comparative assessment against waste local plan allocated sites

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PORTLAND ENERGY RECOVERY FACILITY

COMPARATIVE ASSESSMENT AGAINST WASTE LOCAL PLAN ALLOCATED SITES

POWERFUEL PORTLAND LIMITED

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Summary

S1. This Assessment of Waste Local Plan Allocated Sites accompanies a planning application, submitted to Dorset Council (the council), by Powerfuel Portland Limited (the applicant) for full planning permission for the construction and operation of an Energy Recovery Facility (ERF) on previously developed land within Portland Port, Castletown, Portland, adjacent to Balaclava Bay.

S2. This report has set out the results of a comparative assessment of the waste sites allocated in the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 (the Waste Plan) against the application site at Portland. The purpose has been to meet the requirements of Policy 4 of the Waste Plan by demonstrating that the proposed Portland ERF site provides specific location-based advantages over the allocated sites in the Waste Plan.

S3. The comparative review against the allocated sites comprised a qualitative comparative analysis against a set of operational, planning and environmental criteria and then a more detailed examination of the potential for the sites allocated for residual waste management purposes to deliver the proposed ERF.

S4. The comparative review has shown that whilst none of the sites can fully meet all of the defined operational, planning and environmental criteria, the application site at Portland performs well coming top in the ranking against all of the allocated Waste Plan sites.

S5. The Portland site met 13 of the criteria, partially met two of the criteria and did not meet two of the criteria.

S6. Of the allocated Waste Plan sites, the Mannings Heath Industrial Estate site (Inset 9), was the next best performing site, and the best performing site of the four sites allocated for residual waste management facilities. The Binnegar Environment Park (Inset 10), Canford Magna (Inset 8) and Eco-sustainable solutions (Inset 7) sites performed less well.

S7. The more detailed assessment of the four allocated residual waste management sites (Insets 7-10), excluded the Mannings Heath Industrial Estate site because its area is less than 2 hectares and too small to accommodate the proposed ERF.

S8. The detailed assessment of the remaining three residual waste sites concluded that all sites were subject to significant constraints. In addition to proximity of European sites, two are also constrained by aerodrome safeguarding and green belt considerations, which together would preclude the development of large scale buildings and tall stacks typically associated with ERF (the latter being required to potentially mitigate against potential adverse impact on protected European sites from gaseous emissions).

S9. The three allocated residual waste treatment sites are also subject to other potential constraints such as landscape and visual, flood risk, lack of CHP opportunities and proximity to sensitive receptors. They are less well located in terms of access to alternative modes of transport (no access to water transportation), and in some cases proximity to the primary road network.

S10. Given the various constraints identified, none of the three sites allocated in the Waste Plan for residual waste management are considered to be suitable or appropriate for the construction and operation of an ERF of the type and scale proposed at Portland and are instead deemed to be more suitable for intensification of existing waste activities or other facilities such as MRF / MBT that would be complementary to the proposed ERF at Portland and could together form part of an integrated network of waste management facilities serving Dorset.

S11. In the context of Waste Plan Policy 4, this assessment of the allocated sites demonstrates that:

A) None of the allocated sites, including those that have been identified as suitable for residual waste management, are suitable for the proposed ERF, and

B) The application site at Portland has many advantages over the allocated sites, that would fully justify its use. These are:

- The Portland site is sufficiently large enough to be able to accommodate the required structures and circulation space to deliver an ERF of the required scale and treatment capacity
- The Portland site can be developed without having a significant adverse impact on the integrity of protected European sites or other areas of recognised ecological interest
- The Portland site is not subject to any significant stack height constraints imposed by airport safety surfaces, or subject to other aerodrome safeguarding and safety matters related to radar, air traffic control equipment and bird strike
- The Portland site would not require the reconfiguration or redevelopment of land which is already used by existing waste management facilities, nor would it lead to the potential temporary or permanent loss of any existing waste management capacity
- The Portland site is not subject to green belt designation or the potential constraints on the size of buildings or structures that might be deemed to have a greater impact on the openness of the green belt than existing development, precluding the development of an ERF or reducing its potential capacity
- The Portland site is not located within a flat and open landscape where an ERF tall stack would create a wide zone of visual influence, adversely affecting an area of green belt
- The Portland site has the potential for establishing links with existing and future complementary uses and activities located within the operational port
- The Portland site is not in a location affected by flood zones 2 and 3, or likely to cause potential for flooding off-site

- The Portland site is not located in close proximity to potentially sensitive receptors such as residential properties and schools

- The Portland site can connect to identified heat and energy customers who have expressed an interest in receiving energy from an ERF by means of a local heat network, with these being located adjacent to or in close proximity to the ERF

- The Portland site can provide power to the port and support the provision of shore power at the port (which otherwise could not be delivered) and ensure that the local energy distribution network operates more efficiently and effectively

- The Portland site is located in a deep water port and is in close proximity to the primary road network, having the capability for sustainable transport of waste by road and sea

1 Introduction

1.1 Powerfuel Portland Limited is applying to Dorset Council for full planning permission to construct an energy recovery facility (ERF) fuelled by refuse-derived fuel (RDF) on previously developed industrial land within Portland Port. The ERF is designed to address the needs for residual waste treatment capacity in Dorset and ow carbon heat and power.

1.2 While Dorset has a good record of recycling, all residual waste materials that cannot be practicably re-used or recycled are currently either sent to landfill for disposal (the least sustainable method of waste treatment), sent to energy from waste facilities outside Dorset, or converted to RDF and exported to Europe. The proposed ERF would enable Dorset's residual waste to be managed in a more sustainable way, with residual waste managed close to where it is produced (in line with the proximity principle) and energy recovered for a range of local benefits.

1.3 Portland has a constrained electricity supply, that whilst sufficient to meet existing domestic and commercial requirements, cannot practicably meet future energy demands expected to arise from the future growth of commercial activities at Portland Port, or on Portland, without a significant upgrade to the existing supply infrastructure. The proposed Portland ERF would reinforce the local energy network, providing a decentralised source of heat and power, that can provide greater efficiency and support the port through the provision of shore power.

1.4 The proposed ERF has been designed to process 183,000 tonnes of RDF per year, with a circa. 10% design tolerance to treat up to 202,000 tonnes should this be necessary in response to changes in calorific value, in order to maintain the efficiency of the plant. It will generate 15.2 MW of electricity for export and will also have the capability to export heat. The plant consists of the following: waste reception, fuel delivery, boiler, steam turbine, flue gas treatment, flue stack, residue handling systems, steam turbine, heat take-off for district heating, primary substation and ancillary equipment.

1.5 The proposed ERF site comprises previously developed land that historically was part of the Portland naval base and was formerly occupied by large buildings that were used by the Royal Navy. Upon closure of the naval base, the change of use from a naval port to a commercial port and commercial and leisure estate (application reference: 96/00432/COU) was permitted in 1996. This permitted B1, B2, B8 and leisure and marina uses.

1.6 In January 2010, planning permission was granted for the construction of an energy plant, fuelled by vegetable oils (ref 09/00646/FULES). In July 2013, the 2010 consent was varied to permit the combustion of a waste rubber crumb material, in addition to vegetable oil. While this was never fully implemented, it remains extant with a certificate of lawful use and development having been issued by Dorset Council in October 2019.

1.7 The proposed ERF site is therefore located on a brownfield site, on employment land, within an established commercial port, where industrial and similar uses are permitted and where an extant consent exists for a similar type of energy facility, which could still be implemented. A planning precedent has therefore been established for an industrial thermal combustion facility at this site, fuelled in part or full by waste-derived materials to generate electricity.

1.8 Officers from the Dorset Waste Partnership explained to the applicant that it had previously identified Portland Port as potentially playing a strategic role in the future management of Dorset's waste management. Whilst the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 was progressing through the plan making process, Officers from the former Dorset Waste Partnership (DWP) former Dorset County Council (DCC) economic development team and their consultants had a series of meetings and site visits with the Port in 2017-2018 as part of an options feasibility for sites to potentially support the early stages of a procurement exercise for residual waste disposal. During those discussions it was proposed that Dorset municipal collected waste could be brought to and processed at the Port with recycling and production of baled RDF for export by ship. DWP considered trying to secure permission for that use themselves and then include that as part of the procurement process inviting bidders to bid to operate that processing and export system, but in the event none of the sites investigated, including the site at Portland Port, were considered appropriate for inclusion in the procurement exercise given commercial and timing constraints and the structural changes at Dorset Council, and DWP chose not to progress that at the time and the residual waste contract was subsequently awarded. Consistent with the January 2018 Dorset Waste Partnerships Joint Committee resolution to (inter alia) "engage with Bournemouth Borough Council (BBC) and Borough of Poole (BoP) to investigate the potential for joint commissioning arrangements following the expiry of BoP's contract in August 2027" DWP considered that the Port might play a role as part of a longer-term strategy, once all of the existing waste contracts had been brought into alignment and aggregated, around 2027, to benefit from the larger scale that this combined volume would bring. The Port was nonetheless not included in the 2019 Waste Plan and is being assessed as such in this full application.

1.9 While land at the port is not specifically allocated for waste use in the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019, the Plan provides flexibility to consider other non-allocated sites in Policy 4 and includes a criterion policy (Policy 6) to provide a framework for the consideration of such sites.

1.10 Policy 4 of the Waste Plan states that proposals for waste management facilities on unallocated sites will only be permitted where *"there is no available site allocated for serving the waste management need that the proposal is designed to address or the non-allocated site provides advantages over the allocated site."*

1.11 Policy 6 states that:

"Proposals for the recovery of non-hazardous waste, including materials recovery, mechanical biological treatment, thermal treatment, anaerobic digestion and biomass facilities, will be permitted where it is demonstrated that they meet all of the following criteria:

a) the operation of the facility will support the delivery of the Spatial Strategy, contributing to meeting the needs identified in this Plan;

b) they will not displace the management of waste which is already managed, or likely to be managed, by a process which is further up the waste hierarchy than that being proposed, unless the Waste Planning Authority is satisfied that the proposal would result in benefits sufficient to outweigh the displacement;

c) proposals will provide for all operations including the reception, handling, processing and storage of waste to take place within an enclosed building unless there would be no proven benefit from such enclosure and demonstrate that the proposed operations will be compatible with existing or proposed neighbouring uses;

d) where energy is produced, they provide combined heat and power, or if this is demonstrated to be impracticable they recover energy through electricity production and are designed to have the capability to deliver heat in the future;

e) where gas is produced, it is injected into the grid, used for fuel or is refined for use in industrial processes, unless this would not be practicable; and

f) possible effects (including those related to proximity, species and displacement of recreation) that might arise from the development would not adversely affect the integrity of European and Ramsar sites either alone or in combination with other plans or projects."

1.12 Policy 6 also requires that any residues arising from the facility must be managed in accordance with the waste hierarchy and the proximity principle and that any processing facilities for incinerator bottom ash must be located at or close to the source of the waste arising.

1.13 This report sets out the results of a comparative assessment of the waste sites allocated in the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 against the proposed Portland ERF site, undertaken by Terence O'Rourke Ltd. The purpose of the assessment is to meet the requirements of Policy 4 of the plan by demonstrating that the proposed Portland ERF site provides specific location-based advantages over the allocated sites in the Waste Local Plan.

1.14 The comparative review against the allocated sites comprises a qualitative comparative analysis against a set of operational, planning and environmental criteria and then a more detailed examination of the potential for the sites to deliver the proposed ERF.

1.15 The Carbon Assessment also considers the comparative greenhouse gas emissions from operating an ERF at the four allocated sites of relevance namely Eco Sustainable Solutions, Parley, Canford Magna, Poole, Mannings Heath, Poole and Binnegar, East Stoke. It concludes that there would be a substantial carbon footprint benefit in using the proposed ERF at Portland Port, over these allocated sites, when taking account of the additional carbon savings from the shore power component of the Portland ERF.

2 Methodology

Introduction

2.1 The first stage was an analysis of the allocated sites against a range of criteria. The sites were ranked according to their performance in this analysis. A qualitative form of analysis was used, with sites categorised as 'meeting', 'partially meeting' or 'not meeting' each criterion. This approach is considered to be more objective and robust than the use of weighted, multi-scored analysis, as the use of weighting and a greater range of potential scores introduces a higher potential for subjectivity into the process. Furthermore, this approach has been examined by Planning Inspectors in respect to other similar energy from waste developments and has been found to be robust.

2.2 A set of defined criteria were developed, covering operational, planning and environmental matters, which were informed by the criteria set out in paragraphs 4 to 6 and appendix B of the Ministry of Housing, Communities and Local Government's (2014) National Planning Policy for Waste (NPPW) and also Policies 2, 3, 4 and 6 of the Bournemouth, Christchurch, Poole and Dorset Waste Local Plan (2019), as relevant. The criteria were further informed by the characteristics of the proposed Portland ERF scheme, on the basis that a comparable scheme on an allocated site would need to meet the same operational requirements and benefits. These were as follows:

Operational criteria

- Site size
- Potential to be served by sea
- Proximity to the primary road network
- Potential for combined heat and power (CHP)
- Potential to contribute to meeting Portland's electricity needs
- Potential for co-location with other complementary uses

Planning and environmental criteria

- Re-use of previously developed land
- Development of green belt land
- Compatibility with surrounding land uses
- Potential for effects on aerodrome safeguarding
- Proximity to designated ecologically sensitive areas
- Potential for landscape and visual effects (protected landscapes)
- Potential for landscape and visual effects (views)
- Potential for effects on the historic environment
- Potential for effects on water resources
- Proximity to areas likely to flood
- Presence of public rights of way

2.3 The full criteria and an explanation of how the scores were applied are set out below.

Operational criteria

2.4 The Portland ERF could meet the vast majority, if not all, of Dorset's existing and expected future residual waste management needs for municipal collected waste and a proportion of the business waste streams not managed by or on behalf of Dorset Council. The Dorset waste authorities have yet to let a long term contract for their residual waste, and post-local government reorganisation have progressed an interim procurement exercise for dealing with these wastes in the short term (next 5-7 years).

2.5 The Portland ERF, if granted planning permission, will be very well placed to manage some or all of Dorset's residual waste in a more sustainable way in the long term. Given the timescales associated with Dorset's interim waste management arrangements and the lead-in time for consenting and construction of an ERF, the proposed Portland ERF will necessarily have the flexibility and capacity required of a merchant plant. While the ERF would be in a good position to win a future long term residual waste contract, there is no contract in place for Dorset's waste and no guarantee that a contract would be awarded to the Portland ERF.

2.6 In such circumstances is not possible to be certain about where future waste supplies will come from, as that will depend on future commercial contracts and the competitive waste market. It is expected that a significant amount of the RDF will be sourced from Dorset and adjacent areas, such as east Devon, south Somerset, west Hampshire and south Wiltshire (or even from other waste transfer stations), that fall within a three-hour drive time catchment. However, given that the proposed ERF is located within a port, some RDF material may be sourced from elsewhere within the UK by ship.

2.7 Therefore, like all modern merchant facilities, the proposed ERF will be capable of bringing in residual waste for treatment from sources other than Dorset. The proposed Portland ERF will help to meet a local need for residual waste treatment in Dorset, and also a regional and national need. Without such a facility in Dorset, it is likely that residual waste will continue to be exported to facilities, or to landfill, located in other authority areas.

2.8 Without the flexibility to source residual waste from Dorset and elsewhere within the marketplace, it would not be commercially viable to construct a facility of this type, while in order to secure funding for such facilities it is necessary to develop plant at a suitably large scale. National planning policy for waste (NPPW) accepts that new waste management facilities will require a catchment of suitable size to ensure their viability.

2.9 The proposed site at Portland Port is ideally suited, having regard to critical operational requirements, both from the perspective of the applicant and the host landowner, Portland Port. The port has been looking for opportunities to unlock the port's growth potential and specifically identify ways in which the port can best meet the needs of its existing commercial clients, attract new business to the port and safeguard the future success of the commercial port, its businesses and their employees.

2.10 Given that the application site already has an extant planning consent for an energy plant, fuelled by vegetable and waste tyre crumb, the applicant was invited by Portland Port to consider whether the same vacant previously developed site, located within the operational port area, might be suitable for an alternative energy generating facility.

2.11 The proposed site is large enough to accommodate a modern ERF (fuelled by RDF where the maximum amount of recyclable material has been removed by pre-treatment), with a nominal treatment capacity of 183,000 tonnes per annum (with a maximum of up to 202,000 tonnes per annum) and a generation capacity of 18.1MW with 15.2 MW available for export. This will be deployed to generate electricity for the Port to meet its own specific commercial requirements (including a new shore power facility) and other users on Portland, and supply heat as part of a heat network to identified heat customers. Further details in respect to the supply of heat and power are provided in the submitted Shore Power Strategy Report and Heat Plan.

2.12 The proposed location at Portland Port, which is both a safeguarded employment site and active commercial port, has the major advantage that it reuses previously developed, degraded and vacant land that provides opportunities for the co-location of an ERF with other complementary activities both now and in the future. This includes existing businesses at the Port that are active in renewable energy with whom a shared training and apprenticeship programme is being developed to support the development of a cleantech cluster. It may also include others with engineering-based skills that can contribute towards the construction and operation of the facility, existing port-based operations requiring energy off-take from the ERF, or other operations that could locate at the port or Portland in future to take advantage of the ERF's energy and residual material outputs. Details of the applicant's training and apprenticeship policy are given in the Planning Supporting Statement (Appendix H).

2.13 Portland is adjacent to the urban area of Weymouth and well-related to Dorchester. It is also well located to the primary route network to serve the south east Dorset urban conurbation, where much of the county's residual waste arises. In this context, the Portland ERF project is as much an energy plant for Portland that is fuelled by residual waste, as it is a waste treatment facility that manages waste and generates energy. Further information in respect to the need for low carbon energy is provided in the Energy Need Statement submitted in support of this application.

2.14 A key advantage of the proposed location at Portland is the ability to move materials into and out of the site by sea. The proposed ERF intends to be able to import RDF material by sea, and export any residual materials generated by the process out by sea. This will provide resilience in the future. Equally, a site well located to the primary road network is required for the movement of RDF materials inward and other materials outwards.

2.15 The proposed ERF has a series of specific operational requirements. Therefore, in planning policy terms, an allocated waste site would need to be able to fully satisfy these operational requirements and deliver associated benefits on a comparable basis.

2.16 The criteria discussed in this section represent the key operational and delivery requirements.

1. Site size

2.17 The size of the site is an important determinant of its ability to accommodate the proposed ERF. A minimum site area of 2 ha is considered to be required to accommodate the ERF building, circulation space and car parking. Furthermore, sites should be of a suitable configuration that could realistically accommodate the proposed facility. For example, sites that comprise long thin parcels, or consist of multiple land parcels, would not be considered practical ERF development sites.

2.18 The criterion was assessed as follows:

- Meets criterion: the site is more than 2 ha in size and comprises a single parcel of a suitable configuration
- Partially meets criterion: the site is more than 2 ha in size, but is an awkward configuration or comprises multiple parcels of land
- Does not meet criterion: the site is less than 2 ha in size

2. Potential to be served by sea

2.19 The proposed Portland ERF is located within a commercial port and has direct access to port facilities. This is an important attribute for a sustainable merchant facility, because this provides flexibility and commercial resilience in respect to the sourcing of residual waste from the waste market, which can either be transported to the site by road from its terrestrial catchment area or elsewhere by water. Opportunities also exist in a port location to transport residual materials, such as inert incinerator bottom ash (IBA) by sea to specialist recycling facilities. In comparison, an allocated site without reasonable access to a port is considered operationally to be less preferable.

2.20 Paragraph 5 of the NPPW states that modes other than road transport should be used for the movement of waste when practicable and beneficial. The location of a site within or close to a port offers the potential for the facility to be served by sea. Sites located within a port have the best potential to minimise road transport. A cut-off of 10 km from a port was considered to be an appropriate distance within which importing waste by sea would still minimise road transport overall.

2.21 This criterion was assessed as follows:

- Meets criterion: the site is within a port
- Partially meets criterion: the site is within 10 km of a port by road
- Does not meet criterion: the site is not within 10 km of a port by road

3. Proximity to the primary road network

2.22 The proximity of the sites to the primary road network is important in order to minimise the movement of waste on local roads. The primary road network comprises motorways and A-roads designated by Highways England as primary routes. Two kilometres was chosen as the cut-off distance for meeting this criterion because it was considered to provide a reasonable distance beyond which the transport of RDF in HGVs on more local roads would become more

problematic in terms of effects on local amenity and other road users. A doubling of this distance was considered appropriate as the cut-off point for not meeting this criterion, given the desire to minimise the use of local roads.

2.23 In line with the above, this criterion was assessed as follows:

- Meets criterion: the site is less than 2 km from the primary road network by road
- Partially meets criterion: the site is 2-4 km from the primary road network by road
- Does not meet criterion: the site is more than 4 km from the primary road network by road

4. Potential for combined heat and power (CHP)

2.24 The ability of a plant to provide CHP is a key sustainability benefit and paragraph 4 of the NPPW highlights the siting of facilities to enable the utilisation of the heat produced as an energy source in close proximity to suitable potential heat customers. Areas with proposals for high density redevelopment or new development present the opportunity to 'design in' district-type heating infrastructure at the planning stage and are therefore considered to represent the most viable potential CHP clients. Retrofitting CHP infrastructure to existing uses is more complex, but existing buildings with significant demand for a constant supply of heat, such as large scale industry, hospitals, prisons and high density residential use (flats) also represent potential clients. The cost of provision is a significant factor and increases with distance and the complexity of provision.

2.25 In line with the above, this criterion was assessed as follows:

- Meets criterion: the site is within or adjacent to a regeneration / new development area identified in adopted or emerging development plan documents, or adjacent to an existing potential CHP client
- Partially meets criterion: the site is within 1 km of a regeneration / new development area or an existing potential CHP client
- Does not meet criterion: the site is more than 1 km from a regeneration / new development area or an existing potential CHP client

2.26 These cut-off distances were chosen to minimise costs associated with pipeline installation. Up to 1 km is considered to represent a reasonable distance for transporting heat to potential customers. It does not mean that CHP over longer distances would not be feasible, but that the best opportunities are those that are closest to the plant due to the additional costs of extended distribution networks, heat loss and reductions in efficiency.

5. Potential to contribute to meeting Portland's electricity needs

2.27 The proposed Portland ERF will be capable of generating around 15.2 MW of electricity for export (of a total of approximately 18.1 MW generated). Whilst such energy recovery plants typically export electricity to the national distribution grid, the proposed ERF location on Portland will deliver specific benefits to Portland that could not be achieved or delivered by allocated sites that are not located on Portland.

2.28 Portland Port is likely to require an increased supply of electricity in future to support the provision of shore power. At most UK ports, ships currently maintain their onboard power through the practice of 'cold ironing', running their marine oil-fuelled engines while docked for the duration of their stay. This results in continuous emissions from the exhaust systems and there is a strong policy push to move away from this unsustainable practice towards visiting ships being able to "plug into" a port's existing electricity grid. Portland Port is not able to provide the power necessary to offer shore power facilities. This is because it would be uneconomic for the port to cover the costs for the extra grid capacity needed and the energy purchase price from the grid compared to supply from an ERF via a private wire arrangement. This represents a significant commercial risk in terms of the port's ability to maintain and expand its trade and sustain associated socio-economic benefits of job support and creation, and the distribution of income on Portland and beyond. Shore power and its benefits to Portland are covered in the Shore Power Strategy Report and the ES socio economic chapter (chapter 6) and technical appendix F).

2.29 The proposed ERF will generate more electricity than currently required by Portland. This brings an efficiency benefit to the electricity distribution and transmission network through lower losses. The plant will also provide some assistance to SSE's network operations by providing some added stability and under fault conditions..

2.30 Given the above, this criterion was assessed as follows:

- Meets criterion: the site is located within Portland Port
- Partially meets criterion: the site is located elsewhere on Portland
- Does not meet criterion: the site is not located on Portland

6. Potential for co-location with other complementary uses

2.31 Paragraph 4 of the NPPW and Policy 2 of the Waste Plan identify the need to consider opportunities to co-locate waste management facilities together and with complementary activities. These are not specifically defined by the NPPW but, as paragraph 4 states that planning authorities should *"consider a broad range of locations including industrial sites, looking for opportunities to co-locate waste management facilities together and with complementary activities"*, such activities are considered to include industrial uses.

2.32 Given this policy context, the advantage of being adjacent to other waste management facilities, or complementary uses (assumed to be B2 industrial uses or similar), is considered to be appropriate in examining the sites. This criterion was therefore assessed as follows:

- Meets criterion: the site is within or adjacent to an active waste management facility or a site in a complementary use
- Partially meets criterion: the site is adjacent to a site allocated for potential future use as a waste management facility or complementary use in an adopted development plan
- Does not meet criterion: the site is not adjacent to an active or allocated waste management site, or a site in or allocated for a complementary use

Planning and environmental criteria

2.33 The criteria discussed in this section are considered to represent the key potential planning and environmental factors. A criterion was not included in relation to air quality because none of the sites are within or adjacent to an air quality management area and site-specific air quality monitoring data are not available. A specific criterion relating to air quality would therefore not assist in differentiating between the sites.

2.34 Furthermore, a criterion has not been applied in relation to whether sites are compliant with planning policy, in so far as whether the site is allocated, or not, for waste management uses in the Waste Plan. This is because the purpose of this assessment is to consider the merits of the proposed ERF site (which is an unallocated site) against the allocated sites and, as required by Waste Plan Policy 4, demonstrate that the non-allocated site can provide advantages over the other allocated sites.

7. Re-use of previously developed land

2.35 Paragraph 4 of the NPPW states that priority should be given to the re-use of previously developed land when identifying sites for waste management facilities. The National Planning Policy Framework (NPPF) defines previously developed land as *"land which is or was occupied by a permanent structure, including the curtilage of the developed land…and any associated fixed surface infrastructure."* This definition excludes land that has been developed for minerals extraction or waste disposal by landfill, where provision for restoration has been made through development management procedures, and which is therefore regarded as greenfield land.

2.36 This criterion was assessed as follows:

- Meets criterion: the site is previously developed land
- Partially meets criterion: the site is partially previously developed land
- Does not meet criterion: the site is greenfield

8. Development of green belt land

2.37 Paragraph 6 of the NPPW highlights that green belts have special protection in respect of development and planning authorities should first look for suitable sites outside the green belt for waste management facilities. For consistency with other assessment criteria, rather than a simple pass / fail approach depending on whether a site is in the green belt or not, a means of distinguishing between different green belt sites has been included. Green belt covers a range of land uses, from relatively undisturbed public greenspace or countryside to areas currently in active uses such as waste management, mineral extraction or utilities. Paragraph 145(g) of the NPPF notes that partial or complete redevelopment of previously developed land within the green belt may be appropriate, providing the new development would not have a greater impact on the openness of the green belt than the existing development.

2.38 Some of the allocated sites are existing waste management sites located in areas subject to green belt policy, so whilst their Waste Plan allocation allows scope for intensification of the existing waste uses, the potential for expansion to

accommodate larger buildings and increased treatment capacity, as is proposed at Portland, is likely to be limited by this.

2.39 It is considered that green belt sites currently in active use, such as waste management, minerals extraction[1] or utilities, or areas of previously developed land, are potentially more suitable for development of an ERF than sites that comprise greenfield land. However, the potential treatment capacity of such sites may be limited by green belt-related considerations, such as the potential effect that large buildings and the intensified use of land might have on the openness of the green belt. Such sites, therefore, can be judged to partially meet the criterion.

2.40 As a result, this criterion was assessed as follows:

- Meets criterion: the site is not within the green belt
- Partially meets criterion: the site is in active use or comprises an area of previously developed land within the green belt
- Does not meet criterion: the site is an area of undisturbed open space within the green belt

9. Compatibility with surrounding land uses

2.41 Paragraph 5 and appendix B of the NPPW highlight neighbouring land uses and the proximity of sensitive receptors as important considerations in examining the suitability of a site for waste management use. It is reasonable to expect that the magnitude of any potential impact decreases with distance from a site. This distance can be expected to vary for different topics, such as visual or noise impacts.

2.42 These matters are addressed in detail in the environmental statement and other technical reports accompanying the planning application. However, the detailed technical assessment for individual topics that would be required for a planning application is not appropriate in assessing the allocated sites. Instead, the exercise used non-technical criteria definitions so that it could be easily replicated and allow broad comparisons to be made.

2.43 It was therefore necessary to take a common sense approach that reflected the dropping off of impact with distance as a general and broadly acceptable principle. It is appropriate that sites located close to sensitive uses or receptors (such as residential properties, schools, health facilities etc) should fail to meet this criterion as they would be more likely to be incompatible with the nearby sensitive use / receptors, while those further away would be more capable of meeting it on the principle that the potential for impact declines with distance. In this context, the actual distance used is less important than the principle, and the assessment used distances that seemed reasonable to apply.

2.44 This criterion was assessed as follows:

[1] It is recognised that such uses may be subject to restoration plans that mean they are treated as greenfield sites, but this is covered by criterion 7. This criterion seeks to distinguish between sites in their current state.

- Meets criterion: the site is more than 500 m from a sensitive land use
- Partially meets criterion: the site is between 500 and 100 m from a sensitive land use
- Does not meet criterion: the site is less than 100 m from a sensitive land use

10. Potential for effects on aerodrome safeguarding

2.45 Modern ERF's comprise large buildings and require tall stack structures. Some of the sites allocated for the intensification of waste management uses in the Waste Plan are located close to Bournemouth Airport. Aerodromes are subject to statutory safeguarding considerations to ensure that they can continue to operate safely. Therefore, the ability to accommodate a tall stack, in such locations, is a significant consideration in determining whether an allocated site is capable of hosting an ERF of the type proposed at Portland, without putting aircraft and passengers at risk from direct collision, interference of air traffic control equipment and bird strike.

2.46 Bournemouth Airport is a key asset for the region, with existing capacity to accommodate three million passengers per year. The safeguarding zones around Bournemouth Airport are defined on a safeguarding map issued by the Civil Aviation Authority (see appendix 1). They define certain types of development that, by reason of their height, attraction to birds or effect on aviation activity require prior consultation with the Airport Operator. The types of development that will require consultation within the safeguarding zones include waste management facilities and developments over a certain height in different areas specified on the safeguarding map. The potential requirement for height restrictions could affect a site's ability to accommodate an ERF with the necessary stack height.

2.47 This criterion is assessed as follows:

- Meets criterion: the site is not within Bournemouth Airport's aerodrome safeguarding zones
- Partially meets criterion: the site lies within the 90 m (height) aerodrome safeguarding zone
- Does not meet criterion: the site lies within the 45 m or lower (height) aerodrome safeguarding zone

11. Proximity to designated ecologically sensitive areas

2.48 Appendix B of the NPPW identifies the potential for effects on sites of international or national importance for nature conservation as an important locational criterion when considering sites for waste management facilities. There is also a network of locally designated sites in Dorset that needs to be considered. Designated nature conservation sites covered by this criterion therefore included Ramsar sites, special protection areas (SPA), special areas of conservation (SAC), sites of special scientific interest (SSSI), national nature reserves (NNR), local nature reserves (LNR) and sites of nature conservation interest (SNCI).

2.49 This criterion was assessed as follows:

- Meets criterion: the site is more than 500 m from any designated nature conservation sites
- Partially meets criterion: the site is between 50 m and 500 m of a designated nature conservation site
- Does not meet criterion: the site is within 50 m of a designated nature conservation site

2.50 As for criterion 11, this criterion also uses a broad approach that reflects the dropping off of potential impact with distance, although it is acknowledged that, in a detailed assessment, this would depend on the type of impact as well as the type of habitat potentially affected. Five hundred metres was considered to represent an appropriate cut-off distance beyond which the likelihood of significant effects from disturbance or pollution was greatly reduced, while 50 m was considered to represent a distance within which such effects are more likely.

12. Potential for landscape and visual effects (protected landscapes)

2.51 Appendix B of the NPPW emphasises the need to protect landscapes of national importance, including areas of outstanding natural beauty (AONB) and heritage coasts. There is also a need to consider the potential for effects on landscapes that are protected at the local level, such as areas of great landscape value (AGLV) and areas of local landscape importance (ALLI). Sites that are within protected landscapes have the greatest potential to affect their character. One kilometre was considered to represent a distance beyond which the potential for significant effects on landscape character was greatly reduced.

2.52 This criterion was therefore assessed as follows:

- Meets criterion: the site is more than 1 km from a protected landscape
- Partially meets criterion: the site is less than 1 km from a protected landscape
- Does not meet criterion: the site is within a protected landscape

13. Potential for landscape and visual effects (views)

2.53 While accepting that the visual impact of an ERF within a landscape / townscape is highly subjective, the exercise has sought to identify those sites on which the facilities are likely to be best assimilated. The actual visual impact of the plant will be dependent on many factors, such as the size of the buildings, the topography of the site and the surroundings, the degree to which opportunities exist for natural screening, and the wider setting of the site. Development of a waste management facility on a site that is already within an industrial context is likely to lead to a smaller change to views that development of a site within a residential or open setting.

2.54 This criterion was therefore assessed as follows:

- Meets criterion: the site is within a commercial / industrial setting
- Partially meets criterion: the site is within a residential setting
- Does not meet criterion: the site is surrounded by undisturbed rural or open land

14. Potential for effects on the historic environment

2.55 Appendix B of the NPPW states that the conservation of the historic environment should be examined when considering sites for a waste management facility. Factors that should be addressed include the potential effects on the significance of heritage assets, including any contribution made by their setting. While the NPPW recommends that both designated and undesignated heritage assets should be considered, it is difficult to determine the presence of undesignated heritage assets without a detailed heritage assessment, which is not appropriate at this high level of analysis. As a result, the assessment has focused on designated heritage assets, including scheduled monuments, listed buildings, registered parks and gardens, world heritage sites, and conservation areas.

2.56 This criterion was assessed as follows:

- Meets criterion: the site is more than 500 m from any designated heritage asset
- Partially meets criterion: the site is between 500 m and 100 m of a designated heritage asset
- Does not meet criterion: the site is less than 100 m from a designated heritage asset or is an area of greenfield land within a locally identified area of archaeological importance

2.57 Sites within 100 m of a designated heritage asset fail to meet the criterion because of the increased potential for effects on the asset's significance. Five hundred metres was considered to represent an appropriate cut-off distance beyond which the likelihood of significant setting effects was greatly reduced. Locally designated areas of archaeological importance were only considered when a site falls within them and is greenfield, as they relate to the potential for below-ground archaeological remains that are likely to have been destroyed if a site is previously developed.

15. Potential for effects on water resources

2.58 Appendix B of the NPPW identifies the protection of water quality and resources as an important consideration in the evaluation of locations for a waste management facility. The Environment Agency's source protection zones (SPZ), drinking water safeguard zones and drinking water protected areas are considered to represent appropriate indicators of the presence of vulnerable groundwater and surface water resources. While the Agency no longer automatically objects to a proposal for an ERF in SPZ1, it is considered that sites outside SPZs and drinking water safeguarding designations of any kind are preferable, and sites in SPZ1 remain the least favoured.

2.59 In line with the above, this criterion was assessed as follows:

- Meets criterion: the site is not within a groundwater SPZ, drinking water protected area or safeguard zone
- Partially meets criterion: the site is within SPZ2, SPZ3, a drinking water safeguard zone or a drinking water protected area
- Does not meet criterion: the site is within SPZ1

16. Proximity to areas likely to flood

2.60 The potential for flooding is also identified in appendix B of the NPPW as an important locational criterion. The Environment Agency's flood zones were therefore used to determine the flood risk for the sites.

2.61 This criterion was assessed as follows:

- Meets criterion: the site is wholly within flood zone 1
- Partially meets criterion: the site includes land within flood zone 2
- Does not meet criterion: the site includes land within flood zone 3

17. Presence of public rights of way

2.62 The presence of a public right of way on site presents a potential constraint to development, as the right of way may require diversion to allow the construction of the facility. For the purpose of this assessment, public rights of way were assumed to be those shown on Ordnance Survey maps, which are taken from local authority definitive maps. These include footpaths, bridleways, byways open to all traffic, and restricted byways.

2.63 This criterion was assessed as follows:

- Meets criterion: there are no public rights of way on the site
- Partially meets criterion: a public right of way runs along the edge of the site
- Does not meet criterion: a public right of way runs through the site

Ranking

2.64 The sites were ranked according to the number of criteria they met. If two or more sites met the same number of criteria, then the number of partially met criteria was considered.

Deliverability

2.65 One of the key planning objectives identified in the NPPW is the timely provision of waste management facilities in accordance with the proximity principle. The likely availability of sites is thus of critical importance to the delivery of new waste-related development. Dorset Council is currently reliant on exporting its residual waste for treatment, so the availability of sites within the county that can deliver the proposed ERF in good time to achieve self-sufficiency is of critical importance to achieving this aim of the Dorset Waste Plan.

2.66 The final stage of the assessment was a more detailed review of the ability of the sites to deliver the proposed ERF. This examined the challenges, constraints and opportunities identified in the initial analysis in more detail and was informed by publicly available evidence documents submitted in relation to the preparation of the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan (hereafter referred to as the Waste Plan) and professional judgement.

3 Qualitative analysis of sites

Introduction

3.1 Twelve sites are allocated for waste-related development in the adopted waste local plan. Together with the application site, these are as follows (figure 1):

- 1. Area of Search at Woolsbridge Industrial Estate, Three Legged Cross
- 2. Land south of Sunrise Business Park, Blandford
- 3. Area of Search at Brickfields Business Park, Gillingham
- 4. Land at Blackhill Road, Holton Heath Industrial Estate
- 5. Loudsmill, Dorchester
- 6. Old Radio Station, Dorchester
- 7. Eco Sustainable Solutions, Parley
- 8. Land at Canford Magna, Poole
- 9. Land at Mannings Heath Industrial Estate, Poole
- 10. Binnegar Environmental Park, East Stoke
- 11. Bourne Park, Piddlehinton
- 12. Maiden Newton Sewage Treatment Works
- 13. Application site (Portland Port, Portland)

Analysis

3.2 The qualitative analysis of these sites against the assessment criteria is set out in the assessment sheets and figures 2 to 14.

SITE	1. Area of Search at Woolsbridge Industrial Estate, Three Legged Cross		
Grid reference	409835,104700		
Criteria	**Meets**	**Partially meets**	**Does not meet**
1. Site size The site is split into two parcels, but both exceed the 2 ha threshold.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is approximately 2.8 km from the A31 by road.		X	
4. Potential for CHP The site is identified in the adopted Christchurch and East Dorset Local Plan Part 1 – Core Strategy for employment development and is adjacent to the existing Woolsbridge Industrial Estate.	X		
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to the Woolsbridge Industrial Estate, which includes B2 uses.	X		
7. Re-use of previously developed land The site is partially previously developed land (southern parcel) and partially agricultural land (eastern parcel).		X	
8. Development of green belt land The site is not within the green belt.	X		
9. Compatibility with surrounding land uses There are several residential properties within 100 m of the site.			X
10. Potential for effects on aerodrome safeguarding The site lies within Bournemouth Airport's 90 m aerodrome safeguarding zone.		X	
11. Proximity to designated ecologically sensitive areas The site is adjacent to the Dorset Heathlands SPA and Ramsar site, Dorset Heaths SAC, Holt and West Moors Heaths SSSI and Moors River System SSSI.			X
12. Potential for landscape and visual effects (protected landscapes) The site is not within 1 km of a protected landscape.	X		
13. Potential for landscape and visual effects (views) The site is adjacent to the Woolsbridge Industrial Estate, so has an industrial setting.	X		
14. Potential for effects on the historic environment The site is more than 500 m from any designated heritage assets.	X		
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site includes land within flood zone 3.			X
17. Presence of public rights of way There are no public rights of way on the site.	X		
TOTAL	**9**	**3**	**5**

SITE	2. Land south of Sunrise Business Park, Blandford		
Grid reference	389027,108255		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 3.55 ha.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is adjacent to the A350.	X		
4. Potential for CHP The site is adjacent to the Sunrise Business Park, which includes some B2 uses that could represent potential customers.	X		
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to the Sunrise Business park, which includes some B2 uses.	X		
7. Re-use of previously developed land The site is agricultural land.			X
8. Development of green belt land The site is not within the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 95 m from the nearest residential property.			X
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is more than 500 m from any designated nature conservation sites.	X		
12. Potential for landscape and visual effects (protected landscapes) The site is within the Cranborne Chase and West Wiltshire Downs AONB.			X
13. Potential for landscape and visual effects (views) The site is adjacent to the Sunrise Business Park, so has a commercial setting	X		
14. Potential for effects on the historic environment The site is more than 500 m from any designated heritage asset.	X		
15. Potential for effects on water resources The site is within a drinking water safeguard zone (surface water).		X	
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**11**	**1**	**5**

SITE	3. Area of Search at Brickfields Business Park, Gillingham		
Grid reference	380810,125570		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 10.0 ha.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is more than 4 km from the primary road network by road.			X
4. Potential for CHP The site is identified in the adopted North Dorset Local Plan Part 1 for employment development and is adjacent to a strategic housing allocation.	X		
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to the Brickfields Industrial Estate, which includes some B2 uses.	X		
7. Re-use of previously developed land The site is agricultural land.			X
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 230 m from the nearest residential property.		X	
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is more than 500 m from any designated nature conservation sites.	X		
12. Potential for landscape and visual effects (protected landscapes) The site is more than 1 km from a protected landscape.	X		
13. Potential for landscape and visual effects (views) The site is adjacent to the Brickfields Industrial Estate and the Brickfields Business Park, so has an industrial and commercial setting.	X		
14. Potential for effects on the historic environment The site is greenfield land within a locally identified site of archaeological importance.			X
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way A public right of way runs through the east of the site.			X
TOTAL	**10**	**1**	**6**

SITE	4. Land at Blackhill Road, Holton Health Industrial Estate		
Grid reference	394995,90932		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 0.56 ha.			X
2. Potential to be served by sea The site is approximately 9.8 km from the Port of Poole by road.		X	
3. Proximity to the primary road network The site is approximately 2.2 km from the A35 by road.		X	
4. Potential for CHP The site is within the Holton Heath Trading Park, which includes some B2 uses that could represent potential customers.	X		
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is within the Holton Heath Trading Park, which includes some B2 uses.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is not within the green belt.	X		
9. Compatibility with surrounding land uses The site is more than 500 m from the nearest sensitive land use.	X		
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is adjacent to a SNCI.			X
12. Potential for landscape and visual effects (protected landscapes) The site is approximately 290 m north of the Dorset AONB.		X	
13. Potential for landscape and visual effects (views) The site is within the Holton Heath Trading Park, so has a commercial setting.	X		
14. Potential for effects on the historic environment The site is approximately 145 m from the 'Former Royal Naval Cordite Factory' scheduled monument.		X	
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**10**	**4**	**3**

SITE	5. Loudsmill, Dorchester		
Grid reference	371345,90097		
Criteria	**Meets**	**Partially meets**	**Does not meet**
1. Site size The site area is 0.92 ha.			X
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is approximately 2.7 km from the A35 by road.		X	
4. Potential for CHP The site is approximately 750 m from land allocated for housing / employment development in the adopted West Dorset, Weymouth & Portland Local Plan.		X	
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to Dorchester household waste recycling centre.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 480 m from the nearest residential property.		X	
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is approximately 85 m south of the River Frome SSSI.		X	
12. Potential for landscape and visual effects (protected landscapes) The site is adjacent to an ALLI.		X	
13. Potential for landscape and visual effects (views) The site is adjacent to a household waste recycling centre, so has an industrial setting.	X		
14. Potential for effects on the historic environment The site is approximately 30 m north of the 'Henge Enclosure, Conquer Barrow and Barrow Cemetery' scheduled monument.			X
15. Potential for effects on water resources The site lies within groundwater SPZ2 and a drinking water safeguard zone (groundwater).		X	
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way A public right of way runs along the site's northern edge.		X	
TOTAL	**6**	**7**	**4**

SITE	6. Old Radio Station, Dorchester		
Grid reference	365542,90447		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 3.35 ha.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is adjacent to the A35.	X		
4. Potential for CHP The site is more than 1 km from a regeneration / new development area or an existing potential CHP client.			X
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is not adjacent to an active or allocated waste management site, or a site in or allocated for a complementary use.			X
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses There is a residential property on site and several other dwellings approximately 25 m to the south.			X
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is more than 500 m from any designated nature conservation sites.	X		
12. Potential for landscape and visual effects (protected landscapes) The site is in the Dorset AONB.			X
13. Potential for landscape and visual effects (views) The site is surrounded by fields, so has a rural setting.			X
14. Potential for effects on the historic environment The site is approximately 350 m to the north east of the 'Group of barrows south of Goldsmith's Plantation' scheduled monument.		X	
15. Potential for effects on water resources The site lies within groundwater SPZ3.		X	
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**8**	**2**	**7**

SITE	7. Eco Sustainable Solutions, Parley		
Grid reference	410377,98997		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 16.06 ha.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is more than 4 km from the primary road network by road.			X
4. Potential for CHP The site is approximately 200 m from the existing Aviation Park West at Bournemouth Airport, which includes some B2 uses that could represent potential customers.		X	
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site includes a number of waste-related uses, some of which could potentially remain on site, given the site area.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is in the green belt, but is in active waste management use.		X	
9. Compatibility with surrounding land uses The nearest residential property is approximately 60 m to the north.			X
10. Potential for effects on aerodrome safeguarding The site lies within the 'all heights' Bournemouth Airport aerodrome safeguarding zone.			X
11. Proximity to designated ecologically sensitive areas The site is adjacent to the Dorset Heathlands SPA and Ramsar site, Dorset Heaths SAC and Hurn Common and Parley Common SSSIs.			X
12. Potential for landscape and visual effects (protected landscapes) The site is more than 1 km from a protected landscape.	X		
13. Potential for landscape and visual effects (views) The site is bordered by a solar farm and is close to Bournemouth Airport, so has a commercial / industrial setting.	X		
14. Potential for effects on the historic environment The site is approximately 400 m south of the 'Bowl barrow on East Parley Common 610 m south west of Fir Grove Farm' scheduled monument.		X	
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site includes land within flood zone 3.			X
17. Presence of public rights of way A public right of way runs along the site's western edge.		X	
TOTAL	**6**	**4**	**7**

SITE	8. Land at Canford Magna, Poole		
Grid reference	403560,96822		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 6.77 ha.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is approximately 2.5 km from the A348 by road.		X	
4. Potential for CHP The site is approximately 460 m from a site allocated in the Poole Local Plan for employment development.		X	
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site includes a number of waste-related uses, some of which could potentially remain on site, given the site area.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is in the green belt, but is in active waste management use.		X	
9. Compatibility with surrounding land uses The site is more than 500 m from a sensitive land use.	X		
10. Potential for effects on aerodrome safeguarding The site lies within Bournemouth Airport's 45 m aerodrome safeguarding zone.			X
11. Proximity to designated ecologically sensitive areas The site is adjacent to the Dorset Heathlands SPA, Dorset Heaths SAC and Canford Heath SSSI.			X
12. Potential for landscape and visual effects (protected landscapes) The site is more than 1 km from a protected landscape.	X		
13. Potential for landscape and visual effects (views) The site is bordered by woodland and public open space, so it has a rural setting.			X
14. Potential for effects on the historic environment The site is approximately 460 m north of the 'Bowl barrow on Canford Heath 650 m south of southern corner of New Covert' scheduled monument.		X	
15. Potential for effects on water resources The site is within a drinking water protected area (surface water) and drinking water safeguard zone (surface water).		X	
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**7**	**5**	**5**

SITE	9. Land at Mannings Heath Industrial Estate, Poole		
Grid reference	403904,94137		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 1.6 ha.			X
2. Potential to be served by sea The site is approximately 8.5 km from the Port of Poole by road.		X	
3. Proximity to the primary road network The site is approximately 900 m from the A3049 by road.	X		
4. Potential for CHP The site lies within the Mannings Heath Industrial Estate, which contains a number of industrial uses.	X		
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to land in industrial use.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses There are several residential properties within 100 m of the site to the north east.			X
10. Potential for effects on aerodrome safeguarding The site lies within Bournemouth Airport's 90 m aerodrome safeguarding zone.		X	
11. Proximity to designated ecologically sensitive areas The site is approximately 380 m west of the Bourne Valley LNR.		X	
12. Potential for landscape and visual effects (protected landscapes) The site is more than 1 km from a protected landscape.	X		
13. Potential for landscape and visual effects (views) The site is within the Mannings Heath Industrial Estate, so has an industrial setting.	X		
14. Potential for effects on the historic environment The site is more than 500 m from any designated heritage asset.	X		
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**11**	**3**	**3**

SITE	10. Binnegar Environmental Park, East Stoke		
Grid reference	387815,88630		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 9.92 ha.	X		
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is more than 4 km from the primary road network by road.			X
4. Potential for CHP The site is more than 1 km from a regeneration / new development area or an existing potential CHP plant.			X
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site contains a mothballed materials recovery facility (MRF), which is capable of being brought back into use within a relatively short time period and which could potentially remain on site, given the site area.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 240 m from the nearest residential property.		X	
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is approximately 15 m north east of the Dorset Heathlands SPA and Ramsar site, Dorset Heaths SAC and Stokeford Heaths SSSI.			X
12. Potential for landscape and visual effects (protected landscapes) The site is more than 1 km from a protected landscape.	X		
13. Potential for landscape and visual effects (views) There is an active quarry to the south of the site, but it is surrounded on the other three sides by heathland, woodland and fields, so it has a generally open, rural setting.			X
14. Potential for effects on the historic environment The site is more than 500 m from the nearest designated heritage asset.	X		
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**10**	**1**	**6**

SITE	11. Bourne Park, Piddlehinton		
Grid reference	372472,97602		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 0.90 ha.			X
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is more than 4 km from the primary road network by road.			X
4. Potential for CHP The site is approximately 750 m north east of Piddlehinton Enterprise Park, which includes some B2 uses that could represent potential customers.		X	
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to an operational anaerobic digestion plant.	X		
7. Re-use of previously developed land The site is agricultural land.			X
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 330 m south of Carters Barn Farm, which includes holiday cottages.		X	
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is more than 500 m from any designated nature conservation sites.	X		
12. Potential for landscape and visual effects (protected landscapes) The site is approximately 150 m south of the Dorset AONB.		X	
13. Potential for landscape and visual effects (views) The site is bordered to the north by an anaerobic digestion plant and to the west by large agricultural sheds, so is considered to have an industrial setting.	X		
14. Potential for effects on the historic environment The site is approximately 470 m north west of the 'Round Barrow south west of Bourne Farm' scheduled monument.		X	
15. Potential for effects on water resources The site is within groundwater SPZ1.			X
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**7**	**4**	**6**

SITE	12. Maiden Newton Sewage Treatment Works		
Grid reference	360432,97307		
Criteria	**Meets**	**Partially meets**	**Does not meet**
1. Site size The site area is 0.38 ha.			X
2. Potential to be served by sea The site is more than 10 km from a port by road.			X
3. Proximity to the primary road network The site is approximately 3.9 km from the A37 by road.		X	
4. Potential for CHP The site is more than 1 km from a regeneration / new development area or an existing potential CHP client.			X
5. Potential to contribute to meeting Portland's electricity needs The site is not located on Portland.			X
6. Potential for co-location with other complementary uses The site is adjacent to an operational sewage treatment works.	X		
7. Re-use of previously developed land The site is agricultural land.			X
8. Development of green belt land The site is not in the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 150 m from the nearest residential property.		X	
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is approximately 70 m south of the Langcombe Bottom SNCI.		X	
12. Potential for landscape and visual effects (protected landscapes) The site lies within the Dorset AONB.			X
13. Potential for landscape and visual effects (views) The site is bordered to the south by a sewage works, but is otherwise surrounded by fields so is considered to have an open rural setting.			X
14. Potential for effects on the historic environment The site is approximately 55 m south east of the 'Field system west of Fore Hill' scheduled monument.			X
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**6**	**3**	**8**

SITE	13. Application site (Portland Port, Portland)		
Grid reference	369662,74201		
Criteria	Meets	Partially meets	Does not meet
1. Site size The site area is 2.14 ha.[2]	X		
2. Potential to be served by sea The site lies within Portland Port.	X		
3. Proximity to the primary road network The site is approximately 1.4 km from the A354 by road.	X		
4. Potential for CHP There are several businesses within the port, and other locations within the port with permission for B2 use, that represent potential CHP clients.	X		
5. Potential to contribute to meeting Portland's electricity needs The site lies within Portland Port.	X		
6. Potential for co-location with other complementary uses The site is within Portland Port, which contains a number of B2 uses.	X		
7. Re-use of previously developed land The site is previously developed land.	X		
8. Development of green belt land The site is not within the green belt.	X		
9. Compatibility with surrounding land uses The site is approximately 470 m from HM Prison The Verne.		X	
10. Potential for effects on aerodrome safeguarding The site is not within Bournemouth Airport's aerodrome safeguarding zones.	X		
11. Proximity to designated ecologically sensitive areas The site is adjacent to the Isle of Portland to Studland Cliffs SAC and Isle of Portland SSSI.			X
12. Potential for landscape and visual effects (protected landscapes) The site is adjacent to an ALLI.		X	
13. Potential for landscape and visual effects (views) The site is within Portland Port and therefore has an industrial setting.	X		
14. Potential for effects on the historic environment A small part of the grade II listed Inner and Outer Breakwater, including the coaling shed, storehouse, jetty, coaling jetty, Inner Breakwater fort and Outer Breakwater Fort lies in the northern corner of the site.			X
15. Potential for effects on water resources The site is not within a groundwater SPZ, drinking water protected area or safeguard zone.	X		
16. Proximity to areas likely to flood The site is in flood zone 1.	X		
17. Presence of public rights of way There are no public rights of way on site.	X		
TOTAL	**13**	**2**	**2**

[2] While the application boundary includes cable routes, the assessment has been based on the site for the main ERF building, as cable routeing information is not available for the other site.

Ranking

3.3 The results of the above assessment and the ranking of the sites are summarised in table 3.1 below. The rankings are based on the number of criteria that are fully met. The site that fully meets the most criteria is ranked number 1. Where more than one site fully meets the same number of criteria, the one that partially meets more criteria is ranked highest of this group, and so on. A joint ranking is awarded if scores are identical.

Rank	Site	Criteria met	Criteria partially met	Criteria not met
1	13. Application site (Portland Port, Portland)	13	2	2
2	9. Land at Mannings Heath Industrial Estate, Poole	11	3	3
3	2. Land south of Sunrise Business Park, Blandford	11	1	5
4	4. Land at Blackhill Road, Holton Heath Industrial Estate	10	4	3
= 5	3. Area of Search at Brickfields Business Park, Gillingham	10	1	6
= 5	10. Binnegar Environmental Park, East Stoke	10	1	6
7	1. Area of Search at Woolsbridge Industrial Estate, Three Legged Cross	9	3	5
8	6. Old Radio Station, Dorchester	8	2	7
9	8. Land at Canford Magna, Poole	7	5	5
10	11. Bourne Park, Piddlehinton	7	4	6
11	5. Loudsmill, Dorchester	6	7	4
12	7. Eco Sustainable Solutions, Parley	6	4	7
13	12. Maiden Newton Sewage Treatment Works	6	3	8

Table 3.1: Summary ranking of sites

4 Detailed site consideration

Introduction

4.1 This section provides a more detailed review of the ability of the sites to deliver the proposed ERF. The first stage of this is to consider the size of the sites. While all sites were included in the initial analysis for completeness, in reality some will be too small to accommodate the scale of building needed to deliver an ERF plant of the required scale. If a site cannot physically accommodate the proposed ERF, then it is not deliverable and there is no basis for further detailed consideration. Initial layout studies undertaken for the proposed ERF indicated that a minimum site area of 2 ha is required to accommodate the ERF building (the size of which is determined by the various items of plant it must contain), ancillary buildings and structures, HGV circulation space and car parking.

4.2 The second stage of the review is to consider the expectations of the Waste Plan in relation to the allocated sites. Policy 3 of the plan does not allocate all sites as strategic waste management sites with the potential to accommodate an ERF. Some are identified as suitable only for local facilities and / or suitable only for other types of waste management facility. As these sites are not allocated for the type of strategic facility proposed at Portland, it is not considered appropriate to consider them in more detail.

4.3 The final stage of this section, therefore, comprises a more detailed review of the sites remaining after the above two sieving processes have been completed. It examines the challenges, constraints and opportunities identified in the initial analysis in more detail and has been informed by publicly available evidence documents submitted in relation to the preparation of the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan (the Waste Plan) and professional judgement.

Site size

4.4 The following sites have an area of less than 2 ha and therefore do not have the potential to deliver the proposed ERF:

- Site 4: Land at Blackhill Road, Holton Heath Industrial Estate (0.56 ha)
- Site 5: Loudsmill, Dorchester (0.92 ha)
- Site 9: Land at Mannings Heath Industrial Estate, Poole (1.6 ha)
- Site 11: Bourne Park, Piddlehinton (0.90 ha)
- Site 12: Maiden Newton Sewage Treatment Works (0.38 ha)

Type of allocation

4.5 The following sites are all allocated in the Waste Plan for local waste management facilities for the transfer and recycling of waste:

- Site 1: Area of Search at Woolsbridge Industrial Estate, Three Legged Cross (also allocated for a facility for the management of bulky waste)
- Site 2: Land south of Sunrise Business Park, Blandford
- Site 3: Area of Search at Brickfields Business Park, Gillingham
- Site 6: Old Radio Station, Dorchester

Detailed review of the remaining sites

4.6 The following sites were subject to a more detailed review, taking account of the development considerations specified in the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan, and any other relevant material considerations.

- Site 7: Eco Sustainable Solutions, Parley
- Site 8: Land at Canford Magna, Poole
- Site 10: Binnegar Environmental Park, East Stoke

Site 7: Eco Sustainable Solutions, Parley

Background and context

4.7 The site (extending to 16.06 ha) is an existing waste management site that hosts a range of waste activities including inert recycling, green waste composting, road sweeping recycling and recovery, wood recycling and biomass. The site also has planning consents for other waste facilities, that have not yet been implemented.

4.8 Planning permission was granted in 2015 (application reference: 8/14/0515) for the reconfiguration of the existing and consented development though the introduction of new plant and processes and an increase in treatment capacity. These included:

- A new solid recovered fuel (SRF) processing plant
- A new liquid waste processing plant
- An increase in the permitted site area to circa 16.8 ha
- An increase in the overall waste throughput capacity from the currently permitted 210,000 tonnes per annum (tpa) to 266,000 tpa

4.9 The Waste Plan identifies scope to redevelop and intensify waste management uses on the site, increase the capacity to manage larger quantities of waste and provide the ability to manage waste further up the waste hierarchy. It indicates that the proposed uses would replace the permitted but undeveloped uses. The Waste Plan does not specify what waste uses might be appropriate at this site, other than suggesting that these could include the management of non-hazardous wastes. It does, however, state that any waste management facilities, including incineration, that would lead to the adverse effects upon the integrity of European sites would not be acceptable.

4.10 The Waste Plan notes that the site has been assessed for its potential to manage around 160,000 tpa of residual waste, although the exact capacities would need to be assessed in connection with individual proposals and planning applications.

4.11 The Waste Plan identifies a set of twelve development considerations that all planning applications for waste management development at this site must be capable of satisfying, to ensure that this would not result in any unacceptable environmental impacts. These relate to European sites, restoration of heathland, aerodrome safeguarding and bird strike, traffic, loss of waste management capacity, odour, landscape and visual, green belt, flood risk, ground water and hydrological effects.

Planning and environmental issues

Impact on European protected sites

4.12 The site is located adjacent to the Dorset Heathlands SPA and Ramsar site, Dorset Heaths SAC and Hurn Common and Parley Common SSSIs. It also lies around 600 m from the Moors River SSSI.

4.13 The potential adverse effects of gaseous emissions from an ERF in this location, on the integrity of these European and nationally protected habitats (and associated protected species), represents a significant concern. This constraint is recognised in policy terms (this having been identified as a significant development consideration that would need to be adequately addressed) and also within consultation responses received during the preparation stages of the Waste Plan.

4.14 The former Dorset County Council commissioned Eunomia[3] to undertake a residual waste treatment review and desk based site assessment in respect to a range of technologies, based on meeting an expected 212,000 tpa shortfall of residual waste treatment capacity by 2031. Its 2016 report (sections 3.2.2 and 3.2.3) recognise the Parley site's location adjacent to sensitive receptors, including protected SAC, SPA, Ramsar and SSSI. It states that the site's location bordering the Dorset Heathlands is likely to lead to air quality modelling results for EfW requiring a higher stack than a site not adjacent to SAC / SPA / Ramsar. It also states that because of this context the stack height may exceed 100 m, which will be more visually intrusive.

4.15 The waste planning authority published site allocation information in 2017, as background evidence to the Waste Plan, which included a sustainability appraisal of this site. In respect to ecology, the Dorset County ecologist response (March 2016) stated:

"Consideration must be given to the conclusions of the Habitats Regulations Assessment for the recently granted planning permission for the SFR. This mentions possible impacts from gaseous emissions on the adjacent heathlands (which would be greater if the size of the SFR increased), and also designates an area to be managed for conservation to mitigate any possible impacts on the Dorset Heaths SAC. This new proposal should not be allowed to affect the conservation management of the mitigation area. The new proposal will need to be assessed under the Conservation of Habitats and Species Regulations, 2010."

4.16 In May 2016 the county ecologist reported on a proposal for a reduced geographical area, excluding areas of land already identified for ecological enhancement and management, stating:

"The new proposals may still have impacts on the adjacent heathland from gaseous emissions from the WtE stack. However, these will be subject to a Habitats Regulations Assessment at the planning application stage as well as being subject to all the usual constraints such as Environmental Permitting. At this stage any residual uncertainty can be covered by a policy addition in the Waste Combined Plan, specific to this site."

[3] Residual Waste Site Identification 25 January 2016 Eunomia.

4.17 Notwithstanding the officer's view, significant concerns were raised by both statutory and non-statutory consultees in respect to the potential effects on ecological sites throughout the Waste Plan preparation. Most notably, Natural England commented in respect to the pre-submission draft allocation that:

"…..The proposal raises concerns about net increases in aerial pollutants on the adjacent specially protected heathlands from transportation and the combustion processes proposed which would be acting cumulatively with a number of existing approved processes. Natural England is concerned that the authorities' Waste Plan should have sufficient capacity elsewhere within the plan period to allow for the potential that this site will not be able to come forward. Natural England reminds the authority that where specially protected sites are not in favourable condition there is a duty to enhance them which should not be compromised by proposals which maintain the status quo."

4.18 It should be noted that stack height is one factor that affects the dispersion of emissions from energy from waste facilities. Section 2.1.1 of the Eunomia Residual Waste Site Identification report 2016, prepared for Dorset County Council as part of the Waste Plan evidence base, provides an overview of thermal technology options. In respect to direct combustion incineration technologies, it states that:

"EfW facilities with the throughput in the range of 175,000 to 225,000 tpa have a range of stack heights between 65m to 76m although can exceed 100m in areas where specific sensitive receptors are present such as SAC's."

4.19 The allocated site is located in close proximity to Bournemouth Airport and the potential stack height is heavily constrained by the aerodrome safety surfaces. The Eco-sustainable Solutions Waste Plan examination hearing statement[4] (para 2.4) set out the position in relation to stack height with regard to discussions held between its aviation specialist and Bournemouth Airport. This stated that:

"The development partners commissioned Avia Solutions, a specialist aviation consultant and commenced discussions with representatives of Bournemouth Airport. These discussions clarified the physical parameters for development and specifically the height that any building or emissions stack would need to adhere to. To this end, the development partners understand that any built development, including an emissions stack, cannot extend above the Inner Horizontal Surface, which means a maximum height of approximately 42.5 metres above ground level on the Eco site."

4.20 The constraints associated with the site's proximity to an aerodrome are covered more widely below. However, in the context of emissions to air and the safeguarding of European sites, a clear paradox exists between the need for a tall stack (likely to be in excess of 70 m) to safeguard ecological interests and satisfy the Habitats Regulations and the restrictions imposed on maximum stack height due to the site's location within the airport's 45m aerodrome safeguarding zone (Inner Horizontal Surface).

4.21 The Eco-sustainable Solutions hearing statement advised that air quality modelling and design work was ongoing and that it was confident that an optimal design solution could be found to address both the airport safeguarding and ecological

[4] Written statement para 2.4 – matter 5 (Union 4 Planning) 8 June 2018.

requirements. Nonetheless, no such solution was put forward to the satisfaction of Bournemouth Airport to enable it to withdraw its objections to the site's allocation on safeguarding grounds.

4.22 Neither was it possible for Eco-sustainable Solutions to demonstrate during the examination process that the proposed ERF using incineration technology could satisfy Natural England's requirements in respect to the safeguarding of European protected sites. Natural England submitted a Statement of Common Ground[5] with the waste planning authority to the examination, in respect of this and other relevant allocated sites, stating that:

"The Waste Planning Authority and Natural England have concerns that the available evidence indicates that incineration of waste could lead to Likely Significant Effects due to aerial pollutants on European/Internationally protected sites in the vicinity of all four allocated sites (Insets 7 to 10). As a matter of principle, the available evidence indicates that there are other waste treatment technologies that will not have a Likely Significant Effect on the designated sites either alone or in combination. There is therefore confidence that suitable processes, which will not have a Likely Significant Effect on designated sites, will enable the waste management needs identified in the Waste Plan to be met through the allocated sites (Insets 7 to 10).

The Waste Plan contains sufficient explicit safeguards within Policy 3 and Policy 18 and within the site specific 'Development Considerations' to ensure that permission would not be granted unless sufficient evidence/mitigation is provided such that a proposal would not lead to adverse effects on the integrity of European/International designated sites."

4.23 The Eco-sustainable Solutions hearing statement (para 2.8 and 2.9) recognises that, whilst an ERF using moving grate incineration technology provides the preferred technology, the proposed waste policy is non-technology specific and therefore other potential alternative technology options were under consideration, including:

- Residual waste processing and solid recovered fuel production
- Residual waste transfer station
- Gasification
- Pyrolysis

4.24 The Eco-sustainable Solutions hearing statement also recognised that, whilst advanced technologies (gasification and pyrolysis) may offer a higher efficiency compared to simple combustion, these technologies have not proven to be as robust to date. Certainly, market indicators suggest that they are widely perceived to be "un-bankable" or "less-bankable" (referring to the view that financiers have of such technologies), and several sites in the UK that have been consented for highly subsidised advanced conversion technologies have subsequently returned for new or revised planning permissions for traditional moving grate technologies.

[5] SCG-06 Statement of Common Ground between the Waste Planning Authority and Natural England concerning sites allocated for the management of non-hazardous waste (Insets 7 – 10) 23 July 2018.

4.25 Whilst the Inspector accepted that the suitability of waste management facilities was a matter for individual detailed proposals, and agreed to the allocation of the site for non-specific waste management uses, the applicant believes that it is highly unlikely that an ERF, of the type proposed at Portland, could be located at the Eco-sustainable Solutions site and secure the necessary consents and permits.

4.26 This is because of:

- The sustained objection from Bournemouth Airport to any tall structures or stack above 42.5 m in height (given that a stack height of up to 100 m may be required in this location)
- The need for any future waste management facility to demonstrate that it would comply with the Habitats Regulations and not have an adverse impact upon the integrity of the adjacent European sites and the concern expressed by Natural England and the waste planning authority, specifically in relation to the incineration of waste at this site
- The failure to provide convincing evidence to the Waste Plan examination to demonstrate that aerodrome and ecological safeguarding could be achieved to the satisfaction of Bournemouth Airport, Natural England and other interested parties together with recognition that alternative types of waste facility were being considered.

4.27 Proposals for waste incineration at this site are unlikely to satisfy development consideration 1 (European sites) and therefore would be contrary to the Policy 3 requirement. As such, this site could not realistically accommodate the proposed Portland ERF.

Aerodrome safeguarding

4.28 As noted above, Bournemouth Airport consistently objected to the proposed allocation of the site for an ERF. It responded to Waste Plan consultations with regard to its interest as a statutory consultee on airport safeguarding and as an interested property owner.

4.29 The airport's responses to Waste Plan consultation raised safeguarding issues in respect to bird strike, obstacle limitation surfaces, air traffic control and air traffic engineering. Other matters raised included impact of emissions on protected habitats, flood risk, odour, impact on employment growth proposals and traffic. It recommended that further assessment be undertaken before proceeding with the allocation. As the plan progressed discussions were held with Eco-sustainable Solutions in respect to increasing the stack height. However, these discussions appear to have failed to reach an agreed position such that the airport continued to maintain its objection.

4.30 The waste planning authority sought to address the airport's concerns on safeguarding through Policy 20 and the use of development considerations. The Inspector's report (para 118) recognised the airport's remaining concerns and concluded that Policy 20 together with the modifications made to the development considerations would provide adequate protection for airfields.

4.31 A direct combustion ERF, or other waste management facility, that requires a stack or structures in excess of 42.5 m would conflict with aerodrome

safeguarding and would not be deemed safe. Whilst it is possible that mitigation measures could be devised and put in place to address concerns relating to impact on radar, air traffic control equipment, lighting and safety concerns regarding bird strike, there is no certainty that such measures would be capable of overcoming the airport's concerns. Even if they could satisfy the airport's concerns, such measures may result in significant additional costs (when added to construction costs and any other required mitigation costs), which could render the proposals uneconomic and unviable.

4.32 Despite negotiation with the airport during the Waste Plan's preparation, it does not appear that a suitable technical solution was presented that would reassure the airport on safeguarding matters. In adopting a precautionary approach to safeguarding, there must remain a considerable degree of uncertainty associated with the ability to ensure airport safeguarding, both in practical and viability terms and its ability to satisfy development considerations 3 (aerodrome safeguarding) and 11 (bird strike).

4.33 Given the airport's safeguarding concerns in respect to tall structures, this site would be unsuitable for an ERF using a traditional direct combustion technology, as proposed at Portland, because of the height required by these facilities.

Impact on existing waste management capacity

4.34 The Waste Plan requires consideration to be given to the potential loss of capacity for waste streams that could affect the plan's spatial strategy under development consideration 5 (loss of capacity).

4.35 The 2016 Eunomia report (section 3.2.1) states that, based on Dorset County Council information, the site is already being used for strategic waste management activities. It concludes that in order for a treatment facility of 212,000 tpa to be accommodated on the site, the existing facilities would need to be removed. Their loss was deemed unacceptable to Dorset County Council as the existing activities are required as part of Dorset's overall waste management solution. It concluded, depending on the amount of land available, that the site may be more suitable for a small scale mechanical pre-treatment plant production and storage facility (approx. 150,000 tpa), or mechanical biological treatment (MBT; approx. 50,000 tpa), which could be used in conjunction with other sites within the authority area.

4.36 An ERF with sufficient capacity to manage 160,000 tpa of waste (as previously proposed by Eco-sustainable solutions) will similarly require a significant land take. The existing site comprises a range of existing waste management facilities that currently make a positive contribution towards meeting local needs. It is envisaged that the development of a large scale ERF on the site would necessitate the reconfiguration of the existing activities and the abandonment of some facilities for which consent has been granted but could not then be built. Whilst planning permission exists for the reconfiguration of the site, it is inevitable that the existing facilities will at best be temporarily affected and at worst could be closed or their capacities reduced to accommodate a large ERF.

4.37 Whilst potentially technically feasible, it is questionable whether it is appropriate to disrupt existing operational waste management facilities and the service they provide, and whether it is economically viable or efficient to reconfigure the site as

this would add additional costs. Other waste facilities may become less viable and might also cease operation.

4.38 Whilst there is some merit in principle in co-locating an ERF with other types of waste management activities, in practical terms this could lead to temporary and/or permanent reductions in capacity of other waste facilities and additional financial costs. There may also be other environmental and sustainability costs to reconfiguring the site in terms of energy, waste creation and carbon emissions. The costs for site reconfiguration, when added to other environmental mitigation and construction costs, could undermine the viability and deliverability of an ERF in this location.

4.39 Some uncertainty exists as to whether there would be a potential loss, or interruption, of existing waste treatment capacity, that is performing an important role as part of Dorset's network of waste installations, and doubt as to whether a large-scale ERF requiring a significant land take would comply with development consideration 5.

Green belt

4.40 The site is located in the south east Dorset green belt and under development consideration 8 (green belt) development proposals for waste management facilities must take account of national policy and Waste Plan Policy 21.

4.41 The NPPF (para 145) states that a local planning authority should regard the construction of new buildings as inappropriate in the green belt, unless specific exceptions apply. Part g of para 145 is particularly relevant to this site as it relates to the partial or complete redevelopment of previously developed land, whether redundant or in continuing use as an exception, provided this would not have a greater impact on the openness of the green belt than the existing development. Waste Plan Policy 21 reflects national guidance and precludes inappropriate development in the green belt.

4.42 Whilst this site comprises previously developed land in the green belt, is in an existing waste use and is allocated in a local development plan for waste management use, consideration must be given as to whether the development of a large scale ERF would be compliant with national green belt policy. The type of ERF proposed at Portland provides a proxy for the scale of buildings and stack required for this type of facility, with buildings of circa 45 m in height and a stack of 80 m.

4.43 The existing waste management facilities at this site, whilst industrial in nature, are relatively small scale and neither these, nor any consented development, are of an equivalent scale to a large scale ERF. Consideration must be given to whether the development of significantly larger structures and footprint, alone or cumulatively, would have a greater impact on the openness of the green belt than the existing development.

4.44 Some parties responding to the Waste Plan consultation stages objected to the site's allocation on the basis that this would be inappropriate development in the green belt. Whilst the Inspector recognised this was an existing developed site in waste management use with some policy support, he did not reach a conclusion

as to whether development would be inappropriate in the green belt, considering this an application matter.

4.45 Therefore, any application for a large scale ERF (similar to that proposed at Portland) would need to be assessed in relation to green belt policy and whether it would have a greater impact on the openness of the green belt than the existing development. A substantial increase in building size and stack height would be required for a moving grate ERF located in proximity to protected European sites, in comparison to either the existing or consented development. The construction of large structures would likely have a substantial adverse impact on the openness of the green belt and could therefore be deemed inappropriate development.

4.46 It is recognised that impact on openness is a subjective matter of judgement and the existing developed nature and waste use of the site must be accounted for. However, the green belt designation could limit the scale and type of structures that could be accommodated on this site, without having an unacceptable impact on the openness of the green belt, and what residual waste treatment capacity could be achieved.

4.47 The green belt development consideration requires a high standard of design and landscaping. Whilst there is no reason why good design and landscaping could not be achieved, such measures are likely to result in additional costs associated with construction, which when added to the cost of other mitigation measures could undermine the economic viability and deliverability of an ERF in this location.

4.48 The site's green belt status, whilst not precluding some waste management uses, represents a further constraint and a significant planning risk in terms of securing consent for a large scale direct combustion ERF, in context of development consideration 8 (green belt). This is considered to be a significant disadvantage in comparison to the proposed Portland ERF site, which is not affected by green belt designation.

Landscape and visual

4.49 Development consideration 7 (landscape) requires a comprehensive landscape and ecological scheme for the site, with particular attention paid to mitigation enhancement opportunities for the eastern fields, which are very susceptible to development, and detailed design considerations to minimise visual impacts from any associated stack.

4.50 The waste planning authority's sustainability assessment[6] for this site considered potential landscape effects. The landscape officer initially considered that, subject to agreement of the landscape and ecological plans for the site, there are no significant landscape and visual issues on this site apart from those mentioned for the eastern fields that were very susceptible and should not be pursued with any built development.

4.51 However, additional landscape comment was made in respect to stack heights in February 2016. This stated that:

[6] Bournemouth, Dorset and Poole Waste Plan Site Allocation – December 2017.

"The site is visually susceptible to a stack of up to 100 m in this flat and open landscape and it therefore creates a much wider zone of visual influence than the previous landscape assessment criteria which was based on different infrastructure height/mass."

4.52 The potential for visual intrusion was assessed as an amber constraint to development of the site. The concern about the susceptibility of the flat and open landscape to a tall stack structure up to 100 m indicates that a proposal for a moving grate ERF, of a similar type and scale to that proposed at Portland, could give rise to a significant landscape impact and objections on landscape and visual grounds.

4.53 This indicates that the location could not successfully visually accommodate the proposed Portland ERF and indeed would also tend not to support the Eco-sustainable Solutions proposal for a traditional moving grate ERF (aside from other constraints associated with aerodrome safeguarding and green belt that could also limit stack height).

4.54 The site is therefore disadvantaged over the application site at Portland, which is more capable of accommodating a larger scale buildings and structures given its port setting and context.

Potential for flooding

4.55 Development consideration 9 recognises that parts of this site are located in flood zones 2 and 3 and that no built development should be located in these zones. It recognises the concerns raised during the Waste Plan consultation on the potential impact of development on flooding off-site, especially the Aviation Business Park.

4.56 Whilst this is unlikely to be an overriding constraint to development of an ERF, the presence of land subject to flood risk is less desirable and a disadvantage compared to the proposed Portland ERF site, which is not affected by flood risk.

Proximity to sensitive receptors

4.57 The nearest dwelling (Whitemere House) is situated a short distance (60 m) north of the existing main access. Respondents to the draft Waste Plan, including the former Christchurch Borough Council, also expressed concern at the site's close proximity to Portfield School, which supports children and young people with autism and associated difficulties.

4.58 The site lies in close proximity to the Bournemouth Airport Aviation Business Park. During Waste Plan consultation in 2016 a number of respondents, including Bournemouth Airport, the former Christchurch Borough Council and local parish councils, raised concerns over the potential effect of the intensification of waste uses, including large-scale waste operations, on the success of this strategic employment site. Reference was made to the record of odour complaints and enforcement action taken by the Environment Agency in respect to the existing composting operations.

4.59 Whilst Bournemouth Airport accepted that mitigation could assist in addressing these concerns, it did not believe that sufficient consideration had been given to these matters. It stated that:

"Bournemouth Airport is defined in in the Christchurch and East Dorset Local Plan and in the Dorset Strategic Economic Plan as a priority site to deliver employment growth. This has been taken up by the Local Enterprise Partnership and is a focus for investment to improve accessibility to the Airport in order to deliver this growth. Any development coming forward in the vicinity of the airport should not compromise the ability to deliver the shared ambitions to drive forward economic growth and deliver the opportunities afforded by development at the airport site. Already major blue-chip companies are placing faith in the site by choosing it as the location to consolidate and expand operations."

4.60 It is preferable for an ERF to be located away from sensitive receptors and this site performs less well in comparison to the proposed ERF site at Portland, which is located within an existing commercial port and is not in such close proximity to sensitive receptors.

Potential for CHP and meeting Portland's energy needs

4.61 It is recognised that the site is within 200 m of the Aviation Business Park and that this could provide some potential for establishing a heat network. However, at present no specific heat customers are identified and this can only be considered as providing potential.

4.62 Portland is subject to electricity grid supply constraints, as the existing substation on the mainland at Chickerell limits the amount of electricity that can be distributed to Portland. An ERF located at the Eco-sustainable Solution site, even if capable of exporting electricity to the grid, would not be able to address this specific local power constraint.

4.63 The Portland site is considered to be preferable to this site on the basis there is greater certainty that a heat network could be delivered to serve existing identified heat users.

Potential for sustainable transport

4.64 The Eco-sustainable Solutions site is located more than 10 km from a port by road and is more than 4 km from the primary road network. An ERF located at this site would be entirely reliant upon the use of HGVs using the local road network for all of the waste received at the site (as existing), with no viable potential for waste to be moved by water.

4.65 The Portland ERF site has access to a deep water port, enabling both the import and export of RDF and other materials. It is also in close proximity to the primary road network. It therefore has sustainable transport advantages over the allocated site in having the ability to move waste both by road via the nearby primary road network and by sea.

Summary conclusion

4.66 From the comparative assessment, Eco-sustainable Solutions site is one of the most heavily constrained sites allocated in the waste local plan for strategic waste management use.

4.67 Its potential suitability for future waste management use would need to be assessed in the context of a planning application and more detailed information. Given that the site is already in existing waste management use, has consent for other types of waste uses, and the allocation is non-specific in terms of type of facility and technology, it is reasonable to conclude that this site could host some other types of waste activity.

4.68 However, the evidence derived during the Waste Plan preparation led the waste planning authority and the inspector to impose 12 development considerations. All of these would need to be fully complied with if any proposal for waste management use is to be deemed acceptable. Given the site constraints, principally in respect of potential adverse impact on the European sites and aerodrome safeguarding (that are interrelated), it unlikely that an ERF of the type, scale and technology proposed by Eco-sustainable Solutions would be acceptable in planning and environmental terms, or would be capable of securing the necessary consents and permits.

4.69 Even if it is assumed that these constraints could be overcome, the significant investment in process technology and other mitigation would most likely render the development of a large scale ERF with traditional moving grate technology unviable and impracticable.

4.70 It is noted that Eco-sustainable Solutions has recently publicly announced a proposal to build an energy from waste (EfW) plant at the site, with a capacity of 60,000 tonnes per annum. No details are available as to the type of technology proposed. The reference is to EfW which could either be a small-scale traditional EfW incineration technology or be based on an advanced conversion technology (ACT). In the former case the necessary air quality emission control equipment incorporated into modern EfW incineration plant requires a minimum scale to be viable – and the smaller assets in the UK EfW "fleet" have normally had substantial public finance and support which is no longer available. In the latter case if this is proposed to be an ACT, whilst some potential may exist for this type of facility, these technologies generally do not benefit from the proven track record of performance and bankability in the UK that traditional energy from waste technology enjoys and may struggle to secure funding to support delivery. The high risk nature of ACT is evidenced by the failure of two previous consented schemes in Dorset and there are a number of failed, abandoned and "built but not commissioned" projects across the UK. At this early stage there can be no certainty that the proposed EfW would be granted planning permission or would be viable to deliver.

4.71 Furthermore, a 60,000 tonnes per annum energy from waste plant, if consented and built, could only make a modest contribution toward meeting Dorset's predicted 234,000 tonnes per annum shortfall in residual waste treatment capacity by 2033.

4.72 It is considered that this site is unsuitable for accommodating a large-scale ERF, and is instead more suitable for a continuation or expansion of the existing waste management activities, or the construction of a MRF / MBT facility capable of recovering recyclable materials and producing RDF material from residual waste that cannot be recovered. The RDF could then be sent to the Portland ERF for final recovery.

4.73 In conclusion, the proposed Portland ERF could not be located on this allocated site and the proposed Portland site has the following significant advantages over the allocated Parley site:

- The Portland site can be developed without having a significant adverse impact on the integrity of protected European sites or other areas of recognised ecological interest
- The Portland site is not subject to any significant stack height constraints imposed by airport safety surfaces, or subject to other aerodrome safeguarding and safety matters related to radar, air traffic control equipment and bird strike
- The Portland site would not require the reconfiguration or redevelopment of land that is already used by existing waste management facilities, nor would it lead to the potential temporary or permanent loss of any existing waste management capacity
- The Portland site is not subject to green belt designation or potential constraints on the size of buildings or structures that might be deemed to have a greater impact on the openness of the green belt than the existing development, precluding the development of an ERF, or reducing its potential capacity
- The Portland site is not located within a flat and open landscape where a tall stack would create a wide zone of visual influence, also adversely affecting an area of green belt
- The Portland site is not in a location affected by flood zones 2 and 3, or likely to cause potential for flooding off-site
- The Portland site is not located in close proximity to potentially sensitive receptors such as residential properties and schools
- The Portland site can connect to identified heat and energy customers who have expressed an interest in receiving energy from an ERF by means of a local heat network, with these being located adjacent to, or in close proximity the ERF
- The Portland site is located in a deep water port and is in close proximity to the primary road network, having the capability for sustainable transport of waste by road and sea
- The Portland site is capable of providing electricity to address the power needs of Portland Port, its need to be able to provide shore power and

furthermore heat can be supplied to heat off-takers; all of whom have expressed interest in the power and heat.

Site 8: Land at Canford Magna, Poole

Background and context

4.74 The Canford Magna site (extending to 6.77 ha) is an existing waste management site located adjacent to the former White's Pit landfill site and comprising an MBT plant, landfill gas compound and a MRF.

4.75 The existing MBT facility accepts black bag waste, which is subject to biological and mechanical processes that separate recyclables and compostable materials, with the resulting residual unrecyclable material being processed into a fuel (RDF). The RDF material is currently[7] baled and dispatched off-site to an ERF located in Rotterdam.

4.76 The Waste Plan states that the site has been granted planning permission for the construction of a low carbon energy facility, a standalone syn-gas production facility and an extension to the existing operational MRF. The most relevant is the low carbon energy facility and associated development (application reference: APP/12/01559/F). This planning permission was granted on 1 July 2013.

4.77 The planning record indicates that permissions were granted to enable a research and development facility to operate under a temporary planning permission. The low carbon energy facility was proposed on the site of a previously consented extension to the existing composting facility, granted on appeal in October 2008 (appeal reference: APP/Q1255/A/09/2098109). The low carbon energy facility site extends to 1.56 ha and the consent permits various built structures, including two 35 m stacks.

4.78 The low carbon energy facility (using pyrolysis / gasification technology) consent was implemented but was not completed. The intention was to develop a commercial proving plant as phase 1 of the scheme which, if successful, would be scaled up to a larger facility with a capacity of around 100,000 tpa. However, it is understood that this technology did not perform sufficiently and the project did not progress further. This is a theme that is frequently raised in connection with pyrolysis and gasification technologies using waste as a fuel.

4.79 The planning officer's committee report on the low carbon energy facility states that, whilst the principle of development began in 1994, associated with facilities to manage the adjacent White's Pit landfill site (gas, leachate and surface water), these were permitted for the length of time that the management of the landfill site would be required. Subsequent consents for alternative waste management uses such as composting were considered reasonable, but in order to mitigate impact on the openness of the green belt a 25-year time limit was imposed that required the removal of all buildings by January 2027. All other infrastructure permitted on site is also restricted to the same 2027 date, including the extant low carbon energy facility, the point at which the original infrastructure was anticipated to no longer be necessary.

4.80 The Waste Plan considers the Canford Magna site to be an established facility with a dedicated access and with a relatively small number of sensitive receptors nearby. It is also noted as being previously developed land in the green belt. The

[7] Based on Planning Supporting Statement APP/12/01559/F November 2012.

Waste Plan allocation considers that the Canford Magna site has opportunities to intensify waste management uses to manage larger quantities of waste and provide the ability to manage waste further up the waste hierarchy, within the existing site and on land to the west. The Waste Plan states that the Canford Magna site has potential for an increase in existing consented capacity by 25,000 tpa of residual waste.

4.81 Hearing statements submitted to the Waste Plan examination, on behalf of the owner WH White Limited, state that the MBT is capable of treating up to 125,000 tpa of residual waste and the MRF is capable of treating up to 175,000 tpa of residual waste and recyclates (and a small volume of hazardous wastes). The owner also promoted the expansion of the site, through an extension to the south (extending to 2.55 ha). However, the extension was not allocated in the Waste Plan on the grounds that this would bring waste development closer to proposed housing development and would comprise a further incursion into the green belt.

4.82 The Waste Plan identifies a set of five development considerations that all planning applications for waste management development at the Canford Magna site must be capable of satisfying, to ensure that this would not result in any unacceptable environmental impacts. These relate to European sites, landscape and visual, ecological mitigation in respect to SSSI/wet habitat, impact on the restoration of the adjacent landfill site and biodiversity and green belt.

Planning and environmental issues

Impact on European protected sites

4.83 The Canford Magna site is adjacent to the Dorset Heathlands SPA, Dorset Heaths SAC and Canford Heath SSSI. To the south east is the locally designated Frogmore Wood SNCI.

4.84 Similar to the Eco-sustainable Solutions site (Inset 7), the potential adverse effects of gaseous emissions from an energy from waste facility in this location on the integrity of these European and nationally protected habitats (and associated protected species) represents a significant concern. This constraint is recognised, in policy terms (this having been identified as a significant development consideration that would need to be adequately addressed) and also within consultation responses received during the preparation stages of the waste local plan.

4.85 Development consideration 1 requires an assessment to be undertaken to in accordance with the Conservation of Habitats and Species Regulations 2017. It specifies that this should include, as a minimum, Phase 2 surveys for Annex 1 birds to inform an assessment of the effects of development on the populations on site and in surrounding areas. Where relevant, this should also include studies that demonstrate that any emissions from development will not impact on the features (species and habitats including lichens and bryophytes) of the nearby European sites.

4.86 The Canford Magna site's proximity to protected European sites was considered during the preparation of the draft waste local plan. A Habitats Regulations Assessment (HRA) was undertaken in respect to the pre-submission draft Waste Plan (2017) and this concluded that this site had been screened out as not likely

to have significant effects on European sites (section 7.2). Section 7.4 considered further the reasoning for this decision. This was based on the allocation being for the intensification of the existing use, including the management of an increased tonnage of non-hazardous waste, which would be processed into recyclables, compost and RDF. The proposed allocation was regarded as potentially being near enough to the European sites to trigger a likely significant effect, but this was discounted after a site visit attended by Natural England. This conclusion was drawn having considered proximity effects, species effects and displacement of recreation.

4.87 With regard to proximity effects it was held that the emissions from the pyrolysis facility had already been assessed as part of the planning application for this facility. As such, Natural England did not object to the allocation of the site. However, this position was based on the consideration of existing and consented activities and cannot be taken to mean that the emissions associated with a large-scale ERF, with moving grate incineration technology, would not trigger a likely significant effect on the protected European sites. The Waste Plan recognises that, in the absence of any evidence presented to the Waste Plan examination, there is considerable uncertainty as to whether such a facility would be acceptable.

4.88 Given the proximity of protected European sites and the potential for adverse impact on these areas from emissions, the waste management activities that could be successfully deployed in this location are likely to be limited to permitted gasification / pyrolysis technologies and / or the intensification of existing MRF and MBT activities.

4.89 The applicant considers it highly unlikely that an ERF, of the type proposed at Portland, could satisfy development consideration 1 (European sites) to secure the necessary consents and permits.

Aerodrome safeguarding

4.90 Whilst aerodrome safeguarding is not identified as a development consideration in the Waste Plan, the site appears to lie within the 45 m safeguarding zone for Bournemouth Airport. The extant, but not completed, low carbon energy consent permits a stack height of 35 m, which sits below the airport safeguarding zone. The Eunomia site identification report (section 3.7.3) considered potential stack height and noted that a thermal treatment facility of circa 212,000 tpa is likely to require a stack height in the region of 65 m – 76 m. However, given its proximity to protected ecological sites, the report states this may need to be increased further. Any proposal for moving grate ERF incineration technology at this site is likely to require a stack height that would significantly penetrate the safeguarding zone limit of 45 m.

4.91 Given the airport's stated safeguarding concerns in respect to a tall stack at the Eco-sustainable Solutions site (Inset 7), this site would also appear to be unsuitable for a large scale ERF with moving grate technology, because of the stack height typically required for these facilities and its location adjacent to the sensitive Dorset Heathlands.

Green belt

4.92 The Canford Magna site is located in the south east Dorset green belt and under development consideration 5 (green belt) development proposals for waste management facilities must take account of national policy and Waste Plan Policy 21.

4.93 Whilst the Canford Magna site comprises previously developed land in the green belt that is already in a waste management use, and is allocated in a local development plan from waste management use, consideration must be given as to whether the development of a large scale direct combustion ERF would be compliant with national green belt policy.

4.94 The proposed ERF at Portland provides a proxy for the scale of buildings and stack required for this type of facility, with buildings of circa 45 m high and a stack of 80 m. By comparison, the existing waste management facilities at the Canford Magna site, whilst industrial in nature, are relatively small scale. Equally, the consented development at this site is also of a smaller scale, noting that the stacks, which are the tallest structures of the low carbon energy facility, stand at a much lower height of 35 m. Consideration must be given to whether the development of significantly larger structures and footprint, alone or cumulatively, would have a greater impact on the openness of the green belt than the existing development.

4.95 Representations made to the draft local plan highlighted the site's location in the green belt and considered the development of a larger energy from waste facility on this site to be inappropriate development, in green belt policy terms, by means of the adverse impact larger buildings and structures would have on the openness of the green belt.

4.96 The potential harm to the openness of the green belt has also been a significant planning consideration when permitting any waste management infrastructure at this location, resulting in a time limit being imposed on all waste management activities until January 2027.

4.97 Overall, the decision not to allocate extension land in the Waste Plan, the time limits placed on permitted operations to reflect its green belt location, and the potential adverse impact on green belt openness from large structures and a tall stack, indicate that the site is unlikely to be suitable for any structures significantly larger than what has already been approved. A large scale ERF may not comply with development consideration 5, or at best the need to minimise impact on green belt openness could significantly reduce the potential treatment capacity.

Landscape and visual

4.98 Development considerations 2 and 5 for this site require consideration to be given to landscape design and management and expectations for high standards of design and landscaping to reflect its green belt setting. Whilst the Canford Magna site is relatively well contained and screened by existing vegetation, the development of a large scale moving grate ERF with a building of around 45 m in height and a tall stack would be more visually prominent than the existing and consented development.

4.99 Sustainability appraisal work undertaken by the waste planning authority in December 2017, considered the landscape susceptibility to waste management facility development. It found that due to the combined quality and extent of the wooded tree cover and the overlooking from the footpath, the site is moderately susceptible to the development in question. It identified mitigation measures that could be built in to policy to reduce its susceptibility and minimise any adverse landscape and visual impact, which included the development of buildings of minimal height.

4.100 Given its green belt and rural landscape setting, some doubt must therefore exist as to whether a direct combustion ERF with a stack height of around 80 m would be acceptable on landscape and visual grounds, and aside from other constraints on stack height.

Potential for CHP and meeting Portland's energy needs

4.101 The Canford Magna site is in close proximity to housing and employment land allocated in the adopted Poole Local Plan 2018 under Policy U2. The area known as West of Bearwood is allocated for a minimum of 300 hones and 5.1 hectares of employment land, known as the Magna Business Park. Whilst this development area could provide some potential for establishing a heating network no specific heat customers are identified and it can only be considered as providing potential at this time.

4.102 An ERF located at the Canford Magna site, even if it is capable of exporting to the grid, would not be able to address the specific local power constraint at Portland.

Potential for sustainable transport

4.103 The Canford Magna site is located more than 10 km from a port by road. An ERF located at this site would be entirely reliant upon the use of HGV's using the local road network for all of the waste received at the site (as existing), with no viable potential for waste to be moved by water.

4.104 The Portland ERF site has access to a deep water port, enabling both the import and export of RDF and other materials. It is also in close proximity to the primary road network. It therefore has sustainable transport advantages over the allocated site in having the ability to move waste both by road via the nearby primary road network and by sea.

Summary conclusion

4.105 From the comparative assessment, whilst the Canford Magna site appears to be less constrained than the Eco-sustainable Solutions site (Inset 7) it is still subject to significant constraints.

4.106 Its potential suitability for future waste management use would need to be assessed in the context of a planning application and more detailed information. Given that the Canford Magna site is already in existing waste management use, has consent for other types of waste uses, and the allocation is non-specific in terms of type of facility and technology, it is reasonable to conclude that this site could host some types of waste activity and / or expansion of existing waste management activities.

4.107 However, the evidence presented during the Waste Plan preparation stages led to the waste planning authority and the Inspector imposing five development considerations that would need to be fully complied with for any proposal for waste management use to be accepted at this site. Given the Canford Magna site constraints, principally in respect to potential adverse impact on the European sites and aerodrome safeguarding (that are interrelated), it unlikely that an ERF of the type, scale and technology proposed by the site promotor would be acceptable in planning and environmental terms, or would be capable of securing the necessary consents and permits.

4.108 On the assumption that these constraints could theoretically be overcome, the significant investment in process technology and other mitigation would most likely render the development of a large scale ERF with moving grate technology unviable and impracticable. Whilst some potential exists for the use of other alternative advanced technologies, these technologies do not benefit from the proven track record of performance and bankability in the UK that traditional energy from waste technology and in order to address the site constraints, such technologies are unlikely to be regarded as viable and secure commercial funding to support delivery. This is especially evident at this site where the first phase of the low carbon energy facility, using advanced pyrolysis / gasification technology, did not meet technical expectations and failed commercially, such that the facility was never completed.

4.109 The Canford Magna site's location in green belt is a constraint on the size and capacity of strategic waste management facilities that could be accommodated on this site. National green belt policy requires that where development is proposed on previously developed land in the green belt consideration should be given to whether this would have a greater impact on the openness of the green belt than the existing development. A direct combustion ERF of the scale proposed at Portland is likely have a greater impact on the openness of the green belt than the existing and consented development, and could be considered inappropriate development.

4.110 It is considered that the Canford Magna site is unsuitable for accommodating a large-scale ERF, and is more suitable for a continuation or expansion of the existing waste management activities, or the construction of a MRF / MBT facility capable of recovering recyclable materials and producing RDF material from residual waste that cannot be recovered. The RDF could then be sent to the Portland ERF for final recovery.

4.111 In conclusion, the proposed Portland ERF could not be located on this allocated site and the proposed Portland site has the following significant advantages over the allocated site:

- The Portland site can be developed without having a significant adverse impact on the integrity of protected European sites or other areas of recognised ecological interest

- The Portland site is not subject to any significant stack height constraints imposed by airport safety surfaces, or subject to other aerodrome safeguarding and safety matters related to radar, air traffic control equipment and bird strike

- The Portland site would not require the reconfiguration or redevelopment of land which is already used by existing waste management facilities, nor would it lead to the potential temporary or permanent loss of any existing waste management capacity

- The Portland site is not subject to green belt designation or the potential constraints on the size of buildings or structures that might be deemed to have a greater impact on the openness of the green belt than existing development, precluding the development of an ERF or reducing its potential capacity

- The Portland site can connect to identified heat and energy customers who have expressed an interest in receiving energy from an ERF by means of a local heat network, with these being located adjacent to or in close proximity to the ERF

- The Portland site is located in a deep water port and is in close proximity to the primary road network, having the capability for sustainable transport of waste by road and sea

- The Portland site is capable of providing electricity to address the power needs of Portland Port, its need to be able to provide shore power and furthermore heat can be supplied to heat off-takers; all of whom have expressed interest in the power and heat

Site 10: Binnegar Environmental Park, East Stoke

Background and context

4.112 The Binnegar site (extending to 9.92 ha) is situated within a previously worked sand and gravel quarry off Puddletown Road at East Stoke, in close proximity to active sand and gravel quarries.

4.113 Planning permission (application reference: 6/2007/0516) was granted in 2010 for a variety of waste management uses, that together are known as the Binnegar Environmental Park. The approved integrated waste recovery and recycling facility enabled the provision of infrastructure for the treatment of up to 110,000 tpa. It includes in-vessel composting, materials recovery and inert materials recovery, an integrated office and mess, and a new vehicle storage and maintenance depot.

4.114 The planning permission is extant, having been implemented through the construction of a commercial MRF built for the processing and recycling of mixed recyclables. The facility was mothballed by SUEZ, the site operator, due to a depressed recyclables market. It is understood that it can be brought back into use when required. Neither the in-vessel composting or inert material recycling facilities have been built.

4.115 Planning permission 6/2007/0516 is conditioned (condition 3) such that the Environment Park cannot exceed the following annual waste treatment limits:

- Inert MRF 50,000 tpa
- Recyclables MRF 30,000 tpa
- Composting plant 30,000 tpa

4.116 The Waste Plan states that the site is an existing permitted waste management facility incorporating materials recovery and other undeveloped waste facilities. The Waste Plan allocation considers that the Binnegar site has opportunities to intensify and redevelop the site for the management of non-hazardous waste. The Waste Plan states that the Binnegar site has been assessed to manage up to 100,000 tpa of residual waste.

4.117 In responding to the 2016 draft Waste Plan update consultation, SUEZ indicated that alternative technologies might be considered within the consented capacity limits, for example anaerobic digestion rather than in-vessel composting. It also indicated that the Binnegar site is also capable of fuel preparation from residual waste (either as RDF or SRF), or by means of biological treatment for waste arisings from the western side of Dorset, which could result in carbon savings by minimising travel distances of untreated waste to its final recovery point.

4.118 The waste planning authority's sustainability appraisal December 2017, provides more detailed information in respect to three development options put forward by SUEZ. These in summary are:

- Proposal 1: Advanced Thermal Treatment facility (gasification) treating Refuse Derived Fuel (RDF) and some Solid Recovered Fuel (SRF) with a capacity of 60,000 – 100,000 tonnes per annum

- Proposal 2: Solid Recovered Fuel (SRF) facility with a capacity of 60,000 – 100,000 tonnes per annum

- Proposal 3: Refuse Derived Fuel (RDF) facility with a capacity of 60,000tpa – 100,000 tonnes per annum

4.119 The Waste Plan identifies a set of seven development considerations that all planning applications for waste management development at this site must be capable of satisfying, to ensure that this would not result in any unacceptable environmental impacts. These relate to European sites, conservation of habitat, , landscape and visual aerodrome, traffic, cultural heritage assets, surface water management and River Piddle buffer.

Planning and environmental issues

Impact on European protected sites

4.120 The Binnegar site is adjacent to the Dorset Heathlands SPA and Ramsar site, Dorset Heaths SAC and the Stokeford Heaths SSSI. The Buddens Farm SNCI lies to the north.

4.121 Similar to the Eco-sustainable Solutions and Canford Magna sites (Insets 7 and 8), the potential adverse effects of gaseous emissions from an energy from waste facility on the integrity of these European and nationally protected habitats (and associated protected species) represents a significant concern in this location. This constraint is recognised in policy terms (this having been identified as a development consideration that would need to be adequately addressed) and also within consultation responses received during the preparation stages of the Waste Plan.

4.122 Development consideration 1 (European sites) requires an assessment to be undertaken to in accordance with the Conservation of Habitats and Species Regulations 2017. It specifies that this should include, as a minimum, Phase 2 surveys for Annex 1 birds to inform an assessment of the effects of development on the populations on site and in surrounding areas. Where relevant, this should also include studies that demonstrate that any emissions from development will not impact on the features (species and habitats including lichens and bryophytes) of the nearby European sites.

4.123 Development consideration 2 (habitat conservation and mitigation) requires that consideration be given to adequate mitigation, including the conservation management of adjacent areas or provision of additional habitats adjacent to the proposed development to mitigate impacts on species characteristic of the European sites.

4.124 The Binnegar site's proximity to European sites was identified as a potential constraint in the council's 2017 sustainability appraisal. It noted that the cost of addressing this could impact on viability and affect the potential waste uses that could in future be located on the site.

4.125 SUEZ commissioned air quality assessment work in respect to a potential waste gasification plant with capacities of 49,000 tpa and 93,000 tpa at the site. This was submitted to inform the Waste Plan. This concluded that a facility would most

likely require a stack height of 65 m and because of its location there was potential for impact on a number of European designated ecological sites. The closest ecological sites were European designated sites and bog habitats, regarded are being highly sensitive to ammonia, nitrogen and acid deposition. It concluded that an Appropriate Assessment would be required where the background exceeds the critical level or habitat specific critical load and the impact is greater than 1%. The analysis showed that, for either size plant, it was likely that an Appropriate Assessment would be needed and that as part of this process it may be that additional abatement of nitrogen oxides emissions and / or more stringent control of ammonia emissions would be required to minimise the impact on the local habitat features.

4.126 This air quality assessment identifies concerns over the potential impact of a gasification facility in this location because of the sensitivity of adjacent protected habitat areas and that, in addition to a tall stack, other process technologies may be required as mitigation. If practicable, such measures would add significant cost to the scheme development and construction and it is therefore questionable whether advanced thermal technology, considered to be less well proven, reliable and deliverable than moving grate technology, would be economically viable.

4.127 The waste planning authority's sustainability appraisal (December 2017) refers to comments from the Dorset ecologist in respect to proposal 1 for a large scale gasification facility. These state:

"Proposal 1: This proposal would lead to increased emissions of NOx and ammonia from the combustion of waste on site, onto the adjacent designated heathland. These emissions are likely to have a greater impact than normal as the stack height will be reduced by the plant being constructed in a 26m deep void. Although the stack height may be 55m or 49m high, this would be reduced to 29m or 23m above ground level in reality, leading to the emissions plume being much closer to the ground than is normally the case. The Fichtner study, commissioned by SUEZ, confirms this by stating that, even if the stack height was increased to 80m, critical level and load of these pollutants would still increase by more than 1%. Further assessment of this would be needed, alongside design modification of the proposed plant, to incorporate additional abatement of NOx and ammonia levels to an acceptable level, before this option could be realistically taken forward."

4.128 The council's draft Waste Plan HRA (section 7.3), dated October 2017, also identified the Binnegar Environment Park as a site where potential proximity effects are related to gaseous emissions affecting the European sites and where potential species effects are related to those on species typical of the European sites, due to disturbance or habitat loss. The HRA states in section 7.3.2 that the proposed operator for the site had been asked for further information about how emissions from an energy from waste plant would be controlled to ensure there is no impact on the adjacent European sites. However, at that time, the information was still being prepared and was not available for inclusion in this assessment.

4.129 Both the sustainability appraisal and the HRA undertaken by the waste planning authority indicate that the proposals for an advanced thermal treatment plant (gasification) would have potential to adversely affect the protected European sites and highlight the uncertainty as to whether a thermal treatment process could be realistically delivered.

4.130 Subsequently, the waste planning authority's HRA stated that, whilst it was agreed with Natural England that detailed analysis of the site specific effects is not possible or appropriate at this stage in the process, it was also true that stringent measures must be put in place to ensure this analysis will take place as each site is brought forward, and that mitigation must be appropriate and sufficient. This was considered essential to provide certainty that no development will be allowed if it would lead to likely significant effect on the European sites.

4.131 Therefore, no compelling evidence appears to have been made available to the Waste Plan examination and the Inspector to confirm that an ERF, with moving grate technology, or other advanced thermal treatment plant such as gasification, could be located at this site and satisfy Natural England's requirements in respect to safeguarding European protected sites.

4.132 As a consequence, Natural England submitted a Statement of Common Ground[8]with the waste planning authorities to the examination stating its concerns regarding the likely significant effects of waste incineration on protected European sites at this location (and other allocated sites for residual waste management), but also stating that suitable processes may be available that would not lead to such effects (see para 4.21) to enable waste needs to be met.

4.133 Whilst the Inspector accepted that the suitability of waste management facilities was a matter for individual detailed proposals, and agreed to the allocation of the site for non-specific waste management uses, the applicant considers it highly unlikely that an ERF, of the type proposed at Portland, could satisfy development consideration 1 (European sites) to secure the necessary consents and permits. Indeed there is considerable uncertainty as to whether any form of ERF could be delivered at this site.

Potential for sustainable transport

4.134 The Binnegar Environmental Park is located more than 10 km from a port by road and is more than 4 km from the primary road network. An ERF located at this site would be entirely reliant upon the use of HGVs using the local road network for all of the waste received at the site (as existing), with no viable potential for waste to be moved by water.

4.135 The Portland ERF site has access to a deep water port, enabling both the import and export of RDF and other materials. It is also in close proximity to the primary road network. It therefore has sustainable transport advantages over the allocated site in having the ability to move waste both by road via the nearby primary road network and by sea.

Potential for CHP and meeting Portland's energy needs

4.136 The Binnegar site is situated in a relatively remote rural location and is not in close proximity to any existing or proposed residential or commercial development that might give rise to any significant CHP opportunities. The waste planning authority's own sustainability appraisal noted that opportunities for CHP are very

[8] SCG-06 Statement of Common Ground between the Waste Planning Authority and Natural England concerning sites allocated for the management of non-hazardous waste (Insets 7 – 10) 23 July 2018.

limited at this site. It is therefore significantly disadvantaged over the application site located at Portland and other sites allocated in the Waste Plan.

4.137 An ERF located at the Binnegar Environment Park site, even if it is capable of exporting to the grid, would not be able to address the specific local power constraint at Portland.

Landscape and visual

4.138 The site is located in an isolated rural setting and the potential for adverse landscape and visual impact associated with waste management development is identified through development consideration 3 (landscape and visual). This consideration requires that the site should be subject to a detailed landscape and visual impact assessment and preparation of a comprehensive landscape and ecological masterplan for the site.

4.139 This also requires proposals to demonstrate how impacts will be minimised, particularly from any stack by its design, formation level, colour, texture and overall height. This should also give regard to how lighting on the site will be minimised. Proposals should also incorporate appropriate screening to ensure protection of the adjacent public right of way.

4.140 The existing built and consented waste management facilities are of a much smaller scale than what would typically be required for a large scale ERF with direct combustion technology.

4.141 The waste planning authority's sustainability appraisal (December 2017) concluded that the landscape value and susceptibility to waste development at the Binnegar site is relatively low, given that the development would sit at the base of the quarry and would not be visible to the public. However, the stack associated with the gasification facility (Proposal 1) would be 29m above ground level and would be visible to properties located on Puddletown Road, from the nearby bridleway and also further afield from the Dorset Area of Outstanding Natural Beauty (AONB) located 800m away to the south of the site. Visual intrusion was therefore considered to be a significant issue.

4.142 As such, there is uncertainty as to whether the landscape and visual impact associated with a tall stack possibly up to 80m or more (required to address potential impact on European sites) and buildings of around 45 m in height would be acceptable, particularly given the presence of the Dorset AONB 800m away from the site.

4.143 This Binnegar site's isolated rural setting is less suitable for the location of a large-scale ERF building and stack than the more industrial setting at Portland associated with the existing port activities.

Summary conclusion

4.144 From the comparative assessment, the Binnegar Environmental Park site appears to be subject to significant constraints, principally its proximity to protected European sites, lack of CHP opportunities and its location within a rural setting.

4.145 Its potential suitability for future waste management use would need to be assessed in the context of a planning application and more detailed information. Given that the site is already in existing waste management use, has consent for other types of waste uses, and the allocation is non-specific in terms of type of facility and technology, it is reasonable to conclude that the Binnegar site could host some types of waste activity and / or expansion of the existing waste management activities.

4.146 However, the evidence presented during the Waste Plan preparation stages led to the waste planning authority and the Inspector imposing seven development considerations that would need to be fully complied with for any proposal for waste management use to be accepted at this site. Given the Binnegar site's constraints, principally in respect to potential adverse impact on the European sites, it uncertain that an ERF of the type, scale and technology proposed by the site promotor would be acceptable in planning and environmental terms, or would be capable of securing the necessary consents and permits.

4.147 On the assumption that these constraints could theoretically be overcome, the significant investment in process technology and other mitigation could render the development of a large scale ERF with moving grate technology unviable and impracticable. Whilst some potential exists for the use of alternative advanced technologies, these do not benefit from the same proven track record of performance and bankability in the UK that traditional energy from waste technology does.

4.148 In order to address the site constraints, advanced technologies are unlikely to be regarded as viable and secure the commercial funding to support delivery. This is especially evident at this site where preliminary air quality assessment work appears to indicate that a gasification facility of around 94,000 tpa could potentially have an adverse impact on protected European habitats and may require further mitigation applied to the process to address impact from emissions, which would add additional costs and undermine viability.

4.149 The Binnegar site's location in a largely undeveloped rural setting may place a constraint on the size and capacity of strategic waste management facilities that could be accommodated on this site.

4.150 It is considered that the Binnegar site is unsuitable for accommodating a large-scale ERF, and is more suitable for a continuation or expansion of the existing waste management activities, or the construction of a MRF / MBT facility capable of recovering recyclable materials and producing RDF material from residual waste that cannot be recovered. The production of RDF and potential to treat residual waste prior to its final point of recovery was highlighted by SUEZ as part of its representation to the Waste Plan. The RDF could then be sent to the Portland ERF, as the final recovery point.

4.151 In conclusion, the proposed Portland ERF could not be located on this allocated site and the proposed Portland site has the following significant advantages over the allocated site:

- The Portland site can be developed without having a significant adverse impact on the integrity of protected European sites or other areas of recognised ecological interest

- The Portland site can connect to identified heat and energy customers who have expressed an interest in receiving energy from an ERF by means of a local heat network, with these being located adjacent to or in close proximity to the ERF

- The Portland site is located within an industrial setting associated with the existing operational port, as opposed to a more sensitive and remote rural setting

- The Portland site is located in a deep water port and is in close proximity to the primary road network, having the capability for sustainable transport of waste by road and sea

- The Portland site is capable of providing electricity to address the power needs of Portland Port, its need to be able to provide shore power and furthermore heat can be supplied to heat off-takers; all of whom have expressed interest in the power and heat.

5 Conclusions

5.1 This report has set out the results of a comparative assessment of the waste sites allocated in the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 against the application site at Portland. The purpose has been to meet the requirements of Policy 4 of the Waste Plan by demonstrating that the proposed Portland ERF site provides specific location-based advantages over the allocated sites in the Waste Plan.

5.2 The comparative review against the allocated sites comprised a qualitative comparative analysis against a set of operational, planning and environmental criteria and then a more detailed examination of the potential for the sites allocated for residual waste management purposes to deliver the proposed ERF.

5.3 The comparative review has shown that whilst none of the sites can fully meet all of the defined operational, planning and environmental criteria, the application site at Portland performs well coming top in the ranking against all of the allocated Waste Plan sites.

5.4 The Portland site met 13 of the criteria, partially met two of the criteria and did not meet two of the criteria.

5.5 Of the allocated sites, the Mannings Heath Industrial Estate site (Inset 9), was the next best performing site, meeting 11 criteria, partially meeting three criteria and not meeting three criteria. It was the best performing site of the four sites allocated in the Waste Plan as suitable for residual waste management facilities. The other three such sites at Binnegar Environment Park (Inset 10), Land at Canford Magna (Inset 8) and Eco-sustainable solutions (Inset 7) performed less well being ranked joint 5th, 9th and 12th respectively.

5.6 In moving to the more detailed assessment of the four allocated residual waste management sites (Insets 7-10), the Mannings Heath Industrial Estate site was excluded at this stage because its area is less than 2 hectares and too small to accommodate the proposed ERF.

5.7 The detailed assessment of the remaining three residual waste sites concluded that all sites were subject to significant constraints. In addition to proximity of European sites, two are also constrained by aerodrome safeguarding and green belt considerations, which together would preclude the development of large scale buildings and tall stacks typically associated with ERF (the latter being required to potentially mitigate against potential adverse impact on protected European sites from gaseous emissions).

5.8 The three allocated residual waste treatment sites are also subject to other potential constraints such as landscape and visual, flood risk, lack of CHP opportunities and proximity to sensitive receptors. They are less well located in terms of access to alternative modes of transport (no access to water transportation), and in some cases proximity to the primary road network.

5.9 Given the various constraints identified through this detailed appraisal, none of the three sites allocated in the Waste Plan for residual waste management are considered to be suitable or appropriate for the construction and operation of an ERF of the type and scale proposed at Portland and are instead deemed to be

more suitable for intensification of existing waste activities or other facilities such as MRF / MBT that would be complementary to the proposed ERF at Portland and could together form part of an integrated network of waste management facilities serving Dorset.

5.10 In the context of Waste Plan Policy 4, this assessment of the allocated sites demonstrates that:

C) None of the allocated sites, including those that have been identified as suitable for residual waste management, are suitable for the proposed ERF, and

D) The application site at Portland has many advantages over the allocated sites, that would fully justify its use. These are:

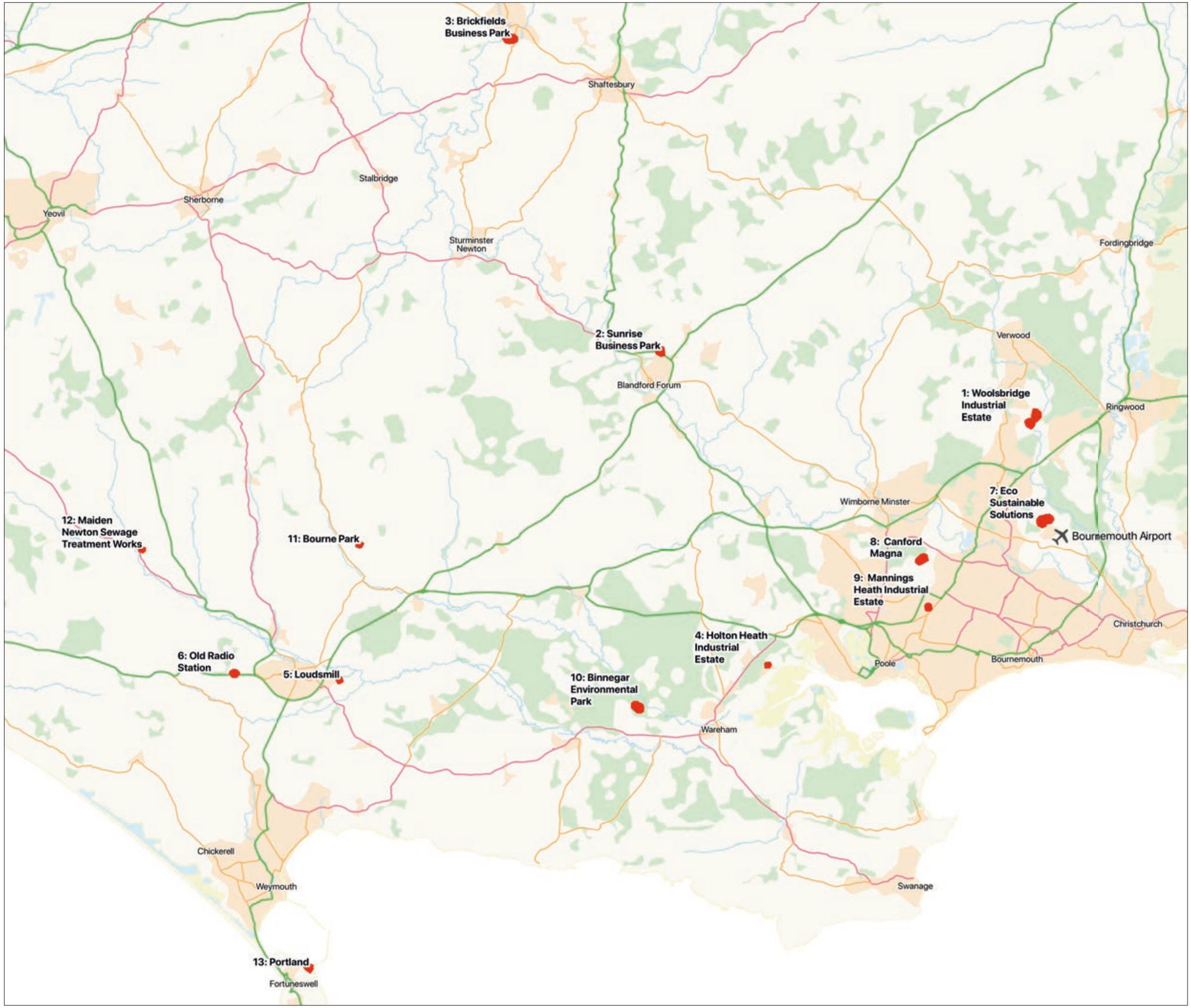
- The Portland site is sufficiently large enough to be able to accommodate the required structures and circulation space to deliver an ERF of the required scale and treatment capacity
- The Portland site can be developed without having a significant adverse impact on the integrity of protected European sites or other areas of recognised ecological interest
- The Portland site is not subject to any significant stack height constraints imposed by airport safety surfaces, or subject to other aerodrome safeguarding and safety matters related to radar, air traffic control equipment and bird strike
- The Portland site would not require the reconfiguration or redevelopment of land which is already used by existing waste management facilities, nor would it lead to the potential temporary or permanent loss of any existing waste management capacity
- The Portland site is not subject to green belt designation or the potential constraints on the size of buildings or structures that might be deemed to have a greater impact on the openness of the green belt than existing development, precluding the development of an ERF or reducing its potential capacity
- The Portland site is not located within a flat and open landscape where an ERF tall stack would create a wide zone of visual influence, adversely affecting an area of green belt
- The Portland site has the potential for establishing links with existing and future complementary uses and activities located within the operational port
- The Portland site is not in a location affected by flood zones 2 and 3, or likely to cause potential for flooding off-site
- The Portland site is not located in close proximity to potentially sensitive receptors such as residential properties and schools

- The Portland site can connect to identified heat and energy customers who have expressed an interest in receiving energy from an ERF by means of a local heat network, with these being located adjacent to or in close proximity to the ERF

- The Portland site can provide power to the port and support the provision of shore power at the port (which otherwise could not be delivered) and ensure that the local energy distribution network operates more efficiently and effectively

- The Portland site is located in a deep water port and is in close proximity to the primary road network, having the capability for sustainable transport of waste by road and sea

Figures



Key

Notes/Revision

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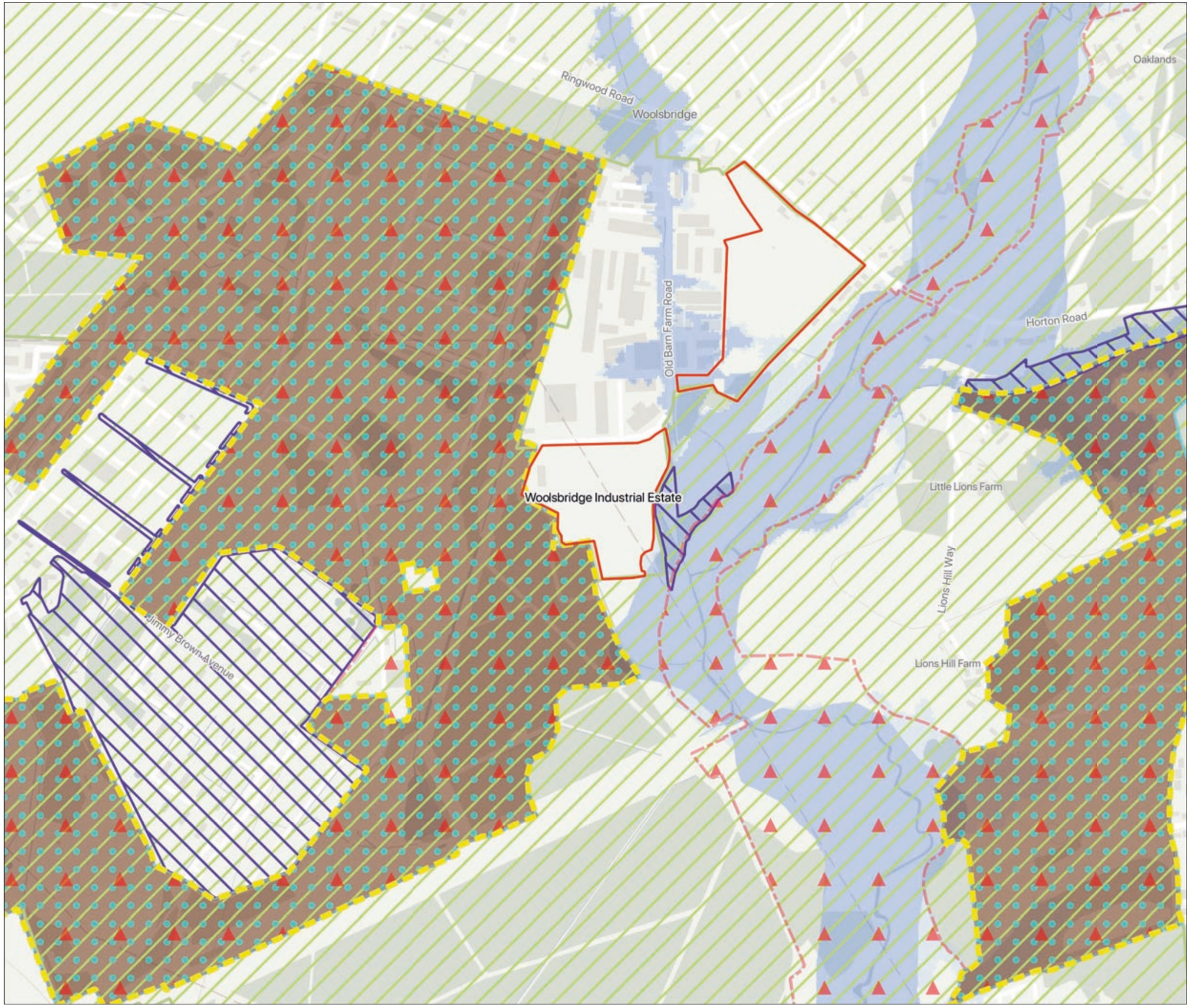

Key

- Site
- Archaeological Importance
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- SNCI
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- SSSI
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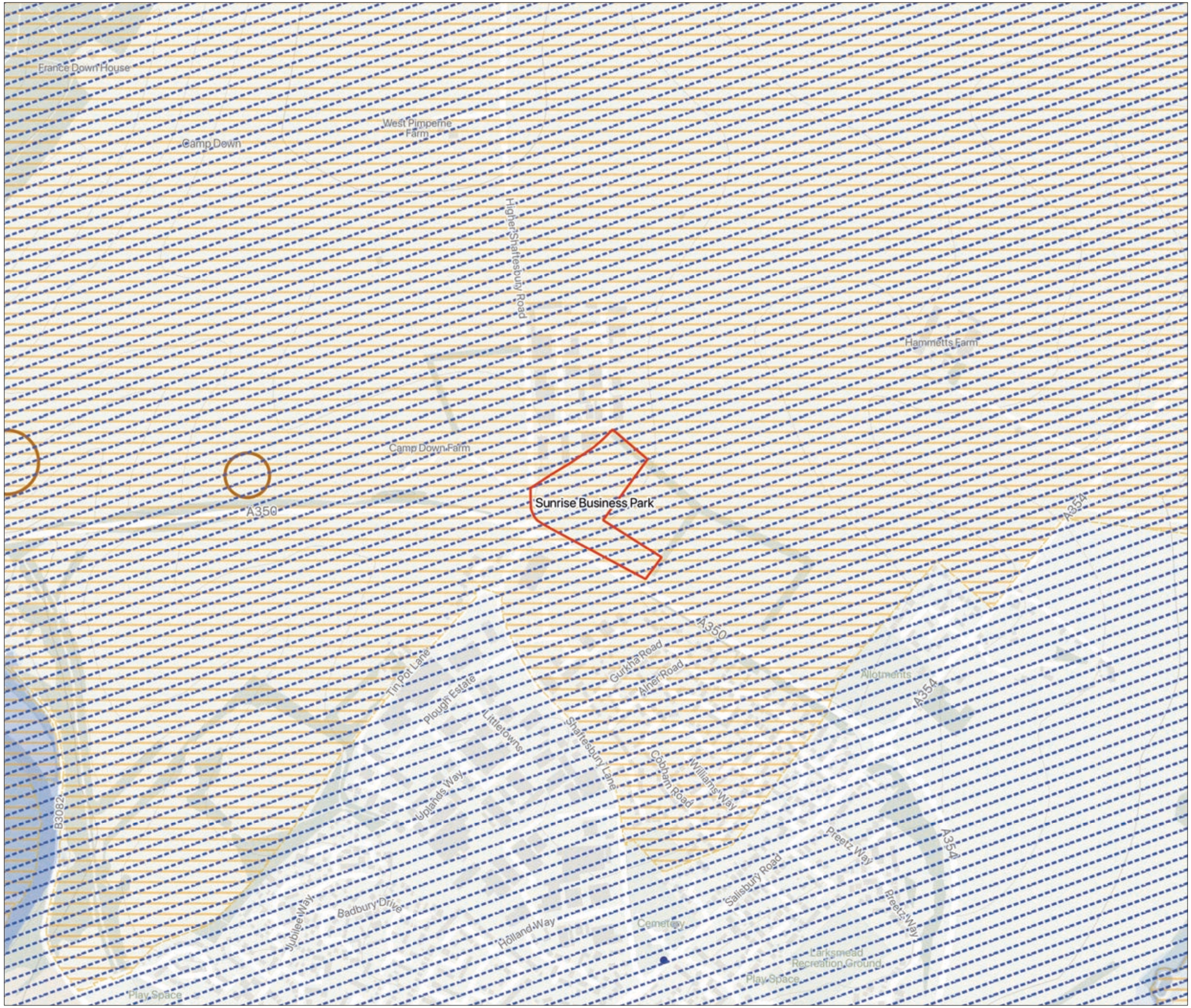

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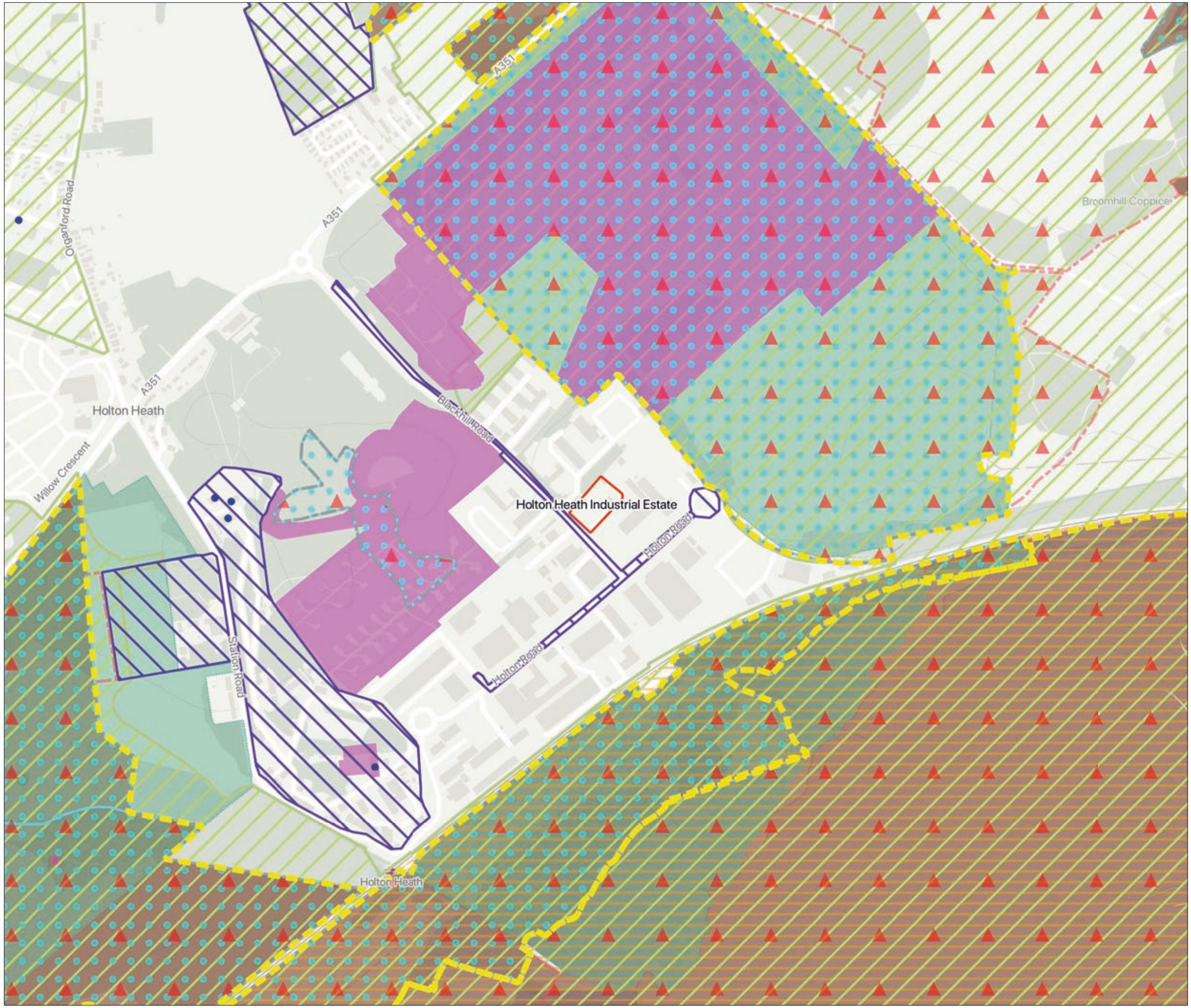

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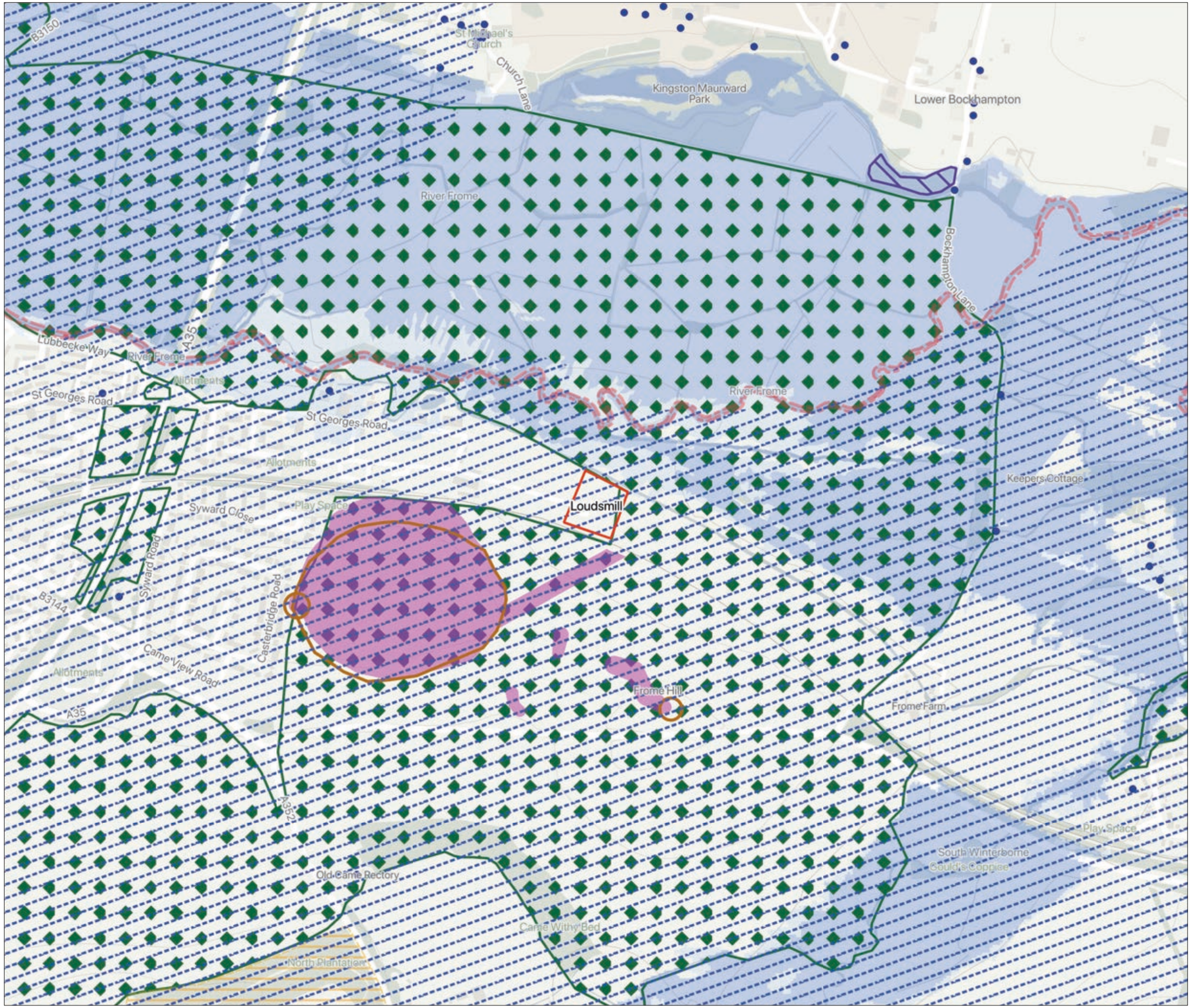

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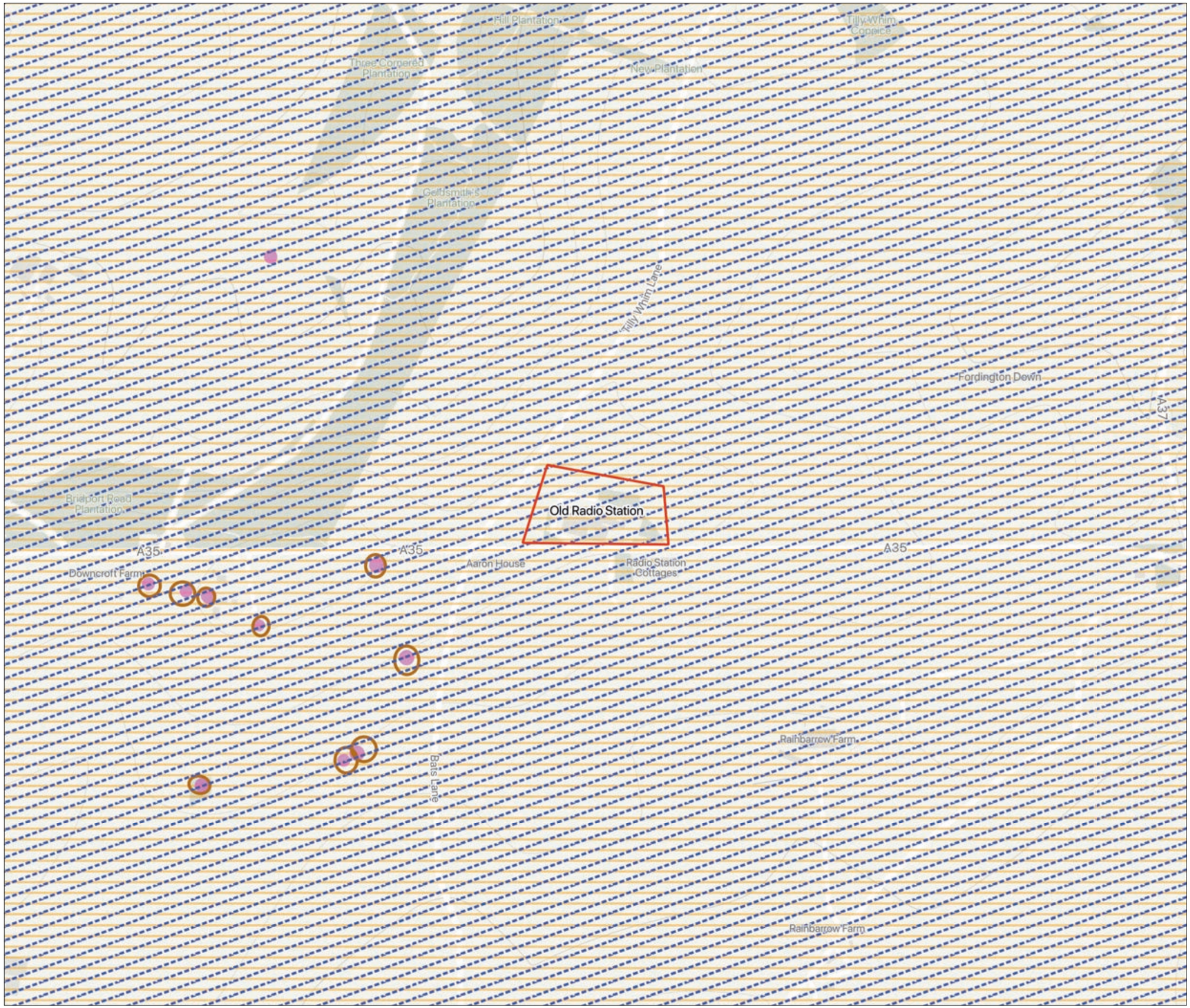

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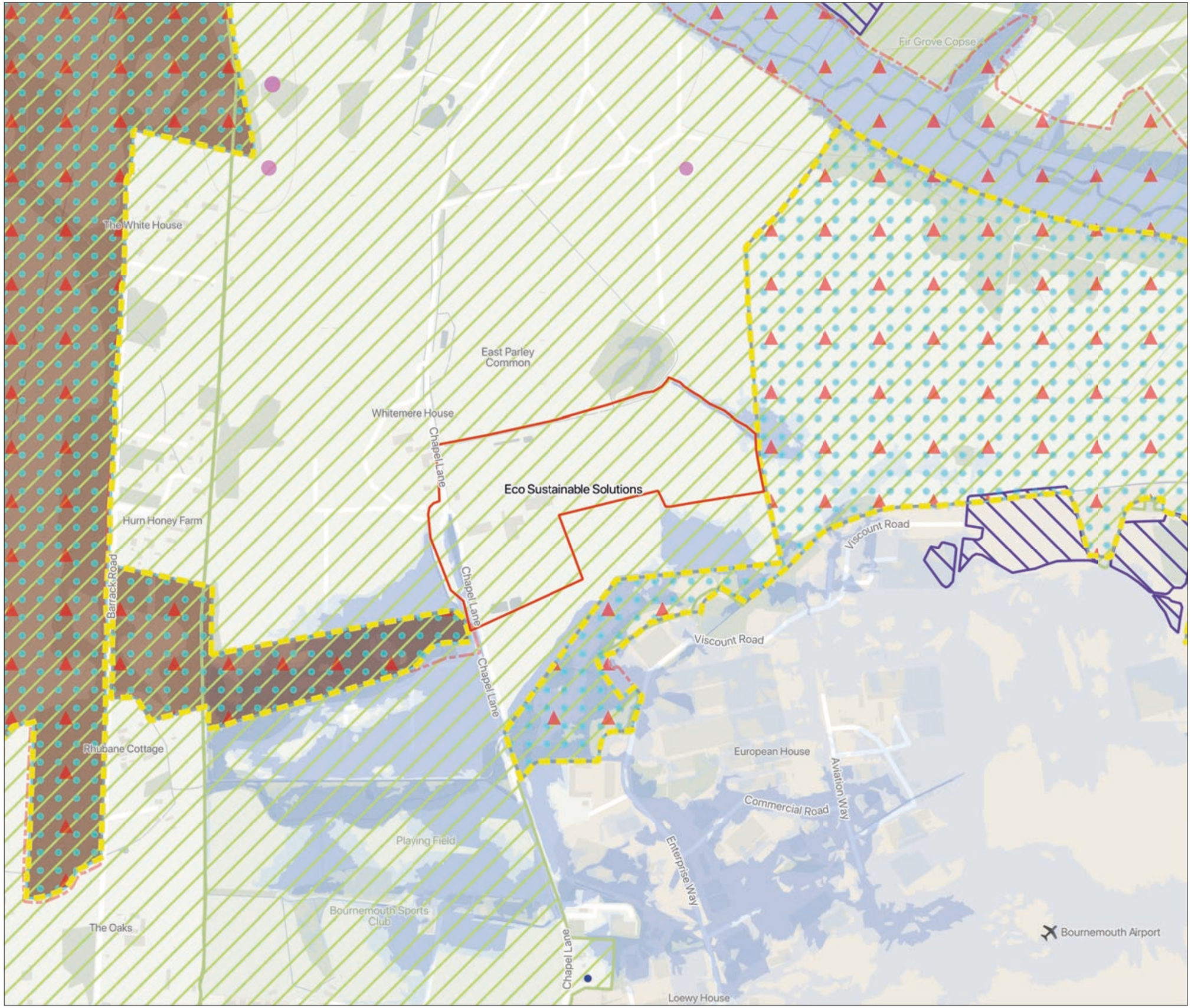

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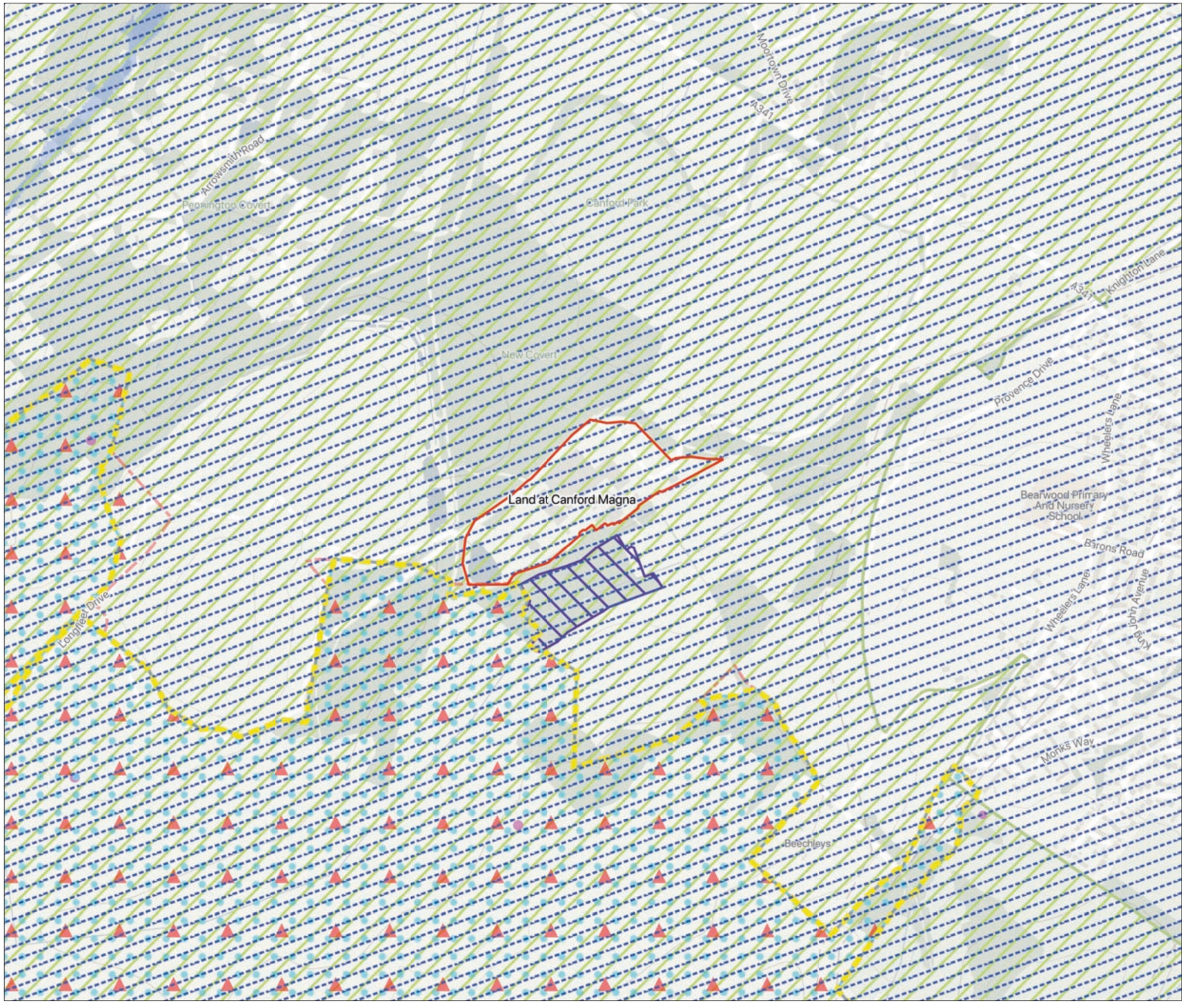

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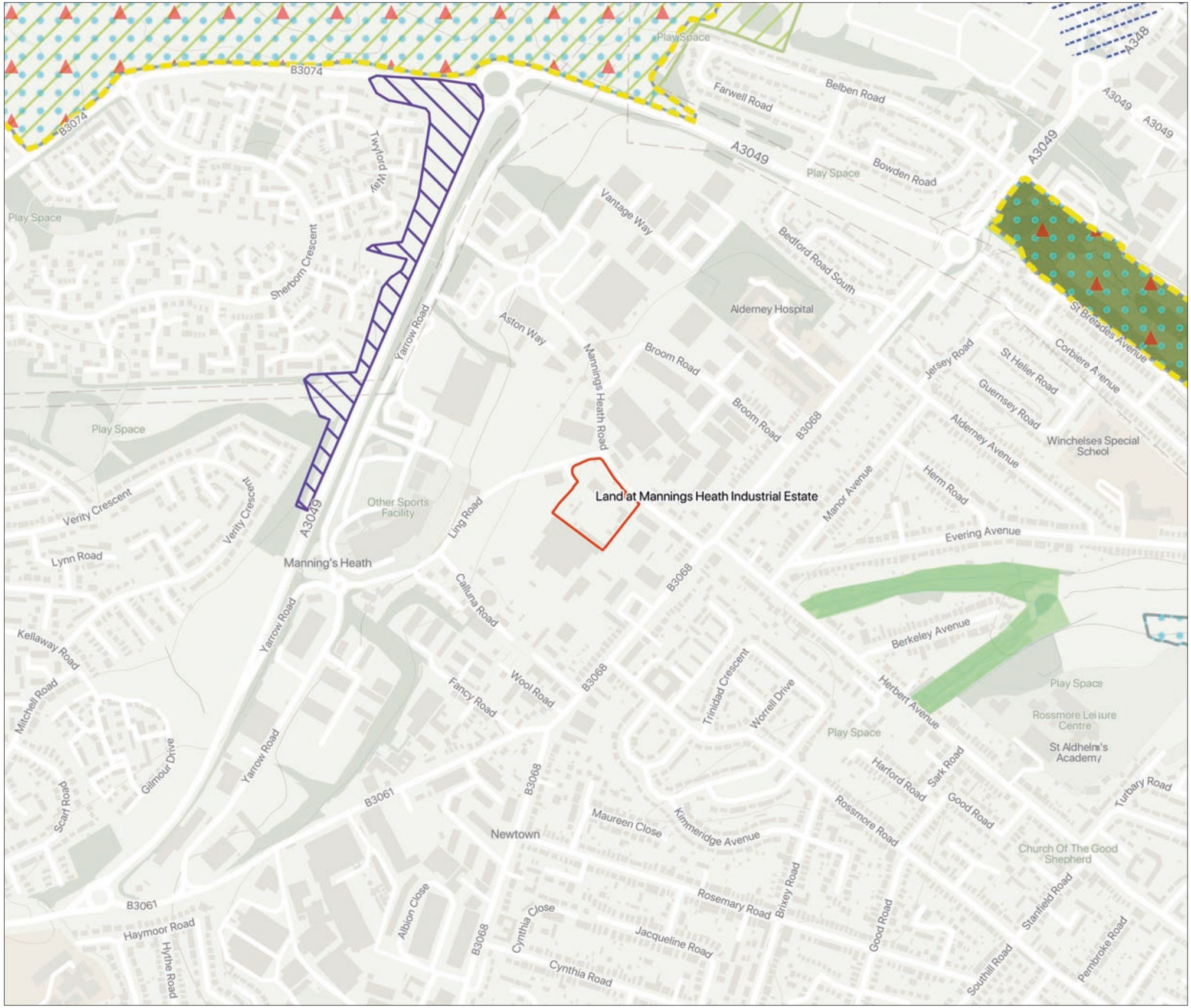

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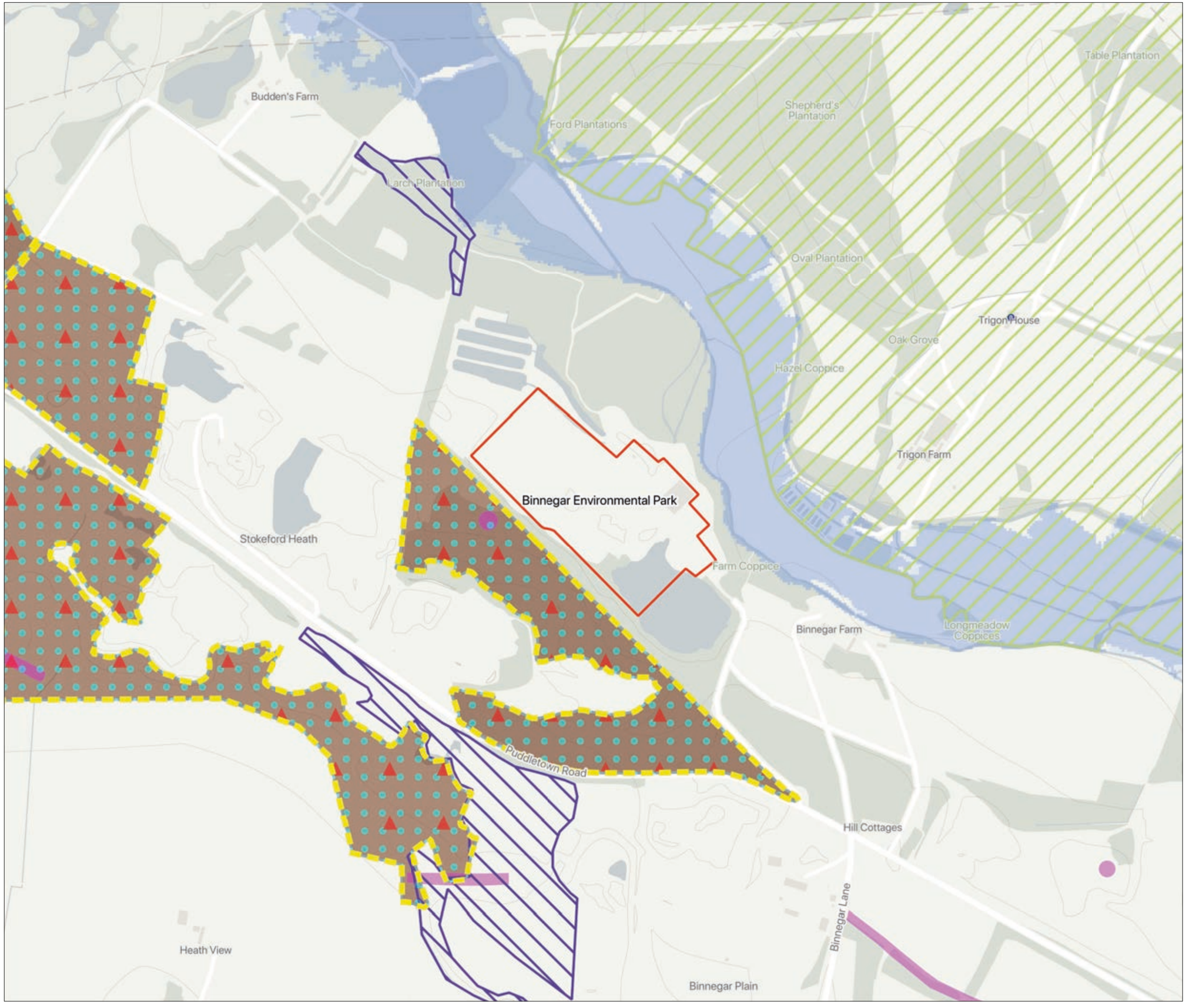

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Designations: Binnegar Environmental Park

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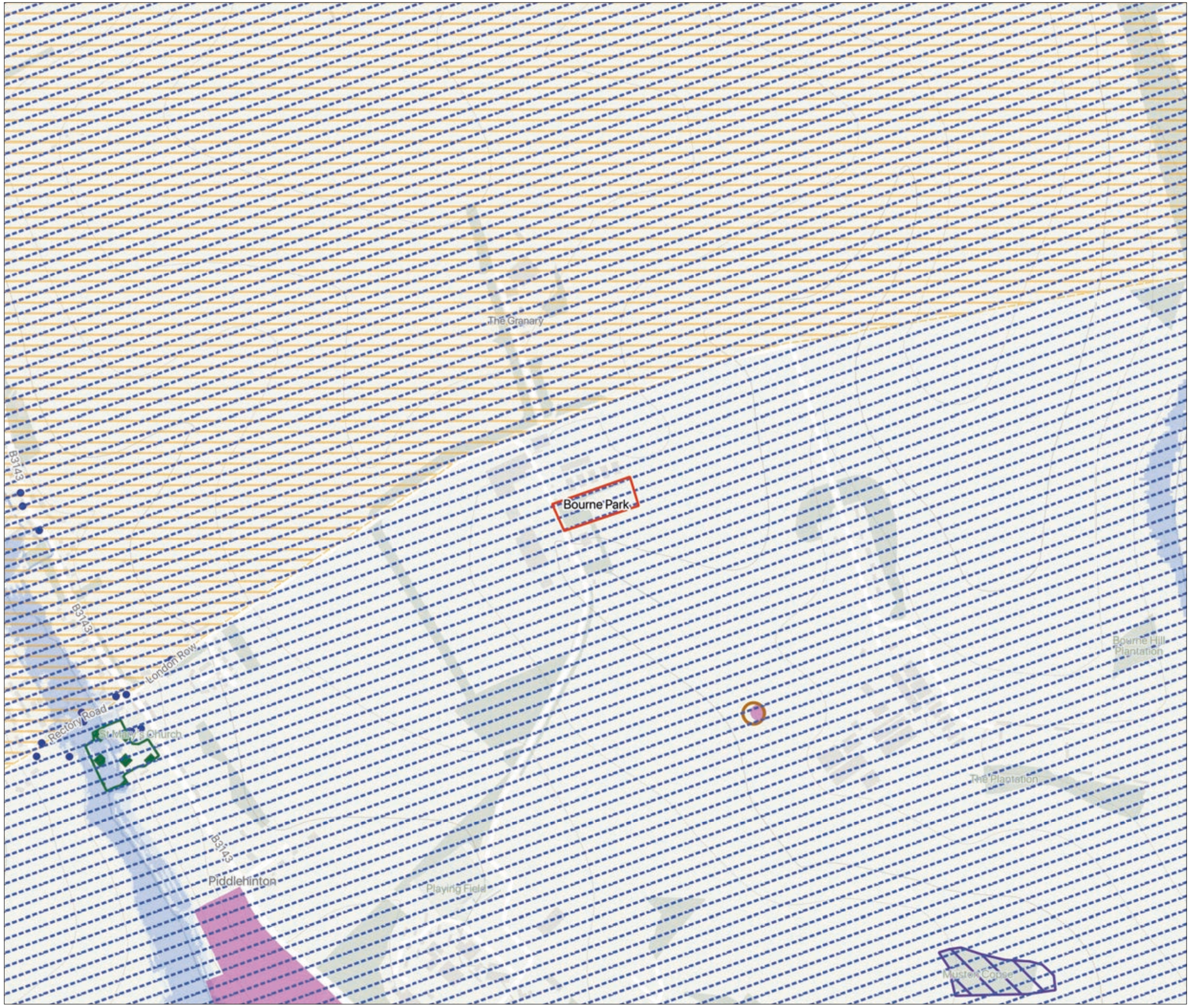

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Designations: Bourne Park

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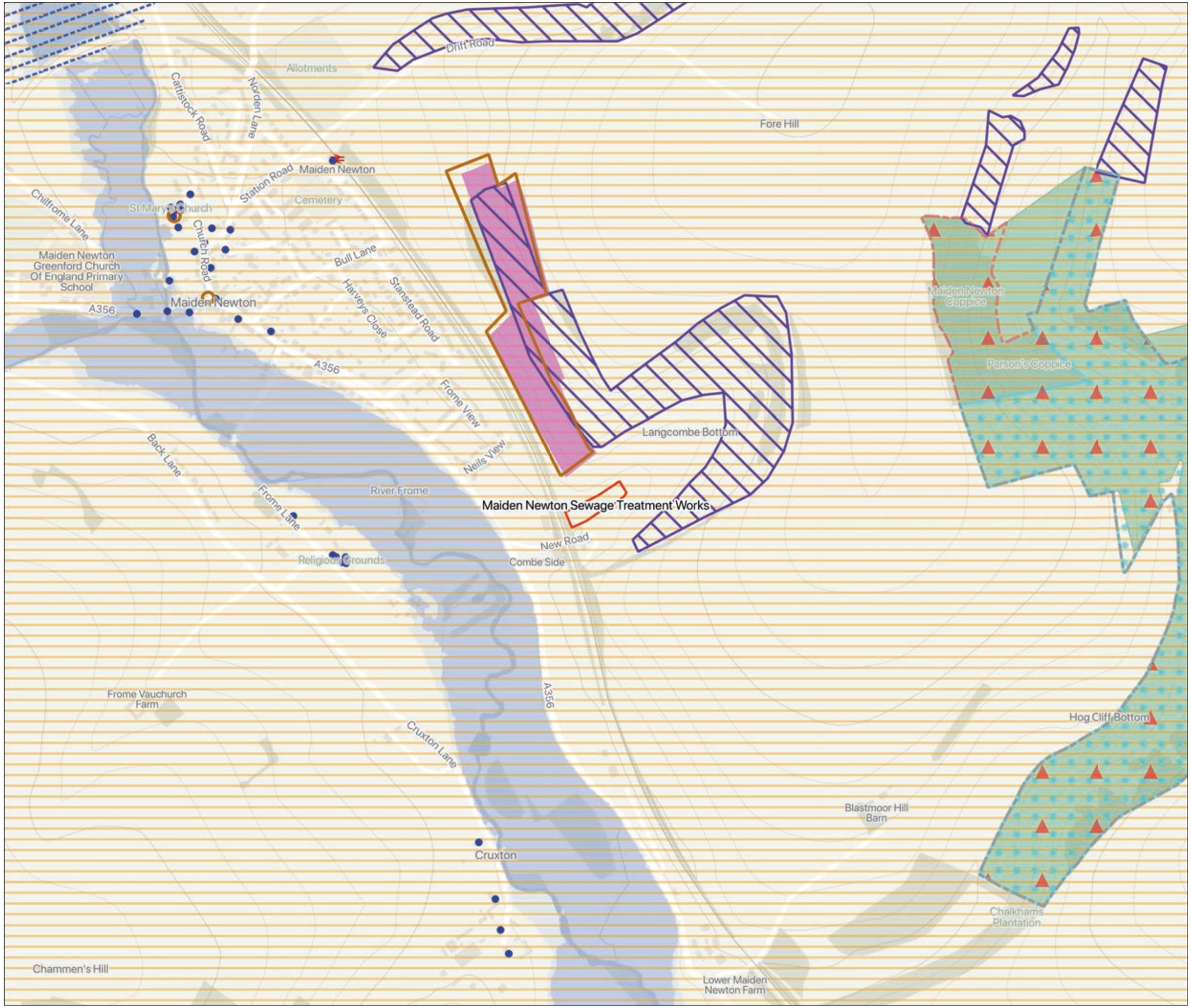

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Portland Energy Recovery Facility

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Designations: Maiden Newton Sewage Treatment Works

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Key

- Site
- Archaeological Importance
- World Heritage Sites
- Conservation Areas
- Listed Buildings
- Special Protection Areas
- Special Areas of Conservation
- SNCI
- Scheduled Monuments
- SSSI
- Green Belt
- AONB
- Local Nature Reserves
- National Nature Reserves
- Local Landscape Importance
- Ramsar Site
- Flood Zone 2
- Flood Zone 3
- Water Source Protection Zones

Portland Energy Recovery Facility

POWERFUEL PORTLAND LIMITED

0 50 100 150 200 250 m

N

Designations: Portland

262701 /AS013	Revision
	Date issued: May 2020
1:7,000 @A3	Drawn by: SL Checked by: LT

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