

Ref: Planning application: WP/20/00692/DCC

OBJECTION TO THE POWERFUEL PORTLAND LTD PLANNING APPLICATION THIS PROPOSAL DOES NOT COMPLY WITH THE DORSET WASTE PLAN 2019 (Adopted December 2019) POLICY 18 Biodiversity and geological interest

Natura 2000 Sites *Proposals for waste management facilities must not adversely affect the integrity of European or Ramsar or other internationally designated sites, either alone or in combination with other plans and projects.*

Sites of national and local importance: *Development which adversely affects a Site of Special Scientific Interest will not normally be permitted, except where the benefits of the development at the site clearly outweigh the impacts on the features of the site.*

Policies 1-6 of the DWP establish that the benefits of the development of the site clearly do not outweigh the impacts of the features of the site and that there is no 'need' for a waste incinerator at this location other than for personal financial gain. This proposed site not only abuts a SSSI and is within metres of a SAC, but within 10km of the site there are numerous conservation designations.

Therefore this proposal is in breach of the Dorset Waste Plan 2019 Policy 18

OVERVIEW: The Isle of Portland is a magnificent place for birdwatching, known as one of the best in Britain and is renowned for its migratory birds and passing seabirds. Habitats include cliffs, old quarries, farmland, dense scrub, rough pasture, clumps of trees and residential gardens. Portland is one of the UK's best-known birdwatching areas. The abundance of Portland's wildlife is remarkable, as the unique beauty of Portland has various habitats supporting a diverse range of animals, birds and plants. The flora and fauna of Portland would be under threat if a waste incinerator was built right in the middle of the World Heritage Site on the Jurassic Coast, as within the fallout area of the incinerator plume and likely to be affected by the toxic emissions is a SPA, a Ramsar site, OSPARs, SACs, SSSIs, Marine Conservation Zones, an EMS, SNCI's and Conservation Reserves.

Chesil Beach encloses the Fleet, a shallow estuarine lagoon, which provides protection for a range of internationally important populations of rare and vulnerable bird species listed on Annex 1 of the Birds Directive, and for regularly occurring migratory species, providing protection for habitats, features and associated sub-features and qualifies as an EMS for the Coastal Lagoons, and the Annual vegetation of drift lines and the Mediterranean and thermo-Atlantic halophilous scrub.

On the Isle of Portland itself, which is protected by SACs and SSSIs, the open scrub-boulder scree areas on the undercliffs especially on East Weare have no equal anywhere on the South Coast and are perhaps unique with a combination of Oceanic, Southern Oceanic and Mediterranean-Atlantic bryophytes and lichens not known elsewhere in Britain.' **Great weight should be given to the importance of this habitat, a listed feature of the SAC.**

This SAC calcareous grassland habitat supports the **Cretaceous Silver studded blue** butterfly, which occurs nowhere else in the world and has evolved to occupy an ecological niche that is unique because of the characteristics and vegetation of the island, this butterfly needs the calcareous grasslands to support their complex life-cycle which depends on specific larval food plants and ant hosts. Increased air pollution could have a devastating impact on this habitat.

There are major impacts on the ecology in terms of incinerator air pollution, although marine pollution from leachate from the site itself is also a concern, it does not have the same certainty of impact, as the airborne pollutants have. The major concerns are CO₂ (for every tonne of waste incinerated one tonne of CO₂ will be released from the stack), nitrogen, ammonia and particulate matter containing heavy metals such as mercury and cadmium. Not all the incineration pollutants can be caught and tonnes of toxic emissions are released daily. The plant will comply with permitted levels of emissions, however these permitted levels are not set by health safety limits, but by the limits to which the filters are currently technically able to capture the emissions (aka best available techniques). The emissions are toxic air pollution and slowly and invisibly they damage the environment, and although the impact is not immediate, over a period of a few years the calcareous grasslands and the seagrass communities of the protected SACs and the Ramsar site, will disappear.

NPPF (175) "development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it should not normally be permitted".

PORTLAND, CHESIL BANK AND THE FLEET SPECIAL AREAS OF CONSERVATION

Chesil and the Fleet SAC (SPECIAL AREA OF CONSERVATION) (UK0017076) - 1634.91 hectares

Isle of Portland to Studland Cliffs SAC (MARINE) (UK0019861) - 1441.75 hectares

Studland to Portland SAC (UK0030382) - 33191.09 hectares

Chesil Beach & the Fleet SPA (SPECIAL PROTECTION AREA) (UK9010091) and Ramsar

OVERLAPPING OR ADJACENT PROTECTED SITES (SITE OF SPECIAL SCIENTIFIC INTERESTS)

Chesil Beach & The Fleet SSSI (39 live units)

Chesil & The Fleet SSSI - Chesil Cove (001)

Chesil & The Fleet SSSI - Tern Beach (002)

Chesil & The Fleet SSSI - Lower Fleet (037)

Chesil & The Fleet SSSI - Fleet Shore East (038)

Portland Harbour Shore SSSI (7 live units)

Isle Of Portland SSSI (39 live units)

Isle Of Portland SSSI - Verne Common (Unit 033)

Isle Of Portland SSSI - East Weares (Unit 034)

Isle Of Portland SSSI - King's Pier Hollow (035)

Isle Of Portland SSSI - Verne Field (051)

Isle Of Portland SSSI - The Verne (052)

Isle Of Portland SSSI - Nicodemus Knob (057)

Nicodemus Heights SSSI (3 live units)

West Dorset Coast SSSI

Purbeck Ridge (East) SSSI

South Dorset Coast SSSI

Studland Cliffs SSSI

MARINE PROTECTED AREAS - OSPAR

Chesil and the Fleet EMS (EUROPEAN MARINE SITE)

Chesil and The Fleet OSPAR

Chesil Beach And The Fleet OSPAR

Chesil Beach And Stennis Ledges OSPAR

Chesil Beach and Stennis Ledges MCZ (MARINE CONSERVATION ZONE)

OTHER DESIGNATIONS

Area of Outstanding Natural Beauty: Much of Chesil Beach & the Fleet is in the Dorset AONB

Dorset's AONB Costal Marine and Character Area

World Heritage Site: The Fleet Reserve and Chesil are part of the East Devon & Dorset WHS

Tidal waters of the Fleet inside Ferrybridge designated as a Bass Nursery Area

Chesil Beach GCR Site (GEOLOGICAL CONSERVATION REVIEW)

OVERLAPPING PROTECTED AREAS:

Purbeck Coast MCZ

Solent and Dorset Coast pSPA

South of Portland MCZ

St. Albans Head to Durlston Head SAC

THE NATURAL HERITAGE OF PORTLAND

LEGISLATION & DESIGNATIONS OVERVIEW:

Natura 2000 sites: EU Directive (92/43/EEC) on the Conservation of Habitats and of Wild Fauna and Flora ('The Habitats Directive') led to the establishment of a network of 'European sites', collectively known as Natura 2000 sites, which are areas of exceptional importance with respect to rare, endangered or vulnerable natural habitats or species. The Natura 2000 sites, aka European sites, which include Special Areas of Conservation, Special Protection Areas and Ramsar sites, are designated areas of exceptional ecological importance.

Special Protection Areas (SPAs): Classified under the EU Directive (79/409/EEC) on the Conservation of Wild Birds ('the Birds Directive'), with the objective of protecting and managing areas which are important for rare and vulnerable birds as they are important grounds for breeding, feeding, wintering or migration; and

Special Areas of Conservation (SACs): Classified under the Habitats Directive, these areas provide rare and vulnerable animals, plants and habitats with increased protection and management. SACs are protected areas in the UK, designated under the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 in the UK offshore area. SACs, together with **Special Protection Areas (SPAs)**, are the UK's contribution to the **Bern Convention's Emerald Network** of protected areas, known as **Areas of Special Conservation Interest (ASCI)**.

Ramsar site: Wetlands of international importance designated under the 1971 Ramsar Convention, and proposed Ramsar sites, are sites on which Government has initiated public consultation on the scientific case for a Ramsar site. Under para 176 of the NPPF it states Ramsar sites should be afforded the same protection as European Sites.

OSPAR site: OSPAR is the mechanism by which 15 Governments and the EU cooperate to protect the marine environment of the North-East Atlantic.

Site of Special Scientific Interest (SSSI): A formal conservation designation. Usually, it describes an area that is of particular interest to science due to the rare species of fauna or flora it contains - or even important geological or physiological features that may lie in its boundaries

World Heritage Site (WHS): to protect the site's Outstanding Universal Value and World Heritage Status, any development resulting in a negative impact to the OUV of the Site will only be acceptable if it is both essential and unavoidable. Those elements of landscape character, seascape, seabedscape, natural beauty, biodiversity and cultural heritage that constitute the Site's functional or experiential setting, are protected from inappropriate development.

Dorset Waste Plan (Adopted December 2019) Policy 18 Biodiversity and geological interest
Natura 2000 Sites *Proposals for waste management facilities must not adversely affect the integrity of European or Ramsar or other internationally designated sites, either alone or in combination with other plans and projects.* **Sites of national and local importance:** *Development which adversely affects a Site of Special Scientific Interest will not normally be permitted, except where the benefits of the development at the site clearly outweigh the impacts on the features of the site.*

The National Planning Policy Framework section 15. Conserving & enhancing the natural environment:
(174) *"in order to protect and enhance biodiversity and geodiversity, plans should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity".*
(175) *"development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse affect on it (either individually or in combination with other developments), should not normally be permitted".*

The Conservation of Habitats and Species Regulations 2017 - Grant of planning permission -
"Para 70 (3) Where the assessment provisions apply, outline planning permission must not be granted unless the competent authority is satisfied (whether by reason of the conditions and limitations to which the outline planning permission is to be made subject, or otherwise) that no development likely to adversely affect the integrity of a European site or a European offshore marine site could be carried out under the permission, whether before or after obtaining approval of any reserved matters."

INTERNATIONALLY AND NATIONALLY DESIGNATED NATURE CONSERVATION SITES <10KM:

Chesil and The Fleet **SSSI** (designated a Grade one SSSI in 1986) [3.3km]

Chesil and The Fleet **SAC** under the EC Habitats Directive [3.3km]

Chesil Beach & The Fleet Wetland Area of International Importance **Ramsar** site [3.3km NW]

Chesil Beach and The Fleet **SPA** [3.32km from stack emissions + A354 traffic emissions through site]

Fleet marine area (designated as a **SAC** and the **SPA**) is also designated as an **EMS** [3.32km]

Portland Harbour mud flats **OSPAR** site [2km stack emissions + traffic emissions on A354]

Chesil Beach & Stennis Ledges Marine Conservation Zone (**MCZ**) [Lyme Bay 1.75 km West]

Fleet Reserve part of the East Devon and Dorset World Heritage Site (**WHS**)

Fleet Reserve much of which is in the Dorset Area of Outstanding Natural Beauty. (**ANOB**)

All tidal waters of the Fleet inside Ferrybridge are designated as a **Bass Nursery Area**.

Hamm Beach - Chesil and Fleet **SAC**

Portland Harbour Shore **SSSI** as part of the Chesil and Fleet **SAC** [2.09 km NW]

Isle Of Portland **SAC**

Isle Of Portland **SSSI** (has 39 units) [65m SW]

Portland to Studland Cliffs **SAC** (Marine) borders harbour authority's jurisdiction at Grove Point.

Isle of Portland to Studland Cliffs **SAC** [65m - 1.5 km to the SW]

South Dorset Coast **SSSI**

Verne Common (33) **SSSI** - starts within 65m directly adjacent to the site area

Verne to Grove **SNCI** [65m to 2km]

East Weare Camp **SNCI** (Sites of Nature Conservation Importance) 545m

Nicodemus Heights (57) **SSSI** [590 m to the south]

Grove Quarry **SNCI** 1.04km

Verne Yeates & High Angle Battery SY67/B005 **SNCI** & Local Nature Reserve (**LNR**) 1.08km

Portland Heights **SNCI** 1.45km

East Weare Rifle Range **SNCI** 1.6km

Portland Quarries Dorset **Wildlife Trust Reserve** to SW (Tout & Kingbarrow Quarries [1.9km]

Broadcroft Quarry Butterfly **Conservation Reserve** to the south 2.15 km

Ferrybridge **SSSI** (north - earth science importance, south biological interest)

Radipole Lake **SSSI** 5.58 km to the north west

South of Portland **MCZ** 6.6 km to the south west

Purbeck Coast **MCZ** 6.7 km to the east.

Lodmoor **SSSI** 6.88 km to the north

South Dorset Coast **SSSI** 7.3 km to the north

Crookhill Brick Pit **SAC** and **SSSI** 7.6 km to the north west

Lorton **SSSI** 8.71 km to the north west

Chalbury Hill and Quarry **SSSI** 9.52 km to the north

White Horse Hill **SSSI** 9.9 km to the north

Isle of Portland **RIGGS** (Regionally Important Geological and Geomorphologic Sites) - entire island

AONB Coastal Marine and Character Area to the East of Portland.

World Heritage Site (**WHS**) Chesil Beach & Fleet, Portland Harbour Shore, from Chesil Beach to Grove Point

North of Ferrybridge the rock exposures are completely covered by three **GCR** sites.

Chesil Beach is a **GCR** Site (Geological Conservation Review site)- entire beach

GCR sites are also wholly or in part within this section (within 10km of DT5 1PP)

- Lynch Cove (East Fleet Exposure), Oxfordian (6.15 km)
- Freshwater Bay, Portlandian - Berriasian (4.05km)
- Tar Rocks, Portlandian - Berriasian (2km)
- West Cliff, Portlandian - Berriasian (1.9km)
- Yeolands (2.2km) to Grove Cliff (2.4km), Portlandian - Berriasian
- West Cliff (1.9km) to Kingbarrow (1.4km) to Yeolands (2.2km) & Grove Cliff (2.4km), Portland, Jurassic - Cretaceous Reptilia
- Blacknor, Mass Movement (3.18 km)
- East Fleet (7.19km) to Small Mouth (3.41km), Kimmeridgian
- Shipmoor Point (15.27km) to Butterstreet Cove (8.27km), Bathonian
- Portland Bill (6.16km), Portlandian - Berriasian
- Tidmoor Point (6.98) to East Fleet Coast (7.19km), Callovian

Conservation of Habitats and Species Regulations 2017

DWP Policy 18 requires that a waste management facility must not adversely effect the integrity of European or Ramsar or other internationally designated sites, unless they meet the regulations set out in the Conservation of Habitats and Species Regulations 2017 - Part 6 Habitats Directive/ Regulation Articles 63 and 64.

Article 63 states that before a planning application decision is made which is likely to have a significant affect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), Dorset Coucil must make an appropriate assessment (a Habitats Regulations Assessment) of the implications of the plan for that site in view of that site's conservation objectives. Dorset Council will need to consult with Natural England to assess the implications of the plan, and if appropriate, it must take the opinion of the general public. Dorset Council will need to ascertain that the proposal will not adversely affect the integrity of the various Portland area European sites or the European offshore marine sites.

Powerfuel Portland (PfP) have undertaken a Shadow Appropriate Assessment, which should enable Dorset Council to consult with Natural England to make their appropriate assessments of the implications of the plan. However, the Stop Portland Waste Incinerator group commissioned a report by Adams Hendry Environmental Consultants, with reports by Air Quality Consultants, and Jonathan Cox Associates ecological consultancy, which highlight that the Shadow Appropriate Assessment for PfP does not provide anything even approaching the robust assessment DC requires as a basis of analysis for assessing the affects of the proposal on European sites.

Adams Hendry' summary states "The assessment of air quality impacts of the proposed ERF has been shown to contain major flaws and deficiencies. As a consequence, **the predicted impacts on internationally and nationally designated wildlife sites cannot be relied upon.**" They also state that "The omission of NOx and ammonia emissions from additional traffic generated by the scheme means that the **Shadow Appropriate Assessment has failed to consider the entire impacts of the scheme.**" and also that PfP "also **fails to correctly consider 'in-combination' impacts resulting in the impacts over large areas of the SAC being incorrectly screened out as being insignificant.**" and that "The under-prediction of the local baseline has **the potential to affect the overall conclusions of the air quality assessment** as has the use of a course grid to model impacts."

Air Quality Consultants sum up with "It is clear that **the air quality assessment presented in the ES is inadequate.** This is important because, even though insufficient consideration has been given to combined and cumulative impacts within the assessment, it has still identified **potentially significant air quality impacts on the SACs.** In addition, **the Shadow Appropriate Assessment has been based on incorrect information.** They go on to say "... It is thus considered that **the air quality assessment within the ES is not fit for purpose** and that significant additional information is required in order to adequately inform consultation on the Scheme. At the present time, **the conclusions of the ES must be disregarded.**

Jonathan Cox Associates sum up with "The assessment of air quality impacts of the proposed ERF has been **shown to contain major flaws and deficiencies.** These have been carried over into the Shadow Appropriate Assessment. As a consequence, the **predicted impacts on internationally and nationally designated wildlife sites cannot be relied upon.** In particular, there are grave concerns over **the impact of increased levels of air pollution on the integrity of both the Isle of Portland to Studland Cliffs SAC and the Chesil and The Fleet SAC**". More importantly is should be noted that they state that "**Dorset Council, as the competent authority, will be unable to make a proper assessment of this proposal in accordance with the UK Habitats Regulations until the identified major flaws in the Air Quality assessment and Shadow Appropriate Assessment have been addressed.**"

There is not enough evidence for DC to be able to come to any conclusion, which they are legally required to do, on whether the proposal can be proven to have "**no adverse effect on the integrity of any European site either alone or in combination with any other plans or projects**". Therefore Powerfuel Portland should now be issued with a Town & Country Regulation 25 notice to provide the required information with more robust evidence, for purposes of Dorset Council's own Habitat Regulations Assessment in conjunction with Natural England.

ECOLOGY OF PORTLAND POTENTIAL WASTE INCINERATOR THREATS OVERVIEW

For eight miles, Chesil Beach encloses the Fleet, a shallow estuarine lagoon. The site provides protection for a range of internationally important populations of rare and vulnerable bird species listed on Annex 1 of the Birds Directive, and for regularly occurring migratory species (Annex 2 of Directive 92/43/EEC), providing protection for habitats, features and associated sub-features and qualifies as an EMS for the Coastal Lagoons, the Annual vegetation of drift lines and the Mediterranean and thermo-Atlantic halophilous scrub.

The Chesil Beach SSSI (which starts within less than 2km from the stack) cites the beach as the breeding site for the **Little Tern**, which is currently identified as a conservation priority, being Amber listed in Birds of Conservation Concern 4 (2015 update), protected under Schedule 1 of the Wildlife and Countryside Act 1981 and under the EC Birds Directive – listed in Annex 1 and as a migratory species. Chesil beach is also the breeding site of **Ringed plover** classified in the UK as Red under the Birds of Conservation Concern 4: the Red List for Birds (2015).

Special Protection Areas (SPAs) are Classified under the EU Directive (79/409/EEC) ‘the Birds Directive’, **with the objective of protecting** and managing areas which are important for rare and vulnerable birds as they are important grounds for breeding, feeding, wintering or migration. The Chesil and Fleet EMS includes a Special Area of Conservation (SAC) and the Fleet SPA classified for rare and vulnerable birds (as listed on Annex I of the Directive) for regularly occurring migratory species, a SSSI and a Ramsar site. The Fleet RAMSAR site is an internationally valued wetland supporting saltmarsh and reedbeds making it internationally important for wintering ducks, geese, and swans and nationally important for breeding birds.

There is currently no indication of an eutrophication pressure on the ecology and key habitat features are well represented. Nitrogen oxides from air pollution are a significant cause of eutrophication (the enrichment of plant nutrients in water). The lagoon is best known for its underwater meadows of Eel-grasses and rare Tasselweeds and has the most extensive mixed population of these species in Britain, supporting many important species of birds, as well as protected seahorses (in the Castle Cove area) and other marine species. The potential **depositions of nitrogen oxides (NOX) from the stack emissions and additional construction and delivery lorries emissions threaten the seagrasses**, and could have a devastating effect, as even low levels can result in eutrophication, which increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, **resulting in the demise of protected marine plantlife**.

Eutrophication can reduce the populations of fish and invertebrates that birds depend on for food, putting the protected **Little Terns** at risk. Additionally birds are exposed to more airborne particles – or particulate matter (PM) – than humans because birds have narrow lung capillaries and a higher breathing rate and spend more time in the open air. Extra-fine particles, especially those less than 2.5 microns in diameter, are small enough to lodge into the deepest branches of the lungs. Hence, birds are highly vulnerable to atmospheric particulate matter. Ground-level ozone and nitrogen oxides also lead to negative effects on avian lungs (e.g. inflammation and lung failure).

Studies have shown that long-term exposure to polycyclic aromatic hydrocarbons (PAHs), toxic chemicals commonly emitted by traffic, may cause reduced egg production and hatching, increased clutch or brood abandonment, and reduced growth in birds.

Isle Of Portland SSSI - King's Pier Hollow (035) (starts within less than 30m from stack) - The unit supports coastal scrub on clay substrates on NE facing slopes, and includes one of the few areas of sallow scrub on the island. King's Pier hollow is one of the more sheltered areas on the island and is considered of value as a refuge for migratory birds. The unit's undisturbed scrub also supports good numbers of breeding birds perhaps most notably **whitethroat**. The main habitat is supralittoral rock, which is **sensitive to Nitrogen and therefore under threat from the stack emissions**.

The application of the Precautionary Principle in respect of the impact of the proposal on the Portland conservation designations, is of particular relevance and importance in the context of conservation and sustainable use of biodiversity and living natural resources. Species (as well as populations and sub-species) are genetically unique and irreplaceable — **their loss is irreversible**.

ISLE OF PORTLAND TO STUDLAND CLIFFS SPECIAL AREA OF CONSERVATION (SAC)

The open scrub-boulder scree areas on the undercliffs especially on East Weare have no equal anywhere on the South Coast and are perhaps unique with a combination of Oceanic, Southern Oceanic and Mediterranean-Atlantic bryophytes and lichens not known elsewhere in Britain.' **Great weight should be given to the importance of this habitat, a listed feature of the SAC.**

With the SAC habitat being in such close proximity to the waste incinerator stack, the deficiencies in the air quality assessment and the predicted increases in air pollutant concentrations there is **a high potential for the proposed development to have adverse effects on the integrity of the Isle of Portland to Studland Cliffs SAC.** However the Shadow Appropriate Assessment has not fully and properly assessed the potential increases in air pollution and therefore is not robust enough for Dorset Council to make their assessments for the Dorset Council's own HRA.

Construction related activities have the potential to result in increased emissions of dust during this period, which would have the potential for temporary localised impact on plant growth of calcareous grasslands that are a primary reason for the designation of the Isle of Portland to Studland Cliffs SAC. There is also the risk of effects on water quality including spillage of fuels or other contaminating substances or leaching of substances (for example cement) used in construction, which may negatively impact groundwater quality.

The steep limestone slopes to the south of the Powerfuel site, Verne Common, are a little overgrown with scrub so the extent of open grassland has been reduced, even so **2 very rare liverworts Cephaloziella baumgartneri** (Endangered) and **Southbya nigrella** (Vulnerable) grow on rocky outcrops in this area. Mature scrub has developed with its own lower plant flora that includes two species of **beard lichen, Usnea articulata** and **Usnea esperantiana** (both are GB Red list Near threatened), both are very sensitive to air pollution in particular Ammonia, NOx and acid depositions and would be unlikely to survive the air pollution from the waste incinerator. Lower plants and lichen species are features of calcareous grassland and scrub habitat, for which this SAC has been designated. These highly vulnerable components of this habitat are in close proximity to the PfP site.

Lack of sufficient scrub control and undergrazing has caused unfavourable conditions, although works are in progress, but not fully in place. Natural England need to secure favourable conditions through removal of scrub and potentially improved grassland management. **The impact of air pollution from the proposed development may prevent this part of the SAC being restored to favourable condition.** The air quality assessment in the PfP ES shows that emissions from the incinerator will result in the relevant Annex I habitat 1% threshold being triggered for a number of pollutants as listed in ES paragraph 10.127 (NOx, SO2, Ammonia, Acid deposition, & Nitrogen deposition), **the lichens and bryophytes that are a feature of the SAC habitat are vulnerable to increases in NOx.** With the SAC habitat being in such close proximity to the waste incinerator site, the deficiencies in the air quality assessment and the **predicted increases in air pollutant concentrations there is a high potential for the proposed development to have adverse effects on the integrity of the Isle of Portland to Studland Cliffs SAC.**

This SAC calcareous grassland habitat also supports the **Cretaceous Silver studded blue** butterfly, which **occurs nowhere else in the world** and has evolved to occupy an ecological niche that is unique because of the characteristics and vegetation of the island, along with **Adonis blue** butterflies. Both need calcareous grasslands to support their complex life-cycle which depends on specific larval food plants and ant hosts. **Increased air pollution could have a devastating impact on this habitat.** The pollutants released by the incinerator will enable plants such as grasses to over dominate, out competing the food plants that the Cretaceous Silver Studded Blue butterfly and other animals rely on. With the loss of their food plants, they will die out. Research has also shown many butterflies and moths rely on 'scent plumes' to find mates and food. The chemicals released when burning RDF will mask these scent plumes meaning that the butterflies and moths that rely on them are unable to find mates to reproduce or to find their food sources.

The proposed incinerator site abuts the Isle of Portland SSSI and contains Open Mosaic Habitat, an important habitat to the protected **Black Redstarts**, which are associated with sparse vegetation and stony ground, which is necessary for feeding. They occur on a variety of brownfield sites where the combination of bare ground, sparse vegetation and complex structure provides ideal habitat for them.

CHESIL BEACH AND THE FLEET EMS, SAC, SPA, SSSI AND RAMSAR

The Chesil and Fleet European Marine Site (EMS) includes a Special Area of Conservation (SAC) and a Special Protection Area (SPA), as well as being a Site of Special Scientific Interest (SSSI) and a Ramsar site. The Fleet is a RAMSAR site, an internationally valued wetland supporting saltmarsh and reedbeds making it internationally important for wintering ducks, geese, and swans and nationally important for breeding birds. The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats (**RAMSAR CRITERION 1**).

The Fleet supports 15 specialist lagoonal species and five nationally scarce wetland plants as well as ten nationally scarce wetland animals. Chesil Bank is one of the most important UK sites for shingle habitats and species (**RAMSAR CRITERION 2**). The site is also the largest barrier-built saline lagoon in the UK and has the greatest diversity of habitats and of biota (**RAMSAR CRITERION 3**). The inter-tidal mud flats support numerous wintering and passage waders, with up to 1,000 **Dunlin** and 1,500 **Lapwing**. Also to be seen are **Canada geese**, **coot**, **common teal**, **pintail**, **shoveler**, **gadwall**, **tufted ducks** and **common goldeneyes**. Flocks of common wintering gulls sometimes include more unusual species, like the **Mediterranean gull** (Wildlife & Countryside Act Schedule 1), which occur at the site in numbers exceeding the British nationally important thresholds, and whose numbers have increased in the Ferrybridge and East Fleet area. **Little egrets** are a familiar sight throughout the year. The Fleet's wader speciality is the **Kentish plover**.

This Ramsar site supports large numbers of wintering waterbirds on the lagoon, including the non-breeding **Wigeon**, which feed on the seagrass beds that are exposed at low tide, these ducks are a qualifying feature of the SPA, together with the **Little tern**. The **RAMSAR CRITERION 6** - species/populations occurring at levels of international importance include the largest resident **Mute Swan** population in the UK, which graze predominantly on the seagrass beds and the internationally important **dark-bellied Brent goose** which winter around the Fleet and feed mainly on the aquatic vegetation such as Eel-grass. The Fleet SPA also supports populations of **Common pochard**, and **Red-breasted merganser**. The intertidal areas of The Fleet are important for wintering birds, and there is evidence that the extent of these seagrass beds has declined in recent years. **The SPA and Ramsar site conservation objectives require that air pollution levels are maintained below critical loads and levels.**

On the stable landward side of the beach, large and nationally important populations of rare **Sea Kale** and **Little-robin**, a Red Data Book species, are also present. along with the Nationally Rare **Four-leaved Allseed**. Chesil Beach is the breeding site for Little Tern and **Ringed Plover**, the only sizeable populations of these species in South West Britain.

The salinity gradient, tidal waters and varied substrates, together with the **relative lack of pollution** in comparison to most other lagoons, has resulted in the Fleet becoming extraordinarily rich in wildlife. Outstanding communities of aquatic plants and animals are present, supporting large numbers of wildfowl and waders. The plant-life includes no less than 150 species of algae, in communities unlike those found anywhere else. Rarities include the filamentous **green algae** *Cladophora battersia* and *C. retroflexa*. **Foxtail stonewort** is listed as Vulnerable and is fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 and is listed as "Red List GB - Near Threatened", it is only known at 3 other sites on the south coast - **nutrient enrichment is a particular concern** since it encourages the growth of vascular plants against which this specialised stonewort cannot compete. The lagoon is, however, better known for its underwater meadows of **Eel-grasses** (*Zostera noltii* and *Zostera marina var. angustifolia*) and the rare **Spiral Tasselweed** and **Beaked Tassel-weeds** (*Ruppia cirrhosa* and *R. maritima*), holding the most extensive mixed population of these species in Britain. The **only known British population** of the **Scaly Cricket** occurs just above high water mark.

A Seagrass technical specialist from the Ocean Conservation Trust, has raised a concern that there is no evidence by the developer that there will be no effect on the features of the Chesil and the Fleet SAC. He goes on to say that most of the SAC's water exchange occurs through the narrow channel that links it to Portland Harbour and the OCT is concerned about the effects on extensive populations of eelgrass *Zostera* and three species of tasselweed *Ruppia*, that are primary features for the SAC designation. Seagrass beds on Atlantic infralittoral sand (non-Macaronesian) are critically

endangered of which the fleet is a prime example of this habitat. The **potential depositions of nitrogen oxides threaten the seagrasses**, which increases plant growth and consequently Algal blooms decrease light penetration, and prevents adequate photosynthesis, ultimately resulting in demise of protected marine plantlife.

The Fleet also supports the highly unusual **looping snail** and **sea slug** both are only known on one other British site. Other notable invertebrates present include the **sponge** *Suberites massa* and the **burrowing anemone**, both of which have been found at only two other localities in Britain. Another **rare anemone** *Nematostella vectensis*, is known from only a few other British localities and nowhere else in Europe. The Fleet is the **only significant estuarine breeding area for fish** between Swanage and Seaton and is one of the few nurseries of **Bass** in Britain. In all, 23 species of fish have been recorded, including the **Goby**, known otherwise only from Portland Harbour and the river Helford, a **very localised, rare and protected species**.

The ES Tech Appdx K2 states that “the proposed development is located sufficiently remote from the statutory designated sites and therefore no impacts on these are anticipated as a result of the development. The proposals are unlikely to impact on supporting habitat, such as foraging resources for the species listed above during the winter months. This is because the water adjacent to the development area is not suitable foraging habitat for the designated species during the winter period” Due to the inadequate SAA and bird surveying there is no evidence that this statement is true .

The Shadow Appropriate Assessment concludes that “the increased levels of air pollution affecting the SPA and Ramsar habitat will have no adverse effect on the integrity of these sites”. However, as has been identified, the air quality assessment has some major faults and the Shadow Appropriate Assessment has used incorrect data on which to predict impacts. As a consequence, **the conclusion that there will be no adverse effect on the SPA and Ramsar site cannot be relied upon until these errors have been addressed.**

MARINE PROTECTED AREAS: In addition to the terrestrial conservation designations there are several marine designations, however these have been ruled out by the Shadow Appropriate Assessment and appear to be considered to have no potential for significant effects on any of the internationally and nationally designated sites in the study area as a result of operational process emissions from the ERF, and have been scoped out for no evidential reason.

The designations in the vicinity of the proposed location of the waste incinerator include the marine protected areas designated as OSPARs, which are areas for which protective, conservation, restorative or precautionary measures have been instituted for the purpose of protecting and conserving species, habitats, ecosystems or ecological processes of the marine environment. OSPAR is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic.

The Chesil and The Fleet OSPAR Habitats listed in Annex I to the ‘Habitats’ directive designation justifications are: Annual vegetation of drift lines, Atlantic salt meadows and Mediterranean and thermo-Atlantic halophilous scrubs, with EUNIS habitat listed as Coastal saltmarshes and saline reedbeds. The species with protection status are the **Little Tern** and the **Eurasian Wigeon**. The Chesil Beach and Stennis Ledges OSPAR protected species is the *Ostrea edulis* (Oyster). The Portland Harbour mud flats are listed as an OSPAR site (2km from the stack) with traffic emissions from HGVs on A354 passing right over the estuary entrance.

Nutrient status is important for the structure and functioning of the lagoon and its communities. Nitrogen oxides (NOx) from air pollution are a significant cause of eutrophication – the excess of nutrients in a body of water. **Eutrophication can reduce the populations of fish and invertebrates that birds depend on for food.**

The Chesil Beach and Stennis Ledges Marine Conservation Zone (MCZ) in Lyme Bay covers the exposed rocky shore habitats at the eastern end and are dominated by **barnacles** and **limpets**. Below the low water mark, rocky habitats are rich in seaweeds and animals such as **sponges**, **sea mosses** (*bryozoans*) and **corals**, like the pink sea-fan. The **pink sea-fan** is extremely slow-growing and because they grow to 30cm or more in height they can be vulnerable to damage. Rocky habitats on the seabed also provide a suitable habitat for inshore commercial fish species, such as **common lobster** and **brown crab**. **Native oysters** have also been recorded.

Conservation areas within 10km of the proposed site include fish spawning areas for **Sprat** and **Sole** in Weymouth Bay. Fish Nursery Areas for **Whiting** and **Lemon Sole** at Lyme Bay and in The Fleet, as well as **Mackerel** in the entire area, and **Bass** at the Fleet. The various conservation designation also provide protected seabird feeding areas in The Fleet and Portland Harbour. All tidal waters of the Fleet inside Ferrybridge are designated as a Bass Nursery Area. The Fleet is the only significant estuarine breeding area for fish between Swanage and Seaton and is one of the few nurseries of **Bass** in Britain.

The Studland to Portland SAC is a marine designation, containing biologically and topographically diverse areas of reef considered to be of excellent quality and structure. The reef habitats have been designated due to their outstanding diversity and excellent conservation value on an international scale. **Mussel beds** occur east of Portland Bill amongst the **kelp**. Species associated with this habitat include the common **starfish** and very large **whelks** *Buccinum undatum*. **Pink sea fans** frequently occur on circalittoral rock throughout the site and provide an important habitat for two associated notable species; the **sea slug** *Tritonia nilsodhneri* and the nationally rare **sea fan anemone** *Amphianthus dohrnii*

The rare **cup coral** has been recorded on the circalittoral reefs around Portland, while the elegant **anemone** *Sagartia elegans* occurs on tide-swept circalittoral rock in the same area. A wide variety of sponges have been recorded. Species include fragile, erect and branching sponges such as the **yellow staghorn sponge**, the *Raspailia ramosa*, as well as the rarely recorded **Adreus fascicularis**. South of Portland Bill is dominated by **kelp** biotopes, with hydroids, bryozoans, soft corals and sponges. Two species of cup corals, **southern cup coral** and **Devonshire cup coral** have been recorded on large boulders off Portland Bill.

Due to the proximity of the Studland to Portland SAC to the proposed incinerator site, not only is there the threat from air pollution, but there is a potential for accidents to cause damage to the marine environment through “spillages”: There is a potential for a range of spillages involving significantly different materials, most of which are toxic, and include waste residues (incinerator bottom ash and fly ash), endangering coastal waters and marine life. **Given the proximity to coastal waters, there is also a major concern that fire water run-off from a building that contains toxic materials, could cause a devastating impact on the marine environment.**

PfP have admitted that post-construction, “there is the potential for coastal water quality to be affected by leaks and spills from plant, vehicles and equipment used across the site, spillage of fuels, oil or waste materials on the local road network from HGV traffic accessing the site, additional ship movements related to the delivery of RDF to the site or the removal of bottom ash, and contaminated runoff from the site.” However they have concluded that “given the distance of the SAC from the proposed development it is concluded that, provided the measures set out in the CEMP are followed, no adverse impacts on Chesil and the Fleet SAC will occur”. There are no measures set out in the CEMP to prevent carbon dioxide from raising the acidity of coastal waters, nor preventing the fall out of particulate matter containing the heavy metals mercury and cadmium, as well as Nitrogen and Ammonia. **Powerfuel needs to be issued with a Regulation 25 notice to provide robust evidence that the coastal waters of Portland will not suffer from raised acidity levels or heavy metals in years to come, putting the protected reefs and shellfish at risk.** If robust evidence cannot be provided, then the Precautionary Principle needs to be applied in respect of the impact of the proposal on the Portland conservation designations.

Carbon dioxide reacts with seawater to form carbonic acid, which causes the acidity of seawater to increase. Carbon pollution is changing the ocean’s chemistry, slowing its ability to uptake CO₂, making it more acidic, and harming shellfish and other marine life we depend on. The protected Marine Conservation reefs and shellfish such as the protected native oyster which is to be found in the Fleet Lagoon, will be under threat a few years down the line, as the waste incinerator burns 570 tonnes of waste a day, 570 tonnes of carbon a day will be dispersed on our coastal waters, which will raise the pH levels and **cause acidification of the water, preventing our shellfish from forming their hard shells, leading to thinner shells and the death rates of the shellfish will go up.**

The developers have “identified habitats within the European sites that would be sensitive to additions of certain pollutants, notably nitrogen and ammonia,” and they state they have made every

effort to “to reduce these emissions (particularly nitrogen and ammonia) on relevant areas of the European sites” and that “the final stack height is the result of efforts to reduce the deposition of aerial pollutants on European sites in proximity to the application site. As such the increase in stack height is regarded as mitigation”. It beggars belief that a stack that finishes level with the calcareous grasslands and 50m below the top of the hill can be considered mitigation, instead of dispersing the toxic emissions well above any receptor, the stack will be delivering the highest concentration of pollutants directly onto the protected SAC, SSSI and local SNCIs.

At a recent presentation by PfP we were told that we didn't need to be concerned about the air pollution over the terrestrial SACs and SSSIs as the majority would fall on the sea, which means that Powerfuel are unaware of the devastating impact that the mercury and cadmium emissions could have in time on our fishing industry and our populations of fish and shellfish. Despite admitting that there would be emissions landing on our coastal waters, Powerfuel have omitted any form of consideration of impacts of water pollution on Isle of Portland to Studland Cliffs SAC / Studland to Portland SAC, and the Marine Conservation Zones.

OTHER OMISSIONS not covered by the PfP SAA are the RSPB sites at Lodmoor and Radipole, which fall within a 10km zone of the proposed site and could well be impacted by the air pollutants.

Another impact overlooked is a design flaw, as there is a potential for birds to crash into the full length glazing, as birds will see an open space reflected in the glazing and fly at speed toward it, resulting in death or severe injury. The protected Black Redstarts are at particular risk of flying into the glazing as these birds favour this habitat.

There is also no consideration given to the additional PfP HGV lorries in combination with the new warehousing being built for Glencore Agriculture above the proposed site. This site is a new distribution centre for animal feeds and in combination with the PfP lorries could tip the nitrogen levels in the Ferrybridge area above the critical levels, this area is part of the SACs and SSSIs and should have been included in the air quality assessment. Another proposal in the pre-planning stages is the Eden Project Portland, which will potentially have coach loads of tourists visiting the new tourist attractions, again this has not been taken into consideration.

Another pollutant omitted from the Shadow Appropriate Assessment is one known by one of the Directors of Powerfuel Portland, Giles Frampton, as earlier in the year he was “tweeting” with another of his many companies, Skyfall Energy, and he acknowledged how damaging HGV lorries are, but not just from the exhaust emissions, but from the tyres. Giles Frampton says the greater issue are the tiny particles that every aquatic creature, and the higher food chain ingests. So Giles is acknowledging that as the HGVs pass over Ferrybridge, his 80 lorry movements a day will cause our bass in the nursery in The Fleet to ingest tiny particles of tyres, that we will later ingest when enjoying a locally caught Sea Bass. Although it is known that the HGV lorries pose a threat to children walking to school from the exhaust fumes, it appears there is an added threat of particulate matter from HGV tyres, which Giles Frampton also seems to have omitted from the planning application



The ecologically surveying has not been robust, there were no nocturnal bat surveys, the bird surveys were inadequate, the great crested newts brushed aside, despite there being ponds in the East Weares area that are known as habitat to local great crested newts, this habitat could be impacted upon by air pollutants, but has not been investigated.

It would seem the air quality assessment and the environmental assessment are both not fit for purpose and would not enable Dorset Council and Natural England to carry out a robust Habitats Regulations Assessment.

Debbie Tulett
Portland Resident