



Neutral Citation Number: [2019] EWHC 2368 (Admin)

Case No: CO/4319/2018

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
ADMINISTRATIVE COURT
PLANNING COURT

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 06/09/2019

Before:

SIR DUNCAN OUSELEY
Sitting as a Judge of the High Court

Between:

JOANNA THOMSON	<u>Claimant</u>
- and -	
MARINE MANAGEMENT ORGANISATION	<u>Defendant</u>
-and-	
DOVER HARBOUR BOARD	<u>Interested</u>
NATURAL ENGLAND	<u>Parties</u>

Marie Demetriou QC and Daniel Piccinin (instructed by **Richard Buxton & Co**) for the
Claimant

Sasha Blackmore (instructed by **Browne Jacobson**) for the **Defendant**

Richard Moules (instructed by the **Solicitor to the Dover Harbour Board**) for the **Dover
Harbour Board**

Hearing dates: 5 June 2019

Approved Judgment

Sir Duncan Ouseley:

1. On 26 July 2019, the Marine Management Organisation, MMO, the Defendant, granted a marine licence, subject to conditions, under s71 of the Marine and Coastal Access Act 2009 for dredging subtidal sand in an area of the Goodwin Sands. These well-known sandbanks lie off the east coast of Kent. They are important as habitats for seabed flora and fauna, for protection against coastal erosion, as a safe anchorage, and as the location of shipwrecks and latterly, wrecks of aircraft.
2. The Dover Harbour Board, DHB, the Interested Party, applied for the licence. It intends to use the dredged sand as aggregate for land reclamation and berth construction in Dover Western Docks, DWD, as part of the DWD Revival Project, a £246m consented, nationally significant, infrastructure project to increase port capacity and to improve port facilities. The licence permits it to dredge up to 2 million m³ of sub-tidal sand from the western edge of the South Calliper Sandbank within the Goodwin Sands. In fact, DHB now proposes to dredge only 1.2 million m³ because the timetable for the DWD Revival Project meant that it had had to source some of the necessary aggregates elsewhere. The proposed dredge areas amount to 2.36 km²; subtidal sand covers 160 km² of the 177 km² of the Goodwin Sands.
3. Joanna Thomson, the Claimant, is one of the Goodwin Sands SOS Group, which opposes the dredging. She lives in Walmer, and can see the Goodwin Sands, some 5 kilometres off shore, from her house. She has visited them. She and her group value them.
4. She challenges the grant of the licence by judicial review on one point. Before granting the licence, the MMO needed to make an Environmental Impact Assessment, EIA, Consent Decision under the Marine Works (Environmental Impact Assessment) Regulations SI 2007/1517, the EIA Regulations. It did so on 25 July 2018, and the attack on that precursor decision is the focus of the challenge to the grant of the licence. Put shortly, Ms Demetriou QC, for Ms Thomson, contends that the MMO ignored or failed to approach correctly in law an attribute of the Goodwin Sands, which it was mandatory for it to consider, applying the Joint Nature Conservation Council, JNCC, Guidance of 2004. Alternatively, the MMO had failed to explain why that Guidance had not been followed. The attribute in question was topography, defined in the Guidance as

depth and distribution, also referred to as morphology. The response in short was that the JNCC Guidance did not apply to the assessment of impact, but in any event, in such an assessment, the impact of the changes in topography is what was relevant rather than the changes to the topography in itself. All impacts had in fact been considered at length. If the MMO ought to have applied the JNCC guidance, and had not done so, the reasons for its approach had been adequately explained.

5. Throughout the licensing process, the Goodwin Sands were a proposed or recommended Marine Conservation Zone, pMCZ or rMCZ, as the documents variably refer to it. On 31 May 2019, the Goodwin Sands Marine Conservation Zone was designated by the Secretary of State for the Environment, Food and Rural Affairs, by Order SI 2019/18. There is no statutory protection for a p/rMCZ, in contrast to the position with some other proposed or candidate designations. However, the MMO, fully aware that designation was likely, reached its decision to grant a licence approaching the effect on the pMCZ, so far as possible, as if the designation had already been made. It had no statutory obligation to do so.

The statutory framework

6. S69 of the Marine and Coastal Access Act 2009, MCA, provides for the mandatory considerations for the grant of a licence. The MMO must have regard to the need to protect the environment and human health, to prevent interference with legitimate uses of the sea “and such other matters as the authority thinks relevant.” The licence is granted under s71 of the MCA.
7. Under Part 3 of the EIA Regulations of 2007, the MMO could not deal with the application for a licence without certain information and an Environmental Statement, ES. It had to reach its decision, by reg. 22, on the basis of the licence application, the ES, any further information, public representations, and any responses from Natural England. It had to take into account the direct and indirect effects of the project on various matters. Schedule 3 provides for the content of an ES. It requires a description of the aspects of

the environment likely to be significantly affected; it should consider direct and indirect effects, secondary effects, short and long term effects, and temporary effects.

8. The 2009 Act provides for the creation of MCZs. The Goodwin Sands MCZ falls within s116(2) (a), as an area of the sea within the seaward limits of the territorial sea adjacent to the UK. By s117(1), an MCZ can be designated if it is thought desirable “for the purpose of conserving (a) marine flora or fauna; (b) marine habitats or types of marine habitat; (c) features of geological or geomorphological interest.” The Designation Order must state the protected features of the MCZ and the conservation objectives for it. There is a duty in s123 to designate MCZs under s116, so as to contribute to achieving the objective of forming a network of sites, which contribute to the conservation or improvement of the marine environment in the UK marine area.

9. There are general duties in s125 on the MMO, and other public authorities, which find expression in relation to licensing decisions in s126. S126(1)(b) applies s126 where the act for which authorisation is sought is “capable of affecting (other than insignificantly) (i) the protected features of an MCZ; (ii) any ecological or geomorphological process on which the conservation of any protected features of an MCZ is (wholly or in part) dependent.” S126(2) requires the authority, if it believes that there is or may be a significant risk of the act hindering the achievement of the conservation objectives stated for the MCZ, to notify the appropriate statutory conservation body of that fact. In this case, that body is Natural England. Authorisation cannot then be granted unless either the licence applicant satisfies the authority, here the MMO, under subsection (6), in what is called a Stage 1 assessment, “that there is no significant risk of the act hindering the achievement of the conservation objectives stated for the MCZ”, or under subsection (7), in a Stage 2 assessment, “that (a) there is no other means of proceeding with the act which would create a substantially lower risk of hindering the achievement of those objectives, (b) the benefit to the public of proceeding with the act clearly outweighs the risk of damage to the environment that will be created by proceeding with it,” and (c) equivalent compensatory measures are undertaken.

10. In this case, although the MCZ had not been designated, the MMO applied this approach. It was satisfied by the DHB under subsection (6), through the Stage 1 assessment which it carried out, and around which so much of the argument turned, that

there was no significant risk of the dredging, controlled by conditions, harming the conservation objectives of the pMCZ. Ms Demetriou contended that had the MMO considered the attribute of topography, as she submitted the MMO should have done, it ought to, or at least might well, have gone on to a Stage 2 assessment, under subsection (7).

11. Advice and guidance are dealt with in s127 of the 2009 Act. The “appropriate statutory conservation body”, Natural England here, may give advice and guidance as to the matters which are capable of damaging any protected feature, or any geological or geomorphological process on which the conservation of the protected features depends and on the furtherance of the conservation objectives or what may hinder them. By s127(2), such advice may be given in relation to a particular MCZ or MCZs “or generally”, and to a particular public body or bodies “or generally.”

12. The JNCC is a statutory body, set up under the Environmental Protection Act 1990, and now constituted under the Natural Environment and Rural Communities Act 2006, s31. Its principal members are the four UK statutory conservation bodies of which Natural England performs that role in England. By s34, certain functions given to the UK statutory conservation bodies can only be discharged through the JNCC; they include “establishing common standards throughout the United Kingdom for the monitoring of nature conservation...”; s34(2)(c). The Claimant relied on that. By s3(4), Natural England must have regard to common standards established under that provision, in discharging its functions in relation to monitoring nature conservation. The other tasks to which such common standards are relevant are not material here. By s35, the JNCC may give advice to Natural England, and the other UK statutory conservation bodies, on any matter connected with their functions, which arises throughout the UK and raises issues common to the UK’s constituent parts, or affects the UK as a whole. Natural England, and the other UK statutory conservation bodies, must have regard to any such advice.

The MMO’s decision-making process and decisions

13. **The ES:** this was prepared by and on behalf of DHB, and considered by Natural England and the MMO for the Stage 1 Assessment. The ES was generally accepted, with the

Further Information, and the mitigation measures and other conditions, at the Stage 1 assessment, The EIA Consent Decision and Decision Report, ECDR and the licence decision.

14. The ES scoping report had identified the direct and indirect effect of the changes to topography which dredging would bring about. The direct effect was the removal of sand affecting the physical form of the seabed, and potentially indirectly affecting the texture of the sediment depending on what sands were targeted, and on the hydrodynamic and sedimentary process regime. Modelling of waves, tidal currents, sediment transport and morphology had to be undertaken using a reasonable worst case. Changes in seabed topography were to be minimised to avoid significant effects on slope stability, localised water movements, and changes to the physical conditions of the seabed, increasing disturbance and changing particle size distribution.
15. Topographic issues were considered in various sections of DHB's ES: section 6 dealt with coastal processes and hydrodynamics, section 8 with benthic ecology and section 16 with flood risk, and in DHB's further information of September 2016, responding to the MMO's request.
16. Section 6.5 discussed various aspects of the baseline environment for coastal processes and hydrodynamics, the last of which was sea bed morphological change. It concluded that between 1995-2007 the volume of the South Goodwin Sands and South Calliper Bank had been maintained but that its morphology had altered, with the bank becoming higher, with deep water sediment being transported to higher levels. "Even accounting for losses due to [past] dredging, the bank appears to be in a state of dynamic equilibrium, with morphological changes that are not manifest in dramatic volume changes."
17. Section 6.6 dealt with various effects of dredging: an increase in suspended sediment concentration, the deposition of fine sediment from the plume, the effects on waves and tidal currents following dredging, the effect on sediment transport during dredging and finally "Post-dredge morphological evolution." Here the ES commented that the proposed removal of 2.5M m³ of sand from the edge of the bank was a greater volume than the natural change in the volume of the bank recorded between 1995 and 2006. But

the removal of this volume would not change the existing sedimentary processes and, therefore, would not have any significant effect on the morphology of the much larger-scale bank, which would continue to evolve within the bounds of its current patterns of erosion and accretion. Nor would the removal change the nature of the seabed substrate because of the depth of sediment capping layer left; nor would it discernibly change sedimentary processes of accretion and erosion. Post-dredge morphological evolution should not therefore affect the re-colonisation and recovery of benthic communities, nor would it have a morphological evolution effect at the coast.

18. The potential impacts of dredging on benthic ecology were dealt with in section 8 of the ES. There could be a direct loss of benthic and epibenthic species in the dredged aggregate, but as the majority of species within the dredge area were present elsewhere in the study area, this would represent a minor loss of key features. The species within the proposed dredge footprint were of negligible value, importance or rarity, and were not designated; their diversity was low. Recovery and re-colonisation would be easy, and they were not sensitive to the dredging. The removal of epifauna and infauna in the dredged material and lowering the seabed were considered to be of low magnitude. The broad scale habitat of subtidal sand had low sensitivity to the direct impact of dredging because of the high tidal current velocities experienced in the high-energy environment, where physical and biological recovery was rapid as dredged tracks were quickly eroded, and because the faunal communities comprised many small bodied, rapidly maturing, opportunistic species already adapted to high levels of disturbance. The increase in suspended sediment from the plume, and the effect of the deposition of that sediment smothering benthic species was also considered, followed by the impact of hydro-dynamic changes on patterns of sediment movement on benthic communities. This involved consideration of wave height changes, which would be very little, and tidal currents, where no widespread effect was anticipated. The impact of hydro-dynamic changes in patterns of sediment movement was thought negligible: the unstable nature of the sandbanks was a key feature of the habitat and in defining the type, including their negligible sensitivity to change, and abundance of species in the studied area.

19. In the light of the Claimant's contentions, it is useful to consider the consultation responses during the ES process provided by Natural England, one of the six component bodies, and one of the four national statutory nature conservation bodies within the

JNCC. Its response of 21 January 2016 to a request made on behalf of DHB's consultants Royal Haskoning, RH, agreed that lowering the seabed in the range of 2-4 ms would be unlikely to lead to changes significant to the ecological or physical functioning of the site, subject to the results of the hydrodynamic modelling study.

20. Its more elaborate consultation response, dated 21 July 2016 to RH seeking its advice on the ES it had prepared, commented that, although the quantity of sand to be removed, at 2.5 million m³, was likely to be a very small proportion of the overall volume of sand present in the Goodwin Sands sediment system, the EIA should state whether this reduction in the total quantity of sand present "could result in any measurable significant topographic change to the sandbank." This comment related to the section in the ES dealing with coastal processes, hydrodynamics and physical processes which could be affected by dredging.
21. Natural England considered these sands as a feature of the pMCZ, and as the only feature which could be significantly affected by the direct and indirect pressures created by dredging. Notwithstanding the absence of a formal conservation advice package, it could identify the generic properties important for maintaining the condition of subtidal sand. It commented in relation to "Feature extent", that the direct removal of sand would not result in a loss of spatial extent i.e. the area of the subtidal sand feature present on the site or within the MCZ network. Its comments were much to the same effect as later found in the Stage 1 assessment itself. A footnote added: "Unlike for Annex I sandbank features, topography and volume is not an attribute of the MCZ interest feature Subtidal Sands." The Claimant put weight on that comment, also found in the Stage 1 assessment.
22. Natural England also commented that it did not expect any change in sediment type or distribution of sediment types in the pMCZ, for various reasons also discussed in the ES. It dealt with the species composition of component communities very much along the lines already referred to in the ES. The same applied to sediment movement and the hydro-dynamic regime: it recognised that the Goodwin Sands was a highly dynamic site, influenced considerably by wave and tidal processes. It concluded that the hydro-dynamic modelling study did not indicate that wave conditions, tidal flow velocities or sediment transport characteristics of the Goodwin Sands would be altered to a level

where they caused significant changes in the ecological or physical functioning of the Goodwin Sands.

23. On 5 August 2016, the MMO asked for further environmental information from DHB. One point it raised was whether the removal of 3,750,000 tonnes of sand could result in any measurable or significant topographic change to the sandbanks. RH, on behalf of DHB, answered on 23 September 2016. The dredging would:

“alter the morphology (or topography as it is referred to... by the MMO) of South Calliper sand bank through the learning of the seabed within the proposed dredge area. However, the modelling undertaken to inform the ES shows very limited magnitude and spatial extent of any consequential effects of the deepened bed levels the driving forces of sandbank morphology (tidal flows and waves). In addition, the ES identified limited effect on sand transport and patterns of morphological change.... The modelling undertaken to inform the ES... indicates that any effects of the proposed dredge will not measurably alter the physical processes which are driving the ongoing morphodynamic change of the sandbanks therefore, it is important to note that the morphology of the sandbank will continue to change by natural processes; future morphological development will not be measurably altered by the effects of the proposed dredging.”

24. Cefas, advising the MMO, did not think that that had clearly answered the question on measurable and topographic change, and wanted a chart of the modified topography at some stage, which DHB said it would have when the dredging plan was finalised. Cefas also wanted a restriction on dredging depth to those which had been modelled, which DHB accepted. Natural England responded to the MMO’s further round of consultation welcoming the acceptance by DHB of a condition limiting the dredging depth to a maximum of 1.95m.

25. On 20 December 2016, the MMO accepted that no further tidal flow modelling was required subject to a depth restriction on dredging. Later Natural England sought and obtained an increase in depth of material to remain after dredging.

26. On 12 June 2017, Cefas, in response to the Goodwin Sands SOS group's contention that there was no evidence for the view that future morphological development would not be measurably affected, commented to the MMO in advice that it accepted and set out in the ECDR, and which I set out more fully below: whilst it was possible that dredging would have a local morphological impact, there was no evidence that that would be sufficient to alter the naturally-changing morphology of the much larger bank system.
27. **The non-statutory Stage 1 assessment:** this was undertaken by the MMO drawing substantially upon the ES and Further Information provided by DHB. However, as the MMO was assessing the effect on the pMCZ as if it were already an MCZ, it used the Conservation Advice Package for the Thanet Coast MCZ as a suitable proxy for the package which the Goodwin Sands pMCZ would have when designated, and as advised by Natural England.
28. The Goodwin Sands MCZ, when actually designated, did indeed include "subtidal sand" in the statutory designation, as one of the protected features of the MCZ, as anticipated. The conservation objective for the MCZ was that its protected habitat features should remain in or be brought to a favourable condition, i.e. its extent should be stable or increasing, and its structure and functions, and the quality and composition of its characteristic biological communities, should be such as to ensure that it remained in a healthy condition, and not deteriorating. However, for the purposes of determining whether a protected feature was in a favourable condition, any alteration brought about entirely by natural processes was to be disregarded. This had been the basis of the Stage 1 assessment analysis. Topography was not an attribute of the subtidal sands feature.
29. The Thanet Coast MCZ and the proposed conservation objectives for the Goodwin Sands pMCZ were used to ascertain attributes which were ecological characteristics or requirements of the designated species and habitats within the site. These were those attributes which best described the site's ecological integrity, and which, if safeguarded, would enable the conservation objectives to be achieved; "important attributes", were those which "will most efficiently and directly help to define condition, these attributes should be clearly capable of identifying a change in condition." Those thought to be sensitive to individual pressures were brought within the scope of the Stage 1

assessment. The Advice Package was used to assess the impacts of certain pressures on those attributes of the subtidal sand feature.

30. These attributes were: the total extent and spatial distribution of subtidal sand, the species composition of component communities, the natural levels of turbidity, the distribution of sediment composition types across the feature compared to a baseline to ensure continued structural habitat integrity and connectivity, and all hydrodynamic and physical conditions so that natural water flow and sediment movement were not significantly altered or prevented from responding to changes in environmental conditions. The conservation objective for the subtidal sand feature at the Goodwin Sands pMCZ, was to maintain it in a favourable condition. If those attributes were maintained in a favourable condition, and aqueous contaminants were reduced, the feature would be maintained in a favourable condition.
31. Various pressures were judged in the Stage 1 assessment to be low risk and were screened out in relation to the features considered not to be sensitive to those pressures. Those screened out included, for subtidal sand, wave exposure changes. The assessment then presented a tabulated consideration of the various pressures, which had not been screened out, in relation to their effect on the attributes of the subtidal sand which they could affect, and the consequent effect on the various conservation objectives for subtidal sand. The target was to maintain the favourable condition of the feature. The contribution of the attribute to the ecological structure and function of the site was explained. Some of these bear on the significance of the issue raised by the Claimant, namely whether the topography of the South Calliper sandbank was considered lawfully.
32. The first pressure analysed was the abrasion or disturbance of the substrate on the surface of the seabed and below the surface. The attributes of the subtidal sand feature considered in relation to the pressure of abrasion were the “total extent and spatial distribution of Subtidal Sand” and the “species composition of component communities”. The pressure of abrasion was considered against the extent to which it affected the target of maintaining the total extent and spatial distribution of subtidal sand and its species composition. These attributes each contributed to the ecological structure and function of the site. “Extent” dealt with the presence and area of the habitat across the site as a whole; “spatial distribution” described the more detailed location pattern of the habitat

across the site, which would influence the component communities present and help increase the health and resilience of the feature; it referred back to JNCC Guidance of 2004. A reduction in extent would alter the biological and physical functioning of the feature. Sediment character was important in determining the biological communities present; varied sediment types and grain size ensured structural complexity and connectivity. This pressure was capable of affecting protected features of the MCZ processes on which they were dependent: subtidal sand would be subject to direct disturbance of the surface substrate, but this would be temporary and spatially limited, and within a naturally dynamic environment. The effect could also be mitigated, and areas where resource thickness was too slight for re-colonisation by benthic communities would be excluded from dredging. The conservation objective would not be hindered: full recovery of the fauna was likely within five years of the cessation of the dredging, based on research which it identified, in the light of the relatively sparse faunal assemblage, their “high recoverability to physical disturbance” and the conditions to be imposed.

33. Changes in suspended solids and siltation (water clarity and light) were considered as a result of the dredging hopper plume: temporary increases were unlikely to hinder the conservation objectives.
34. A further pressure particularly considered was habitat structure changes from the removal of substratum. The condition target was to maintain the relevant attribute in favourable condition; the relevant attribute was the species composition of component communities. Habitat structure and species composition included a consideration of the overall range of species present and their relative abundance, which human activities could alter without changing the overall community type. Within each component community species, composition and population structure should be taken into consideration to avoid diminishing biodiversity and affecting the ecosystem functioning within the habitat; again, a reference was made to JNCC 2004 Guidance. The composition of these sediment communities would change with pollution of the habitat or other forms of disturbance, but would also be subject to significant natural variation annually. Benthic invertebrate communities were a good indicator of the health of the feature, if assessed over time.

35. The table stated that the area of dredging was characterised by three groups of fauna, characteristic of and well represented in the mobile sand covering most of the South Calliper Bank. As they were characteristic of mobile sandy habitats, they were relatively robust with high potential to recover following disturbance. Areas outside the proposed extraction area displayed higher species diversity and abundance.
36. The faunal groups could also be affected indirectly by increased suspended sediments, plume deposition, changes to hydro-dynamics and changes in habitat affecting the potential for re-colonisation. The ES had stated that there would only be a low magnitude of change to baseline suspended sediment conditions to which the potentially affected species had a low sensitivity. Plume deposition would be a fraction of a millimetre, and probably resuspended on the next tide; this was negligible. The predicted changes in tidal current velocities were within the ranges of natural variation, and therefore unlikely to affect the continued formation and maintenance of bedforms. Recovery rates following dredging were quickest in highly disturbed sediments dominated by opportunistic species such as at the Goodwin Sands. Predicted changes in waves, tidal currents and sediment transport were expected to be localised and generally within the large range of natural variation associated with Goodwin Sands, and so affected species, likely to be opportunistic, could recover quickly from impacts associated with sediment erosion and accretion.
37. In any event, the impacts would be mitigated by the exclusion from extraction of areas where resource thickness was inadequate for re-colonisation, for which specified monitoring had to be undertaken under the licence.
38. The table concluded that the conservation objective would not be hindered by any impacts from this pressure to the subtidal sand feature. Full recovery was likely within five years of the cessation of dredging. Species affected had a high recoverability, and adjacent areas supported those species, which would therefore be available to support re-colonisation. A monitoring and adaptive management plan had been agreed to ensure that sediment composition remained within defined limits set by the pre-dredge baseline.
39. A further pressure was described as “Physical change (to another sediment type)”, where again the condition target was to maintain the attribute in a favourable condition. The

attribute was the distribution of sediment composition types across the feature. The structure of sediment composition, distribution and character was important in determining the biological communities present; variation in sediment type and grain size ensured structural complexity and connectivity.

40. The proposed dredging was capable of affecting the protected features of the pMCZ, as it would involve the direct removal of part of the subtidal sand feature. But it would not involve a loss of its spatial extent, that is the area where the subtidal sand was present in the site:

“as topography and volume are not attributes of the pMCZ interest feature Subtidal Sand. The surface sediment layer of fine sand (which represents the Subtidal Sand pMCZ feature) is a homogenous deposit overlaying cretaceous chalk. If dredging was to expose the lower layer of chalk the seabed would no longer support the same benthic and epi-benthic species that existed prior to the commencement of dredging and would not represent Subtidal Sand feature.”

41. (“Spatial extent” does not include topography and volume, and the Claimant points to that in support of the contention that topography has not been considered lawfully).
42. Mitigation, by limiting extraction where resource thickness was inadequate and requiring a minimum of 1m of similar subtidal sand substrate to remain at the cessation of dredging, would ensure that the seabed sediment composition was suitable for the re-colonisation of benthic communities at the cessation of dredging. The conservation objective would not be hindered, because the depth of sand to be removed would be restricted to ensure a surface sediment layer remained after dredging to allow recovery of the existing faunal assemblage. This meant that the area would still function as and represent subtidal sand habitat. The licensed area and buffer zone would be surveyed before, during and after dredging to validate predictions, monitor the position, and to carry out any remediation necessary.
43. Dredging could also alter tidal and current action affecting sediment transport; the objective was to maintain a favourable condition so that natural water flow and sediment movement were not significantly altered, or prevented from responding to environmental changes. Faunal assemblages and seabed conditions could be altered by changes in the

level of physical disturbance and the mobility of surface sediments, brought about by changes in wave and tidal energy:

“The Goodwin Sands is a highly dynamic site, influenced considerably by wave and tidal processes dredging within the proposed licence area could lower the seabed to an extent where it alters tidal flow and the movement of waves both in and outside of the licence area.”

Significant changes in the movement of water could alter the physical and ecological processes of the MCZ:

“Changes in tidal flow and wave conditions can affect the way sediment is transported around the sandbank and can cause increased erosion or deposition in and around the proposed dredge area. These changes, if significant could cause a change in seabed morphology and alter the level of disturbance or shelter experienced at the seabed.”

HR Wallingford had therefore modelled the likely changes; the modelling suggested only small changes in the pattern of residual sediment transport, erosion and deposition, with no impact on the sediment transport processes which controlled the naturally changing form of the South Goodwin Sands, including the intertidal areas of the sandbanks. The pattern of sediment circulation would not be affected.

44. Natural England and Cefas, noting the Stage 1 assessment, agreed with the conclusions of the HR Wallingford modelling: wave conditions, tidal flow velocities and the sediment transport characteristics of the Goodwin Sands would not be altered to a level where they would cause significant changes in the ecological or physical function of the Goodwin Sands. This too would be mitigated by the conditions restricting the depth and tonnages of the aggregate dredging. Dredging would have no effect on the conservation objective because the changes would be relatively small and within naturally occurring levels. The dredge area already experienced high levels of natural disturbance.
45. Natural England’s formal statutory response was contained in its letter to the MMO dated 28 September 2017, after the MMO’s third round of consultation. The various

revisions reducing the volume of sediment to be removed were welcomed; no objection was raised, and topography received no further mention.

46. **The MMO Decision Letter, DL, of 26 July 2018:** it is not at the heart of the challenge. It states what material it has considered, and in particular the ECDR, of 25 July 2018. The licence contains a number of conditions, some aimed at giving effect to the restrictions on the depth of dredging to 1.12m generally, and to 1.95m in one part only.
47. **The ECDR:** this is an altogether lengthier document. It records the key reasons for the evaluation of considerations under both s69 Marine and Coastal Access Act 2009, and under the EIA Regulations. It noted that the benefits of this legitimate use of aggregate dredging for the Dover WDR were clear; marine aggregate dredging was an established and well-understood activity, and the MMO did not consider the impacts of this project to be significant. The UK Marine Policy Statement of 2011 recognised that dredging for marine aggregates should continue where consistent with the principles of sustainable development, “and in line with the relevant guidance and legislation.” The relevant guidance was not specified. No complaint is made of the way in which it set out the various legal duties, including in respect of the pMCZ. Natural England was among the consultees.
48. A very wide range of issues was raised. Under the heading “Coastal Processes, Hydrodynamics and Flood Risk”, Cefas, the MMO’s scientific advisers on benthic ecology, agreed with the assessment in the Environmental Statement, ES, that there was unlikely to be a significant effect on the wave climate and coastal processes on the Kent coast line, that any changes in tidal currents were unlikely to extend more than 1km from the application area, and:
- “that the predicted magnitudes of change in tidal current velocities are unlikely to affect sediment transport; and that bedforms are likely to continue to form and be maintained at Goodwin Sands. The MMO agrees with Cefas’ advice. Cefas advised that although there was a possibility for the dredging to have a local morphological impact on the sand bank, there was no evidence to suggest that the impact would be sufficient to alter the morphology of the much larger

Goodwin Sands system. Further, the Goodwin Sands system is a naturally dynamic environment, and bedforms are likely to continue to form and disperse throughout the system, despite the temporary localised impact at the dredging location.”

49. Among other aspects considered was a temporary increase in suspended sediment at the proposed dredge site, and the disturbance of contaminated sediments. Analysis showed that the levels would be within natural background concentrations with no significant change to the dominant currents; water quality would not be interfered with beyond acceptable limits; the temporary increase in suspended sediment was unlikely to be significant because it was unlikely that contaminated sediments would be disturbed by dredging. No European designated site was likely to be affected significantly.
50. The Goodwin Sands pMCZ was specifically dealt with as a material consideration. A Stage I assessment had been undertaken. It was concluded that the only feature of the pMCZ where there was a risk of direct impact by the dredging activity was subtidal sand. The ECDR said this:

“The ES assessed the potential loss of feature extent, changes to feature sediment composition and distribution, changes to feature species composition and component communities, changes to feature sediment movement and hydrodynamic regime and the increases in suspended sediments and turbidity on the feature. The ES concluded that any changes to the subtidal sand feature were unlikely to be significant due to the temporal and spatial limited nature of the activity, the dynamic nature of the sandbank and the proposed measures to promote recovery of the site. DHB is required by the marine licence to leave a minimum of 1m of similar Subtidal sand substrate at the cessation of dredging, to ensure that once dredging ceases the seabed sediment composition is suitable for the re-colonisation of benthic communities. To ensure compliance with this requirement, DHB will be required to undertake a suite of monitoring to agreed specifications throughout the lifetime of the licence. Therefore, the MCZ assessment concluded that aggregate dredging would not hinder the conservation objectives for Subtidal sand.”

51. The ECDR also stated that the ES and Further Information had been assessed; it confirmed that in relation to the information submitted by DHB in the application and ES, “[MMO] are content with the conclusions adopted.”

52. The MMO considered the ES and Natural England’s response, and concluded that, subject to the mitigation measures secured by conditions on the licence, there was no significant risk of the activity hindering the achievement of the conservation objectives stated for the pMCZ. The residual risks of aggregate dredging to benthic ecology or ornithology, marine mammals, or fish and shellfish were considered unlikely to be significant.

The 2004 Guidance and later Guidance

53. In February 2004, the JNCC produced the “Common Standards Monitoring Guidance Introduction to the Guidance Manual.” “The need for monitoring” explained that one of the key responsibilities of the UK statutory nature conservation bodies was the identification and protection of a series of sites intended to conserve important wildlife and earth science features. These sites could be designated under national legislation (SSSIs,) European Directives (SACs and SPAs), and international conventions (Ramsar sites). “Monitoring” was a series of observations over time to show the extent of compliance or deviation from a given norm. The condition desired in terms of objectives and targets had to be stated and then the site had to be monitored to see whether the objectives were being met. “While common standards monitoring was designed for SSSIs, ASSIs, cSACs, SPAs and Ramsar sites, in principle the approach could be applied to any defined area holding specific features of conservation interest...”. The features to be monitored are “the interest features for which the site has been notified or designated”, whereas:

“Attributes are characteristics of an interest feature that describe its condition, either directly or indirectly. They can be regarded as indicators which allowed judgements to be made about the condition of the interest feature. The selection of attributes in this guidance has been informed by two important principles: all attributes must be measurable, so that targets can be set as part of the conservation objective for the feature attributes should describe the condition of

the feature and not the factors which influence it [such as management activities].”

54. Mandatory attributes were the minimum number of attributes which would allow reliable assessments of condition to be made:

“These form a core set of mandatory attributes which describe condition most economically, and are intended to be suitable for use across the UK. An assessment must be made of all of these attributes - each will contribute to the final evaluation of feature condition. The guidance adopts the term “mandatory” to indicate these highest priority attributes.”

55. The Guidance recognised that some flexibility in the selection of attributes was acceptable and that some attributes were not applicable to all examples of a particular interest feature. Once an attribute was chosen, however, it was mandatory that it be assessed. “What is key, however, is that for any particular feature on an individual site, a clear set of attributes are identified which will be used to assess the feature each time it is monitored.” The guidance for coastal sites recognised that dynamic change was a natural and necessary process, and that it was difficult to provide hard and fast rules for all situations.

56. In August 2004, the JNCC produced a revised “Common Standards Monitoring Guidance for Generic Introduction for Marine Feature Guidance.” In August 2004, the JNCC also produced the “Common Standards Monitoring Guidance for Inshore Sublittoral Sediment Habitats”, updated from February 2004. This document is at the heart of the Claimant’s submissions. It states that it is “essential” that the Generic Guidance be read first when setting attributes. At the time of these Guidance documents, there were no MCZs. This is important in judging the significance and context of certain words.

57. The importance of the August 2004 Generic Guidance is that it explains why attributes are selected. They are selected to produce a “focused and prioritised list of attributes for the feature that will most efficiently define its expected condition at a site.” They must help to define condition, be capable of clearly identifying a change in condition, be measurable and be capable of being monitored practically and economically. Priority

should be given to measuring attributes that also indicate likely man-made pressures that may affect the feature's condition, provide information on more than one component of the management regime, provide as much information about the feature as a whole as possible, have a baseline already adequately quantified, are already measured at the site for example as part of a compliance monitoring programme, are more readily measured than alternative attributes providing similar information such as a more readily identified species, and contribute to other nature conservation initiatives. Duplication should be avoided; the list would be refined as experience was gained. Not all attributes might be applicable to all parts of a feature at any one time.

58. It commented, in bold, that it was “important to note that the process of condition assessment of marine features is an almost entirely new activity within the conservation agencies at this time (Spring 2003). There is limited experience to draw upon to develop unambiguous guidance on condition assessment and thus it will be necessary to apply a high level of expert judgment during the next few years.” The MMO and DHB put considerable weight on that passage. For each interest feature, the specific guidance identified “a core set of attributes which must be used to define favourable conditions on every site, plus a set of additional attributes in which some or all can be used to highlight any local distinctiveness”

59. The “Inshore Sublittoral Sediment” Guidance first defined “inshore sublittoral sediment”, as soft sediment types permanently covered by shallow seawater. The diversity of associated species and communities was determined by sediment type and other physical factors. These included geographical location reflecting bio-geographical trends, the relative exposure of the coast to wave and tide, and differences in depth, turbidity and salinity of the surrounding water. The assessment of its condition included consideration of both physical and biological components. Such sediment often displayed considerable “spatial heterogeneity” in its topography, sediment structure and sediment composition. A condition assessment of such sediment “should be based on the attributes and their associated targets derived from the generic attribute table....” There then followed the “generic attributes that are considered to most likely represent the condition of the feature.” A site-specific expression of the attributes would be necessary for the conservation interest of the feature to be properly represented. The feature itself was the species, habitat, and geological and geomorphological characteristics for which

sites are protected. The habitats within “inshore sublittoral sediment” included Habitats Directive Annex 1 “sandbanks which are slightly covered by seawater all the time”, Biodiversity Action Plan, BAP, broad habitat type “inshore sublittoral sediment”, and BAP priority habitat “sublittoral sands and gravels.”

60. It stated that Table 1, entitled “UK guidance on conservation objectives for monitoring designated sites,” listed seven attributes “four of which (*Extent, Topography, Sediment character and Distribution of biotopes*) are mandatory for all sites. The rest are site-specific attributes used to highlight local distinctiveness when assessing the overall conservation value of the site and may therefore not be applicable to all sites.”

61. The text considered these in turn. It recognised that changes in the spatial extent, i.e. the area covered, would occur because of tidal/meteorological influences, natural coastal processes which were beyond management control. Man-made changes in extent, directly or indirectly, would be considered unfavourable. In principle, the target should be no loss of area of the habitat, measured in hectares, allowing for any geomorphological trajectory.

62. Topography was considered an essential component of the feature of inshore sublittoral sediment, and therefore had to be assessed for all sites to which the Guidance was applicable. I set out the text fully as it is at the core of the Claimant’s case:

“Topography is defined as the depth and distribution of the sediment, which is fundamental to the structure of the feature and there is a direct influence on the associated fauna. The topography generally reflects the prevailing energy conditions and overall stability of the feature.

Depth of the feature is a major influence on the distribution of communities throughout:

Shallow sediments are influenced by wave energy: sediments exposed to wave action are more mobile and comprise coarser sediment than more sheltered areas. These sediments may be shifted around periodically, and thus harbour an infauna of mobile species. An increase in depth [of water] would change the characteristics of

the sediment and its interaction with the prevailing hydro physical regime. If depth [of water] decreased, the sediment may become exposed on those spring tides, which would decrease the survival of subtidal fauna that cannot withstand aerial exposure (Elliott *et al.*, 1998).

Shallow sediments in areas of clean water can support algal communities, seagrass beds or maerl beds. Deepening of these areas may reduce the quality of light reaching the seabed and thereby lead to deterioration in the quality [of] these communities (as can increased stability in these areas).

Deeper sediments are less influenced by wave energy, and are therefore more stable, which in turn allows the development of stable communities, often dominated by bivalve molluscs.

Sublittoral topography should be allowed to respond naturally to prevailing conditions; changes in overall topography will occur seasonally, but may also be as a response to changes in the supporting hydro-physical regime.”

63. The guidance said this in relation to setting a target in relation to topography:

“In principle the target should be set at no overall change to the topography during the monitoring cycle, but the target should reflect any seasonal changes that might be expected and in some areas related to the variation in expected weather and storm activity from one year to the next. Target topographic conditions may be linked to the degree of wave action that is fundamental in defining a particular dynamic community type.”

64. The hydro-physical regime affected the rate of deposition and re-mobilisation of the sand, the nature of the substratum and the depth of inshore sublittoral sediment. The speed of water movement and the rate of erosion and deposition of the sand were important in maintaining the integrity of this habitat. Some inshore sublittoral sediments experienced very strong currents and, particularly during storms, the top of such a sandbank could be removed and replaced during calmer conditions. As yet there was no example of a site-specific target for the topography attribute.

65. The target for topography in Table 1 itself was no alteration, allowing for natural responses to the hydrodynamic regime. This was to be assessed through assessment of the depth and distribution of the sediment with periodic comparisons made with baseline conditions. The Table commented that the depth and distribution of the sediment had a direct influence on the structure and function of the system. Topography therefore mattered because of its effect on the structure and function of the system of inshore sublittoral sand.
66. I turn now to later Guidance, not relied on by the Claimant but relied on instead by the MMO and DHB. First, there was no more recent version of the 2004 Guidance, covering MCZs. The JNCC's updated website of January 2019 stated that the Common Standards Monitoring Guidance was intended to be a "simple, quick assessment of feature condition for protected sites", which it then listed, supported by limited, more detailed monitoring. The list had not been altered to include MCZs, over the near decade after the passage of the 2009 Act.
67. There was however, later Guidance specific to MCZs. In June 2010, the JNCC and Natural England jointly produced "Ecological Network Guidance" for the MCZ Project. Its purpose was to provide guidance on the selection and definition of sites to form part of the network of MCZs. Many types of guidance documents were required for the Project, said Annex 1. Other relevant guidance on the structure and delivery of the network were referred to, but the 2004 JNCC Guidance was not among them. It may not have been directed to the task in hand. But it continued, referring to Conservation Objective Guidance: "Natural England and JNCC will produce further guidance on how to set conservation objectives for MCZ features and assess feature condition at designation." Reference there to the 2004 Guidance would have been apposite were it relevant. It is referred to specifically however when the condition scale is set out, as that "will help align monitoring and reporting on all sites with the MPA [Marine Protected Area] network and provide for the development of clear network objectives." So, the authors plainly had not forgotten about that Guidance, but noted its limited role.
68. In August 2011, as anticipated in its 2010 document, the JNCC and Natural England jointly produced "Conservation Objective Guidance" for the Marine Conservation Zone Project. This set out the process for drafting a conservation objective for the features

identified within a proposed MCZ. A conservation objective is a statement of the desired state or quality of the features for which an MCZ is designated. These objectives were relevant in a variety of ways which included decisions on licences such as that at issue here. The glossary explained the concept of an “attribute”, distinguishing it from a feature itself: it is “a selected characteristic of a feature which is used to provide an indication of the condition of the feature to which it applies, for example, extent, diversity, typical species, species composition, range and distribution of characteristic communities, topography and sediment character.” The JNCC and Natural England were jointly developing draft attributes specific to MCZ features, with the aim of developing targets for each feature’s attributes against which favourable condition would be assessed. That shows that they were not adopting attributes from the 2004 JNCC Guidance.

69. The Defra MCZ Designation Explanatory Note of 2013 defined favourable condition: extent of feature being stable or increasing; structures of the feature (physical shape and make-up), its functions (ecological processes which the habitat performs), its quality, and composition of its characteristic biological communities (the material making up the habitat and the fauna and flora which characteristically live on or in the material) being in a healthy and not deteriorating condition. The Statutory Nature Conservation Bodies, of which Natural England is one, would provide advice specifying the detailed characteristics of favourable condition for a feature of an MCZ, and advising how the impact of human activities could be mitigated. “Site specific conservation advice will be published by the relevant SNCB after designation of the MCZ...Public authorities have responsibility for identifying and enforcing the most effective form of management of the MCZ in relation to the activities they are responsible for, drawing on the advice and guidance provided by the SNCBs.”
70. The Thanet Coast Supplementary Advice on Conservation Objectives, SACO, updated in September 2018, but not so far as I am aware materially changed from earlier versions, presented attributes which are ecological characteristics of the MCZ or requirements of the designated species and habitats within it. Some but not all could be used for regular monitoring of condition of the features of the MCZ. Subtidal sand was a feature; its attributes did not include topography as such. They did include “Distribution: presence and spatial distribution of biological communities, Extent and distribution, Structure and

function: presence and abundance of key structural and influential species; Structure: sediment composition and distribution; Structure: species composition of component communities; Supporting processes: energy and exposure.” The expert advice of Natural England was that this MCZ was a suitable proxy for the pMCZ at Goodwin Sands, for which there was as yet no designation and no SACO had been prepared.

The evidence

71. The nature of the challenge, namely that topography was a mandatory attribute which had not been considered or considered as required by the 2004 JNCC Guidance, led to evidence from both MMO, and from Natural England as to how they had approached that topic, and that Guidance which the Claimant contended they had failed to apply, or explain why. It was no answer, submitted Ms Demetriou, to MMO’s failings that they had acted on the advice of Natural England, if that advice was itself legally flawed.
72. Mr Kinmond, a senior case manager in the MMO’s Marine Licensing Team, and head of its Marine Aggregates Team, and a “subject matter expert in that respect”, had played a significant role in the development of now standard assessment and management practices; he gave evidence in a witness statement. A number of other expert staff had been involved in this licence assessment. His view was that “topography had been considered and assessed appropriately throughout the marine licence application process.” The Claimant had misunderstood the MCZ process, and the JNCC Guidance in context; that Guidance was inapplicable to this process. The key impacts of topographic change were indirect, and had been considered.
73. Mr Kinmond had concluded that the direct effect of topographic changes was unlikely to be significant, subject to the application of the licence conditions. Pre-dredge surveys and reporting were required to ensure that dredging stayed within the relevant parameters, for which the pre-dredge charts would be required. He was firmly of the view that the correct approach to topography had been taken. It was the indirect effects which were the key impacts of topographic change, and topography was considered as part of the assessments of coastal processes, hydrodynamics and flood risk. The MMO concluded that the risk posed by dredging to those processes was unlikely to be significant, and that the conditions, embodying monitoring and mitigation, would ensure

compliance with the licence parameters. Essentially, MMO had agreed with the advice from Natural England and Cefas.

74. Mr Kinmond explained that topography had not been included as an attribute of the subtidal sands because he was:

“of the clear view that topography would simply not be a useful attribute for the assessment of this site. Natural England have explained why they do not consider that topography is likely to be an attribute for the broad scale habitat of Subtidal Sand for this site (or in general for Subtidal Sand). For these reasons I would not recommend to the MMO that they took forward topography as an attribute, and if the JNCC 2004 Guidance did apply (which I do not consider it does), I would be likely to (after consultation with NE) recommend the MMO should depart from it. In reality I do not think there is any realistic likelihood, if designated, that Defra or NE would set topography as an attribute.”

75. Although the attribute of “extent and spatial distribution” was two-dimensional rather than three-dimensional, that did not mean that depth was irrelevant. Depth of sand was of some relevance to structural function and, for example to wave dynamics, which featured in other attributes, as I have set them out above from the Stage 1 assessment. The precise shape of the sandbanks was not an attribute, but changes in the volume and depth of sand were assessed in relation to the attribute of maintaining the hydro-dynamic and physical condition of the sand banks. If dredging exposed the underlying chalk, the subtidal sand feature would be reduced in extent, but it would be a form of topographic change, which would affect other attributes of the Sands, such as maintaining the distribution of sediment composition types across the feature, compared to an established baseline, to ensure continued structural habitat integrity and connectivity.

76. Accordingly, Mr Kinmond considered that, although there was no direct assessment of topography as an attribute, the effects of topographic change were considered in relation to the attributes identified as relevant to achieving the draft conservation objectives for the pMCZ.

77. Mr Covey, the Principal Adviser for Marine Biodiversity with Natural England, who had been involved in the assessment of the licence application from an early stage, also provided a witness statement. He did so to deal with a concern raised at the permission hearing about Natural England's advice. It had provided advice to MMO and DHB on two aspects of the application: the scope of the ES and on the final ES itself, so as to ensure that environmental risks and impacts were adequately identified; and its implications for the conservation objectives of the pMCZ. He explained their past experience of dealing with extracting sand from seabed habitats. He described the elements which he advised the ES should cover for subtidal sand: direct reductions and changes in organisms, sediment plumes, transport of sediment, the effect of changes in water clarity on organisms, "the effect of physically deepening the seabed on waves and currents, and the effect of that on habitats and species...", alterations on seabird foraging resources, and the effect on the long-term condition and ecological functions of the pMCZ.
78. He agreed with Mr Kinmond that the implications of the application for the pMCZ had been fully reviewed in the ES. The primary consideration in his view for the subtidal sand from a biodiversity perspective was its potential recovery rate from disturbance; he had agreed with the ES conclusion that there would be a complete and rapid re-colonisation. To ensure that that would happen, the monitoring programme would specifically measure changes in seabed morphology and sediment type. A capping layer of 1m was to remain across the entire dredge area.
79. Mr Covey dealt in his evidence with topography, in the context of the JNCC 2004 CSMG for Inshore Sublittoral Sediment Habitats in this way. The physical process of dredging would lower the depth of the seabed and alter the localised shape of the South Calliper Sand bank, which would be subject to limits in the licence conditions. This would not result in a loss of the spatial extent of the feature. That was different from its topography and volume.
80. He made a number of points about the significance of topography being a "mandatory attribute" for all sites in that Guidance. First, MCZs were designated by reference to the Ecological Network Guidance which defined subtidal sand broad scale habitat, using a European Habitat classification, largely in terms of its ecological components and the

necessary physical attributes to maintain those components, rather than large-scale physical properties such as topography in their own right. For an MCZ such as the Goodwin Sands, the conservation value of subtidal sands was the spatial extent or area of the sand available to be colonised, rather than its volume or topography, even where the area was patchy. He contrasted this, by way of example, with SAC Habitats Directive Annex 1 sand bank features, to which the 2004 Guidance related, where topography was included in the description and formed part of the attributes which described its conservation importance. That was why the 2004 Guidance used topography as a mandatory attribute. Those sandbanks were described as a habitat comprising distinct banks, elongated, rounded or irregularly shaped mounds, which might arise from horizontal or sloping plains of sandy sediment. Significant alterations in the topographic elevation or sandbank shape were key to assessing the condition of the SAC sandbank feature, and so topography was a separate attribute for assessments in SACs.

81. Second, Natural England had given careful consideration to the attributes which described a particular feature such as subtidal sand, using the same approach across sites with the same feature. These attributes could be used to provide detailed information about the targets and progress of the site in relation to its conservation objectives, and to assess the likely effects of particular activities on the overall conservation objectives for a site. He set out the 14 attributes applicable to the Goodwin Sands pMCZ based on the conservation objective of maintaining it in favourable condition. Extent, distribution and supporting processes such as sediment movement and hydro-dynamic regime were among those attributes to be considered, but not topography in its own right. The use of the Thanet Coast MCZ attributes as a proxy was current best practice and expert judgment for subtidal sand.
82. Third, the JNCC Guidance preceded the 2009 Act, bringing in MCZs; it predated the 2010 Guidance on features for which MCZs should be selected, and had not itself considered MCZ attributes and features. The Generic Introduction for Marine Feature Guidance within the CSMG had pointed out, as set out above, that in 2003 the condition assessment of marine features was an almost entirely new activity, that there was limited available experience to develop unambiguous guidance, and it would be necessary to apply a high level of expert judgment over the next few years. The 2004 Guidance pointed out that there was no example of a site-specific target for topography. Targets

had to be realistic, taking account of known inherent variation, and a reliable method of measuring the physical parameter selected had to be available, because a failure to meet the target would make the condition of the feature unfavourable. But Mr Covey said that that was not possible for topography and the Goodwin Sands, because of the inherent natural variation, and so topography was not a “helpful or meaningful” attribute.

83. The use of topography as an attribute in monitoring guidance did not make it mandatory in the assessment of the impact of dredging in an MCZ. The JNCC Guidance should not be read or used in that way.
84. In any event, Mr Covey expressed the view that topography had been assessed in the ES, as part of the basis for the MCZ assessment. The ES considered in detail the effect which changes in topography could have on habitats and the ecological functions of the MCZ, i.e. the effect of the lowered seabed on water flow, wave dynamics and sediment composition and other key likely environmental impacts, which examination showed unlikely to be significant. Indeed, the 2004 Guidance dealt with topography because of its significance for indirect effects, because these may influence the distribution of communities, wave action, sediment characteristics and the hydro-physical regime.

The submissions

85. Ms Demetriou submitted that the 2004 JNCC Common Standards Monitoring Guidance, dealing with subtidal sand, was relevant guidance which had been ignored or departed from without justification. This treated topography as a mandatory attribute, but the MMO and its advisers had treated it as not being an attribute of interest for the Goodwin Sands. Such justification as MMO had now provided arose after the event, and could not support the decision. If topography was properly considered as important, the proposal would be very likely to have to undergo a Stage 2 assessment under s126(7) of the 2009 Act; it would be unlikely to succeed because of the alternative sources of aggregates available leaving insufficient public benefit to outweigh the harm.
86. She submitted that the effect of the JNCC 2004 CSMG was that topography should be identified as an important attribute of interest for any designated UK site whether under the Habitats Directive, an MCZ or some other designation. If there were to be a departure

from that Guidance, it should have been identified and reasons given. Topography was defined as “the depth and distribution of the sediment”, which was “fundamental to the structure of the feature and bears a direct influence on the associated fauna.” As wind, waves and current, as she put it, “would inevitably cause significant change to the topography of the sands, and sandbanks over time,” the CSMG had allowed for that by setting the monitoring cycle target as “no overall change” but that target should reflect seasonal changes and expected weather and storm activity. In her closing submissions, Ms Demetriou, challenged over the concept of topography being important here in its own right, emphasised less topography as an attribute in its own right, and more the consequences of changes to it, in particular changes indirect effects, principally on increasing bank stability and decreasing light through deepening the water over the sand bank, as referred to in the 2004 Guidance, set out at [62] above.

87. Where the MMO had gone wrong was not in considering the indirect effects of the removal of the sand; there was no challenge to the lawfulness of its conclusions about that. It was in not considering the direct effects of removing sand on topography itself, though it was clear that the MMO had considered the direct effects of removing the sand on the loss of organisms within the sand removed. Topography was “an attribute of interest in its own right,” contrary to how the MMO saw it.
88. It was wrong for Mr Kinmond to say that the JNCC Guidance was irrelevant; it was mentioned 7 times in the Stage 1 assessment; it was “repeatedly relied on”. It did not matter that the JNCC Guidance preceded the 2009 Act, and Guidance of 2010, because it was intended to apply across multiple forms of designations of environmentally important sites. It stated that it could apply to forms of designation not mentioned in it, and its aim after all was to establish standards common to various forms of designation. The 2010 Guidance related to marine species and habitats, but did not deal with the attributes of the features which need to be monitored and protected. Inherent natural variation could be coped with by setting the target at “no overall change beyond what occurs naturally.”
89. The JNCC Guidance was not limited as Mr Covey’s evidence implied to Annex 1 Habitats Directive sandbanks, but covered “inshore sublittoral sediment” generally which

included sandbanks such as the Goodwin Sands. Nor was it clear why such a distinction between types of sand bank should be drawn.

90. The fact that MMO, and Natural England had concluded in their expert judgment that topography was not a helpful attribute in relation to the Goodwin Sands did not make the 2004 Guidance inapplicable. It might be an explanation for a departure from it, but that was not the purported basis of the MMO's decision.
91. Reliance on the Thanet Coast MCZ repeated the error; it could be relevant to why the Guidance should be departed from, but not to its meaning. In fact, it supported the relevance and importance of depth and distribution. The JNCC Guidance was however departed from because it was not understood to mandate consideration of topography, the third dimension, as an attribute of importance but on its true interpretation it did in fact do so. The MMO erred in law if it relied on legally flawed advice from Natural England which itself was flawed for error of law.
92. If the MMO did err as contended, the decision should be quashed, and the Court should not exercise its discretion to refuse to do so on the grounds that the decision would be highly likely to be the same if the error had not occurred. The volume of sand to be removed meant that if topography were considered lawfully, the decision could be different, and there would or could be a Stage 2 assessment.
93. I did not find useful, in understanding or resolving the true issues in this case, the debated interpretation of letters and pleadings over whether MMO or Natural England had adopted a position that the JNCC did or did not apply, or had misinterpreted the JNCC or thought spatial extent was all it needed to consider rather than volume or depth, or had considered topography in certain other respects. I do not propose to refer further to it. I have set out what I consider to be the relevant documents, from which I consider the position to be clear.
94. Ms Blackmore for the MMO and Mr Moules for DHB submitted, in short, that the challenge was in substance to the expert scientific judgment of the MMO, and not a challenge based on an error of law. The MMO's decision in the ECDR had involved full

consideration of the impact of topographic change; there was no challenge to the conclusion that it had actually reached.

95. They submitted that the 2004 Guidance was not Guidance to the MMO on how to select MCZ features or their attributes, which was a matter for the MMO's expert scientific judgment. It was Guidance on how to monitor the condition of the particular sites listed in the Guidance: SACs, SPAs, SSSIs and their equivalents in other parts of the UK. This could not have included MCZs, and the JNCC website in 2019 did not include MCZs among the updated list of sites to which it applied. The fact that the Guidance recognised that it could be applied in principle to other sites, designated or not, could not make any particular part of it applicable, let alone mandatory, for other sites. It was monitoring Guidance for consistency between sites and between different monitors, over time, of the same site, so that both an individual and a network overview could reliably be formed. It could also form a useful source of information in relation to attributes which had been selected, but its use in that way did not turn the Guidance on topography as an attribute into a mandatory attribute of general application including to MCZs. For those reasons, there was no departure from the 2004 Guidance in not selecting topography as an attribute, nor any obligation to give reasons as to why it was not selected.
96. The MCZ Ecological Network Guidance, published jointly by Natural England and the JNCC in June 2010, recommended that the same condition scale used in the 2004 Guidance should be used for MCZs: favourable, unfavourable and so on. That was not the sort of incorporation and reliance which supported the Claimant's argument. The JNCC explained what certain terms meant and what good monitoring practice was; the shorthand references in the Stage I assessment to the JNCC Guidance 2004 as a source involved no acceptance that a specific attribute had become mandatory. It rather implied that specific parts of the 2004 Guidance did not apply to MCZs without express cross-reference.
97. The 2010 Guidance listed the other MCZ guidance documents but did not include the 2004 Guidance. The MCZ Conservation Objective Guidance, published jointly by Natural England and the JNCC in August 2011, contemplated attributes specific to MCZ features being developed; they were currently being drafted. It followed that the 2004 Guidance could not be prescriptive for attributes of MCZs. The attributes for each MCZ

are set out in the SACO for that MCZ. The Designation Order, Defra's general management brochure and its explanation of why the site was important, do not refer to topography as an interest in its own right.

98. The Thanet Coast MCZ embodying Natural England's official position, showed that if there had been any legal error by the MMO, how any redetermination would lead to the same answer, and demonstrated why the JNCC Guidance did not apply, rather than persistent error by one of its authors. It would be rather odd for it not to rely on its up to date advice, specific to the sort of feature on the sort of MCZ with which it was concerned at any particular time.
99. The SACO for the Thanet Coast MCZ demonstrated the difference between monitoring and impact assessment. The listed attributes of the subtidal sand feature did not include topography. They were however "considered to be those which best describe the site's ecological integrity and which if safeguarded will enable achievement of the Conservation Objectives... Some, but not all, of these attributes can also be used for regular monitoring of the condition of the designated features. The attributes selected for monitoring the features, and the standards used to assess their condition, are listed in separate monitoring documents, which will be available from Natural England." The information in the Supplementary Advice should be used "along with the conservation objectives and case-specific advice issued by Natural England when...assessing" a project that may affect the site. The purpose of the Guidance in any event was to establish common standards for monitoring, and not to give particular weighting to factors which might fall for consideration in an impact assessment.
100. Mr Moules submitted that the 2004 JNCC Guidance, [5.1], also pointed out that the conservation objective, as defined in the Guidance, for a site set the favourable condition of an interest feature in terms of a target or range. This was fundamental to site assessment. However, this definition of "conservation objective" was not the same as the definition of that phrase in the Habitats Directive, but it should still be used for monitoring purposes. However, the Habitats Directive definition had to be used for the assessment of the impact of a plan or proposal on any site within its scope. It followed that the Guidance could not be used for the assessment of impact on some sites to which it applied as monitoring guidance. Still less could it be mandatory for the assessment of

the impact of a proposal on sites to which it did not apply as monitoring guidance. The MMO and Natural England did not treat topography as irrelevant in law or as a matter of ecology. It was dealt with as a matter of weight or significance. The MMO had acted reasonably in not selecting topography as an attribute for the subtidal sand feature of the Goodwin Sands. But that did not mean that the MMO had treated topography as irrelevant to the assessment of the impact of dredging.

101. The direct impact of dredging on the sand was considered because maintaining a particular depth of sand over the underlying chalk was important for the sand to continue to function as subtidal sand, providing a habitat which could readily be re-colonised. This led to the imposition by MMO of a licence condition requiring the retention of a minimum depth of subtidal sand. It therefore had considered the significance of depth of the sandbanks after dredging as demonstrated by the minimum depth and related conditions it imposed.

102. Information was requested by Natural England about any significant topographic change to the sandbanks, to which DHB responded to the effect that the proposed dredge would not measurably alter the physical processes driving the ongoing morpho-dynamical change of the sandbank, the future morphological development of which would not measurably be altered by the proposed dredging. The various indirect effects of changes in topography on waves, tidal currents, sediment transport and release were considered.

103. The MMO Stage I assessment, considering the pressure “Physical change (to another sediment type)”, stated that the removal of the feature of subtidal sand would not result in a loss of the spatial extent of the feature, and that topography and volume were not attributes of that interest feature. It was simply explaining the degree to which that pressure was capable of affecting the protected feature or any ecological or geomorphological process on which conservation of a protected feature was dependant. Volume was clearly relevant to the depth of subtidal sand which had to be retained, and was so treated. The table pointed out that there could be a problematic change to a different sediment type if the depth of dredging exposed the underlying chalk, but that was to be prevented by a licence condition. That involved an overall consideration of topography.

104. The 2004 Guidance, as set out above, had identified that an increase in the depth of the water above subtidal sands could change the characteristics of the sediment and its interaction with the prevailing hydro-physical regime. That illustrates why changes in topography could for certain sites be a useful indicator of indirect changes to the functioning of the feature. But those are the indirect effects which were considered, so far as material. The problem of deepening shallow sediments did not arise: there were no seagrass or maerl beds in the area proposed for dredging. Deeper sediments leading to more stable communities was not a risk because the 2015 benthic characterisations survey suggested that the dredging area was characterised by mobile sandy sediments with only a sparse faunal assemblage where faunal recovery was expected to proceed relatively quickly after dredging, as Stage 1 assessment observations consistently showed. The conservation objectives would not be hindered because of the dynamic nature of the sandbank, so it would not naturally become a stable habitat. The topography of the subtidal sand was dynamic and not stable. Instability prevented the colonisation by vegetation, as one of the scientific papers before the MMO showed, and explained why there were no seagrass or maerl beds, or seaweed, but “interstitial populations of organisms,” such as worms. Light levels and turbidity were considered by the MMO, which concluded that significant effects were unlikely.

105. Thus, the ecological reasons in the 2004 Guidance as to why topography could be important had been addressed in the MCZ Assessment, and the MMO was entitled to judge that there would be no likely significant environmental effects. That remained their view, and that of Natural England. The ES and Stage 1 assessment contained a very full description of the indirect effects of changes in topography, to which no challenge was directed. Ms Blackmore also produced a helpful document detailing how topography had been considered throughout the decision-making process.

106. The selection of attributes for the subtidal sand feature of the Goodwin Sands pMCZ was based on a variety of expert advice from Natural England, and other material, including conservation objectives proposed for the pMCZ, and the proxy Thanet Coast MCZ. It was perfectly clear from the MCZ Stage I assessment why attributes had been selected, using the Thanet Coast MCZ Supplementary Advice on Conservation Objectives, SACO, and why topography had not been selected. Ms Blackmore and Mr

Moules submitted that the Thanet Coast MCZ contained Natural England's formal guidance on what it considered to be attributes for subtidal sand, reflected in other designated MCZs as well. Extent and distribution were attributes, topography was not.

107. Natural England advised that topography was not an attribute of the MCZ feature of subtidal sand; the subtidal sand was a large dynamic and constantly changing area with a sparse faunal assemblage, characterised by mobile sandy habitats with a high potential to recover following disturbance. It would not efficiently and directly help to define or identify a change condition, as the assessment made clear. The MMO acted reasonably in the light of Natural England's advice in not selecting topography as an attribute for the subtidal sand feature of the pMCZ, because it was not useful in relation to the conservation objectives or the site's ecological integrity. The particular shape, variable as it was, had no useful qualities of an attribute against which impacts could be measured.

108. The expert evidence was unanimous that there was no purpose in considering topography as an attribute in its own right in this case: there was no evidence of any significant environmental effect resulting from the direct impact of topographic change. There was no expert evidence to suggest that topography was fundamental to the structure of subtidal sands at the Goodwin Sands MCZ; expert evidence was all the other way. Topography was not an attribute of the now designated MCZ.

109. Mr Covey had explained that the conservation value of subtidal sands was the spatial extent of the sand available to be colonised, and not a large-scale attribute such as topography, whereas Habitats Directive Annex 1 sandbanks were designated partly for their topographic structure. If JNCC Guidance on monitoring were used to monitor other sandbanks, it could not justify treating their topography as having ecological value in itself in the light of expert evidence, all one way, that it had no such value in itself. It was important that Natural England's view was that topography was not a useful attribute here because, more than any other body, it was in a position to understand how the Guidance, produced by the JNCC of which it was a central member, should properly be understood in relation to MCZs in general and this pMCZ in particular.

110. Ms Blackmore and Mr Moules submitted that relief should be refused in the exercise of this Court's discretion under s31(2A) Senior Courts Act 1981, because it was highly

likely that the outcome for the Claimant would “not have been substantially different” if the error over the interpretation of the Guidance or its application, if error there was, had not occurred.

111. The evidence of Mr Kinmond and Mr Covey showed that, if the JNCC Guidance applied as contended, they would be likely to recommend a departure. Mr Covey said that he did not consider that topography would be a useful attribute for the Goodwin Sands MCZ. A different outcome would have been highly unlikely because the expert judgment of the MMO, with the support of Natural England and their advisers, Cefas, was that the direct and indirect effects of the project, with the licence conditions would not be likely to have any significant environmental effects. There was no contrary expert evidence which identified any significant environmental effect, which would be appraised differently if topography had been treated as an attribute. The reasons why the attribute of topography was not mandatory for impact assessment in the pMCZ had been clearly explained.

Conclusions

112. I am satisfied that the Claimant’s arguments are wrong for all of the many reasons submitted by Ms Blackmore and Mr Moules, save for a reservation in relation to one aspect of the discretion argument. Essentially, the Claimant’s arguments involve a fundamental misreading and misunderstanding of the role of the 2004 Guidance in relation to the decision to grant this licence, subject to conditions. The Claimant makes far more of the JNCC 2004 Guidance than is warranted; it plainly does not support her approach to the significance of topography for the assessment of impact of dredging in the South Goodwin Sands. However well disguised in Ms Demetriou’s submissions, this claim, in substance and at heart, is a challenge to expert scientific advice and conclusions.

113. First, it is important to understand the very limited scope of this challenge to what on the face of it is a very carefully and fully considered EIA Consent Decision, based on the ES and on the MMO’s Stage 1 assessment. The advice of the statutory nature conservation body, Natural England, was sought, taken and complied with. There is no contrary suggestion. Of course, that advice itself could have been unlawful in such a way that a material consideration was ignored by the MMO, or misunderstood in such a way

as to give rise to an error of law on its part. But such a claim itself, as this claim is, then calls for careful consideration as to whether it is no more than a misunderstanding by the Claimant, presented as someone else's error of law. In this case, the asserted error is by Natural England in understanding expert natural conservation guidance to which it was a contributor, which is not a promising starting point for the Claimant.

114. Second, the issue concerns the way in which the Stage 1 assessment, dealing with the pMCZ, is said to have ignored or misunderstood in part a material consideration, through misinterpreting 2004 Guidance. However, it is clear beyond a peradventure that no material consideration was overlooked or misunderstood looking at (1) all the application specific documents, ES, Stage 1 assessment, Natural England's advice, and then (2) at general Guidance directed to MCZs, i.e. the 2011 Conservation Objective Guidance for MCZs, and finally (3) at Guidance directed or suitably taken as applicable to the pMCZ, i.e. the Supplementary Advice on Conservation Objectives for the Thanet Coast MCZ, which Natural England advised, without challenge, was a suitable proxy for the Goodwin Sands pMCZ, advice not confounded by the actual conservation objectives for the designated MCZ.

115. The direct and indirect effects of the dredging on the South Calliper bank were fully considered in the Stage 1 assessment as set out above. Ms Demetriou accepted explicitly that there was no challenge to the assessment of these indirect effects of the dredging, nor to the unanimous expert evidence that it was the indirect effects of dredging which were the most important. These included the effect of changes which dredging could have on wave pattern and height, tidal currents, sediment transport and sediment release. All of these are related to the volume of sand removed and depth left. The physical processes, which brought about the dynamically changing shape of the sandbanks, were assessed, and it was concluded that these processes would not measurably be altered in the future.

116. The 2004 JNCC Guidance, in the passage set out above at [62] and to which Ms Demetriou drew attention, dealt with the effects of increasing and decreasing the depth of water above inshore sublittoral sands. This is not a case where the concern is decreasing the depth of water, and there are no seagrass beds or maerl beds anyway. She referred in closing in particular, as a demonstration of her point, to what that paragraph had to say

about stability and light as a result of an increase in the depth of water over sandbanks. But those possible effects were considered: the risk of more stable communities evolving was not borne out by the benthic characterisations survey, and the nature of the recovery expected. It is difficult to see that, if there were reduced light from the increased and variable depth of the water, there would be any effect on the sandbanks unless it affected the nature or rate of re-colonisation. The nature and rate of re-colonisation was specifically considered by the MMO; and it was judged to be rapid, from the same species. In truth, the passage at [62] rather highlights the complete misunderstanding of the Guidance at the heart of the Claimant's case: the key concerns about changes to topography are the indirect effects on the depth and distribution of sediments, changes to the characteristics of the sediment and its interaction with the prevailing hydro-dynamic regime. That was all considered in the Stage 1 assessment, and as I have said, there is no challenge to the lawfulness of the judgement about any indirect effect which was expressly considered by the MMO.

117. Nor indeed was there any challenge to any of the conclusions of the MMO and Stage 1 assessment about any matter considered in the Stage 1 assessment which could be a direct effect of dredging, whether that was the dredging plume, or the volume of material removed or species in the sand removed. There was plainly consideration given to the significant questions of the extent, spatial distribution and depth of sand in the context of the subtidal sand left for re-colonisation after dredging. These are all aspects of topography, though they do not cover the full gamut of the third dimension of itself.

118. Third, Ms Demetriou submitted however that topography in its own right had not been considered, albeit that the effects of dredging on the attributes set out in the Stage 1 assessment were not of themselves challenged, and could not have been. It was the omission of "topography in its own right" she complained of. But there was no explanation of the way in which topography had not been considered "in its own right", a concept seemingly separate from any of the direct and indirect effects considered; what of relevance to this case had not in fact been considered? There was no expert evidence that a particular shape or type of shape of the sandbanks was of some value, for example, to some species of flora or fauna in the benthic and epibenthic communities, or to any wave, tidal current or sediment transport, composition or deposition, let alone one which could be affected by the dredging. No expert evidence gave the concept which she was

deploying any practical meaning in the context of the South Goodwin Sands. None of this is surprising in view of the ever-changing shape of the sandbanks. It is an error to suppose that the fact that an attribute has been selected means that it itself is protected as a characteristic of interest or value; it is selected for monitoring for what it may tell over time and over similar sites of what is happening to aspects of the protected feature.

119. Ms Demetriou's response to the question of what the point of considering topography as an issue in its own right was to point to the 2004 Guidance. It was a mandatory attribute and so had to have some intrinsic value. But that simply displaces the issue, without resolving it, to a differently phrased but essentially similar question: how is that Guidance to be applied here? The 2004 Guidance is intended for practical application, and not as an oracular statement of mysterious or indiscernible meaning. And if its application cannot be explained in relation to the position here, in which it is said that it has to be applied, that is a clear demonstration that it has not been understood by those who demand its application.

120. There is no expert evidence, indeed no evidence at all, that the sort of sandbanks to which the 2004 Guidance specifically applies, and which do not include MCZs, have topography of the same changing nature as do the South Calliper Sands and the Goodwin Sands more generally, albeit that they all come under the general heading of "inshore sublittoral sediments". The example of the Annex 1 sandbanks' specific topography cannot be taken as the sole instance of topography as an attribute of importance for those sites listed in the Guidance.

121. I am satisfied that the notion of "topography in its own right" is a concept devoid of practical meaning or application in relation to subtidal sand, at least in the Thanet Coastal and Goodwin Sands MCZs. The 2004 Guidance and its interpretation is irrelevant to the decision-making process here and cannot found a challenge to the decisions at issue, nor does it require some reasons to be given for a departure from it. It is simply irrelevant in what it has to say about topography as a mandatory attribute.

122. Fourth, the Claimant's case wholly depends on the 2004 Guidance and its application. There is nothing about its language which suggests that what it says about topography should apply to this case. It specifies those sites to which it applies, which do not include

MCZs. It precedes the 2009 Act, and the designation of MCZs. Its updated version has not sought to extend it to MCZs either, even though that would have been simplicity itself.

123. The Guidance on “Inshore Sublittoral Sediments” which lists “topography” as mandatory for all sites to which the Guidance expressly applies, cannot have had in mind all the sites to which the Guidance only “could in principle” be applied. That sort of language is quite inappropriate for making a mandatory attribute derived for those specified sites to which the Guidance does apply, “mandatory” for sites to which the Guidance does not apply but to which it could in principle be applied. It means in reality that the application of the 2004 Guidance to other sites would require bespoke consideration of the attributes appropriate to that other site. It also made the point that there was, as yet, no example of a site-specific target for topography.

124. There is nothing about the way in which the MCZ guidance has developed which suggests a role for the 2004 Guidance such as the Claimant asserts in relation to topography. The 2004 Guidance may contain information of value; but the use of the condition categories in MCZs is no indication at all that the whole of the 2004 text is imported into their monitoring attributes, let alone for impact assessments.

125. There is however specific Guidance in the 2010 Ecological Network Guidance on MCZs, the 2011 “Conservation Objective Guidance” for the MCZ Project; draft attributes were being developed specific to each MCZ feature, with the aim of developing targets for each attribute. This could not have been written in that way if topography was already a mandatory attribute for all subtidal sand, in MCZs. The SACO for the Thanet Coast MCZ represents the further development of the thinking about the appropriate attributes for an MCZ like the Goodwin Sands, with subtidal sand as a feature. Topography was not selected. Natural England then advised the use of those SACOs for the Goodwin Sands pMCZ and then the designated MCZ itself. One would naturally expect, reading Guidance as guidance for practical application, that the more recent guidance which is also the guidance specific to subtidal sand in an MCZ would be used, as advised by Natural England, the statutory body for England.

126. Ms Demetriou submitted that the use of Thanet Coast MCZ as a proxy could have been a reason to depart from the 2004 Guidance, but it was not a reason not to apply it otherwise. That argument is based on misunderstanding of the meaning and role of the 2004 Guidance. It did not apply in the way she submitted. The MMO and Natural England had to find attributes which were relevant to the subtidal sand feature at the Goodwin Sands; topography was not considered in relation to Thanet Coast, and the same approach was applied. It looked to the recent and specific guidance on subtidal sand, including in a specific MCZ similar to the Goodwin Sands in this respect. The Thanet Coast MCZ was lawfully designated.
127. Natural England, as an important constituent part of the JNCC, did not consider that the 2004 Guidance applied, and in understanding the 2004 Guidance, I am prepared to give weight to that. But Natural England has also explained fully, through Mr Covey, why it takes that view. That view is wholly consistent with a natural reading of the text, and even more so in the context of monitoring guidance for sites with which this case is not concerned.
128. Fifth, I accept that there is no line to be drawn between monitoring and impact assessment, which is so hard and fast that an attribute can be used only for monitoring and is irrelevant to impact assessment. But the purpose of selecting attributes is for use in monitoring, that is for the purpose of developing a picture of how the feature is moving against the condition target. The 2004 Guidance shows how that underlies the selection of attributes. There is no reason why what may be mandatory for monitoring should be mandatory for assessment; in the one-off and detailed exercise of assessing the impact of a specific project on a specific MCZ feature, the assessor can be expected to examine the direct and indirect individual effects themselves. An examination of the individual attribute does not do that but provides sufficient information about them indirectly for monitoring purposes, but without any more detailed investigation. So take topography where it was a mandatory attribute: it would by itself give a picture of the spatial extent, depth, volume and shape of the sand; that would give some picture of the changes which could be occurring in the ecology of the sandbanks, and could imply an effect on wave, tidal currents, erosion, sediment transport and deposition, and so on. It would not be necessary to monitor all those aspects directly; the attribute would have been chosen to do that task, on a routine basis, consistent from one monitoring period to another. But

when impact is being assessed, consideration of the attribute may not be enough or may be irrelevant: it may be necessary to examine the specific components of spatial extent, pattern of distribution, depth, volume, and so on, and then to consider specifically the possible impact of changes in that for the ecology and functioning of the sandbank. In reality, that is what happened here. What mattered however, was spatial extent and depth of sand taken and left, not shape at all. The effects on wave, tidal currents, sediment transport, deposition, composition and character of the communities and rapidity of re-colonisation were specifically considered. Variation in the volume of the sandbanks was not important to their functioning and ecology, beyond those factors specifically considered, volume related factors specifically considered i.e. depth and spatial extent. Variation in the shape of the volume was not important at all.

129. There is a further reason why topography was not suitable for monitoring subtidal sand in these sandbanks. Topography, as an attribute, has to be useful, over a sequence of monitoring periods, in judging whether the condition of the feature has changed. It was not considered to be useful in that respect, because of its morpho-dynamic nature. These are matters related to particular circumstances, and obviously reflect extent of morpho-dynamism. Other related attributes matter instead, principally spatial extent and distribution, for the information they convey about the way in which the sandbanks are achieving their conservation objectives.

130. I also accept Mr Moules' submission about how the very terms of the 2004 Guidance show that it cannot be directly applicable to impact assessment, in the light of the Habitats Directive.

131. Sixth, discretion. I find it impossible to see how any error of approach to topography could affect the practical analysis of impact or an effect on the outcome of the decisions. My reservation is this: if topography were a mandatory consideration, and if the MMO has erred in its approach to consideration of topography in reality, I do not understand what the nature of the error could be; and it is one made by Mr Kinmond and Mr Covey as well. The Court, if quashing the decision, would have to identify the factor which the experts have overlooked or approached wrongly, and ought instead to have approached in a way which the Court could define yet which no expert has yet identified as applicable or useful, and which could make a practical difference to the outcome of the

licence decision or ECDR. I cannot do so, but that is all consistent with my analysis above of the arguments. If I have erred in that, I accept that logically it is possible, albeit for reasons I cannot see, for my appraisal of the effect of that error on the outcome of the licence and ECDR decisions to be wrong as well.

132. If, however, as a matter of construction, the MMO simply ought to have said that the attribute was mandatory as a result of the Guidance, but in reality, an exception was made because it was not relevant to these circumstances for the reasons set out in the Stage 1 assessment, expressing the reasons in the assessment as reasons also for making an exception, along with the evidence of Mr Kinmond and Mr Covey, then it is plain that there would be no change whatsoever to the outcome. If that were the error, I would exercise my discretion to refuse relief with or without s31, because the error would have made no difference whatsoever to the decision.

Conclusion

133. For those reasons this application is dismissed.