PLANNING ACT 2008

APPLICATION BY NATIONAL GRID ELECTRICITY TRANSMISSION FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR SEA LINK

PINS REFERENCE: EN020026

Submission Reference: [redacted]

FURTHER SUBMISSIONS ON BEHALF OF SAVE MINSTER MARSHES

Introduction

1. These are the further submissions of Save Minster Marshes ("SMM") in relation to Deadline 4. SMM endeavoured to make submissions by the 10 February 2026 deadline but requested a 2-week extension prior to the expiry of that deadline in order to make these further submissions.

2. These further submissions:

   a) Provide additional legal background on the Habitats Regulations;

   b) Consider relevant sections of the Revised NPSs; and

   c) Consider the implications of the scheme for compliance with the requirements of the Water Framework Directive.

The Habitats Regulations

3. As the ExA will be familiar, the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations") implemented Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Flora and Fauna ("the Habitats Directive") in domestic law. The Habitats Regulations remain in effect despite the withdrawal of the UK from the European Union.

4. Article 6 of the Habitats Directive states (emphasis added):

> "3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

5. It is well recognised in European and in domestic law that article 6(3) requires a strict *"precautionary approach"* (re-confirmed recently by the Supreme Court in *CG Fry v SSHCLG* [2025] UKSC 35 at para. 26). The precautionary principle *"requires a high standard of investigation"* (*Waddenzee* (Case C-127/02); [2005] All ER (EC) 353). If an appropriate assessment is to comply with article 6(3) of the Habitats Directive, it *"cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned"* (*Sweetman v An Bord Pleanála* (Case C-258/11); [2014] PTSR 1092 at para. 44).

6. In *Holohan v An Bord Pleanála* (Case C-461/17); [2019] PTSR 1054 at para. 33, the Court of Justice of the European Union ("CJEU") emphasised the rigour required for an "appropriate assessment" as follows:

> "Under article 6(3) of the Habitats Directive, an appropriate assessment of the implications of a plan or project for the site concerned implies that, before the plan or project is approved, all the aspects of the plan or project which can, either individually or in combination with other plans or projects, affect the conservation objectives of that site must be identified, in the light of the best scientific knowledge in the field. The competent national authorities are to authorise an activity on the protected site only if they have made certain that it will not adversely affect the integrity of that site. That is so when there is no reasonable scientific doubt as to the absence of such effects."

7. To that end, the CJEU held that an appropriate assessment must catalogue the entirety of habitat types and species for which a site is protected:

> "37. … all aspects which might affect those objectives must be identified and since the assessment carried out must contain complete, precise and definitive findings in that regard, it must be held that all the habitats and species for which the site is protected must be catalogued. A failure, in that assessment, to identify the entirety of the habitats and species for which the site has been listed would be to disregard the abovementioned requirements and, therefore, […] would not be sufficient to dispel all reasonable scientific doubt as to the absence of adverse effects on the integrity of the protected site."

8. Further, an appropriate assessment must also identify and examine the implications of the proposed project for the species present on that site as well as the implications for habitat types and species outside the boundaries of that site:

> "40. … Article 6(3) of the Habitats Directive must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site."

9. The proposed location of the Kent element of Sea Link is in close proximity to the national and internationally protected marine environments of the Thanet Coast and Sandwich Bay Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site; the Sandwich Bay and Hacklinge Marshes SSSI; and the Sandwich and Pegwell Bay National Nature Reserve. It is also in close proximity to the Minster Marshes SSSI, a strip of protected land which supports an extensive variety of wildlife. While the main converter and substation buildings will not be situated on these sites directly, their close proximity and the associated infrastructure will mean that these protected sites and their wildlife will be impacted both during and following the construction phases.

10. Although Ramsar sites are not protected by the Habitats Regulations, it is a matter of national planning policy that they should be given the same level of protection, as explained in para. 194 of the National Planning Policy Framework.

11. SMM has reviewed the Applicant's updated **Habitats Regulations Assessment Report** (REP3-029, 6.6, submitted 13 January 2026) and other ecological statements, and has identified a number of deficiencies which raise considerable doubt that the requirements for a legally compliant appropriate assessment have been met. These are set out in our previous Deadline 4 submission. They include a failure to identify and examine the implications of the proposed project on the following species and habitats: seals, seabirds, eels, skylarks and dormice (see pages 11-14 of previous Deadline 4 submission).

<u>The revised NPSs</u>

12. SMM has compared the previous NPSs to the revised NPSs, the latter of which are material considerations in this examination. The following sections in the revised NPSs are particularly relevant to the application:

    a. Revised EN-1 emphasises that *"The Planning Act 2008 system is designed to be frontloaded and applications should not enter the statutory system if they are not ready to be consented. Examining Authorities, and indeed Secretaries of State, should be focused on considering the planning merits of an application, and not using time during the examination and decision-making stages seeking to address deficiencies in an application"* (para. 4.2.12). This is highly relevant considering the number of revisions which the Applicant has made since the application was first submitted for examination, and the deficiencies which SMM have already identified (including in relation to species and habitats). It is clear that the application as submitted was deficient and it should be refused on that basis alone.

b. Irrespective of the presumption in favour of granting consent, EN-1 still directs that *"the Secretary of State should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance"* (para. 5.4.57). This is consistent with para. 5.4.55 of EN-1 2024 (which continues to apply in respect of the Sea Link application).

c. EN-1 states that *"The Secretary of State should ensure that species and habitats identified as being of importance for the conservation of biodiversity are protected from the adverse effects of development by using requirements, planning obligations, or licence conditions where appropriate"* (para. 5.4.56). Again, this is consistent with para. 5.4.54 of EN-1 2024. The Applicant has not provided sufficient comfort that the issues identified by SMM can be addressed by planning obligations or licence conditions.

d. Pages 14-16 of SMM's initial Deadline 4 submission addressed the risk of bird deaths from electricity pylons. Revised EN-5 provides the following in respect of risks to birdlife:

> "2.9.3 Electricity networks infrastructure pose a particular potential risk to birdlife including large birds, such as swans and geese, and perching birds. These may collide with overhead lines and risk being electrocuted. Large birds may also be electrocuted when landing or taking off by completing an electric circuit between live and ground wires. Even perching birds can be killed as soon as their wings touch energised parts of the infrastructure.
>
> 2.9.4 Applicants should consider measures to make lines more visible such as bird flappers and diverters which are covered in more detail in Sections 2.10.2 - 2.10.4.
>
> 2.9.5 The applicant will need to consider whether the proposed line will cause such problems at any point along its length and take this into consideration in the preparation of the ES (see Section 4.3 of EN-1).
>
> [...]

> 2.11.1 Where biodiversity impacts are identified, including those associated with bird collision with overhead lines, the Secretary of State should be satisfied that all feasible options for mitigation have been considered and evaluated appropriately."

In SMM's view, the Applicant has not fully addressed this important issue.

Water Framework Directive

13. The Water Framework Directive 2000/60/EC ("the WFD") established a strategic framework for protecting and improving the water environment in the European Union. It came into force in December 2000. Specific environmental objectives and measures for individual bodies of water are identified through a 6-yearly river basin planning process. This is underpinned by the use of environmental standards to help assess risks to the ecological quality of the water environment and to identify the scale of improvements that would be needed to bring waters under pressure back into a good condition.

14. The key European case on the WFD is Case C-461/13 *Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland* (*"Bund"*), which concerned a number of engineering projects that included dredging of the riverbed of the River Wise. A challenge was brought to the approval of the projects on the basis of their impact upon the water body and its associated habitats. The key passages in that judgment are at [29]-[33] and [45]-[51] (as well as the opinion of Advocate General Jääskine). The following points taken from that case are pertinent:

    e. There are two conceptually separate duties under the WFD: the duty to achieve good water status and the related duty to prevent deterioration (which applies even if the deterioration does not reduce in a loss of good water status).

f. Unless a derogation is granted, any deterioration of the status of a body of water must be prevented, irrespective of the longer term planning provided for by management plans and programmes of measures.

g. The WFD imposes binding obligations on states, requiring proactive measures that go beyond merely producing a plan.

h. States are required, unless a derogation is granted, to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status.

15. *Bund* has been endorsed in subsequent cases, for example in Case C-535/18 *Land Nordrhein-Westfalen*, where the Court said:

> "75. [...] when a project is liable to have adverse effects on water, consent may be given to it only if the conditions set out in Article 4(7)(a) to (d) of that directive are satisfied. Without prejudice to the possibility of judicial review, the national authorities which are competent to authorise a project are required to review whether those conditions are satisfied before the grant of such an authorisation (see, to that effect, judgment of 1 June 2017, *Folk*, C-529/15, EU:C:2017:419, paragraphs 36 and 39).
>
> 76. It follows from the foregoing that, during the procedure for approval of a project, and therefore before the decision is taken, the competent authorities are required, under Article 4 of Directive 2000/60, to check whether that project may have adverse effects on water which would be contrary to the requirements to prevent deterioration and to improve the status of bodies of surface water and groundwater. That provision therefore precludes such a check from taking place only after that time."

16. In other words, prior to granting consent, the Secretary of State is required to check for compliance with the WFD.

The WFD Regulations

17. The WFD was transposed domestically in England and Wales by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 ("the WFD Regulations").[1] As well as the WFD, the WFD Regulations also transposed aspects of Directive 2006/118/EEC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration ("GWD"),[2] and of Directive 2008/105/EC of the European Parliament and of the Council on environmental quality standards in the field of water policy ("EQSD").[3]

18. In short, the WFD Regulations require a strategic planning process to be established for the purposes of managing, protecting and improving the quality of water resources. The WFD protects surface waters including rivers, lakes, transitional waters (i.e. estuarine waters), coastal waters and groundwater.

19. Regulation 3 of the WFD Regulations imposes duties on the Secretary of State, Welsh Ministers, the Environment Agency and Natural Resources Wales to carry out *"relevant functions"* so as to ensure compliance with the WFD, GWD and EQSD. Relevant functions are defined in regulation 3. Guidance from the Planning Inspectorate on the requirements of the WFD Regulations in relation to NSIPs, however, notes that *"Functions under the Planning Act 2008 (as amended) (PA2008) are not 'relevant functions' for this purpose"*.[4]

[1] The WFD was originally transposed in England and Wales via the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 ("the 2003 Regulations"). The 2003 Regulations were amended several times, and following a Reasoned Opinion of the European Commission relating to transposition, a new set of Regulations was introduced

[2] https://eur-lex.europa.eu/eli/dir/2006/118/oj/eng

[3] https://eur-lex.europa.eu/eli/dir/2008/105/oj/eng

[4] Guidance: *'Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive'* (updated 25 March 2025). See https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-water-framework-directive

The application of the WFD and WFD Regulations to Sea Link

20. For the purposes of NSIP applications, the Guidance states that the WFD applies as follows:

> "When deciding NSIP applications, the Secretary of State will need to consider the potential effects of any proposed development on:
>
> - the environmental objectives and measures within River Basin Management Plan and any supplementary plans and
> - the ability of the UK to comply with the WFD, including (if applicable) the derogation provisions of Article 4.7
>
> The Examining Authority for an NSIP application must also report on these effects and ensure the Secretary of State has enough information to decide whether the development has implications for the UK's obligations under the WFD. This includes information in support of any derogation that may be sought."

21. In this respect, EN-1 provides that an applicant's environmental statement should contain information on impacts arising from the proposed development on water bodies or protected areas under the WFD (para. 5.6.17).[5] Moreover, regulation 5(2)(l)(iii) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 requires applicants to provide a plan and information identifying water bodies in a river basin management plan, together with an assessment of any effects on such bodies likely to be caused by the proposed development.

22. The Applicant has submitted document *'6.9 Water Framework Directive Assessment'* (March 2025) which states that a screening assessment was undertaken in relation to the Sea Link project.[6] The initial assessment undertaken

[5] Both the 2024 and revised versions.

[6] WFD waterbodies that were screened in were limited to: Hundred River (GB105035046260), Fromus (GB105035045980), Suffolk Waterbody (GB650503520002), Alde & Ore Waterbody (GB520503503800), Monkton and Minster Marshes (GB107040019621), Kent North Waterbody (GB650704510000), Stour (Kent) Waterbody (GB520704004700).

in Stages 1 to 3 concluded that there was potential for negative effects linked to specific construction activities and some operational activities (paras Ex.1.3.1 and 5.1.3). The Stage 4 assessment, however, concluded that the residual effects *"would be negligible following the implementation of the embedded and good practice measures"* (paras Ex.1.3.1 and 5.1.6). Overall, the Applicant's assessment concludes (para. 5.1.7):

> "… that the project is compliant with the objectives of the WFD, including preventing any deterioration in the status of a waterbody, and when considering the potential for cumulative effects. On this basis, no further assessment is proposed."

23. Although the Applicant has submitted that the project is compliant with the WFD, the ExA will of course need to be satisfied that the Secretary of State has sufficient information to decide whether the project has implications of the United Kingdom's obligations under the WFD. In SMM's view, insufficient information has been provided to satisfactorily show that there will be no significant WFD implications. In particular, the measures set out at **Appendix A** of **Document: 6.9 Water Framework Directive Assessment** are generic in nature, vague and often unenforceable e.g. "Land used temporarily will be reinstated where practicable", "Where practicable, [fuels, oils and chemicals] will be stored >15 m from watercourses," etc. These measures do not sufficiently demonstrate that deterioration will be prevented.

SAVE MINSTER MARSHES

23 February 2026

Appendix 1

Hydrogeological assessment pertaining to Water Framework Directive requirement

The Applicant's WFD Assessment (6.9, March 2025) concludes compliance on the basis that residual effects would be negligible following embedded and good practice measures (paras Ex.1.3.1, 5.1.6–5.1.7). However, site-specific evidence submitted by Save Minster Marshes at Deadline 1 (REP1-248, Hydrogeological Assessment) demonstrates that these generic measures are inadequate to prevent deterioration in the status of relevant surface water bodies, particularly for the Kent converter station site on Minster Marshes.

The assessment identifies foreseeable risks of irreversible soil compaction (to 0.6–1.2 m depth via Boussinesq pressure bulbs from repeated vehicle trafficking on soft clays/silts), leading to reduced void content (5–10%), low permeability, saturation, and rapid development of methanogenic/anaerobic conditions (methane and hydrogen sulphide production) when combined with high winter water tables and surface ponding.

Such conditions would alter hydromorphological and physico-chemical quality elements, potentially causing a one-class decline in biological quality (e.g., death of roots, invertebrates, and biota) even without overall status downgrade, precisely the type of deterioration that must be prevented under Article 4(1)(a)(i) of the WFD, as interpreted in Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland (C-461/13) at paras [29]–[33] and [45]–[51].

Further, the hydrogeological assessment highlights severe risks of sediment and pollutant runoff to the River Stour and Pegwell Bay transitional waters during construction (suspended sediment up to 30,000 ppm against typical discharge limits of ~20 ppm; nitrates, phosphates, pesticides, and herbicides adhering to charged clay/humic particles with slow settling velocities in cold winter conditions). This echoes the historical damage from CTRL embankment silt to 5 km of the River Stour.

Dewatering and treatment challenges on a flooded site (requiring 7+ days storage impossible due to ponding) exacerbate pathways to **Stour (Kent)** (GB520704004700) and **Monkton & Minster Marshes** (GB107040019621) water bodies, risking biological and physico-chemical deterioration.

The Applicant's response in Comments on Written Representations (9.79) relies on unproven "slow incremental drainage" via ditches/stone layers and CEMP measures (silt fences, settling tanks), but provides no quantitative rebuttal to the specific settling calculations, CTRL precedent, or irreversible methanogenic risks identified in REP1-248.

In light of **Bund** (paras [45]–[51]), the Secretary of State may not authorise the project where it may cause deterioration unless a valid Article 4(7) derogation is justified (all

practicable mitigation taken; overriding public interest; no better alternatives; integrated into River Basin Management Plan).

No such derogation information appears in the application documents, and the generic measures in 6.9 Appendix A fail to remove reasonable scientific doubt as to the absence of adverse effects on the integrity of these water bodies.

Consistent with Planning Inspectorate Advice Note 18 (updated March 2025), the Examining Authority must report whether sufficient information exists for the Secretary of State to decide on UK WFD obligations. The unresolved discrepancies between REP1-248 and the Applicant's assessments (APP-250, 6.8, 6.9) indicate that this threshold has not been met for the Kent arm.

APPENDIX 2: HYDROGEOLOGICAL ASSESSMENT

[redacted]

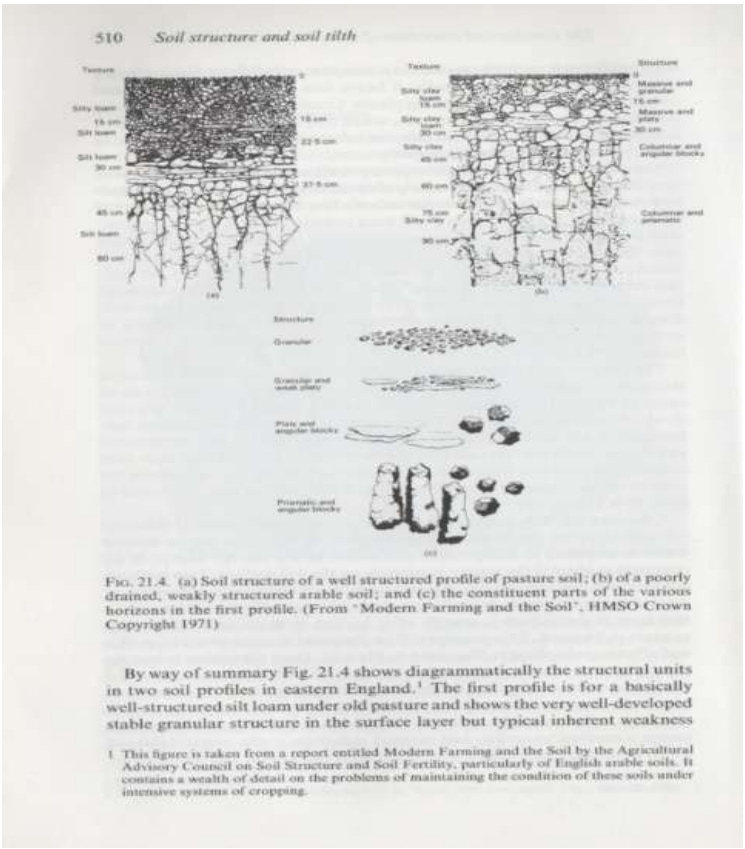
Chartered Geologist Specialising in Hydrogeology

HYDROGEOLOGIC ASSESMENT

NATIONAL GRID SEA LINK PROJECT KENT MARSHES

1. What is A Good Agricultural Soil?

1. The soil promotes the growth of plants by creating a medium in which their roots grow. The book " Soil Conditions and Plant Growth " 10th Ed by E. W Russell
2. The issue is how compaction by vehicle destroys good soil.
3. Russell p510 see figure 1 shows a comparison of a well structured soil on pasture and a poorly drained weekly structured arable soil. The good soil has large number of soil aggregates which hold a film of water and allow rainwater and oxygen to pass downwards. Any and all structure will be destroyed by vehicles certainly to a depth of 0.6m and most likely 1.2m



510 *Soil structure and soil tilth*

FIG. 21.4. (a) Soil structure of a well structured profile of pasture soil; (b) of a poorly drained, weakly structured arable soil; and (c) the constituent parts of the various horizons in the first profile. (From "Modern Farming and the Soil", HMSO Crown Copyright 1971)

By way of summary Fig. 21.4 shows diagrammatically the structural units in two soil profiles in eastern England.[1] The first profile is for a basically well-structured silt loam under old pasture and shows the very well-developed stable granular structure in the surface layer but typical inherent weakness

1 This figure is taken from a report entitled Modern Farming and the Soil by the Agricultural Advisory Council on Soil Structure and Soil Fertility, particularly of English arable soils. It contains a wealth of detail on the problems of maintaining the condition of these soils under intensive systems of cropping.

Figure 1

2. Roots need to grow in voids which contain water and oxygen. Therefore, a good soil is located above the water table and with a void content of perhaps 40% . p491. The most important group of agents that create structured pores in undisturbed soil are plant roots. If roots cannot grow ,they cannot create a topsoil. Compaction by vehicle reduces void content perhaps down to 5-10%. Saturation by water creates anaerobic conditions and the following changes occur:-
    1. Organic material + aerobic bacteria + oxygen produces Carbon Dioxide which forms Carbonic Acid.
    2. Low permeability means Oxygen is not replaced. Eventually Oxygen used up.
    3. Roots need Oxygen, so begin to die.
    4. Bacteria which cause fermentation produce alcohol, which is poisonous to roots 1 part in 1 million
    5. Nitrate converted to ammonia which kills invertebrates
    6. More stagnant condition produce methane and Hydrogen Sulphide (rotten egg smell). Hydrogen sulphide toxic to all life apart from Methanogenic Bacteria.

3. What is particularly damaging to soils is compaction by tyres and then flooding as this will produce rapid creation of methanogenic conditions. Once this occurs it is irreversible. The creation of a topsoil takes thousands of years and requires the creation of the correct structure, physics chemistry and biology.

2. How Tyres Compact a Soil

1. The weight of the tyre compacts the soil. There are three basic aspects

    1. Pressure exerted by tyre which is controlled by pressure within it.
    2. Width of tyre controls depth to which pressure is exerted
    3. No of times a vehicle passes over the same ground

2. The compaction of soil depends on strength, particle size and moisture content. A soil with a higher shear strength will become less compacted than a soil with a lower shear strength. However, moisture content reduces shear strength so a rainfall may so increase moisture that if a vehicle passes over it will be severely compacted whereas if this occurred before the rainfall, the effect would be slight. Hence farmers take great care to ensure they do not run vehicles over soil when it could be severely compacted.

3. Compaction beneath a tyre is calculated by the Bousinesq equation (p336 and 337 Soil Mechanics Concepts and application W Powrie)- See Figure 2. Compaction is a result of the pressure bulb which extends to twice width of the foundation, which in in this case is width of tyre. At a depth of equal to width of foundation or tyre, the pressure exerted by tyre will be this 0.5 of that at the ground surface. Repeated driving over the same piece of ground will cause further compaction which is the way soil is compacted for embankments carrying roads and railways. The vehicles on the sit will have tyre widths of 0.6m or greater. This means they will exert a pressure equal to half the tyre pressure at 0.6m and at 0.3m about 0.8. Topsoil will have a depth of 0.3m to 0.6m so it will be compacted such that it will have a minute void content and extremely low permeability and become saturated with a few millimetres of rain. Methanogenic conditions will develop within days and kill all roots. All crops will die.

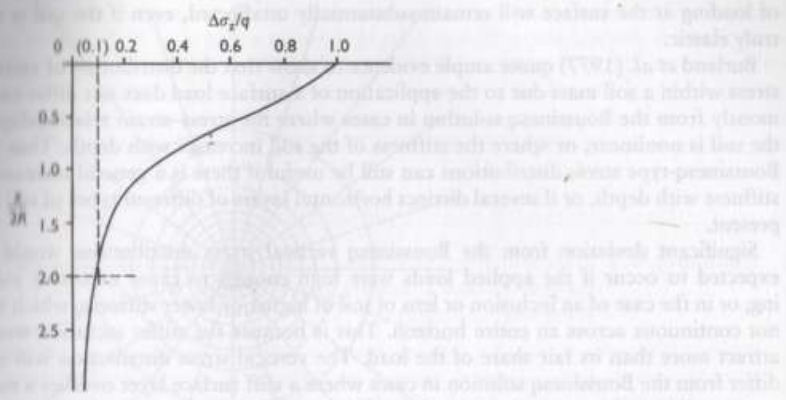


Figure 6.6 Increase in vertical stress below the centreline of a uniform circular surcharge.

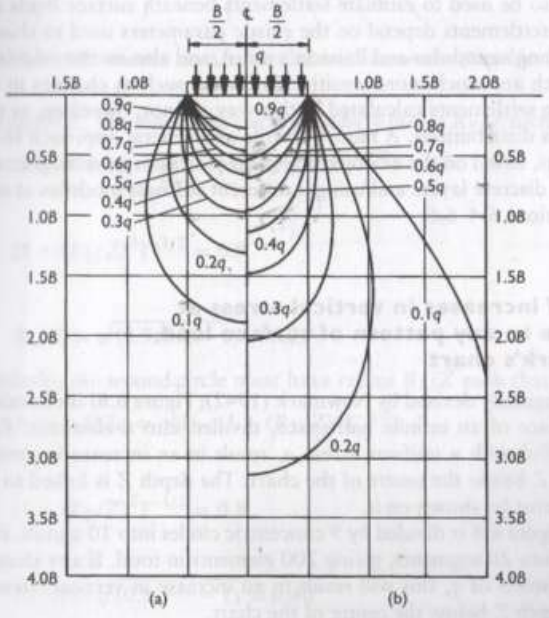


Figure 6.7 Contours of increase in vertical stress (a) below a circular footing of diameter B, and (b) below a strip footing of width B, subjected to a uniform vertical surcharge q. (Redrawn with permission from Whitlow, 1995.)

Figure 2

3. The site comprises a top metre with higher strength, the crust on a custard, below which the ground is much softer. At a depth 1.2m, twice the width of a tyre, the ground below a depth of 1.0m will fail when a vehicle passes above. This will result in wheel or track breaking through the top 1.0m crust bogging down the vehicle and ruining the soil.
4. Once the soil has become compacted, saturated and methanogenic conditions prevail it may be impossible to return it to its' previous conditions within a period of 100s of years. The topsoil is result of various factors operating over 100s of years.

3. Environmental Impact of Silt, Phosphate, Nitrates and Pesticides Entering Rivers

How Sediment Damages River Life

1. The Closed season for course fishing is 15th March to 15th June. Fish need to lay eggs in well oxygenated water.
2. Fertilisers and herbicides will have been applied to the soil. Soil washed into River Stour will contain the following:-
    i. Fine Sand, Clay and Silt
    ii. Possible water with pH below 7
    iii. Aluminium Oxide
    iv. Bacteria
    v. Nitrate
    vi. Phosphate
    vii. Herbicides.
3. This will cause multiple problems. Vegetated surface reduces or prevents items I to vii entering a river.
4. Fish need to spawn on clean gravel/sand or plants. Eggs are laid in shallow depressions called Redds in the gravels at the bottom of the river. The male fertilises the eggs and spreads gravel over them. If silt containing items listed in 2.2 before spawning, this will undertake the following:-
    i. Reduce oxygen reaching eggs so increasing mortality
    ii. Fertilisers will encourage bacterial and or algal growth which will reduce oxygen, so increase mortality
    iii. Herbicides will kill or damage eggs
    iv. pH water below 7 and containing aluminium will kill eggs
    v. Items a to d will also kill invertebrates on riverbed on which fish feed
    vi. If the above is deposited on the eggs the mortality will be even greater.
    vii. Sediment from an embankment on the CTRL severely damaged 5km of the River Stour.
    viii. The situation is even more fatal to eggs if a layer of silt is laid over the eggs. Eggs dies off and if there is insufficient oxygenated water, anaerobic conditions will develop producing methane, ammonia and even hydrogens sulphide. All are toxic to eggs. The result can be death of all eggs in the Redd.

5. Fig 3 Shows a Redd with and without Silt. The presence of nitrate and phosphate means that bacteria will grow on the Silt further reducing oxygen reaching the eggs. If anaerobic conditions occur all eggs will die.

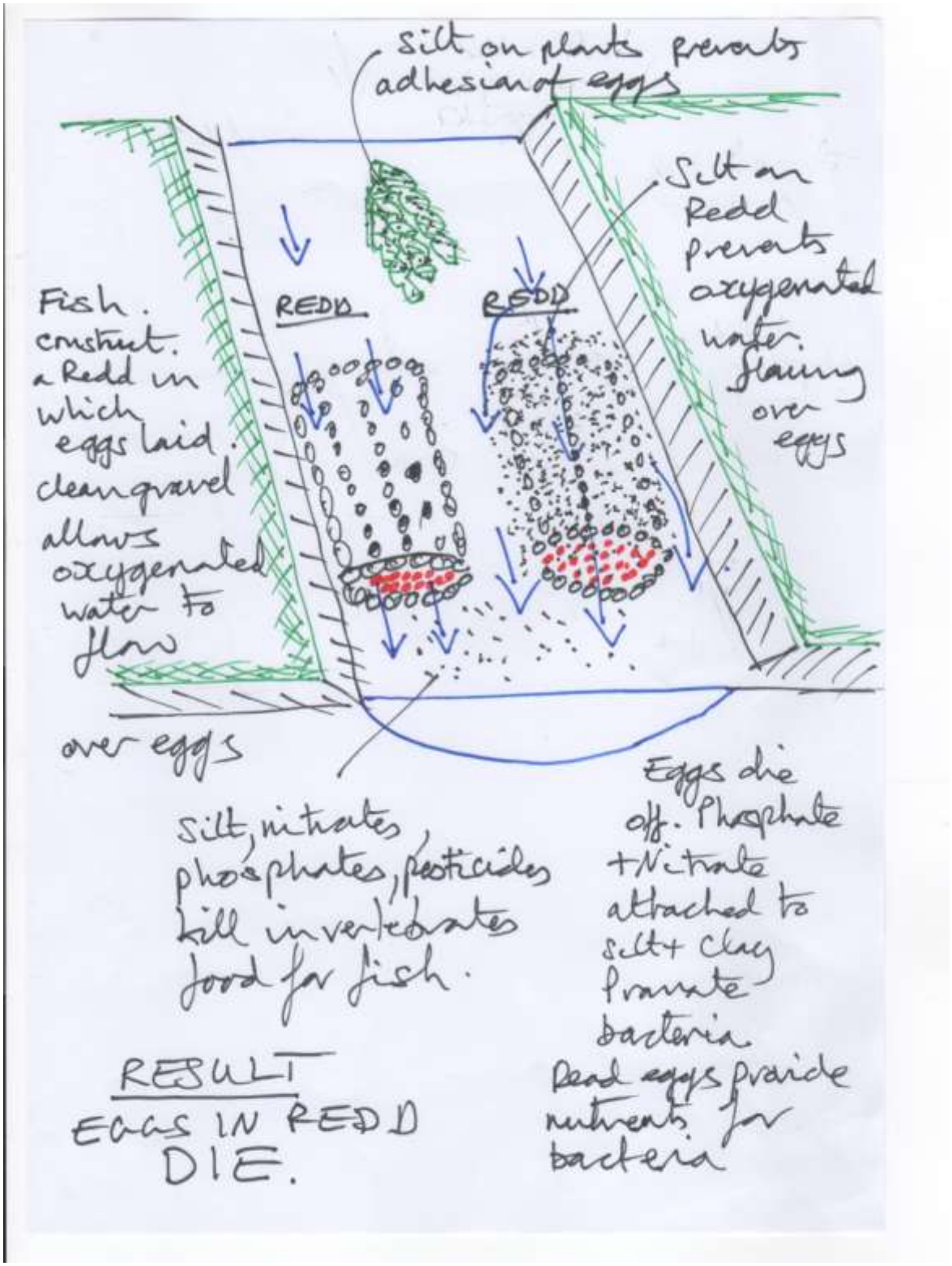


Figure 3

4. Construction Issues on Ground Comprising Very Soft Clay/silts and Loose Sands and High Water Table at Surface

1. The first issue is that the terrain is flat and so rainwater will pond. Removal of the vegetation means the rain falling on the soil will cause particles to be loosened. The marsh soil contains a high proportion of silt which is very easily disturbed.
2. This water cannot be discharged to The River Stour as the sediment will be greatly in excess of discharge limits. The sediment content could reach 30,000 ppm where a discharge limit may be 20 ppm. The water will need to be stored for up to 7 days. A 1 in 100 storm produces 0.06m of rain! 1Ha is 10,000 sq metres. Therefore, every hectare would produce 600 cubic metres of water. In winter, the water is at the surface so where can the water be stored? When rain water washed topsoil of an embankment of the CTRL into the River Stour, 5km was damaged and it took years to recover.
3. The site operations will be adversely affected by surface water and groundwater at and close to the surface. This will mean that much of the year the following will be needed.
4. Construction de-watering which will required such as some sort of ground barriers and water abstraction system. Low permeability silts and clay are more difficult to de-water and hence more expensive that sands.
5. The design and construction dewatering systems require advanced engineering skills. A good guide is Groundwater Lowering in Construction by Cashman P M and Preene M. There will be a need for extensive de-watering of pipelines and roads. A Good example of the type of system needed is shown on p234 Fig 7A2 – See Fig 3. And . p 271 and 292 3 is a photo of what the site will look like in dry conditions, wet will be far worse.

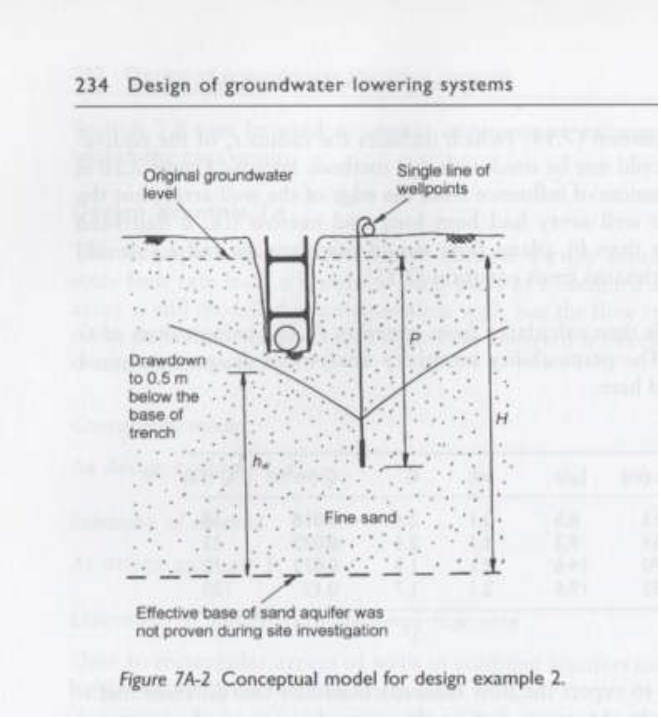


Figure 4

Figure 9.19 Workable conditions, following wellpoint pumping, under which the channel was actually formed (courtesy of Northumbrian Water Limited).

Figure 5

6. Treating the water so it is suitable to discharge to the River Stour. The sediment content is likely to reach 30000 ppm and most river water abstraction treatment systems can only cope with 2000ppm. Therefore, water will have to be stored. The speed at which at particle falls through water depends upon the following:-
    a. Diameter
    b. Specific gravity. Clays and quartz SG is about 2.65 whereas Humic material about 1.3.
    c. Dynamic viscosity of water. The stickiness which increases with the cold. Like treacle, it is thicker in the cold than the warm.

7. The diameter of the particles are likely to range from Fine Sand, at 0.1mm or 10-4 m to finest at 0.45um. When it comes to calculations of settling velocities anything below 5m becomes unreliable due to Brownian Motion

Diameter	**Winter** 4° C Dynamic Viscosity 1.57x10-3 Pa/S			**Summer** 20^0 Dynamic Viscosity 1.01x10-3 Pa /S	
	SG 2.65		SG1.3	SG 2.65	SG 1.3
0.0001m/0.1mm	5.7x10-3m/s		1.1x10-4m/s	8.9 x10-3m/s	1.6 x10-3m/s
0.000005m/0.005mm	1.43x10-5m/s		2.6x10-7m/s	2.22 x10-5m/s	4.04x10-65m/s

Particle comprising humic material with a diameter of 0.005mm in winter could settle 2.6 x10-7 m/s compared to a sand particle in summer which will settle at 8.9x10-3m/s, which is approximately 34,000 times slower.

8. Pollutants such as nitrates, phosphates and pesticides can stick to particles. What becomes important are the following

a. Electrical charges on particles. Silt and fine sand will largely comprise quartz in the shape of balls, like marbles. The charge will be almost non existent and therefore there will be little sticking of pollutants. Clay and humic particles are charged; nitrate, phosphate and pesticides stick to them more than Quartz

b. Surface area of particle. As the particle becomes smaller , a kilogramme of silt particles of diameter 0.000005m or 0.005 mm has a much larger surfce area than a kilo of Fine sand particles of diameter 0.0001m or 0.1mm.

Example 0.1kg of Soil

Diameter of Particles 0.0001m/0.1mm, surface area = 5.67 x10-1 m^2

Diameter of soil particle 0.000005m/0.005mm, surface area = 1.36x10+1 m^2

9. Settling out of particles carrying nitrate, phosphate and pesticide there is a way of treating water to reduce pollutant load but this requires settling out of sub 5um /0.005 mm particles, especially humic but these with a specific Gravity of 1.3 is about half that of Clay or Silt at SG of 2.65. Most of the rain falls in winter when the water is colder and therefore Dynamic Viscosity is higher. In order to settle out the particles it will be probably be necessary to store the water for 7 days. The problem is that in winter the site is likely to be flooded with water at the ground surface so where will the water be stored? Each location with will have specific soils and pollutants which will mean test will have to be undertaken to design specific treatment.

5. The proposed construction of the Converter Station will cause vast damage irreversible damage to The Marshes and River Stour.

1. Temporary Haulage Roads. Temporary haulage roads will have to be constructed along which vehicles can move without sinking into the ground, especially in winter.

2. Construction of Converter Station. So far basic details have not be provided

a. Area of building

b. Load exerted by building on ground

c. Foundation design.

3. One carries on loading the soil until it stops compressing; this is when sufficient water squeezed out to top settlement. This is not practical at this site. The design has not been submitted but what may be needed is to construct a platform raised above the ground on very large piles sunk into Thanet Sands or most likely, The Chalk. In appearance like a North Sea platform. This will be very expensive and need importation of vast amounts of steel and/or concrete. The machines needed to construct wide deep piles are very large and heavy so will need well built haulage roads.

4. Piling will be required. However, the risk from unexploded bombs made geophysics too risky so how will piling be possible? There is no reason why there cannot be several 100kg bombs located close to each other so detonation from piling causes one to explode and others nearby. What is the result of say 4 bombs exploding with a combined weight of 4000kg?

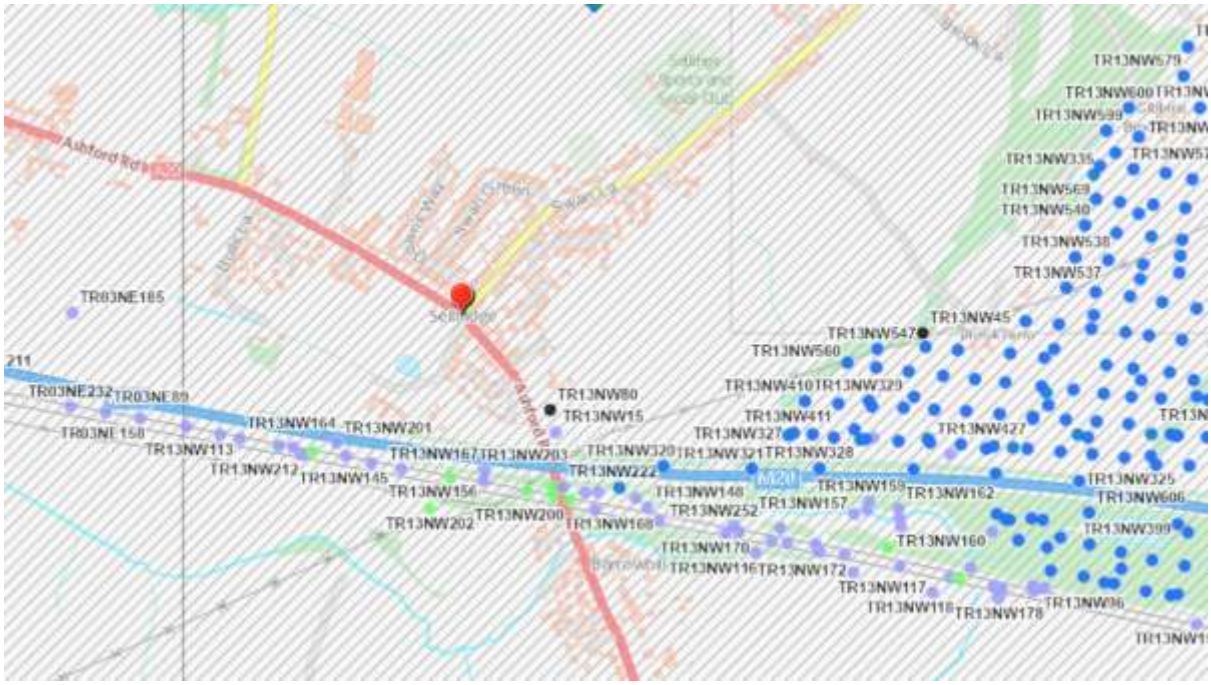
5. Much of the site will be flooded in winter. One can build bridges across rivers and platforms in the sea but one uses vary large barges with cranes of very high capacity.

6. One could construct a sheet pile around the site or a coffer dam and de-water within but this would be very expensive and create irreparable damage to River Stour and the Marshes. Choosing this site where are there others where construction can be undertaken for more easily is waste of public money. It is malfeasance .

6. Alternative Possible Sites

Sellinge

Screen shot of boreholes in Sellinge area from www,BGS.ac.uk. There are extensive boreholes and site investigation reports showing the area if underlain by strong rock and very stiff clay. Presence of the M20 and a railway line provides data on strength of the ground and therefore suitability of constructing a converter station. Water table below 30 m bgl.



The underlying geology comprises The Lower Greensand comprising Hythe Formation, Sandgate Formation, Folkestone which is largely composed of sand and sandstone.

The below are summaries of boreholes from the Sellinge sunk during the construction often CTRL

BGS ID 15619152, BGS Ref TR31 NW194, NGR 610628, 177712

Depth BGL

4.80m Moderately strong Limestone

9.60

Stiff Clay

16.25 Very stiff – hard clay..

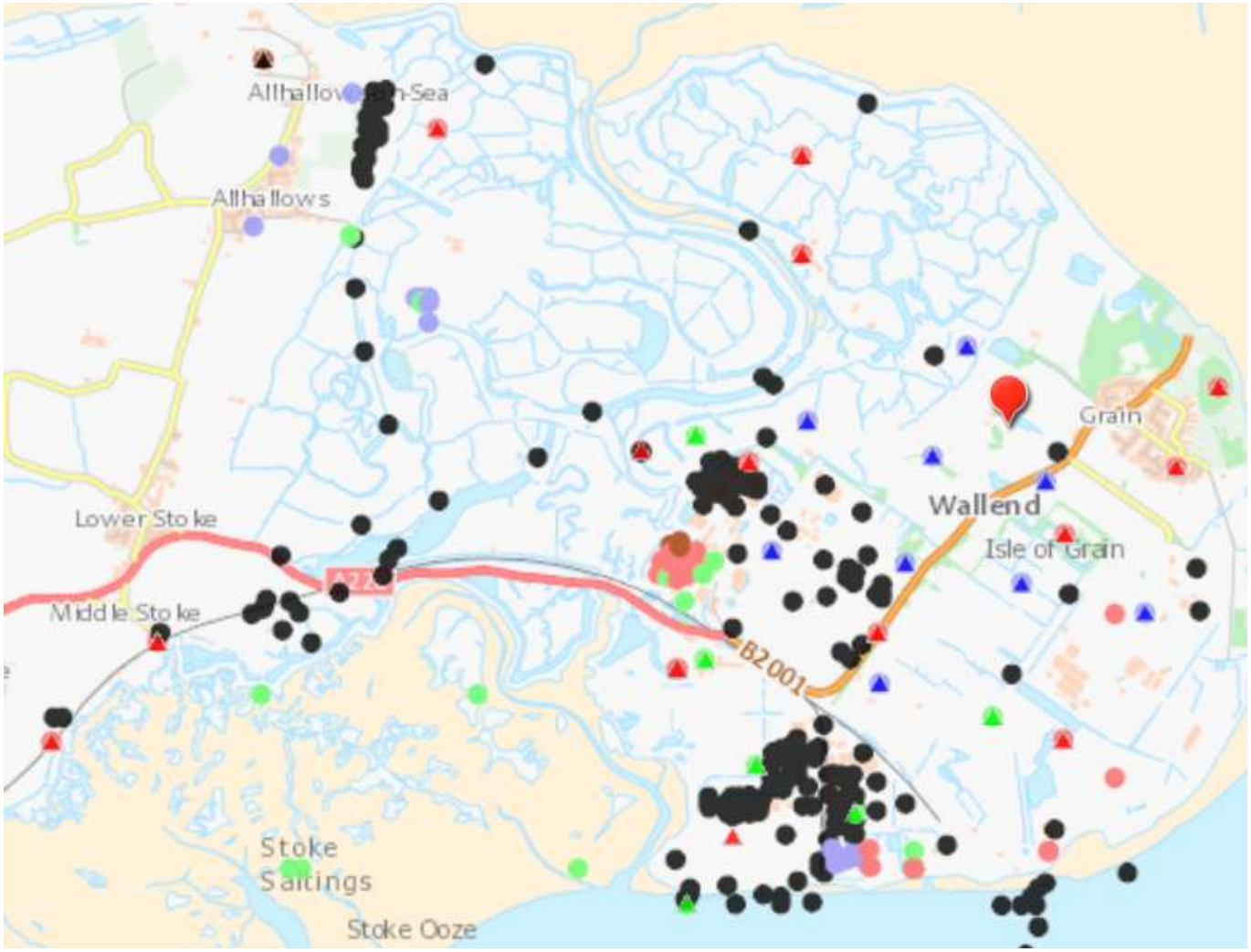
BGS ID 15619158, BGS Ref TR31NW200, NGR 610706, 137696

Depth BGL

2.80m Very strong limestone,10.46m Stiff clayBGS ID 15619195, BGS Ref TR13NW235, NGR 27700

Isle of Grain

The Isle of Grain is underlain by London Clay of which there is a large amount of information regarding construction



Water table in London Clay below 30m bgl.

BH BGS ID 635750, BGS TQ87NE16, NGR 586120,175740

Depth

12m Drift

52m London Clay

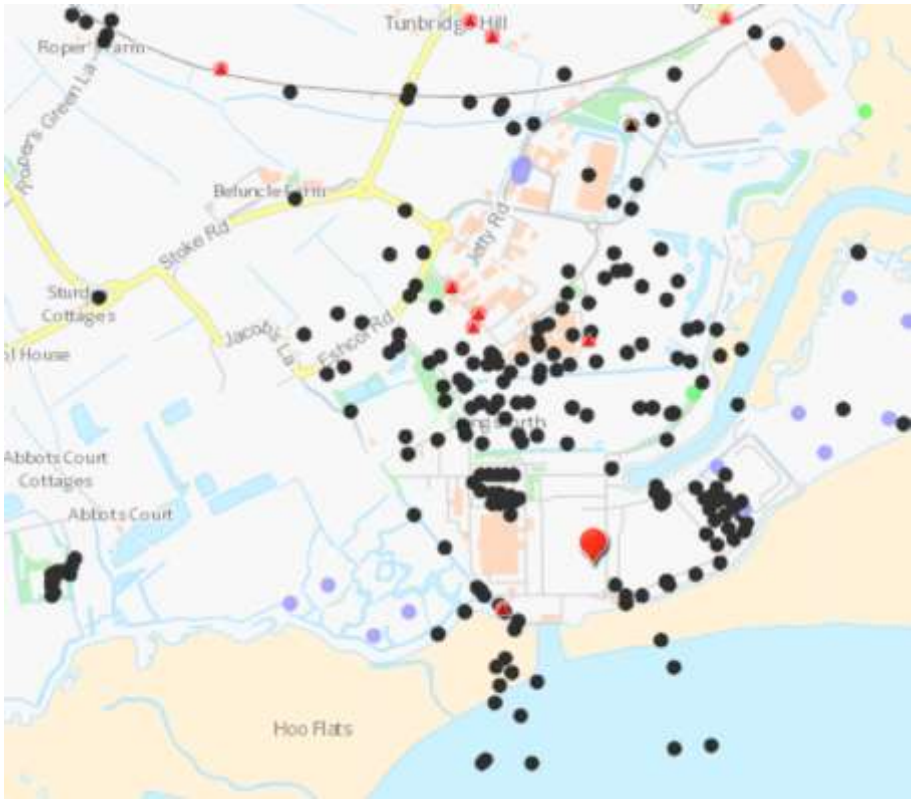
72m Reading and Woolwich

78m Thanet

250 m Chalk

There has been extensive industrial construction on the Isle of Grain so there is the knowledge of how the ground behaves under load.

Kings North Power Station



Underlain by London Clay with Chalk at depth

BH

BGS ID 756338, BGS Ref TQ87SW85 , NGR 580790, 175840

Depth

1.4m bgl Made Ground

2.6m Alluvium

2.8m Terrace Gravel

4.3m London Cly

38.07m Woolwich and Reading, Thanet Beds

BH

BGS ID 756283, BGS Ref TQ87SW48/c, NGR 580700. 172900

Depth

7.9m Drift

29.0m London Cly

40.2m Black heath, Woolwich and Reading

68m Thanet

147.5m Upper Chalk

206m Middle Chalk

244m Lower Chalk

Water struck at 25m bgl.

Dungeness

Storm Beach overlying Hastings Beds which comprise iron rich sandstones, siltstones and shales. Dungeness Power Station has been built, so there will be a good understanding of bearing capacity of ground. The vast number of borehole records are restricted and they will be owned by owner of power station.

7. Summary

1. The proposed construction of the Converter Station on the Minster Marshes will produce vast permanent damage to the marshes and the River Stour.

2. The construction of the Converter Station will be far more technically difficult at the Minster Marshes site compared to Sellinge, Isle of Grain, Kingsnorth Power Station and Dungeness Power station.

3. The prosed sites at Sellinge, Isle of Grain an and Dungeness are well above the water table, are located on form ground and have had construction taken nearby.

Consequently, there is existing site investigation data and data from the monitoring of structures on the ground. Consequently, construction at Sellinge, Isle of Grain, Kingsnorth Power station and Dungeness will be quicker, cheaper and simpler than on the Minster Marshes.

APPENDIX 3 Bund für Umwelt und Naturschutz Deutschland eV v Bundesrepublik Deutschland

Bund für Umwelt und Naturschutz Deutschland eV v Bundesrepublik Deutschland: C-461/13

Overview (2015) | C-461/13, | **ECLI:EU:C:2015:433**, | [2015] All ER (D) 15 (Jul)

Judgment of the Court (Grand Chamber) of 1 July 2015. Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland. Request for a preliminary ruling from the Bundesverwaltungsgericht. Reference for a preliminary ruling — Environment — EU action in the field of water policy — Directive 2000/60/EC — Article 4(1) — Environmental objectives relating to surface waters — Deterioration of the status of a body of surface water — Project for the development of a navigable waterway — Obligation of the Member States not to authorise a project that may cause a deterioration of the status of a body of surface water — Decisive criteria for determining whether there is a deterioration of the status of a body of water. Case C-461/13. ECLI:EU:C:2015:433

(CELEX Number 62013CJ0461)

Dates

Date of document:	01.07.2015	
Date lodged:	22.08.2013	

ECLI identifier:	ECLI:EU:C:2015:433

JUDGMENT OF THE COURT (Grand Chamber)

1 July 2015 (*1)

'Reference for a preliminary ruling — Environment — EU action in the field of water policy — Directive 2000/60/EC — Article 4(1) — Environmental objectives relating to surface waters — Deterioration of the status of a body of surface water — Project for the development of a navigable waterway — Obligation of the Member States not to authorise a project that may cause a deterioration of the status of a body of surface water — Decisive criteria for determining whether there is a deterioration of the status of a body of water'

In Case C-461/13,

REQUEST for a preliminary ruling under Article 267 TFEU from the Bundesverwaltungsgericht (Germany), made by decision of 11 July 2013, received at the Court on 22 August 2013, in the proceedings

Bund für Umwelt und Naturschutz Deutschland eV

v

Bundesrepublik Deutschland,

joined party:

Freie Hansestadt Bremen,

THE COURT (Grand Chamber),

composed of V. Skouris, President, K. Lenaerts, Vice-President, A. Tizzano, R. Silva de Lapuerta, M. Ilešič, A. Ó Caoimh, C. Vajda and S. Rodin, Presidents of Chambers, A. Borg Barthet, J. Malenovský, E. Levits, M. Berger (Rapporteur), C.G. Fernlund, J.L. da Cruz Vilaça and F. Biltgen, Judges,

Advocate General: N. Jääskinen,

Registrar: K. Malacek, Administrator,

having regard to the written procedure and further to the hearing on 8 July 2014,

after considering the observations submitted on behalf of:

— Bund für Umwelt und Naturschutz Deutschland eV, by R. Nebelsieck, Rechtsanwalt,

— Bundesrepublik Deutschland, by W. Ewer, Rechtsanwalt,

— Freie Hansestadt Bremen, by P. Schütte, Rechtsanwalt,

— the Czech Government, by M. Smolek, acting as Agent,

— the French Government, by S. Menez, acting as Agent,

— the Netherlands Government, by M. Bulterman, B. Koopman and J. Langer, acting as Agents,

— the Polish Government, by B. Majczyna, acting as Agent,

— the United Kingdom Government, by J. Beeko, acting as Agent, and G. Facenna, Barrister,

— the European Commission, by E. Manhaeve and G. Wilms, acting as Agents,

after hearing the Opinion of the Advocate General at the sitting on 23 October 2014,

gives the following

Judgment

1 This request for a preliminary ruling concerns the interpretation of Article 4(1)(a)(i) to (iii) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ 2000 L 327, p. 1).

2 The request has been made in proceedings between Bund für Umwelt und Naturschutz Deutschland eV (German

federation for the environment and the conservation of nature) and Bundesrepublik Deutschland (the Federal Republic of Germany) concerning a scheme to deepen various parts of the river Weser in the north of Germany, intended to enable larger container vessels to call at the German ports of Bremerhaven, Brake and Bremen.

Legal context

EU law

(25) Common definitions of the status of water in terms of quality and, where relevant for the purpose of the environmental protection, quantity should be established. Environmental objectives should be set to ensure that good status of surface water and groundwater is achieved throughout the Community and that deterioration in the status of waters is prevented at Community level.

…

(32) There may be grounds for exemptions from the requirement to prevent further deterioration or to achieve good status under specific conditions, if the failure is the result of unforeseen or exceptional circumstances, in particular floods and droughts, or, for reasons of overriding public interest, of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, provided that all practicable steps are taken to mitigate the adverse impact on the status of the body of water.'

4 Article 1 of Directive 2000/60, headed 'Purpose', provides:

'The purpose of this Directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which:

(a) prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems;

...'

17. "Surface water status" is the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status.

...

21. "Ecological status" is an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters, classified in accordance with Annex V.

22. "Good ecological status" is the status of a body of surface water, so classified in accordance with Annex V.

...'

23. "Good ecological potential" is the status of a heavily modified or an artificial body of water, so classified in accordance with the relevant provisions of Annex V.

6 Article 3 of Directive 2000/60, headed 'Coordination of administrative arrangements within river basin districts', provides in paragraph 1:

'Member States shall identify the individual river basins lying within their national territory and, for the purposes of this Directive, shall assign them to individual river basin districts. Small river basins may be combined with larger river basins or joined with neighbouring small basins to form individual river basin districts where appropriate. Where groundwaters do not fully follow a particular river basin, they shall be identified and assigned to the nearest or most appropriate river basin district. Coastal waters shall be identified and assigned to the nearest or most appropriate river basin district or districts.'

(a) all practicable steps are taken to prevent further deterioration in status and in order not to compromise the achievement of the objectives of this Directive in other bodies of water not affected by those circumstances;

(b) the conditions under which circumstances that are exceptional or that could not reasonably have been foreseen may be declared, including the adoption of the appropriate indicators, are stated in the river basin management plan;

(c) the measures to be taken under such exceptional circumstances are included in the programme of measures and will not compromise the recovery of the quality of the body of water once the circumstances are over;

(d) the effects of the circumstances that are exceptional or that could not reasonably have been foreseen are reviewed annually and, subject to the reasons set out in paragraph 4(a), all practicable measures are taken with the aim of restoring the body of water to its status prior to the effects of those circumstances as soon as reasonably practicable, and

(e) a summary of the effects of the circumstances and of such measures taken or to be taken in accordance with paragraphs (a) and (d) are included in the next update of the river basin management plan.'

— failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities

and all the following conditions are met:

(a) all practicable steps are taken to mitigate the adverse impact on the status of the body of water;

(b) the reasons for those modifications or alterations are specifically set out and explained in the river basin management plan required under Article 13 and the objectives are reviewed every six years;

(c) the reasons for those modifications or alterations are of overriding public interest and/or the benefits to the environment and to society of achieving the objectives set out in paragraph 1 are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety or to sustainable development, and

(d) the beneficial objectives served by those modifications or alterations of the water body cannot for reasons of technical feasibility or disproportionate cost be achieved by other means, which are a significantly better environmental option.'

9 Article 11 of Directive 2000/60, headed 'Programme of measures', states in paragraph 1:

'Each Member State shall ensure the establishment for each river basin district, or for the part of an international river basin district within its territory, of a programme of measures, taking account of the results of the analyses required under Article 5, in order to achieve the objectives established under Article 4. Such programmes of measures may make reference to measures following from legislation adopted at national level and covering the whole of the territory of a Member State. Where appropriate, a Member State may adopt measures applicable to all river basin districts and/or the portions of international river basin districts falling within its territory.'

10 Article 13 of Directive 2000/60, headed 'River basin management plans', provides in paragraph 1:

'Member States shall ensure that a river basin management plan is produced for each river basin district lying entirely within their territory.'

11 Article 14 of Directive 2000/60, headed 'Public information and consultation', states in paragraph 1:

'Member States shall encourage the active involvement of all interested parties in the implementation of this Directive, in particular in the production, review and updating of the river basin management plans. ...'

German law

2. to preserve or achieve good ecological status and good chemical status.

(2) Surface waters which are classified as artificial or heavily modified in accordance with Paragraph 28 shall be managed in such a way as:

1. to prevent deterioration of their ecological potential and their chemical status and

2. to preserve or achieve good ecological potential and good chemical status.'

13 The first sentence of Paragraph 31(2) of the WHG states:

‘If good ecological status of surface water is not achieved or if its status deteriorates, that shall not be contrary to the management objectives under Paragraphs 27 and 30 provided that:

1. it is the result of a new modification to the physical characteristics of the water or to the groundwater level;

2. the reasons for the modification are of overriding public interest or the benefits of the new modification for human health or safety or for sustainable development outweigh the benefits for the environment and the community of achieving the management objectives;

3. the objectives pursued by the modification to the water cannot be achieved using other appropriate measures which have a significantly less adverse impact on the environment, which are technically achievable and the cost of which is not disproportionately high; and

4. all measures appropriate in practice are taken to reduce the adverse impact on water status.

...’

14 The third sentence of Paragraph 12(7) of the Law on federal waterways (Bundeswasserstraßengesetz) of 2 April 1968 (BGBl. 1968 II, p. 173), in the version applicable at the material time, states:

‘Development measures must take account of the management objectives applicable under Paragraphs 27 to 31 of the [WHG].’

15 The second sentence of Paragraph 14(1) of that law provides:

‘In the context of planning approval, the public and private interests affected by the project must be taken into consideration, including the impact of the project on the environment.’

The dispute in the main proceedings and the questions referred for a preliminary ruling

16 By planning decision of 15 July 2011 (‘the planning approval’), the Waterways and Navigation Directorate for the North-West Region (Wasser- und Schiffahrtsdirektion Nordwest), a federal administrative authority, granted consent for three projects concerning the development of the river Weser, which is a federal waterway. The developer for each of those projects, which can be carried out independently of each other, is the Federal Waterways and Navigation Authority (Wasser- und Schifffahrtsverwaltung des Bundes).

17 The first project seeks to develop the outer Weser from the high sea to Bremerhaven. The depth of its navigable channel is to be increased by up to 1.16 metres (m) so that large container vessels with a loaded draught of up to 13.5 m can reach the port of Bremerhaven irrespective of the tide. The project is connected with a deepening of the vessel turning area in the port of Bremerhaven, the developer for which is Freie Hansestadt Bremen, the joined party in the main proceedings.

18 The second project concerns the development of the lower Weser from Bremerhaven upstream to Brake; the depth of the navigable channel is to be increased by up to 1 m so that vessels with a maximum loaded draught of 12.8 m can reach that port, depending on the tide.

19 The third project seeks to develop the lower Weser from Brake upstream to Bremen. In this section of the river, the depth of the navigable channel is to be increased so that vessels with a loaded draught of up to 11.1 m can, depending on the tide, reach the port of Bremen. At present, the port of Bremen can, depending on the tide, be reached by vessels with a loaded draught of up to 10.7 m.

20 Implementation of the projects at issue involves dredging the river bed in the channels. After the initial excavation to the depth planned in the development, regular dredging for maintenance purposes will be necessary. Most of the dredged material arising from the development and from maintenance of the river is proposed to be discharged into the outer and

the lower Weser at locations that have already been used for that purpose.

21 In addition to the direct effects of dredging and of discharging the dredged material, the projects at issue have, according to the referring court, other hydrological and morphological consequences for the sections of river concerned. In particular, current speeds will increase on a rising tide and on an ebb tide, tidal high water levels will rise, tidal low water levels will fall, salinity will increase in parts of the lower Weser, the brackish water limit in the lower Weser will move upstream and, finally, silting-up of the river bed will increase outside the navigable channel.

22 Of the bodies of water concerned, the Weser transitional waters and the tidal area above Brake are classified as heavily modified within the meaning of Article 2(9) of Directive 2000/60. The outer Weser area is classified as a natural body of water in so far as it forms part of the coastal waters. Also, a number of bodies of water falling within tributaries are concerned, some of which are classified as natural and some as heavily modified.

23 On that basis, the Waterways and Navigation Directorate for the North-West Region examined in the planning approval whether the projects at issue were compatible with the objective laid down by Directive 2000/60 of preventing deterioration of the status of the bodies of water. It concluded that deterioration within the meaning of the directive was not to be expected so far as concerns the coastal waters.

24 On the other hand, it considered that the present status of certain bodies of water of the Weser would tend to be adversely modified by the effects of the development projects at issue, without that resulting in a change in the status class in accordance with Annex V to Directive 2000/60. According to the Waterways and Navigation Directorate for the North-West Region, such deterioration within a status class is not to be regarded as a deterioration of the ecological potential or the status of the body of water concerned.

25 By way of alternative, that authority examined whether the conditions, laid down in Paragraph 31(2) of the WHG and Article 4(7) of Directive 2000/60, for a derogation from the prohibition of deterioration in the status of bodies of water were met and concluded that that was the case.

26 Bund für Umwelt und Naturschutz Deutschland eV challenges the planning approval, pleading in particular — in addition to infringements of the legislation relating to planning consent, of the Law on environmental impact assessment (Gesetz über die Umweltverträglichkeitsprüfung) and of environmental protection legislation, especially legislation relating to fauna, flora, habitats and the protection of birds — a failure to comply with provisions for the protection of water which have their origin in Directive 2000/60.

27 The referring court considers that the outcome of the main proceedings depends on the interpretation of several provisions of Directive 2000/60.

2. Is the term “deterioration of the status” in Article 4(1)(a)(i) of Directive 2000/60 to be interpreted as covering only detrimental changes which lead to classification in a lower class in accordance with Annex V to the directive?

3. If the second question is to be answered in the negative: under what circumstances does “deterioration of the status” within the meaning of Article 4(1)(a)(i) of Directive 2000/60 arise?

4. Are the provisions of Article 4(1)(a)(ii) and (iii) of Directive 2000/60 to be interpreted as meaning that the Member States must — unless a derogation is granted — refuse to authorise a project if it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the directive, or are those provisions merely a statement of an objective for management planning?’

Consideration of the questions referred

Questions 1 and 4

29 By its first and fourth questions, which it is appropriate to deal with together, the referring court asks, in essence, whether Article 4(1)(a)(i) to (iii) of Directive 2000/60 must be interpreted as meaning that the Member States are required — unless a derogation is granted — to refuse authorisation for a project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and

good surface water chemical status by the date laid down by the directive.

30 In accordance with settled case-law of the Court, the scope of those provisions must be determined by taking into account both the terms in which they are couched and their context, as well as the objectives pursued by the legislation of which they form part (see, in particular, judgments in *Lundberg*, C-317/12, EU:C:2013:631, paragraph 19; *SFIR and Others*, C-187/12 to C-189/12, EU:C:2013:737, paragraph 24; and *Bouman*, C-114/13, EU:C:2015:81, paragraph 31) and, in the circumstances of this case, the history of that legislation.

31 It should be noted that, contrary to the submissions of Bundesrepublik Deutschland and the Netherlands Government, the wording of Article 4(1)(a)(i) of Directive 2000/60, which provides that 'Member States shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water', attests to the binding force of that provision. The words 'shall implement' involve an obligation on the Member States to act to that effect.

32 It is necessary, as the referring court has done, to construe authorisation of an individual project as such implementation.

33 Furthermore, as provided in Article 4(1)(a) of Directive 2000/60, it is '[i]n making operational the programmes of measures specified in the … management plans' that the Member States adopt the measures necessary in order to achieve the objectives of preventing deterioration of the status of bodies of surface water and protecting and enhancing their status. The use of the words '[i]n making operational' supports an interpretation of that provision to the effect that it entails obligations which must be complied with by the competent authorities when approving individual projects in the context of the legal regime governing the protection of waters.

34 It should also be pointed out that Directive 2000/60 is a framework directive adopted on the basis of Article 175(1) EC (now Article 192(1) TFEU). It establishes common principles and an overall framework for action in relation to water protection and coordinates, integrates and, in a longer perspective, develops the overall principles and the structures for protection and sustainable use of water in the European Union. The common principles and overall framework for action which it lays down are to be developed subsequently by the Member States by means of the adoption of individual measures in accordance with the timescales laid down in the directive. However, the directive does not seek to achieve complete harmonisation of the rules of the Member States concerning water (judgments in *Commission* v *Luxembourg*, C-32/05, EU:C:2006:749, paragraph 41, and *Commission* v *Germany*, C-525/12, EU:C:2014:2202, paragraph 50).

35 Recital 25 in the preamble to Directive 2000/60 confirms that the environmental objectives should be set to ensure that good status of surface water and groundwater is achieved throughout the European Union and that deterioration in the status of waters is prevented at EU level.

36 According to Article 1(a) of Directive 2000/60, the purpose of the directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which prevents further deterioration and protects and enhances the status of aquatic ecosystems and terrestrial ecosystems directly depending on the aquatic ecosystems.

37 Accordingly, the ultimate objective of Directive 2000/60 is to achieve, by coordinated action, 'good status' of all EU surface waters by 2015.

38 The environmental objectives that the Member States are required to achieve are specified in Article 4(1) of Directive 2000/60.

39 That provision imposes two objectives that are separate, although intrinsically linked. First, in accordance with Article 4(1)(a)(i) of Directive 2000/60, the Member States are to implement the necessary measures to prevent deterioration of the status of all bodies of surface water (obligation to prevent deterioration). Second, pursuant to Article 4(1)(a)(ii) and (iii), the Member States are to protect, enhance and restore all bodies of surface water with the aim of achieving good status by the end of 2015 at the latest (obligation to enhance).

40 The origin of those two objectives is apparent from the drafting history of Directive 2000/60. So far as concerns in particular the obligation to prevent deterioration of the status of surface waters, the provisions at issue, in their initial version, could be interpreted as allowing bodies of water classified above 'good status' to deteriorate to that class once

Directive 2000/60 was adopted. It is for that reason that the European Parliament proposed an amendment enabling a distinction to be drawn between the obligation to achieve ‘good status’ and that of preventing any deterioration by the insertion in Article 4(1) of the directive of a new indent laying down the latter obligation separately.

41 Both the obligation to enhance and the obligation to prevent deterioration of the status of bodies of water are designed to attain the qualitative objectives pursued by the EU legislature, namely the preservation or restoration of good status, good ecological potential and good chemical status of surface waters.

42 In order to ensure that the Member States attain the environmental objectives referred to above, Directive 2000/60 lays down a series of provisions, in particular Articles 3, 5, 8, 11 and 13 and Annex V, establishing, as the Advocate General has noted in points 43 to 52 of his Opinion, a complex process involving a number of extensively regulated stages, for the purpose of enabling the Member States to implement the necessary measures, on the basis of the specific features and the characteristics of the bodies of water identified in their territories.

43 These matters confirm the interpretation that Article 4(1)(a) of Directive 2000/60 does not simply set out, in programmatic terms, mere management-planning objectives, but has binding effects, once the ecological status of the body of water concerned has been determined, at each stage of the procedure prescribed by that directive.

44 The derogation regime provided for in Article 4(7) of Directive 2000/60, the conditions for the application of which have been examined by the defendant in the main proceedings but are not the subject of the referring court’s questions, likewise constitutes a matter which confirms the interpretation that prevention of deterioration of the status of the bodies of water is binding in nature.

45 That regime includes several categories. In particular, under Article 4(7) ‘Member States will not be in breach of this Directive when failure … to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater’.

46 That derogation is, however, applicable only on condition that all practicable steps have been taken to mitigate the adverse impact on the status of the body of water concerned and that the programmes of measures and management plans have been adapted accordingly.

47 The structure of the categories of derogation which are laid down in Article 4(7) of Directive 2000/60 permits the inference that Article 4 of the directive does not contain solely basic obligations, but that it also concerns individual projects. As the Advocate General has observed in point 78 of his Opinion, the grounds for derogation apply in particular where failure to comply with the objectives follows new modifications to the physical properties of the body of surface water, resulting in adverse effects. That may occur following new authorisations for projects. Indeed, it is impossible to consider a project and the implementation of management plans separately.

48 Consequently, those projects are covered by the obligation, laid down in Article 4 of Directive 2000/60, to prevent deterioration of the status of bodies of water. However, the projects may be authorised pursuant to the system of derogations provided for in Article 4.

49 The European Commission submits in its written observations that the prohibition of deterioration of the status of bodies of water is an objective of the duty to enhance their status. In that regard, it must be held that the obligation to prevent deterioration of the status of bodies of water was granted autonomous ranking by the EU legislature and is not merely an instrument placed at the service of the obligation to enhance the status of bodies of water.

50 It follows that, unless a derogation is granted, any deterioration of the status of a body of water must be prevented, irrespective of the longer term planning provided for by management plans and programmes of measures. The obligation to prevent deterioration of the status of bodies of surface water remains binding at each stage of implementation of Directive 2000/60 and is applicable to every surface water body type and status for which a management plan has or should have been adopted. The Member State concerned is consequently required to refuse authorisation for a project where it is such as to result in deterioration of the status of the body of water concerned or to jeopardise the attainment of good surface water status, unless the view is taken that the project is covered by a derogation under Article 4(7) of the directive.

51 In the light of all the foregoing considerations, the answer to the first and fourth questions is that Article 4(1)(a)(i) to (iii) of Directive 2000/60 must be interpreted as meaning that the Member States are required — unless a derogation is granted — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the directive.

Questions 2 and 3

52 By its second and third questions, which it is appropriate to deal with together, the referring court asks, in essence, whether the concept of 'deterioration of the status' of a body of surface water in Article 4(1)(a)(i) of Directive 2000/60 must be interpreted as covering only detrimental changes which result in classification of that body of water in a lower class in accordance with Annex V to the directive (the status classes theory). If the answer is in the negative, that is to say, if that concept covers any detrimental change to the body of water at issue (the status quo theory), the referring court wishes to ascertain the criteria for concluding that there is a deterioration of the status of a body of surface water.

53 The concept of 'deterioration of the status' of a body of surface water is not defined in Directive 2000/60.

54 In the absence of such a definition in EU law, the meaning and scope of that concept must, in accordance with settled case-law of the Court, be determined by taking into account both the terms in which the provision of EU law concerned is couched and its context (see, in particular, judgments in *Lundberg*, C-317/12, EU:C:2013:631, paragraph 19; *SFIR and Others*, C-187/12 to C-189/12, EU:C:2013:737, paragraph 24; and *Bouman*, C-114/13, EU:C:2015:81, paragraph 31).

55 The wording of Article 4(1)(a)(i) of Directive 2000/60 supports an interpretation according to which the concept of 'deterioration of the status' of a body of surface water also covers deterioration which does not result in classification of that body of water in a lower class. That provision expressly states that deterioration of the status of all bodies of surface water should be prevented. According to the definition in Article 2(17) of the directive, surface water status is the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Thus, Article 4(1)(a)(i) of Directive 2000/60 imposes in a general manner the obligation to prevent deterioration of the status of bodies of surface water and does not mention any change of class; only Article 4(1)(a)(ii) and (iii) of the directive refers to Annex V thereto, in respect of the obligation to enhance the status of bodies of surface water.

56 Before establishing whether that literal interpretation is borne out by the context within which the concept of 'deterioration of the status' of a body of surface water falls and by the objectives of Directive 2000/60, it should be noted, as the Advocate General has stated in points 91 to 97 of his Opinion, that the assessment of surface water status is based on analysis of the ecological status, which covers five classes.

57 It is at the stage of drawing up ecological quality ratios that the Member States divide the ecological quality ratios for each surface water category into five classes, by means of a limit value for the biological quality elements which shows the boundary between those different classes, namely high, good, moderate, poor and bad. The limit values are to be established following an intercalibration exercise, which involves comparing the classification results of the national monitoring systems for each biological element and for each common surface water body type among Member States in the same geographical intercalibration group, and assessing the consistency of the results with the normative definitions set out in Section 1.2 of Annex V to Directive 2000/60.

58 However, as is apparent from point 1.4.1(iii) of Annex V to Directive 2000/60, the intercalibration exercise serves only to define the limits of the classes for 'high', 'good' and 'moderate' status. The Member States' limit values are set out in Commission Decision 2013/480/EU of 20 September 2013 establishing, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, the values of the Member State monitoring system classifications as a result of the intercalibration exercise and repealing Decision 2008/915/EC (OJ 2013 L 266, p. 1).

59 Finally, in accordance with point 1.4.2(i) of Annex V to Directive 2000/60, for surface water categories, a body of water is to be classified in the class immediately below as soon as the ratio of one of the quality elements falls below the level for the current class. This 'one out all out' rule is linked to the definition of 'surface water status' in Article 2(17) of the directive, which must be determined by the poorer of the ecological status and the chemical status of the body of surface water.

60 By virtue of Article 2(21) of Directive 2000/60, ecological status is an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters, classified in accordance with Annex V thereto, which refers to those classifications of ecological status as ‘normative definitions’.

61 However, as the Advocate General has observed in point 99 of his Opinion, determination of the limit values between the classes results in the adoption of wide ranges. The classes are thus merely an instrument which limits the discretion of the Member States when determining the quality elements which reflect the actual status of a specific body of water. It is in particular for that reason that Article 4(1)(a)(i) of Directive 2000/60 does not refer to Annex V thereto, as the concept of ‘deterioration of the status’ of a body of surface water is a concept of general scope.

62 A different interpretation of that concept would, on the other hand, deter the Member States from preventing deterioration of the status of a body of surface water within a status class. Since classification of a body of surface water depends on the poorest value of the applicable parameters, all the other values could be reduced without that having legal consequences.

63 Application of the ‘one out all out’ rule in conjunction with the status classes theory would also result in waters in the lowest class being excluded from the scope of the obligation to prevent deterioration of their status. After classification of a body of water in that status class, further deterioration of its status would legally no longer be possible. However, given the purpose of Directive 2000/60, that type of body of water calls for particular attention in the context of water management.

64 That interpretation is borne out by Article 4(5)(c) of Directive 2000/60, which expressly lays down a prohibition of all further deterioration as regards heavily modified bodies of surface water for which the Member States may aim to achieve less stringent environmental objectives.

65 Furthermore, application of the status classes theory would result in a weakening of the protection of waters falling within the highest classes. Given that the classification of waters is determined by the poorest value of the applicable parameters, clear deterioration of other elements would not change the classification of the body of water concerned at all as long as it did not result in classification in a lower class.

66 By contrast, as the Advocate General has observed in point 105 of his Opinion, if the concept of ‘deterioration’ is interpreted by reference to a quality element or a substance, the obligation to prevent deterioration of the status of a body of water retains all its practical effect, since it encompasses all changes liable to undermine achievement of the principal objective of Directive 2000/60.

67 As regards the criteria for concluding that there is a deterioration of the status of a body of water, it is clear from the scheme of Article 4 of Directive 2000/60, in particular Article 4(6) and (7), that a deterioration of the status of a body of water, even if transitory, is authorised only subject to strict conditions. It follows that the threshold beyond which breach of the obligation to prevent deterioration of the status of a body of water is found must be low.

68 Contrary to the submissions of Bundesrepublik Deutschland, an interpretation that only ‘serious impairment’ constitutes a deterioration of the status of a body of water, an interpretation which is founded, in essence, upon the weighing up of, on the one hand, the adverse effects on waters and, on the other, water-related economic interests, cannot be inferred from the wording of Article 4(1)(a)(i) of Directive 2000/60. Furthermore, as the applicant in the main proceedings observes, such an interpretation does not respect the difference established by the directive between the obligation to prevent deterioration of the status of a body of water and the grounds of derogation laid down in Article 4(7) of the directive, since only the latter involve some weighing up of interests.

69 That said, the view should be taken, as the Commission has done, that there is ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i) of Directive 2000/60, as soon as the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. However, if the quality element concerned, within the meaning of that annex, is already in the lowest class, any deterioration of that element constitutes a ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i).

70 In the light of all the foregoing considerations, the answer to the second and third questions submitted is that the concept of ‘deterioration of the status’ of a body of surface water in Article 4(1)(a)(i) of Directive 2000/60 must be interpreted as

meaning that there is deterioration as soon as the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. However, if the quality element concerned, within the meaning of that annex, is already in the lowest class, any deterioration of that element constitutes a ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i).

Costs

71 Since these proceedings are, for the parties to the main proceedings, a step in the action pending before the referring court, the decision on costs is a matter for that court. Costs incurred in submitting observations to the Court, other than the costs of those parties, are not recoverable.

On those grounds, the Court (Grand Chamber) hereby rules:

1. **Article 4(1)(a)(i) to (iii) of Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy must be interpreted as meaning that the Member States are required — unless a derogation is granted — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the directive.**

2. **The concept of ‘deterioration of the status’ of a body of surface water in Article 4(1)(a)(i) of Directive 2000/60 must be interpreted as meaning that there is deterioration as soon as the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole. However, if the quality element concerned, within the meaning of that annex, is already in the lowest class, any deterioration of that element constitutes a ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i).**

[Signatures]

***1** ()Language of the case: German.

Authentic language:	German
Author:	Court of Justice
Country or organisation from which the decision originates:	Germany
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling

Judgment of the Court (Grand Chamber) of 1 July 2015. Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland. Request for a preliminary r....

Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Type of procedure:	Reference for a preliminary ruling
Observers:	Poland
Observers:	European Commission
Observers:	Netherlands
Observers:	EU institutions and bodies
Observers:	EU Member States
Advocate General:	Jääskinen
Cites:	62012CJ0525 - N 34
Cites:	62012CJ0317 - N 30 54
Cites:	32013D0480 - N 58
Cites:	11997E175 - N 34
Cites:	32000L0060 - N 42
Cites:	62005CJ0032 - N 34
Cites:	62012CJ0187 - N 30 54

Judgment of the Court (Grand Chamber) of 1 July 2015. Bund für Umwelt und Naturschutz Deutschland e.V. v Bundesrepublik Deutschland. Request for a preliminary r....

Cites:	62013CJ0114 - N 30 54
Cites:	32008D0915 - N 58

Subject matter:

Environment