NOTE:

At the Issue Specific Hearing on the Broad Oak reservoir proposal on 29 July 2016, the ExA panel requested that South East Water and the Applicant provide topic based Statements of Common Ground, including matters of uncommon ground by deadline 4. At that hearing South East Water indicated that due to annual leave arrangements it would be difficult for South East Water to meet that deadline, although it would make efforts to do so. The ExA asked that reasonable endeavours were used.

Meetings took place between the specialists from both National Grid and South East Water on 11 August (in relation to engineering and construction), and 15 August (in relation to ecology and biodiversity, and landscape and visual) with agreement to populate the Schedules of this document by 19 August 2016. Both parties have made considerable efforts to try to conclude the Statements of Common Ground for deadline 4; drafts have been circulated and progressed. However, for the reasons outlined by South East Water at the hearing on 29 July, South East Water was not able to provide a final draft of the tables in the Schedule of this document for National Grid to review and respond to until 8 September (summaries were provided on 19 August) and drafts of the Schedules from 7pm on 2 September. It has not therefore been possible to settle the Statements of Common Ground in a form ready for an agreed submission at deadline 4.

As such, the Schedules encompasses wording by South East Water as at 8 September 2016, and National Grid has not had an opportunity to review and respond to that drafting and its input remains as provided to SEW at 19 August 2016.

The summaries set out in sections 2 and 3 below have been prepared by SEW only and are not agreed by National Grid and do not set out National Grid's position.

The parties have agreed to meet as soon as reasonably practicable so that the Statement of Common Ground can be concluded. It is hoped that the Statement of Common Ground will be completed and ready for submission by 23 September 2016 and by deadline 5 at the latest.

For the reasons set out above, this document does not as yet represent National Grid's full position, but is South East Water's current position. It is not anticipated that any significant changes will be made to South East Water's position and National Grid intends to revert to South East Water shortly as above.

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Richborough Connection Project

Statement of Common Ground relating to

Ecology and Biodiversity;

Landscape and Visual Impact and Amenity; and

Engineering and Construction

between National Grid and South East Water

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Table of Contents

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1 INTRODUCTION

1.1 Purpose of this Document

1.1.1 This Statement of Common Ground **(SoCG)** is between National Grid Electricity Transmission Ltd **(National Grid)** and South East Water **(SEW)** relating to the Development Consent Order **("DCO")** application for the Richborough Connection Project (the **RCP)**.

1.1.2 It has been prepared in accordance with the guidance[1] published by the Department for Communities and Local Government and at the request of the Examining Authority (**ExA)** following the Issue Specific Hearing held on 29 July 2016 on the effect of the Application on the Broad Oak Reservoir proposal (**ISH**).

1.1.3 This SoCG has been prepared to identify matters agreed and matters currently outstanding between National Grid and SEW in relation to the interactions between the RCP and the Broad Oak Reservoir proposal **(Reservoir)** as regards ecology and biodiversity, landscape and visual impact and amenity, and engineering and construction.

1.1.4 This SoCG between National Grid and SEW is based on correspondence, conversations, meetings, design workshops, site visits, and discussions of the expert team. National Grid and SEW continue to be in direct communication in respect of the DCO application and issues pertinent to SEW's interests.

1.1.5 The National Grid and SEW's expert teams have been and will continue to hold liaison meetings and/or discussions with the aim of narrowing the issues between them where possible. Meetings were held most recently between National Grid and SEW on 9 August 2016, 11 August 2016 and 15 August 2016.

1.2 Approach to the SoCG

1.2.1 This SoCG is structured as follows:

- Section 1 provides an introduction to this SoCG and a description of its purpose;
- Section 2 sets out a summary of the matters agreed set out at Section 5 between National Grid and SEW;
- Section 3 sets out a summary of the matters where agreement is currently outstanding set out at Section 5 between National Grid and SEW;
- Section 4 sets out the conclusions drawn; and
- Section 5 contains the detailed tables which provide the details of the matters agreed and outstanding.

[1] Planning Act 2008: Guidance for the examination of applications for development consent. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/418015/examinations guidance-__final_for_publication.pdf

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Appendix A includes the signing off sheet.

2 MATTERS AGREED

2.1 Summary of current position

2.1.1 It has been agreed between SEW and National Grid that:

[TBC]

2.2 Summary of engineering and construction impacts

2.2.1 TBC

2.3 Summary of landscape and visual impact and amenity impacts

2.3.1 TBC

2.4 Summary of ecology and bio-diversity impacts

2.4.1 TBC

3 MATTERS CURRENTLY OUTSTANDING

3.1 Summary of current position

3.1.1 For the reasons detailed in SEW's Written Representation [REP2-099] and summarised in the tables below, SEW's position is that the Reservoir is not able to co-exist with the RCP as currently proposed.

3.1.2 It is also SEW's view that the Reservoir should have been considered within the cumulative assessment for the EIA.

3.1.3 SEW notes that both schemes are still to be finalised and neither have the consent required to be completed at this stage. However, the Reservoir is already supported in the WRMP14 and National Grid have more than enough information to undertake an assessment of the interaction of both projects.

3.1.4 National Grid's position is TBC

3.2 Engineering and Construction

In summary the key areas of dispute are:

3.2.1 SEW does not believe that the engineering construction and safety risks can be managed effectively in accordance with the current Construction Design and Management Regulations and Guidance ("**CDM 2015**"), SEW believe that the engineering and construction safety risks should be eliminated whilst there is an opportunity to do so at this early planning stage of both projects.

3.2.2 SEW do not believe that minor amendments to the design of the Reservoir scheme would eliminate the adverse impacts from interaction adequately to enable both schemes to co-exist. SEW do not believe it is appropriate to try and apply detailed optioneering of design to the Reservoir at this stage, as the Reservoir is at a concept design stage without certainty over the final size and detailed design. SEW is also concerned as National Grid's proposed alternatives and amendments to the

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Reservoir scheme do not take account of the planting and ecological requirements to be met by SEW to comply with statutory requirements including those in the WFD, SAFFA and the Eel Regulations. SEW's position is that SEW's alternatives take these requirements into account and would eliminate the interactions between the RCP and the Reservoir, meaning construction could be completed without the safety risks and physical constraints detailed in tables 1.1 - 1.3 below.

3.2.3 National Grid believes TBC

3.3 Landscape and Visual Impact and Amenity

3.3.1 In summary the key areas of dispute are:

- SEW believe that the landscape and amenity value of the Reservoir will be reduced due to the RCP.

- SEW believe that the impacts of the RCP proposal on the Reservoir site are understated. The Environmental Statement states that the impact on the Blean Woods SLA is minor adverse. The Blean Woods SLA includes farmland to the south of the woodland owned by South East Water and which abuts the Order limits and therefore would be affected by the RCP proposal. This is largely the same area as the Broad Oak Valley landscape character area which is assessed as experiencing a Moderate Adverse (Significant) at all timeframes.

- SEW believe that there would be a Significant Adverse impact shown by a Landscape and Visual impact assessment of the impact of the RCP proposal on the Reservoir site based on the conclusions provided in the Environmental Statement about the surrounding area.

- SEW is required to provide mitigation to offset adverse landscape and visual effects arising from the Reservoir development. Whilst no formal assessment has been undertaken yet, SEW believe adverse effects are likely to include the landscape effects on The Blean Woods SLA and the Broad Oak Valley landscape character area, both of which are of high landscape value; and visual effects on receptors of high sensitivity (i.e. residents and users of public rights of way). SEW believes that adequate mitigation for their proposals would not be achievable with RCP proposal in place.

- Continuous high canopy woodland cover is proposed by SEW along the southern side of the Reservoir to fulfil various landscape requirements (detailed in table 3 below). SEW's position is that the RCP proposal would restrict the opportunity to fulfil these requirements.

- National Grid [TBC]

3.4 Ecology and Biodiversity

3.4.1 In summary the key areas of dispute are:

- SEW believe that an assessment of bird strike risk assessment is (1) necessary and (2) achievable and should be done.

- SEW do not believe that the solutions put forward within the report prepared by Mott MacDonald (Appendix F of document 8.2.1 submitted at Deadline 2) [REP2-017 – Appendix F] **("Mott Report")** in relation to alternative designs for the Reservoir are sufficient to allow the Reservoir to come forward alongside the RCP and for SEW to be able to deliver all necessary environmental mitigation. SEW believe National Grid have underestimated and or misunderstood the level of mitigation required and that the proposed alternative solutions do not

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allow SEW to deliver the environmental mitigation required from South East Water under the WFD, SAFFA, the Eel Regulations, the Habitat Directive and the Conservation of Habitats and Species Regulations 2010 (e.g. in relation of hazel dormouse and bats). Fundamentally, this will also mean that SEW are unable to satisfy the requirements of the Town and Country Planning Act 1990 and the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 in terms of demonstrating provision of adequate mitigation for ecological impacts associated with the Reservoir proposals; and in these circumstances, will not be able to obtain planning permission for the Reservoir scheme.

- Key points of disagreement in relation to National Grid's alternative designs are detailed in the Table 2.1 below .

- SEW believes that the vegetation type suggested by National Grid which SEW could deliver under the RCP OHL will not deliver the ecological function required of the riparian and woodland habitat.

- SEW believe that the incremental impacts of the points above cumulatively result in a substantially reduced ecological value of the Reservoir mitigation, resulting in a combined unacceptable risk to the feasibility of delivery of the overall Reservoir scheme.

- National Grid [TBC]

4 CONCLUSIONS REACHED

South East Water's Position

4.1.1 It remains SEW's position that the interactions detailed in the tables below (and in SEW's Written Representation [REP2-099]) will prevent SEW being able to provide key elements of the Reservoir (namely the river diversion, the fish pass and planting) in a way which will ensure compliance with the WFD, SAFFA, the Eel Regulations, the Habitat Directive and the Conservation of Habitats and Species Regulations 2010, making the Reservoir undeliverable.

4.1.2 It is accepted that the full extent of the interactions cannot be fully known until the top water level of the Reservoir is fixed and the detailed design of the Reservoir scheme has been completed. However, all of the interactions identified will impact on the Reservoir at different levels of intensity regardless of the size of the Reservoir. It is also accepted that when broken down into small sections and specific issues it is possible to engineer solutions that would work on a physical level. However, as detailed below, these 'solutions' are often not acceptable in terms of ecology and landscape and amenity issues and will not ensure compliance with the legislation mentioned above and do not work when the corridor impacted by the RCP is considered as a whole. Therefore, when looking at the whole picture, the cumulative impact of the interactions result in the Reservoir being undeliverable.

National Grid Position

[ ]

5 DETAILED TABLES

Summary of details provided in tables below:

- Table 1.1 Engineering and Construction Impacts at 32.5m AOD

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- Table 1.2 Engineering and Construction Impacts at 36m AOD
- Table 1.3 Engineering and Construction Impacts between 32.5m AOD and 36 AOD
- Table 2.1 Ecology and Biodiversity impacts at 32.5m AOD
- Table 2.2 Ecology and Biodiversity impacts at 36m AOD
- Table 2.3 Ecology and Biodiversity impacts between 32.5m AOD and 36 AOD
- Table 3 Landscape and Visual Impact and Amenity at 32.5m AOD, 36m AOD and between 32.5m AOD and 36m AOD

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DETAILED TABLES

Table 1.1 - Engineering and Construction Impacts at 32.5m AOD

SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.1	**PC8**		
1.1.1a	Sarre Penn & Fish Pass	Agreed that there will be no direct physical interaction in relation to the Sarre Penn River diversion ("**River diversion**") or the Fish Pass at either a 1:400 or 1:200 gradient.	No direct interaction between PC8 and the River diversion as proposed in Jacobs Stage 1b report (1:400 and 1:200 gradient) and Mott MacDonald interaction report.
1.1.1b	Construction Constraints and Health and Safety during Construction of Reservoir	No direct restriction upon construction or health and safety concerns.	No direct restriction upon construction activity of the Reservoir or River diversion channel.
1.1.1c	Operation and Maintenance Access for RCP	Access to Pylon PC8 via re-aligned Heel Lane could be maintained on an engineering and construction basis but will not be appropriate when ecology and biodiversity impacts are taken into account. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below.	Access to Pylon PC8 via re-aligned Heel Lane could be maintained
1.1.1d	Construction, Operation and Maintenance Access for the Reservoir	Revised access to Mayton Cottages is deliverable with PC8 as located.	Revised access to Mayton Cottages is deliverable with PC8 as located.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.1e	Planting (Land and Riparian)	There is an impact on Land Planting. The spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. The detail of the impact and the level of the impact is discussed in tables 2 and 3 below. There is no impact on the Riparian Planting.	There is an impact. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting Level of impact discussed in Tables 2 and 3.
1.1.2	**Between PC8 and PC9**		
1.1.2a	Planting (Land and Riparian)	Interaction increases as over head line ("**OHL"**) continues to PC9, there are impacts on the ability for SEW to deliver the required Land Planting. There is also an impact on the periphery/boundary of the riparian corridor planting which will restrict the Riparian Planting. The spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. The detail of the impacts and the level of the impacts are discussed in tables 2 and 3 below.	Interaction increases as line continues to PC9, impact on Land Planting, river corridor, periphery/boundary of riparian corridor planting. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.2b	Health and Safety during Construction of the Reservoir	For approximately 130m from PC9 (towards PC8) there is an interaction between the Reservoir works and the OHL safety zone. This is based on a gradient of 1:200. This will require working under or adjacent to power lines. Health and safety concerns and regulations require elimination of this risk or mitigation measures to be in place. Under current CDM Regulations (2015) and Guidance there is a principle for designers to consider hazards at the planning stages of projects and to take into account other projects on the same or adjacent sites which are at concept or planning stages. There is a hierarchy for designers to eliminate, reduce then control so far as is reasonably practicable. Both the Reservoir and RCP schemes are at the concept or planning stages and it is the view of SEW that NG have failed in their duties under CDM 2015, to eliminate the hazards as required, as this could have been achieved reasonably practicably. Jacobs undertook a Hazard Elimination and Risk Reduction (HE&RR) assessment under it Stage 1b Report (Appendix 10 of REP2-099) and shared this with NG Principal Designers. The hazards rated High Risk for construction under overhead lines and around pylon bases due to the RCP, have, in our view, not been acknowledged in the RCP Hazard Register and eliminated through design of the RCP.	Some impact. For approx. 130m from PC9 (toward PC8) there is an interaction between the Reservoir works and the OHL safety zone. Would require working adjacent to power lines. H&S elimination or mitigation measures would apply. River at steeper than 1:400 and up to 1:200 gradient would increase the cutting size and therefore the zone of interaction. Under CDM 2015 there is a hierarchy for Designers to Eliminate, Reduce then Control so far as is reasonably practicable. NG believe the risk of working adjacent to power lines can be reduced and controlled, dependant on the final Reservoir solution. Whatever the size of plant, it will be necessary to work in close proximity to and under the OHL, however, it is agreed that with restrictions it is feasible to work under the OHL to HSE Guidance GS6.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
		The steeper the gradient of the River cutting the more the zone of interaction (and the related health and safety risk) will increase. SEW believe the health and safety risks associated with the interactions between the RCP as currently proposed and the Reservoir can be, and should be, eliminated through the use of the alternatives put forward by SEW in its Written Representation (see REP2-099 Part G page 49). Whatever the size of plant used during construction, it will be necessary to work in close proximity to and under the OHL, which creates risk. However, it is agreed that if necessary and with restrictions, it is feasible to work under the OHL in accordance with HSE Guidance GS6.	
1.1.2c	Operation and Maintenance Access for RCP	Access point from Barnets lane would be suitable for future maintenance access on an engineering and construction basis but will not be appropriate when ecology and biodiversity impacts are taken into account. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below.	Access point from Barnets lane would be suitable for future operation and maintenance access.
1.1.2d	Construction, Operation and Maintenance Access for the Reservoir	No direct impact.	No direct impact.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.2.e	Sarre Penn and Fish Pass	No impact on Fish Pass section of diversion. Impact on River diversion cutting is minimal, in this area and could be overcome with engineering between PC8 and PC9. Impacts the proposed engineering will have on ecology and biodiversity are dealt with in table 2 below.	No Impact on Fish Pass section of diversion. Impact on river cutting minimal, engineering detail (alignment or slope steepness adjustment) could overcome between PC8 and PC9.
1.1.3	**PC9**		
1.1.3a	Sarre Penn	There is a direct impact between the pylon PC9 location and the River diversion cutting. This impact will require adjustment to either the RCP, the Reservoir or both. The steeper the gradient of the River cutting the more the zone of interaction and the impact will increase. For construction of the River channel, the interaction could be avoided or reduced through a number of potential amendments to either projects design, including pylon location and foundation design and River alignment and cutting slope design.	Agree direct impact between the pylon PC9 location and the river diversion cutting will require adjustment to either or both schemes. NG & SEW agree the interaction exists and could for this Reservoir TWL be mitigated. For construction of the River channel, the interaction could be avoided or reduced through a number of potential amendments to either scheme design including pylon location and foundation design and river alignment and cutting slope design.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
		However, these amendments will have a cost impact on either SEW or NG or both. There is nothing that would deal with this in the DCO and clarity will be required around where funding and costs will be borne and these options are theoretical at this stage. A legally binding agreement on how this cost would be met and the location of the revised access will be required before SEW and the ExA can proceed on the assumption that any amendments would be possible. Amendments to the Reservoir would mean agreeing to restricting the ability of the current emerging design for the Reservoir to be amended as the design is currently in its concept stage without the specific Reservoir size determined. Restricting flexibility on the detailed Reservoir design is likely to result in serious detriment to SEW's ability to perform its statutory functions. SEW and NG agree the interaction exists and could, for this size, be mitigated on an engineering and construction However, such mitigation is not without concerns for SEW as detailed above. SEW and NG do not agree as to the level of risk to SEW in relation to the impact of this interaction. SEW also have concerns relating to ecology and biodiversity impacts of engineered mitigation which are dealt with at table 2 below.	Each option for solution would have a cost impact on either SEW or NG or both. Clarity would be required around where funding and costs would be borne. NG and SEW disagree on the level of risk. River at steeper than 1:400 and up to 1:200 gradient would increase the cutting size and therefore the zone of interaction.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
		Further technical details and information in relation to the Sarre Penn diversion have been submitted in support of SEW's views in this SoGC see Technical Note Three – Sarre Penn Diversion.	
1.1.3b	Health and Safety during Construction of Reservoir	There is an interaction between the Reservoir works and the OHL safety zone. This would require working under OHL and the issues raised in 1.1.2b above apply including the application of CDM 2015	Agree H&S issues during construction, if resolution under 1.1.2b were agreed , safety in construction could be achieved to an acceptable level.
1.1.3c	Operation and Maintenance Access for RCP	Revised access would be required leading to an increase in costs for SEW or NG. There is nothing that would deal with this in the DCO and a legally binding agreement on how this cost would be met and the location of the revised access will be required before SEW and the ExA can proceed on the assumption that the access would be possible. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below.	Agree access as proposed is impacted. Revised access would be required from the south via the revised Barnets Lane.
1.1.3d	Construction, Operation and Maintenance Access for the Reservoir	No direct impact.	No direct impact.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.3e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below. Further technical details and information in relation to the planting proposed by SEW and NG have been submitted in support of SEW's views in this SoGC see Technical Note One (High Canopy Planting) and Two (Critique of Applicant's Proposed Planting).	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.1.3f	Fish Pass	No Impact on Fish Pass section of diversion	No Impact on Fish Pass section of diversion.
1.1.4	**Between PC9 and PC10**		
1.1.4a	Construction Constraints	There would be restrictions on the design and construction technique which SEW would be able to use when constructing the bridge required in this area to provide access to the Reservoir. This will have cost and time impacts upon SEW. SEW have set out these cost impacts within the Jacob's Impact Report submitted as Appendix 12 to SEW's Written Representation [REP2-099].	Bridge over the Sarre Penn - there is restriction to design and construction technique which is likely to have cost and time impacts upon SEW. Excavation. For this length PC9 to PC10 there is an interaction between the Reservoir works and the OHL safety zone. Would require working under power lines. H&S elimination or mitigation measures would apply.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
			Comment. NG have responded to these cost evaluation in their submission at Deadline of response to SEW WR (doc 8.19)
1.1.4b	Health and Safety during Construction of Reservoir	Safety during the construction of River diversion channel, the fish pass and access bridge are impacted. It is between PC9 to P10 where the level of impact is greatest. Excavation. For the whole of the length between PC9 to PC10 there is an interaction between the Reservoir works and the OHL safety zone. This would require working under OHL and the issues raised in 1.1.2b above apply including the application of CDM 2015.	Under CDM 2015 there is a hierarchy for Designers to Eliminate, Reduce then Control so far as is reasonably practicable. NG believe the risk of working adjacent to power lines can be reduced and controlled, dependant on the final Reservoir solution. Construction of river channel, fish pass and access bridge are impacted. Whatever the size of plant is necessary to work in close proximity to and under the OHL is to be agree, but it is agreed that with restrictions it is feasible to work under the OHL to HSE Guidance GS6. Level of impact is greatest at PC9 to P10 and includes construction of the access bridge.
1.1.4c	Operation and Maintenance Access for RCP	Access for future maintenance would be agreed between NG and SEW. Both parties agree this is achievable on an engineering and construction basis but SEW's view it that it will not be appropriate when ecology and biodiversity impacts are taken into account. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below.	Access for future maintenance would be agreed between NG and SEW. Both parties agree this is achievable.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.4d	Construction, Operation and Maintenance Access for the Reservoir	No direct interaction.	Don't envisage impact due to OHL for O&M access. Future bridge maintenance would have some impact on restriction to methods.
1.1.4e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.1.4f	Sarre Penn & Fish Pass	There is an impact on both the River diversion and fish pass creation. The interactions being health and safety during construction and planting (land and riparian) which are covered in other sections of this SoCG.	Impact on both River diversion and fish pass. Interactions include H&S during construction and planting as covered in other sections.
1.1.5	**PC10**		
1.1.5a	Construction Constraints and Health and Safety during Construction of the Reservoir	No direct interaction.	No direct interaction with PC10.

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SoCG ID	Issue	South East Water (SEW) position	National Grid (NG) position
1.1.5b	Operation and Maintenance Access for RCP	Access for future maintenance would be agreed between NG and SEW. Both parties agree this is achievable via SEW car park or via Barnets Lane on an engineering and construction basis but will not be appropriate when ecology and biodiversity impacts are taken into account. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	Access for future maintenance would be agreed between NG and SEW. Both parties agree this is achievable via SEW car park or via Barnets Lane.
1.1.5c	Construction, Operation and Maintenance Access for the Reservoir	No direct interaction with PC10.	No direct interaction with PC10.
1.1.5d	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.1.5e	Sarre Penn & Fish Pass	No direct interaction with PC10.	No direct interaction with PC10.

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Table 1.2 Engineering and Construction Impacts at 36m AOD

SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.1	**PC8**		
1.2.1a	Operation and Maintenance Access for RCP	Same as 32.5m Reservoir.	Same as 32.5m Reservoir.
1.2.1b	Construction, Operation and Maintenance Access for the Reservoir	Same as 32.5m Reservoir.	Same as 32.5m Reservoir.
1.2.1c	Construction Constraints	Similar to 32.5m Reservoir but now directly adjacent increasing the risk level.	Same as 32.5m Reservoir. Now directly adjacent.
1.2.1d	Health and Safety during Construction of Reservoir	Same as 32.5m Reservoir but now directly adjacent increasing the risk level. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	Same as 32.5m Reservoir. Now directly adjacent {therefore a proximity issue}.
1.2.1e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.2.1f	Sarre Penn & Fish Pass	Same as 32.5m Reservoir.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.2	**Between PC8 and PC9**		
1.2.2a	Construction Constraints and Health and Safety during Construction	Excavation. For the whole of the length between PC8 to PC9 there is an interaction between the Reservoir works and the OHL safety zone. This would require working under OHL and the issues raised in 1.1.2b above apply.	No material difference to 32.5m PC9-10 minus access bridge.
1.2.2b	Operation and Maintenance Access for RCP	Access for future maintenance would be agreed between NG and SEW. Both parties agree this is achievable on an engineering and construction basis but SEW's position is that this will not be appropriate when ecology and biodiversity impacts are taken into account. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	No material difference to 32.5m PC9-10.
1.2.2c	Construction, Operation and Maintenance Access for the Reservoir	No direct interaction.	No material difference to 32.5m PC9-10.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.2d	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.2.2e	Sarre Penn & Fish Pass	There is an impact on both the River diversion and fish pass creation. The interactions being health and safety during construction and planting (land and riparian) which are covered in other sections of this SoCG.	No material difference to 32.5m PC9-10. Minus access bridge.
1.2.3	**PC9**		
1.2.3a	Construction Constraints	No material difference to PC8 at 36m.	No material difference to PC8 at 36m.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.3b	Operation and Maintenance Access for RCP	An access route for maintenance is required from the SEW access bridge/dam crest. Some engineering will be required to the dam embankment to facilitate an access route. Both parties agree there are challenges to be overcome in detail design. There is nothing that would deal with this in the DCO and there will need to be a legally binding agreement on how these costs would be met and the location of the revised access before SEW and the ExA can proceed on the assumption that the access would be possible. Both parties agree access is in theory achievable though on an engineering and construction basis but SEW's position it that this will not be appropriate when ecology and biodiversity impacts are taken into account. Impacts the proposed access points will have on ecology and biodiversity are dealt with in table 2 below. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	Access route in future for maintenance is required from SEW access bridge/dam crest. Some engineering required to dam embankment to facilitate access route. Both parties agree there are challenges to be overcome in detail design and cost impact would need to be agreed how to be funded and borne by whom.
1.2.3c	Construction, Operation and Maintenance Access for the Reservoir	No material difference to PC8 at 36m.	No material difference to PC8 at 36m.
1.2.3d	Health and Safety during Construction of Reservoir	No material difference to PC8 at 36m.	No material difference to PC8 at 36m.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.3e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.2.3f	Sarre Penn & Fish Pass	No material difference to PC8 at 36m but Pylon to the north of the river diversion meaning increased costs to realign the River to the south of PC9.	No material difference to PC8 at 36m.
1.2.4	**Between PC9 and PC10**		
1.2.4a	Construction Constraints	No material difference to PC9-PC10 at 32.5m Reservoir.	No material difference to PC9-PC10 at 32.5m.
1.2.4b	Health and Safety during Construction of Reservoir	No material difference to PC9-PC10 at 32.5m Reservoir. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	No material difference to PC9-PC10 at 32.5m.
1.2.4c	Operation and Maintenance Access for RCP	No material difference to PC9-PC10 at 32.5m Reservoir.	No material difference to PC9-PC10 at 32.5m.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.4d	Construction, Operation and Maintenance Access for the Reservoir	No material difference to PC9-PC10 at 32.5m Reservoir.	No material difference to PC9-PC10 at 32.5m.
1.2.4e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.2.4f	Sarre Penn & Fish Pass	No material difference to PC9-PC10 at 32.5m Reservoir.	No material difference to PC9-PC10 at 32.5m.
1.2.5	**PC10**		
1.2.5a	Construction Constraints	There is a direct impact between the pylon PC10 location and the River diversion cutting. This impact will require adjustment to either the RCP, the Reservoir or both schemes. The steeper the gradient of the River cutting the more the zone of interaction and the related impact will increase.	No material difference to PC9 at 32.5, but needs adjustment to schemes to accommodate.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		For construction of the River channel, the interaction could be avoided or reduced through a number of potential amendments to either projects design, including pylon location and foundation design and River alignment and cutting slope design. However, these amendments will have a cost impact on either SEW or NG or both. There is nothing that would deal with this in the DCO and a legally binding agreement on how this cost would be met and the detail of the amendments will be required before SEW and the ExA can proceed on the assumption that the amendments would be possible. Clarity will be required around where funding and costs will be borne and these options are theoretical at this stage. Amendments to the Reservoir would mean agreeing to restricting the ability of the design for the Reservoir to be amended as the design is currently in its concept stage without the specific Reservoir size determined. Restricting flexibility on the detailed Reservoir design is likely to result in serious detriment to SEW's ability to perform its statutory functions.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		SEW & NG agree the interaction exists and could, for this size, be mitigated on an engineering and construction basis. However, such mitigation is not without concerns for SEW as detailed above. SEW and NG do not agree as to the level of risk born to SEW in relation to the impact of this interaction. SEW also have concerns relating to ecology and biodiversity impacts of engineered mitigation which are dealt with at table 2 below.	
1.2.5b	Health and Safety during Construction of Reservoir	Safety during the construction of River diversion channel, the fish pass and access bridge are impacted. It is between PC9 to P10 where the level of impact is greatest. Excavation. For the whole of the length between PC9 to PC10 there is an interaction between the Reservoir works and the OHL safety zone. This would require working under OHL and the issues raised in 1.1.2b above apply including the application of CDM 2015.	No material difference to PC9 at 32.5.
1.2.5c	Operation and Maintenance Access for RCP	No material difference to 32.5 Reservoir.	No material difference to PC10 at 32.5.
1.2.5d	Construction, Operation and Maintenance Access for the Reservoir	No material difference to 32.5 Reservoir.	No material difference to PC10 at 32.5.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.2.5e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	There is an interaction. Spot height and section drawings (for PINS ISH Action 8) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in Tables 2 and 3.
1.2.5f	Fish Pass	Direct impact between the pylon PC10 location and the fish pass cutting. This will require adjustment to either or both projects. Details of the interactions are contained in tables 2 and 3 below.	Agree direct impact between the pylon PC10 location and the fish pass cutting will require adjustment to either or both schemes.

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Table 1.3 Engineering and Construction Impacts between 32.5m AOD and 36m AOD

SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.3.1	**PC8**		
1.3.1a	Operation and Maintenance Access for RCP	Same as 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.1b	Construction, Operation and Maintenance Access for the Reservoir	Same as 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.1c	Construction Constraints	Similar to 32.5m Reservoir but now directly adjacent with higher Reservoir level increasing the constraint level.	No material difference to 32.5m Reservoir.
1.3.1d	Health and Safety during Construction of Reservoir	Similar to 32.5m Reservoir but now directly adjacent so increased risk due to closer proximity. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	No material difference to 32.5m Reservoir.
1.3.1e	Planting (Land and Riparian Corridor)	There is an interaction. Spot height and section drawings (requested by the ExA at the ISH and which have been submitted at deadline 4) will show the clearance zone required around the lines for construction and planting. Level of impact discussed in tables 2 and 3 below.	
1.3.1f	Sarre Penn & Fish Pass	Same as 32.5m Reservoir.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.3.2	**Between PC8 and PC9**		
1.3.2a	Construction Constraints	No material difference to 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.2b	Health and Safety during Construction of Reservoir	No material difference to 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.2c	Operation and Maintenance Access for RCP	No material difference to 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.2d	Construction, Operation and Maintenance Access for the Reservoir	No material difference to 32.5m Reservoir. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	No material difference to 32.5m Reservoir.
1.3.2e	Planting (Land and Riparian Corridor)	No material difference to 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.2f	Sarre Penn & Fish Pass	No material difference to 32.5m Reservoir.	No material difference to 32.5m Reservoir.
1.3.3	**PC9**		
1.3.3a	Construction Constraints and Health and Safety during Construction of the Reservoir	There is a direct interaction between the Reservoir works and the OHL safety zone. This would require working under OHL and in close proximity to PC9. The health and safety points raised in table 1.1 SoCG ID 1.1.2b apply including the application of CDM 2015.	There is a direct interaction between the Reservoir works and the OHL safety zone. This would require working under OHL and in close proximity to PC9.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.3.3b	Operation and Maintenance Access for RCP	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.3c	Construction, Operation and Maintenance Access for the Reservoir	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.3d	Planting (Land and Riparian Corridor)	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.3e	Sarre Penn & Fish Pass	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.4	**Between PC9 and PC10**		
1.3.4a	Construction Constraints	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.4b	Health and Safety during Construction of Reservoir	No material difference to 36m Reservoir. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	No material difference to 36m Reservoir.
1.3.4c	Operation and Maintenance Access for RCP	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.4d	Construction, Operation and Maintenance Access for the Reservoir	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.4e	Planting (Land and Riparian Corridor)	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.4f	Sarre Penn & Fish Pass	No material difference to 36m Reservoir.	No material difference to 36m Reservoir.
1.3.5	**PC10**		

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.3.5a	Construction Constraints	Similar to 32.5m Reservoir but interaction increases as Reservoir level increases up to direct interaction at 36m Reservoir until there is no material difference to impacts for 36m Reservoir.	
1.3.5b	Health and Safety during Construction of Reservoir	Similar to 32.5m Reservoir but interaction increases as Reservoir level increases up to direct interaction at 36m Reservoir until there is no material difference to impacts for 36m Reservoir. Refer to response in 1.1.2b for details of SEW position with regards to the application of CDM 2015.	
1.3.5c	Operation and Maintenance Access for RCP	Similar to 32.5m Reservoir but interaction increases as Reservoir level increases up to direct interaction at 36m Reservoir until there is no material difference to impacts for 36m Reservoir.	
1.3.5d	Construction, Operation and Maintenance Access for the Reservoir	Similar to 32.5m Reservoir but interaction increases as Reservoir level increases up to direct interaction at 36m Reservoir until there is no material difference to impacts for 36m Reservoir.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
1.3.5e	Planting (Land and Riparian Corridor)	Similar to 32.5m Reservoir but interaction increases as Reservoir level increases up to direct interaction at 36m Reservoir until there is no material difference to impacts for 36m Reservoir.	
1.3.5f	Fish Pass	Similar to 32.5m Reservoir but interaction increases as Reservoir level increases up to direct interaction at 36m Reservoir until there is no material difference to impacts for 36m Reservoir.	

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Table 2.1 Ecology and Biodiversity Impacts at 32.5m AOD

SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.1.1	**Between PC7 and PC8**		
2.1.1a	Construction, operation and maintenance access for RCP	No direct interaction.	N/A
2.1.1b	Land Planting	There is an impact on the species selection and maintenance of trees to be planted in this location. National Grid's proposals conflict with woodland objectives and will not enable SEW to achieve mitigation that needs to be delivered. SEW will need to establish mature and undisturbed woodland and to achieve connectivity. Also important to achieve appropriate species mix. Do not believe that coppice planting maintained by regular felling as proposed by NG achieves these objectives. SEW needs to see an indicative maintenance plan to understand the impact that maintenance activities will have on SEW's objectives in order to understand whether in principle at least the planting and management scheme could be made to work and to give SEW confidence that a long term sustainable maintenance regime can be delivered – (by reference to concrete examples, where possible).	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Planting interaction Evidence provided by NG to-date indicates either: that there is an interaction in terms of the selection of tree species to be planted under and in the vicinity of the line; or that it is insufficiently clear whether an interaction in terms of tree species selection for planting exists or not. It is stated throughout Mott Report that '***The powerlines will affect a corridor directly under the overhead lines where planting will be limited to smaller tree species and scrub.***' This sentence is repeated several times in the Mott Report for example, page 56 paragraph 3 and page 59 paragraphs 1 and 4. Accordingly, the tree species list provided in Appendix D annex D1 of the Mott Report is limited to lower height species. This does not include key species that SEW would plant in this area if the RCP were not there e.g. Alder in the riparian corridor and Oak as a key component of the high canopy woodland. Although Documents 8.11 [REP2-014] and 5.4.6D [APP-077] propose standard coppice and wetland mixes that do include species appropriate to the locality and meeting SEW objectives for habitat creation such as English Oak, Sessile Oak and Alder, no concept mitigation plans have been provided that include the southern woodland corridor required as part of the reservoir mitigation (planting shown on plans 11.1r, 11.1s, 11.1t and 11.1v of document 8.11 [REP2-014].	RCP would not restrict the species that can be planted in this location. **Doc 5.4.6D** illustrates the diversity of locally appropriate species that NG is proposing to plant under and in the vicinity of the line. This includes a suite of tree and scrub species approved by Natural England which are intended for planting, within the adjacent SSSI, to improve connectivity. **Doc 8.11** includes a broad range of species that are already proposed for RCP planting and that could be used in this area. These include oak and alder as well as other wetland species.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		NG have given inconsistent responses and information in relation to planting and what would be acceptable under the OHL and how this would be appropriately managed. For example, the standard coppice mix provided in 5.4.6D [APP-077] is different to those provided 5.4.2D [APP-061] and the Mott Report and NG refer trees that could be planted and theoretical ways in which these can be managed. There is currently no certainty for SEW that, even if a planting and management scheme could be agreed (SEW are yet to receive any evidence from the Applicant that its proposed planting is appropriate or achievable) that it would be complied with by NG and enforceable by SEW. This is a key concern for SEW and there is nothing that would deal with this in the DCO a legally binding agreement on how any planting scheme and maintenance scheme will be provided will be required before SEW and the ExA can proceed on the assumption that any such scheme will be delivered. SEW suggest that it would be appropriate for the EA and NE to be part of any group which would help to establish what planting would be possible under the RCP and if appropriate planting could be put in place, how this planting could be managed appropriately and this planting scheme enforced.	
		Management interaction There is an interaction in terms of management of planted areas. In order to deliver the mitigation required for the Reservoir, SEW need to deliver a southern woodland corridor of high biodiversity value as agreed during consultation and negotiation with Natural England. This consultation has established that a mature 'high forest' woodland corridor will deliver the biodiversity objectives and will also provide the most locally appropriate habitat to establish the connectivity required with adjacent mature woodland blocks in the West Blean and Thornden Woods SSSI. The management that is required beneath the line to maintain the required	The only interaction is in terms of the management of planted areas. NG is restricted by ENS technical standards on safety clearances. NG assumes that coppice management would be used in this location to maximise height and shading. Coppice planting can grow to within 3.1m of conductors. This type of management would be capable of providing continuous connectivity, diversity in structure and is appropriate to the ecological and cultural context (and contiguous with No material difference

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		safety clearances means that it is not possible to establish high canopy woodland in this location, resulting in a direct conflict with SEW ability to deliver the mitigation required for the Reservoir to come forward.	habitat in the connected SSSI). 'In principle' parameters and best practice could be provided.
		NG believe that their proposed management by coppicing is capable of delivering the level and value of compensatory woodland habitat that must be delivered to successfully obtain planning permission for the scheme. SEW acknowledge that with appropriate adaptation of the species planting and the application of a sensitive management regime it could be possible to maintain vegetation connectivity along the Sarre Penn that would provide a level of shading for the river and be suitable as a wildlife corridor for species such as dormouse. However, SEW do not believe that it will be possible to deliver the required management to achieve this for the reasons set out in Technical Note Two Critique of Applicant's Proposed Planting submitted by SEW at deadline 4.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		NG have not provided even an outline maintenance plan for vegetation underneath the RCP which would accommodate the required Reservoir mitigation. Despite frequent requests NG have also failed to provide examples of where any such similar management plan has been delivered on the ground (in particular in association with a river channel and fish pass). SEW considers that the woodland management options suggested by NG are theoretical, not tried and tested and cannot be delivered in practice. NG have not identified how the adoption of any particular bespoke management regime would be secured as part of the DCO, so that it can safely be assumed that is how the woodland habitat would in fact be managed. There is currently no certainty for SEW that, even if a planting and management scheme could be agreed (SEW are yet to receive any evidence from the Applicant that its proposed planting is achievable) that it would be complied with by NG and enforceable by SEW. This is a key concern for SEW and there is nothing that would deal with this in the DCO a legally binding agreement on how any planting scheme and maintenance scheme will be provided will be required before SEW and the ExA can proceed on the assumption that any such scheme will be delivered. SEW suggest that it would be appropriate for the EA and NE to be part of any group which would help to establish what planting would be possible under the RCP and *if* appropriate planting could be put in place, how this planting could be managed appropriately and this planting scheme enforced.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Relative value of coppice woodland vs high canopy woodland Although it is accepted that woodland managed by coppicing could deliver habitat of ecological value, SEW do not concur with NG in terms of the comparative value of high canopy woodland compared to theoretical coppice woodland in this specific location. NG have stated that 'traditional' coppice woodland management would be adopted along the RCP corridor, however coppice management undertaken for wildlife purposes typically retains a number of 'standard' (i.e. mature and veteran) trees at all times. It is not possible to retain standard trees within the RCP easement. Short rotation coppice without standards when considered in isolation, has little vertical and age structure and very little deadwood habitat, which are both considered essential elements of bio diverse woodland. ***Practical deliverability of coppice woodland*** Even if an attempt is made to establish coppice woodland as described by NG within the 50m exclusion zone, SEW believe that there is a low degree of confidence in the deliverability of the management in practical terms. Very little information has been provided on access or methodology for woodland management, particularly in terms of how this can be achieved without ground damage (and therefore damage to the woodland habitat), given the predominance of seasonally waterlogged soils, including clayey soils with slow permeability.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		SEW remain concerned that NG would rely on access by vehicles to undertake coppice management (for example to assist with managing brash) and believe that this would result in significant damage to the waterlogged soils. Although NG state (under 2.1.3a of this table) that: '*The frequency and scale of intervention to maintain coppice woodland beneath the line would not be significantly different than for the establishment of any other woodland*', SEW believe that this is incorrect: high canopy woodland does not require any (or very minimal) management intervention once established.	
		SEW would also want to see further detail on the frequency of coppice operations within each coup: tree heights depicted on sections below OHLs within the Mott Report show maximum permissible heights. In practice, the height at which maintenance will be carried out is likely to be shorter so that NG can ensure ENS technical standards can be maintained at all times; and SEW believe that a short intensively-managed coppice cycle will therefore need to be adopted and this will not be able to deliver the required conditions for successful environmental mitigation required for the Reservoir to be able to come forward. This is because intensively managed (i.e. short rotation of 5-15 year) coppice is normally quite uniform in structure as a limited number of virile tree species tend to dominate the shrub layer. It produces almost uniformly young growth and a homogeneous vertical structures.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Appendix D of the Mott Report states that easements would be sub-divided and managed in coups (management compartments), each spanning the easement and connecting the woodland on either side. However, no plans have been provided to show the location and feasibility of establishing such coups on the ground – and importantly, how these will work to provide the required continuous ecological connectivity. The Mott Report states; '*The presence of coppice woodland does not preclude any form of woodland management on adjacent land. It would be possible to manage adjacent existing or new woodland on a similar pure coppice system or as coppice with standards. High canopy woodland could also be maintained adjacent to Richborough Connection Project easements*'. However, no assessment has been undertaken to confirm that there is adequate space remaining to deliver functional high canopy woodland habitat along the remnant narrow corridor of SEW land given other conflicting requirements such as the bridleway and recreational and amenity requirements. SEW therefore needs to see a coppice woodland management plan to understand the impact that maintenance activities will have on SEW's objectives and requirements (with reference to concrete examples where this management has been successful within other NG easements). Further, SEW are concerned that there is no mechanism available to oblige appropriate and sensitive coppice management to be undertaken as a mandatory requirement to deliver and or protect the required environmental conditions; and as part of this, whether NG will commit to undertake and fund the management required by SEW in the long-term.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		In the absence of this information, SEW believe that the coppice woodland will not establish as claimed by NG; and the resulting habitat within the easement will comprise habitat of low ecological value (e.g. monocultures of bramble and nettles).	
2.1.1c	Riparian Planting	No direct interaction.	N/A
2.1.1d	Fish Pass	No direct interaction.	N/A
2.1.1e	Sarre Penn River Diversion	No direct interaction.	N/A
2.1.2	**PC8**		
2.1.2a	Construction, operation and maintenance access for RCP	Relatively small interface as PC8 is in close proximity to Heel Lane. However, in relation to access generally, SEW believe there is high potential for ground damage and therefore damage to the woodland habitat during access to pylons major maintenance or repairs, given the seasonally waterlogged nature of the soils. The soils are different to those present in the adjacent SSSI; and therefore sensitive methods of working agreed with NE for the SSSI may not be appropriate. SEW require details of the access route to each pylon site and the likely footprint of the maintenance works.	Agree that interface can be mitigated or managed. Agree that there is an interaction.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		The impact of access depends on the frequency of coppice management which is currently unclear (as described in 2.1.5c below) SEW believe there is potential for ground damage and therefore damage to the woodland habitat, given the likely frequency of coppice operations and the likely need for vehicular access (particularly given the seasonally waterlogged nature of the soils). High canopy woodland does not require any (or very minimal) management intervention once established. It should also be noted that only access to the pylons themselves have been considered and not any formal or vehicle access under the OHL between the pylons. It is assumed any maintenance or access in this area in relation to the planting and the pylons and OHL between them would be on foot.	Maintenance zone required around PC8 to be confirmed by NG. Planting around the pylon could still be retained as long as they do not compromise clearances, or provide a means of climbing onto the pylon. Coppice would thus be suitable around the pylon. Access on foot typically once a year to inspect pylon which would have no impact on planting. If any defaults or faults are found with the pylon, access would be arranged and agreed with SEW to remedy the faults identified. Typically, Land Rover type vehicles would be used to access pylon sites. Full-scale (asset) maintenance works typically take place at most once in every 25 year cycle. When that work is undertaken, access would account for protected species and employ best practice relevant to the location. All works would be subject to a location specific method statement which would be cognisant of best practice, the prevailing (protected) species constraints and habitat objectives. Such sensitive methods of working that allow for the habitats to be retained, by incorporating them into the coppice management cycle, have been approved by Natural England for the adjacent SSSI.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.1.2b	Land planting	Impact is the same as detailed at 2.1.1b above. SEW believe there is a low degree of confidence in the deliverability of the coppice management in practical terms and therefore the resulting end habitat will be of low ecological value. Deliverability of coppice woodland immediately adjacent to the pylon is additionally dependent on NG providing specific details on the size of the maintenance zone and height of trees that will be allowed to establish in this zone.	
2.1.2c	Riparian planting	No direct interaction.	N/A
2.1.2d	Fish Pass	No direct interaction.	N/A
2.1.2e	Sarre Penn River Diversion	No direct interaction.	N/A
2.1.3	**Between PC8 and PC9**		
2.1.3a	Construction, Operation and Maintenance Access for RCP	The same concerns apply as detailed at 2.1.2a above.	Agree that there is an interaction. Access would be required for maintenance of trees. This would be infrequent (c.1 visit per year) and low impact (on foot) and would not require vehicles or large plant. The frequency and scale of intervention to maintain coppice woodland beneath the line would not be significantly different than for the establishment of any other woodland (including

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
			high canopy) and ad hoc pedestrian access by amenity users of the site. There is no inevitable link between woodland management and harm to biodiversity when standard industry best practice is followed.
2.1.3b	Land Planting	The same concerns apply as detailed at 2.1.1b above.	See above for NG's position in relation to PC7 to PC8 (2.1.1(c)).
2.1.3c	Riparian Planting	For the 32.5m Reservoir the impact on the riparian corridor planting from the RCP is over a total length of 455m (including river and fish pass elements). This specific pylon/ span location falls within the impacted section. The OHL is on the periphery/boundary of the riparian corridor. SEW is seeking to link into the wider landscape. Planting needs to recreate (as much as possible) the existing area to be inundated. Tree species will need to be amenable to heavy clay/wet environment. The concerns detailed at 2.1.1b apply and SEW believe NG will require restrictions in terms of species selection for riparian woodland which will prevent SEW from delivering the required environmental mitigation.	There is no restriction on the type of species that can be planted in this (or any) location. The RCP proposal does not introduce any new/additional restrictions on species selection. If coppice management is proposed, species that do not coppice (e.g. conifers, polar and cherry) would be unsuitable but there is no in-principle constraint to species choice. Oak and alder both respond well to coppicing and could be planted to meet habitat objectives if required. NG is content that the existing Sarre Penn tree species mix can be recreated without constraint by RCP (including Oak and Alder should that be required).
		SEW needs clarity on the type of species that can be planted in this location and an indicative management programme from NG as detailed at 2.1.1b. It is not clear that NG's management proposals are compatible with the requirements SEW need to meet in order to deliver the Reservoir. SEW need the riparian woodland to achieve several key objectives in order to ensure compliance with WFD, including: stabilisation of river banks and beds; provision of large woody material (LWM) which act as different niches and habitats for fish and invertebrates; provision of diversity in physical vertical and horizontal structure (including submerged	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		roots, overhanging canopies, submerged limbs and woody debris);	
		maintaining water temperature and avoiding thermal barriers best achieved through adequate shading from mature overhanging canopies; and the promotion of high water quality including oxygenation that is influenced by temperature (lower oxygen with higher temperatures). SEW do not believe that these objectives can be met by coppice woodland as explained in 2.1.5c below. The details and concerns raised at 2.1.5c also apply.	The only interaction is in relation to the management of species to be planted (as it is not possible to have unrestricted and unmanaged growth beneath the OHL). NG is restricted by ENS technical standards on safety clearances in this respect. The assumption that NG has made is that coppice planting would be used in this location although this is not a requirement that NG would impose. Coppice planting can grow to within 3.1m of conductors and is capable of achieving appropriate levels of shading, diversity and connectivity through continuous cover coppice management. This would meet the statutory requirements as described by consultees.
2.1.3d	Fish Pass	See 2.1.4d below same issues apply.	Agree that there is no interaction.
2.1.3e	Sarre Penn River Diversion	The OHL is adjacent to the River diversion in this location. The above points in relation to Riparian Planting (2.1.3(c)) apply here.	See above for NG's position in relation to Riparian Planting (2.1.3(d)).
		It will not be possible to deliver the requirements of WFD (i.e. a natural river system which performs in the same manner for all of its ecological components to ensure that the system does not deteriorate in WFD terms and in terms of the physical, biological and chemical characteristics that are critical for the associated flora and fauna) with engineered solutions or a local change in alignment of the Sarre Penn diversion channel (which is	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		suggested by NG) for the reasons set out below.	
		The proposed footprint for the 1v:400h diversion channel falls within the footprint of the pylon and exclusion zone; and the Mott Report (Section 4.2.3) states that: '*There is a design conflict between the Sarre Penn river excavation and the proposed pylon position. Construction of the two schemes in this arrangement would not be possible and mitigation options must be applied'...* Within Section 5.2.3 of the Mott Report, a series of potential engineered solutions to this physical interaction have been put forward. All of these solutions will significantly reduce SEW's ability to create a naturalistic River diversion. The Mott Report goes on to recommend a final solution which is stated to be 'feasible and acceptable' in Section 6.2. Although the solution may be technically feasible, SEW do not agree that it is acceptable for the following reasons:	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		The Mott Report recommends moving the River diversion channel further to the north of pylon PC9. Although this is technically feasible, this will have knock-on impacts downstream on the location and design of the fish pass. Moving the River channel to accommodate PC9 therefore poses significant risks of inhibiting the options available to produce the most favourable balance in elevation and river cutting width throughout the length of the river diversion, including, and especially, in the steeper fish passage section. It should be noted that design of a fish pass of this scale and vertical change in height is unique and untested against WFD. It is therefore essential to retain flexibility to deliver the fish pass. Imposing constraint on this part of the River diversion therefore presents significant risk to being able to design a technically functioning fish pass to satisfy the EA fish panel. In addition, the creation of a naturalistic river requires acceptance of a degree of future river movement in the long-term, as river shape and meanders develop within the cut channel through natural patterns of deposition and erosion. To allow for this the River corridor may need to be widened to accommodate potential movement in the streams route; and the location of PC9 will constrain this ability.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		The solution presented in the Mott Report also involves utilising slope stability techniques (a terraced retaining structure is proposed) to reduce the footprint of the channel and minimise the excavation requirements. This engineered solution does not meet the Environment Agency definition of a 'naturalistic' river channel, which needs to allow for whole river movement via erosional and depositional processes. WFD requirements will therefore not be met and the Environment Agency would not agree to this solution. In addition, structural intervention to build a steeper slope will limit the tree planting which can be undertaken as trees affect the integrity of the intervention. As a result, it will not be possible to allow mature riparian woodland to develop on the engineered slopes and will therefore mean that it will not be possible to deliver the WFD function provided by mature trees (described in 2.1.3c and 2.1.5c) for the stretch of river with engineered slopes.	
		Key hydromorphological and hydroecological characteristics of the Sarre Penn diversion channel have been confirmed in consultation responses from the Environment Agency see SEW's Written Representation [REP2-099] paragraphs 25, 100-105 and Appendix 16 and 17 . In particular, there is a key requirement for a diversion channel that provides as much natural functioning as possible (e.g. shelter, ease of passage, availability of prey species, potential for spawning and availability of juvenile fish habitat), that will also enable successful fish passage over such a long distance and change in elevation.	
		Seemingly minor local changes to the Sarre Penn diversion channel would result in knock-on impacts further downstream where space is even more constrained and the opportunity to provide additional mitigation is unachievable, thus resulting in risks to the feasibility of delivering the diversion channel (including the fish pass).	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Overall, there is a greater risk to delivering naturalistic functioning of the River system and therefore deliverability of the overall requirements of WFD. The river diversion and fish pass design requirements are unprecedented under WFD and flexibility for detailed design and future adjustments to the River diversion and fish pass are therefore critical and SEW cannot accept such a high risk to deliverability of the Reservoir.	
2.1.4	**PC9**		
2.1.4a	Construction, Operation and Maintenance Access for RCP	Existing access could be used along Barnetts Lane. However, the same concerns apply as detailed at 2.1.2a above.	Agree.
2.1.4b	Land Planting	The same constraints/concerns identified at 2.1.1b apply.	See NG's position in relation to PC8 above (2.1.2(c)).
2.1.4c	Riparian Planting	There is a small area of interaction when considering the direct impact related to PC9 in isolation. However, the area of riparian woodland to be affected by height constraints increases when considering PC9 together with the lines between PC8, 9 and 10. The scale of the interaction due to PC9 alone will also depend on the maintenance zone required for the pylon and the general concerns raised at 2.1.3c apply.	No interaction.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.1.4d	Fish Pass	There is an interaction linked to the River diversion – see 2.1.4e below. The requirements to move the River diversion channel to accommodate PC9 would act to constrain the future options for design of the fish pass in terms of location, gradient and width of cutting (and note also that a greater cumulative constraint arises due to the fixed location of PC10 – see 2.1.6d below).	No interaction.
2.1.4e	Sarre Penn River Diversion	The proposed footprint for the 1v:400h diversion channel falls within the footprint of the pylon and exclusion zone. Potential engineered solutions to this physical interaction will reduce SEW's ability to create a naturalistic River diversion. The concerns and details at 2.1.3(e) apply.	
		In addition, the creation of a naturalistic river requires acceptance of a degree of future river movement in the long-term, as river shape and meanders develop within the cut channel through natural patterns of deposition and erosion. To allow for this the River corridor may need to be widened to accommodate potential movement in the streams route; and the location of PC9 will constrain this ability. Overall, there is a greater risk to delivering naturalistic functioning of the River system and therefore deliverability of the overall requirements of WFD.	See National Grid's position at 2.1.3(d) above.
2.1.5	**Between PC9 and PC10**		
2.1.5a	Construction, Operation and Maintenance Access for RCP	The same concerns apply as detailed at 2.1.2a above.	No specific comments.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.1.5b	Land Planting	The same concerns apply as detailed at 2.1.1b above. In addition soil conditions will be much wetter in this location, so there is even more importance for SEW to be confident about NG's management proposals and how these can be implemented without damaging the required habitat.	NG's comments in relation to PC7 to PC8 (2.1.1(c)) and PC8 to PC9 (2.1.3(c)) apply here. It is difficult for NG to prepare a definitive management plan at this stage as tree planting proposals (mix and species) have not been finalised and are merely conceptual. In principle, parameters and best practice could be provided.
2.1.5c	Riparian planting	A large proportion of this stretch of the OHL will oversail the river diversion channel which has a substantial impact on the riparian woodland habitat that can be delivered. A key requirement of the mitigation SEW is required to deliver is that wet woodland planting is allowed to achieve its mature state to deliver biological and physical function of the river corridor and an undisturbed woodland management system. Regular management of woodland, for example through coppicing, thinning, crown reduction and in particular the loss of or preventing the establishment of mature trees will prevent the effective establishment of a sustainable and fully optimal wet woodland. ***Planting – species selection*** When planting trees along a river corridor, it is important that the correct species mix is selected that will both complement the existing local species mix and provide physical and biological function within the river corridor. As detailed at 2.1.3c above SEW need certainty in terms of the species that can be planted. It is critical that selected species are tolerant to a soil which is heavy in clay and prone to being water logged.	NG's comments in relation to 2.1.3(d) apply here. Furthermore, NG's position in relation to each of the objectives that SEW is seeking to achieve along the riparian corridor is as follows: <u>Shading:</u> it is possible to implement a system of continuous cover coppicing wherein maintenance would be undertaken manually, on an annual and cyclical basis by way of diffuse coppicing of individual stools rather than clearance of compartments. In this way it is also possible to ensure that a proportion of species will be at or approaching the maximum permissible height for that location at all times to achieve consistent shading. Wet woodland species such as willow and alder may be suitable for planting within the low flow channel, thereby providing direct shading of the water. Channel widths of up to 3 metres can be entirely shaded by overhanging lateral branch growth and pollarded trees could also form a

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
			component of a Riparian Planting scheme to increase structural diversity and niche aerial habitats. Connectivity: there will be continuous connectivity through the coppice stools retained in between management phases. Any form of continuous cover woodland management would retain branch to branch connectivity at all times because gaps would be created only by the coppicing of individual trees and not strips or areas of tree cover. The height of branch to branch contact is not a useful broad metric for connectivity. Coppice woodland is no less capable of providing connectivity than high canopy woodland and, given its denser and more prolific flowering and fruiting, may provide better functional connectivity for some species, notably dormice.
		Required functionality of mature wet woodland As described in 2.1.3c above, the riparian woodland needs to deliver a hydromorphological quality element, as described in the WFD; and this requires mature trees for a number of reasons. These are described in turn below.	
		1. Mature trees help to shade rivers and keep them cool and this is particularly important for the target fish species such as brown trout which are especially sensitive to increases (diurnal or longer term) in water temperature. Among other things, this is because	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		warmer water cannot contain as much dissolved oxygen (DO) as cold water, and salmonids require high levels of DO. This function is particularly critical at the top of the fish pass (see 2.1.5e below). Although coppiced trees will provide an element of shade, SEW are concerned about the required frequency of coppice management (see 2.1.1c above) and therefore the actual degree of shade that can be attained, even by the most mature stages of coppice.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		2. SEW are concerned about the required frequency of coppice management (see 2.1.1b above) and therefore the actual degree of shade that can be attained, even by the most mature stages of coppice that could be associated with the RCP corridor. Typically, short rotation coppice (rotation of between 5-15 years) produces almost uniformly young growth and a homogeneous vertical structure with little horizontal or overhanging growth; and as a consequence, the river would be significantly less shaded than would be the case if high canopy woodland was present. SEW are also concerned about the impact of the proposed management as coppice coups, which could result in large stretches of the river receiving zero (or very little) shade. All NG documents to-date (particularly the Mott Report Appendix D) state that coppice will be undertaken as alternating coups – and the NG statement under 2.1.5c within this SoCG is the first time that a system of '*continuous cover coppicing'* or '*pollarding*' has been referred to. This further adds to the uncertainty in terms of the actual coppice management that would be delivered on the ground. 3. Trees are an important source of fine, coarse and large woody material (LWM) for rivers, including via tree falls, large branches and even some live trees growing within the channel area, as well as branch drop or hinged limbs (including large limbs). This LWM is critical to provide a wide variety of different habitat niches for fish and invertebrates. Note that LWM can be seen as the 'backbone' of the watercourse; its presence can help protect a stream from the erosion of beds and banks by resisting and deflecting flows. It also assists with the trapping and retention of sediments, organic matter and FWM & CWM. Coppiced woodland, especially short rotation coppice which SEW believes would need to be implemented by NG (see 2.1.3c above), is simply not capable of generating the WM required to fulfil WFD.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		4. For operation of a natural channel, a range of vegetation layers in the associated riparian woodland vegetation (marginal, shrub, understorey and canopy) are desired in order to provide vertical as well as horizontal connectivity. 5. A diversity of age structures also assists with achieving this three-dimensional structure. Given SEW concerns about the feasibility of coppice management (see 2.1.3c above) a degree of horizontal connectivity may be created in one dimension, but the full diverse structural connectivity achieved by the vegetation layers in mature wet woodland cannot be achieved by the coppice woodland. 6. The number of invertebrates associated with alder, birch and willows, is quite extensive and an important reason for why wet woodland is a key component of a well-functioning river corridor and this is an anticipated outcome from the maturing woodland associated with the riparian corridor proposed by SEW.	
		Key target riparian tree species such as alder are long lived and grow to a size and form that provides a range of key ecological niches both on the flood plain as well as on the river bank and even within the channel (e.g. submerged and floating roots). Mature alders are important for many invertebrates, such as some of the rare craneflies which require shady conditions. SEW does not believe that the potential value for invertebrates can be achieved through coppicing wet woodland.	
		A key requirement of the mitigation SEW is required to deliver is that wet woodland planting is allowed to achieve its mature state to deliver biological and physical function of the river corridor and an undisturbed woodland management system;	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Regular management of woodland, for example through coppicing, thinning, crown reduction and in particular the loss of or preventing the establishment of mature trees will prevent the effective establishment of a sustainable and fully optimal wet woodland. The coppicing periods suggested by NG (between 2 – 10 years) are too short to allow sufficient regrowth to maximise biodiversity and hydro ecological opportunities along the riparian corridor.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		It should also be noted that NG have not been clear on the periods required, document 5.4.6D Annex D1-3 states '*The species will meet safety clearance requirements, providing they receive the appropriate maintenance every 2-3 years*.' Whereas the Mott Report Appendix D (page 83) states that the coppice cycle will vary from 5-15 years. This further adds to the uncertainty in terms of the frequency of coppice operations that will actually be undertaken.	
		The interaction is particularly substantial in terms of impact on the riparian woodland habitat as a large proportion of this stretch of the OHL will oversail the river diversion channel. Therefore, SEW does not believe that the WFD requirements for riparian woodland can be met by coppice management. The changes that the RCP would cause to the riparian woodland means that there is a severe risk to the functionality of the fish pass in accordance with strict EA requirements. The river diversion and fish pass design requirements are unprecedented under WFD and SEW cannot accept such a high risk to deliverability of the reservoir due to restricting flexibility for deliverability of these elements and uncertainty in terms of whether coppice woodland is capable of delivering the required features of a naturalistic channel.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
			Wood material drop: due to the variety of age structure present at all times, woody material would contribute to the aquatic environment. All species would be available for planting and are capable of contributing to specific debris requirements. RCP would not restrict woody material deposition in terms of quantity or species representation.
			Diversity of species and age structure: through the continuous cover coppicing system, trees at all stages in the coppice cycle would be present at all times. This would also include maturing stools, which can offer under-represented niche habitats that maiden trees do not support. Coppice trees are also capable of outliving maiden trees and may therefore present a better opportunity to produce veteran trees in the long term. It would also be possible to incorporate shrub and/or non-coppice understorey planting, increasing diversity yet further.
			National Grid does not propose any particular fixed length of coppice cycle (rotation). The size of river corridor trees at the point of interaction and therefore any functions that relate to size such as shading would be a product of the conductor height. The length of coppice cycle would therefore be a function of that dimension and the growth rate of species or individual trees

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
			in each location which would be monitored. Species with faster growth rates would therefore tend to have a shorter rotation than those with slower growth rates, given a fixed top height. Thus in a continuous cover system, those would be maintained more often than slower growing species. Coppicing for conservation can typically be on a 5-20 year cycle depending on the site's biodiversity objectives whereas normally only commercial crops would feature a short 2-5 year cycle. All management within a National Grid easement would be subject to a location specific management plan which would be cognisant of the prevailing (protected) species constraints and habitat objectives. This would also meet Natural England's requirement for a detailed management plan.
2.1.5d	Fish Pass	The same general concerns apply as detailed at 2.1.5c above. In addition, the WFD functionality (as described in 2.1.5c above) required at the top of the fish pass where it is located beneath the OHLs between PC9 and PC10 is particularly critical. The continuation of the riparian corridor along the fish pass to keep the water shaded and cool has been identified by both the Environment Agency and Natural England as particularly important to limit stress for the fish passing through the long fish pass. This relatively long (compared to other fish passes in the country) structure needs to benefit from shade otherwise it will heat up and, effectively, become a thermal (and deoxygenated) barrier to the passage of fish in the River.	As above (2.1.5(d)).

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		It is physically stressful for fish moving upstream through the fish pass: so once through the pass it is critical that fish avoid further stress. SEW therefore need to ensure cool shaded resting pools are provided. So the key areas for fish stress are within the fish pass and at the transition point at the top of the pass: it is in these areas that it is essential that optimum habitat conditions are present such as shading and well- oxygenated water.	
2.1.5e	Sarre Penn River Diversion	The same concerns apply as detailed at 2.1.5c above.	As above (2.1.5(d)).
2.1.6	**PC10**		
2.1.6a	Construction, Operation and Maintenance Access for RCP	There is a proposed 4m access track to PC10 which would restrict planting in that location. Although shared access would be possible for part of the route to PC10, the 4m width of the track to suit NG maintenance access requirements would be greater (SEW would require 2.5m width) resulting in a wider corridor of clearance to facilitate the access. The same general concerns apply as detailed at 2.1.2a above.	Agree that there is an interaction but possible to limit through shared access to PC10 and crest of dam (see Jacobs drawing 1070).
2.1.6b	Land planting	The same concerns apply as detailed at 2.1.1b above. In addition, deliverability of coppice woodland immediately adjacent to the pylon is also dependent on NG providing specific details on the size of the maintenance zone and height of trees that will be allowed to establish in this zone.	See NG's position in relation to PC9 to PC10 (2.1.5(c) above).
2.1.6c	Riparian planting	No direct interaction.	No interaction.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.1.6d	Fish Pass	There is no direct interaction for the current fish pass concept design. However, the concept design only looks at the minimum requirements in terms of gradient and length and there is a real risk that different slacker gradients and wider cutting will be required by the Environment Agency when the detailed design is finalised to sufficiently protect the target fish species and maintain depth in low flow conditions. To this end, flexibility of landscape between the eastern boundary of the 36m AOD fish pass and the western boundary of the 32.5 m AOD Reservoir /embankment foundation is required so as not to compromise future design. The location of PC10 therefore acts to constrain the future options for detailed design of the fish pass in terms of location, gradient and width of cutting (and note also that a greater cumulative constraint arises due to the fixed location of PC9 – see 2.1.4d above). The same general concerns apply as detailed at 2.1.5c and 2.1.5d above.	No interaction.
2.1.6e	Sarre Pen River Diversion	The creation of a naturalistic river, including the fish pass channel, will require acceptance of a degree of future river movement in the long-term as meanders and river shape develops within the cut channel through natural patterns of deposition and erosion. To allow for this the River corridor may need to be widened to accommodate potential movement in the streams route. The location of PC10 will prevent any alteration of stream corridor width. The general concerns detailed at 2.1.4e above also apply.	No interaction.

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Table 2.2 Ecology and Biodiversity Impacts at 36m AOD

SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.1	**Between PC7 and PC8**		
2.2.1a	Construction, Operation and Maintenance Access for RCP	No direct impact.	N/A
2.2.1b	Land Planting	Impacts as per the 32.5m AOD proposal between PC7 and PC8 (2.1.1(b)).	NG's position as per 32.5m AOD proposal between PC7 and PC8 (2.1.1(c)).
2.2.1c	Riparian Planting	No direct impact.	N/A
2.2.1d	Fish Pass	No direct impact.	N/A
2.2.1e	Sarre Penn River Diversion	No direct impact.	N/A
2.2.2	**PC8**		
2.2.2a	Construction, Operation and Maintenance Access for RCP	Impacts as per the 32.5m AOD proposal at PC8 (2.1.2(a)).	NG's position as per the 32.5m AOD at PC8 (2.1.2(b)).
2.2.2b	Land planting	Impacts as per the 32.5m AOD proposal at PC8 (2.1.2(b)).	NG's position as per the 32.5m AOD at PC8 (2.1.2(c)).

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.2c	Riparian planting	For the 36.0m Reservoir the impact on the riparian corridor planting from the RCP is for a total length of 635m (including river and fish pass elements). This specific pylon/ span location falls within the impacted section. PC8 is on the periphery/boundary of the riparian corridor. There is a small area of interaction when considering the direct impact related to PC8 in isolation. However, the area of riparian woodland to be affected by height constraints increases when considering PC8 together with the lines between PC8, 9 and 10. The scale of the interaction due to PC8 alone will also depend on the maintenance zone required for the pylon and the general concerns raised at 2.1.3c apply.	NG's position as per the 32.5m AOD at PC8 (2.1.2(d)).
2.2.2d	Fish Pass	No direct impact.	N/A

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.2e	Sarre Pen River Diversion	The proposed footprint for the 1v:400h diversion channel falls within the footprint of the pylon and exclusion zone; and the Mott Report (Section 4.3.2) states that: '*It is unlikely the presented option would be acceptable in this format and mitigation options should be applied*.' The solution deemed to be '*feasible and accept*able' as presented within the Mott Report is the same as presented for PC9 under the 32.5m AOD proposal (i.e. locally moving the channel to the north and with steep engineered slopes). SEW do not accept that the solution is acceptable for the reasons set out in 2.1.4e and the impacts are as per the 32.5m AOD proposal at PC9 (2.1.4(e)).	NG's position as per the 32.5m AOD at PC9 (2.1.4(f)).
2.2.3	**Between PC8 and PC9**		
2.2.3a	Construction, Operation and Maintenance Access for RCP	The same concerns apply as detailed at 2.1.2a above. Access would be required by NG along the easement which would cross the River corridor resulting in impact on planting to facilitate the NG required access track.	NG agrees that there is an interaction.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.3b	Land Planting	Impacts as per the 32.5m AOD proposal between PC7 and PC8 (2.1.1(c)) and PC8 and PC9 (2.1.3(c)).	NG's position as per the 32.5m AOD proposal between PC7 and PC8 (2.1.1(c)) and PC8 and PC9 (2.1.3(c)). Taken in isolation, the RCP includes provision for the retention of trees (a row of white poplars) beneath the OHL span in this location. Therefore, some of the mitigation that NG is proposing would need to come back out as and when the Reservoir proposal comes forward.
2.2.3c	Riparian Planting	Impacts as per the 32.5m AOD proposal between PC9 and PC10 (2.1.5(d)).	NG's position as per the 32.5m AOD proposal between PC9 and PC10 (2.1.5(d)).
2.2.3d	Fish Pass	No direct interaction.	N/A
2.2.3e	Sarre Penn River Diversion	Impacts as per the 32.5m AOD proposal between PC9 and PC10 (2.1.5c and 2.1.5e).	NG's position as per the 32.5m AOD proposal between PC9 and PC10 (2.1.5(d)).
2.2.4	**PC9**		
2.2.4a	Construction, Operation and Maintenance Access for RCP	No material difference to interaction at 32.5m AOD proposal at PC8 (2.1.2b)) and PC9 (2.1.4(b)) (see also 2.1.1b) but additional constraints on planting as a result of the access route to PC9.	NG agrees that there is an interaction. NG would work with SEW in order to arrange and agree access and identify any mitigation as appropriate.
2.2.4b	Land planting	There is an interaction. Interactions No material difference to 32.5m AOD proposal at PC8 (2.1.2(c)) and PC9 (2.1.4(c)) but additional constraints on planting as a result of the access route to PC9.	[*NG to set out its position here*]. See above 32.5m AOD proposal for NG's position in relation to PC9, 2.1.4(c).

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.4c	Riparian planting	There is a small area of interaction when considering the direct impact related to PC9 in isolation. However, the area of riparian woodland to be affected by height constraints increases when considering PC9 together with the lines between PC8, 9 and 10. The scale of the interaction due to PC9 alone will also depend on the maintenance zone required for the pylon and the general concerns raised at 2.1.3c apply.	See above 32.5m AOD proposal for NG's position in relation to PC9, 2.1.4(d).
2.2.4d	Fish Pass	Interactions as per 32.5m AOD proposal at PC9 (2.1.4d).	See above 32.5m AOD proposal for NG's position in relation to PC9, 2.1.4(e).
2.2.4e	Sarre Penn Diversion	Interactions as per the 32.5m AOD at PC9 2.1.4e.	NG's position as per the 32.5m AOD at PC9 (2.1.4(f)).
2.2.5	**Between PC9 and PC10**		
2.2.5a	Construction, Operation and Maintenance Access for RCP	The same concerns apply as detailed at 2.1.2a above	No specific comments.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.5b	Land Planting	Interactions as per the 32.5m AOD between PC9 and PC10 (2.1.5b).	NG's position as per the 32.5m AOD between PC9 and PC10 (2.1.5(c)). Coppice woodland is proposed by NG as mitigation along Barnetts Lane opposite PC9, which would presumably come back out when the Reservoir proposal is brought forward. Greater ground clearance in this location than between PC8 and PC9, and thus trees could achieve greater heights.
2.2.5c	Riparian Planting	Impacts as per the 32.5m AOD proposal between PC9 and PC10 (2.1.5(c)). The interaction is particularly substantial in terms of impact on the riparian woodland habitat as a large proportion of this stretch of the OHL will oversail the river diversion channel. The river diversion and fish pass design requirements are unprecedented under WFD and SEW cannot accept such a high risk to deliverability of the reservoir (as described in 2.1.5c) due to restricting flexibility for deliverability of these elements and uncertainty in terms of whether coppice woodland is capable of delivering the required features of a naturalistic channel.	NG's position as per the 32.5m AOD between PC9 and PC10 (2.1.5(d)).
2.2.5d	Fish Pass	Interactions as per the 32.5m AOD between PC9 and PC10 (2.1.5d), but note the slightly greater length of interaction for the 36m AOD.	NG's position as per the 32.5m AOD between PC9 and PC10 (2.1.5(e)).

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.5e	Sarre Penn River Diversion	Interactions as per the 32.5m AOD between PC9 and PC10 (2.1.5d and 2.1.5c), but note the slightly greater length of interaction for the 36m AOD.	NG's position as per the 32.5m AOD between PC9 and PC10 (2.1.5(f)).
2.2.6	**PC10**		
2.2.6a	Construction, Operation and Maintenance Access for RCP	The restricted planting due to the access will further increase the potential impacts to the riparian woodland (and therefore the fish pass) as identified in 2.2.5c and 2.1.5c. General concerns at 2.1.2a also apply.	Agree that there is an interaction. National Grid's position is as per the Mott MacDonald report – there are solutions available to mitigate impacts.
2.2.6b	Land Planting	Interaction as per the 32.5m at PC10 (2.1.6(b)) but the level of interaction is greater for the 36m AOD.	NG's position as per the 32.5m AOD at PC10 (2.1.6(c)).
2.2.6c	Riparian Planting	There is an interaction, which will result in direct impacts on the fish pass (see 2.2.6d). In addition the area of riparian woodland to be affected by height constraints increases when considering PC10 together with the lines between PC8, 9 and 10. The scale of the interaction due to PC10 alone will also depend on the maintenance zone required for the pylon and the general concerns raised at 2.1.3c and 2.1.5c apply.	NG's position as per the 32.5m AOD at PC10 (2.1.6(d)).

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
2.2.6d	Fish Pass	The location of PC10 is a high risk factor for the Reservoir scheme. The Mott Report (Section 4.3.5) states that: [There is] '*a clash between PC10 and the fish pass excavation. Construction of the two schemes in this arrangement would not be possible and mitigation options must be applied.'* The Mott Report goes on to recommend a final solution (amending the fish pass alignment) which is stated to be '*feasible and acceptable'* in Section 6.3.	
		SEW do not agree that the proposed solution is either technically feasible or acceptable. Alterations in alignment of fish pass will have significant implications for excavation and degree to which the River is perched and the width between the River bank tops. It is a major issue if the fish pass is embanked rather than in a cutting as this presents difficultly in planting suitable species without compromising the structural integrity and requires the River to be lined. The design parameter should be to keep the fish pass in cutting as long as possible.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Further, the concept design for the fish pass only looks at the minimum requirements in terms of gradient and length and there is a real risk that different slacker gradients and wider cutting will be required by the Environment Agency when the detailed design is finalised to sufficiently protect the target fish species and maintain depth in low flow conditions. Any requirement to reduce gradient can only be accommodated through the design of a longer stream channel. To achieve such revision to the concept design in the available space for the fish pass section of the Sarre Penn diversion would require a large footprint and an increase in the number of meanders. Any restriction in footprint available to develop longer fish pass designs in this way will directly influence the complexity and cost of options. Implications of PC10 remaining in its currently proposed location include the potential for considerable excavation to incorporate other routes, and purchase of land outside of the existing SEW boundary to direct the cutting of any new route around the proposed PC10 location. It should be noted that design of a fish pass of this scale and vertical change in height is unique and untested against WFD. It is therefore essential to retain flexibility to deliver the fish pass.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Imposing significant constraint on the fish pass design at this stage therefore presents significant risk to being able to design a technically functioning fish pass to satisfy the EA fish panel.	
		The continuation of the riparian corridor with mature trees along the fish pass to keep the water shaded and cool has been identified by both the Environment Agency and Natural England as particularly important to limit stress for the fish passing through the long fish pass. This relatively long (compared to other fish passes in the country) structure needs to benefit from shade otherwise it will heat up and, effectively, become a thermal (and deoxygenated) barrier to the passage of fish in the River. See detailed information in 2.1.5c and 2.1.5d. This means that the restricted height imposed on riparian woodland in this location is particularly critical. The changes that the RCP would cause to the riparian woodland means that there is a severe risk to the functionality of the fish pass in accordance with strict EA requirements.	
2.2.6e	Sarre Penn River Diversion	The feasibility of delivering the Sarre Penn diversion channel as a whole depend on the ability to deliver a WFD compliant fish pass acceptable to the Environment Agency. PC10 severely compromises this ability (see 2.2.6d).	

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Table 2.3 Ecology and Biodiversity Impacts between 32.5m AOD and 36m AOD

SoCG ID	Issue/Location	South East Water (SEW) position	National Grid position
2.3.1	**PC8**	Level of interaction will not be materially different to those stated for the 32.5m AOD and 36m AOD Reservoir actual impacts will vary depending on final size of the Reservoir.	
2.3.2	**PC9**	For Reservoir levels within the range between 32.5m AOD and 36.0m AOD, PC9 is likely to coincide with the River diversion route. This interaction would directly impact the deliverability of the River diversion, and therefore the impacts on the Reservoir development from this interaction are likely to be greater for intermediate Reservoir levels than for the upper and lower bounds (32.5m AOD and 36m AOD).	
2.3.3	**Between PC8 and PC9 and PC9 and PC10**	Level of interaction will not be materially different to those stated for the worst case 36m AOD Reservoir.	

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Table 3 Landscape and Visual Impact and Amenity at 32.5m AOD, 36m AOD and between 32.5m AOD and 36m AOD

SoCG ID	Issue	South East Water (SEW) position	National Grid position
3.1	Designated landscape	The majority of SEW land holding lies within the Blean Woods SLA. SEW believe that NG have underplayed the importance of the Blean Woods SLA in the RCP Environmental Statement [APP-029]. Table 6.4 omits reference the Blean Woods SLA which is noted as being of value in paragraph 6.5.82. This omission implies that the value of the Blean Woods SLA has not been given adequate consideration in NG's assessment. Table 6.9 states that the value of the Blean Woods SLA is local, however as The Blean is one of the largest areas of ancient woodland in England extending into the neighbouring Swale Borough its value should be assessed as at least regional. The Special Landscape Area designation is a saved policy from the former Kent & Medway Structure Plan which both Swale Borough Council and Canterbury City Council intend to maintain as a landscape designation in their emerging Local Plans.	NG agrees that any impacts on the designated landscape, namely the Blean Woods Special Landscape Area (SLA) need to be assessed as part of the EIA for SEW's Reservoir application. A similar assessment was undertaken as part of the RCP Environmental Statement (**Doc 5.2**) and is documented in **Chapter 6** of the ES at paragraphs 6.5.82, 6.5.128 and 6.11.2, consideration of planning policy at Table 6.1, the 'Landscape value summary assessment' Table 6.4 and Table 6.9 'Landscape sensitivity of identified receptors'. The designations are shown with reference to Figure 6.1a (**Doc 5.3**). The OHL and pylons are not a new feature to the landscape. There is existing 132kV (ZV route) and 400kV (PKC route) infrastructure in the vicinity of the proposed Reservoir which also passes through the SLA.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		Page 236 paragraph 6.11.2 states: *'…There would be no direct effects on the SLA as the proposed development would not transverse this woodland … the significance of the effect would be no greater than minor adverse and therefore not significant'*. However, the Blean Woods SLA is not limited to the woodland and includes the farmland to the south that abuts the Order limits and therefore would be affected by the RCP proposal. This is largely the same area as the Broad Oak Valley LCA described in 3.2 below and therefore the effect would be the same i.e. Moderate Adverse (Significant) at all timeframes.	Should the RCP gain consent, the project should form part of SEW's baseline for assessing the potential effects on designated landscape. It is National Grid's view that the greatest impact of the Reservoir on such designations would be the construction of the Reservoir itself but agree that there would be an interaction between the RCP and the Reservoir in terms of the mitigation that SEW may wish to provide in the south east corner of the project. NG has considered whether the Reservoir proposal should have been assessed within the context of the cumulative impact assessment. This is clearly set out in Chapter 5 of the ES (Tables 5.2 and 5.3) and the approach was agreed and documented with the local authorities (see SoCG with the Councils submitted at Deadline 2, Doc 8.4.6, ID 4.31.1). An assessment on landscape character is presented in Chapter 6 (Doc 5.2) with regards to the Broad Oak Valley (LCA 25), Stour Valley Slopes (LCA 28) and Stour Valley Slopes: Westbere (LCA 29) Local Landscape Character Areas at paragraphs 6.5.29 – 6.5.36, 6.5.38 – 6.5.49 and 6.10.1 – 6.10.14.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
3.2	Overall landscape character	SEW considers that it would have been appropriate and entirely practical for RCP to include the Reservoir in its cumulative impact assessment. The Reservoir is (more than) reasonably likely to come forward, and there is ample information available to enable a practical and useful assessment to be undertaken. That much is apparent from the fact that the parties have been able to undertake an assessment of the interactions using a number of clear parameters to account for the uncertainties that exist as to top water level. In order to secure its own planning permission. SEW needs to be satisfied that it can mitigate adverse effects of the Reservoir on the Blean Woods SLA. Canterbury City Council's proposed policy for this area is to protect and enhance local landscape character. To meet this policy objective continuous high canopy woodland cover is proposed along on the southern side of the Reservoir to fulfil the following requirements: • Providing a landscape setting for the Reservoir in keeping with the character of The Blean and Broad Oak Valley landscapes, including replication of the character of the existing Sarre Penn; • Screening and/or softening engineered features that form part of the Reservoir proposal;	Should the RCP gain consent, the project should form part of SEW's baseline for assessing the potential effects on landscape character.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		• Mitigating adverse views from sensitive receptors; and • Providing an attractive and tranquil landscape for low key recreational activities such as walking, cycling and fishing; SEW consider that the RCP proposal would restrict the opportunity to fulfil these requirements in that: The management to meet clearance requirements around the pylons and overhead lines would prevent the establishment of high canopy trees in keeping with the character of The Blean and Sarre Penn; The intermittent clearance of the RCP corridor would prevent the establishment of a permanent visual screen to offset adverse visual effects – for example potential views of the dam structure from users of public rights of way; RCP would add a further incongruous engineered feature to the landscape which would be visible over much of the Reservoir site, notably in wider views from key areas such as the proposed visitor centre and local views from footpaths immediately adjacent to the pylons and overhead lines;	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		RCP's ridgeline location and management requirements are such that South East Water would have limited capacity to mitigate against these adverse effects; Views of the pylons and overhead lines would be possible throughout the Reservoir site and would affect the enjoyment of recreational users of the site, particularly walkers and those on the water or at the water's edge where screening from tree planting would be less effective in close proximity to the pylons and overhead lines there would be a loss of enjoyment for users of the Reservoir site e.g. walkers and cyclists, as their experience of continuous natural woodland would be interrupted by man-made features; and The regular requirement to clear fell areas as part of the maintenance requirements would mean that they are likely to experience views of disturbed ground conditions and tranquillity during ongoing operations.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
3.3	Recreation and amenity	In order to secure its own planning permission. SEW needs to be satisfied that it can mitigate adverse effects of the Reservoir. It is agreed that SEW's proposals to provide low key recreational activities such as walking, cycling and fishing will not be physically prevented by the RCP. However, amenity value is affected through reduced enjoyment for users through reduced attractiveness and loss of tranquillity. In close proximity to the pylons and overhead lines there would be a loss of enjoyment for users of the Reservoir site e.g. walkers and cyclists, as their experience of continuous natural woodland would be interrupted by man-made features. In addition, the regular requirement to clear fell areas as part of the maintenance requirements would mean that they are likely to experience views of disturbed ground conditions and loss of tranquillity during ongoing operations. NG's research into the effects of OHL on recreational user supports SEW position in that it confirms that the function of proposed recreational activities are unlikely to be affected, however the landscape and visual effects could have a negative impact:	National Grid and SEW agree that the RCP does not create any direct effects on the potential provision of recreational resources at the Reservoir and that SEW concerns relate to indirect amenity effects and perceived effects only. If consented, once constructed (by 2018) the RCP would be part of the baseline for Reservoir assessment purposes. NG does not agree that the presence of the RCP would reduce the number of users of the recreational resources through an impact on their amenity. NG would argue that there is little or no evidence to suggest this would be the case. On the contrary, NG has made reference through **Chapter 15** of the ES (**Doc 5.2**) to research into the effects of OHL on socio-economic factors, including recreation[2]. In addition, the Reservoir is proposed in an environment where OHLs would not be a new feature. Assessment work completed as part of the RCP in relation to effects on the PRoW network (including the Saxon Shore Way) concluded no significant socio-economic amenity effects and NG would argue that effects on similar resources of lower sensitivity at a Reservoir would be of lesser significance.

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		'5.4 CONCLUSION *The survey's results have shown that the majority of business and recreational users do not perceive there to be an impact from National Grid projects on either their own business of personal behaviour. The greatest levels of perceived effects were on the local area, with the main negative impact from both surveys being landscape and visual effects.'*	There are examples of popular recreational lakes with 400kV OHLs adjacent (or oversailing) such as Sale Water Park (Cheshire), Burghfield Sailing Lake (Berkshire) and Reservoirs at Mottram in Longdendale (Derbyshire, within the Peak District NPA). Same comments on cumulative assessment above apply here.
3.4	Visual impacts	There are impacts on certain receptors, for example, public footpaths and residents, that it will not be able to fully mitigate the Reservoir proposal against as it will not be able to establish a permanent screen planting (e.g. views of the dam and water treatment works). Contrary to National Grid's position in this SoCG their visual impact assessment states that visual receptors within or with potential views of SEW land holding would experience significant impacts from the RCP proposal. See APP-029 - 5.2 Environmental Statement Chapter 7 Visual - 5.3.7 (7 of 7) Figures 7.10b , 7.11b, 7.13b, 7.14b and 5.4.7C Visual Impact Tables (Section A only))	NG has not identified any magnitude of effect in excess of moderate and above on receptors using PRoWs, National Trails and cycles routes, and as such no significant effects are reported for these receptors.

[2] ERM, Imperial College London, Ipsos MORI, and Bridge Economics, Imperial College London and ERM (2014), A Study into the Effect of National Grid Major Infrastructure Projects on Socio-economic Factors

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
		These include the following receptors that are reported by NG as experiencing Moderate adverse (Significant) views of pylons PC8, PC9 or PC10 and OHLs: A1.F13, A1.F14, CB71, A1.H36, A1.H37a, A1.H37b, A1.H46, A1.H49. APP-061 - 5.4.2D Annex 2D 1-3 states that maintenance is required every 2-3 years to meet safety clearance requirements. Assuming a selective rather than clear felling approach is applied, half to one-third of planting would be cleared at any one time. Therefore, visual mitigation against adverse effects of the Reservoir cannot be guaranteed as it is not likely that permanent visual screen can be established in some locations, posing a potential planning consent risk to SEW. Additionally, the RCP would add a further incongruous engineered feature to the landscape which would be visible over much of the Reservoir site, notably in wider views from key areas such as the proposed visitor centre and local views from footpaths immediately adjacent to the pylons and overhead lines. RCP's ridgeline location and management requirements are such that South East Water would have limited capacity to mitigate against these adverse effects.	

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SoCG ID	Issue	South East Water (SEW) position	National Grid position
3.5	Bird Strike	Level of collision risk and mitigation should be included in cumulative assessment for RPC Please see SEW's response to NG Document 8.19 [REP3-019] paragraphs 58 – 61. In summary, uncertainty as to how to undertake an assessment does not preclude a useful assessment from being carried out. SEW believes that bird strike is related to the overarching issue of the RCP cumulative assessment. There will be a risk whilst the broad leaf planting is establishing and potentially when mature. NG should be required to identify whether it is likely that risks could be mitigated as part of its cumulative assessment. Please also see REP2-201 (bird strike report) Appendix G of Appendix 11 to SEW's Written Representation REP2-099 and SEW's deadline 3 document REP3-031 (note on bird strike). At the very least SEW request a legally binding commitment from NG to implement or fund mitigation measures if required when the Reservoir comes forward and a definitive assessment has been carried out.	Bird strike risk has been robustly assessed across the entirety of the RCP route. It is not possible to effectively assess any potential future magnitude of bird collision risk for a conceptual body of water (20-30 years before it would potentially attract waterbirds) within a changing agricultural and rural environment. This is especially pertinent when current levels of flight activity, of collision susceptible species, in the area are negligible and no flight corridors currently exist nor the species makeup and magnitude of use of any of these theoretical corridors can be currently accurately identified. SEW would be expected to assess ornithological impacts, including bird strike risk in its ES when the Broad Oak Reservoir scheme comes forward. If adverse impacts are predicted for any powerline interacting with the proposed Reservoir then mitigation would be a subject for consultations with Natural England and National Grid at that time. Such impacts are readily mitigated as evidenced by numerous studies and methods as detailed within **Doc 5.5.e** paragraph 6.2.2-6.2.4.

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Appendix A – Signing Sheet

APPROVALS	
Signed	
On Behalf of	National Grid
Name	
Position	
Date	

APPROVALS	
Signed	
On Behalf of	South East Water
Name	
Position	
Date	

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