



Department for
Business, Energy
& Industrial Strategy

1 Victoria Street
London
SW1H 0ET

Web: www.gov.uk/beis

To:

Our Ref: EN010012

NNB Generation Company (SZC) Limited
Environment Agency
The Marine Management Organisation
Natural England
Office for Nuclear Regulation

Date: 18 March 2022

Dear Sir or Madam,

Planning Act 2008 and The Infrastructure Planning (Examination Procedure) Rules 2010

Application by NNB Generation Company (SZC) Limited (“the Applicant”) for an Order granting Development Consent for the proposed Sizewell C Nuclear Power Station (“the proposed Development”)

1. Following the completion of the Examination on 14 October 2021, the Examining Authority (“ExA”) submitted a Report and Recommendation in respect of its findings and conclusions on the application for the proposed Development (the “Application”) to the Secretary of State on 25 February 2022. The statutory deadline for determining the Application is 25 May 2022.
2. There are a number of outstanding matters on which the Secretary of State for Business, Energy & Industrial Strategy (“the Secretary of State”) would be grateful if the parties identified in bold could provide further information or updates as appropriate.

3. Water Supply, Desalination Plant and Drainage

3.1. The Secretary of State notes that at the end of the Examination, the Applicant was unable to demonstrate that they had secured a permanent water supply for the proposed Development. The Secretary of State further notes that Walker Morris LLP on behalf of Northumbrian Water Limited (“NWL”) submitted a letter dated 23 February 2022, which is included at Annex A, advising that NWL are unable to meet the proposed Development’s long-term demand for

water supply from existing water resources and that a number of demand management and supply side options are being appraised.

- 3.2. The **Applicant** should therefore provide information that sets out the progress that has been made in terms of securing a permanent water supply solution.
- 3.3. The **Applicant** should confirm if it would be possible for the proposed temporary desalination plant to permanently meet the full water supply demand for the lifetime of the proposed Development should no alternative water supply solution be identified. The response should include any further information that will assist the Secretary of State in understanding the water supply strategy for the lifetime of the proposed Development.
- 3.4. The information provided should be sufficiently detailed to enable the Secretary of State to understand and reach a reasoned conclusion on the cumulative environmental effects, including for Habitats Regulations purposes, of the different permanent water supply solutions.
- 3.5. The Secretary of State requests that the **Environment Agency (“EA”)** provides an update on its position regarding environmental permitting relating to marine water quality, with particular reference to the Water Discharge Activity Environmental Permit. The **EA** should also confirm whether the combined assessment for Water Framework Directive compliance has been completed and if it is complete provide a copy.
- 3.6. The Secretary of State invites the **Marine Management Organisation**, the **EA**, and **Natural England** to provide their comments on the updated BEEMS Technical Report TR552 regarding the updated version of the Sizewell C Desalination Plant Construction Discharge Assessment H1 Type Assessment submitted by the Applicant at Deadline 10 [REP10-052].
- 3.7. The Secretary of State notes that the Applicant provided an updated Position Statement on the Sizewell C Drainage Strategy on 24 February 2022, which is included at Annex B. The Secretary of State requests that the **Applicant** provides an update as to whether or not any progress has been made regarding Suffolk County Council’s position as set out in the table on pages 5 and 6 of the updated Position Statement.

4. Traffic and Transport

- 4.1. The **Applicant** should advise as to whether or not they consider that a control mechanism(s) could secure the delivery of the Sizewell Link Road and Two Village Bypass in advance of the commencement of Phase 1 works on the Main Development Site, with consideration given to the effects of Heavy-Duty Vehicle movements on the B1122. Without prejudice to the Secretary of State’s decision on this matter, the **Applicant** should provide details of potentially appropriate control mechanism(s).

- 4.2. The Secretary of State notes that 50% of the funding for the proposed upgrade works to the Darsham A12 level crossing is proposed to be funded by Network Rail, subject to CP7 funding. The Secretary of State requests that the **Applicant** advises as to how the full costs of the upgrade works of the crossing would be met, should Network Rail fail to secure the required CP7 funding.
- 4.3. The Secretary of State understands that there were matters outstanding regarding the potential for vibration from construction traffic along the B1122 at the end of the Examination. The **Applicant** should therefore advise as to whether quiet road surfacing at the section of the B1122 up to the junction with the B1125 has been considered and should set out its position regarding quiet road surfacing at this location.
- 4.4. The Secretary of State understands that at the end of the Examination, the effects of the introduction of crossings as part of the road schemes introduced on the A12 in Marlesford and the B1122 in Theberton, in terms of air quality, noise, and driver delay, had not been carried out. The **Applicant** should provide an update on its position regarding the potential effects of the introduction of these crossings.

5. Coastal Considerations

- 5.1. The **EA** is asked to confirm if the Preliminary Design and Maintenance Requirements for the Sizewell C Soft Coastal Defence Feature (“SCDF”) (Version 4) TR544 [REP10-124] provided by the Applicant at Deadline 10 satisfies its remaining concerns in relation to modelling and further analysis for the SCDF, and consequently the Hard Coastal Defence Feature, including any implications for resilience and the cumulative impact assessment.
- 5.2. The **Applicant** should advise as to what, if any, effects the Sizewell B cessation of operation might have on the Coastal Processes Monitoring & Management Plan recharging mechanism for the SCDF.

6. Questions from the Government of Austria

- 6.1. The Secretary of State refers the **Applicant** and the **Office for Nuclear Regulation (“ONR”)** to the Espoo Convention Response from the Austrian Government of 17 September 2020 which has been uploaded to the project page of the Planning Inspectorate’s website:
<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010012/EN010012-003106-EN010012%20Regulation%2032%20-%20Consultation%20response%20from%20Austria.pdf>.
- 6.2. The Secretary of State requests that both the **Applicant** and the **ONR** provide the Secretary of State with a full response to the questions set out within chapter 8 (Questions and Preliminary Recommendations) of the Sizewell C

Environmental Impact Assessment (2020). If any questions cannot be answered at this stage, then please explain why.

7. Habitats Regulations Assessment, Biodiversity, and Ecology

7.1. In relation to noise and visual disturbance effects during the construction of the proposed Development upon the breeding marsh harrier feature of the Minsmere-Walberswick Special Protection Area (“SPA”) and Ramsar site, the **Applicant** is requested to provide information to demonstrate how the wetland habitat element of the proposed marsh harrier compensatory habitat area could be in place and functioning prior to the onset of disturbance to marsh harrier from construction activities.

7.2. In relation to noise and visual disturbance effects during the construction of the proposed Development upon the breeding and non-breeding gadwall and shoveler features of the Minsmere-Walberswick SPA and Ramsar site, the **Applicant** is requested to provide additional information to demonstrate exclusion of adverse effects on site integrity alone and in-combination or alternatively measures to avoid, mitigate, or compensate for any adverse effects identified.

7.3. **Natural England** is requested to provide views on the effects on site integrity from changes in air quality during the construction and operation of the proposed Development, for all features of the Sandlings SPA, Minsmere to Walberswick Heaths and Marshes SAC, Minsmere-Walberswick SPA and Minsmere-Walberswick Ramsar site, both alone and in-combination. In particular, **Natural England** is requested to provide comments upon the impacts attributable to the temporary desalination plant generators, with specific reference to the Applicant’s Deadline 10 Submission ‘9.117 Sizewell C Desalination Plant Air Quality Impact Assessment’.

8. Responses to the requested information should be submitted by email only to: sizewellc@planninginspectorate.gov.uk by 23.59 on 1 April 2022.

9. Responses will be published on the Sizewell C Nuclear Power Station project page of the National Infrastructure Planning website as soon as possible after **1 April 2022**:
<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/the-sizewell-c-project/>

10. This letter is without prejudice to the Secretary of State’s consideration of whether to grant or withhold development consent for the Sizewell C Nuclear Power Station or any part of the project. Nothing in this letter is to be taken to imply what the eventual decision might be or what final conclusions the Secretary of State may reach on any particular issue which is relevant to the determination of the application.

Yours faithfully

Gareth Leigh

Gareth Leigh

Head of Energy Infrastructure Planning

ANNEX A

National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

Our ref AEO/EFC/NOR01691.8

Your ref EN010012

23 February 2022

Dear Sirs

Application by NNB Generation Company (SZC) Limited for an Order Granting Development Consent for The Sizewell C Project

Update from Water Authority on water supply issues

1. We write on behalf of Northumbrian Water Limited ("NWL"). As you will be aware, a number of statements have been submitted by NWL to date regarding water supply to Sizewell C ("the **Project**"). We write to provide an update on the latest position in respect of water supply.
2. As discussed at length during the Examination Hearings, NWL were unable to say with any certainty if it would be able to supply the Project's long-term water demand for the commissioning and operational phase from the River Waveney, in its Northern Central Water Resource Zone. This uncertainty stemmed largely from the ongoing WINEP investigations.
3. It was explained that the WINEP investigations would inform the capacity of the current supply system and whether any additional infrastructure would be required to supply the Project.
4. It had already been established, during the course of the examination, that NWL was unable to supply the Project's water demand during construction, which gave rise to NNB Generation Company (SZC) Limited's proposals for a temporary desalination plant.
5. We also remind the Examining Authority that NNB Generation Company (SZC) Limited (SZC Co.) has rescinded any rights to force NWL to supply water to the construction phase of the Project (see SoCG agreed on 8th October 2021, including the Protective Provisions at Appendix B).
6. Whilst the WINEP investigations have not concluded, they are now at an advanced stage and demonstrate that NWL will not be able to supply all forecast household and non-household demand, including the Project's long-term demand, from existing water resources. NWL will therefore need to identify new water resources to meet the forecast demand.

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2 The Square
Bristol

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7. For the commissioning and operational phases of the Project, NWL has therefore included an annual average demand of 2.2MI/d and a peak daily demand of 2.8MI/d from 2032 in its Essex & Suffolk Water (ESW) Water Resources Management Plan 2024 (WRMP24) demand forecast, as requested by SZC Co. The WRMP24 baseline supply demand balance forecast for the ESW Suffolk Supply Area is for there to be a supply deficit under a 1 in 500 year drought resilience scenario from 2030. Therefore, new demand management and supply side schemes will be required in order to meet all forecast demand in the ESW Suffolk supply area including that of the Project's long term supply.
8. In addition to demand management options (e.g. leakage reduction from water company and customer side networks, compulsory metering of household customers and water efficiency schemes), NWL is also appraising options including but not limited to:
 - a. an import from Anglian Water although due to insufficient capacity in Anglian Water's strategic network, this is likely to be dependent on an export from ESW's Essex Water Resource Zone which is also forecast to be in supply deficit and therefore will require new supply side schemes;
 - b. nitrate removal at Barsham WTWs to reduce raw water quality driven water treatment works outage;
 - c. effluent reuse and desalination (both using reverse osmosis technology); and
 - d. longer term (post-2035) winter storage reservoirs.

The option types and sizes that will be included in the ESW draft WRMP24 final plan (to be submitted to Defra by 3 October 2022) will in part depend on the final outcome of the WINEP investigations on NWL's River Waveney abstraction licence.

9. NWL reiterates its commitment to provide the Project's long-term supply, although it is unlikely to be available until the late 2020s at the earliest, despite use by NWL of reasonable endeavours to establish the supply as soon as possible, and there is significant risk that it could take longer. For the avoidance of doubt, any such supply provided by NWL is reliant on:
 - a. The finalisation (including funding for) new supply schemes to meet the future mains water demands in Suffolk, including the Project;
 - b. All new supply-side infrastructure required to supply the SZC power station is commissioned and operational; and
 - c. The completion of a Section 55 Agreement under the Water Industry Act 1991.
10. It is emphasised that the costs approval process involving OFWAT, which has been explained in detail in our previous correspondence, will need to conclude prior to the installation of any such additional infrastructure. Any new supply schemes will need to be identified in NWL's Water Resources Management Plan 2024.
11. We hope that the above update allows the Secretary of State to make an informed decision with regards to water supply issues discussed to date. It is unlikely that any further updates will be forthcoming prior to the proposed decision date.
12. Please kindly provide a copy of this letter to the Secretary of State and confirm receipt of the same.
13. This letter has also been shared with NNB Generation Company (SZC) Limited.

Yours faithfully,

Temple Quay House
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Bristol

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Walker Morris LLP

ANNEX B



SIZEWELL C PROJECT

POSITION STATEMENT
SIZEWELL C DRAINAGE STRATEGY UPDATE

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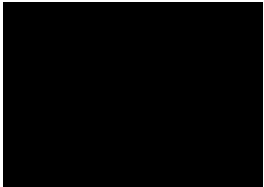
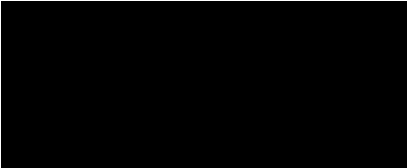
Position Statement – Sizewell C Drainage Strategy Update



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Signature Sheet

This Position Statement is agreed between SZC Co. and SCC the day specified below.

Signed:	
Print Name:	Mark Ash
Job Title:	Executive Director of Growth, Highways and Infrastructure
Date:	24 February 2022
Duly authorised for and on behalf of Suffolk County Council	
Signed:	
Print Name:	Carly Vince
Job Title:	Chief Planning Officer
Date:	24 February 2022
Duly authorised for and on behalf of SZC Co.	



SIZEWELL C PROJECT
POSITION STATEMENT
SIZEWELL C DRAINAGE STRATEGY UPDATE

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1.0 Background

The purpose of this document is to record the current position of NNB Generation Company (SZC) Limited (SZC Co.) and Suffolk County Council (SCC), hereafter referred to as ‘the Parties’, in relation to drainage. The Drainage Strategy is a ‘Level 1’ control document to be certified under the Sizewell C Development Consent Order (DCO), if granted.

In the Deadline 10 Statement of Common Ground [REP10-101, Ref. SOCG_8.64] both Parties agreed an acceptable drainage strategy must:

- Demonstrate that the proposals provide for effective drainage of all development sites;
- Demonstrate that the proposals do not increase off-site surface water flood risk; and
- Demonstrate that the proposals do not increase the risk of surface water pollution.

There was disagreement between the two parties in the Statement of Common Ground as SCC considered that the submitted Drainage Strategy did not deliver the objectives set out above and stated that it was not a suitable document to be certified by the Secretary of State. SCC’s position was, and continues to be, that for it to support the Level 1 Drainage Strategy, further information must be included to be consistent with that of an outline planning application, in general accordance with the table included on pages 9 & 10 of the “Suffolk Flood Risk Management Strategy, Appendix A – Sustainable Drainage Systems (SuDS) A Local Design Guide”. Following Issue Specific Hearing (ISH) 11, the Parties agreed an ‘Action Plan’ to engage further on an updated version of the Drainage Strategy to this effect, but it was not possible to complete this before close of the examination. Both Parties committed to further engagement to reach common ground.

2.0 Progress Update

On 7th December 2022, SZC Co. held a workshop with SCC and East Suffolk Internal Drainage Board, to kick-off a programme of further engagement to complete the Action Plan and produce the Drainage Strategy Update to underpin the future submissions in respect of Requirement 5, Project wide: Surface and foul water drainage (as currently drafted in the draft Development Consent Order [REP10-009]). The Environment Agency was also invited to attend by SZC Co. if they wished, although it does not have any concerns in relation to drainage. All four Parties have since met on a regular basis.

The Action Plan has been updated from time to time, with the agreement of all Parties, to reflect progress made, and discuss technical matters arising. The current version of the Action Plan (Rev 7) was issued on 16/02/2022. See **Appendix 1**.

During the course of this engagement, SZC Co. has shared a number of draft deliverables with the Parties for review and comment. These deliverables, which comprise 'building blocks' for the Drainage Strategy Update, have been produced to establish common ground with stakeholders on the specific areas of concern identified in the Action Plan. The final such deliverable, providing further information on the proposed Two Village Bypass, was shared with stakeholders on 16/02/2022. SCC returned comments on all deliverables by 22/02/2022.

The Comments log was issued to stakeholders on 18/02/2022 and updated to incorporate all stakeholder comments received on 22/02/2022. The version updated to respond to stakeholders' comments is included at **Appendix 2**.

3.0 Position of the Parties

3.1 SZC Co. & SCC

Both Parties agree that:

- Significant progress has been made to build common ground in relation to the Drainage Strategy for the SZC Project and to address many of the outstanding areas of concern.
- Additional information has now been provided to SCC for all proposed works locations, as recorded in the Action Plan (Rev 7) (**Appendix 1**) and the Comments Log (**Appendix 2**). SCC are continuing to review this information and provide comments back to SZC Co. for further consideration, review and amendment. These comments will be captured in the Comment Log for action in the Drainage Strategy.
- Whilst there has been no considerable change to the overall approach, there have been important improvements to the Drainage Strategy, including changes to and clarifications of the principles applied at certain locations.

In relation to the Drainage Strategy Update, the following matters are not agreed between the parties:

SZC Co's position	SCC's position
SZC Co.'s position is that it is not necessary to submit the Drainage Strategy Update to the Secretary of State (SoS) for Business, Energy & Industrial Strategy (BEIS) because Requirement 5 of the draft DCO [REP10-009] places a 'Grampian style' condition on the development for an updated Drainage Strategy to be approved by East Suffolk Council (subject to	SCC considers that the Applicant's Drainage Strategy submitted at Deadline 10 is not acceptable as a certified control document (as set out [REP10-210]). This is because the document does not demonstrate that the primary surface water drainage mitigation is suitable, sufficient, and deliverable within the Order Limits and

<p>consultation with SCC in its capacity as the Lead Local Flood Authority). Furthermore, the information provided will ensure that the Drainage Strategy Update would be 'in general accordance with the Drainage Strategy', as necessitated by Requirement 5 of the draft DCO [REP10-009].</p> <p>SZC Co. has started to prepare a draft version of the Drainage Strategy Update. It is intending to submit the draft to the Parties on or before 11/03/2022 for their review and feedback. Stakeholders are likely to require at least two weeks to respond, meaning that the final Drainage Strategy Update is likely to be available in mid-April.</p>	<p>in accordance with national and local policy, best practice and guidance.</p> <p>SCC acknowledges the significant progress made in developing the Drainage Strategy, in close collaboration between SZC Co., SCC and other stakeholders, since the close of Examination. However, SCC is disappointed that the Applicant is not intending to submit an updated Drainage Strategy to the Secretary of State. With the additional work undertaken by the Applicant since the close of Examination, an updated Drainage Strategy could readily be produced and submitted by the Applicant, which would allow the Secretary of State to replace the inadequate document of Deadline 10 with an acceptable certified control document. SCC urges the Secretary of State to request the submission of an updated drainage strategy.</p> <p>With regard to Requirement 5, as set out in SCC's final position statement [REP10-210], SCC has asked that this requirement be amended so that SCC, as the LLFA, is the discharging authority for surface water drainage. This change would reflect SCC's statutory responsibility for surface water drainage and would provide assurance that impacts and related risks to surface water drainage and flooding are discharged by the most relevant and competent authority. However, this change in and of itself would not be sufficient to overcome the inadequateness of the submitted Drainage Strategy, but rather would ensure that once a satisfactory Drainage Strategy is in place, the detailed discharge of its requirements is fully and properly considered.</p>
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3.2 SZC Co. & East Suffolk Internal Drainage Board

Both Parties agree that:

- A minimum 6m wide, flat access track will be provided by SZC Co. along the full length of the diverted Sizewell Drain (Eastern side) and that any 'stepped'

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bank profiling will be undertaken on the opposite bank (Western side) to this access track; and

Whilst East Suffolk Internal Drainage Board would prefer to see more surface water discharged to land drains as opposed to the sea, it has been fully engaged on all relevant matters relating to the Drainage Strategy Update. It is proposed that only water from a modified WMZ 8 (Outside the Nuclear Island) would discharge to the Sizewell Drain on a permanent basis.



SIZEWELL C PROJECT
POSITION STATEMENT
SIZEWELL C DRAINAGE STRATEGY UPDATE
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Appendix 1 - Action Plan

A	B	C	D	E	F	G	H	I	J	K
				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
1	Control Document	Drainage Strategy needs to be tied legally together with Technical Notes.	Reach agreement between SZC Co. and SCC on the degree of reliance on and relationship between the Drainage Strategy and series of supplementary technical notes, including the information to be provided through the subsequent Actions in this document.	Technical notes appended to D10 Drainage Strategy. Requirement 5 redrafted to enable final drainage strategy to be agreed post Examination.	Overarching Final Drainage Strategy to be release as Pre-commencement Condition aligned to requirement 5.		SZC Co	March for BEIS submission Draft 11 th March		
2a	Infiltration Figures - MDS	2021 Results need to have a location plan so they can be reviewed.	SZC Co. to: <ol style="list-style-type: none"> 1. Provide Table of 2021 Results and 2021 Plan. 2. Show reason for chosen infiltration value from all results available (all sites). 3. Additional item: provide overlay plan of infiltration values and WMZs. 	<ol style="list-style-type: none"> 1. 2021 results and location plan provided <u>informally</u> to SCC and ESIDB. 2. Justification for choice of infiltration rate provided within D10 Drainage Strategy Annex 2A.5: Explanatory Technical Note. 3. Infiltration / WMZ overlay provided in different formats within D10 Drainage Strategy as Annex 2A.2: Location of Geotechnical Investigations on MDS and Infiltration Testing Confidence and within Annex 2A.3: Main Development Site Water Management Zone Summary. 	No further action required. Volume of infiltration data, query if PINS would want this information and hence in public domain. - SZC CO	Discuss with PINS the submission of the route infiltration data Confirmed, only submission into SoS Determination Period available	SZC Co (SM)	10/12/2021	06/01/2022 CV confirmed	PINS may not accept further data or be able to Confirmation, PINS will not accept further data, only additional submissions to be made are into SoS Determination

A	B	C	D	E	F	G	H	I	J	K
				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
2b	Infiltration Figures – AD sites	Includes additional test results for TVBP and Yoxford. Includes existing geotechnical reports for FMF, NP&R, GRR and SP&R.	SZC Co. to: 1. Supply existing reports with available values for 2VB, Yoxford, FMF, NPR, SPR and GRR. 2. Supply any new infiltration data for FMF, NPR, GRR and SPR.	1. Infiltration test results provided informally for 2VB and Yoxford. Existing infiltration summaries for FMF, NPR and SPR provided in D10 Drainage Strategy within Annexes 2A.8, 2A.6 and 2A.7. 2. Not progressed.	Formal provision of reports in column E, as Annexes to final Drainage Strategy. Provide infiltration test results for GRR as Annex to final Drainage Strategy. Provide any new, quality assured infiltration test results for all AD sites as Annex to final Drainage Strategy.	Provide GI data where this has been used to inform an updated design note. Source investigation data to be incorporated. Overall Drainage Strategy to include references and annex's to incorporate	WSP (DL)	16/02/2022	16/02/2022 with last report issue	Data will be included in updated design notes and GI reports provided in full
3a	Choice of treatment Indices for pollution control - MDS.	Index for Pond used rather than Basin in ACA. Other Zones can have simplified approach.	SZC Co. to: 1. Review ACA result and revise, as necessary. 2. Complete WMZ1 as further example. 3. Complete other zones using simplified approach – worst pollution source with least treatment route.	1. ACA analysis revised within D10 Drainage Strategy Annex 2A.5: Explanatory Technical Note. 2. WMZ1 assessment provided in D10 Drainage Strategy as Annex 2A.15: WMZ1 Surface Water Treatment Assessment. 3. Simplified assessment provided in D10 Drainage Strategy as Annex 2A.5: Explanatory Technical Note.	Integration with filter strips and whole system	Review of actions items 3a, 4 and 5 in combination to attain the treatment indices for the system	Atkins (MS)	14/01/2022	14/01/2022 SZC- EW0320- ATK-XX-000- XXXXXX- NOT-CCD- 000010 rev 1, SZC- EW0320- ATK-XX-000- XXXXXX- DRW-CCD- 000010 rev 1, SZC- EW0320- ATK-XX-000- XXXXXX- DRW-CCD- 000038 rev 2	SCC comments received, IDB no comments, With SZC Co to update

A	B	C	D	E	F	G	H	I	J	K
				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
3b	Choice of treatment Indices for pollution control – AD sites.	Excludes roads which have HEWRAT assessments.	<ol style="list-style-type: none"> Undertake pollution assessment for FMF. Undertake pollution assessments for NPR, SPR, GRR. 	<ol style="list-style-type: none"> Assessment provided informally to SCC for FMF. Assessment provided informally to SCC for NPR. Not progressed for SPR and GRR. 	Include pollution assessments for NPR, SPR, FMF and GRR within updated Annexes 2A.6, 2A.7, 2A.8 and 2A.12 to final Drainage Strategy.	<p>Part 1 – Pollution assessments to be released prior to deadline 1 – Picked up in individual sites</p> <p>Part 2 – cancelled, all in part 1 reports</p>	WSP (DL)	<p>Part 1 11/02/2022</p> <p>Part 2 N/A</p>	16/02/2022 with last report	Pollution assessments to be added as part of updated design notes.
4	Perimeter Swale space availability - MDS.	Swales may need to be large on MDS. Reassurance that space is available.	<p>SZC Co. to:</p> <ol style="list-style-type: none"> Set out overview of space available on plan. Provide indicative dimensions and sections. Compare to SCC design standards 	<ol style="list-style-type: none"> Plan provided in D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note. Outline dimensions provided in D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note. Design sections not progressed. Not progressed. 	<p>Indicative swale design sections presented in Explanatory Technical Note. Comparison to SCC design standard (CIRIA SuDS Manual), within updated Annex 2A.5 to final Drainage Strategy.</p> <p>Inclusion of Hierarchy</p>	Make comparison of swale space allocation to that most likely required by the CIRIA SuDS Manual after Detailed Design. Including an update to doc Annex 2A.5 to final Drainage Strategy.	Atkins (MS)	14/01/2022	14/01/2022 SZC- EW0320- ATK-XX-000- XXXXXX- NOT-CCD- 000010 rev 1, SZC- EW0320- ATK-XX-000- XXXXXX- DRW-CCD- 000010 rev 1, SZC- EW0320- ATK-XX-000- XXXXXX- DRW-CCD- 000038 rev 2	SCC comments received, IDB no comments, With SZC Co to update

A	B	C	D	E	F	G	H	I	J	K
				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
5	Confirmation of treatment in the MDS WMZ Basins.	Confirm that the proposed basins can give the required treatment as part of the overall discharge requirement.	SZC Co. to confirm basin treatment design criteria and reference Hinkley C design for comparison.	Explanation provided within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note and Annex 2A.15: WMZ1 Surface Water Treatment Assessment .	Update to technical note and treatment assessment for system	As per item 3a	Atkins (MS)	14/01/2022	14/01/2022 SZC- EW0320- ATK-XX-000- XXXXXX- NOT-CCD- 000010 rev 1, SZC- EW0320- ATK-XX-000- XXXXXX- DRW-CCD- 000010 rev 1, SZC- EW0320- ATK-XX-000- XXXXXX- DRW-CCD- 000038 rev 2	SCC comments received, IDB no comments, With SZC Co to update
6	Calculation of impermeable / permeable areas on MDS.	Clarification of the derivation of Catchment Area percentage runoffs	SZC Co. / SCC to hold Technical Meeting to resolve methodology. Meeting held 21 st September between Technical experts and clarifications presented. SZC Co to provide: plan/table showing breakdown of PIMP, PR calculations in each WMZ area.	Explanation provided within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note .	Provide updated Annex 2A.5 within final Drainage Strategy including justification for PIMP values.	Updated Annex 2A.5 within final Drainage Strategy to include justifications for PIMP values.	Atkins (MS)	21/01/2022	Released in each area note.	SCC Comments received
7	Review of original hydrological catchments.	Need to understand original topography to be clear on approach.	SZC Co. to provide baseline (e.g. topographical plan) for natural drainage routes and WMZ catchments / outfalls. Simple overlay and comparison of existing catchments (LiDAR) to proposed WMZs.	Provided within D10 Drainage Strategy as Annex 2A.13: Comparison of MDS Baseline Topography and WMZ Catchments .	Soft explanatory note to explain determine catchment to support Annex 2A.13 Label to WMZ5 for flood to be removed.	Use current catchment description, update narrative and inc in catchment narrative note	Atkins (MS)	17/12/2021 Revised issue 21/01/2022	Hydrological info issued 17/12/2021 SZC- EW0320- ATK-XX-000- XXXXXX- NOT-CCD- 000009 rev 1	SCC Comment received 06/01/2022

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				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
8	Basin Sizes. Half Drain Times are long. West ACA risk	Are basins capable of accepting a follow on 1:10 storm within 24 hours. Urban risk present in West ACA.	SZC Co. to: 1. Provide data table of basin sizes demonstrating: available basin volumes, 1:100 volume +CC, drain times, spare volumes, 1:10 storm volumes, depths (water and total), discharge rate, side slope, base area, freeboard area, factors of safety (where applicable). 2. Demonstrate that West ACA could comply with 24-hour half drain rule. 3. Pump failure for 24-hour for West ACA demonstrated (i.e. zero pump rate for 24-hours). 4. Produce plan to show all outfalls from each WMZ and table of how/where basins empty. 5. Provide explanatory note on WMZ7, 8 and 9 discharges.	1. Assessment within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note. 2. Partial assessment within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note. 3. Partial assessment within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note. 4. Plans included within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note. 5. Partial explanation within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note.	Provide updated Annex 2A.5 within final Drainage Strategy including: (i) revised assessment / sizing of West ACA basin for both 24-hour half drain and pump failure; and (ii) enhanced description on WMZ7, 8 and 9 discharges (refer to ESIDB SoCG and liaise with ESIDB).	Remodel West ACA basin and provide drawings. Develop diagrams prior to workshop Hold workshop with ESIDB regarding WMZ 7, 8 and 9, and update Annex 2A.5 within final Drainage Strategy with outcome. Clarity on flows and schematic of scenarios.. Technical Note on WMZ7, 8 and 9	Atkins (MS)	Part i ACA – 21/01/2022 Part ii 28/01/2021	Sketches issued 17/12/2021 SZC-EW0300-ATK-XX-000-XXXXXX-PRE-CCD-000001 rev 1	SCC Comment received 06/01/2022

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				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
9	Further information for Campus, Sports Pitches, non-nuclear island operational drainage.	Demonstration of drainage strategy.	SZC Co. to provide explanatory drainage design notes on: 1. Campus; 2. Sports pitches; and 3. Non-nuclear island operational drainage (e.g. Goose Hill car park).	1. Partial explanation within D10 Drainage Strategy within Annex 2A.5: Explanatory Technical Note . 2. Partial explanation within D10 Drainage Strategy at section 5.1(a). 3. Not progressed.	Develop operational drainage strategy technical note for Campus. Description of approach for Goose Hill car park described in Explanatory Technical Note.	Develop a concept design for the Campus Area (AD5), Initial Source Control to enable intent, then the development of a hydraulic model. Develop a Technical Note of Design and Strategy. Short statement on the Leiston Sports Pitch impact on the current situation against baseline Statement around all areas outside of the NSL drainage requirement. Mark up of Perm Plot Plan extent of drainage outside of Nuclear Site License (NSL) to be provided.	Campus - Atkins (MS) Sports Pitches – SZC Eng Operational – SZC Eng	Break Deliverable in 2 Part 1 – 21/01/2022 Campus intent Part 2 – Statements (inc sports pitch and ops) 28/01/2022 Part 3 – End Mar 2022 Campus hydraulic modelling 3 months from tasking. Campus Input layout to be agreed at tasking. (Excluding 2 weeks at Christmas)	Part 1 Campus issued 17/12/2021 SZC- EW0320- ATK-XX-000-XXXXXX- NOT-CCD-000007 rev 1 Leiston statement update sent 11/02/2022	Further work to sports pitches and operational drainage requested. Review of available info and narrative to be created. SCC Comment on campus note of 17/12/2021 received 06/01/2022

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				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
10	Northern Park & Ride	Lack of evidence for the proposed outfall to two ditches e.g. levels, connection within or outfall beyond Order Limits. Calculations required for the entire site for the proposed surface water drainage strategy. Methodology used to determine Qbar runoff rate is not agreed by SCC, as stated in SCC's response to REP6-024 [REP7-157].	<ol style="list-style-type: none"> SZC to provide evidence and confirm availability of Outfall under A12. (5 l/s if no Inf.) located within the red line boundary. SZC to provide existing topographic survey showing fall in ground level from basin locations to watercourses at the boundary SZC/SCC to hold technical meeting to discuss issues with a view to reaching agreement, informed by supporting information. 	<ol style="list-style-type: none"> Email correspondence providing evidence. Email correspondence providing evidence. Meeting held. 	Update Annex 2A.6: Northern Park and Ride Drainage Design Note as part of final Drainage Strategy.	Incorporate data sent informally in report, and update the source control volume requirements to be split between basins in designated areas.	WSP (DL)	21/01/2022	31/01/2022	Source control modelling validation requirements agreed in meeting 7 th Dec 2021 and incorp in report
11	Southern Park & Ride	Below ground attenuation is not compliant with Local Plan Policy SCLP9.6, Only FSR rainfall (least conservative) has been applied to calculations. No climate change allowance has been modelled.	<ol style="list-style-type: none"> SZC Co. provide explanation why temporary underground storage is reasonable. Pump fail storage capacity SZC/SCC to hold technical meeting to discuss issues with a view to reaching agreement, informed by supporting information. 	<ol style="list-style-type: none"> Note provided informally to SCC on basis for underground storage approach. Not progressed. Meeting held. 	Update Annex 2A.7: Southern Park and Ride Drainage Design Note as part of final Drainage Strategy.	Obtain 2021 infiltration data, review current drainage strategy based on new data, and update. Part 1 Drawing and hi level modelling and cut back report Part 2 Calc and report	WSP (DL)	Part 1 11/02/2022 Part 2 N/A	11/02/2022	Updated modelling to be incorp in updated drainage note SCC Comments as follows

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				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
12	Freight Management Facility	Below ground attenuation is not compliant with Local Plan Policy SCLP9.6, Only FSR rainfall (least conservative) has been applied to calculations. No climate change allowance has been modelled.	<ol style="list-style-type: none"> SZC Co. provide explanation why temporary underground storage is reasonable. SZC/SCC to hold technical meeting to discuss issues with a view to reaching agreement, informed by supporting information. Open discussions with adjacent landowner (Home Farms) as to potential receipt of excess surface water. 	<ol style="list-style-type: none"> Note provided informally to SCC on basis for underground storage approach. Meeting held. Not progressed. 	Update Annex 2A.8: Freight Management Facility Drainage Design Note as part of final Drainage Strategy. Use output above as basis to open discussion with landowner.		WSP (DL)	21/01/2022	21/01/2022	<p>SCC have indicated likely acceptance of underground storage providing some surface level SuDS pollution measures are incorporated.</p> <p>Landowner opportunity discussion to be held at design stage if SCC reject underground storage.</p> <p>Comments received</p> <p>Review of space for rain garden</p>
13	Sizewell link road.	SCC concern with swales at the base of embankments rather than at the top.	<ol style="list-style-type: none"> SZC Co. to hold discussion with SCC to resolve this issue or design to be modified to move swales to top of embankment at future stage. Informed by cross sections. Additional item: Provide updated calculations. 	<ol style="list-style-type: none"> Email correspondence provided. Shown on preliminary design drawings and in technical note provided. Not provided. 	SZC Co. to update Annex 2A.9: Sizewell Link Road Preliminary Drainage Design Note, including cross sections and calculations note, as part of final Drainage Strategy.	SCC to review and respond to information provided. Agree design criteria governing location of swale.	WSP (DL)	09/02/2022	11/02/2022	No SZC action pending SCC response on swale location

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				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
14	Two Village Bypass Basin 2 East of River Alde Embankment	Positioning of basin further from the highway to be adopted and separated by the farm access track. High infiltration rate could indicate a direct connectivity to the aquifer which could cause water quality issues.	SZC Co. to: 1. Hold meeting with SCC to understand nature of concerns. 2. Review proposed position of basin and demonstrate that it works hydraulically and that there is no alternative to the alignment of the farm access track. 3. Provide data / evidence relating to basin and aquifer. 4. Additional item: Resolve potential discrepancy between GI infiltration data and input data to modelling.	1. Meeting held. 2. Email correspondence and information provided to SCC, including proposed embankment materials. 3. Email correspondence and information provided to SCC. 4. Not provided.	Update Annex 2A.11: Two Village Bypass Preliminary Drainage Design Note as part of final Drainage Strategy. To include clarification on infiltration input data.	Hold technical meeting to resolve basin location disagreement. Updated hydraulic modelling using updated infiltration rates Engagement with EA on Borehole soakaway	WSP (DL)	11/02/2022	16/02/2022	Hydraulic Update
15	Yoxford roundabout (new item)	Deep infiltration – SCC will not consider design solution until EA has approved a ‘deep infiltration’ approach.	SZC Co. to: 1. Provide additional information on basin and berm design, including potential for tree planting. 2. Describe alternative solution to avoid ‘deep infiltration’ design.	1. Email correspondence and information provided to SCC. 2. Provided in email correspondence.	Update Annex 2A.10: Yoxford Roundabout Updated Drainage Strategy as part of final Drainage Strategy.	Liaise with EA over potential design constraints to basin depth. Subject to above outcome, develop alternative option (e.g. pumping or gravity). EA Meeting held on 12/01/2022	WSP (DL)	11/02/2022	11/02/2022	EA Engagement agreed

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				At Examination end	Post Examination					
No.	Area	Issue identified	Actions	Deliverable	Deliverable / Ref. No.	Delivery Plan	Deliverable owner	Date	Date issued	RAG / Comment
16	Green rail route (new item)	No drainage technical note provided to support the Drainage Strategy.	SZC Co. to: 1. Provide drainage technical note to support the Drainage Strategy.	1. Annex 2A.12: Green Rail Route Drainage Design Note provided within D10 Drainage Strategy .	Update Annex 2A.12: Green Rail Route Drainage Design Note as part of final Drainage Strategy.	Resolve residual issues on storage volumes in respect to 1 in 100 +CC storm. Part 1 Preliminary Design, initial modelling, PIMP note for rail Part 2 Detailed modelling and update	WSP (DL) / Atkins (MS)	Part 1 11/02/2022 Part N/A	11/02/2022	Hydraulic modelling is required for demonstrate a viable solution.
17	AD6 – MDS Highways	SCC commentary on Examination submission to be confirmed	SCC to: 1. Provide review comments on items REP10-030 , REP10-031 and REP10-032 submitted	1. Submissions made into PINS and to SCC of information that was not reviewed due to timescales	SCC comments on submissions REP10-030 , REP10-031 and REP10-032 Update of Technical Report	Receive comments Update report	DCC (MW) WSP(DL)	17/12/21 11/02/2022	Issued email 16/12/2021 SCC (MW) Comments received 04/01/2022 Reissued 11/02/2022	SCC undertaking review of info submitted. SCC clarification of 13 th Jan 2022 to be discussed at next progress meeting



SIZEWELL C PROJECT
POSITION STATEMENT
SIZEWELL C DRAINAGE STRATEGY UPDATE
NOT PROTECTIVELY MARKED

Appendix 2 - Comments Sheet

Sizewell C Site Establishment Active Surveillance comments

WBS EW0320 Document 2022

WBS	Action Nos	Action Plan Ref.	Document Number	Item Description/ reference	Comment	Raised by	Date Raised	Actionee	Model update require	Open/ Closed	Cat	Comment Response	Action	Other Notes/Comment
EW0320	1	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P01	Technical Note - Campus Outline Drainage Strategy	As previously discussed, you need to include the results of relevant infiltration testing. This should include raw test results and not just a summary. Any testing not compliant with BRE365 should be identified	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Infiltration testing results to be provided	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000007
EW0320	2	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P01	Technical Note - Campus Outline Drainage Strategy	The modelled structure uses an infiltration basin with a porosity of 40%. It's not clear why a permeable pavement structure hasn't been modelled. Permeable pavement structures have a standard porosity of 30%. Therefore, you either need to model at 30%, or justify your use of 40%. I can't see this would cause you many problems given the plan area and depths you have to play with, but you still need to demonstrate this	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	Yes	Closed	1	Porosity to be changed to 30%.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000007
EW0320	3	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P01	Technical Note - Campus Outline Drainage Strategy	Calculations show circa 80% of your water discharging through infiltration and 20% discharging through positive discharge. Given the numbers you state of your storage footprint (58000m2) vs your total paved area (97004m2), I think it's fair to say that so long as you achieve acceptable infiltration rates across the site, you won't have a problem infiltrating all of your surface water, through an increase in storage footprint. The potential problem will arise if infiltration were to fail. From the notes I have, you don't have any infiltration testing to full BRE365 methodology for the Campus site, with most testing undertaken in boreholes. I don't know if you have any more recent testing? If not, given you're so close to the infiltration threshold, with non-compliant testing, I would say there's a reasonable chance that at least part of your site is unable to infiltrate. The absolute worst-case scenario would be no acceptable infiltration rate being achieved across the site. As this is the worst case, I'll need to see how you would manage this, at least at a high level with source control calcs, an identified method of storage and demonstration that you have sufficient space for such storage	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	Yes	Closed	1	No infiltration across the site will be assumed at this stage until infiltration testing proves otherwise, and management/storage of source control volumes to be provided.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000007
EW0320	4	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P01	Technical Note - Campus Outline Drainage Strategy	I'm not keen on accepting a hybrid approach for this site. Either infiltration only with a high level overflow to CDO for events >1.100+CC, or attenuation and discharge only. The reason for this is the site is slightly more removed from the watercourse it is proposed to discharge to. WMZ's that utilise the hybrid approach are generally located directly adjacent to the ordinary watercourse they discharge to. For the attenuation and discharge only option, I would be content for you to keep this vague at the moment, subject to future modelling, it could with go to WMZ6, CDO or another location based on modelling results	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	Yes	Closed	1	No infiltration across the site will be assumed at this stage until infiltration testing proves otherwise, and management/storage of source control volumes to be provided.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000007
EW0320	5	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P01	Technical Note - Campus Outline Drainage Strategy	I recall the car park being multi-storey. Is this still the case? If so, I'm not entirely sure how permeable paving would work, either for interception, treatment or storage of surface water	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Comment noted - car park is double storey - roofed. Permeable paving for the multi-storey car park removed and taken as a roof area instead. Flows from the car park roof attenuated in sub-surface attenuation storage.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000007
EW0320	6	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P01	Technical Note - Campus Outline Drainage Strategy	As per comment on previous sites, need to justify PIMP values proposed, particularly 90% for roads	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	Yes	Closed	1	Roads PIMP taken as 100%, and total PIMP updated across the site.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000007
EW0320	7	7	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000009 P01	Technical Note - Topographical Catchment Narrative	The appended drawings are more or less ineligible due to the PDF quality. I've read through the document text and this makes sense and ties up with other information I already have, but it would be appreciated if you could reissue with the drawing problems resolved	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Drawings were reprovided as individual files.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000009
EW0320	8	7	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000009 P01	Technical Note - Topographical Catchment Narrative - 1.2.4	WMZ 4 is stated as draining to E04 but the area of WMZ 4 looks to mainly be covered by Early Catchment 3a & 3b, with Early Catchment 4 (which discharges to E04) looking to comprise part of WMZ 6. Please clarify. The text on the drawing isn't clear (as above), so I may have interpreted incorrectly	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Comments noted and wording changed to clarify.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000009
EW0320	9	7	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000009 P01	Technical Note - Topographical Catchment Narrative - 1.2.6	See point 4 in response to Campus above. Yes, this is part of the same catchment, but it's quite far away and naturally there would be a great deal of interception/detention in localised depressions before discharging into the Lelston Drain	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Comments noted and wording changed to clarify.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000009
EW0320	10	7	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000009 P01	Technical Note - Topographical Catchment Narrative	I think it would be worth noting, potentially as part of the summary that outfall locations and rates are subject to change based on future hydraulic modelling. All discharges will need to be modelled as part of the wider catchment to ensure they are not increasing flood risk. The most critical element of this would be the environmental impact so future engagement with environmental stakeholders to determine discharge rates and locations will also be key and should be acknowledged here.	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Comments noted and wording changed to clarify.	Updated and submitted in Rev 2 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000009
EW0320	11	8b	SZC-EW0320-ATK-XX-000-XXXXXX-PRE-CCD-000001 P01	MCA Surface Water Drainage Phasing - Meeting Slides	It's useful to understand the principles you intend to apply at this location throughout construction. However, unlike the rest of the MDS, I am less concerned by the drainage strategy in this area given the availability of the TMO and CDO. I also appreciate that construction will need to be flexible in these areas, hence the indicative attenuation basins shown rather than more detailed information. The only aspect that requires more information in this area is the discharges to the Sizewell Drain, what these are, when they will be used, how they're calculated, associated areas for surface water storage prior to these discharges etc. I know Yvonne at the IDB has been pushing for greater understanding of this.	Matt Williams - SCC	06/01/2022	Michael Sheridan - ATK	No	Closed	1	Further detail to be provided on future technical note: WMZs 7, 8, 9 Surface Water Discharges SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000016	No changes to meeting slides. Comments reflected in technical note SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000016. Submitted in Rev 1 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000016
EW0320	12	8b	SZC-EW0320-ATK-XX-000-XXXXXX-PRE-CCD-000001 P01	MCA Surface Water Drainage Phasing - Meeting Slides	6m minimum maintenance strip with additional space needed for turning if access is not provided at both the northern and southern boundaries	Yvonne Smith - IDB	21/01/2022	Michael Sheridan - ATK	Yes	Closed	2	Comment noted - Maintenance strip will be coordinated with the permanent works team.	Maintenance strip requirement to be coordinated with the permanent works team.	
EW0320	13	8b	SZC-EW0320-ATK-XX-000-XXXXXX-PRE-CCD-000001 P01	MCA Surface Water Drainage Phasing - Meeting Slides	Max discharges expected through outfalls O4 and O7. - More information on exactly what is draining through outfall O7. What size impermeable, rough plan would be useful. You currently indicate that both "overland flows" and "SZB transferred drainage area" will go through here, but have no reference to what either of those entails.	Yvonne Smith - IDB	21/01/2022	Michael Sheridan - ATK	Yes	Closed	2	WMZ 8 in a slightly reduced form is to discharge through O14. O17 is to drain the SZB overland flows up until the SZC sea tunnels are operational.	Discussion with permanent works team required to determine areas contributing from SZB.	
EW0320	14	8b	SZC-EW0320-ATK-XX-000-XXXXXX-PRE-CCD-000001 P01	MCA Surface Water Drainage Phasing - Meeting Slides	Likely storage volumes required and indicative space for these/where these might be accommodated (specifically I do not want them anywhere within the above mentioned maintenance strip).	Yvonne Smith - IDB	21/01/2022	Michael Sheridan - ATK	Yes	Closed	2	Comment noted - No storage to be provided within maintenance strip but rather within the WMZ 8 area. Agreement with an increased Greenfield Runoff rate could assist in reducing the required volume.	Final storage position to be identified.	
EW0320	15	3	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000010 P01	Technical Note - Surface Water Drainage Treatment Narrative	Our agreement would come with a slight caveat as you state, "provisional hydraulic modelling carried out indicates that the flows generated will be controlled within the swale sizes proposed". This hydraulic modelling has not been provided to SCC, we would therefore highlight that we have not seen any evidence to support this, however, if at detailed design the swales were not large enough, the size would simply need to be increased, which is ultimately a project risk. Of course, if you have the hydraulic modelling readily available (even if only preliminary), it could address this minor concern.	Matt Williams - SCC	24/01/2022	Michael Sheridan - ATK	Yes	Closed	1	Comment noted. No further action required at this stage.	No further action required.	
EW0320	16	8b	SZC-EW0300-XX-000-XXXXXX-PRE-CCD-000001 P01	Presentation - MCA Surface Water Drainage Phasing - Meeting Slides	other to point out that you are currently indicating multiple discharges into the sizewell drain from WMZ 8 however my understanding from other discussions was that there are only 2 proposed outfalls from WMZ 8 (and SZB).	Yvonne Smith - SCC	25/01/2022	Michael Sheridan - ATK	No	Closed	1	Comment noted - Only 2 outfalls proposed to Sizewell Drian. Updated to reflect only two proposed outfalls.	Updated and submitted in Rev 1 (link adjacent)	SZC-EW0320-ATK-XX-000-XXXXXX-NOT-CCD-000016
EW0320	17	12	-	Report - Freight Management Facility Drainage Design Note	I don't entirely support the methodologies used for calculating adequate storage. The use of average infiltration rates in particular will not draw support from SCC. However, I also note the additional infiltration testing that was undertaken in 2021 which demonstrates good infiltration across the site, often in exceedance of the design rate you have used based on the results of 2019 testing. Whilst the 2021 testing is slightly deeper than we would like, it is not of a depth to cause significant concern	Matt Williams - SCC	31/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 21/01/2022 Comment noted but no update required	No further action required.	
EW0320	18	12	-	Report - Freight Management Facility Drainage Design Note	The main outstanding concern SCC have for FMF is in relation to treatment. The document makes multiple references to the use of bioremediation areas in order to supplement proposed treatment and to provide a natural form of treatment, as opposed to the 'mechanical heavy' treatment train previously proposed. Appendix B does not make any acknowledgement of the space requirements of bioretention features and Appendix E does not include these features in a pollution assessment. This approach does not have SCC support. The current pollution assessment in Appendix E uses indices for 3 pieces of infrastructure without supporting evidence of the values used. The indices for the underground storage tank are particularly questionable as I have never seen anyone claim that such a feature delivers any form of treatment. There is a brief reference to bioretention in the conclusion, but again, this is insufficient.	Matt Williams - SCC	31/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 21/01/2022 Comment noted	Show location of bioremediation infrastructure on layout plans Confirm sizes and demonstrate available space Add bioremediation to Appendix E calculations Provide manufacturers certification of indices values	
EW0320	19	12	-	Report - Freight Management Facility Drainage Design Note - 7.1.12	document acknowledges SCC's position, subject to the inclusion of bioretention in the treatment train, this position remains unchanged	Matt Williams - SCC	31/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 21/01/2022 Comment noted but no update required	No further action required.	
EW0320	20	12	-	Report - Freight Management Facility Drainage Design Note	Calculations for Option 2 have a water depth of 1.142m but the crates are only 0.6m	Matt Williams - SCC	31/01/2022	Derek Lord - WSP	Yes	Closed	2	Report issued 21/01/2022 Comment noted	Recheck calculation and amend as necessary	
EW0320	21	12	-	Report - Freight Management Facility Drainage Design Note	Water depths stated on drawing in Appendix B do not match calculations in Appendix C	Matt Williams - SCC	31/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 21/01/2022 Comment noted	Recheck calculation and amend as necessary	
EW0320	22	12	-	Report - Freight Management Facility Drainage Design Note	Section 10 and 11.1.2 refer to Lowestoft Road, I assume this should be Felixstowe Road	Matt Williams - SCC	31/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 21/01/2022 Comment noted	Correct location name in text	
EW0320	23	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P02	Technical Note - Campus Outline Drainage Strategy	Generally, the principles are agreed if infiltration isn't possible. However, I'd like a greater emphasis in the conclusion that infiltration potential will be explored further at detailed design. Only 5 infiltration tests have been completed across a 20+ha site, with most of those tests not being compliant with BRE365 methodology. As such, there's a lot more testing that needs to be done before infiltration is ruled out on this site. I'm content that you have the space available for an infiltration solution if it's proven possible and this should still be considered the primary means of surface water disposal, until categorically ruled out through more extensive testing.	Matt Williams - SCC	31/01/2022	Michael Sheridan - ATK	Yes	Closed	2	It is recognised that further infiltration testing is necessary to conclude if infiltration alone should be considered as the primary means of surface water disposal.	No further action on the document.	
EW0320	24	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P02	Technical Note - Campus Outline Drainage Strategy	If infiltration isn't possible, or is only partly possible, I'm content that you have demonstrated there is a feasible alternative means of surface water disposal, although we'll need to discuss discharge rates, locations and how this works with other discharges as part of detailed design. Given the catchment is fairly removed from any ordinary watercourses, I'd be slightly more wary of just giving you another discharge from this catchment, I'd rather see it pass through a WMZ at the already agreed rate, but we can discuss this at detailed design	Matt Williams - SCC	31/01/2022	Michael Sheridan - ATK	Yes	Closed	5	Comment noted. Discharge rates and outfall locations are to be developed in agreement with SCC as part of detailed design. No further action on document	Detailed Design	
EW0320	25	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P02	Technical Note - Campus Outline Drainage Strategy	Half drain times should be applied to both infiltration and attenuation systems. The principle is relevant, regardless of discharge method. I'm content you have the space to account for this if needed at detailed design	Matt Williams - SCC	31/01/2022	Michael Sheridan - ATK	Yes	Closed	2	Comment noted. To be developed in Detailed Design.	No further action on document. Action to be carried into Detailed Design.	
EW0320	26	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000007 P02	Technical Note - Campus Outline Drainage Strategy	I think page 41 of the report has been included in error	Matt Williams - SCC	31/01/2022	Michael Sheridan - ATK	No	Closed	2	Comment noted - Page 41 was included as error	Content on Page 41 to be removed.	

EW0320	27	9a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-00007 P02	Technical Note - Campus Outline Drainage Strategy	I am currently waiting to hear back from Leigh Parratt RE Cv values. I will update you on this aspect when I hear back from her.	Matt Williams - SCC	31/01/2022	Matt Williams - SCC	No	Closed	1	No further action required following email from Matt Williams - SCC received on 04/02/2022. "To confirm, Leigh was happy with this so no further comments to previous email issued 31/01/22."	None
EW0320	28	6	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000012 P01	Technical Note - PIMP Values - Section 2	states 'there is a variety of finishes across the proposed construction site and the PIMP values assigned have been those commonly accepted within the industry'. For roads and roof areas I certainly agree that 100% is widely accepted. Could you provide any justification or evidence to support the PIMP values used for unpaved and soft areas please? As I'm sure you can appreciate, we don't have many developments like this in Suffolk so it may just be that this is something we haven't come across that you regularly encounter.	Matt Williams - SCC	31/01/2022	Michael Sheridan - ATK	No	Closed	2	The PIMP values that were accepted at Hinkley C planning were: Roads 100%, Compounds 90%, Stockpiles 50% and Sloping areas 26%. Our assessment broadly matches these values. The Stockpiles at SZC are part sloping and part flat topped, with the material being stored being more permeable than the Hinkley clay based material. In our assessment the 30% figure for the SZC stockpiles reflects these differences.	None
EW0320	29	6	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000012 P01	Technical Note - PIMP Values - Section 2	Later it is stated 'the calculated PIMP values in this assessment will be adopted unless significant changes in the catchment area definition are identified through design development'. I assume this relates only to this stage of design and upon detailed design, when more is understood about the catchment, more detailed analysis will be undertaken? We wouldn't be content using these PIMP values for detailed design.	Matt Williams - SCC	31/01/2022	Michael Sheridan - ATK	No	Closed	2	Comment noted - more detailed analysis of catchments and their areas will be undertaken during Detailed Design.	No further action on document. Action to be carried into Detailed Design.
EW0320	30	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	The current Annex contains a description of the strategy with no supporting information such as suitably scaled plans, sections and supporting calculations.	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	Plans are provided in Drainage Statement
EW0320	31	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	You essentially put forward two options. Option 1 being discharge to intercepting watercourses (O9 & O10) and the Abbey Road infiltration basin. You need to demonstrate you have suitable land at each attenuation location, with supporting plans and calculations	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	Location of attenuation basin at Abbey Road is shown on drawing Storage volume calculation provided on the basis of Option 2 representing worst case Possible use of Option 1 with attenuated discharge to watercourse O9 and 10 to be considered at detailed design
EW0320	32	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	Option 2 is required if levels do not allow you to discharge to the intercepting watercourses. Is there a risk that by the time the furthest point reaches the Abbey Road infiltration basin (as a worst case scenario) that it could be lower than the basin invert? If so, would pumping be required? If so, the appropriate assessment will need to be undertaken and it may be more suitable to keep the catchments separate and pump into the intercepting watercourses. Will need to discuss further if this is the case	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	Based on new infiltration data Option 2 assumes no infiltration and discharge to Leiston Drain/Abbey Road is not permitted. Intention to pump up to TCA and discharge to Outfall 6 to be developed at detailed design
EW0320	33	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	A discharge rate of 5l/s is proposed to discharge into the adjacent watercourse at Abbey Road as a worst-case scenario. Given the existing surface water flood risk here we need to be a bit careful. What is the greenfield runoff rate from your area of works (not entire red line boundary) into this watercourse at the moment? If it's less than 5l/s, then you'd technically be proposing an increase in SW flood risk in an area of high risk - which we wouldn't support. The need for this discharge is stated to be due to a lack of space, as previously stated by SCC, this is not an approach we would support	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	As above no discharge into Leiston Drain at Abbey Road is proposed
EW0320	34	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	Is the basin now proposed on the east side of Abbey Road rather than west, or is this in addition to the west basin?	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	This is an infiltration basin for AD6 Lovers Lane highway runoff upsized to accept GRR runoff from section between Abbey Road and Secondary Site Access Road level crossing
EW0320	35	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	Flows east of Abbey Road are said to be dealt with by WMZs. I don't recall seeing additional areas being allowed for in the relevant WMZ designs? Again, do levels support this approach or will any pumping be required?	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	As above section to the west of the SSAR level crossing drains by gravity to AD6 infiltration basin GRR to east is included in TCA drainage and not covered in this Drainage Statement
EW0320	36	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	You state that infiltration is likely at the NR junction. I wouldn't agree with this statement. There has been a recent development by Persimmon just east of the junction you refer to. This development struggled to infiltrate their surface water, and with no other available alternative, had to resort to deep infiltration through boreholes. At the moment you've not set out any firm proposals to manage and dispose of this surface water. With the above in mind RE likelihood of infiltration, you'll need to identify your options and demonstrate deliverability within your order limits.	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	As above swale/filter drain will collect runoff between junction with existing branch line and Abbey Road with assumption of zero infiltration and all flow discharging into their Abbey Road west attenuation basin
EW0320	37	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	There's a mention of needing to divert a watercourse that the green rail route will intersect whilst in cutting. Connecting this to the Abbey Road watercourse has the potential to increase surface water flood risk. You'll need to have a think about this. It will certainly require detailed hydraulic modelling at detailed design. But ahead of that, you'll need to have a think about what mitigation could be implemented to ensure there is no increase in offsite flood risk and ensure you have the available land to deliver this	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	Base on updated data diversion of the existing watercourse Outfall 09 location will not be required. Watercourse to be culverted beneath railway.
EW0320	38	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	There's a mention of the Abbey Road basin being adapted by SZC and adopted by Suffolk Highways post-development.	Matt Williams - SCC	16/12/2021	Steve Merry - SCC	No	Closed	1	Comment noted.	
EW0320	39	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	Other points which you would be expecting are the need to justify the PIMP you're using and to provide your GI to justify the infiltration rate used (I know this has been included in the MDS assessment, but it needs to be included here, along with any other GI for green rail route). Have you undertaken any groundwater monitoring at Abbey Road? This area is fairly critical to your drainage strategy, whichever option you choose, so it would be good to get an idea of any GW concerns at an early stage. Other design criteria such as which FoS you're using also need to be agreed given the infiltration basin location and adjacent residential properties	Matt Williams - SCC	16/12/2021	Derek Lord - WSP	No	Closed	2	Drainage Statement issued 11/02/22 Comment addressed	The calculations assume a PIMP of 100% in order to provide a conservative assessment. GI report for GRR is now available. Extracts for infiltration testing and strata provided
EW0320	40	17	-	Drainage strategy - AD6 - Table 1	Where have these figures come from and how were they calculated? I assume these figures are m3/s, but this isn't stated.	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed		Report issued 11/02/2022 Comment noted	Catchment runoff calculations using FEH Units m3/s added to table
EW0320	41	17	-	Drainage strategy - AD6 - Section 5.1.8	This doesn't match up with Table 1	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Now aligned
EW0320	42	17	-	Drainage strategy - AD6 - Section 6.1.3	Reference and provide relevant testing results. Table 2 is noted, but you should provide raw testing results to support this	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Full data provided in Appendix A
EW0320	43	17	-	Drainage strategy - AD6 - Section Table 2	TH301 - Not compliant with BRE365	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Accepted that only 2 tests were done and BRE365 requires 3 but does confirm viability of infiltration
EW0320	44	17	-	Drainage strategy - AD6 - Section 8.1.2	Underground storage stated. Aren't these areas hoped to be adopted by SCC Highways, who are unlikely to adopt below ground drainage?	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Clarification Underground storage is the filter drains and back up soakaway manholes, not storage tanks
EW0320	45	17	-	Drainage strategy - AD6 - Section 8.1.6	Proposed discharge rate? Yet to be agreed. If 5l/s, what impact could this have on existing downstream surface water flood risk depths, extents, likelihood and subsequent consequences? Answered in part by 8.1.9	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Set as minimum practical rate and will be a reduction on current situation
EW0320	46	17	-	Drainage strategy - AD6	Plate 10 - Total depths and water depths exceed CIRIA SuDS Manual guidance - Justify. Depth of water during 1:1+CC exceeds recommended maximum for surface water treatment, has any treatment assessment been undertaken? Suggest CIRIA Simple Index for this location - Will need to agree suitable pollution hazard level but given use, my initial thought would be high, highly frequented lorry approach	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Basin subject to HEWRAT assessment and passed
EW0320	47	17	-	Drainage strategy - AD6 - Section 8.1.21	Queries previously raised RE the referenced infiltration basin, has this been sized to accommodate this area as well?	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	The section of Abbey Road which is modified to accommodate the level crossing and Lovers Lane diversion will discharge to Leiston Drain as it currently does. There will be a net reduction since the current Lovers Lane also discharges to Leiston Drain and will be removed.
EW0320	48	17	-	Drainage strategy - AD6	Plate 11 - I've raised this query previously, but I'm not entirely sure exactly what area this basin serves and the infiltration rate is yet to be agreed	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	5	Report issued 11/02/2022 Comment noted,	Assume you mean Plate 10 The infiltration basin drains the new length of Lovers Lane and adjacent BW19 plus GRR between Abbey Road and SSARoad Infiltration test data included in Appendix A
EW0320	49	17	-	Drainage strategy - AD6 - Section 8.1.25	Basin volume increased by 463m3 but storage volume in Plate 12 is stated as 379m3? Need to understand the basin function in both SZC construction and post-construction scenarios	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	As stated either the basin can be reduced in size after removal of GRR or retained at full volume giving greater flood protection for exceedance rainfall
EW0320	50	17	-	Drainage strategy AD6 - Section 8.1.38	Assume access and road have no flow controls if draining straight into carrier drain?	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	This is the existing and unaltered length of Lovers Lane which basically drains by overland flow down the hill and over the edge at Leiston Drain
EW0320	51	17	-	Drainage strategy - AD6	I'm not sure on the extent of local widening at the HWRC, I know at Foxhall we've had to look at the drainage due to local widening at the HWRC. Will leave you to comment on whether you think the extent of widening here requires a look at the drainage or whether you're content	Matt Williams - SCC	04/01/2022	Steve Merry - SCC	No	Closed	2	Comment noted.	
EW0320	52	17	-	Drainage strategy - AD6 - Section 8.1.42	Again, draining highway surface water to crated systems. Not sure on acceptability from a highways perspective. Even if not proposed for adoption (8.1.43), is this then public highway draining to a privately maintainable system?	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Now 8.1.47. Entrance drains to swale and then into the ACA. None of this is adopted by SCC.
EW0320	53	17	-	Drainage strategy - AD6 - Section 9.1.1	Are these Figure references part of the DCO submission? If so, please provide full references to the submission documents	Matt Williams - SCC	04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Will need to check references

EW0320	54	17	-	Drainage strategy - AD6 - Section 9.1.2	1:100 + 35% is fluvial, we request 1:100 + 40% for pluvial (see attached) – the pluvial level is not referenced in this document	Matt Williams - SCC 04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Since the level is set at the lowest level of Lovers Lane and this acts as an embankment crest flood levels can't exceed the low point level
EW0320	55	17	-	Drainage strategy - AD6 - Section 9.1.5	FYI – boardwalk deck	Matt Williams - SCC 04/01/2022	Steve Merry - SCC	No	Closed	1		
EW0320	56	17	-	Drainage strategy - AD6 - Section 10.1.2	Established how? Likewise for 10.1.3	Matt Williams - SCC 04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	Catchment runoff calculations using FEH The low spot with pond noted during site visit and matches SWFM
EW0320	57	17	-	Drainage strategy - AD6 - Section 10.1.5	Again uses 35% for pluvial, not 40% for fluvial	Matt Williams - SCC 04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	FRA modelling for DCO gives a lower water level for fluvial than the SWMP pluvial
EW0320	58	17	-	Drainage strategy - AD6 - Section 10.1.6	OK, but you need to demonstrate that your development will not increase this existing flood risk in terms of extent, depth or likelihood. The following paragraphs in terms of potential betterment are noted, but there are a few unknowns around this so we need to work on the worst case scenario at this stage	Matt Williams - SCC 04/01/2022	Derek Lord - WSP	No	Closed	2	Report issued 11/02/2022 Comment noted,	More detailed modelling will be undertaken at detailed design stage but parts of the upstream catchment will be attenuated down to 5 l/s and the existing Lovers Lane will be removed so it is apparent that there will not be an increase in flood risk.
EW0320	59	8a	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000013 P01	Technical Note - ACA West Explanatory Note	SCC LLFA fully support the information contained in this document. As the document alludes to, what you've presented should be considered a worst-case scenario and hopefully we can work to refine this at detailed design, but my thanks for demonstrating that you can accommodate the worst-case scenario	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	1	Comment noted, no further action required.	None
EW0320	60	8b	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000016 P01	Technical Note - WMZs 7, 8, 9 Surface Water Discharges	Section 1.2 refers to O14 discharging flows from WMZ7. I think this is a typo as 1.2.1 refers to a 5l/s discharge through O14 from WMZ 8 at 1l/s/ha. However, the paragraph beneath Table 1-2 then refers to WMZ8 discharging through O17, again, I assume this is a typo and should be O14?	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Comment noted. Two typo's identified. Section 1.2, paragraph 3, should state 'O14 is proposed to discharge the flows from WMZ8'. Paragraph below Table 1-2 should state 'discharge from WMZ8 into the Sizewell Drain through O14...'	Document to be updated as per below: Section 1.2, paragraph 3, should state 'O14 is proposed to discharge the flows from WMZ8'. Paragraph below Table 1-2 should state 'discharge from WMZ8 into the Sizewell Drain through O14...'
EW0320	61	8b	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000016 P01	Technical Note - WMZs 7, 8, 9 Surface Water Discharges	Assuming the above are typos, the most confusing aspect is the following 5 stages which all detail all 3 WMZs discharging to sea, with no mention at any point of any discharge to O14 (or O17 for that matter). Which leaves me questioning what the earlier reference to a discharge through O14 is referring to and how this will be facilitated.	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Discharges to O14 and O17 are outlined to show the maximum flows that may be discharged to Sizewell Drain. Given the flow rates are small, the document stresses that discharge to the sea is justified and presents a better solution for water management.	None.
EW0320	62	8b	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000016 P01	Technical Note - WMZs 7, 8, 9 Surface Water Discharges	From an LLFA perspective, my main focus is surface water flood risk and associated pollution. In that sense, I have no concerns as your proposals seek to treat surface water and discharge to sea. However, I must flag that other stakeholders may raise concerns RE the removal of flows from Sizewell Drain and the potential environmental impacts of this. Any changes to the surface water drainage strategy to address such concerns would ultimately come back to SCC for further consideration as part of the surface water drainage strategy.	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	The WMZ 8 area with a slightly reduced area will represent the permanent catchment discharging to the Sizewell Drain.	This represents the area outside NSL.
EW0320	63	8b	SZC-EW0320-XX-000-XXXXXX-NOT-CCD-000016 P01	Technical Note - WMZs 7, 8, 9 Surface Water Discharges	SCC reserve comment on Stage 5 (1.4.5) RE SZC plant operation.	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Comment noted, no further action required.	None
EW0320	64	9b	-	Report - Drainage intent statement for Sports Pitches and Non-Nuclear Island Operational Drainage	Sports pitches are proposed for either infiltration or positive discharge. Infiltration has not been proven at this location. Whilst the intention to limit offsite discharges to greenfield runoff rates is supported, a location for this discharge has not been identified, therefore the feasibility of this option cannot be supported at this stage.	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Infiltration is proposed for the sports pitches. These potentially can have a storage volume of 530 m3 based upon the minimum acceptable SCC infiltration rate (5mm/hr.). Anglian Water have confirmed there is no opportunity to discharge to the local Combine Sewerage system.	Infiltration testing to take place during Detailed Design. Identification of storage requirement at this stage. Further possible discharge options include non-potable supplies to the Local Sports Centre or Local Allotments. A possible deep infiltration solution is available into the deep crag aquifer.
EW0320	65	9b	-	Report - Drainage intent statement for Sports Pitches and Non-Nuclear Island Operational Drainage	Agreed grass pitches can be excluded from consideration, other pitches will require drainage.	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Comment Noted.	None
EW0320	66	9b	-	Report - Drainage intent statement for Sports Pitches and Non-Nuclear Island Operational Drainage	Drainage outside of NSL – Whilst I'd like to see more information, these areas are either small or have an obvious means of surface water disposal (car park through permeable paving to infiltrate, or (whilst not stated) if infiltration isn't possible it's obvious to conclude a discharge to the adjacent watercourse would be feasible	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Comment noted.	Infiltration within car park and possible discharge to nearby watercourse.
EW0320	67	9b	-	Report - Drainage intent statement for Sports Pitches and Non-Nuclear Island Operational Drainage	In short, drainage outside of NSL can be agreed in principle but sports pitches don't have an obvious solution still.	Matt Williams - SCC 03/02/2022	Michael Sheridan - ATK	No	Closed	2	Comment noted. See item 64 above.	None
Road schemes [REPS-120, Appendix F, G & H]												
EW0320	68	13	-	Appendix F Sizewell Link Road Preliminary Drainage Design Statement Rev2	The general principles of surface water drainage for the road schemes (Two Village Bypass, Sizewell Link Road and Yoxford Roundabout) and agreed between SZC Co and SCC.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2	SLR rev 3 issued 09/02/22	MW confirmed in meeting 16/02/22 that SLR reviewed and only minor comments to return Full set of drainage drawings issued at preliminary design show all drainage infrastructure located within red line boundary Details of attenuation basin parameters are provided in Appendix B and in text Also provided MicroDrainage calculations shown in previously issued Hydraulic Modelling Report
EW0320	69	13	-		the details required to confirm that the drainage strategies are deliverable within the Order Limits, whilst complying with national and local policy, best practice and guidance (in order to be eligible for adoption by SCC Highways) have not been provided to SCC. Design assumptions, such as maximum water depths, maximum basin depths, side slope gradients, factors of safety and maintenance requirements has not been provided to SCC to confirm agreement, any forthcoming design which does comply with SCC requirements will not be accepted. We are therefore unable to confirm that the proposed drainage strategies deliver suitable and sufficient mitigation.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		
EW0320	70	13	-		Final results of infiltration testing, used for design, have not been provided.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Site testing logs issued in October 2020 showing that infiltration is not viable so alternative of attenuation and discharge to watercourse was agreed prior to start of preliminary design
EW0320	71	13	-		Results of pollution assessments have not been provided.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Provided in Pollution Assessment Report July 2021
EW0320	72	13	-		The location of roadside swales when the road is at grade, in cutting and on embankment is not clear. Indicative sections should be provided for each of the schemes (multiple if necessary) to demonstrate where the swales will be located in each scenario and the size of the proposed swale. Some of the current proposals locate swales at the bottom of embankments, proposing runoff flows down the embankment prior to entering the swale. SCC have been clear that this arrangement will not be acceptable due to the risk of scour this approach could present to the embankment and the swale.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Arrangements for draining of SLR embankments agreed at SCC/SZC meeting on 20/01/22 Details of agreement stated in 13.1.15
EW0320	73	13	-		It has not been demonstrated that positive outfalls (where required) are located within the Order Limits.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		All outfalls are shown within the red line boundary on layout drawings issue at preliminary design
EW0320	74	13	-		It is proposed that SCC adopt 50m either side of the proposed watercourse crossings on Sizewell Link Road. This is not a standard approach and SCC do not intend to adopt watercourses 50m either side of the crossing.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		This is not correct, SCC will adopt the outfalls and headwalls, but not the watercourses clear of the culvert crossings
EW0320	75	14	-	Appendix G Two Village Bypass Preliminary Drainage Design Statement Rev2	The general principles of surface water drainage for the road schemes (Two Village Bypass, Sizewell Link Road and Yoxford Roundabout) and agreed between SZC Co and SCC.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2	TVB rev 3 issued 16/02/22	
EW0320	76	14	-		the details required to confirm that the drainage strategies are deliverable within the Order Limits, whilst complying with national and local policy, best practice and guidance (in order to be eligible for adoption by SCC Highways) have not been provided to SCC. Design assumptions, such as maximum water depths, maximum basin depths, side slope gradients, factors of safety and maintenance requirements has not been provided to SCC to confirm agreement, any forthcoming design which does comply with SCC requirements will not be accepted. We are therefore unable to confirm that the proposed drainage strategies deliver suitable and sufficient mitigation.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Full set of drainage drawings issued at preliminary design show all drainage infrastructure located within red line boundary Details of attenuation basin parameters are provided in Appendix B and in text Also provided MicroDrainage calculations shown in previously issued Hydraulic Modelling Report
EW0320	77	14	-		Final results of infiltration testing, used for design, have not been provided.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Provided in Appendix A
EW0320	78	14	-		Results of pollution assessments have not been provided.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Provided in Appendix B
EW0320	79	14	-		Results of groundwater monitoring at proposed infiltration basin adjacent River Alde (east) have not been provided. High infiltration rates have led to concerns RE potential continuity with groundwater. Alternative option not proposed if groundwater does present a problem.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Provided in Appendix A Concern re groundwater noted but basin is at the top of the slope above the river Alde floodplain Concern re high infiltration rate confirmed to be addressed by lining the basin bed
EW0320	80	14	-		It has not been demonstrated that positive outfalls (where required) are located within the Order Limits.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Only one outfall for A12 west roundabout northern arm. Shown within the red line boundary on layout drawings within report Plate 12
EW0320	81	14	-		Ideally, we would like to see the same level of information for Two Village Bypass as for the Sizewell Link Road and Yoxford. The document should include, but not be limited to: •Drainage plans •Indicative sections •Calculations •Dimensioned plans of proposed basins to demonstrate there is sufficient space in the Order Limits •Supporting results of infiltration testing •Pollution assessment	Matt Williams - SCC 09/02/2022	Derek Lord - WSP	No	Closed	2		Report revision 3 addresses list
EW0320	82	15	-	Appendix H Yoxford Roundabout Preliminary Drainage Design Statement Rev2	The general principles of surface water drainage for the road schemes (Two Village Bypass, Sizewell Link Road and Yoxford Roundabout) and agreed between SZC Co and SCC.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		

EW0320	83	15	-		the details required to confirm that the drainage strategies are deliverable within the Order Limits, whilst complying with national and local policy, best practice and guidance (in order to be eligible for adoption by SCC Highways) have not been provided to SCC. Design assumptions, such as maximum water depths, maximum basin depths, side slope gradients, factors of safety and maintenance requirements has not been provided to SCC to confirm agreement, any forthcoming design which does comply with SCC requirements will not be accepted. We are therefore unable to confirm that the proposed drainage strategies deliver suitable and sufficient mitigation.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Full set of drainage drawings issued at preliminary design show all drainage infrastructure located within red line boundary Details of attenuation basin parameters are provided in Appendix B and in text Also provided MicroDrainage calculations shown in previously issued Hydraulic Modelling Report
EW0320	84	15	-		Final results of infiltration testing, used for design, have not been provided.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Provided in Appendix A
EW0320	85	15	-		Results of pollution assessments have not been provided.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		Provided in Appendix B
EW0320	86	15	-		It has not been demonstrated that positive outfalls (where required) are located within the Order Limits.	Matt Williams - SCC 08/09/2021	Derek Lord - WSP	No	Closed	2		One outfall is now required for the A12 roundabout northern arm discharging to the river Yox as agreed with SCC and EA on 12/01/22 The river Yox forms the red line boundary.
EW0320	87	10	-	Northern P&R	Table 1 – Provide greenfield runoff calcs to support Qbar rate 7.1.10 – Basin depth and maximum water depth would leave freeboard <300mm, but I note you have additional space available 10.1.6 – Please note that length of culverting should be minimised through good design 11.1.6 & 11.1.7 – Provide greenfield runoff calcs to support stated rates 11.1.7 – Whilst SCC guidance does permit discharge at 1:100, we prefer Qbar. If you want to use 1:100, you need to implement the Long-Term Storage method to manage additional runoff volume. Not quite as simple as simply matching 1:100 rate. July 2021 testing – I note the test which achieved infiltration was at significant depth so wouldn't be accepted anyway. Happy to proceed on the basis the site has no infiltration Appendix B – Main Site – OK, especially given no storage in permeable surfacing has been accounted for A12 – At 16.2l/s discharge, you need 1,063m3 storage but have only demonstrated 800m3. As per earlier comment, your discharge rate would be less than 16.2l/s using LTS so your attenuation requirement will be larger than stated. Whilst I appreciate the area marked red could be available for storage, I can't estimate how much storage this would provide. Current design would result in flooding to the A12 in excess of 200m3 which we would regard as significant - @Steve Merry FYI Appendix F - SL/s discharge rate for A12 should be amended based on above	Matt Williams - SCC 09/02/2022	Derek Lord - WSP	No	Closed	2	Comments noted.	Greenfield calcs and basin dimensions to be clarified. Storage areas to be clarified.
EW0320	88	9	-	Report - Drainage intent statement for Sports Pitches and Non-Nuclear Island Operational Drainage	Leiston Sports Pitches The secondary option is still reliant on unproven infiltration. If infiltration testing returns a failed result, there is no method of surface water disposal. I think the best thing you can do now is demonstrate you have sufficient space for attenuation requirements above and beyond the 1:100+40% rainfall event and you will explore options for water re-use at the adjacent leisure centre, academy and primary school. All of these locations have a demand for non-potable water usage. You would need to clarify this demand, but I expect the non-potable demand of these sites far exceeds the surface water generated by your proposed development, which could therefore act as a positive outfall. This is far from conventional, and I wouldn't expect you to do any detailed work on this at this stage given time constraints, but it would at least give you a method of surface water disposal if infiltration fails. It could even be the most preferable regardless of infiltration results, but I appreciate the associated costs. A simple statement at this stage would be sufficient.	Matt Williams - SCC 18/02/2022	Michael Sheridan - ATK	No	Closed	2	Infiltration is proposed for the sports pitches. These potentially can have a storage volume of 530 m3 based upon the minimum acceptable SCC infiltration rate (5mm/hr.). Anglian Water have confirmed there is no opportunity to discharge to the local Combine Sewerage system.	Infiltration testing is to take place during Detailed Design. Storage requirement if requirement can be placed within the sports area. Further possible discharge options include non-potable supplies to the Local Sports Centre or Local Allotments. A possible deep infiltration solution is also available into the deep crag aquifer. Th
EW0320	89	15	-	Appendix H Yoxford Roundabout Preliminary Drainage Design Statement Rev2	Only potential criticism is the lack of corresponding plan for the calculations. Always difficult to interpret calcs without a plan! That being said, we wouldn't expect Network calcs at this stage usually, so you've gone a step further than needed there, which is appreciated.	Matt Williams - SCC 18/02/2022	Derek Lord - WSP	No	Closed	2	Preliminary Design Layout drawing is available	Include drawing in update
EW0320	90	13	-	Appendix F Sizewell Link Road Preliminary Drainage Design Statement Rev3	9.1.14 only identifies ordinary watercourse crossing at 250m and 750m but there is also an ordinary watercourse at chainage 950m, from memory of our site visit. The road crosses the watercourse at a skewed angle due to which it is unlikely a simple culvert will be feasible. You'll most likely need to divert the watercourse either side for a short distance to facilitate a short, direct crossing. Appendix A – 4.1.4, a point SCC has made previously, there is no reason for SCC to adopt the 50m upstream and downstream of culverts if the road is adopted – not an LFA point but I expect Steve Merry will pick up on this too Appendix B – I've worked through this and noted some particularly deep basins and water depths, but likewise some well-designed basins with shallow water depths. I note you state these will be revisited as part of detailed design and there is space to increase basin sizes, but that isn't the case for all basins (SLR-AB-09). Some basins also have insufficient freeboard, some only just short (SLR-AB-37) and some very short (SLR-AB-10a & SLR-AB-26). There looks to be an error on SLR-AB-33. Not suggesting any further changes, but comments to note for future design iterations Query – Any reason the calculations have been removed? These were provided previously and it's good that you've included a summary for each basin, but you still need to support this with a demonstration (i.e. calculations). This is a significant road scheme, we cannot support a drainage strategy that has no calculations to support it. Indeed, we wouldn't recommend approval of any size development at Outline that doesn't submit calculations. Plan areas could be inferred from calculations previously but no longer any information on this	Matt Williams - SCC 18/02/2022	Derek Lord - WSP	No	Closed	2	9.1.14 relates to land west of the railway and the one at 950 m is east The reference is to land take within which the watercourse works will be undertaken. It does not imply that the 50 m length of watercourse upstream and downstream of culverts will be adopted by SCC. Land is returned to landowner if not required for adoption Comment agreed Calculations were not provided for Drainage Strategy but were provided for Preliminary Design review and commented upon by SCC	Review land drain LD1, 2 and 3 taking into account SCC comment on skew Appendix A is a previously issued DCO document so should not be changed. Can clarify ownership expectations in report Calculations and layout plans can be added as an Appendix. Any comments on calculations to be addressed at detailed design stage as agreed in SCC comment
EW0320	91	16	-	Drainage Strategy Annex 2A.12 - Green Route rail	3.3 is a repeat of 3.2 5.5 states an infiltration rate achieved of 1.06x10 ⁻⁴ (381.6mm/hr). It looks like this is what you have used for the design of the east basin. If you're going to use this rate, you need to support it with the results of testing as it's a magnitude of 10 higher than the nearby rate which you have evidenced in AD6-TH305 of 1.05x10 ⁻⁵ (37.44mm/hr). Also, using the highest of two rates from tests close to one another isn't the conservative approach encouraged by SCC LLFA or national guidance. Your calculations for this basin also utilise an offsite discharge through a hydrobrake at 2.2l/s in the critical event, but this is not mentioned in Section 8 or shown in Plate 5? Hydrobrake and basin invert levels do not correspond with Plate 5. Plate 5 contains some errors. The basin invert and top levels are consistent but the predicted maximum water levels look wrong and don't match the calculations provided in Appendix F. The calcs in Appendix F show a volume of 463m3 storage provided. This accords with AD6 Technical Note, but 8.1.26 of this document states that an 'additional 463m3' is required. So, should it be 463m3 in addition to the volumes already required, in which case you need more than the 463m3 modelled? Table 4 of AD6 Technical Note only notes a 'storage volume top of bank' of 383m3. The information contained in AD6 Technical Note and GRR Technical Note in relation to the basin East of Abbey Road should be the same as it is serving both areas, but there's no consistency and I can't say with any certainty what the cumulative attenuation volume requirements are, let alone confirm that sufficient attenuation is provided. The plans provided in both documents aren't consistent either. Approach for area west of Abbey Road with no outfall is conservative and leaves options for infiltration or pumping to MDS WMZs. Good.	Matt Williams - SCC 18/02/2022	Derek Lord - WSP	No	Closed	2	Error agreed The value is viability of infiltration but is not BRE365 confirmed. The AD6 is BRE365 hence used. The calculations are used to get a high level estimate of volume required for GRR runoff which will discharge into the AD6 infiltration basin Plate 5 not in error as provides the AD6 performance not the Source Control calculations in Appendix F As stated on Plate 5 a volume of 463 m3 is provided in the AD6 basin for GRR runoff	This drainage statement is to be replaced by an update to the original report issued for DCOThe integration of AD6 and GRR will be cross referenced to avoid any ambiguity
EW0320	92	17	-	Drainage strategy - AD6	2.1.3 appears to have been taken straight from Freight Management Facility Technical Note without any changes Table 1 – Where have these numbers come from and how have they been calculated. I'm not expecting to see a full set of supporting calculations, but some context is needed Table 2 – TH301 is a fail. Supporting logs show 25% was not reached on Test 1 or 2 and therefore Test 3 was not undertaken. Note BRE365 compliant 7.1.3 – Note that generally SCC would expect to see 10mm/hr for infiltration only to be a suitable means of surface water disposal, as previously stated and as implemented on SPR DCO 8.1.1 – Formatting error 8.1.2 – Reference to underground storage discouraged Table 3 – Provide supporting calculations Table 4 – Provide supporting calculations. Note comments on Green Rail Route above and lack of consistency for this basin.	Matt Williams - SCC 18/02/2022	Derek Lord - WSP	No	Closed	2	Agreed its standard across all reports. Flow rates calculated based on assessment of catchment extent using FEH data Agreed not full BRE365 compliant but does indicate some infiltration capacity Notes clarification of SCC position Agreed Clarification this is not a reference to underground storage in tanks but storage in underground filter drains, their trenches and manholes pending infiltration. Calculations are available for both basins	Allow for in update Provide calculation as appendix

EW0320	93	11	-	Southern Park and Ride	<p>Southern Catchment WTP217, which has been used for design purposes, is not compliant with BRE365. Only one test was undertaken, with the subsequent two tests failing to reach 25% and therefore not achieving an infiltration rate. The design for the southern catchment is entirely reliant on the first result from WTP217 which was 2.94x10⁻⁵ (105.84mm/hr). We cannot accept a design which is entirely reliant on results of non-compliant BRE365 testing, also noting that the first test which you've used for design would be a massive overestimation compared to the subsequent two results, had they reached 25%. Also, worth noting that WTP01 & WTP03 failed as this gives further context to the above, although I note the recorded geology differs I'm not entirely sure what a 'crate basin' is, as shown in Appendix C.</p> <p>Northern catchment Looks acceptable in principle as the infiltration potential is proven at this location Pollution mitigation I don't think it's accurate to compare this to Northern Park and Ride. Northern Park and Ride discharges through multiple swales and basins before discharging through a positive outfall. At this location there's the potential for infiltration straight to ground without adequate treatment. It looks like most areas are proposed to pass from either swale or permeable paving and then into attenuation basins. Permeable paving shouldn't be an issue but the swales may need to be lined, especially along the access roads. This shouldn't be a problem as I note the calcs don't allow infiltration from these features anyway</p> <p>Plan in Appendix C still notes pumping station</p>	Matt Williams - SCC 18/02/2022	Derek Lord - WSP	No	Closed	2	<p>Agreed that results are not BRE365 compliant but do show that infiltration does occur.</p> <p>Propose to allow for 2 options and update.</p> <p>Option 1 original pumping option Option 2 gravity option subject to further validation of infiltration in the south west of the site</p> <p>Underground storage tank but the model uses oversized pipes</p>
EW0320	94		-	Highways Schemes	<p>This is relevant to all highway schemes. Swales have been reduced in depth and side slopes slackened off to avoid the need for VRS. The shallower swale depths will silt up quicker which will require more regular maintenance. Steve is content for deeper swales with steeper side slopes (max 1:3, ideally 1:4) to be included without a need for VRS. The key thing at this stage is ensuring there is adequate space for detailed design to intercept flows from the carriageways served.</p>	Matt Williams - SCC 21/02/2022	Derek Lord - WSP	No	Closed	2	<p>Application of DMRB would imply the requirement for VRS if depth of swale is increased. If SCC as adopting authority is happy to remove the VRS requirement this could be done as a departure from standards</p> <p>Discuss this issue with SCC and get agreed position</p>
EW0320	95	14	-	Appendix G Two Village Bypass Preliminary Drainage Design Statement Rev3	<p>Plate 10 Infiltration rate stated: 0.11239m/hr (112.39mm/hr) Relevant test in Appendix A: TVTH201 Result of TVTH201: 60.12mm/hr</p> <p>Plate 14 Infiltration rate stated: 0.82005m/hr (820.05mm/hr) Relevant test in Appendix A: TVTH212A Result of TVTH212A: 363.6mm/hr</p> <p>Plate 16 Infiltration rate stated: 0.12611m/hr (126.11mm/hr) Relevant test in Appendix A: TVTH211 Result of TVTH211: 149.76mm/hr</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>The values in the Plates are those applicable at preliminary design. The change to the more conservative Fugro infiltration rates is confirmed in 10.1.5</p> <p>None</p>
EW0320	96	14	-		<p>8.1.4 – As per email on 21/02/2022 @ 13:44, when road is at grade or in cutting, shallow swales not required. Also, this isn't reflected in calculations, thus any storage in swale could be overestimated.</p> <p>8.1.18 – Infiltration through swales has not been evidenced through the results of infiltration testing along the corridor. Assuming that infiltration is available along the entire corridor at the same rate as achieved at the location of the proposed infiltration basins is not a conservative approach and is likely to underestimate the required land take of the proposed route, where infiltration should not be expected.</p> <p>10.1.3 – The lower values, which SCC agreed would be used, as stated, should be used at this stage of design development</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Application of DMRB would imply the requirement for VRS if depth of swale is increased. If SCC as adopting authority is happy to remove the VRS requirement this could be done as a departure from standards. Infiltration viability is proven at the receiving infiltration basins.</p> <p>The infiltration test results do show that for the portion of TVBP which is in cutting to the north of Hill Farm Road, infiltration is not viable. However the swale/filter drain has a faulting gradient towards the A12 north east roundabout and hence runoff will be conveyed to basin 2</p> <p>The hydraulic modelling results provided in Appendix C do use the lower Fugro infiltration rates .</p> <p>SCC to confirm a departure removing the requirement for VRS will be granted prior to commencement of Detailed Design.</p> <p>Hydraulic modelling will be updated and optimised as part of Detailed Design</p>
EW0320	97	14	-		<p>Appendix A – It's not possible to use the plans that contain the locations of test results without context of the proposed scheme overlaid</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comments noted.</p> <p>A plan showing test locations with the scheme layout will be added to Appendix A</p>
EW0320	98	14	-		<p>Network 1 Infiltration rate used of 60.12mm/hr. This conflicts with Plate 10 but uses the right infiltration rate as far as SCC are concerned. Basin levels and modelled flood levels are different to that contained in Plate 10. Infiltration basin DS/PN is N1-1.010 with a weir overflow of 8.622m. Given this is an infiltration basin, I wouldn't expect to see any flow through this pipe but during 1:100+40% it is discharging at 12l/s. This is not in accordance with the proposed drainage strategy and does not represent the required attenuation volumes. In addition to the above, despite the offsite discharge, there is a cumulative flood volume of 96.661m³. This is a significant volume and I don't expect @Steve Merry would be content with this being retained on the road. Given the location next to the River Alde, it's likely this water would find its way to the river, thus increasing offsite flood risk, which is not something SCC can support.</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comments noted.</p> <p>As noted in the report Section 8 describes the position at the time of submission of the Appendix for Examination. Section 10 and the Appendices provide updated results.</p> <p>Issue discussed by Matt Williams and Derek Lord by phone on 24 February. SCC would like to see a simple Source Control calculation to validate the size of basins 1, 2 and 3 since this will produce a conservation volume requirement. Evidence that the basin with required size will fit within available space will also be provided. Agreed that SCC do not require updating of full hydraulic model prior to detailed design if source control output is provided.</p>
EW0320	99	14	-		<p>Network 2 No comments as subject to change as per 8.1.10 of the report. Not ideal but I agree with the principles outlined in 8.1.10 and given the small area I'm content to leave this until detailed design</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comment noted.</p> <p>Action as per Network1 above</p>
EW0320	100	14	-		<p>Network 3 Infiltration rate of 522mm/hr used. This conflicts with both Plate 14 and the results of TVTH212A. Where has this infiltration rate come from? Below comments are based on this aspect being addressed Basin levels and modelled flood levels are different to that contained in the relevant plate. This network model is very detailed, including losses through complex structures (swale/filter drains). Notwithstanding the comments made above in response to 8.1.18, if you're going to have a model with this much detail, you'll need to support it with plans and sections, this would include catchment extent, drainage strategy plans, swale and basin plans and sections. Without this information, we can't accept upstream losses. Whilst you haven't undertaken infiltration testing along the route away from proposed infiltration basins, I note there are trial pits. I would suggest there's some form of assessment of soil type in these trial pits, compared against that found at the infiltration test location to determine if the soil type is the same and therefore the infiltration rate achieved at TVTH212A may be suitable to be used elsewhere. But again, highlighting the point made in response to 8.1.18, this is not a conservative approach. Swale base infiltration rate wouldn't be natural soils so not correct to use same infiltration rate as for the filter drain. Any swales sections and plans should also reflect the use of V-notch weirs, which are also modelled At this stage we don't have the GI information to be modelling upstream losses to this extent, hence we usually only require source control calculations as this would demonstrate a worst-case scenario for attenuation requirements based on the limited GI undertaken to date. The current approach taken isn't very conservative in terms of attenuation volumes required and there's no justification for such an approach Cumulative flood volume of 44.46m³ for 1:100+40%. See comments on flood volumes in Network 1</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comments noted.</p> <p>Action as per Network1 above</p>
EW0320	101	14	-		<p>Network 4 No comment as modelled network is not what is proposed</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comment noted.</p> <p>Action as per Network1 above</p>
EW0320	102	14	-		<p>Network 5 Infiltration rate of 117mm/hr used. This conflicts with both Plate 16 and the results of TVTH 211. Where has this infiltration rate come from? Below comments are based on this aspect being addressed Technical comments similar to those as for Network 3 as similar level of detail provided DS/PN showing a pipe flow of 14.3l/s for 1:100+40%. Same issue as for Network 1 as this looks to be providing a positive discharge offsite and therefore not modelling as an infiltration only system Cumulative flood volumes of 86.37m³ for 1:100+40%. See comments on flood volumes in Network 1</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comment accepted.</p> <p>Action as per Network1 above</p>
EW0320	103	14	-		<p>Appendix D Confirm that invert levels, top levels, 1:100+40% levels and freeboard levels align with current calcs</p>	Matt Williams - SCC 22/02/2022	Derek Lord - WSP	No	Closed	2	<p>Comment accepted.</p> <p>Action as per Network1 above</p>