SUFFOLK ENERGY ACTION SOLUTIONS'
REBUTTAL OF NGET RESPONSE TO SEAS' RELEVANT REPRESENTATION
WATER AND FLOOD

SEA LINK: EN020026 **SEAS IP:** [redacted]
DEADLINE: 2 – December 9, 2025 **Date: 9 Dec 2025**

This document constitutes SEAS rebuttal to the Applicant's Response to SEAS Relevant Representation [**RR-5210**], as set out in:

[REP1A-043] - 9.34.1 Applicant's Comments on Relevant Representations Identified by the ExA - Specifically Table 2.54 SEAS- Water and Flood Risk

Summary

This Deadline 2 submission presents SEAS's rebuttal of the Applicant's responses to the Water Environment issues raised in SEAS's Relevant Representation (RR-5210). Having reviewed the Applicant's detailed responses in REP1A-043, SEAS finds that the fundamental deficiencies identified at the Relevant Representation stage remain unaddressed. The Applicant has not demonstrated compliance with National Policy Statements EN-1 and EN-5, the NPPF (2024), or local policy SCLP 9.6 in respect of flood risk, drainage design, groundwater impacts, or cumulative effects.

Across the nine themes examined in this rebuttal, several consistent issues emerge:

- Absence of essential modelling and hydrological evidence: The Applicant has not undertaken site-specific surface-water modelling, overland-flow routing, groundwater mounding assessment, or cumulative hydrological simulations. Updated LiDAR and channel data were not incorporated into the core flood model, leaving the assessment insufficiently robust for a project of this scale.
- No coherent or complete drainage strategy: Despite repeated references to future updates, no operational drainage strategy has been submitted to Examination. SuDS design, drainage sizing, exceedance pathways, climate change allowances, receptor interactions and maintenance are incomplete, inconsistent or absent across APP-292, APP-051 and APP-045.
- Failure to assess offsite and downstream flood risk: Flood risk "to and from the development" has not been demonstrated as required under EN-1. The Applicant's modelling outputs are confined to Order Limits, with no assessment of effects on neighbouring land, receptors, IDB drains or road infrastructure.
- No cumulative impact assessment: The Application contains no quantitative assessment of cumulative flood risk arising from Sea Link's multiple components or from interactions with Sizewell C, EA1N, EA2 or other NSIPs in the same hydrological catchments, contrary to EN-1 paragraph 4.2.5 and NPPF 172(c).

- Groundwater risks remain unquantified: No modelling has been provided to show that infiltration basins and changed ground profiles will not elevate groundwater levels or increase flood risk to offsite receptors, despite the sensitivity of local Crag and chalk aquifers.
- Procedural shortcomings affecting effective scrutiny: The Applicant's responses were extensive, late, and introduced new technical material at Deadline 1, limiting Interested Parties' ability to scrutinise core elements of the flood-risk case. Key documents, including the updated drainage strategy, remain unpublished.

Overall, the Applicant has not met the evidential or policy requirements necessary to demonstrate that Sea Link can be constructed, operated and decommissioned without increasing flood risk elsewhere. The deficiencies identified—technical, procedural and cumulative—remain material and unresolved. SEAS therefore maintains the concerns set out in its Relevant Representation and Written Representation, and reserves the right to make further submissions as the Examination progresses.

Introduction

1. This document forms SEAS's formal response to the Applicant's comments on SEAS's Relevant Representation [RR-5210], as presented in *Sea Link Volume 9: Examination Submissions – Document 9.34.1, Applicant's Comments on Relevant Representations Identified by the ExA* [REP1A-043], specifically Table 2.54 'Water and Flood Risk'.

2. SEAS responds to each of the Applicant's comments in turn (responses which follow the numbered points in SEAS RR) and provides structured rebuttals. SEAS maintains that the Applicant's Flood Risk Assessment (APP-292) and associated documentation remain technically inadequate, particularly in relation to cumulative impacts, clarity and completeness of the drainage strategy, and demonstration of compliance with the National Policy Statements and the NPPF.

3. This submission evaluates whether the Applicant has met the requirements of **NPS EN-1**, **NPS EN-5**, the **National Planning Policy Framework (December 2024)**, and relevant **local plan policies** relating to flood risk, sustainable drainage and cumulative environmental impact.

4. Document references used in this submission include the Applicant's Environmental Statement (APP-051 to APP-341), subsequent submissions (AS-061 to AS-106), other DCO Library documents and relevant national and local policy documents. Where necessary, SEAS also cross-refers to its earlier submissions and procedural correspondence.

Procedural Fairness Concerns: Lateness, Errors Impacts on Interested Parties

5. Lateness and Volume of the Applicant's Submissions:
   The Applicant's Deadline 1 submission REP1-111 (subsequently reformatted and renumbered as REP1A-043), included over **700 pages** of detailed technical responses and new material that was **not available during the Relevant Representation stage**. The volume and timing of these submissions have placed significant burdens on Interested Parties and have constrained their ability to engage meaningfully with the Examination. These circumstances undermine the principle of fairness embedded in the DCO process.

6. Errors, Omissions and Inconsistencies in the Applicant's Submissions:
   As mentioned in the ExA's Rule 17 letter of 28 November 2025, which noted late, incomplete and inaccurate submissions and highlighted that such behaviour can give rise to unnecessary or wasted expense for other parties. These procedural issues materially increase the workload on Interested Parties, who must cross-check, reinterpret or seek clarification of the Applicant's evolving submissions.

7. Failure to Provide Timely or Complete Drainage and Flood Risk Information.
   Key elements of the drainage strategy remain incomplete or absent at Deadline 1 and Deadline 2, including:
   - No consolidated drainage strategy
   - No updated hydraulic modelling
   - No operational SuDS design
   - No cumulative flood-risk assessment
   - No receptor-scale impact analysis beyond the Order Limits

   The Applicant has repeatedly indicated that updated material will be provided later in the Examination, leaving Interested Parties unable to assess the adequacy of the proposals within the available deadlines.

8. SEAS Will Continue to Engage in Good Faith
   Despite the challenges arising from the Applicant's late and incomplete submissions, SEAS has sought to respond constructively within the constraints of the timetable.

9. SEAS reserves the right to supplement or update these points through further written submissions as new or revised material becomes available.

SEAS REBUTTALS

SEAS RR Argument 1. Failure to apply the Flood Risk Sequential Test and Exception Test comprehensively across all elements of the development.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

10. **Misapplication of the Sequential Test**
    NGET fails to demonstrate that the Sequential Test has been applied across the **entirety** of the development, as required by **EN-1 paragraphs 5.8.9**. This paragraph is clear that the Sequential Test must apply not just to the most vulnerable elements but to *all elements* of the project.

    10.1. **APP-292 (Section 3.2.9–3.2.13, pp. 20–22)** only discusses converter station locations in Flood Zone 1. There is no evidence of sequential assessment for haul roads, cable corridors, trenchless crossings, or temporary works in Zones 2/3, despite their known presence.

    10.2. The claim that crossing flood zones is "inevitable" for linear schemes is not evidence that **all reasonable alternative alignments** were considered to avoid higher-risk areas.This omission contravenes both EN-1 and NPPF 2024 paragraphs 171–172, which set out that development should be directed away from areas at highest risk of flooding through application of the Sequential Test, and that flood risk to and from development must be appropriately assessed and managed.

11. **Inadequate Exception Test Application**
    NGET states that "the sustainability benefits outweigh the degree of flood risk" without substantiating how each part of the project (especially cable routes and haul roads in Zones 2/3) meets both limbs of the Exception Test.

    11.1. There is no evidence that the *benefits outweigh risks* for specific higher-risk sections.

    11.2. There is no robust demonstration that the development *will remain safe and not increase flood risk elsewhere* for those parts — a core requirement of the Exception Test as per **NPPF 2024 paragraph 172(c)**.

12. **Failure to address Offsite Risk – EN-1 requirement not met**
    The response does not address the duty under **EN-1 (5.8.7, 5.8.12)**, which requires robust, site-specific assessment of flood risk and how it is managed, including where the development could affect surrounding land. While the claim is made, it is not evidenced for routes crossing floodplain, or where bunds or haul roads could alter overland flow. The **SEA WR of 18 Nov 2025** (e.g. WR paras 13, 41-42, 48) highlights this gap.

13. **No Use of Up-to-Date Modelling Across Scheme**
    NGET asserts that zones have been avoided, but doesn't provide cumulative or sequential modelling outputs to support this. There is:

    13.1. No LiDAR-based overland flow route mapping across all elements.

    13.2. No holistic drainage or flood routing plan visible for the whole scheme.

13.3. No clear alternatives assessment that would show the Sequential Test has been properly applied.

SEAS RR Argument 2. Inexplicable reliance on out-of-date LiDAR topography that has had the effect of understating flood risk, notably at the River Fromus bridge site.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

14. **Failure to Use Updated Data in Core Modelling**
    NGET admits that the *baseline model* was built using **out-of-date LiDAR and channel survey data**, and that updated data was used **only for sensitivity testing** (not in core predictions).
    14.1. **APP-292 Flood Risk Assessment** Appendix B (River Fromus Modelling Technical Note) confirms this approach.
    14.2. Sensitivity tests are not a substitute for a full re-run of the primary flood model with the updated terrain and channel data — especially where terrain detail can affect flood extents significantly.

15. **Lack of Transparency on Modelling Outputs**
    Nowhere are the results of the updated LiDAR sensitivity test **quantitatively reported** — i.e., no flood depth comparisons, extent shifts, or return period event outputs using the newer data are presented for scrutiny.
    15.1. The assertion that the tests "show no notable impact" is unverified by any figures or maps.
    15.2. No updated model files or flood maps using the 2022 LiDAR and 2025 channel data have been published in the DCO library.
    15.3. This undermines compliance with **EN-1 paragraph 5.8.15**, which requires a clear demonstration of how flood risks will be managed.

16. **Critical Sensitivity of the River Fromus Site**
    The River Fromus crossing is one of the few locations where permanent infrastructure will interact with **floodplain in a sensitive area**, and the hydraulic behaviour here is non-linear and topography-dependent.
    16.1. Even small terrain inaccuracies can result in **underestimated peak flood depths or extents**.
    16.2. The failure to update the base model means the **flood risk to and from the proposed bridge is not robustly characterised** — which violates both EN-1 (5.8.14 and 5.8.15) and NPPF 2024 para 172.

17. **EA Agreement Not Documented**
    NGET claims the Environment Agency "agreed" with the conclusions, but:
    17.1. No formal confirmation, document, or consultation response from the EA is provided.
    17.2. There is no record in the DCO Examination Library showing that the EA has signed off the modelling method or the "no impact" conclusion.

18. **Relevant Comparators Apply Higher Standards**
    Comparable NSIPs in this part of East Suffolk, use the most recent LiDAR and

hydrological inputs as standard for flood modelling — not just for sensitivity tests but as the primary model basis. Sea Link's approach **does not meet the evolving best practice standard** in NSIP flood assessment.

SEAS RR Argument 3. Omission of surface water flood flow modelling, overland routing analysis, and defined storm return periods for drainage design (which omissions make it impossible to be sure NGET has complied with EN-1 para 5.8.14).

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS REBUTTAL

19. **No Actual Surface Water Flood Modelling Has Been Provided**
    Despite claims that surface water flood risk has been assessed, NGET has **not provided any model outputs** or hydrological modelling evidence for:
    19.1. Localised **pluvial runoff generation**
    19.2. **Overland flow routing** based on topography (e.g. LiDAR flowpaths),
    19.3. The interaction of site bunds, haul roads and earthworks with **natural runoff pathways**.
    19.4. Neither the **SCC *Sustainable Drainage Systems (SuDS) Local Design Guide*** (Suffolk Flood Risk Management Partnership, 2023), relied upon by the Applicant, nor the EA's Risk of Flooding from Surface Water maps provide any site-specific surface water modelling. Both are strategic guidance tools and do not contain LiDAR-based flow routing, pluvial modelling, or analysis of how construction earthworks, bunds or haul roads interact with natural runoff pathways. As such, they do not meet the standard of assessment required under **EN-1 paragraph 5.8.14 or NPPF paragraph 172**, which require applicants to identify and assess flood risk *to and from* the development using adequate, up-to-date information.
    19.5. **APP-292** (FRA) fails to present any plan or map showing modeled overland exceedance paths or bund interactions.

20. **No LiDAR-Based Flow Path Analysis**
    There is **no evidence of terrain-informed overland flow routing** based on LiDAR or DTM. This is now standard practice in drainage strategy design, and essential for evaluating risks at cut-and-fill interfaces, cable trench routes, and compound edges.
    20.1. This failure is especially significant in **topographically sensitive areas** such as the Friston Plateau and River Fromus valley.
    20.2. Comparable NSIPs in this part of East Suffolk, have included full LiDAR-based overland flow routing as part of their flood risk assessments and drainage strategies. Sea Link presents none of this analysis, placing its assessment below the evidential standard established for similar NSIPs in this hydrologically sensitive area.

21. **TS 2.10.13 Is Not Publicly Available**
    NGET's reliance on **National Grid standard TS 2.10.13** for drainage design is problematic:
    21.1. The standard is **not published or publicly available**, so it cannot be scrutinised.

21.2. This violates the principle of transparency in DCO environmental assessments and makes it **impossible for the public or the ExA to verify the claimed drainage performance**.

22. **Outdated or Incomplete Return Period Justifications**

For temporary works, NGET relies on the **Suffolk SuDS Local Guide (2023)** to justify omitting climate change allowances.

22.1. The guidance applies only to **short-duration, minor construction phases** — not to **multi-year haul road use, or repeated reinstatement cycles**.

22.2. These activities span **multiple seasons** and could coincide with **increasing storm intensities**, particularly in low-permeability clay catchments.

22.3. The Suffolk SuDS Local Design Guide (2023) provides high-level advice for short-term works, but it does not remove the requirement to assess climate-change allowances where construction activities span multiple seasons. Multi-year haul road operation and repeated reinstatement cycles fall outside the scope of 'minor temporary works', and therefore must still be assessed for increased runoff and storm-intensity sensitivity."

23. **No Climate Change Sensitivity Scenarios for Surface Water Risk**

While a 45% uplift is referenced for permanent drainage, NGET provides **no worked example, modelling output, or map** to show that surface water flood depths and exceedance paths have been tested under future climate scenarios.

23.1. This violates **EN-1 paras 5.8.14** and **5.8.15** and **NPPF para 172**, both of which require explicit consideration of climate change in surface water flood risk management.

23.2. The omission of site-specific surface water modelling and exceedance routing is a **critical failure** to comply with the requirements of **EN-1 paragraph 5.8.14** and **NPPF 2024 paragraph 172**. Robust assessment and climate-adapted drainage design cannot be demonstrated under the current submission.

SEAS RR Argument 4. Absence of evidence for long-term drainage performance and post-decommissioning flood management.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

24. **No Evidence for Long-Term Drainage Function or Monitoring**

NGET provides **no information** on:

24.1. Expected **lifespan** or **performance degradation** of SuDS and infiltration basins over decades.

24.2. Whether these assets will be **monitored, maintained or replaced** during the project lifetime.

24.3. Risk of **clogging, sedimentation**, or **subsurface compaction** compromising infiltration performance over time, particularly in fine soils or with limited fallow periods.

24.4. APP-292 (FRA) and its appendices contain **no schedule of inspections**, asset management plan, or long-term SuDS maintenance commitments.

24.5. This omission is material because infiltration systems typically experience performance decline over time due to sediment accumulation and soil compaction. Without long-term monitoring and maintenance commitments, the Applicant has not demonstrated that operational-phase drainage will continue to function as required over the project lifetime.

24.6. EN-1 paragraphs 5.8.14–5.8.15 require applicants to demonstrate how flood risks will be managed over the project lifetime, including residual and operational-phase risks. Without a long-term maintenance and monitoring plan, the FRA does not meet this requirement."

25. **Reliance on Future Decommissioning Plan Is Unacceptable**

Deferring all flood risk and drainage considerations for decommissioning to a **future undefined scheme** is:

25.1. **Not compliant with EN-1 paragraph 5.8.7,** which requires that new energy infrastructure be *safe for its lifetime* without increasing flood risk elsewhere.

25.2. **Inconsistent** with **EN-1 paragraphs 5.8.14–5.8.15,** which require flood risks *to and from* the project to be identified and for applicants to demonstrate how such risks will be managed, including over the operational lifetime.

25.3. Unverifiable by regulators, the Examining Authority or the public.

25.4. Contrary to good practice in long-term SuDS design, which requires lifecycle analysis and end-of-life flood-risk assessment.

25.5. No decommissioning-related flood modelling is provided, no outline methodology for drainage dismantling is offered, and no residual flood risk mapping exists.

26. **The Draft DCO (AS-043) Does Not Secure Flood Risk Mitigation at Decommissioning**

26.1. **Requirement 13 (Decommissioning)** is vague, requiring only that a "written scheme" be submitted to the planning authority, without specifying any flood-risk content.

26.2. There is **no reference** to drainage, flood risk, surface water management, SuDS removal, or reinstatement of altered topography.

26.3. There is **no binding commitment** to assess or mitigate residual flood risks arising from dismantling haul roads, removing infiltration basins, or restoring ground levels.

26.4. This leaves a clear policy gap when tested against **EN-1 paragraphs 5.8.7 and 5.8.14–15**, which require applicants to identify and manage flood risks across the project's lifetime, and against **NPPF 2024 paragraph 172**, which requires developments to remain safe without increasing flood risk elsewhere, including during decommissioning.

27. **Contrasts with Other Comparable NSIP Projects in East Suffolk**

27.1. Comparable NSIPs in East Suffolk have provided outline drainage and landform restoration principles at the decommissioning stage.

27.2. Sea Link provides none of this, despite proposing extensive infiltration and earthworks features whose removal or alteration could materially change runoff pathways.

SEAS RR Argument 5. Failure to assess whether infiltration during operation could raise groundwater levels and increase flood risk to offsite receptors, including properties and infrastructure.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

28. **No Evidence Presented on Groundwater Mounding or Receptor Risk**
    - 28.1. NGET provides **no modelling or analysis** to support the claim that infiltration will not elevate groundwater levels or **affect nearby receptors**, including:
      - 28.1.1. **Residential properties** in low-lying areas (e.g. Friston).
      - 28.1.2. **Highway infrastructure** and nearby watercourses.
    - 28.2. The FRA (APP-292) contains **no plan, section or cross-section drawings** showing groundwater flow paths or potential groundwater mounding beneath infiltration basins.
    - 28.3. This is a critical omission given that EN-1 paragraphs 5.8.14–15 require applicants to assess all forms of flood risk to and from the project and to demonstrate how such risks — including secondary effects such as raised groundwater levels — will be managed over the project's lifetime.
    - 28.4. In the Crag aquifer and shallow groundwater zones around Friston and the Fromus valley, even modest groundwater mounding can materially increase flood risk to properties, utilities and watercourses. Without modelling this pathway, the Applicant has not demonstrated compliance with EN-1's lifetime flood-risk management requirement.

29. **The Claim of "Low Risk" Is Unsupported**
    - 29.1. NGET's "low risk" assertion is **not substantiated** by evidence of:
      - 29.1.1. Local **groundwater levels**,
      - 29.1.2. Soil permeability or infiltration rates,
      - 29.1.3. **Distance to receptors**, or
      - 29.1.4. Groundwater movement modelling.
    - 29.2. This fails to meet NPPF 2024 paragraph 172(b), which requires developers to demonstrate — at the application stage — that the proposal will not increase flood risk elsewhere, including through indirect mechanisms such as groundwater rise or altered groundwater flow paths.
    - 29.3. In the absence of groundwater-level data, infiltration testing or mounding assessment, the Applicant's "low risk" claim is not evidence-based. Groundwater pathways remain unquantified and therefore cannot be screened out.

30. **No Commitment to Monitor or Mitigate Groundwater Impacts**
    - 30.1. NGET makes no mention of:

30.1.1. **Groundwater level monitoring** around infiltration zones,
30.1.2. **Contingency actions** if rising groundwater is detected, or
30.1.3. Responsibility for **flood damage** caused offsite.

30.2. This contradicts EN-1 paragraphs 5.8.7 and 5.8.15, which require applicants to demonstrate that flood risks — including secondary mechanisms such as groundwater rise — will be assessed and managed over the project's lifetime, not deferred to later construction stages.

30.3. Without defined monitoring, triggers or responsibilities, the Applicant cannot demonstrate that operational-phase infiltration will remain safe or that groundwater-related flood risks to offsite receptors will be avoided.

31. **Contrast with Other Comparable NSIPs**

31.1. Comparable NSIPs in this part of East Suffolk — **Sizewell C, EA1N and EA2** — included supporting assessments such as:
31.1.1. preliminary infiltration viability analysis,
31.1.2. discussion of potential groundwater mounding effects,
31.1.3. delineation of local catchment boundaries and identification of sensitive receptors
31.1.4. design principles intended to prevent offsite flooding.

31.2. By contrast, **Sea Link provides none of this analysis**, despite proposing multiple infiltration basins within hydrologically sensitive areas. **APP-051 Section 4.5** contains only high-level qualitative statements and does not include any infiltration calculations, groundwater mounding assessment, or receptor-based evaluation.

31.3. This places Sea Link's groundwater and infiltration assessment materially below the evidential standard established for recent NSIPs in the same hydrological setting.

SEAS RR Argument 6. Drainage layout plans and strategy descriptions are inconsistent, making it impossible to verify what flood mitigation is proposed or whether it is viable.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

32. **Absence of a Coherent Drainage Strategy Confirms the Problem**

32.1. The Applicant's response implicitly acknowledges that the drainage strategy is still being rewritten. As of Deadline 1, **there is no consolidated, operational drainage strategy** anywhere within the DCO application. Instead, drainage information is scattered across multiple documents — including **APP-292 (FRA), APP-051 (Water Environment) and APP-045 (Project Description)** — with clear inconsistencies between narrative text, layout plans and SuDS descriptions.

32.2. The **July 2025 National SuDS Standards** require robust, whole-lifecycle integration of drainage design, including outfall arrangements, exceedance routing, long-term maintenance and climate-resilient performance.

32.3. **Sea Link does not yet provide a unified drainage design that meets these requirements**, and the Applicant has not demonstrated how

the scheme will operate safely under both construction and operational scenarios.

33. **No Draft of the Updated Strategy Has Been Published**
    - 33.1. The Applicant's response refers to a future revised drainage strategy, but **no draft has been provided** to stakeholders, consultees or Interested Parties during the Examination. Without this document, it is impossible to scrutinise or test the Applicant's claims regarding:
        - 33.1.1. Surface water catchment design and drainage zones,
        - 33.1.2. Integration with mapped flood zones,
        - 33.1.3. Climate change allowances and design rainfall events,
        - 33.1.4. Exceedance pathway management during extreme storms,
        - 33.1.5. The basis for choosing infiltration, attenuation, or mixed systems.
    - 33.2. EN-1 paragraph 5.8.14 requires applicants to **identify all flood risks to and from the project and demonstrate how those risks will be managed, taking climate change into account**.
    - 33.3. NPPF 2024 paragraph 172(c) requires that development **does not increase flood risk elsewhere**.
    - 33.4. **Neither test can be satisfied when the core drainage strategy is missing from the Examination.** The Applicant's reliance on a future, unpublished document leaves the ExA and stakeholders unable to determine whether the proposed drainage system is viable, climate-resilient, or policy-compliant.

34. **APP-292 Appendix C Contains Only Generic Principles**
    - 34.1. APP-292 Appendix C sets out only generic drainage principles (e.g., preference for infiltration where feasible), but does not present:
        - 34.1.1. Defined drainage layouts,
        - 34.1.2. Drainage infrastructure sizing or design standards,
        - 34.1.3. Site-specific hydrological design calculations,
        - 34.1.4. Any assessment of receiving watercourse or IDB drain capacity, or
        - 34.1.5. Integration of flow paths and exceedance routes with surrounding landform.
    - 34.2. As a result, **Appendix C cannot function as a drainage strategy** under EN-1 or NPPF requirements, because it provides no basis on which to determine whether the proposed system is technically viable or whether it would prevent increased flood risk. This is especially critical for sensitive locations such as Friston and the River Fromus valley.

35. **Fails to Meet Industry Practice and NSIP Precedents**
    - 35.1. Other Comparable NSIPs include clearly defined **Outline Operational Drainage Strategies** (OODS), with:
        - 35.1.1. SuDS sizing calculations,
        - 35.1.2. Drainage layout plans and cross-sections,
        - 35.1.3. Long-term maintenance principles,
        - 35.1.4. Receptor interaction studies.

35.2. Sea Link lacks any equivalent level of technical clarity or design commitment at Examination stage.

36. **No Assessment of Cumulative or Integrated Drainage Impact**

Without a consistent drainage strategy, the Applicant is unable to demonstrate:

- How different scheme elements interact hydraulically,
- Whether SuDS systems collectively affect runoff volumes or timings,
- Whether exceedance or failure scenarios compound each other.

SEAS RR Argument 7. Key elements of the flood risk case — including River Fromus bridge design, drainage sizing, and flow path modelling — are limited to within the Order Limits, contrary to the requirement in EN-1 to consider effects 'elsewhere'.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

37. **Modelling Coverage Does Not Equal Impact Assessment Beyond Order Limits**

37.1. The Applicant states that hydraulic modelling extended beyond the Order Limits, but **no evidence has been provided** to show that downstream or offsite flood risk impacts were actually assessed or reported. Simply extending the model domain is not equivalent to demonstrating:

37.1.1. How offsite flow paths behave under design storm events,

37.1.2. Whether flood depths or velocities increase on third-party land,

37.1.3. Whether residential properties, farmland, highways or other receptors experience increased risk, or

37.1.4. How altered terrain (embankments, haul roads, cut-and-fill) modifies catchment behaviour beyond the red line boundary.

37.2. EN-1 paragraph 5.8.14 requires applicants to assess flood risks **to and from the project** and demonstrate how these risks will be managed.

NPPF 2024 paragraph 172(c) requires that development **must not increase flood risk elsewhere**.

37.3. **The Applicant has not met either requirement**, because it has not presented any assessment of offsite flood impacts despite the model's extended domain.

38. **Modelling Results Are Not Provided for Locations Outside the Order Limits**

38.1. Even if the underlying hydraulic model (e.g., the EA River Fromus model) extends beyond the Order Limits, **the results published in APP-292 and Appendix B do not**. The FRA provides **no mapped outputs** showing:

38.1.1. Exceedance flow paths outside the red line,

38.1.2. Peak flood depths or velocities on adjacent land,

38.1.3. Potential impacts on the B1121, nearby residential properties in the Fromus Valley, or agricultural receptors.

38.2. Without these outputs, it is impossible for the ExA or stakeholders to determine whether altered floodplain storage, embankments, haul roads or

bridge structures increase offsite flood risk.
This absence directly undermines the Applicant's repeated assertion that **"flood risk will not increase elsewhere."**

39. **Drainage Infrastructure Sizing Is Only Described in Abstract**
    39.1. Although the Applicant asserts that drainage catchments were delineated and used to size SuDS features, **no supporting evidence has been published**. There are:
        39.1.1. **No sizing tables** showing run-off volumes or peak flow rates,
        39.1.2. **No flow balance diagrams** or design rainfall calculations,
        39.1.3. **No SuDS storage calculations** for attenuation or infiltration systems,
        39.1.4. **No demonstration** of how climate change allowances have been applied.
    39.2. Appendix C of APP-292 provides only **generic design principles**, with **no quantified link** between:
        39.2.1. catchment-derived run-off volumes,
        39.2.2. design storm events, and
        39.2.3. proposed drainage infrastructure capacity.
    39.3. Without any published drainage sizing, the ExA and stakeholders cannot verify whether the catchment analysis has informed the design in a meaningful or compliant way, or whether the system can prevent increased flood risk elsewhere.

40. **No Evidence of Third-Party Landowner or IDB Consultation**
    40.1. There is no evidence that the Applicant has engaged with Internal Drainage Boards, riparian owners or highways authorities whose land or infrastructure may receive altered runoff, exceedance flows, or groundwater emergence from the project. This is a significant omission given that construction embankments, haul roads, and drainage outfalls may affect receptors **outside** the Order Limits.
    40.2. EN-1 paragraph **5.8.7** requires applicants to ensure that projects do **not increase flood risk elsewhere**, while paragraphs **5.8.14–15** require assessment of all flood risks **to and from** the project and demonstration of how such risks will be managed.
    40.3. **Without consultation or assessment of third-party impacts, these requirements have not been met.**

41. **Failure to Apply EN-1 and NPPF in Spirit and Letter**
    41.1. The Applicant attempts to rebut this point by stating that the hydraulic model domain extends beyond the Order Limits. However, **policy compliance depends on the assessment of offsite flood risks — not simply on model coverage**.
    41.2. EN-1 paragraph **5.8.7** requires applicants to ensure that projects do **not increase flood risk elsewhere**, and paragraphs **5.8.14–15** require explicit assessment and management of flood risks **to and from** the development, including under climate-change scenarios. NPPF 2024 paragraph **172** reinforces this by requiring evidence that development will not increase flood risk elsewhere.

41.3. The Applicant has not presented any offsite flood-risk analysis, exceedance routing, receptor impact assessment or mapping beyond the red line. **Extending a model domain is not the same as assessing offsite risk**, and therefore the Applicant has not met the requirements of EN-1 or the NPPF.

SEAS RR Argument 8. Lack of cumulative hydrological modelling across key infrastructure components and phases.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

42. **Misunderstanding of What 'Cumulative' Means in Context**
    - 42.1. The Applicant appears to interpret "cumulative" as referring only to the build-up of effects within a single project element over time. This is incorrect. SEAS RR 8 refers both to:
      - 42.1.1. **Intra-project cumulative effects**, including overlapping discharges, concurrent construction of cable routes, bridges, haul roads and compounds; and
      - 42.1.2. **Inter-project cumulative effects**, arising from interaction with other NSIPs in the region.
    - 42.2. EN-1 paragraph **4.2.5** requires the Environmental Statement to assess cumulative impacts **holistically**, including interactions **with other existing or proposed infrastructure**.
    - 42.3. NPPF 2024 paragraph **172(c)** requires an assessment of whether development could increase flood risk **elsewhere**, which cannot be determined without examining cumulative runoff volumes, timings and shared receptors.
    - 42.4. The Applicant's interpretation therefore fails to meet both the **spirit and the letter** of national policy.

43. **No Evidence of Quantitative Cumulative Flow Modelling**
    - 43.1. The Flood Risk Assessment (APP-292) presents no modelled scenarios that combine simultaneous runoff from multiple temporary or permanent project elements — such as the Friston cable corridor, the Fromus bridge, haul roads, compounds or laydown areas. The Applicant has not published any hydrological or hydraulic simulations of cumulative flow events, nor any catchment-wide rainfall–runoff testing that reflects how these elements will operate in combination during storm events.
    - 43.2. This is a **critical omission**, because EN-1 paragraph **5.8.14** requires applicants to identify and assess **all** flood risks **to and from** the project and demonstrate how these will be managed **under climate-change conditions**, which inherently includes **multi-source and cumulative interactions**.
    - 43.3. Without cumulative modelling, the Applicant cannot demonstrate policy-compliant flood-risk management.

44. **Unjustified Dismissal of Temporary Infrastructure Risk**
    - 44.1. The Applicant treats temporary infrastructure as having negligible flood-risk implications, yet also acknowledges that some associated

structures (including the River Fromus bridge and multiple culverts) will be permanent. Even genuinely temporary works — such as haul roads, compounds, trenches, bunds and drainage swales — can alter local topography, flow routing and infiltration patterns. These effects can persist over multiple seasons or coincide with high-intensity rainfall events during construction.

44.2. Experience from **other NSIP examinations in East Suffolk** (including EA1N, EA2 and Sizewell C) has shown that the local catchments are **highly sensitive to small alterations**, where even minor blockages, diversions or topographic changes can materially alter overland flowpaths. This sensitivity is not recognised or assessed within the Sea Link FRA or construction drainage plans, and no modelling of temporary–permanent interactions has been provided.

44.3. The absence of such assessment is inconsistent with EN-1 paragraph 5.8.14, which requires applicants to identify and assess **all** flood risks to and from the project and demonstrate how these risks will be managed.

45. **Lack of Catchment-Wide Drainage Design Integration**

45.1. The Applicant asserts that temporary drainage features will be removed after construction, but provides **no assessment** of the combined or sequential effects of multiple overlapping construction phases across the catchment. Construction activities at Sea Link will occur over extended periods and in multiple zones (e.g., cable routes, haul roads, compounds, and bridge works), yet:

45.1.1. **No catchment-wide drainage phasing plan** is included in APP-292 or any other DCO document.

45.1.2. There is **no modelling** of how simultaneous or sequential construction activities alter surface water pathways, exceedance routes, or runoff volumes.

45.1.3. The FRA contains **only isolated component assessments**, not a coordinated picture of how construction-phase drainage interacts across the project footprint.

45.2. Comparable NSIPs in East Suffolk have demonstrated the need for **integrated drainage phasing** and assessment of **multiple overlapping surface water sources** during prolonged construction. Sea Link provides **no equivalent assessment**, leaving the ExA unable to understand whether temporary drainage arrangements will function safely when considered in combination.

45.3. This omission is inconsistent with EN-1 para 5.8.14, which requires applicants to assess **all flood risks to and from the project** and demonstrate how they will be managed—including during construction phases where cumulative temporary works can materially alter flood behaviour.

46. **Inadequate Use of APP-051**

46.1. Section 4.9 of APP-051 provides only **narrative screening**, not a modelled or quantitative cumulative assessment. The treatment of inter-project cumulative effects—such as potential interaction with Sizewell C, EA1N and EA2—is limited to descriptive assertions rather than evidence-led analysis. No hydrological or hydraulic modelling is provided to test combined

runoff volumes, overlapping construction phases, or shared receptor sensitivity.

46.2. This approach falls short of the requirement in EN-1 paragraph **4.2.5**, which states that Environmental Statements must include an assessment of **cumulative effects**, particularly where **environmental impacts interact**. Without modelled or quantified cumulative assessment, the Applicant has not demonstrated compliance with this requirement.

SEAS RR Argument 9. Dismissal of inter-project flood risks without proper justification or analysis, in breach of EN-1 and NPPF policy. / These shortcomings undermine compliance with EN-1, EN-3, EN-5, and the NPPF, as well as relevant local planning policies concerning flood risk and sustainable drainage, and all count against the application when applying the overarching test set by s.104 of the Planning Act 2008.

NGET Response – see REP1A-043 Table 2.54 'Water and Flood Risk'.

SEAS Rebuttal

47. **Assumption of Compliance by Other Projects is Not Legally or Scientifically Valid**

47.1. The Applicant's approach assumes that other NSIPs in the region (such as Sizewell C, EA1N, EA2 and LionLink) will independently manage all flood risk and drainage impacts, and therefore need not be considered in Sea Link's cumulative assessment. This is not a valid planning assumption.

47.2. EN-1 paragraph **4.2.5** requires the Environmental Statement to assess **cumulative effects**, including interactions between the proposed development and other existing or proposed infrastructure. NPPF 2024 paragraph **172(c)** further requires demonstration that development will **not increase flood risk elsewhere**, which cannot be satisfied by assuming that other NSIPs will fully mitigate their own impacts.

47.3. Cumulative assessment must be **evidence-led**, not based on assumed policy compliance by third-party projects. The Applicant has not undertaken such assessment.

48. **No Modelled Inter-Project Assessment Exists**

48.1. APP-051 contains only **qualitative screening** of other developments and provides **no quantitative cumulative modelling**.

48.2. No hydrological or hydraulic model has been produced to examine the combined effects of Sea Link with neighbouring NSIPs, despite multiple schemes drawing on the same catchments and drainage networks.

48.3. There is **no assessment** of cumulative drainage loading, runoff interactions, or coincident storm-event scenarios that could affect shared watercourses or IDB drains.

48.4. This omission is particularly significant because **Environment Agency surface-water flood-risk mapping** shows that communities such as **Friston and Aldringham** sit within **sensitive surface-water flow paths and local topographic depressions**, where relatively small changes in landform or drainage can materially increase flood hazard. The Applicant's own

documentation (e.g. APP-051 Section 4) also recognises existing localised flood-risk constraints.

48.5. EN-1 paragraph **4.2.5** and NPPF paragraph **172(c)** require a **quantitative cumulative assessment** of interacting effects, not the qualitative dismissals presented in the application.

49. **EA1N, EA2, Sizewell C and LionLink All Interact with the Same Regional Catchments**

NGET's position assumes that neighbouring NSIPs will each manage flood risk entirely within their own boundaries. This assumption is flawed because:

49.1. **EA1N, EA2, Sizewell C and the proposed LionLink project all operate within, or drain towards, the same hydrological systems**— including the River Fromus, the Aldringham Hundred River catchment, and the interconnected network of ordinary watercourses and IDB drains across East Suffolk.

49.2. These catchments are **hydrologically continuous**, meaning changes to infiltration, surface runoff, temporary works, or floodplain storage from one project can influence downstream conditions relevant to the others.

49.3. **Construction phases for these NSIPs overlap or are sequential**, increasing the likelihood that peak earthworks, haul roads, temporary drainage discharges, and reduced infiltration will coincide across projects.

49.4. LionLink, although not yet consented, is a **formal live NSIP with published scoping documentation** identifying a likely landfall and cable corridor into the Saxmundham area, meaning that potential cumulative interactions with Sea Link must be considered at a strategic screening level.

49.5. Despite the above, **no cumulative hydraulic or hydrological modelling** has been undertaken to quantify the combined effects of Sea Link alongside these NSIPs on peak flows, exceedance routing, groundwater emergence, IDB drain capacity or downstream receptor risk.

49.6. This omission conflicts with:**EN-1 paragraph 4.2.5**, which requires assessment of *"cumulative effects, particularly where environmental impacts interact"*, and

49.7. **NPPF paragraph 172(c)**, which requires demonstration that development *"does not increase flood risk elsewhere"* — including through **cumulative or interacting mechanisms**.

50. **Failure to Assess Sequential Discharge into Shared Receptors**

50.1. NGET provides **no hydrological modelling** showing how runoff, infiltration overflow, or drainage discharges from Sea Link could interact with flows from other NSIPs when entering **shared receiving systems**, such as ordinary watercourses, IDB drains, or the Fromus/Hundred River catchment.

50.2. There is **no assessment of sequential loading**, where discharge from one scheme arrives before, during, or after that from another — a known risk pathway in constrained rural catchments with limited conveyance and storage capacity.

50.3. No cumulative flood routing, peak flow analysis, or combined exceedance mapping has been presented to demonstrate that multiple NSIP schemes discharging into the same receptors will not **compound peak flows** or alter flood behaviour.

50.4. This breaches **NPPF 2024 paragraph 172(c)**, which requires that flood risk assessments consider *"the cumulative impacts of flood risk alongside other relevant schemes or land uses."*

50.5. Without a cumulative receptor-scale assessment, the Applicant cannot demonstrate compliance with either **NPPF 172(c)** or the **EN-1 paragraph 4.2.5** requirement to assess interacting and cumulative environmental effects.

51. **Policy Breach – EN-1, EN-5, NPPF and Local Policy SCLP 9.6**

51.1. **EN-5 paragraph 2.2.3** (uploaded EN-5) emphasises that electricity networks infrastructure must be planned with full consideration of flood risk interactions, including how assets may alter flood behaviour and how climate-change-driven extremes may affect network resilience.

51.2. **EN-1 paragraph 5.8.14** requires the Flood Risk Assessment to *identify and assess all sources of flooding to and from the project* and to *demonstrate how these risks will be managed*, including under climate change. Because no cumulative hydrological modelling has been undertaken, the Applicant has not demonstrated management of flood risk arising from **interaction with other NSIPs**.

51.3. **NPPF 2024 paragraph 172(c)** requires flood risk assessments to consider *"the cumulative impacts of flood risk alongside other relevant schemes or land uses"*. NGET's evidence does not include any hydraulic or hydrological analysis of combined effects with Sizewell C, EA1N/EA2 or other planned NSIPs.

51.4. **SCLP 9.6** (Suffolk Coastal Local Plan) requires development to implement SuDS that:

51.4.1. limit runoff rates to greenfield where practicable,

51.4.2. safeguard receiving watercourses, and

51.4.3. *avoid increasing flood risk elsewhere*.

51.5. None of these requirements are demonstrated in a cumulative context because Sea Link provides **no combined flow assessment, cumulative runoff modelling, or receptor-scale evaluation** of shared watercourse capacity.

51.6. **Taken together, these omissions amount to clear non-compliance with national and local policy**, all of which require cumulative, lifetime flood-risk assessment rather than isolated project appraisal.

52. **No Justification for Lack of Data Sharing or Joint Modelling**

52.1. NGET provides no evidence that it has sought to coordinate hydrological information or modelling assumptions with other major NSIPs operating within the same hydrological catchments—namely Sizewell C, EA1N, EA2, or LionLink.

52.2. The Applicant has not demonstrated that it has engaged in **any structured data-sharing process** (e.g., baseline hydrology, infiltration assumptions, runoff modelling parameters, drainage outfall data) that would enable a proper cumulative impact assessment across schemes.

52.3. No attempt has been made to produce **joint or harmonised hydrological modelling**, despite overlapping construction timelines, shared receptors, and interdependent watercourse systems in the Fromus and Aldringham Hundred catchments.

52.4. This is a significant gap given that Sea Link forms part of the wider National Grid transmission programme for East Anglia. Integrated planning and cumulative environmental assessment should therefore be expected as standard.

52.5. This lack of coordination is inconsistent with the intent of **EN-1 paragraph 4.2.5**, which requires cumulative environmental effects to be assessed *"particularly where environmental impacts interact."*

52.6. Without data sharing or aligned modelling, the Applicant cannot demonstrate how Sea Link's flood risk interacts with other NSIPs, nor how cumulative flood risk will be managed.

Conclusion

53. The Applicant's responses do not remedy the substantive deficiencies identified in SEAS's Relevant Representation or Written Representation. Across all nine arguments examined in this Deadline 2 submission, the Applicant continues to provide an assessment that is incomplete, insufficiently evidenced, and not compliant with the requirements of EN-1, EN-5, the NPPF (2024) or local policy SCLP 9.6.

54. Fundamental components of a policy-compliant flood risk assessment remain absent. There is still no site-specific surface-water modelling, no LiDAR-informed overland flow analysis, no groundwater mounding assessment, and no cumulative modelling of interactions between Sea Link's own infrastructure elements or with other major NSIPs in East Suffolk. Updated LiDAR and channel survey data have not been incorporated into the core River Fromus flood model, preventing a reliable understanding of flood behaviour in a sensitive catchment. The Applicant has also failed to demonstrate that flood risk will not be increased elsewhere, as required by EN-1 paragraphs 5.8.7 and 5.8.14–5.8.15.

55. Equally significant is the absence of a coherent, consolidated drainage strategy. Despite repeated references to future updates, no operational drainage strategy has been submitted to Examination. As a result, drainage sizing, exceedance pathways, receptor interactions, climate change allowances, maintenance responsibilities and decommissioning arrangements cannot be scrutinised. APP-292, APP-051 and APP-045 remain inconsistent, generic in places, and do not establish how flood risk will be managed over the lifetime of the development.

56. Inter-project cumulative effects also remain unassessed. NGET's assertions of separation or non-interaction are unsupported by evidence, and no quantitative cumulative assessment has been undertaken despite overlapping catchments and construction periods across Sizewell C, EA1N, EA2 and other relevant schemes. This omission is contrary to EN-1 paragraph 4.2.5 and NPPF paragraph 172(c).

57. These technical deficiencies are compounded by procedural shortcomings. The Applicant's extensive and complex responses at Deadline 1—along with subsequent renumbering and amendments—were submitted late in the

Examination, limiting the ability of Interested Parties to review, test and challenge core elements of the flood risk case. Key promised documents, including an updated drainage strategy, remain unpublished.

58. Taken together, these unresolved issues mean that the application does not satisfy the tests under section 104 of the Planning Act 2008, particularly as the Applicant has not demonstrated that the development can proceed without increasing flood risk elsewhere.

59. SEAS therefore invites the Examining Authority to require further Rule 17 clarification and the provision of complete modelling, drainage strategy documentation and cumulative assessment before the application can be safely determined.

60. SEAS reserves the right to submit further evidence and commentary as additional material is released during the Examination.