From: [redacted]
To: One Earth Solar
Subject: Re: Deadline 8 Submission Environment Agency advice not fit for purpose.
Date: 29 December 2025 20:15:15

For the avoidance of doubt the above submission is submitted subject to **Reservation of Rights (Litigant in Person)**

This submission is made under **explicit protest** and strictly **without prejudice** to the Interested Party's right to challenge the lawfulness and procedural integrity of the Examination.

The Interested Party's continued participation is legally **compelled** by the statutory process (Planning Act 2008) to maintain standing, but this action does **not** constitute a waiver, acceptance, or validation of any alleged procedural impropriety, ExA bias, unlawful censorship, or fundamental flaws in the Administrative Record.

All rights to seek Statutory Appeal and Judicial Review against the final Development Consent Order decision are fully reserved.

On Mon, 29 Dec 2025 at 17:43, Stephen Fox [redacted] wrote:

> **TO:** The Examining Authority **PROJECT:** One Earth Solar Farm (EN010159) **FROM:** Stephen Fox (Interested Party Ref: [redacted])
> **DATE:** 29.12.25
>
> Dear Sirs
>
> Please accept the following sb
> **SUBJECT:** Deadline 8 Submission **Environment Agency advice not fit for purpose.**
>
> # Environment Agency advice not fit for purpose.
>
> ## Summary
>
> This report constitutes an exhaustive forensic investigation into the regulatory conduct, technical assessment protocols, and procedural integrity governing the application for the One Earth Solar Farm (OESF) Development Consent Order (DCO), specifically Application EN010159. The analysis addresses a critical inquiry regarding the "repeated private and direct meetings" between the Environment Agency (EA) and the Applicant, and the subsequent "change in position" of the EA regarding flood risk tolerance—specifically the acceptance of a "5mm tolerance" for flood depth increases—despite the absence of any material change in the available hydrological information.
>
> The investigation draws upon a comprehensive review of the Examination Library, including Statements of Common Ground (SoCG), Relevant Representations, technical rebuttals from Interested Parties (specifically the submissions of Stephen Fox), and comparative data from concurrent Nationally Significant Infrastructure Projects (NSIPs) such as Gate Burton, Cottam, and West Burton.

The core findings of this report indicate that the Environment Agency's shift from a precautionary regulatory stance to one of negotiated acceptance was not driven by new, exonerating data, but rather by a procedural compromise brokered during non-public engagement. This compromise, formalized in the Statement of Common Ground, relies on the misapplication of hydraulic modelling "tolerances" to mask real-world volumetric displacement. By reclassifying tangible flood impacts as "negligible" artifacts of model convergence, the EA and the Applicant have effectively waived the "No Net Loss" of floodplain storage requirement—a cornerstone of National Policy Statement EN-1—without the requisite material evidence to justify such a deviation.

Furthermore, a comparative analysis reveals a systemic inconsistency in the EA's enforcement of flood risk policy across the Trent Valley solar cluster. While neighboring projects were compelled to provide level-for-level compensation for even temporary soil storage, the One Earth project has secured an agreement that exempts permanent infrastructure from similar mitigation. This report suggests that this outcome is the result of "regulatory capture" facilitated by private meetings, rendering the DCO application vulnerable to challenges based on irrationality ("Wednesbury unreasonableness") and procedural unfairness.

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1. The Regulatory Architecture and the "No Net Loss" Mandate

To fully appreciate the significance of the "change in position" observed in the One Earth Solar Farm examination, it is necessary to first establish the rigid statutory and policy framework within which the Environment Agency is mandated to operate. The approval of an NSIP is not merely a negotiation of commercial interests; it is a quasi-judicial process governed by strict adherence to National Policy Statements (NPS) and physical laws.

1.1 The Statutory Role of the Environment Agency

The Environment Agency acts as a statutory consultee under the Planning Act 2008.1 Its remit is not discretionary but is bound by the specific duties outlined in the Environment Act 1995 and the Water Framework Directive (WFD). Its primary function in the context of flood risk is to act as the guardian of the floodplain, ensuring that development does not degrade the capacity of the land to store and convey floodwater.

In the context of the One Earth Solar Farm, which proposes the industrialisation of approximately 3,500 to 4,000 acres of land—much of it situated in Flood Zones 2 and 3 of the River Trent catchment—the EA's role is critical.2, 3 The sheer scale of the proposal means that even minor deviations in regulatory enforcement can aggregate into significant regional hydrological deficits.

1.2 The "No Net Loss" Principle

The cornerstone of flood risk management in the UK is the principle of "No Net Loss" of floodplain storage. This is explicitly codified in National Policy Statement EN-1 and reinforced by the National Planning Policy Framework

(NPPF).

- **The Physical Imperative:** Floodplains function as natural reservoirs during extreme weather events. When a solid object—such as a solar panel mounting leg, a concrete inverter base, or a raised access road—is placed in a floodplain, it displaces a volume of water equivalent to its submerged mass.
- **The Conservation of Mass:** According to the Law of Conservation of Mass, this displaced water does not vanish; it is forced elsewhere, invariably raising flood levels on adjacent lands or downstream properties.4
- **The Regulatory Requirement:** To neutralise this effect, developers are required to provide "compensatory storage." This involves excavating an equivalent volume of earth from an area outside the floodplain but hydraulically connected to it, ensuring the total storage capacity of the catchment remains unchanged. This compensation must be provided on a "level for level" and "volume for volume" basis.5, 6

1.3 The Baseline Expectation for Solar NSIPs

Historically, and in concurrent examinations, the EA has rigorously enforced this requirement. For the nearby Gate Burton Energy Park, the EA "insisted on floodplain compensation even for temporary storage of soils on the floodplain".7 This establishes a clear regulatory baseline: *any* loss of storage, no matter how temporary or minor, requires mitigation.
It is against this rigid backdrop of "No Net Loss" that the EA's subsequent actions regarding One Earth—specifically the waiver of compensation for permanent infrastructure—must be judged. The user's query correctly identifies that a deviation from this baseline, without new information, signals a profound anomaly in the regulatory process.

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2. Forensic Chronology of Engagement: The Pivot to "Tolerance"

A detailed reconstruction of the engagement timeline between the Applicant and the Environment Agency reveals that the "change in position" was not an instantaneous reaction to new data, but a gradual erosion of regulatory standards achieved through a series of private meetings.

2.1 Early Scoping and the Assertion of Standard Standards

In the initial phases of the project (Scoping and Preliminary Environmental Information), the regulatory dialogue followed standard procedures. The EA's feedback mirrored its stance on other local projects: development in Flood Zone 3 should be avoided (Sequential Test), and where unavoidable, must be compensated.8, 9

During this phase, the Applicant’s own documentation acknowledged flood risk as a "key constraint".10 The assumption within the Examination Library suggests that the initial expectation was that the project would need to demonstrate robust mitigation for the millions of mounting legs proposed for the floodplain.

2.2 The Intervention of Private Meetings

The critical turning point in the regulatory narrative occurs in mid-2025. The Statements of Common Ground (SoCG) and consultation logs record a shift in the medium of engagement from formal written representations to "Teams Meetings" and direct email correspondence.

- **Meeting Date: 03 July 2025:** A pivotal Teams meeting was held between the Applicant and the EA. The agenda items included "Submerged Panel Assessment" and "Voided inverter structures".11
- **The Agenda of Negotiation:** It is within these private sessions that the standard requirement for compensation was challenged. The Applicant, facing the immense cost and logistical difficulty of excavating compensation areas for a 4,000-acre site, advanced an argument that the volume of the mounting legs was "negligible".4
- **The Absence of New Data:** Crucially, there is no evidence in the Examination Library that the Applicant presented *new* hydraulic data at this meeting that fundamentally altered the physics of the site. The flood maps remained the same; the design flood levels remained the same; the dimensions of the steel legs remained the same.12
- **The Shift in Position:** Following this meeting, the tone of the EA's feedback changed. Instead of demanding "level for level" compensation, the EA began to signal acceptance of a "strict management plan" and, most significantly, the concept of "model tolerance" as a substitute for mitigation.13

2.3 The Crystallisation of the "5mm Tolerance" Agreement

This negotiated position was formalised in the Statement of Common Ground (SoCG). The document explicitly states: "These increased flood depths are within the 5mm tolerance that the EA indicated through consultation would be acceptable as this is within model tolerances".4

This sentence represents the "smoking gun" of the investigation. It confirms that the acceptance of flood risk was not based on a finding of *zero impact*, but on an administrative decision to *ignore* impacts that fell below an arbitrary numerical threshold. This agreement was reached "through consultation"—a euphemism for the private meetings where the regulatory bar was lowered.

2.4 The Dissonance with Public Guidance

The "private" nature of this agreement is highlighted by its stark contradiction with the EA's public guidance. As detailed in the submissions of Stephen Fox, **Environment Agency Operational Instruction 097_08** explicitly instructs officers to "carry out this analysis using raw results, without including any allowance for model calculation error ('modelling tolerance')".14, 15
This creates a duality in the EA's operations:

1. **Public/Statutory Face:** Strict adherence to "No Net Loss" and raw data analysis.
2. **Private/Negotiated Face:** Willingness to waive statutory requirements in private meetings to facilitate NSIP progression, using "tolerance" as the mechanism of waiver.

3. The Mechanism of the "5mm Tolerance": A Technical Deconstruction

To understand "what we are to make" of this change, we must technically deconstruct the "5mm tolerance" argument. Is it a valid scientific principle, or is it, as the "citizen auditor" suggests, a procedural fiction?

3.1 The Theory of Model Convergence vs. Physical Displacement

Hydraulic models, such as the TUFLOW software used in this assessment, rely on complex differential equations to simulate water flow. Because these equations are solved iteratively, there is always a tiny residual error, or "convergence error," in the final calculation. A model might be considered "stable" if the water levels fluctuate by less than +/- 10mm between iterations.16

The Applicant's argument—accepted by the EA—is that because the *physical impact* of the solar farm (e.g., a 4mm rise in flood levels caused by the displacement of water by steel legs) is smaller than the *mathematical uncertainty* of the model (e.g., 10mm), the impact is effectively zero.17, 18

3.2 The Scientific Fallacy

This argument creates a fundamental category error. It confuses *measurement precision* with *physical reality*.

- **The Physical Reality:** The solar farm introduces thousands of cubic meters of solid steel into the floodplain.4 This steel *occupies space*. Physically, the water that used to occupy that space *must* move elsewhere. The rise in flood levels is a physical certainty governed by the conservation of mass.
- **The Measurement Error:** The fact that the model has a margin of error does not negate the physical displacement. If a bucket is full to the brim, and you drop a stone in it, water *will* spill over. The fact that your ruler is only accurate to the nearest centimeter does not mean the spillage didn't happen.

By accepting the "5mm tolerance" argument, the EA has effectively agreed to treat the "stone" (the solar farm) as if it doesn't exist, simply because the "ruler" (the model) is imprecise. This allows the Applicant to bypass the cost of compensation, but it leaves the catchment with a real, unmitigated loss of storage.

3.3 The Aggregation Problem (Cumulative Impact)

The danger of this "tolerance" approach is magnified when applied cumulatively. As noted in the Fox submissions, the Trent Valley is currently the target of multiple massive solar NSIPs (One Earth, Cottam, West Burton, Gate Burton, Tillbridge).

- If Project A claims a "negligible" 4mm rise (accepted as tolerance).
- And Project B claims a "negligible" 4mm rise (accepted as tolerance).
- And Project C claims a "negligible" 4mm rise (accepted as tolerance).

Mathematically, these "negligible" impacts sum to a **12mm rise**. In the flat, low-lying topography of North and South Clifton, a 12mm rise can significantly expand the flood extent, bringing water into properties that were previously "safe".4, 19 The private meetings facilitated a piecemeal assessment approach that blinds the regulator to this cumulative reality.

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4. The "No Material Change" Anomaly

The user's query highlights that the EA's position changed "without any material change in available information." This is a profound observation that points to the arbitrary nature of the decision-making process.

4.1 Stability of the Dataset

Throughout the examination, the Applicant relied on the same baseline data:

- **Topography:** LiDAR data of the Trent Valley.
- **Hydrology:** Standard EA flood zones and flow rates.
- **Design:** The number and size of the panels and inverters remained largely consistent with the initial proposal (approx. 1.5 million panels).20

There was no "breakthrough" discovery that suddenly revealed the Trent Valley had more capacity than previously thought. There was no redesign that removed the panels from the floodplain (in fact, the layout assumes "all panels would sit within the floodplain" for conservative modelling).20

4.2 The "Baiamonte Effect" and Scientific Obsolescence

While the *Applicant's* information didn't change, the *contextual* information—provided by third parties—did. The submissions by Stephen Fox introduced peer-reviewed literature (specifically the work of Baiamonte et al.) demonstrating that the hydrological behavior of solar farms is fundamentally different from the "Greenfield runoff" assumptions used by the Applicant.4

- **The Science:** Solar panels are impervious surfaces. When rain hits them, it runs off instantly and concentrates at the "drip line." This kinetic energy scours the soil, creates channels, and significantly increases the speed and volume of runoff compared to a grass field.
- **The Neglect:** Despite this new information being available in the Examination Library, the EA maintained its "No Objection" stance based on the old "Greenfield" assumptions. This suggests that the "private meetings" served to entrench the *agreed* position (based on obsolete methods) rather than adapt to the *available* scientific evidence.

The "change in position" was therefore a unilateral decision to lower the acceptance threshold, rather than a response to improved safety margins. The EA moved the goalposts, not the ball.

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5. Comparative Forensic Analysis: The "Inconsistency" Hypothesis

To determine if the One Earth agreement is an anomaly or a new standard, we must compare it to the regulatory treatment of concurrent NSIPs in the same region. This comparison reveals a systemic inconsistency that strongly supports

the hypothesis of a specific, negotiated "deal" for One Earth.

5.1 Gate Burton Energy Park: The "Hard Line"

In the examination of the Gate Burton Energy Park (EN010131), the EA took a strict, uncompromising stance regarding floodplain storage.

- **Requirement:** The EA "insisted on floodplain compensation even for temporary storage of soils on the floodplain".7
- **Implication:** Even temporary piles of dirt, which would be removed after construction, were deemed a violation of the "No Net Loss" principle unless compensated.
- **The Contrast:** For One Earth, *permanent* steel infrastructure (legs and piles) is being allowed *without* compensation. This creates a stark regulatory inequality. Why is a temporary soil heap at Gate Burton more dangerous than permanent steel at One Earth?

5.2 Cottam and West Burton: The "No Net Loss" Standard

Similarly, for the Cottam (EN010133) and West Burton (EN010132) Solar Farms, the planning statements and EA responses reiterate the standard policy:

- **Cottam:** "Where structures are built in the floodplain, floodplain compensation should be provided".5, 21 The EA required conditions to ensure "no net loss of floodplain storage".22
- **West Burton:** The EA engaged in debate regarding "voided structures" (raising equipment on stilts). While accepting them in principle, the EA noted they "would ideally rather that the floodplain that is lost... is mimicked on the edge of the flood plain".23

5.3 The One Earth Anomaly

Against this backdrop, the One Earth agreement stands out as a significant deregulation.

Table 1: Comparative Regulatory Requirements

Project	Regulatory Requirement for Floodplain Structures	EA Stance on Tolerance	Mitigation
Gate Burton	Strict "No Net Loss" even for temporary soil7	Not accepted as waiver	Full Compensation
Cottam	Strict "No Net Loss"21	Standard enforcement	Full Compensation
West Burton	"No Net Loss" preferred; voided structures debated23	Scrutinized	Compensation/Voided

One Earth	**Waiver of "No Net Loss"**	**Accepted 5mm Tolerance**4	**None (claimed "negligible")**

This inconsistency raises the specter of "Wednesbury unreasonableness." In UK administrative law, a public body acts unlawfully if it treats similar cases dissimilarly without a rational justification. The fact that One Earth has secured a "waiver" via private meetings, while its neighbors are held to strict standards, suggests that the private meetings functioned as a venue for arbitrary decision-making.

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6. The "Citizen Auditor" and the Crisis of Competence

The investigation would be incomplete without addressing the role of the "Citizen Auditor," specifically the Interested Party Stephen Fox. His submissions provide the forensic detail that exposes the "private meeting" mechanism.

6.1 The Role of Technical Rebuttal

Fox's documents (AS-061, AS-062, and subsequent "Regulatory Compliance Audits") differ from standard public objections. They are technical audits that cite the EA's own internal manuals against its current actions.

- **The Allegation:** Fox explicitly alleges [redacted] and "systemic integrity failure".24 He argues that the EA has "unlawfully suppressed" the reality of the flood risk by agreeing to the tolerance fiction.1
- **The Evidence:** He provides the specific references to **Operational Instruction 097_08**, proving that the EA is violating its own protocols by accepting the 5mm tolerance.15

6.2 The Significance of the "Audit"

The fact that a third party had to perform this audit highlights a "crisis of competence" or perhaps a "crisis of resources" within the statutory body. The EA, underfunded and overstretched, appears to have defaulted to a "negotiated settlement" approach to clear the DCO application, relying on the Applicant's assurances rather than conducting its own rigorous verification.

- The Fox submissions force the Examination to confront the "No Material Change" reality. By documenting that the science (Baiamonte effect) contradicts the Applicant's assumptions, Fox proves that the "change in position" was a *choice* to ignore better science in favor of an easier administrative path.4

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7. Legal and Procedural Implications

The "private meetings" and the resulting "change in position" carry significant legal risks for the DCO process.

7.1 Judicial Review Risk

The acceptance of the "5mm tolerance" creates a prime target for Judicial Review (JR).

- **Grounds of Inconsistency:** As demonstrated in Section 5, the EA has treated One Earth differently from Gate Burton without a clear technical justification. This is a classic ground for JR.
- **Grounds of Irrationality:** Agreeing to a "procedural fiction" (that physical displacement = zero) that violates the laws of physics (Conservation of Mass) could be deemed irrational by a court.
- **Breach of Statutory Duty:** If the EA has failed to follow its own internal Operational Instructions regarding model tolerance, it may be in breach of its statutory duty to effectively manage flood risk.

7.2 The Secretary of State's Dilemma

The Secretary of State (SoS), when making the final decision, relies on the recommendation of the Examining Authority (ExA). The ExA, in turn, relies on the Statements of Common Ground.

- If the SoCG is "agreed," the ExA typically treats the matter as "settled."
- However, the evidence suggests the SoCG is "settled" based on a flawed premise (the tolerance waiver).
- If the SoS grants the DCO based on this flawed SoCG, the decision itself becomes infected by the original procedural error. The *R (Pearce) v Secretary of State* case25 demonstrates that the courts are willing to quash DCOs where cumulative impacts or essential assessments have been fudged or deferred.

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8. Conclusion: What Are We to Make of This?

In view of the examined documents, the "repeated private and direct meetings" between the Environment Agency and the Applicant appear to have functioned as a mechanism for **regulatory deregulation**.
What we are to make of this situation can be synthesised into three definitive conclusions:

1. **The "5mm Tolerance" is a Negotiated Fiction:** The change in the EA's position regarding tolerance was not a scientific evolution but a procedural compromise. By agreeing to treat real-world flood displacement as "model noise," the EA allowed the Applicant to bypass the costly "No Net Loss" requirement. This agreement was reached in private, contradicting the EA's own public operational instructions.
2. **The Process was Arbitrary and Inconsistent:** The waiver granted to One Earth stands in stark contrast to the strict enforcement of compensation requirements for the Gate Burton, Cottam, and West Burton projects. This inconsistency suggests that the "private meetings" facilitated a specific "deal" for One Earth that is not available to other applicants, raising serious questions about the fairness and integrity of the NSIP regime.
3. **The "No Material Change" is an Indictment:** The fact that this shift

occurred without any new material information—and in the face of contradictory scientific evidence (the Baiamonte effect) submitted by third parties—indicates a regulator that has prioritised administrative expediency over hydrological rigour.

Ultimately, the private meetings served to [redacted] the application, converting a significant hydrological defect (the lack of compensation for massive displacement) into an "agreed matter" within the Statement of Common Ground. This leaves the One Earth Solar Farm DCO resting on a foundation of "agreed fictions" rather than physical safety, transferring the unmitigated flood risk from the developer's balance sheet to the communities of the Trent Valley.

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25. R (Pearce) v Secretary of State for Business, Energy and Industrial Strategy EWHC 326 (Admin).

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Regards

Stephen

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Regards

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