



RE: Maer Lane STW Outfall Coastal Modelling

From [REDACTED]

Date Tue 6/16/2026 4:33 PM

To [REDACTED]

Cc [REDACTED]

Hello [REDACTED]

We have looked into this, and our values are not wrong. First of all, I would like to confirm that we have only used the positive values for computing geometric mean and other parameters, however, for plotting we have taken all the values.

Furthermore, we have followed the EA recommended approach and tried to fit the log normal distribution to the simulated data. As the 90 and 95 percentile values are computed on the fitted log normal distribution, it's entirely possible that the computed percentile values might exceed the range of the simulated values.

The formulation used for the computation of geometric mean, 90 and 95 percentile is as follows:

```
gm = 10**mu
p90 = 10**(mu + 1.282*sigma)
p95 = 10**(mu + 1.65*sigma)
```

where mu and sigma are the mean and standard deviation of log10 values of the simulated data which is stored at desired interval for the entirety of the simulation.

We can just as easily compute the parameters on the simulated data and not try to do the log transformation, should that be required.

We can also share our code that we have written for post-processing, should that be required.

Please let me know if you have any questions.

Kind regards,

From: [REDACTED]
Sent: 15 June 2026 08:49
To: [REDACTED]

Subject: FW: Maer Lane STW Outfall Coastal Modelling
Importance: High

Hi [REDACTED]

We had this through from the EA on Friday – please can you review as a matter of urgency.

As you can see below the LEP meeting is on 17th and we really need these issues cleaned up by COP tomorrow. In terms of the Budleigh Salterton bathing water I will go back and suggest this will need more time but the results can only be better than shown in the original report which covered this designation unless it's a straightforward thing to do?

Cheers
[REDACTED]

Classification: BUSINESS

[REDACTED]

Subject: RE: Maer Lane STW Outfall Coastal Modelling
Importance: High

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi [REDACTED]

The modellers have reviewed the information that was submitted and require clarification on a few points as well as data for Budleigh Salterton BW.

Sandy Bay and Lyme Bay shellfish waters

- Early near-zero values at the start of the model run (prior to the model reaching equilibrium) may be influencing the geometric mean values, as observed in some figures (e.g. LB1, LB12 and SB1). Clarification is required on whether these values have been included in the geometric mean calculations.
- The geometric mean is highly sensitive to the treatment of zero values. The geometric mean values for some locations (e.g. LB2, LB3, SB2) are lower than expected based only on the distributions shown in the figures. Clarification is required on the methodology used, including any substitution values, thresholds, or transformations applied prior to log averaging.

- No graphical data was provided for the offshore beds quoting 'Responses too small to represent graphically for both offshore harvesting areas off Lyme Bay West (Z1 and Z2)'.

Sandy Bay Bathing Waters

- The plots provided don't seem to correspond to the reported 95%ile values. The reported 95%iles are higher than the range of values shown in the corresponding figures (SB_BW1, SB_BW2, SB_BW3, and SB_BW4). This suggests a mismatch between the plotted data and the statistics presented. Clarification is required.

Budleigh Salterton bathing waters

- There wasn't any data regarding Budleigh Salterton bathing waters even though it was included on previous reports. Is it possible to provide a quick model run to show their updated flow and diffuser impacts on the Budleigh BW?

The meeting to discuss the LEP is on the 17th so please can you ensure that there is a quick turnaround on the response so that the modellers will have time to review the submission ahead of the meeting.

Kind regards

Subject: Maer Lane STW Outfall Coastal Modelling

All

Please find attached the initial summary results from the hydrodynamic modelling undertaken in support of the permit application for the use of the new long sea outfall and diffuser arrangement off Straight Point. This modelling represents the proposed Phase 1 works under the current design horizon with the increased FPF from both Maer Rd and Phear Park SPSTs, the removal of the Maer Rd SPST inhibit and the use of the new outfall and diffusers. The model has been run under continuous maximum flow conditions for one month and is therefore extremely conservative in terms of flows and covers both neap and spring tidal cycles.

For reference I have also attached the original modelling assessment report including model build details in the appendices.

[REDACTED]

The information and documents sent in this email from a [REDACTED] company are sent in confidence and are intended only for the use of the individual or entity named above. Please note that the contents may contain privileged, personal and/or confidential information and are not to be disclosed to any person other than the addressee. If you are not the intended recipient, you are notified that any use, dissemination, distribution or copying of the information and documents contained in this email is strictly prohibited. If you have received this email in error, please return it and any copies immediately without reading any attachment and confirm that immediately upon returning the email, you will delete all copies on your system and network.

If you wish to view our full Privacy Notice, please visit our [REDACTED]

[REDACTED]

Classification: BUSINESS

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.

The information and documents sent in this email from a [REDACTED] are sent in confidence and are intended only for the use of the individual or entity named above. Please note that the contents may contain privileged, personal and/or confidential information and are not to be disclosed to any person other than the addressee. If you are not the intended recipient, you are notified that any use, dissemination, distribution or copying of the information and documents contained in this email is strictly prohibited. If you have received this email in error, please return it and any copies immediately without reading any attachment and confirm that immediately upon returning the email, you will delete all copies on your system and network.

[REDACTED]

Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.