



COGEO

planning and environmental expertise

FLOOD STORAGE COMPENSATION NON-TECHNICAL SUMMARY

Easter Meathie Hen Shed

Applicant: Craginathro Eggs Ltd.

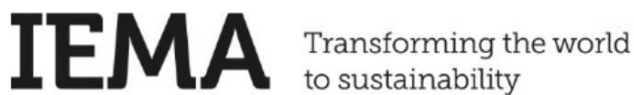
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Document Abbreviations

Abbreviation	
NTS	Non-Technical Summary
FRA	Flood Risk Assessment

Document Attachments

Document Title	Description
14573-BKP-XX-XX-DR-S-0710_P02	Flood Plain Earthworks Proposed Cut & Fill GA
14573-BKP-XX-XX-DR-S-0711_P02	Flood Plain Earthworks Proposed Cut & Fill Sections
14573-BKP-XX-XX-DR-S-0710_P04	Flood Plain Earthworks Proposed Cut & Fill GA
14573-BKP-XX-XX-DR-S-0711_P03	Flood Plain Earthworks Proposed Cut & Fill Sections

1. NON-TECHNICAL SUMMARY

1.1. Background

This Non-Technical Summary (NTS) has been written to support the updated flood storage compensatory information that was approved by SEPA in February 2023.

As a section of the development site falls into the flood risk zone, a flood risk assessment (FRA) was submitted as part of the EIA report. The FRA concluded that there is a potential risk of flooding on the field north of the development site, west of Spittal Burn. To manage the risk of flooding, the development is to be elevated above the surrounding land levels.

A subsequent FRA was submitted to the Council in December 2021 which detailed the following information –

- 4.0.1 To manage the risk of flooding due to the Spital Burn and the east field boundary tributary, it is proposed that the capacity of cross sections be improved on the eastern half of the reach of Spital Burn.
- 4.0.2 It is unconfirmed at this time how the development would be constructed, whether there will be a cut in the slope with appropriately constructed retaining structure, or if there will be ground level raising of the proposed development to achieve a level site. Should the approach be for a cut in the slope, then it is considered that there would be compensation for the proposed development.
- 4.0.12 It is unconfirmed at this time how the development would be constructed, whether there will be a cut in the slope with appropriately constructed retaining structure, or if there will be ground level raising of the proposed development to achieve a level site. It is recommended that runoff generated by the topographic elevations of the field to the south be captured by a filter drain and diverted east.

With the cut and fill approach decided, in August 2022 Cogeo provided compensatory flood storage drawings to SEPA. However, the information was deemed to be unsuitable and therefore, SEPA placed a holding objection onto the proposal until adequate detail was provided in relation to the compensatory storage below the functional floodplain level of 99.5m AOD.

The drawings were updated in January 2023 and are currently being readvertised. The drawings adhere to SEPA's 'like for like' guidance¹ (Section 9.1), with SEPA stating that they would not object should they be reconsulted on this matter.

1.2. SEPA Guidance

SEPA's Technical Flood Risk Guidance for Stakeholders states that new developments should not affect the ability of the functional floodplain to store and convey floodwater. In order to mitigate against this, compensatory flood storage is looked upon favourably as a suitable measure. As stated in the guidance *'Compensatory storage should be provided on a 'like for like' basis i.e., compensatory storage must become effective at the same point in a flood event, as the lost storage would have been. It should therefore provide the same volume and be at the same level, relative to the flood level, as the lost storage. This is to ensure that floodwater is not displaced elsewhere with potential adverse impacts'*.

¹ SEPA Technical Flood Risk Guidance for Stakeholders

1.3. Easter Meathie Flood Storage Compensation

The additional drawings provided to SEPA dated January 2023 relate only to the flood storage compensation in question and do not account for the storage above the 99.5m AOD flood line.

Drawing number 14573-BKP-XX-XX-DR-S-0710_P02 shows the proposed infill needed to create the raised platform, and this is represented in various depth slices as per SEPA's guidance. The slices are represented in areas of approximately 0.15m depth and are shown in different shades of green. The cut area to provide the compensatory storage is located immediately west of the platform and is represented as shades of red in slices of equitable depth. As shown in the tables, the compensatory storage provided at the various depth slices is approximately equivalent (although not for all slices) and the total compensatory storage provided (7187m³) is slightly greater than the storage lost (7172m³). Drawing number 14573-BKP-XX-XX-DR-S-0711_P02 shows the cross-section of the land and the change in land levels to achieve the compensatory flood storage of 99.5m AOD.

For the purposes of readvertising and to ensure clarity of the proposed plans, a further two drawings have been provided by Booth King: 14573-BKP-XX-XX-DR-S-0710_P04 and 14573-BKP-XX-XX-DR-S-0711_P03.

- Drawing 0710_P04 shows the existing ground levels in cyan blue and the proposed ground level after earthworks in black. The cut area shown only represents the cut below the flood plain level of +99.5m. The proposed cut platform level is +98.0m. Therefore, the maximum possible cut between the proposed platform level and the flood plain level of +99.5m can be only 1.5m, as demonstrated in the table on drawing 0710. Where the existing ground level reads, +103.718, for example, there is going to be additional cut above this 1.5m but as this additional cut is above the flood plain and will be redeposited above the flood plain level, it is not included in the earthwork calculations. An additional dashed red box has been added onto the drawing to show an indicative area as to where the additional cut material could be redeposited above the flood plain. All cut material will be profiled into the ground.
- Drawing 0711_P03 show the corresponding cross-sections of land relative to drawing 0710_P04. In sections DD and EE the blue dashed line represents the 99.5m flood plain level, green is representative of the existing ground level, grey is the proposed platform level of 98m and the red hatched line below the flood plain represents the area of cut (or the red area on drawing 7010). This shows the gradient of the proposed platform level and the area of additional cut that is required above the flood plain level which corresponds with drawing 0710_P04.

As previously mentioned, the plans provided to SEPA relate only to the storage below the 99.5m AOD flood line as SEPA's concern was that there was not going to be suitable replacement of lost flood plain storage. However, there will be an additional area of cut required to the south of the development (above the flood plain line) in order to level out the ground to the proposed shed level platform of 100.1m. The cut from this will be profiled into the ground and redeposited over the fields above the flood plain level. As this is above the flood plain level it has not been included in the drawings as it was not an area of concern for SEPA.

It is stressed that the drawings provided to SEPA have not changed the requirement for the hen shed to be built on a level plain of 100.1mAOD (above the 99.5m flood plain level) but rather display the information in such a way that only the cut and fill areas below the floodplain are detailed as this is what would cause an issue should flooding occur.

1.4. Environmental Impacts

The supplementary information provided to SEPA to address the compensatory flood storage queries will not cause any further environmental effects.

1.4.1. Landscape and Visual Impacts

The landscape and visual impacts of the required earth works have been considered as part of the EIA process. Given the relatively minor works required and naturalisation of the ground as ranging habitat following completion, the visual impacts are considered short-term and minor in nature. The long-term impacts will result in a barely discernible/negligible change to the surrounding landscape and therefore, will not significantly affect the assessment undertaken. Updated photomontages are unnecessary as they already address the more impactful and long-term effects of the proposal, including the sheds and the required in-fill platform, which will create a discernible visual change.

1.5. Conclusion

It is proposed that the drawings provided to address the compensatory flood storage concerns raised by SEPA suitably demonstrate the adequate provision of compensatory storage associated with the proposed development.