Environmental Impact Assessment Report
Volume 3, Appendix 20.2: Flood Risk Assessment

MarramWind Offshore Wind Farm

December 2025

MarramWind

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1. Introduction

1.1 Background

1.1.1.1 This Flood Risk Assessment (FRA) has been prepared as part of the **Volume 1**, **Chapter 20: Water Resources and Flood Risk** for the MarramWind Offshore Wind Farm (hereafter referred to as 'the Project'). It addresses all onshore elements of the Project and has been conducted in accordance with the FRA requirements set out by Aberdeenshire Council and the Scottish Environment Protection Agency (SEPA).

1.2 Development proposal

1.2.1.1 The Project's onshore infrastructure, located landward of mean low water springs (MLWS) includes:

- landfall(s) – the infrastructure associated with landfall located above MLWS;
- underground onshore export cables running from the landfall(s) to the onshore substations;
- onshore substations, co-located on one site;
- underground grid connection cables (connecting the onshore substations to the grid connection point at Scottish and Southern Electricity Networks (SSEN) Netherton Hub); and
- tie-in to grid connection point (SSEN substation at the Netherton Hub, which is a separate project and does not form part of the consenting applications that this Environmental Impact Assessment (EIA) relates to).

1.2.1.2 They will also include ancillary temporary features such as temporary construction compounds and temporary access tracks required to facilitate construction.

1.3 Limitations

1.3.1.1 The information presented is provided exclusively for the purpose of the FRA. Its suitability for other uses is not guaranteed and remains at the discretion and risk of the user.

1.3.1.2 The conclusions and recommendations are based on the information available at the time of assessment. These are subject to limitations inherent to the availability and quality of background data.

1.3.1.3 This report incorporates third-party data, which WSP UK Ltd has, by necessity, assumed to be accurate at the time of writing. While reasonable verification has been undertaken, WSP UK Ltd cannot accept liability for errors or omissions in external data sources.

1.4 Scope of the assessment

1.4.1.1 This assessment evaluates flood risk in the vicinity of the Project and identifies if any mitigation measures are required to support its long-term sustainability and safety. The assessment includes:

- a description of the Project and its key components;
- an overview of the site setting, with features relevant to flood risk identified;

- details of the site visit undertaken to gather localised information that may inform flood risk considerations;
- an assessment of flood risk from all potential sources, based on available datasets; and
- a discussion of the Project and any required mitigation measures during construction and operation, maintenance and decommissioning stages.

2. Project Setting

2.1 Project setting

2.1.1.1 The closest settlement to the Project is Peterhead, approximately 1km to the southeast of the Onshore Red Line Boundary. As illustrated in **Volume 2, Figure 20.1: WFD surface water bodies and wetlands**, the proposed landfall(s), underground export cable corridor and associated onshore substations are situated primarily within rural farmland, traversing areas of open fields, pasture and arable land. The surrounding landscape includes scattered small domestic and agricultural dwellings.

2.1.1.2 The Project footprint will intersect several watercourses (detailed below), though interactions will be minimal. The onshore substations are proposed to be located within greenfield pasture adjacent to the A950.

2.2 Watercourses

2.2.1.1 A number of watercourses have been identified within the Onshore Red Line Boundary, as illustrated in **Volume 2, Figure 20.1**. These include:

- Annachie Burn;
- Cuttie Burn;
- River Ugie (the largest of the identified watercourses);
- Faichfield Burn; and,
- unnamed watercourse or drainage ditch located adjacent to the onshore substation site.

2.2.1.2 These watercourses vary in scale, with the River Ugie representing the most substantial that the other watercourses noted feed into as tributaries. However, the primary focus from an environmental and design standpoint is the small unnamed watercourse near the onshore substations, due to its close proximity to key infrastructure. All other watercourses are expected to be crossed by the Project using subterranean and minimally invasive techniques (e.g. trenchless crossings using horizontal directional drilling (HDD)) and are not anticipated to be directly impacted by flood risk from the watercourses.

2.3 Topography

2.3.1.1 The proposed underground onshore export cable corridor route follows a gently rolling landscape, beginning at sea level near the coast. As it progresses inland, the route climbs through undulating terrain, reaching a maximum elevation of approximately 55 meters (m) above sea level.

2.3.1.2 The onshore substation site is located at an elevation of around 49m. The surrounding ground slopes gradually downward, falling to about 44 – 45m to the north and west, and to approximately 47m toward the east.

3. Policy Context

3.1.1.1 This Section identifies the relevant legislation and policy context that has informed the scope of the water resources and FRA. Further information on policies relevant to the EIA and their status is set out in **Volume 1, Chapter 2: Legislative and Policy Context**, which provides an overview of the relevant legislative and policy context for the Project. **Chapter 2** is supported by **Volume 3, Appendix 2.1: Planning Policy Framework**, which provides a detailed summary of international, national, marine and local planning policies of relevance to the EIA.

3.1.1.2 Individual policies of specific relevance to this assessment and associated appendices have been taken into account.

3.1.1.3 This summary provides a foundation for understanding the specific requirements that this Appendix must address in terms of assessing and mitigating impacts on receptors and relevant environmental issues.

3.1.1.4 The policy relevant to FRA include the following:

3.2 Policy context

- National Planning Framework 4 (Scottish Government, 2023); and
- Aberdeenshire Council Local Development Plan 2023 (Aberdeenshire Council, 2023a).

3.3 Relevant Technical Guidance

3.3.1.1 Under SEPA guidance (2024a) the Project would be classified as essential infrastructure. With this designation it is considered the Project would be subject to the exception of "*Essential Infrastructure where the location is required for operational reasons* and therefore able to be supported under NPF4[1]. Given this exception, SEPA standing advice (SEPA, 2024b) would apply to the Project and therefore it is noted the following matters would need to be satisfied in a site-specific FRA:

1. *"all risks of flooding are understood and addressed;*
2. *no reduction in floodplain capacity, increase of flood risk, or need for a future flood scheme (the Proposed Development may have potential to reduce floodplain capacity and it is noted in the standing advice SEPA should be consulted for site-specific advice, which is undertaken as part the FRA);*
3. *the Proposed Development remains safe and operational during floods;*
4. *flood resistant and resilient materials and construction methods are used; and*
5. *future adaptations can be made to accommodate the effects of climate change."*

[1] The Project is also classified as a National Development within NPF4 as 'Strategic Renewable Electricity Generation and Transmission Infrastructure'.

4. Consultation

4.1.1.1 A meeting was held with SEPA and Aberdeenshire Council on the 21 November 2024 with no concerns raised concerning flood risk. The only comment being to ensure that SEPA technical guidance was followed.

4.1.1.2 Aberdeenshire Council were further consulted (June 2025) to determine whether any additional site-specific flood risk information was available for the Project. The Council confirmed they did not hold any site-specific data and referred the Applicant to the latest SEPA flood technical guidance and mapping resources.

5. Sources of Flood Risk

5.1.1.1 There are many sources of flood risk, as outlined below:

- **Fluvial flooding** - originates from a watercourse, whether it be natural or culverted and is normally caused when the river channel, or culvert capacity is exceeded, and water flows out of the riverbank onto the floodplain;
- **Surface water flooding** - also known as pluvial flooding, is defined as flooding as a result of rainfall when water ponds or flows over ground before it enters a natural or man-made drainage system or watercourse, or when it cannot enter because the system is already full to capacity;
- **Sewer flooding** - the overflow of water from the drainage and sewerage system and can occur during a flash flood where high intensity rain falls, and the capacity of the sewerage system becomes overwhelmed by the heavy rain causing internal or external flooding to the surrounding areas or properties;
- **Groundwater flooding** - can happen when the level of groundwater within the rock or soil underground, known as the water table, rises above ground levels. Groundwater flooding is much slower to occur than river flooding and can happened days, weeks, or months after heavy or prolonged rainfall;
- **Coastal flooding** - normally occurs when dry and low-lying land is submerged by seawater and is the result of floodwater that penetrates the inland area controlled by the topography of the coastal land exposed to flooding; and
- **Artificial sources of flooding** - from canals, reservoirs, and failure of flood defences.

6. Assessment of flood risk

6.1.1.1 This Section outlines how each component of the Project (both permanent and temporary) has been evaluated against all relevant sources of flooding. A core design commitment is to proactively avoid flood-prone areas wherever feasible. This approach reflects a fundamental principle embedded throughout the project planning and layout, ensuring resilience and compliance with flood risk management policy. As per SEPA guidance the FRA checklist is available in **Appendix A**.

6.2 Fluvial flood risk

6.2.1.1 Flood risk to the Project has been assessed using SEPA's Flood Maps (v2.1), specifically the River Flood Hazard Maps (SEPA, 2025b), which include both current and future flood hazard layers as defined in SEPA's Technical Flood Risk Guidance for Stakeholders (SEPA, 2022). The assessment also incorporated SEPA's Surface Water Flood Maps (SEPA, 2025b) and indicative flood extents for small watercourses with catchment areas under 3km², in line with SEPA's guidance on small watercourse screening.

6.2.1.2 Dedicated flood risk maps covering the full extent of the onshore export cable corridor and the onshore substation site were developed using these SEPA datasets and are presented in **Appendix B, Figure 1 Indicative Fluvial Flood Risk Areas**.

6.2.2 Underground onshore export cable corridor (including Landfall(s))

6.2.2.1 No current or future fluvial flood risk has been identified for the Project based on SEPA flood mapping (SEPA, 2025b) for the underground onshore corridor and landfall infrastructure due to the nature on the infrastructure being non-susceptible to water ingress and flood relief. Landfall infrastructure have also been located outside of fluvial flood risk areas.

6.2.3 Onshore substation site

6.2.3.1 No current or future fluvial flood risk has been identified for the onshore substation site according to SEPA flood maps (SEPA, 2025b), including mapping related to surface water and small watercourses (SEPA, 2025b). Specifically, the small drainage ditch or watercourse observed on the western side of the onshore substation site (**Plate 6.1**) is not predicted by flood mapping to have any impact on the onshore substations. This assessment was further validated during the site visit, which identified the small drainage channel with no observed flow at the time of inspection and at a lower elevation that the location of the onshore substations. Topographical analysis (using LiDAR) confirmed that the onshore substation site location is situated several metres in elevation above this feature, providing additional assurance against flood risk associated with the channel.

Plate 6.1 Linear ditch / watercourse on the western side of the onshore substation site (approximately 0.5m wide, 1m high. No flow at time of visit stagnant water) – Photo taken 17 November 2024

6.2.4 Onshore substation site access tracks

6.2.4.1 No current or future fluvial flood risk has been identified for the onshore substation site access tracks, according to SEPA flood mapping data (SEPA, 2025b).

6.2.5 Temporary construction compounds / access tracks

6.2.5.1 According to SEPA flood mapping, none of the proposed access tracks or temporary construction compounds are located within areas currently or potentially affected by fluvial flooding (SEPA, 2025b).

6.2.6 Fluvial flood risk summary

6.2.6.1 Given that no current or future flood risk from fluvial sources (including small watercourses) has been identified for any component of the Project, the overall fluvial flood risk is considered low.

6.3 Surface water flood risk

6.3.1.1 SEPA surface water and small watercourse datasets (SEPA, 2025b) were utilised to evaluate potential flood risk to the Project. Dedicated surface water flood risk maps have been produced for the landfall(s), onshore export cable corridor route, onshore substations, temporary and permanent access tracks and construction compounds. These are presented in **Appendix B, Figure 2 Indicative Surface Water Flood Risk Areas**.

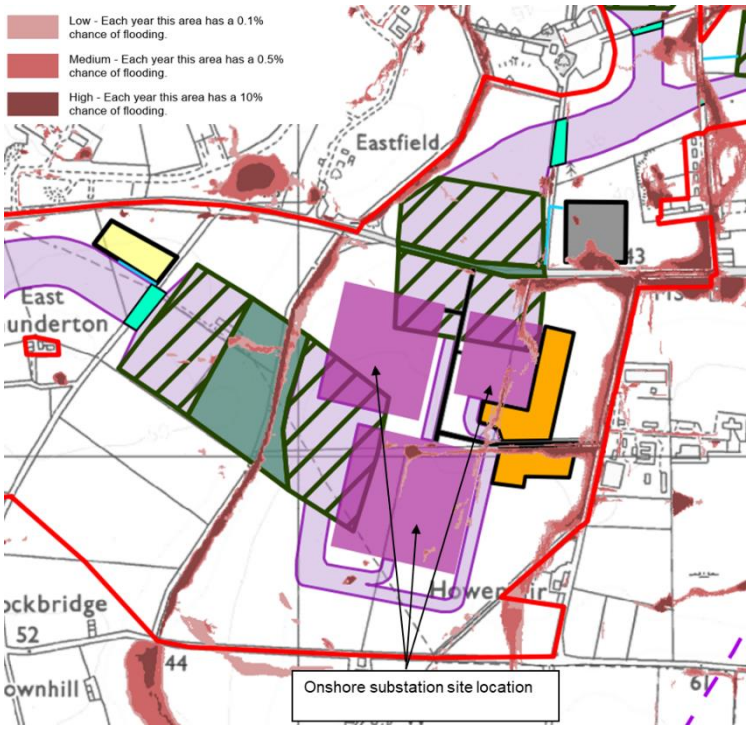
6.3.2 Underground onshore export cable corridor (inc. landfalls)

6.3.2.1 Small areas of potential surface water accumulation have been identified along the onshore export cable corridor route including the landfall locations, most likely associated with natural depressions in the terrain where water can collect. However, due to fact that the onshore export cables and associated landfall infrastructure are located underground, in addition to the watertight design and flood resilient nature these are not considered to be at risk from surface water flooding.

6.3.3 Onshore substation site

6.3.3.1 An assessment conducted using SEPA surface water flood maps (SEPA, 2025b) identified flood risk zones on the eastern side of the onshore substation site (**Plate 6.2**). This risk is primarily associated with existing field boundaries that run in a south–north and west–east orientation, which currently function as informal conduits for surface water runoff, guided by the natural topography of the area. **Plate 6.3** shows surface water photographed on the site visit, which appears to correspond to the flood risk shown on northern field boundary adjacent to the road - a naturally low point in the land.

Plate 6.2 Onshore substation site surface water flood risk map (extracted from Appendix B, Figure 2)



6.3.3.2 The development of the onshore substations will necessitate the removal of these internal boundaries and regrading of the land, thereby eliminating the existing surface water flow paths and the associated areas of flood risk. To address potential changes in hydrological behaviour, the Project includes the implementation of a dedicated surface water drainage system. This system has been designed in line with current best practices, incorporating appropriate SuDS to ensure runoff is effectively collected, treated, and discharged in a controlled and environmentally responsible manner. A comprehensive outline drainage strategy has been developed and is presented within the **Volume 4: Outline Operational Drainage Management Strategy**.

6.3.3.3 A small open channel is located to the west of the site at an elevation several metres below the substation platform (highlighted in **Section 6.2**). Any rainfall on the site would naturally drain toward lower surrounding terrain, either westward or eastward (**Plate 6.4** and **Plate 6.5**).

Plate 6.3 Northern boundary of field for the onshore substation site - photo taken 17 November 2024

Plate 6.4 View looking south west from north east corner of field towards the onshore substation site from the west side of the field - photo taken 17 November 2024

Plate 6.5 Photo of land sloping east and north-east at the onshore substation site - photo taken 17 November 2024

6.3.4 Onshore substation site access tracks

6.3.4.1 As noted above, SEPA surface water flood maps (SEPA, 2025b) do not indicate that the permanent access tracks associated with the onshore substations is at risk from surface water flooding. This aligns with site observations, which show the track locations are positioned at a high point within the field, with natural slopes descending toward the east and west reducing the potential for water accumulation in this area.

6.3.5 Temporary construction compounds / access tracks

6.3.5.1 Small areas of surface water flood risk were identified within and near the proposed location of temporary construction compounds and access tracks. However, through careful micro-siting and the implementation of Commitment M-80 (Drainage Design) from the **Volume 3, Appendix 5.2: Commitments Register**, focused on the design and management of all aspects of temporary construction compounds these risks are not considered significant. The drainage design for temporary construction compounds and access tracks will follow the SuDS hierarchy (DEFRA, 2015) with preference being given to local infiltration of surface water run-off from any temporary areas of hardstanding, where possible. Where the compounds and access tracks intersect overland flow pathways or areas of known surface water flooding appropriate measures will be embedded into the design to ensure that natural flow paths are maintained and that flood risk is not exacerbated in surrounding areas.

6.3.6 Surface water flood risk summary

6.3.6.1 As there is no identified current or future surface water flood risk associated with the onshore substations and considering the planned mitigation measures such as micro-siting and appropriate management of temporary construction compounds and access tracks for the surface water flood identified at the temporary construction compounds the overall surface water flood risk to the Project is considered to be **low**.

6.4 Sewer water flood risk

6.4.1.1 Sewer flooding occurs as a result of a number of influencing factors. It is most likely to occur during storms when large volumes of rainwater enter the sewers. However, it can also occur when pipes become blocked or damaged.

6.4.1.2 Under the Sewerage (Scotland) Act 1968 (Scottish Government, 1968), Scottish Water has a duty to provide public drainage and is responsible for the drainage of rainwater runoff (surface water) from roofs and any paved ground surface within the property boundary for normal rainfall events.

6.4.1.3 Private pipework or guttering within the property boundary remains the responsibility of the homeowner. Scottish Water is also responsible for effectually draining its area of domestic sewage and trade effluent. Additionally, Scottish Water helps to protect homes from flooding caused by sewers either overflowing or becoming blocked.

6.4.1.4 As a Responsible Authority under the Flood Risk Management (Scotland) Act 2009, Scottish Water has a duty to exercise its functions to reduce overall flood risk (Scottish Government, 2009). Scottish Water also has a specific duty to assess flood risk from the sewerage system as well as to assist Local Authorities and SEPA in the production of the national flood risk assessment, plans and maps.

6.4.1.5 Any road drainage is the responsibility of local authority.

6.4.2 Underground onshore export cable corridor (including landfall(s))

6.4.2.1 The nature of the underground onshore export cable corridor and landfall infrastructure associated with the Project is not considered susceptible to flooding from sewer sources due to its sealed waterproof and flood resilient nature. Furthermore, the landfall locations are unlikely to be in close proximity to sewer mains reducing the sewer flood risk further. Consequently, the risk of impact from sewer-related flooding is deemed negligible.

6.4.3 Onshore substation site

6.4.3.1 The onshore substation site is located within a rural farmland setting where infrastructure is limited. While potential sewer infrastructure may exist along the adjacent roadside, the site's elevated position reduces susceptibility to sewer-related flooding. In the event of a leak or sewer overflow, flood waters would follow the topography, flowing along the road and away from the onshore substation site. Similarly, any sewer flooding within the field itself would be directed away from the site due to natural land gradients.

6.4.4 Onshore substation site access tracks

6.4.4.1 The access track extending from the main road (A950) and unnamed road on the east side of the onshore substation site are unlikely to be affected by water originating from any sewer infrastructure (Scottish Water) or road drainage (local authority) present along the roadside.

This is due to the prevailing gradient in the area, which would direct any such water flow away from the access track.

6.4.5 Temporary construction compounds / access tracks

6.4.5.1 Due to the rural setting of the temporary construction compounds and access tracks, it is unlikely that any formal sewer network is present within the vicinity. However, in the event that sewer infrastructure is encountered, the flood risk can be effectively mitigated through micro-siting strategies (that will be undertaken for surface water risk), for example, positioning temporary construction compound elements to avoid natural depressions where water may accumulate.

6.4.6 Sewer flood risk summary

6.4.6.1 Given the location of the onshore substation site and the absence of interaction with sewer infrastructure along the underground onshore export cable corridor route, the onshore substations and within temporary construction compounds and access tracks, the overall risk from sewer flooding is considered **low**.

6.5 Groundwater flood risk

6.5.1.1 Groundwater flooding occurs when the water table rises from underlying rocks or from springs and is often classified as a contributing factor to flooding rather than the primary source.

6.5.2 Underground onshore export cable corridor (including landfall(s))

6.5.2.1 The underground onshore export cable corridor including landfall infrastructure associated with the Project has been designed as a waterproof sealed system and flood resilient, rendering it intrinsically resistant to groundwater ingress and associated flood risk.

6.5.2.2 The underlying geology consists of the Peterhead Pluton – Granite, an igneous bedrock formation dating from approximately 443.8 to 419.2 million years ago, within the Silurian period. The hydrogeological context of the Onshore Red Line Boundary is characterised by igneous intrusions, which typically exhibit limited groundwater storage and transmission. Groundwater is largely confined to near-surface weathered zones and secondary fractures, with naturally occurring springs noted to be infrequent across the area.

6.5.2.3 Given these geological and hydrogeological conditions and the nature of the Project, the potential for groundwater flooding at the location of the underground onshore export cable corridor and landfall infrastructure is considered negligible.

6.5.3 Onshore substation site

6.5.3.1 No nearby springs were identified in proximity to the onshore substation site from mapping, and no evidence of standing water or saturated ground was observed during the site visit. The onshore substation site is naturally located at an elevated position, contributing to its considered low susceptibility to groundwater flooding.

6.5.3.2 Ground Investigation data and borehole records were not available at the time of assessment. These will be obtained and reviewed as part of the detailed design phase to confirm the depth and presence of any groundwater beneath the onshore substations.

6.5.4 Onshore substation site access tracks

6.5.4.1 As noted above for the onshore substation site, no indicators of an increased groundwater flood risk were identified from mapping or the site visit for the associated onshore substation site access tracks.

6.5.5 Temporary construction compounds / access tracks

6.5.5.1 The location of temporary construction compounds and temporary access tracks was reviewed using the British Geological Survey website (BGS, 2025b) to assess the availability of any groundwater related records. While no site-specific records were available for the exact compound locations, records along the route indicated groundwater levels ranging between 5-10m below ground level and therefore a generally low water table in the area.

6.5.5.2 Localised factors will be considered during on-site setup of the temporary construction compounds and access tracks, in accordance with the commitments (M-80 Drainage design) outlined in **Volume 3, Appendix 5.2.** Micro-siting will be used where necessary to avoid areas susceptible to groundwater issues, such as permanently saturated ground or natural depressions within the terrain. The drainage design for temporary construction compounds and access tracks will follow the SuDS hierarchy with any subsurface infrastructure designed to facilitate subsurface flow pathways to avoid any localised increases in groundwater flooding.

6.5.6 Ground water flood risk summary

6.5.6.1 As no local site visit factors provided evidence of groundwater susceptibility and any available records gave no indication of a high-water table along the route, furthermore, with the use of micro-siting within the temporary construction compounds and access tracks; if localised saturated ground was identified the risk from groundwater flooding is considered to be **low**.

6.6 Coastal water flood risk

6.6.1.1 Due to the inland location of the Project, the majority of the infrastructure it outside of coastal flood risk areas according to SEPA current and future flood maps (SEPA, 2025b). The offshore export cables pass under coastal flood risk areas before connecting to the landfall(s). These will be laid in ducts installed using HDD methodology. The landfall transition joint bays have been sited to avoid areas at risk of coastal flooding. As such, the coastal flood risk to the Project is considered **negligible**.

6.7 Artificial sources flood risk

6.7.1.1 No artificial flood sources have been identified within the vicinity of the Project. Berryhill Reservoir located approximately 1km east of the onshore substation site, has been evaluated using inundation mapping. In the unlikely event of a breach, flood waters are predicted to flow away from the Project site. Accordingly, the flood risk from artificial sources is considered **negligible**.

6.8 Flood risk overview

A summary table of the flood risk from all sources is provided in **Table 6.1**.

Table 6.1 Flood risk overview

Source / development element	Underground export cable corridor flood risk	Onshore substations flood risk	Onshore substation site access tracks - flood risk	Temporary construction compounds - flood risk	Temporary access tracks - flood risk
Fluvial	Negligible	Low	Low	Low	Low
Surface	Negligible	Low	Low	Low	Low
Coastal	Negligible	Negligible	Negligible	Negligible	Negligible
Sewer	Negligible	Low	Low	Low	Low
Groundwater	Negligible	Low	Low	Low	Low
Artificial Sources	Negligible	Negligible	Negligible	Negligible	Negligible

6.9 Additional flood risk considerations

6.9.1 Access and egress

6.9.1.1 As outlined in the preceding sections, the assessment confirms that safe and suitable routes have been established for both entry and exit from permanent and temporary components of the Project. These provisions apply to both temporary and permanent access tracks, ensuring consistent and secure access throughout the construction and operational phases of the Project.

6.9.2 Construction

6.9.2.1 **Volume 3, Appendix 5.2**, developed as part of the Project outlines the construction commitments that the appointed Principle Contractor will be obliged to adhere to. The construction commitments will be addressed through the Outline Construction Environmental Management Plan (CEMP) (see **Volume 4: Outline Construction Environmental Management Plan**. The Outline CEMP will set out how the construction site should operate, including construction-related mitigation measures. The Section below highlights aspects of the Outline CEMP pertaining to flood risk.

6.9.2.2 The Outline CEMP will include an Emergency Response Flood Plan (Commitment ID M-020) and reference should be made to SEPA's Floodline service which provides live flooding information. Flood alerts indicate that flooding is possible to a wider geographical area and gives an early indication of potential flooding.

6.9.2.3 In relation to flood risk the Principal Contractor will implement the following mitigation measures during construction:

- The Emergency Response Flood Plan (Commitment ID M-020) (as part of the Outline CEMP) will be implemented when working within the low-risk areas and greater of flood risk. It will include details on how information gathered from Meteorological Office Weather Warnings and SEPA's Flood Alert will be provided and disseminated.
- During periods of heavy rainfall or extended periods of wet weather (in the immediate locality or wider river catchment) river levels will be monitored using, for example, SEPA Water Level Data when available or visual inspection of water features. The Principal Contractor will assess any change from base flow condition and be familiar with the normal dry weather flow conditions for the water feature and be familiar with the likely hydrological response of the water feature to heavy rainfall (in terms of time to peak, likely flood extents) and windows of opportunity to respond should river levels rise.
- Should flooding be predicted, works close or within the water features should be immediately withdrawn (if practicable) from high-risk areas (defined as: within the channel or within the area where water flows when the watercourse is at its maximum natural capacity - usually the 50% (2-year) Annual Exceedance Probability (AEP) flood extent). Works should retreat to above the 10% AEP (10-year) flood extent) with monitoring and alerts for further mobilisation outside the functional floodplain should river levels continue to rise.
- Plant and materials will be stored in areas outside the functional floodplain where practicable, with the aim for temporary construction works to be resistant or resilient to flooding impacts, to minimise / prevent movement or damage during potential flooding events. Where this is not possible, agreement will be required with the environmental clerk of works.

- Temporary drainage systems will be implemented to alleviate localised surface water flood risk and prevent obstruction of existing surface runoff pathways (Commitment ID - M-80).
- Where practicable, haul routes will be located out of the functional floodplain. When in the floodplain stockpiling of material must be carefully controlled with limits to the extent of stockpiling within an area to prevent compartmentalisation of the floodplain and stockpiles should be away from water feature banks (not within 10m of the water feature banks) - this is to limit floodplain encroachment, associated increased flood risk and sediment entering the water feature.

6.9.3 Decommissioning

6.9.3.1 Decommissioning will be undertaken in a similar manner to construction with temporary deconstruction compounds and access tracks located appropriately, out with flood risk areas. Drainage measures and micro-siting will be employed to mitigate any localised issues.

6.9.3.2 A Decommissioning Plan will be developed (with the same considerations as above in the construction section). This will be updated to account for any changes to industry best practice, relevant legislation, guidance and policy in relation to flood risk at the time of decommissioning.

7. Conclusion

7.1.1.1 This FRA has been prepared as an Appendix to support **Volume 1, Chapter 20: Water Resources and Flood Risk**. It provides detailed information regarding flood risk relevant to the Project and provides an evaluation of flood risk associated with the onshore elements of the Project.

7.1.1.2 Small areas of surface water have been identified along the underground onshore export cable corridor route and at the landfall areas; however, due to the underground, sealed flood resilient nature of this infrastructure there is a negligible/ low flood surface water risk. A low-risk surface water flood risk has been identified at the onshore substation site location, which is situated at a higher elevation and supported by a dedicated Outline Operational Drainage Strategy that has been developed to manage runoff appropriately. Within temporary construction compounds and access tracks, localised SuDS (e.g. swales, attenuation basins, bunds) and micro-siting techniques will be employed to avoid areas prone to surface water flooding and maintains natural flow paths. These temporary measures will be made by the contractor and informed by site observation at the detailed design stage, prior to construction. Overall, the risk to the Project from surface water flooding is considered low.

7.1.1.3 Flooding from fluvial sources (including small watercourses), coastal events, groundwater, sewer systems, and artificial sources presents a negligible to low risk to the Project has been assessed using SEPA's Flood Maps (SEPA, 2022b, 2025b) and is considered negligible to low across all project components.

7.1.1.4 In accordance with SEPA's Flood Risk and Land Use Vulnerability guidance (SEPA, 2024a), the development is classified as essential infrastructure and therefore is permissible within areas of potential flood risk, provided that it remains safe and operational during flood events. The Project meets this requirement through the strategic siting of permanent infrastructure, such as the substation, outside of identified flood risk zones, and through the use of trenchless techniques (for example, HDD) for watercourse crossings.

7.1.1.5 The FRA confirms that:

- all sources of flood risk have been assessed and addressed;
- there will be no reduction in floodplain capacity;
- the Project will remain safe and operational during flood events; and
- climate change allowances have been considered, and future flood risk is not expected to impact the Project.

7.1.1.6 Accordingly, the Project is compliant with the statutory development plan (comprising of NPF4 and Aberdeenshire Council's Local Development Plan). and SEPA's developer guidance and standing advice.

8. References

Aberdeenshire Council, (2023). *Aberdeenshire Local Development Plan*. [online] Available at: https://online.aberdeenshire.gov.uk/ldpmedia/LDP2021/AberdeenshireLocalDevelopmentPlan2023IntroductionAndPolicies.pdf [Accessed: 02 July 2025].

British Geological Survey, (2025a). *GeoIndex Onshore data viewer*. [online] Available at: [Accessed: 02 July 2025].

British Geological Survey, (2025b). *Geology data viewer*. [online] Available at: [Accessed: 02 July 2025].

Department for Environment, Food and Rural Affairs (DEFRA), (2015). *Department for Environment, Food and Rural Affairs Sustainable Drainage Systems Non-statutory technical standards for sustainable drainage systems*. [online] Available at: https://www.susdrain.org/files/resources/other-guidance/lasoo_non_statutory_suds_technical_standards_guidance_2016_.pdf [Accessed: 02 July 2025].

Flood Risk Management (Scotland) Act 2009. (asp 6). [online] Available at: https://www.legislation.gov.uk/asp/2009/6/contents [Accessed: 02 July 2025].

Scottish Environment Protection Agency (SEPA), (2022a). *SEPA Technical Flood Risk Guidance for Stakeholders.* [online] Available at: https://www.sepa.org.uk/media/162602/ss-nfr-p-002-technical-flood-risk-guidance-for-stakeholders.pdf [Accessed: 02 July 2025].

Scottish Environment Protection Agency (SEPA), (2022b). *SEPA Reservoir Flood Maps*. [online] Available at: https://map.sepa.org.uk/reservoirsfloodmap/Map.htm [Accessed: 02 July 2025].

Scottish Environment Protection Agency (SEPA), (2024a). *Flood Risk and Land Use Vulnerability Guidance*. [online] Available at: [Accessed: 02 July 2025].

Scottish Environment Protection Agency (SEPA), (2024b). *Flood Risk Standing Advice for Planning Authorities and Developers*. [online] Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.sepa.org.uk%2Fmedia%2Fnckhycrj%2Fflood-risk-standing-advice.docx&wdOrigin=BROWSELINK [Accessed: 02 July 2025].

Scottish Environment Protection Agency (SEPA), (2025a). *SEPA Climate Change Allowances for Flood Risk Assessment in Land Use Planning*. [online] Available at: [Accessed: 02 July 2025].

Scottish Environment Protection Agency (SEPA), (2025b). *SEPA Flood Maps*. [online] Available at: [Accessed: 02 July 2025].

Scottish Government, (2023). *National Planning Framework 4*. [online] Available at: [Accessed: 02 July 2025].

Sewerage (Scotland) Act 1968. (c. 47). [online] Available at: https://www.legislation.gov.uk/ukpga/1968/47/contents [Accessed: 02 July 2025].

9. Glossary of Terms and Abbreviations

9.1 Abbreviations

Acronym	Definition
AEP	Annual Exceedance Probability
CEMP	Construction Environmental Management Plan
EIA	Environmental Impact Assessment
FRA	Flood Risk Assessment
HDD	Horizontal Directional Drilling
MLWS	Mean Low Water Springs
NPF4	National Planning Framework 4
SEPA	Scottish Environment Protection Agency
SSEN	Scottish and Southern Electricity Networks
SuDS	Sustainable Drainage Systems

9.2 Glossary of terms

Term	Definition
Annual Exceedance	In flood risk management, the likelihood of a rainfall total, runoff or flow rate of a certain magnitude being exceeded each year.
Construction Environmental Management Plan	A plan that sets out the standards and procedures to which developers and contractors must adhere when undertaking construction of major projects. This will assist with managing the environmental impacts and will identify the main responsibilities and requirements of developers and contractors.
Flood Risk Assessment	A technical assessment required under the Flood Risk Management Act (Scotland) 2009 for developments proposed within a flood zones, as defined by the Scottish Environment Protection Agency (SEPA).
Horizontal Directional Drill	An engineering technique for laying cables that avoids open trenches by drilling between two locations beneath the ground's surface.
Mean Low Water Springs	The average throughout a year of the heights of two successive low waters during those periods of 24-hours (approximately once a fortnight) when the tidal range is greatest.
Scottish Environment Protection Agency	A non-departmental public body of the Scottish Government, responsible for environmental regulation. This includes ensuring that the environment and human health are protected, and that Scotland’s natural resources and services are used as sustainably as possible and contribute to sustainable economic growth.

Term	Definition
Sustainable Drainage Systems	Drainage systems that are considered to be environmentally beneficial, causing minimal or no long-term detrimental damage.

Appendix A
SEPA FRA Checklist

Flood Risk Assessment (FRA) Checklist

Scotland's 4th National Planning Framework has recently been published. This document is therefore being reviewed and updated to reflect the new policies. You can still find useful and relevant information here but be aware that some parts may be out of date and our responses to planning applications may not match the information set out here.

(SS-NFR-F-001 - Version 16 - Last updated 27/08/2019

This document must be attached within the front cover of any Flood Risk Assessments issued to Local Planning Authorities (LPA) in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist SEPA in reviewing FRAs, when consulted by LPAs. This document should not be a substitute for a FRA.

Development Proposal Summary							
Site Name:		Marram Wind Farm					
Grid Reference:	Easting:	408279	Northing:	846121			
Local Authority:		Aberdeenshire Council					
Planning Reference number (if known):		N/A					
Nature of the development:		Utility Infrastructure		If residential, state type:			
Size of the development site:			Ha				
Identified Flood Risk:	Source:	Other		Source name:	None		
Land Use Planning							
Is any of the site within the functional floodplain? (refer to SPP para 255)		No		If yes, what is the net loss of storage?		m^3	
Is the site identified within the local development plan?		No		Local Development Plan Name:		Year of Publication:	
				Allocation Number / Reference:			
If yes, what is the proposed use for the site as identified in the local plan?		Select from List		If Other please specify:			
Does the local development plan and/or any pre-application advice, identify any flood risk issues with or requirements for the site.		Yes		If so, please specify:			
What is the proposed land use vulnerability?		Essential Infrastructure		Do the proposals represent an increase in land use vulnerability?	Select from List		
Supporting Information							
Have clear maps / plans been provided within the FRA (including topographic and flood inundation plans)?		Yes					
Has sufficient supporting information, in line with our Technical Guidance, been provided? For example: site plans, photos, topographic information, structure information and other site specific information.		Yes					
Has a historic flood search been undertaken?		Yes		If flood records in vicinity of the site please provide details:			
Is a formal flood prevention scheme present?		No		If known, state the standard of protection offered:			
Current / historical site use:		Agriculture					
Is the site considered vacant or derelict?		No					
Development Requirements							
Freeboard on design water level:		N/A	m				
Is safe / dry access and egress available?		Vehicular and Pedestrian		Min access/egress level:		m AOD	
Design levels:	Ground level:		m AOD	Outside of Flood risk areas	Min FFL:	mAOD	
Mitigation							
Can development be designed to avoid all areas at risk of flooding?		Yes					
Is mitigation proposed?		No					
If yes, is compenstory storage necessary?		Select from List					
Demonstration of compensatory storage on a "like for like" basis?		Select from List					
Should water resistant materials and forms of construction be used?		Select from List					

Flood Risk Assessment (FRA) Checklist

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Hydrology

Is there a requirement to consider fluvial flooding?		Select from List		
Area of catchment:			km^2	Is a map of ca Select from List
Estimation method(s) used (please select all that apply):		Pooled Analysis	FALSE	If Pooled analysis have group details been included
		Single Site Analysis	FALSE	
		Enhanced Single Site	FALSE	
		ReFH2	FALSE	
		FEH RRM	FALSE	
		Other	FALSE	If other (please specify methodology used):
Estimate of 200 year design flood flow:			m^3/s	
Qmed estimate:			m^3/s	Method: ict from List
Statistical Distribution Selected:		Select from List		Reasons for selection:

Hydraulics

Hydraulic modelling method:		Select from List	Software used:	Select from List
			If other please specify:	
Number of cross sections:				
Source of data (i.e. topographic survey, LiDAR etc):			Date obtained / surveyed:	
Modelled reach length:			m	
Any changes to default simulation parameters?			If yes please provide details:	
Model timestep:				
Model grid size:				
Any structures within the modelled length?		Select from List	Specify if combination:	
Maximum observed velocity:			m/s	
Brief summary of sensitivity tests, and range:				
variation on flow (%)			%	Please specify climate change scenario considered:
variation on channel roughness (%)			%	
blockage of structure (range of % blocked)			%	
boundary conditions:		Upstream		Downstream
(1) type		Flow		Select from List
	Specify if other:		Specify if other:	
(2) does it influence water levels at the site?		Select from List		Select from List
Has model been calibrated (gauge data / flood records)?		Select from List		
Is the hydraulic model available to SEPA?		Select from List		
Design flood levels:	200 year		m AOD 200 year plus climate change	
Cross section results provided?		Select from List		
Long section results provided?		Select from List		
Cross section ratings provided?		Select from List		
Tabular output provided (i.e. levels, velocities)?				
Mass balance error:			%	

Coastal

Is there a requirement to consider coastal / tidal flooding?		Select from List		
Estimate of 200 year design flood level:			m AOD	
Estimation method(s) used:		Select from List	If other please specify methodology used:	
Allowance for climate change (m):			m	
Allowance for wave action etc (m):			m	
Overall design flood level:			m AOD	

Comments

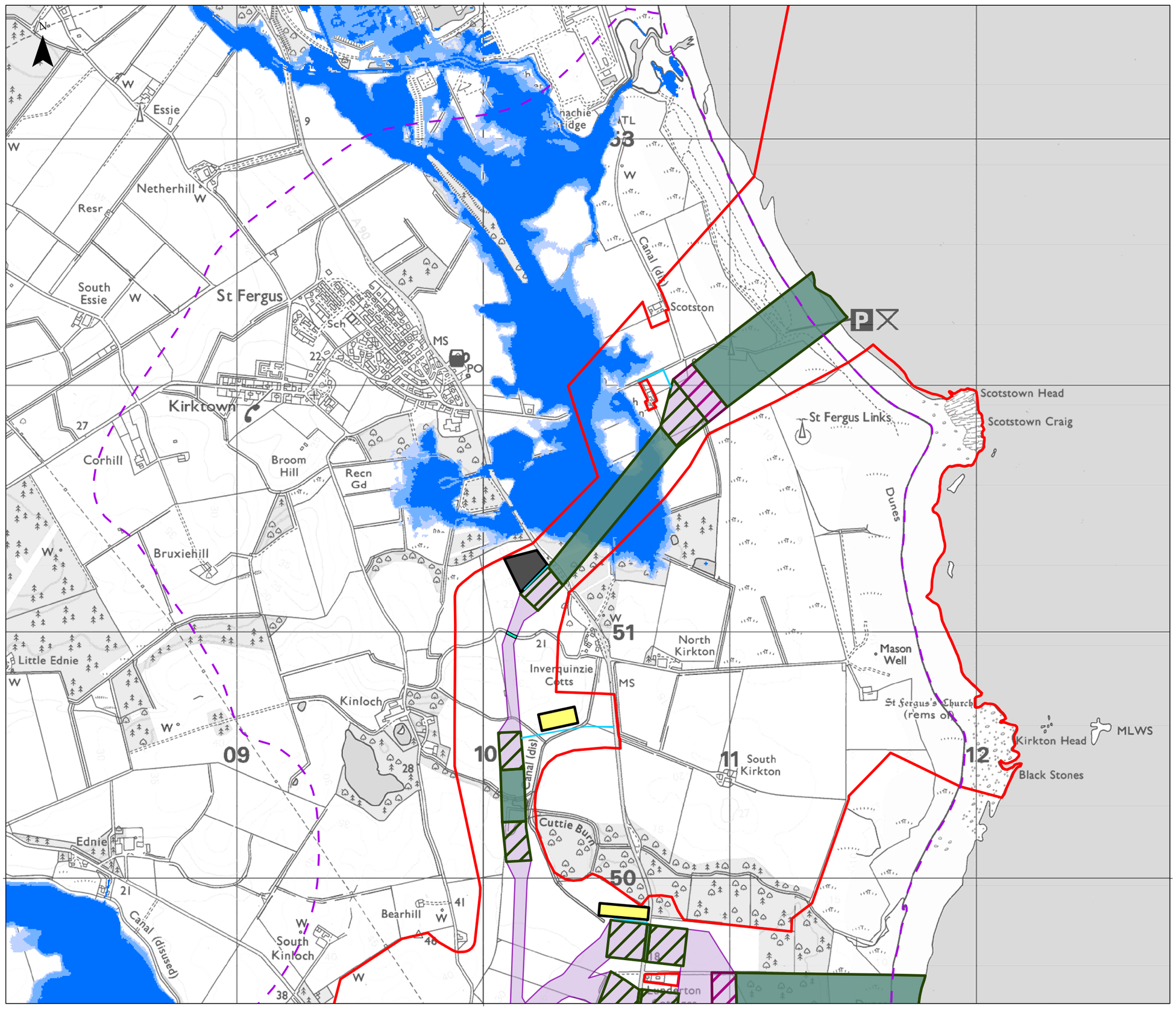
Any additional comments:		

Approved by: A.Atkinson
Organisation: WSP
Date: 16/07/2025

Note: Further details and guidance is provided in 'Technical Flood Risk Guidance for Stakeholders' which can be accesssed here:- CLICK HERE

Appendix B
Flood Maps

- Figure 1 Indicative fluvial flood risk
- Figure 2 Indicative Surface Water Flood Risk Areas



Red Line Boundary

Water resources and flood risk study area

Indicative onshore export cable corridor

Indicative trenchless crossing compound search area

Indicative landfall construction compound search area

Indicative trenchless crossing

Indicative trenched crossing

Indicative primary construction compound

Indicative secondary construction compound

Indicative temporary construction access road

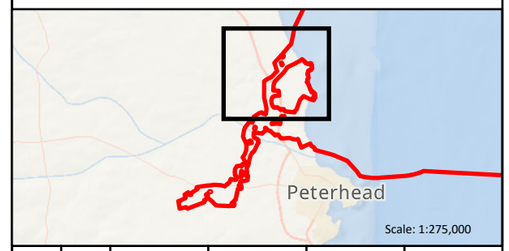
SEPA Indicative Fluvial Flood Risk Extents

Low - Each year this area has a 0.1% chance of flooding.

Medium - Each year this area has a 0.5% chance of flooding.

High - Each year this area has a 10% chance of flooding.

0 0.5 Kilometres



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2	09/07/2025	SS	LT	GD	MW
1	27/06/2025	SS	LT	GD	MW

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MarramWind DRAWING NUMBER	MAR-GEN-ENV-MAP-WSP-000159		
DATUM	OSGB 1936	PROJECTION	British National Grid
SCALE	1:15,000	PAGE SIZE	A3

PROJECT TITLE

MarramWind Offshore Wind Farm

DRAWING TITLE

Figure 1 Indicative fluvial flood risk areas
Sheet 1 of 3

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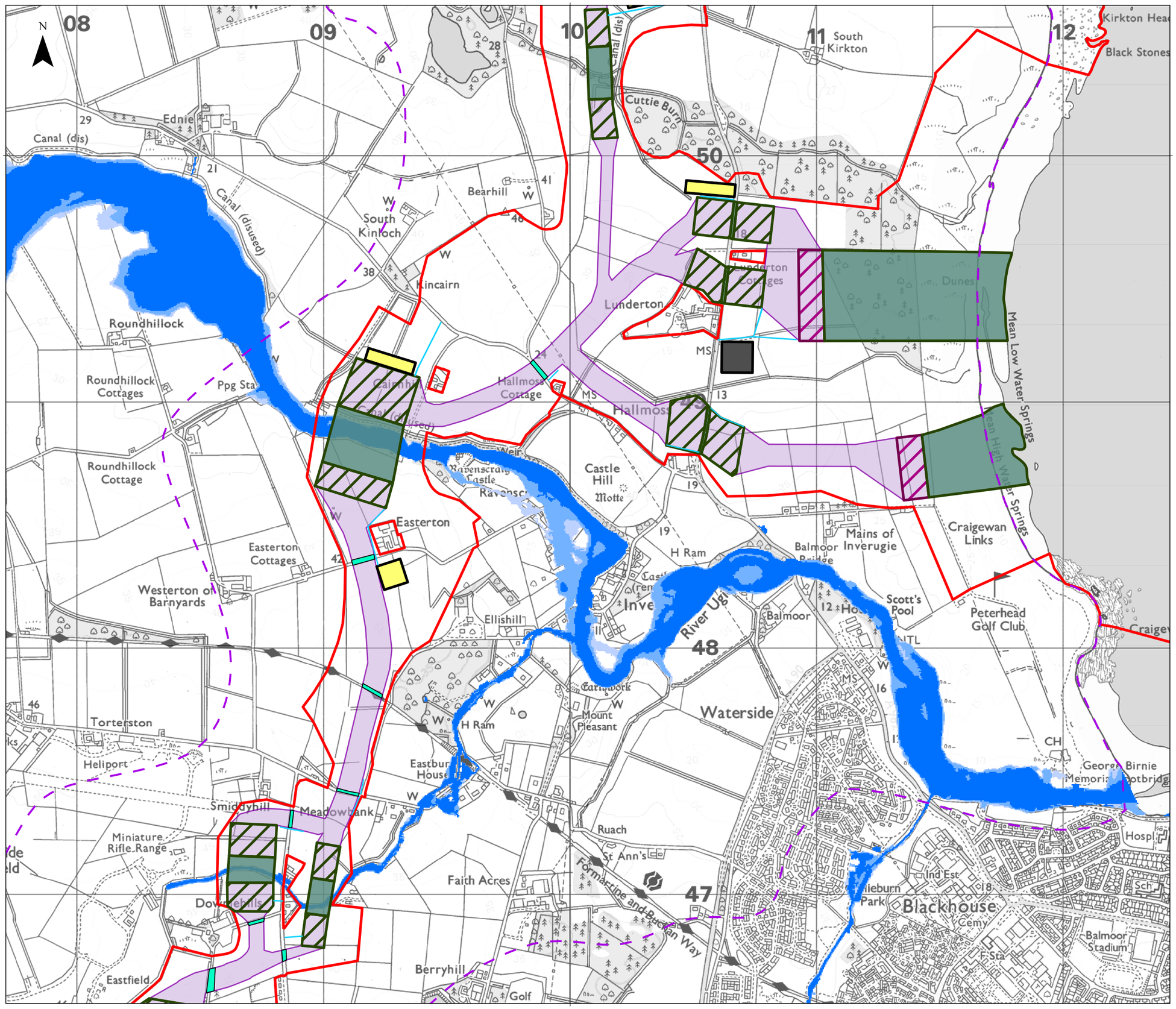

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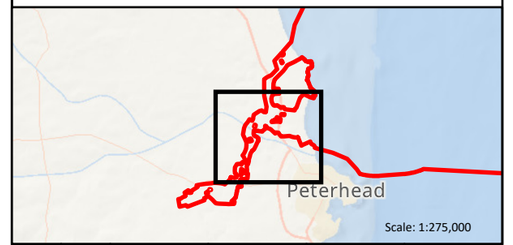

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Onshore substation site layout

Indicative temporary construction compound

Indicative permanent access road

Indicative permanent onshore substations' footprint

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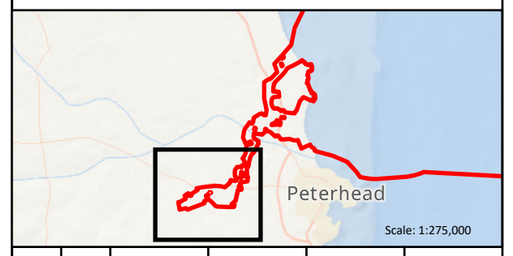

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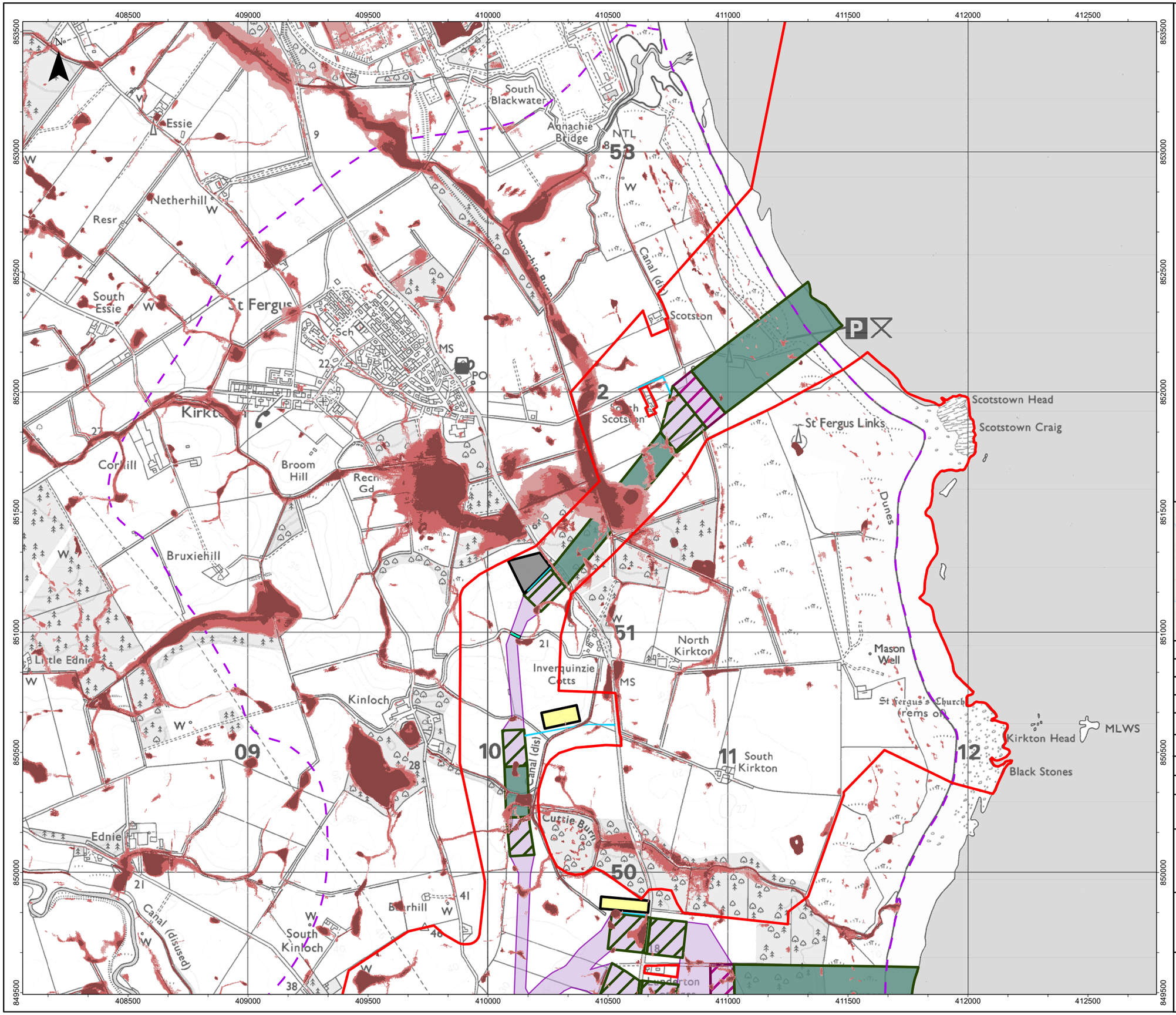

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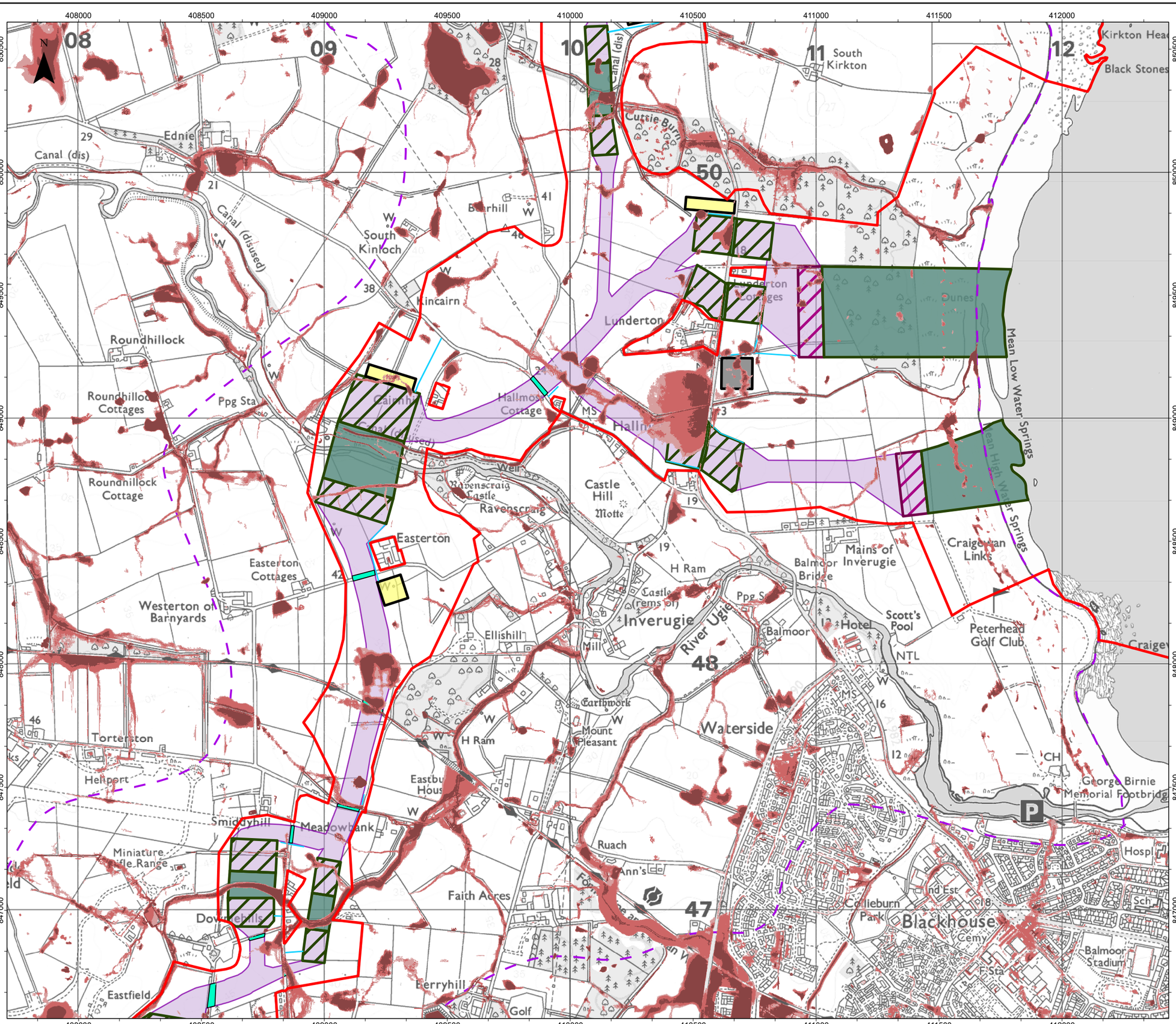

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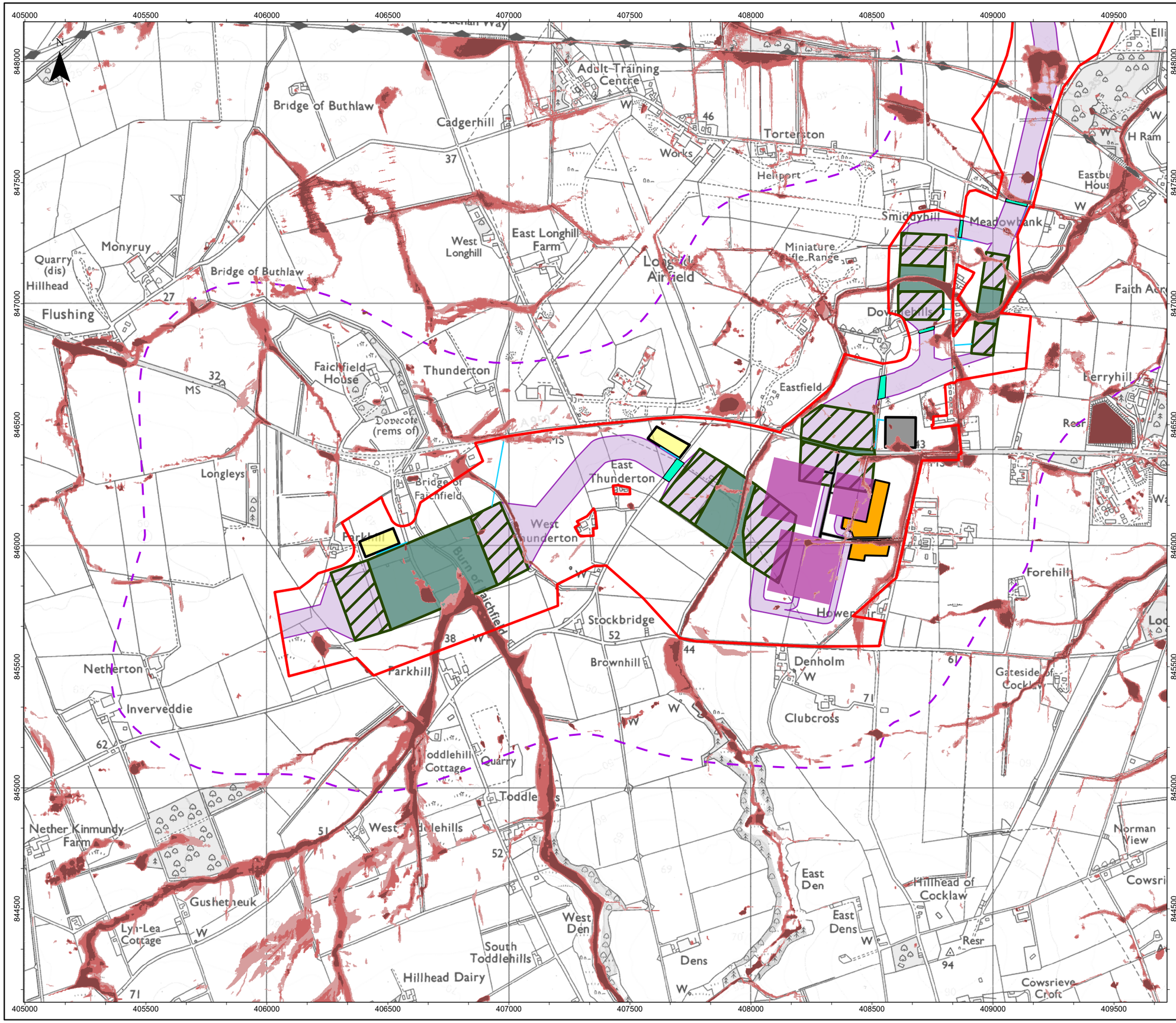

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