

Cwm Ivy climate change and the historic landscape – loss, damage or opportunity?

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There have been many conferences, seminars, meetings, papers and articles about this subject, and rightly so. Cadw and Welsh government are in the midst of a programme of determining the potential long- and short-term effects. Here, in Wales, and particularly in Glamorgan Gwent Archaeological Trust's area, we have recently seen the impact on the historic environment of climate change mitigation work.

Cwm Ivy Marsh is a 39-hectare reclaimed marshland within the West Gower Registered Landscape of Outstanding Historic Interest, and the Gower Area of Outstanding Natural Beauty (AONB), on north Gower adjoining the Burry Estuary. Forming its own Landscape Character Area, HLCA005 Cwm Ivy Marsh is characterised as 'Enclosed reclaimed wetland landscape: relict agricultural and water management features.' The land immediately north, on slightly higher ground, holds much evidence of transient, seasonal and permanent occupation, with Mesolithic and Neolithic finds, shell middens, and local coastal place names with Scandinavian origins reflecting trading and settlement. Evidence of water and land management in Cwm Ivy appears with medieval and early post-medieval

activity, and the reclaimed marsh is enclosed by two linear defences, an inner and outer bank, marked as Llanmadoc Ditch and The Goose on historic mapping. This forms a rectangular piece of land enclosed by higher ground and facing the estuary to the north east. The 1843 tithe map and apportionment depicts these and field names between the banks are marked as New Marsh; those within the inner bank include Old Marsh and Rushy Marsh.

A breach occurred in late 2013 during a storm, adversely affecting the outer late medieval/early post-medieval bank at the point where the sluice drained water from the management system into the Burry Estuary. The resulting physical impact on the bank was not immediately addressed, as various options were considered for rebuilding, retaining the sluice, or expanding, consolidating and bridging the gap. Natural Resources Wales (NRW) and the landowner, the National Trust, had concerns regarding the long-term safety of the bank, and in relation to water movement.

Local community concerns were raised about loss of grazing, the impact on archaeological features and areas, and because the bank had formed part of a popular



Photograph showing the breach in the bank and where the phases of construction can be seen. Credit: Judith Doyle

circular walk. Formal local consultation came in 2015, local concerns raised previously with both the National Trust and NRW having gone unanswered. Between 2013 and 2015, tidal surges, especially at very high and very low tides, created more erosion of the sea bank and widened the breach. It was 2015 before the historic environment impact was formally considered, and a desk-based assessment was recommended to consider the impact on the physical remains, as well as the setting within the Registered Landscape, in relation to the options for repair. During a scoping visit for the consultation, the construction phases of the bank were visible in section in the breach. Three dumps of material formed the base, covered with at least four more phases of material, including a sloping stone toe towards the estuary, with the wall to the seaward side forming the most recent phase. Regular flooding with sea water has destroyed the vegetation, as in the photograph. Because of both tidal and financial situations, the current situation is static, and local concern continues.



Registered Landscape character area boundary. Ref AL100005976.

Credit: Glamorgan Gwent Archaeological Trust HER

According to their website, NRW's current position appears to be that they considered and had planned that the resulting re-flooding of the marsh be compensatory habitat for flood defences in the Carmarthen Bay area. The National Trust's position, also according to their website, is that the sea reclaimed the land. Photographs on the websites show that the breach is wide, and that Cwm Ivy is as the salt marsh outside the outer bank.



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Based in Swansea, with more than 20 years' experience as an archaeological curator/advisor in archaeological planning, following 10 years' fieldwork experience. Acting Chair ClfA Cymru; ClfA Advisory Council member; ALGAO Cymru Executive Committee member; DAC archaeological advisor to Swansea and Brecon Diocese. Interested in the managing change aspects of advisory archaeological work.

For further information regarding the current situation see:

http://www.ggat.org.uk/cadw/historic_landscape/gower/english/Gower_Main.htm

<https://www.nationaltrust.org.uk/whiteford-and-north-gower/features/cwm-ivy-where-the-sea-comes-in>

<https://naturalresources.wales/about-us/our-projects/flood-scheme-projects/cwm-ivy-marsh-habitat-creation-project/?lang=en>



Photograph showing the effect of sea water on the vegetation of the character area. Credit: Judith Doyle