

Ecological Receptor	Value of Receptor	Description of Potential Impacts	Mitigation Measures	Impact Magnitude after Mitigation	Significance of Residual Impacts
Other areas of scrubby grassland and other regenerating habitats throughout the refinery (including their resident bird, reptile and invertebrate populations)	Local	Construction: Loss affecting the majority of the habitat; resultant impacts on birds, reptiles and invertebrates. Disturbance of nesting birds in retained habitats. Operational: Likely increase in disturbance/damage to habitats and species in retained areas from public, cats, dogs etc.	A green corridor will be created through the centre of the site (see Landscape Section); this will be designed to be of optimum value for birds, reptiles and invertebrates, either through retaining (if possible) or recreating scrubby grassland habitat. Elsewhere, natural habitat is to be retained within the landscape design wherever possible (see Section 11). Reptiles will need to be re-located; bird habitat will be cleared outside the nesting season.	Large adverse	Moderate
Remaining areas of bare ground, hard standing, buildings and contaminated water bodies within the refinery site	Negligible to local	Construction: Loss affecting the majority of the terrestrial habitat; reduction in nesting areas available to lapwings, loss of foraging habitat for reptiles. However, the aquatic and wetland habitats will benefit significantly from remediation and habitat creation. Operational: Likely increase in disturbance/damage to habitats and species in retained/created areas from public, cats, dogs etc.	Reptiles will need to be captured and relocated, and short term alternative nesting sites for lapwings will be provided as part of the landscaping scheme. Access will be restricted to new wetland areas.	Large adverse (terrestrial habitats) Large beneficial (wetland habitats)	Slight to Moderate Slight to Moderate
Areas of wet woodland and marshy grassland within the corridor of the proposed Southern Access route (outside of Crymlyn Bog SAC)	Local	Construction: Potential hydrological impacts as a result of construction activities leading to drying out of damp habitats. Disturbance of nesting birds in retained habitats. Operational: Limited increase in disturbance/damage to habitats and species from public, cats, dogs etc.	Construction of new road will be designed to maintain the hydrological regime and ensure that drainage characteristics of the hillside are not affected. The planting of hedges alongside the road will minimise potential impacts on bats and moths, and will reduce possible effects of dust deposition.	Negligible	Negligible



SECTION 16 ECOLOGY AND NATURE CONSERVATION

COED DARCY URBAN VILLAGE ENVIRONMENTAL STATEMENT

Ecological Receptor	Value of Receptor	Description of Potential Impacts	Mitigation Measures	Impact Magnitude after Mitigation	Significance of Residual Impacts
Remaining features within the corridor of the proposed Southern Access route (mainly improved, or species-poor semi-improved, grassland)	Negligible	Construction: Loss of a narrow corridor of species-poor grassland habitat along the former route of the refinery pipetrack. Disturbance of nesting birds in retained habitats. Operational: No impacts	Generally not considered necessary. However, reptiles may need to be captured and relocated.	Negligible adverse	Negligible

16.12 Summary

- 16.12.1 A comprehensive suite of ecological surveys has been undertaken across the Llandarcy Refinery site and the proposed route of the Southern Access over the last four years. This has provided a considerable amount of ecological information about the application area, including the distribution and status of protected, rare and/or priority habitats and species.
- 16.12.2 The most valuable features within the refinery site are contained within five ecological sub-units, or 'zones', all of which comprise a combination of habitats and species that would qualify them for SINC (Site of Importance for Nature Conservation) status. The most valuable ecological receptor addressed in the impact assessment is Crymlyn Bog SAC, which has the potential to be affected both indirectly (mainly through the scheme drainage proposals) as well as directly (through construction and operation of the Crymlyn Bog viaduct). The remainder of the application area is of lower nature conservation importance, although even these habitats are of some importance (mainly for reptiles and birds), and few areas have no ecological constraints associated with them.
- 16.12.3 Overall, the careful incorporation of ecological considerations into the development of the Masterplan, the RAP, the Remediation Strategy, the Landscape Strategy and proposals for the long-term management of the site, has meant that the impacts associated with the scheme (assuming successful implementation of the mitigation measures) are relatively small given the considerable size of the project and the sensitivity of the ecological receptors. This is particularly important in the case of Crymlyn Bog SAC, a site of international importance for nature conservation, for which the residual impacts of the scheme have been assessed as 'negligible'.
- 16.12.4 There will be a number of positive residual benefits as a result of the proposals. In particular, the long-term beneficial effect on wetland habitats will be of at least 'slight to moderate' significance for nature conservation, with many existing water bodies being cleaned up and others created, along with other wetland habitat such as reedbeds and wet woodland. There will also be a beneficial residual effect of 'negligible to slight' significance in the wet woodland of Zone 1.
- 16.12.5 There will necessarily be loss of habitat across the application area, with knock-on effects on resident species. This will result in impacts of 'moderate' significance on Zones 3 and 4, as well as impacts on the heathland hillside in the centre of the site (Zone 2) of 'slight' significance.
- 16.12.6 With regard to species of conservation importance, the loss of scrub and species-rich grassland habitat across the site will represent a cumulative residual impact on local bird and reptile populations of 'moderate' significance. The residual impacts on great crested newts will depend on the success of any translocation exercise, although it would be anticipated that an improvement in the status of the population would occur as a result of the extensive wetland habitat creation proposed. Bats are unlikely to be significantly affected by the re-development of the site, since no known roosts are to be lost, and many of the better foraging areas will be retained within the landscape design. Furthermore, the maintenance of habitat connectivity, through unlit 'green corridors', will also allow bats (including light-sensitive species such as horseshoe bats) to access all of the more valuable areas of the site.

REFERENCES:

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6. Ratcliffe, D.A. (1977). *A Nature Conservation Review*. Cambridge University Press, Cambridge.
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