

Appendix K – PDZ2 Christchurch Harbour and Central Poole Bay Appropriate Assessment

Primary Qualifying Feature	Supporting Habitat	Attribute	Target	Predicted Impacts	Confidence	Possible Mitigation Measures	Residual Effect	Conclude <u>no</u> adverse effect on integrity?
Avon Valley SPA								
Internationally important Article 4.1 Species: 1. Bewick's Swan and Article 4.2 Species: 2. overwintering Gadwall	1. Humid grassland 2. Mesophile grassland 3. Broad-leaved deciduous woodland	Habitat extent	No decrease in grassland extent. No decrease in woodland extent.	The policy of HTL in the areas around the mouth of the River Avon and up to its tidal limit (identified within the CFMP) would not result in any direct loss of habitat due to distance upstream (>1.3km) and the fact that they are upstream of the tidal limit of these habitat types.	High confidence due to the line of current defence, and no significant change is anticipated.	None required.	No impact on supporting habitat, therefore no adverse effect on integrity is expected.	YES
	1. Humid grassland 2. Mesophile grassland 3. Broad-leaved deciduous woodland	Structure	No obvious modification to structural features.	As above for habitat extent.	As above.	None required.	No impact on supporting habitat, therefore no adverse effect on integrity is expected.	YES
	Inland water bodies (standing water, running water)	Habitat function	Continuity of the river is not disturbed by anthropogenic activities. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology including extent and characteristics associated with Blashford Lakes and Gravel Pits.	Existing passage of aquatic organisms and sediment would not be hampered by this policy, as the line of the riverside forms the current defence line and this would be unchanged.	High confidence due to the line of current defence, and no significant change is anticipated.	None required.	No impact on supporting habitat, therefore no adverse effect on integrity is expected.	YES
	Broad-leaved deciduous woodland	Vegetation composition	Component vegetation types should be present.	As above for habitat extent.	As above.	None required.	No impact on supporting habitat, therefore no adverse effect on integrity is expected.	YES
River Avon SAC								
Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	NA	Habitat extent, function and structure	Continuity of the river is not disturbed by anthropogenic activities. Undisturbed migration of aquatic organisms and sediment transport. No net changes in habitat morphology.	Existing continuity of the river and any associated aquatic species of flora and fauna would not be hampered by this policy, as the line of the riverside forms the current defence line and this would be unchanged.	High confidence due to the physical footprint effects are already present and occur in the estuarine environment, where these key species are not found.	None required.	No impact on primary habitat and associated species, therefore no adverse effect on integrity is expected.	YES
Desmoulin's Whorl-Snail	NA	Population and habitat extent	No loss of habitat associated with the Desmoulin's Whorl-Snail. No decline in Desmoulin's Whorl-Snail numbers.	Existing defence line does not contain DWS habitat and it is not expected that the policy would occur outside the existing defence line.	As above.	None required.	No impact on primary habitat and DWS, therefore no adverse effect on integrity is expected.	YES
1. Sea Lamprey 2. Brook Lamprey 3. Atlantic Salmon 4. Bullhead	NA	Migration, population, food availability and water quality	The migratory passage is not obstructed or impeded by physical barriers, changes in flows or poor water quality. The size of the population is at a level that is sustainable in the long term. The abundance of prey species forming the food resource within the estuary is maintained. Toxic contaminants in the water column and sediment are below levels which would pose a risk to the ecological objectives described above.	Existing continuity of the river and any migratory species of flora and fauna would not be hampered by this policy, as the line of the riverside forms the current defence line and this would be unchanged. Long-term changes are expected within the Harbour and these include HTL, MR, and NAI. However, no direct estuarine footprint effects would occur that could affect prey species other than natural change.	As above. High confidence as the estuarine system (Christchurch Harbour) is a constantly evolving system, and the policies do not significantly change the geomorphological and hydrodynamic processes such that significant changes to estuarine habitats would occur, thus there would be no alteration to the prey species.	None required.	No impact on continuity and passage to migratory species, or change to the estuarine habitats and their subsequent prey species, therefore no adverse effect on these species is expected.	YES

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Dorset Heathlands SPA (Christchurch Harbour SSSI Unit 1)								
Internationally important Article 4.1 Species: 1. Dartford Warbler 2. Nightjar 3. Woodlark 4. Hen Harrier	1. North Atlantic wet heaths 2. European dry heaths 3. Dry grassland 4. Sand beaches	Habitat extent	No decrease in wet heath extent. No decrease in dry heath extent. No decrease in grassland extent. No net loss of sand beaches.	<p>The policy of Managed Realignment will result in the direct loss of habitat on Hengistbury Head (Christchurch Harbour SSSI unit 1). The realignment is proposed at the eastern end, whilst the southern end will be retained using HTL. The loss from MR could be in the region of 3ha of the site, with resulting loss of heathland and grassland habitat that could support the species for which the site is designated.</p> <p>Holding the line will protect the majority of Hengistbury Head, and would not be expected to result in any direct loss of habitat.</p> <p>With sea level rise, the north end of Hengistbury Head may be subject to erosion, which in the long term (third epoch) could result in the loss of habitat. This would not be interrupted as the policy of NAI is proposed for this section.</p> <p>Consequently, in the do nothing scenario for all sections, Hengistbury Head (and therefore the Site area influenced) would be lost in total after the 3rd Epoch if not earlier. Provision of HTL is a step toward its protection, whilst the MR policy at the eastern end ties in the management of the frontage in terms of the PDZ. However, it is inevitable that beyond the 3rd epoch this unit of the Site would be lost due to ongoing erosion that would be exacerbated by climate change.</p> <p>As seen, loss of supporting habitat would occur. However, whether this would result in a reduction in the population of the species for which the Site is designated is dependent on whether that area that would be lost supports these species. However, in consideration that the area that would be lost is within the SPA, therefore it is predicted that this will result in an adverse effect on the integrity of the Site and its interest species.</p>	<p>High confidence of the physical effects predicted for the future, in terms of the continued erosion and total loss of the Site area within this PDZ in the distant future, though ongoing through all epochs.</p> <p>Moderate confidence of likely area to be lost as a result of MR at the east end of the Site, though this would be confirmed in any future Strategy scale study.</p> <p>Low confidence in importance of the Site area to be lost for supporting interest species population.</p>	Minimise the extent of managed realignment, but this can only be identified at detailed Strategy or scheme level.	No significant alteration to the significance due to the high level of the policy.	NO
	1. North Atlantic wet heaths 2. European dry heaths 3. Sand beaches	Vegetation composition	Component vegetation types should be present.	Due to the limited area of the Site to be lost it is unlikely that this would result in significant reduction in the composition of vegetation types throughout the Site as a whole.	Low confidence in the detailed composition of vegetation and species in the location that would be affected by MR.	None identified.	No reduction in composition identified at this stage.	YES

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	1. North Atlantic wet heaths 2. European dry heaths 3. Dry grassland	Habitat structure	No obvious modification to structural features.	Due to the limited area of the Site to be lost it is unlikely that this would result in significant alteration to the structure of these habitats, particularly considering the direct impact of loss is all encompassing within this limited area of the Site.	Moderate confidence given the nature of the habitats and the limited area of influence/loss compared to the overall Site.	None identified.	No modification to the structural features of the Site overall.	YES
Dorset Heaths SAC (Christchurch Harbour SSSI Unit 1)								
1. Northern Atlantic wet heaths with <i>Erica tetralix</i> 2. European dry heaths 3. Depressions on peat substrates of the <i>Rhynchosporion</i> 4. <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) 5. Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> 6. Alkaline fens 7. Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains	NA	Habitat extent	The total extent of wet heath is maintained. The total extent of dry heath is maintained. No decrease in extent of depressions on peat substrates. No decrease in <i>Molinia</i> meadow extent. No decrease in extent of Calcareous fens. No decrease in extent of Alkaline fens. No decrease in <i>Molinia</i> meadow extent.	The policy of Managed Realignment will result in the direct loss of habitat on Hengistbury Head (Christchurch Harbour SSSI unit 1). The realignment is proposed at the eastern end, whilst the southern end will be retained using HTL. The loss from MR could be in the region of 3ha of the site, with resulting loss of the primary qualifying habitat of wet and dry heathland habitat for which the site is designated. Holding the line will protect the majority of Hengistbury Head, and would not be expected to result in any direct loss of habitat. With sea level rise, the north end of Hengistbury Head may be subject to erosion, which in the long term (third epoch) could result in the loss of habitat. This would not be interrupted as the policy of NAI is proposed for this section. Consequently, in the do nothing scenario for all sections, Hengistbury Head (and therefore the Site area influenced) would be lost in total after the 3rd Epoch if not earlier. Provision of HTL is a step toward its protection, whilst the MR policy at the eastern end ties in the management of the frontage in terms of the PDZ. However, it is inevitable that beyond the 3rd epoch this unit of the Site would be lost due to ongoing erosion that would be exacerbated by climate change. As described above, the loss of primary habitat would occur as a result of the policies preferred, however, if no action was undertaken, the whole of the unit would be lost through erosion.	Low confidence in the quantification of likely effects, particularly where these occur in combination with sea level rise (such as erosion to the north of the unit).	Appropriate realignment and realignment works and materials should be used to minimise the significance of the impact of MR on any primary habitats within the Site.	There is insufficient detail at this strategic level to determine whether mitigation would be successful and to what scale. Consequently, an adverse affect remains.	NO

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1. Northern Atlantic wet heaths with <i>Erica tetralix</i> 2. European dry heaths 3. Depressions on peat substrates of the <i>Rhynchosporion</i> 4. <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) 5. Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> 6. Alkaline fens 7. Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains	NA	Structure	No obvious modification to structural features.	The policies are not expected to result in alteration to physical structure of the primary habitat features, other than through the direct loss of habitat identified above.	High confidence on the likely physical effects of the policy options and who they would interact structurally with habitats and species.	None identified.	No modification to the structural features of the Site overall.	YES