

9. Habitats Regulations Appraisal



Appendix 9 Habitats Regulations Appraisal

Appendix 9A: Habitats Regulations Assessment. A9 Kincaig to Dalraddy

European site	Qualifying feature	Potential significant impacts	Likely significant effect without mitigation	Mitigation	Likely significant effect with mitigation	Notes & Conclusion
River Spey SAC	Atlantic salmon Freshwater pearl mussel Sea lamprey Otter	Deterioration in water quality during construction and operation. Loss of otter resting places and disturbance during construction from noise and lighting at river crossings	Pollution impacts upon aquatic species with stress to, or loss of individuals and populations. Potential for likely significant effects under poor work practice. Indirect effects on otter food sources, exclusion from habitat due to disturbance. Potential for likely significant effects under poor work practice	Advance construction where-ever possible of SuDS (vegetated swales, detention basins) and other features (drains, interceptors) required for the control of surface water run-off. Weather monitoring with avoidance of hiv	Residual, but low, risk of pollution from catastrophic events during construction. Level of risk judged to be similar, or lower than, that arising from road traffic accidents and spillages from current road use. Otter use of habitat by A9 alignment appears sporadic & seasonal with no resting places identified. No likely significant effects identified	No likely significant effects identified. Neutral (but with a low risk of Minor Negative temporary impacts) New SuDS should provide increased protection to watercourses following construction, both from chronic releases of road run-off and from accidental discharges. Scheme may therefore bring Minor Positive benefits to local water quality. Salmon and lamprey unlikely to be affected: Neutral Population status of otter unlikely to be affected: Neutral

European site	Qualifying feature	Potential significant impacts	Likely significant effect without mitigation	Mitigation	Likely significant effect with mitigation	Notes & Conclusion
River Spey - Inch Marshes Ramsar.	Flood plain fen Mesotrophic loch Trophic range watercourses Breeding birds Non-breeding whooper swan	Deterioration in water quality during construction and operation. Noise disturbance to birds during construction phase from noise emissions over and above that of the currently operational road, in particular percussive noise. Disturbance from road lighting	Pollution impacts to watercourses during construction. Run-off leading to nutrient enrichment in water bodies and sediment accumulations adversely affecting fen communities. Potential for likely significant effects under poor work practice. Loss of bird population recruitment resulting from disturbance during breeding, or stress and mortality to disturbance during winter. Potential for likely significant effects	Control of construction run-off under conditions of the CEMP and SWMP as outlined above with supervision by an ecological clerk of works. Avoidance of high-noise generating construction activity (especially percussive noise) in the vicinity of the Inch Marshes (chainage 0 - 1,110) during the bird breeding season. Liaison between the ecological clerk of works and the RSPB to determine any need for noise controls at other times (migratory and wintering birds). Construction compounds shall not be located in the area of the SPA. Illuminated temporary diversions in the area of the SPA unlikely to be required during construction. Any temporary road signage needed will be lit by low-level, low dispersion, sign-specific lights. No intersections and no new lighting in the final design scheme.	Residual, but low, risk of pollution from catastrophic events during construction. Given the limited area of works in relation to the extent of the Inch marshes, and with controls over construction noise, impacts considered unlikely to be of significance. No change in the lighting regime along the road alignment by the Ramsar/SPA site. No likely significant effects identified	No likely significant effects identified. New SuDS may improve local water quality. Neutral (but with a low risk of Minor Negative temporary impacts) Breeding by spotted crane and wigeon in nearby Dunachton Fen sporadic and long-term breeding success unlikely to be affected. Osprey nests outside zone of disturbance. Whooper swans & hen harrier use larger area of the Marsh and are not specifically dependent on the Dunachton Fen. With mitigation: Neutral

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River Spey - Inch Marshes SPA	Non-breeding Hen harrier & whooper swan. Breeding Osprey, Spotted crane, Wigeon.	Noise disturbance to breeding, migratory or wintering birds, disturbance from construction or operational road lighting.	Loss of bird population recruitment resulting from disturbance during breeding, or stress and mortality to disturbance during winter. Potential for likely significant effects	Avoidance of high-noise generating construction activity during the breeding season and during other sensitive periods as determined by liaison with the RSPB. Construction compounds shall not be located in the area of the SPA. . Illuminated temporary diversions in the area of the SPA unlikely to be required during construction. Any temporary road signage needed will be lit by low-level, low dispersion, sign-specific lights. No intersections and no new lighting in the final design scheme.	No likely significant effects identified.	Breeding by spotted crane and wigeon in nearby Dunachton Fen sporadic and long-term breeding success unlikely to be affected. Osprey nests outside zone of disturbance. Whooper swans & hen harrier use larger area of the Marsh and are not specifically dependent on the Dunachton Fen With mitigation: Neutral

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Inch Marshes SAC	Clear-water lochs with low to moderate nutrient status. Quaking mires Otter	Deterioration in water quality during construction and operation Construction disturbance to local otter population.	Pollution impacts to watercourses during construction. Run -off leading to nutrient enrichment in water bodies and sediment accumulations adversely affecting mire communities. Indirect effects on otter food sources, exclusion from habitat due to disturbance. Potential for likely significant effects under poor work practice.	Control of construction run-off under conditions of the CEMP and SWMP as outlined above with supervision by an ecological clerk of works. Control of noise emissions in relation to bird populations may assist in mitigating disturbance to otters.	Residual, but low, risk of pollution from catastrophic events during construction. No likely significant effects identified Otter use of habitat by A9 alignment appears sporadic & seasonal with no resting places identified No likely significant effects identified.	No likely significant effects identified. New SuDS may improve local water quality. Neutral (but with a low risk of Minor Negative temporary impacts) Population status of otter unlikely to be affected - Neutral
Cairngorms, Kinveachy, Craigmore Wood, Anagach Wood & Abernethy Forest SPAs	Capercaillie and its metapopulation	Potential for construction disturbance if bird present in area (not currently confirmed)	Possible disruption of breeding if mating pairs present.	Pre-construction surveys in the only likely habitat area around Alvie Lodge will inform risk of disturbance. Seasonal working can be adopted to avoid breeding season. New fencing fitted with fence markers in potential habitat area.	As no birds identified in the areas, risks of significant effects on population status considered negligible.	Links in the ecological network for this species may be better developed north of the current scheme where the appropriate habitats in the Cairngorms and Kinveachy SPAs lie in relatively closer proximity. Neutral

Appendix 9B: Screening of likely significant effects on the additional notified interests within SSSI.

SSSI	Additional receptors	Potential significant impacts	Likely significant effect without mitigation	Mitigation	Likely significant effect with mitigation	Conclusion
River Spey/Inch Marshes SSSI	Vascular plant assemblage Arctic charr Invertebrate assemblage Breeding bird assemblage	Deterioration in water quality during construction and operation. Construction noise impacts (see HRA assessment in Table 9a above for assessment screening)	Pollution impacts upon aquatic species with stress to, or loss of individuals and populations. Siltation effects on arctic char spawning areas, aquatic invertebrates and plants of marginal fen communities, Eutrophication of aquatic habitats with possible consequences for aquatic and fenland plants.	Management of surface water during construction as outlined above in the HRA (advance construction of SuDS, avoidance of works in poor weather, clerk of works supervision, construction to agreed CEMP and SWMP). Avoidance of any in-channel works, if needed, during the late autumn and winter spawning season	Residual, but low, risk of pollution from catastrophic events during construction. Level of risk judged to be similar, or lower than, that arising from road traffic accidents and spillages from current road use.	No likely significant effects identified. Neutral (but with a low risk of Minor Negative temporary impacts) New SuDS should provide increased protection to watercourses following construction, both from chronic releases of road run-off and from accidental discharges. Scheme may therefore bring Minor Positive benefits to local water quality.

SSSI	Additional receptors	Potential significant impacts	Likely significant effect without mitigation	Mitigation	Likely significant effect with mitigation	Conclusion
Alvie	Mires and fens Invertebrates Broad-leaved and mixed woodland Breeding birds	Deterioration in water quality during construction and operation. Minor loss of riparian alder woodland by the Alt and Fhearna crossing. None anticipated on notified interest.	Pollution impacts upon aquatic species with stress to, or loss of individuals and populations. Siltation effects on clear water substrates and plants of marginal fen communities, Eutrophication of aquatic habitats with possible consequences for aquatic and fenland plants. Potential for likely significant effects Loss of riparian woodland (Wet alluvial woodland with alder at UK BAP Priority habitat, Annex 1 habitat, EC Habitats Directive habitat). Likely significant effect	Management of surface water during construction as outlined above in the HRA (advance construction of SuDS, avoidance of works in poor weather, clerk of works supervision, construction to agreed CEMP and SWMP). Seasonal working will avoid impacts on all breeding wild birds as required by the 1981 Wildlife & Countryside Act et seq. Re-planting of alder woodland to a ratio of 3:1 woodland gained to woodland lost to construction.	Residual, but low, risk of pollution from catastrophic events during construction. Level of risk judged to be similar, or lower than, that arising from road traffic accidents and spillages from current road use. No likely significant effects identified No significant effect over the long term on the local status of riparian woodland	No likely significant effects identified. Neutral (but with a low risk of Minor Negative temporary impacts) New SuDS should provide increased protection to watercourses. Scheme may therefore bring Minor Positive benefits to local water quality. Minor negative impact at outset, leading to moderate positive gains as woodlands mature