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# Project Profile

## Watchfield Lawn Solar Site

**Background**
BSG Ecology was commissioned by LDA Design to provide ecological support for a solar park near Highbridge in Somerset.

The site, known as Watchfield Lawn, consists of two parcels of land in the Somerset Levels. The habitats on site are agriculturally improved pasture bounded by species-poor hedgerows and drains (known locally as rhynes).

**BSG Ecology's role in the project**
BSG Ecology initially carried out an extended Phase 1 habitat survey and concluded that negative ecological impacts on habitats resulting from the scheme would be minimal, however, opportunities to enhance biodiversity were identified as a result of baseline ecological surveys and assessment.

**Key ecological issues and opportunities**
Based on site characteristics, consultation and desk study data, we identified that great crested newts and water voles were the key ecological issues to be considered. The rhynes on site are slow-flowing and in places are widened to form pond-like areas for watering livestock. These ponds provide potential breeding habitat for great crested newts. The Local Authority ecologist advised that as great crested newts could be found in slow-moving rhynes in the Somerset Levels, some survey work was likely to be needed to establish local presence or (likely) absence to inform licensing and mitigation requirements and to provide an appropriate basis to allow the planning application to be determined. The concern was that although the rhynes themselves would be largely undisturbed, any newts present in the grassland (during the terrestrial phase of their life cycle) could potentially be at a temporary risk from killing or injury during the erection of the solar panels, which would involve a degree of earth moving and tracking up and down the fields by large plant. Great crested newt surveys were carried out of all the 'ponds' within the site and no great crested newts were found.

The desk study revealed numerous records of water voles in the network of rhynes surrounding the site. This included a drain lying adjacent to the site that is designated as a County Wildlife Site on account of its water vole population. Although the rhynes on site would be left largely untouched, the security fence that will surround the site will cross a number of them and where it crosses, the rhyne would be culverted. Other culverted crossing points were identified where regular access to the panels would be required. A water vole survey was carried out to ensure that no water vole burrows were present in the vicinity of these crossing points. The aim was to ensure that no burrows or their occupants were damaged or destroyed during the construction phase. Each of the drains on which crossing points would be located were surveyed for field signs of water voles in both spring and autumn and no evidence of activity was identified.

**Outcome**
This project demonstrates that solar parks can present an opportunity to enhance the ecological value of a site by reducing the intensity of agricultural management and allowing more structurally varied habitats to develop.

Following planning permission for the site being granted, a Landscape and Environmental Management Plan was drawn up by LDA Design in consultation with BSG Ecology. The plan set out prescriptions for the protection and enhancement of potentially ecologically valuable features on the site. This included: relaxation in the cutting regime of the hedgerows on site to allow a more diverse structure to develop and to enhance their value as a foraging resource; strengthening of the hedgerow network on site by planting up of gaps, and allowing standard trees to develop; and, setting back the security fence by at least 6m from the rhynes that surround the site, allowing a swath of ungrazed vegetation to develop. This is to allow habitat of a more varied structure to develop, which in turn should provide improved terrestrial habitat for species including water voles and reptiles.