

# Case Study: Dorset's Natural Influence at its best

## A338 (Bournemouth Spur Road) Major Road Maintenance Scheme: innovative thinking brings real win-win outcomes



**Lead Partner:** Dorset County Council (now part of Dorset Council)

**Other Partners:** Natural England, Hanson, CGO Ecology

### Project Summary:

The A338 Major Maintenance Scheme comprised the complete reconstruction of nine kilometres of the Bournemouth Spur Road.

The scheme required the reconstruction of the failed carriageway, replacement of the central barrier and the renewal of the system of drains and culverts. The construction area included the carriageway, verge and ditch, including the area behind the ditch as far as the highway boundary fence. The road passes through, and provides linking habitat between several otherwise isolated blocks of lowland heathland.

The project resulted in each carriageway being widened by 1m, leading to a permanent loss of approximately 0.92ha of mown grass verge on non-SSSI land, some of which is used by the UK European protected sand lizard and smooth snake.



**Tree clearance to restore wet heath and acid Grassland © Annabel King**



**Sand patch and road at Matchams View © Annabel King**

### Problems / issues and opportunities:

Earlier work to the carriageway in 2010 included a capture and exclusion exercise and a European Protected Species (EPS) licence. The licence required the installation of 7km of temporary reptile fencing and the capture and relocation of EPS reptiles from the works area. It was estimated that the cost of carrying out a similar licensed capture, rescue and relocation exercise (including installation of reptile fence, hand capture of reptiles from 10km of verge and preparation of 10ha of receptor sites) for the major maintenance scheme would cost around £1 million.

In view of the large costs and limited conservation benefits of the 2010 licensed reptile exclusion work, Dorset County Council (DCC) engaged Natural England through its Discretionary Advice Service to seek an alternative approach. The mitigation strategy, developed in partnership with CGO Ecology and DCC Natural Environment Team, provided a means of minimising the risks to individual EPS reptiles, ensuring enhancement of the habitats on which local populations rely, while substantially reducing the cost of the scheme.

*"On the face of it this seemed a very extreme approach, but in reality is a very natural way to reduce the adverse impact on the various protected species, whilst also providing some improved habitat, saving time and money – a great result for all concerned, human and reptile!"*

Mike Harries, Head of Environment and Economy, DCC

### Measures included:

- Vegetation clearance carried out in the winter and early spring, when all reptiles were below the ground surface in hibernation
- Keeping works vehicles off the road verge
- Removing potential breeding sites (sand patches) during winter
- Removing potential winter refuge sites during summer period
- Restoration of heathland within 50m of the A338 by the removal of trees, scrub, bracken, rhododendron and gaultheria
- Creation of sand patches to provide additional breeding habitat for sand lizards
- Creation of habitat piles to provide additional reptile refugia



Sand Lizard © Nick Squirrell

### How partnership working benefited the project:

The mitigation strategy contributed to the Habitats Regulations Assessment of the scheme by enabling a conclusion of no likely significant effects on species typical of the adjacent designated sites. The Discretionary Advice Scheme agreement enabled close collaboration between Natural England, the developer and the main contractor which reduced costs throughout the scheme by ensuring early resolution of issues before they became problematic.

At a time when European wildlife Directives are being closely scrutinised this demonstrates a new way of working which has an undoubted win-win outcome.

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Clearance of dense pine to restore dry heath at Avon Heath Country Park © Annabel King

### Outcomes:

- Dorset County Council estimate that the new approach saved approximately £450,000 compared to the previous methodology, representing a 45% saving on the predicted budget
- No European Protected Species reptiles were reported harmed
- 30ha of heathland was restored, including 17ha of pine removal
- 113 large sand patches were created
- Habitat piles / reptile refuges were created regularly along 17km of road verge
- Stock proof fencing was provided against Ramsdown and Sopley Common
- Prevention of road run off that was causing localised nutrient enrichment to SSSI wet heath
- Nutrient rich top soil was removed from 16km of road verge providing a continuous ecological corridor linking key international sites. Approx. 7km of verge adjacent to SSSIs was spread with heather cuttings, the remainder reseeded with a simple grass mix
- EPS reptile population monitoring before, during and for 5 years after the road scheme
- The establishment of sparse heathland / acid grassland habitat on the road verges will substantially reduce the road verge maintenance costs

*"It has been an innovative, cost effective way of working with rare and protected reptiles, avoiding the need for costly fencing and delays, and resulting in many more, far reaching benefits for reptile populations and their special heathland habitat. The close collaboration between Natural England, Dorset County Council, CGO Ecology and Hanson has produced a new method of working which we are already using in other development projects; facilitating development while delivering better results for protected species and their habitats." James Diamond, NE Director of Operations*