



# **Novel mitigation methods for European Protected Species and other reptiles on the A338 dual carriageway in Dorset**

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**Annabel King Dorset County Council**

## **A338 Bournemouth Spur Road:**

- **Blackwater Jcn to Ashley Heath**
  - **Length 9km, verges 18km (c.18ha)**
  - **Built in 1960s, poor materials**
  - **Annual remediation £1M**
  - **Proposed £26M rebuild**
- 
- **Surrounded by SSSI/SAC/SPA heathland**
  - **Known EPS reptile & otter presence**

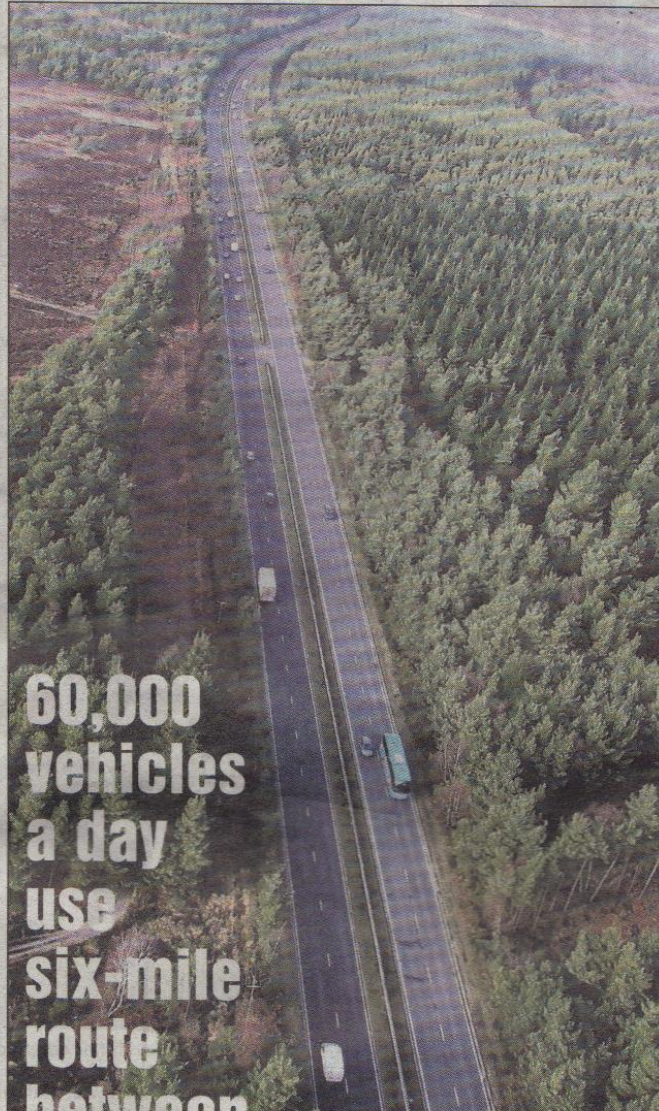


Established 1900

Tuesday, March 31, 2009

[bournemouthecho.co.uk](http://bournemouthecho.co.uk)

**Massive disruption likely when work starts on 'wo**



**60,000  
vehicles  
a day  
use  
six-mile  
route  
between**

## **£26M REBUI SPUR ROAD**





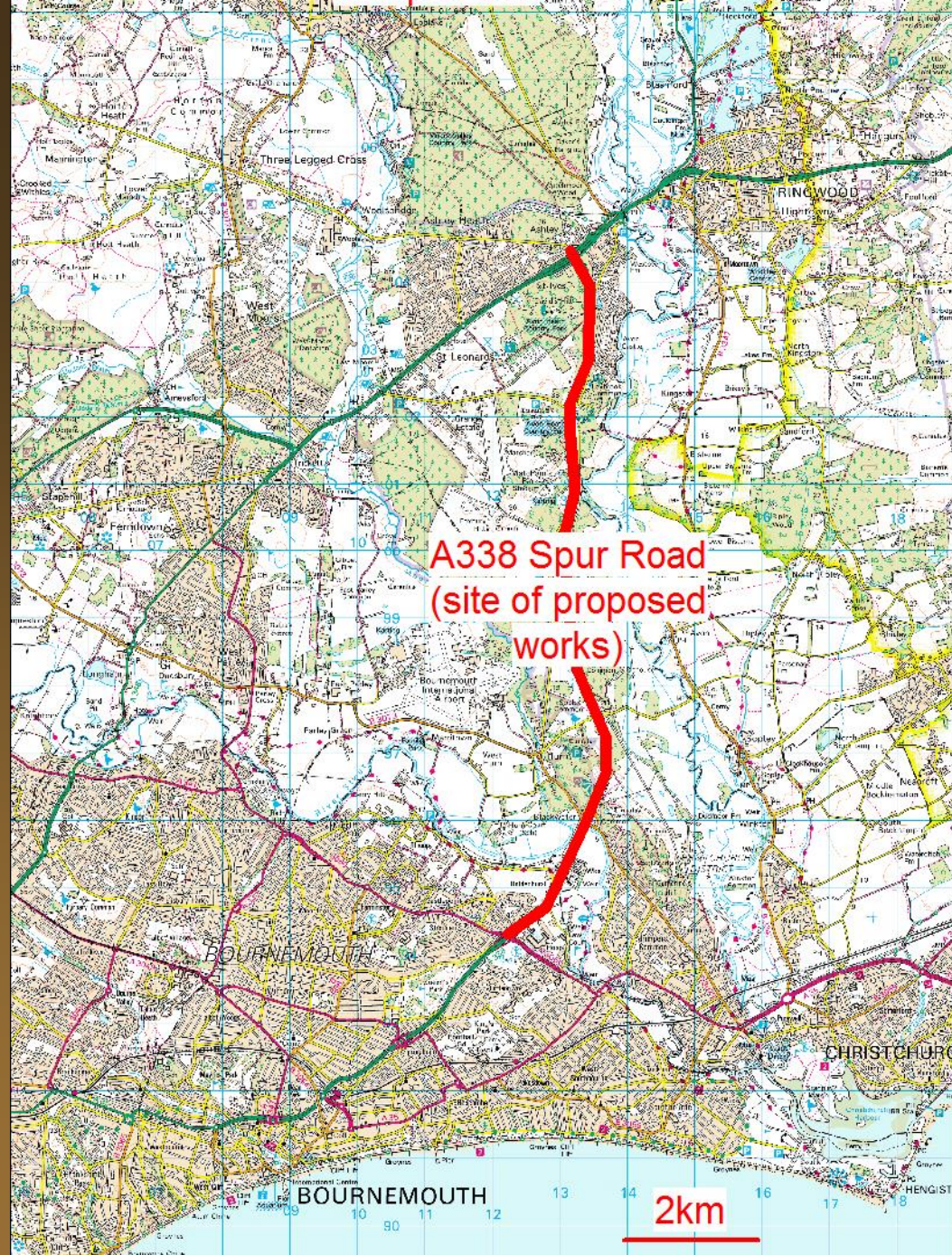




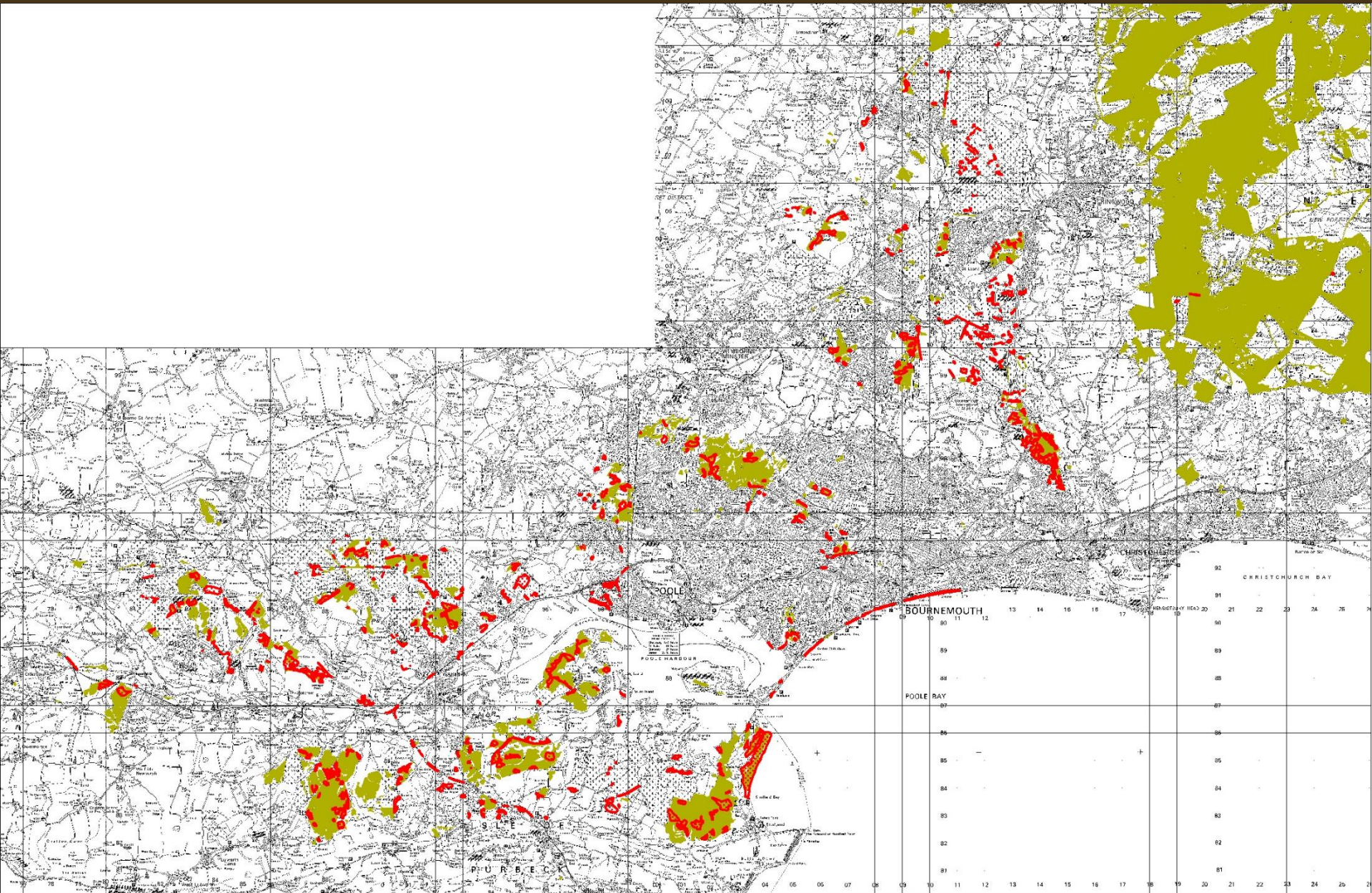
## A338 Bournemouth Spur Road:

- **First attempt 2009-2011:** traditional reptile mitigation approach (survey, EPS licence, exclusion, translocation, monitoring) – expensive, disruptive, damaging, impossible
- **Second attempt 2013-2016:** pragmatic novel approaches (survey, RAMs, no EPS licence, NE DAS, habitat manipulation, extensive habitat creation/restoration/enhancements, monitoring) – austerity, cheaper, less impact, less disruption, more effective

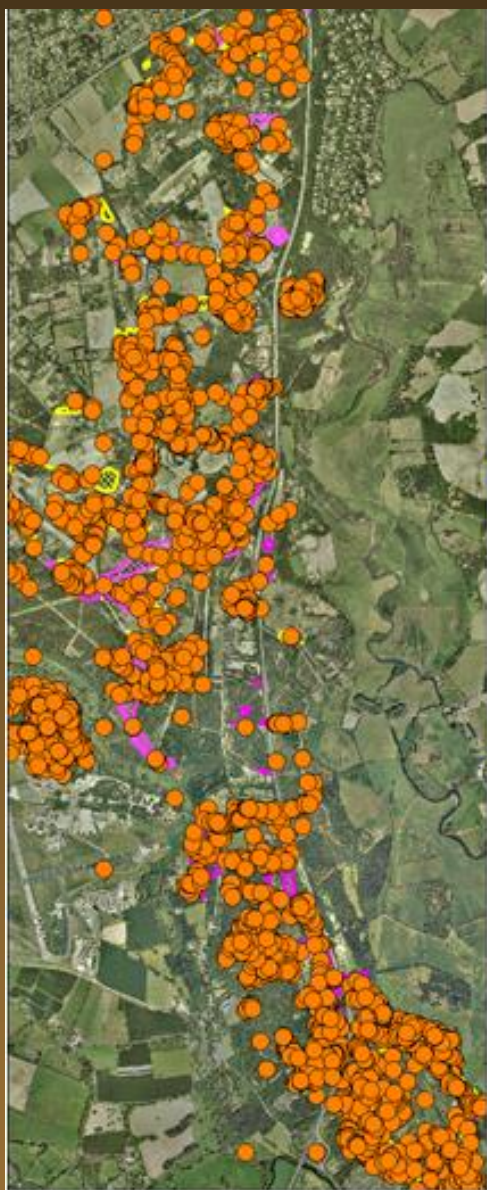












(a) Sand lizard records



(b) Sand lizard population foci



(c) Smooth snake sites and records

# Conservation of Habitats and Species Regulations, 2010.

- Are the works likely to result in the deliberate capture, **injury** or **killing** of a protected species?
- Will the works result in the deliberate **disturbance** which is likely to impair their ability to:
  - Survive, breed, reproduce or rear young
  - Hibernate or migrate
- Are the works likely to **destroy** the **eggs** or damage or destroy a **breeding site** or **resting place** of such an animal?
- Will the works significantly affect the local distribution or abundance of the species to which they belong? – the **Favourable Conservation Status**.

















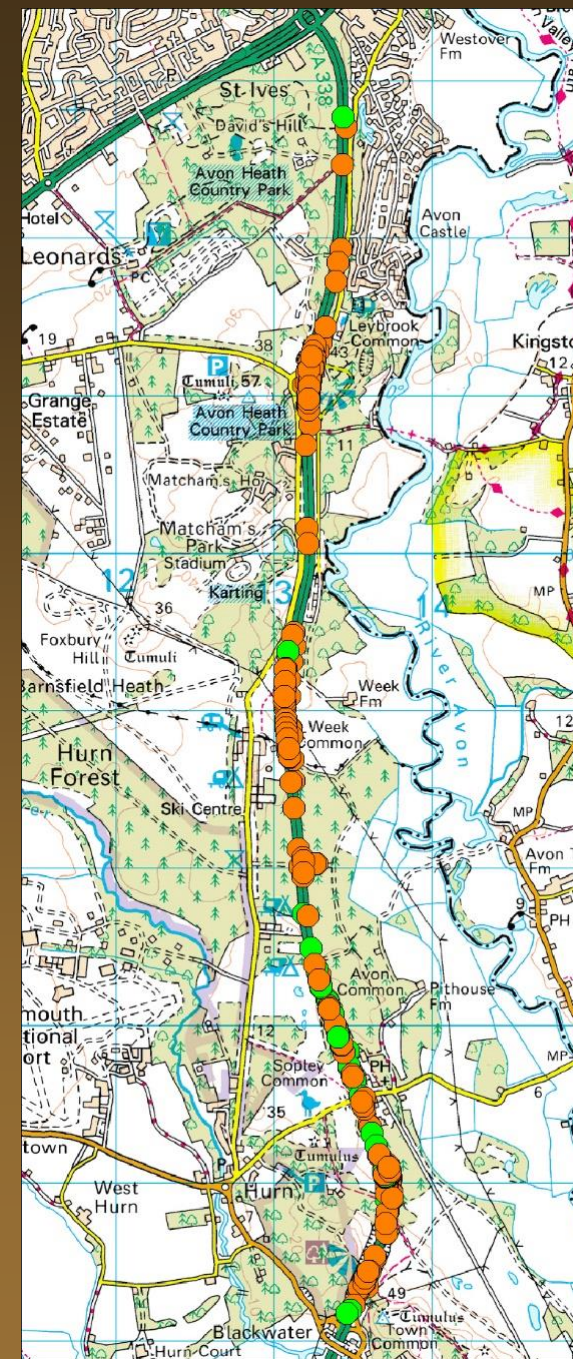
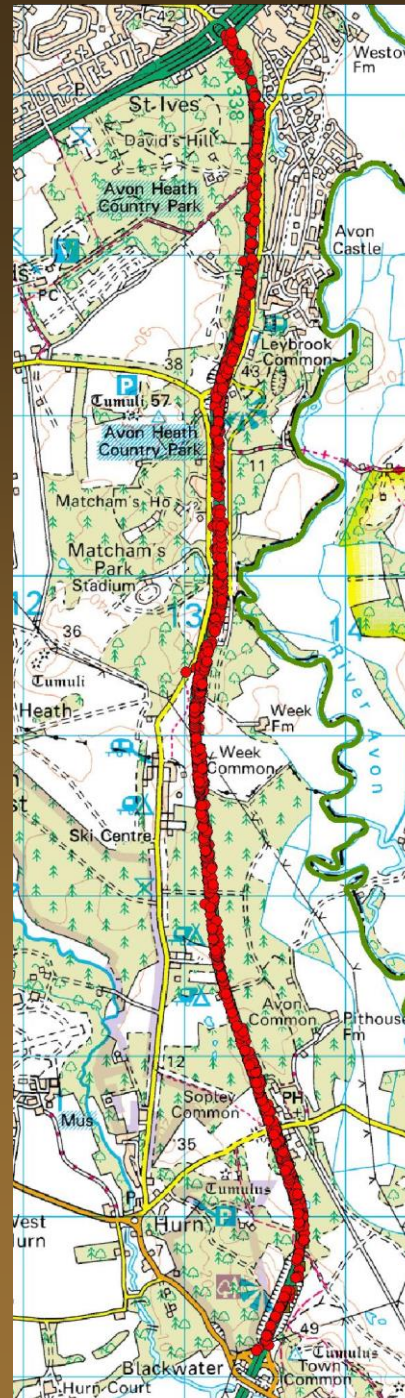






# Spring 2009 survey:

- 18km verges (18ha)
- Refugia spacing 10m
- 7 visits
- Reptiles on 17km
- All six UK species
- Sand lizard
- Smooth snake
- EPS reptiles occupying 7km (7ha) of 18km





# Application for a Licence European protected species – Method Statement

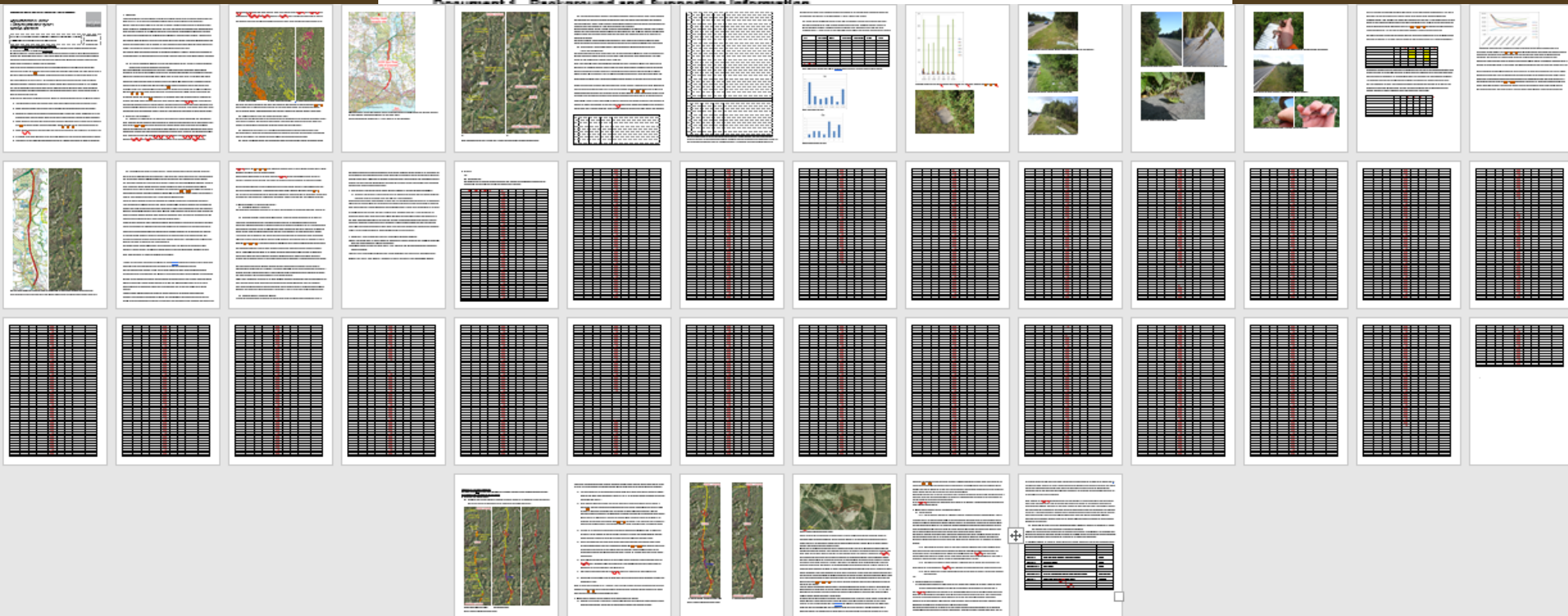
NATURAL  
ENGLAND

The Method Statement will be used to determine the impact of the application on the favourable conservation status of the species concerned (Regulation 44(3)(b)).

Please use photographs to support descriptions

Wildlife Licensing Unit  
Natural England  
Burghill Road,  
Westbury-on-Trym  
Bristol BS51D 6NU  
T: 0845 601 4523  
F: 0845 601 3435

## Document 4 - Background and Supporting Information

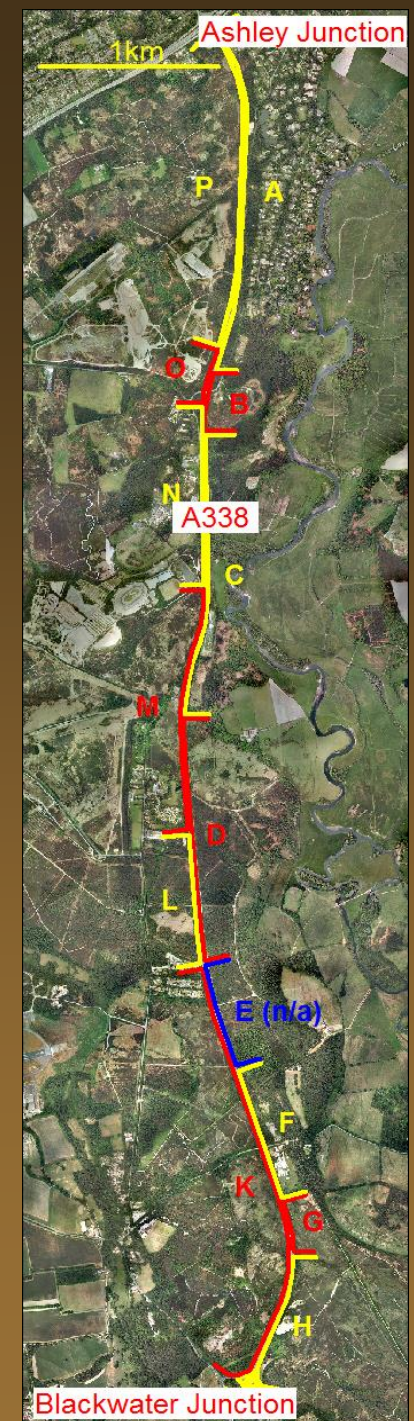


fence, or to suitable places nearby. This is expected to account for about half of the sand lizards (c.100+) and all of the smooth snakes (c.25-50) encountered. Spread over 5km, this will not negatively impact the respective populations. Tree removal from the verges will **actually improve** neighbouring sites.

- e) Where verges inhabited are contiguous with poor habitat on neighbouring land, animals will be moved to ex-situ sites. This affects no smooth snakes, but c.100+ sand lizards will be moved to a Forestry Commission site at **Gloucester** Heath in Ringwood Forest (8U111089) where a new population will be established.
- f) A minimum of five years' monitoring at the sand lizard receptor site, and to monitor recolonisation of verges.
- g) Meetings will be held before mitigation works begin and on a weekly basis during the works, to ensure that all staff, contractors and operatives are fully briefed regarding the reptile issues and mitigation procedures.

## Licensed mitigation:

- 200 sand lizards
- 50 smooth snakes
- Capture/exclusion
- 7km fence, problematic
- 12,000 refugia
- 3-5m spacing
- 30 visits completed
- c.120 surveyor days











Plumley Heath

A338  
Spur Road

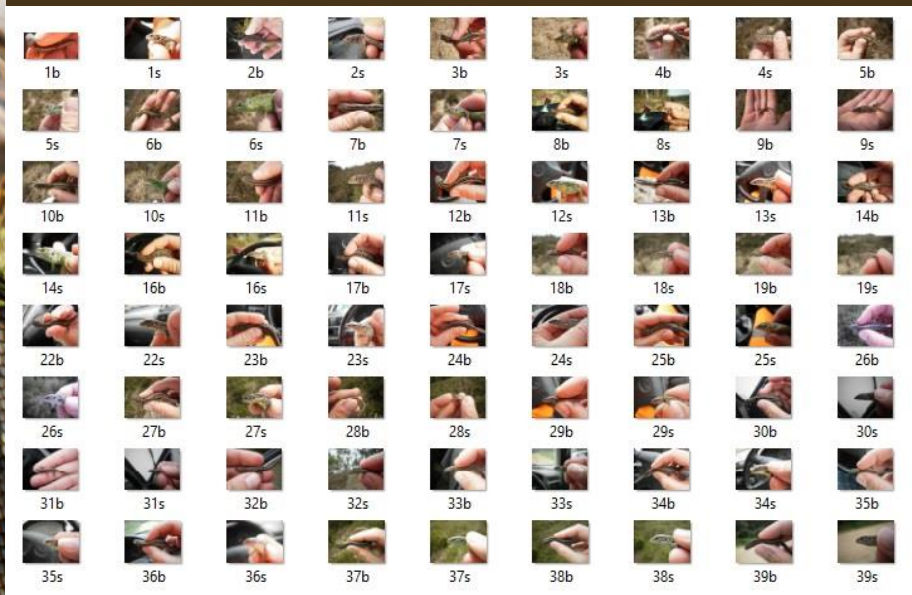
Merritown  
Heath east

Chapel Lane

Merritown  
Heath south

BOURNEMOUTH

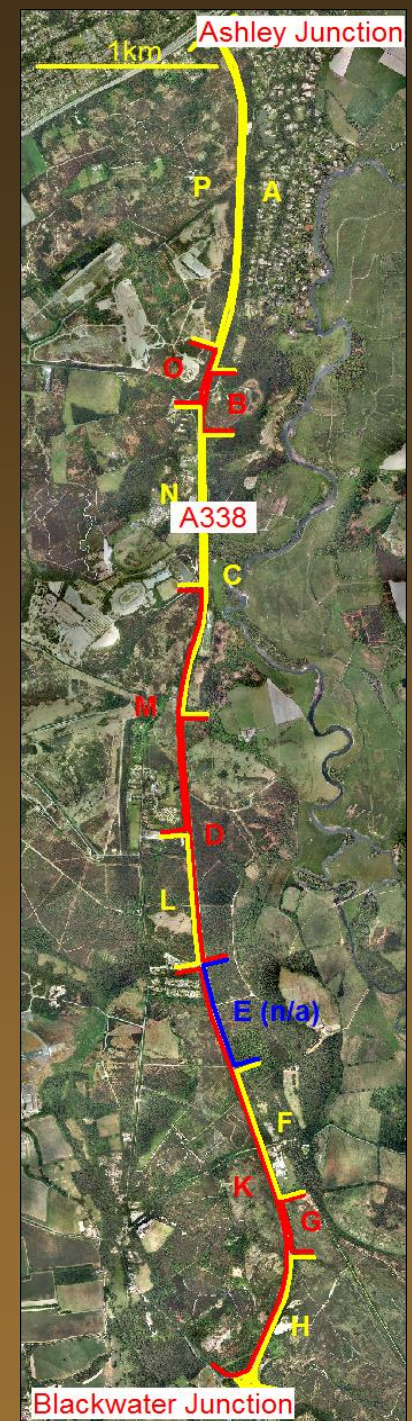






# Govt funding withdrawn, project aborted...

- 77 sand lizards
- 33 smooth snakes
- 1,982 other reptiles
- 50% in-situ over fence
- 50% ex-situ sites
- Fence damaged habitat
- Imperfect exclusion
- Left to deteriorate
- Sand lizard receptor monitoring continued







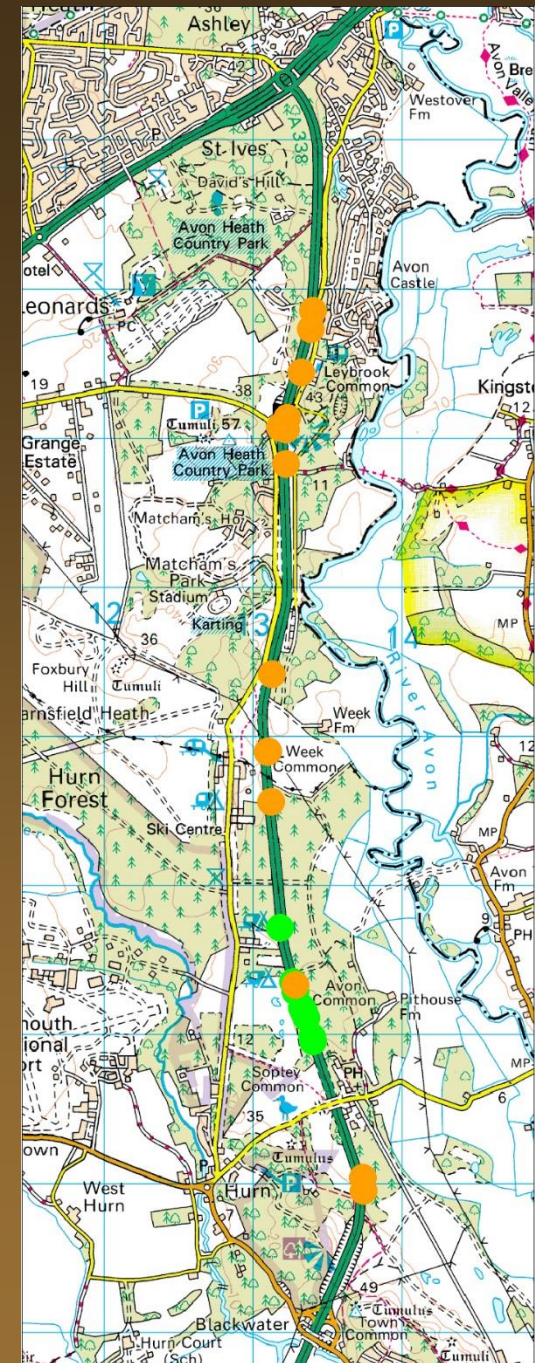
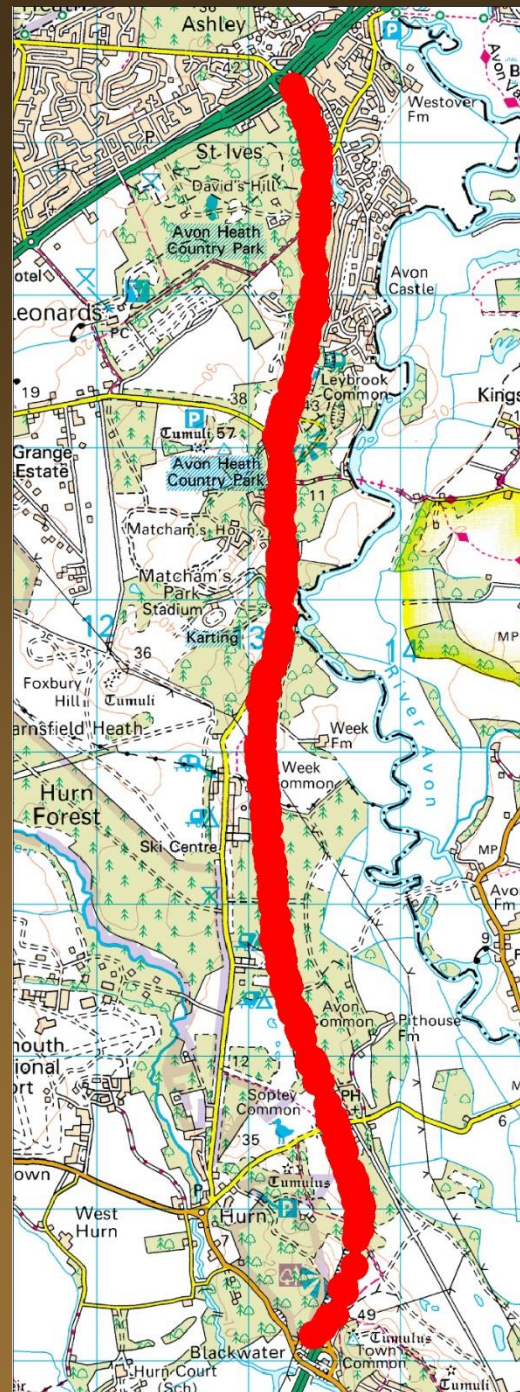






## New funding £17M:

- 18km verges (18ha),
- Refugia every 20m
- All six UK species
- Sand lizard
- Smooth snake
- EPS occupy 8-10km (was 7km)
- Spread due to tree/scrub removal





## **A338 Bmth Spur Road rebuild 2013-2016:**

- **Survey – EPS more widespread than before**
- **NE DAS – RAMs, Method Statement, but no licence \***
- **Habitat manipulation – trees/scrub removed Habitat manipulation – frequent cut to 10cm \***
- **No fence, no capture – ‘natural’ dispersal \***
- **Habitat restoration – 23ha heathland**
- **Habitat enhancement – 113 sand patches**
- **Habitat connectivity - improved**
- **NE satisfied no Habs Regs offences – temporary effects, alternative breeding and resting places**
- **Verge restoration – scraped, reseeded**
- **Monitoring – weekly pre-dev & post-dev years 1,3,5**

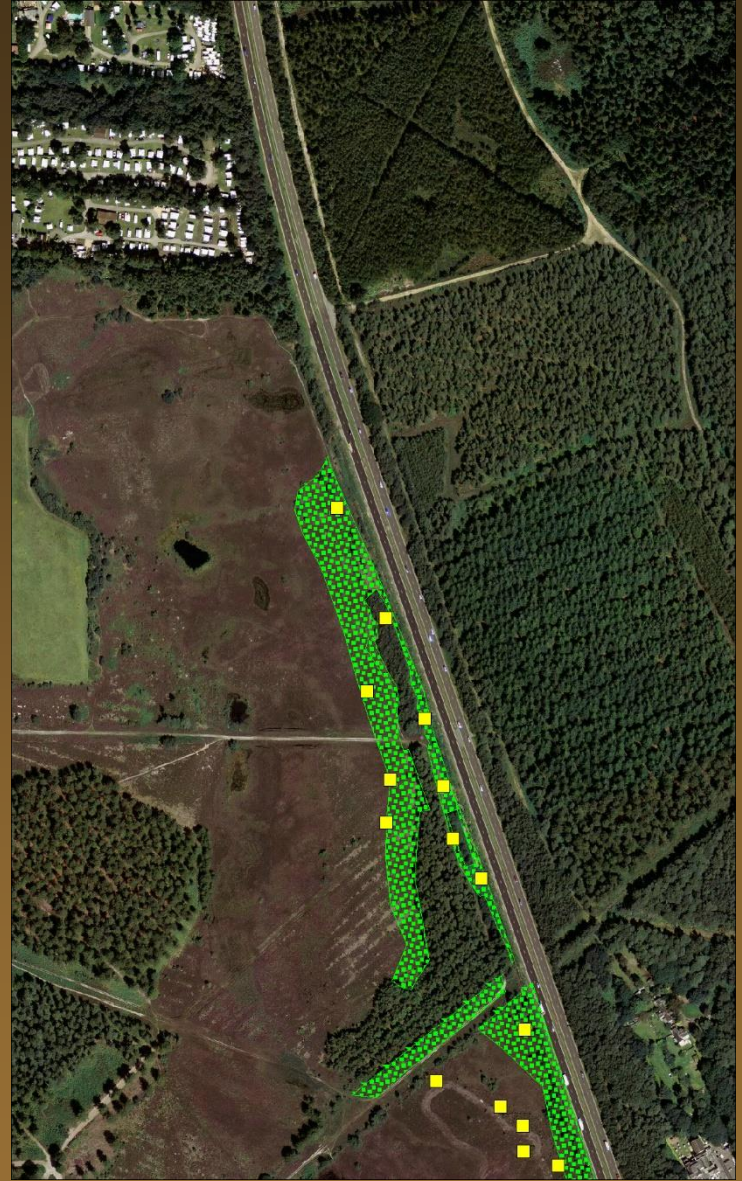
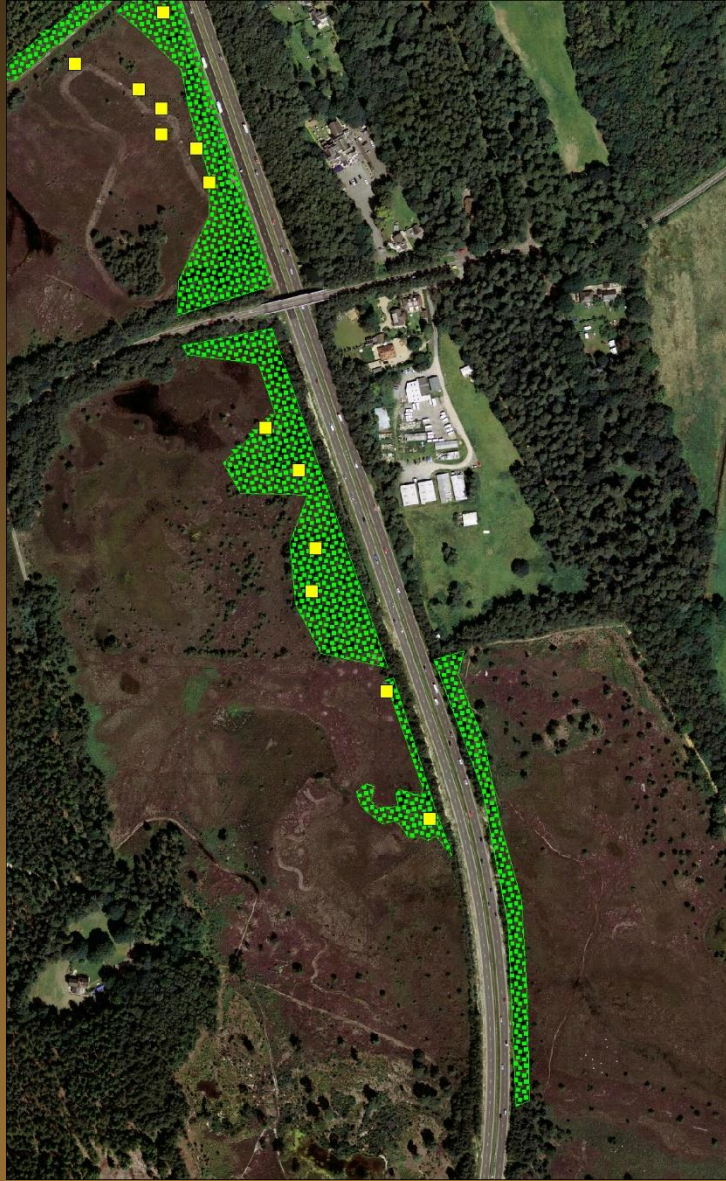
**\*novel methods or just novel acceptance by NE?**



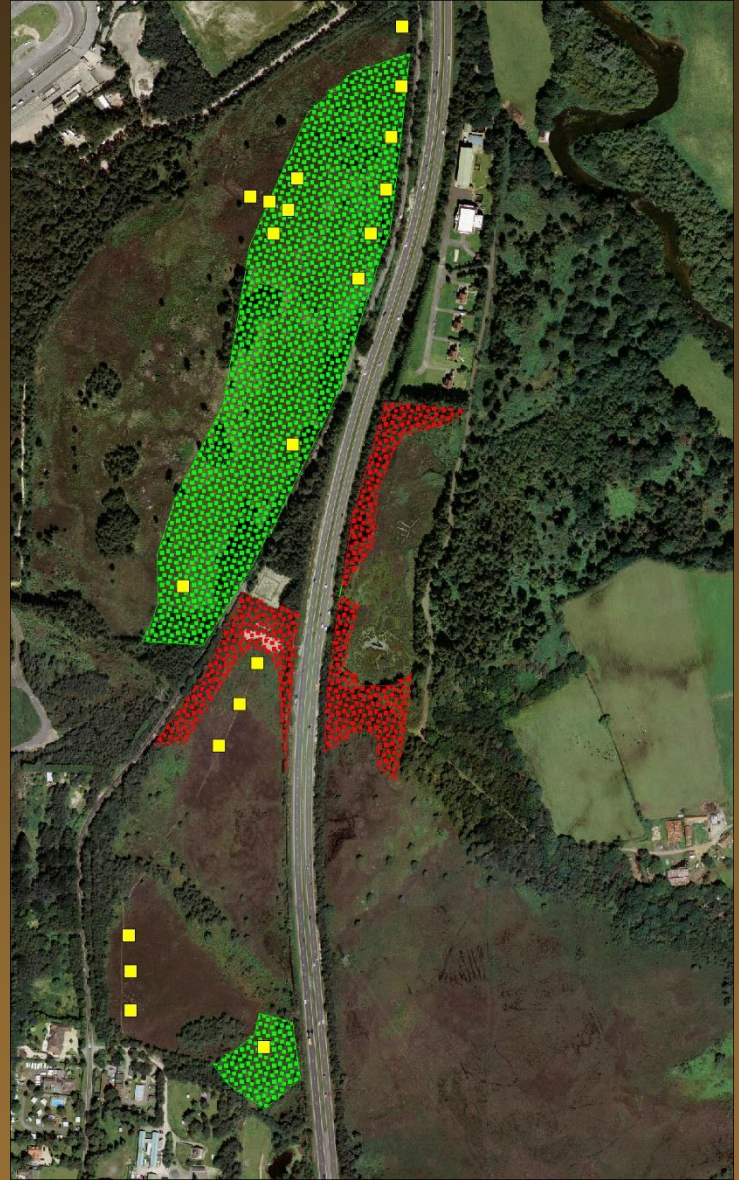
# Habitat restoration & enhancement



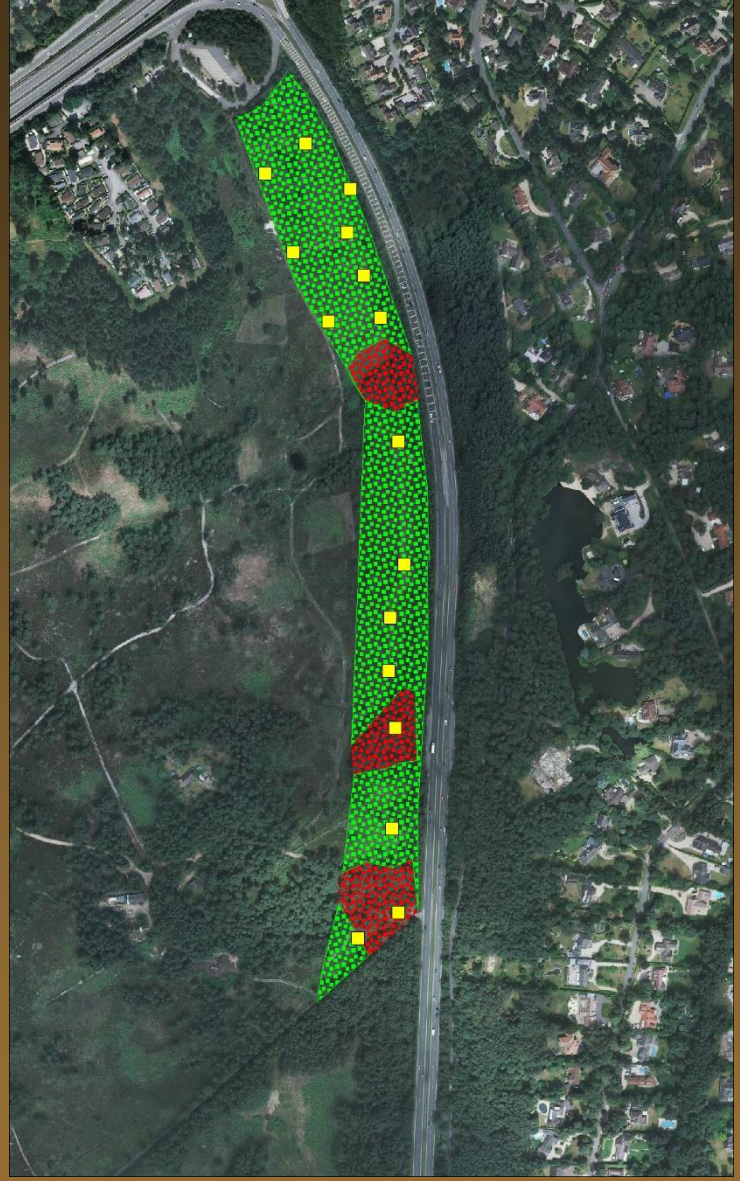
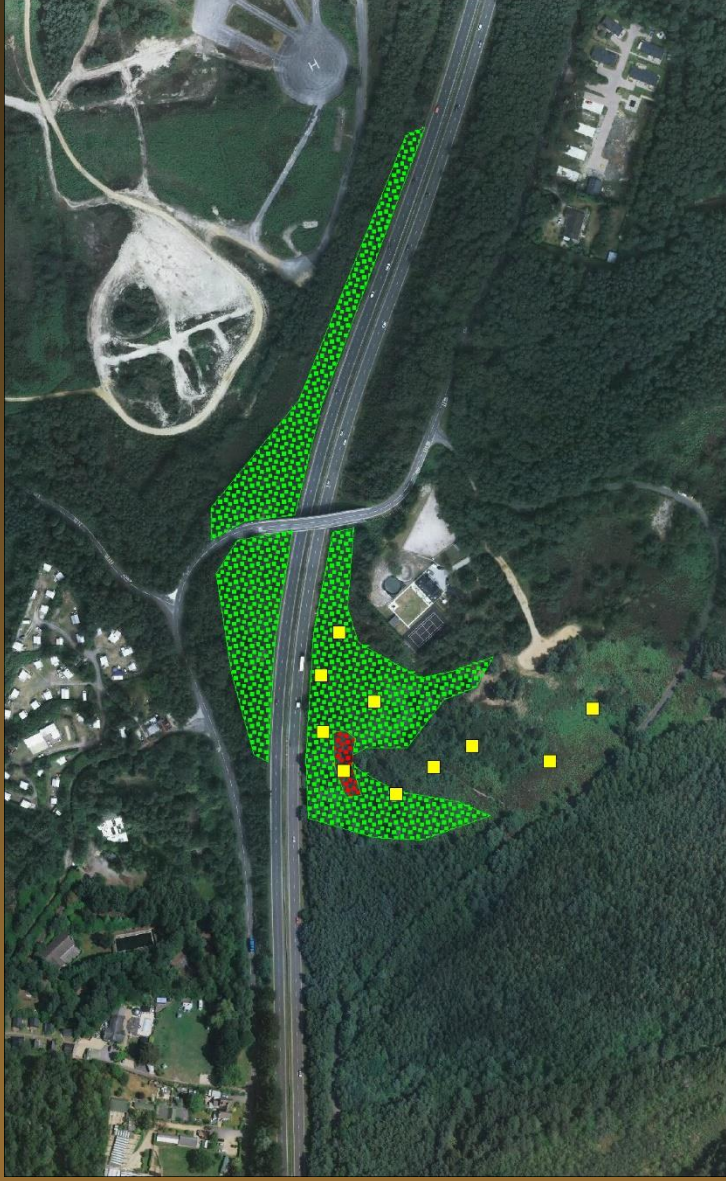


























No fence/exclusion  
No capture/translocation  
No EPSM licence  
Instead: Reasonable Avoidance  
Measures agreed under DAS

























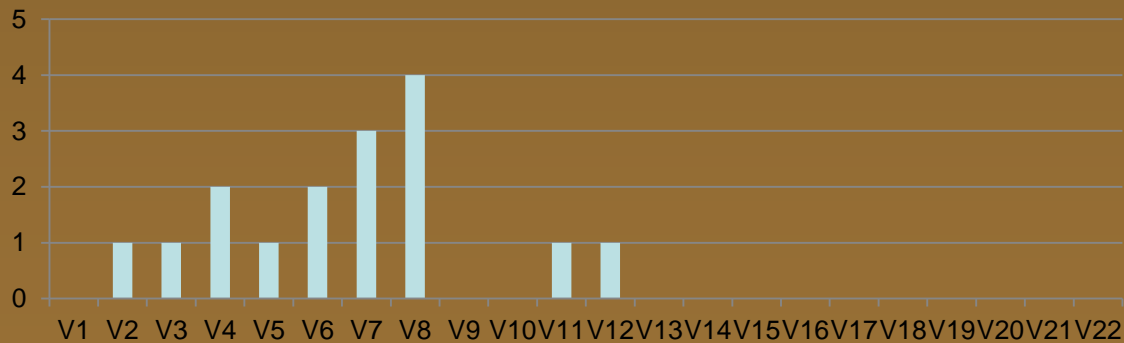
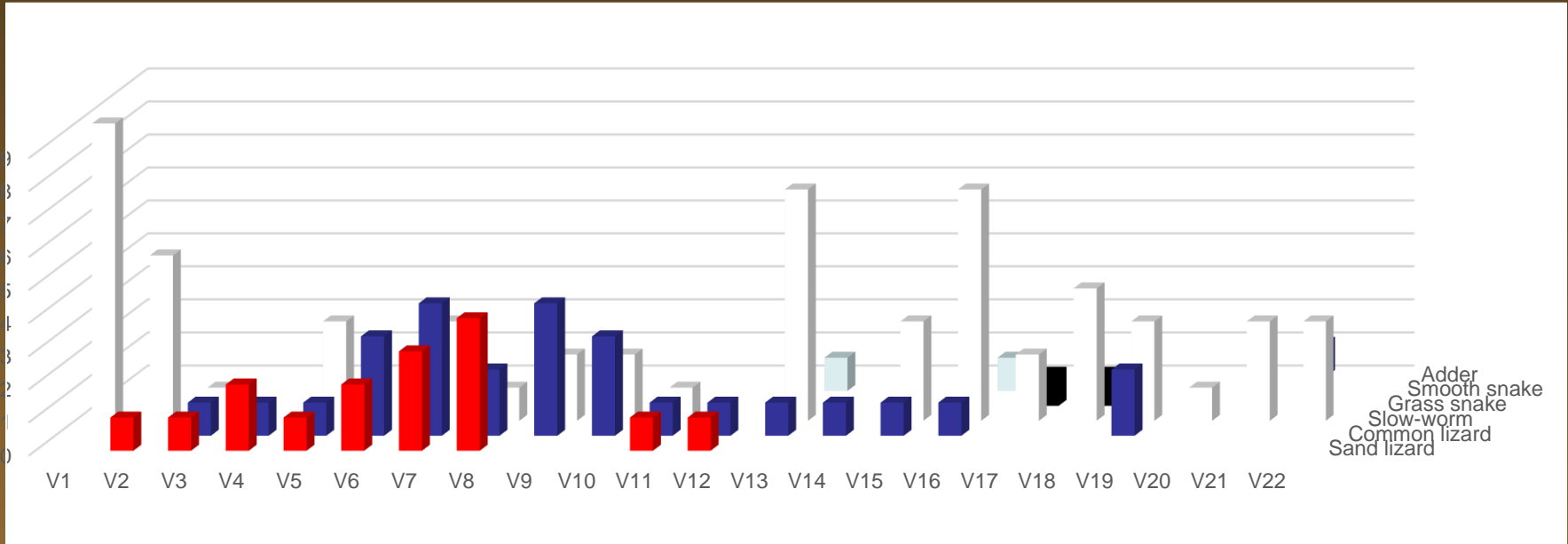








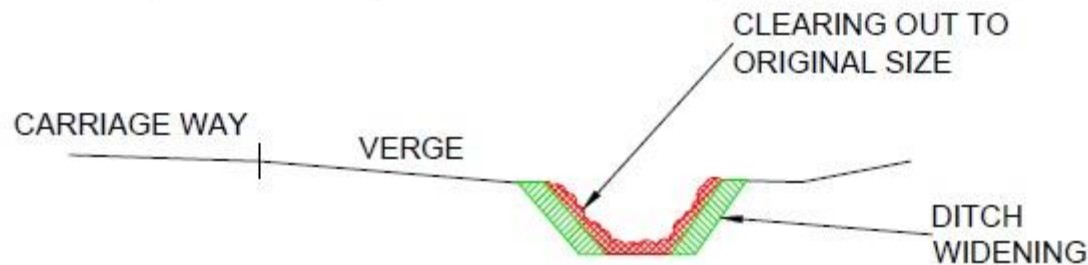
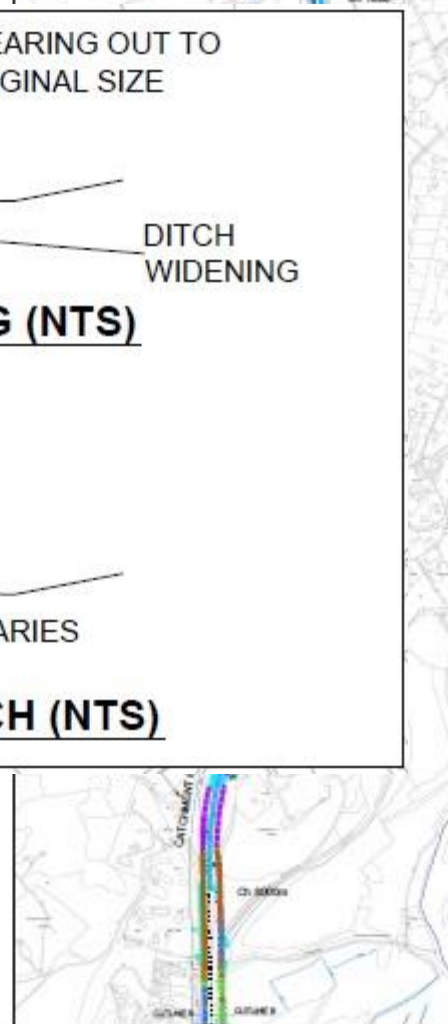
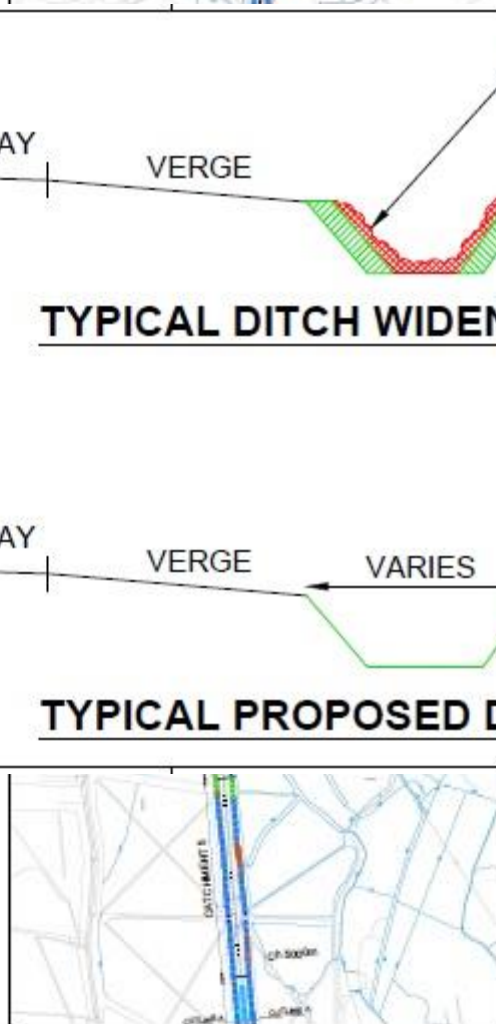
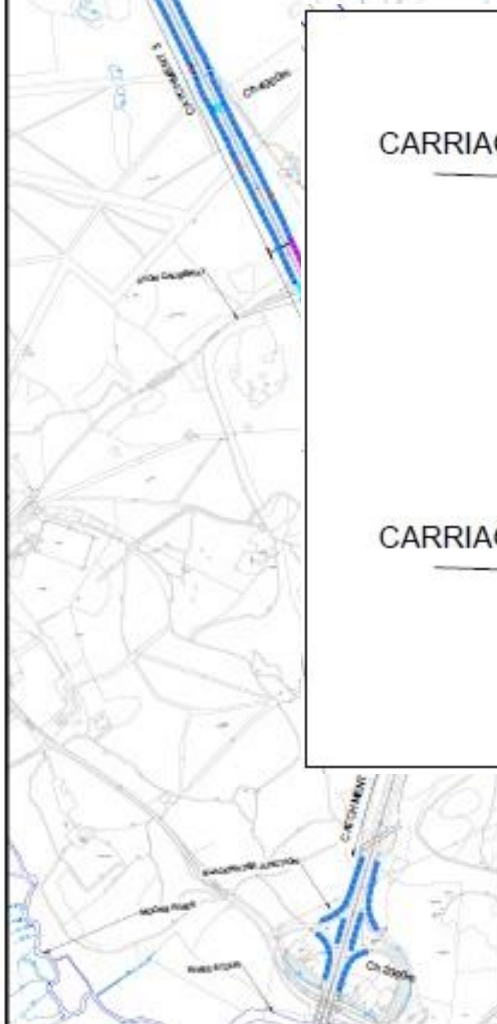
	All reptiles	10Apr	14	15	16	17	20	22	23	24	28	May	May	Jun	Jun	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct
	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	
Sand lizard			1	1	2	1	2	3	4			1	1										
Common lizard				1	1	1	3	4	2	4	3	1	1	1	1	1	1			2			
Slow-worm		9	5	1		3		3	1	2	2	1		7		3	7	2	4	3	1	3	3
Grass snake																		1	1				
Smooth snake														1			1						
Adder																						1	











**TYPICAL DITCH WIDENING (NTS)**



**TYPICAL PROPOSED DITCH (NTS)**

**HEALTH AND SAFETY INFORMATION**

1. The user must read the Health and Safety Information before using the software.
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Health and Safety Information

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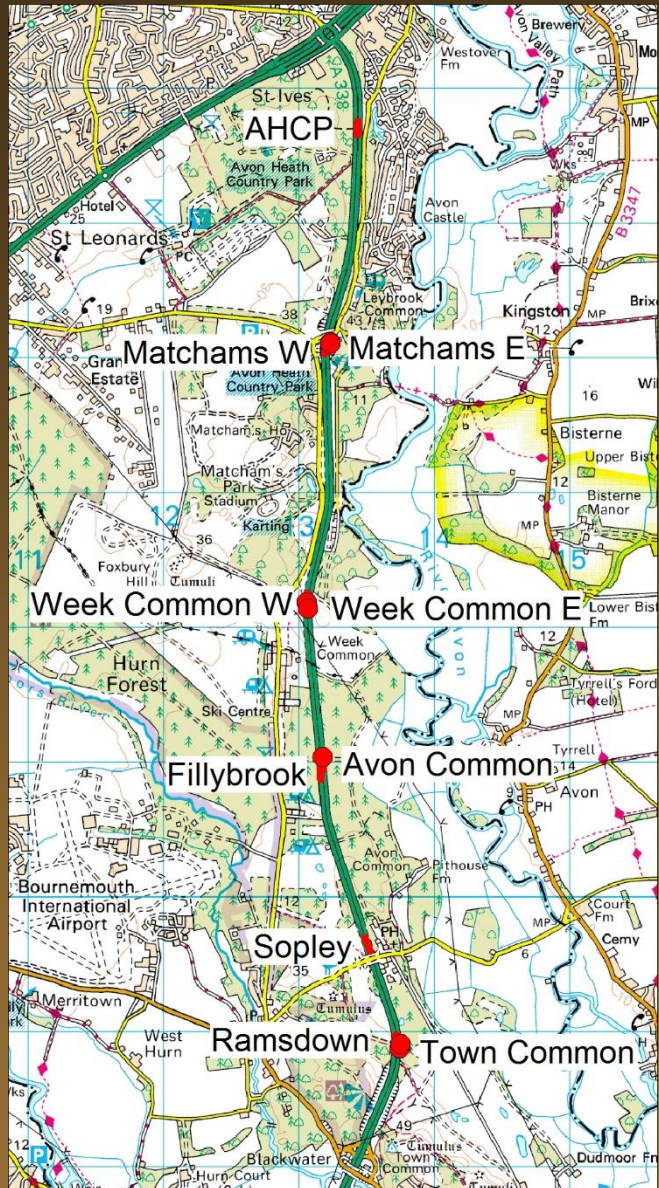
Health and Safety Information

Health and Safety Information











## **A338 Bournemouth Spur Road rebuild:**

- **2009-2010 – first survey/mitigation**
- **2010 – rebuild cancelled**
- **(2011-2015 – sand lizard monitoring)**
- **2013-2015 – second survey/mitigation**
- **2015-2016 – rebuild completed**
- **(2016-2020 – verge monitoring)**





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Christchurch

Dorset

BH23 4QG

UK

## Project partners:

