

**Report ID INCA 201931**  
**Reptile mitigation strategy**  
**Ian Bond**  
**October 2019**



## 1. Introduction

This report has been produced to fulfil Condition 10 of Redcar & Cleveland Borough Council Planning Application Number: R/2019/0427/FFM, which is for “DEMOLITION OF STRUCTURES AND ENGINEERING OPERATIONS ASSOCIATED WITH GROUND PREPARATION AND TEMPORARY STORAGE OF SOILS AND ITS FINAL USE IN THE REMEDIATION AND PREPARATION OF LAND FOR REGENERATION AND DEVELOPMENT.”

Planning Condition 10 states:

“Prior to the deposition of earth in any area that has been identified in the Ecology report (ID: INCA 201920) as supporting or potentially supporting reptiles, a reptile mitigation strategy should be prepared, submitted to and approved by the local planning authority and any necessary actions resulting from that implemented in accordance with the strategy.

Reason: In the interests of preventing harm to protected species.”

## 2. Background Information

It is known that Common Lizards *Zootoca vivipara*, are present across various habitats on the coastal strip from South Gare to Coatham Green. A series of reptile surveys were undertaken by Quants Environmental in 2018 on South Tees Development Corporation (STDC) land, at four sites on and adjacent to the area known as the “Tear Drop” site. The surveys found a single Common Lizard on one of the four sites, with no reptiles found at the other three sites. The location of the lizard was just north of the Fleet at National Grid Reference NZ57362452. The location is shown in Figure 2. The report concluded that there was a low population of Common Lizards and that no other species of reptile were present.

The INCA report 201920 identified that the northern end of Warrenby and parts of CLE 31 are the only areas with a reasonable potential to support Common Lizards that are within the red line boundary of the application and have not been surveyed for this species. It concluded that it is likely that if present, these would similarly be small populations as the extent of the potentially suitable habitat in those areas is quite small and that the worst-case scenario from the proposal, without mitigation, is therefore potential harm to a small number of a widespread reptile species.

In order to determine whether Common Lizards are present in those areas INCA undertook a series of reptile surveys in each area from July to September 2019.

## 3. Survey methods

Surveys were carried out using the standard method of placing a suite of artificial cover objects (ACOs), in the form of tiles of roofing felt, in places likely to attract reptiles. The ACOs heat up much more effectively than the surrounding vegetation therefore in cooler weather reptiles seek them out as places to bask, which they do either on top of or underneath the ACO. The ACOs are then checked in suitable weather conditions.

ACOs were put out on 28<sup>th</sup> June 2019 and were left for a week to allow time for them to be found by reptiles before surveys commenced. The locations where the ACOs were put it is shown in Figure 1. A total of 30 ACOs were placed out at Warrenby, 25 at CLE31/Site 3A and 20 at Site 3B. In addition at Warrenby and Site 3B, there were already a large number of ACOs in the form of discarded metal, tyres and railway sleepers, all of which were very suitable for reptiles to bask on. These were also checked for reptiles.

The surveys were undertaken by scanning ahead with binoculars to try and see any reptiles basking on ACOs, without disturbing them. Using binoculars, any other open areas such as rocks, piles of wood etc were also checked for lizards. If no reptiles were seen on the tiles of roofing felt or on other ACOs that could be safely moved, these were turned over to check for lizards underneath them.

Current guidance is that a series of seven visits in suitable weather conditions at the optimal time of year are considered sufficient to establish presence/absence of reptiles though further surveys may be required if carried out under sub-optimal conditions.

A series of eight visits were undertaken at Site 3B, seven at Site 3A and six at Warrenby. Details of the visits are given in Table 1. All were carried out under suitable weather conditions but the two surveys in July were at a sub-optimal time of year. Reptiles are very active in July but due to the generally higher ambient temperatures at that time of year they spend less time basking so are not as easily seen.

Table 1. Survey details

Date	Start time	End time	Weather start	Weather end
04/07/19	08:45	10:30	Sunny, 50% cloud cover; light breeze; ca 15°C	Sunny, 50% cloud cover; light breeze; ca 20°C
15/07/19	09:00	10:45	Intermittent sun, 50% cloud cover, light breeze, ca 16°C	Sunny, 50% cloud cover; light breeze; ca 19°C
20/08/19	10:00	11:45	Full cloud; light breeze, ca 15°C	90% cloud, intermittent hazy sun; light breeze, ca 15°C
30/08/19 Site 3B only	10:00	10:30	Full cloud; strong breeze; ca 18°C	Full cloud; strong breeze; ca 18°C
04/09/18	08:45	10:45	Overcast, 80% cloud cover; dry following overnight rain; ca 14°C; gentle breeze	Intermittent sun, 50% cloud; wind picking up to light breeze; ca 16°C
10/09/19 Site 3A and 3B only	09:00	10:15	Sun with 50% cloud; ca 12°C; no appreciable wind	Sun with 50% cloud; ca 13°C; no appreciable wind
27/09/19 Site 3A and 3B only	09:30	10:45	25% cloud, mainly sunny; dry following overnight rain; ca 14°C; gentle breeze	50% cloud, sun intermittent; ca 15°C; gentle breeze
02/10/09	10:15	11:45	Full sun; gentle breeze; ca 11°C	Full sun; gentle breeze; ca 12°C

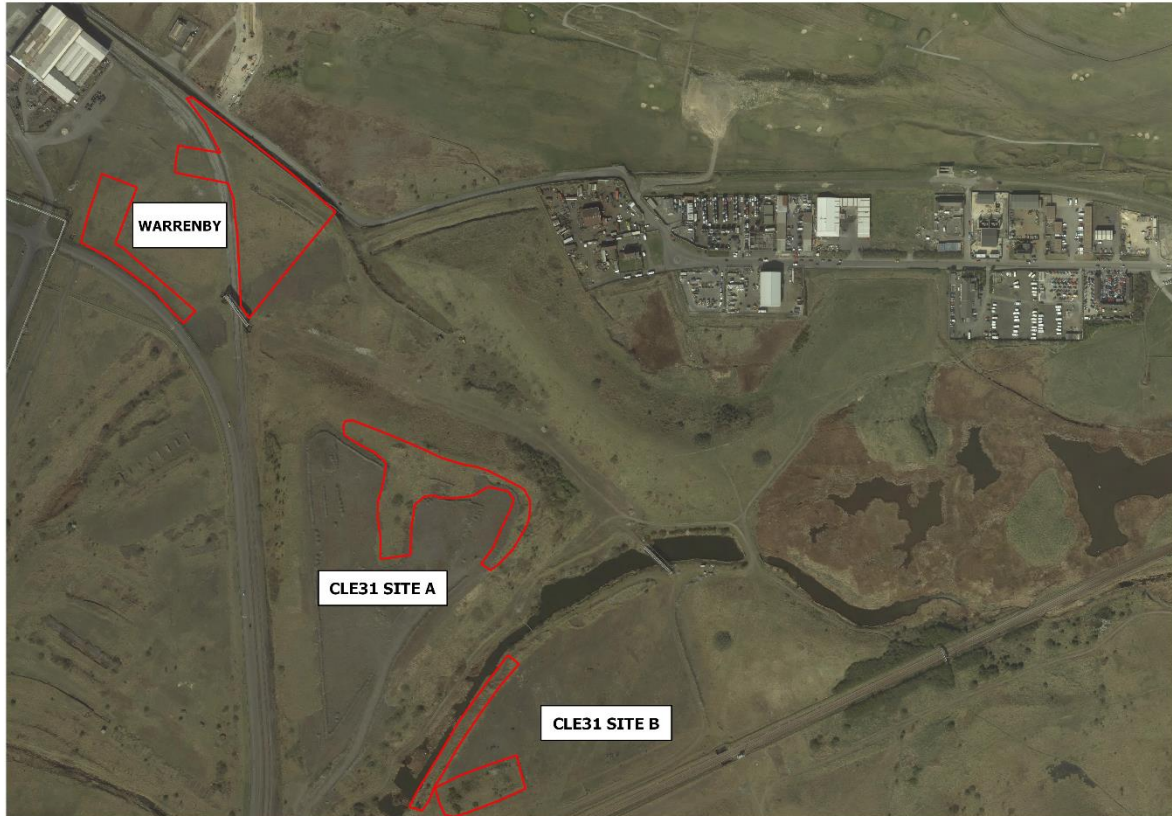


Figure 1. Locations of ACO placement

#### 4. Survey results

Common Lizards were found in each of Warrenby, Site 3A and Site 3B. The locations where they were found are shown in Figure 2 with details given in Table 2.

Table 2. Survey results

Date	Location	
20/08/19	Site 3B	Single juvenile lizard basking on an ACO at the very edge of the plateau at the northern end
20/08/19	Warrenby	<ul style="list-style-type: none"> <li>• Single juvenile lizard basking on an ACO within a few metres of the northern perimeter fence.</li> <li>• Single juvenile lizard basking on an ACO on the embankment adjacent to the road</li> </ul>
04/08/19	Site3A	Single juvenile lizard basking on the same ACO as on 20/08/19
04/08/19	Warrenby	Single juvenile lizard basking on an ACO within a few metres of the northern perimeter fence and approximately 60m east of that seen on 20/08/19
27/09/19	Site 3A	A single lizard was basking on an ACO at the northern end approximately 10m from the lizard seen on 20/08/19 and 04/09/19
27/09/19	Site 3B	A single lizard was found under an ACO

A total of six lizards were seen; three at Warrenby; two at Site 3A and one at Site 3B. This assumes that the two records of a lizard on the same ACO in Site 3A were of the same individual but that a lizard that was found on an ACO 10m away was a separate individual. The results indicate a small population of lizards in each location. The full complement of seven surveys was not undertaken at

Warrenby as it is considered that sufficient information had been gained to characterise the population and to inform mitigation.



Figure 2. Locations where Common Lizards have been found up to 27th September 2019 (Yellow = 2018 Quants surveys; red = 2019 INCA surveys)

## 5. Assessment

5.1 At Warrenby lizards have been found in three locations around the perimeter. The centre of the site, being largely flat with relatively sparse vegetation is less suitable for them. The lizards at the northern perimeter of Warrenby are very close the boundary fences and individual lizards could easily move in and out of the site. A single lizard has been found further into the site adjacent to the road and this is unlikely to disperse off site. Given that this road verge is somewhat isolated from areas that are other than of sub-optimal suitability for lizards then this may be an isolated individual.

5.2 At Site 3A lizards have only been found on the edge of the plateau where the habitat is continuous with that of Coatham Marsh. It is possible that some may also be present in parts of the south facing embankment, but none were found on top of the plateau and suitable habitat there is very limited in any case.

5.3 A single lizard was found on the vegetated mound in the centre of Site 3B on the visit on 27/09/19 but was not found on a subsequent visit, despite ideal weather conditions for surveying. This is a small, vegetated mound is covered in scrub and trees and is sub-optimal for lizards. Furthermore it is surrounded by habitat that is unsuitable for reptiles to live in. Therefore it is possible that this is a vagrant individual that has found this area by chance but even if there is a population of lizards present it would be very small

## 6. Mitigation options

6.1 Where lizards are using habitat that is continuous with habitat outside the boundary fence then they can be discouraged from using those areas by spraying off the vegetation. Any lizards that are present can then simply move back outside of the boundary. This would apply to the northern perimeter of Warrenby and to CLE 31. Spraying should be undertaken in spring and summer when lizards are active rather than in autumn when they will be going into hibernation. Once the vegetation has had died off and a further two weeks have elapsed to allow the lizards time to move then the vegetation can be scraped off under the supervision of an ecological clerk of works.

6.2 On the embankment of the road verge at Warrenby and adjacent to the Fleet on the Tear Drop site, any lizards that are present would need to be translocated as they would not be expected to move off site by themselves. As works in these areas are not scheduled to occur in the next year and given the amount of work that would be required for translocations of what might be single individuals or at most very small populations, it is recommended that another survey of these areas is carried out in Spring 2020 to see if lizards are still present. If lizards are still present, then a translocation programme will be implemented but if they have subsequently disappeared then works can proceed. The results of surveys are usually considered to be relevant for two years therefore, after 2022, if suitable habitat still exists for lizards in these areas *and* there continues to be habitat connectivity with other areas of suitable reptile habitat, further surveys would be required.

6.3 At Site 3B, works are scheduled to commence over winter 2019/20. It is not possible to translocate lizards over the winter period as they would be hibernating. Therefore translocation of lizards will commence in spring 2020. Prior to any works commencing on Site 3B a cordon of Heras fencing will be placed around the mound to exclude machinery. The areas of trees and shrubs on the vegetated mound can be removed over winter to prevent them being used by nesting birds in the spring. The areas that can be removed should be marked out by an ecological clerk of works. Any areas of long grass should be left intact until spring 2020 but with the grass strimmed to concentrate any lizards that are present to the perimeter around the ACOs. In spring 2020, the remaining vegetation will be gradually removed at no more than two square metres in one block, with each block of vegetation being checked by an ecological clerk of works prior to removal. Any reptiles present will be caught and translocated to an area of suitable habitat off site.

Table 3. Work schedule

Area	Timing	Works
Warrenby (excluding road perimeter)	Spring/ early summer (2020 or as required for development)	Spray off vegetation to encourage lizards to move off site
Warrenby road perimeter/ Tear Drop site	Spring 2020	Further survey to establish if lizards are still present. If present catch and translocate lizards prior to development
CLE 31/Site 3A	Spring/ early summer (2020 or as required for development)	Spray off vegetation to encourage lizards to move off site
Site 3B	Winter 2019/20	Cordon off vegetated mound with Heras fencing prior to works commencing. Strim long grass on the mound
Site 3B	Spring 2020 (From late March, depending on weather conditions)	Gradually remove ground vegetation under close supervision of ecological clerk of works. Translocate any lizards present