



Date of issue:
25 August 2022

Preliminary Bat Roost Assessment Report

Site: 6 Regnum Place, Chichester

Client: M. Nehman
Version 001

Prepared by Emily Sabin, BSc (Hons) CertEcol

Imprint Ecology
68 Kingsham Road
Chichester
West Sussex
PO19 8AH

07804778377
emily@imprintecology.co.uk

Contents

1. Executive Summary	2
2. Introduction	3
3. Methods	5
3.1 Desk Study	5
3.2 Site Assessment	5
4. Baseline Ecological Conditions	6
4.1 Desk Study	6
4.2 Preliminary Inspection for Bats	7
5. Mitigation	8
6. Enhancements for Biodiversity	9
7. References	10
Appendix 1 – Site photographs	11
Appendix 2 – Legislation and planning policy	12

1. Executive Summary

Site Details
<ul style="list-style-type: none"> 6 Regnum Place, Chichester, PO19 1DS (OS Grid Reference: SU 86067 04575)
Scope of Works
<ul style="list-style-type: none"> Imprint Ecology was commissioned to undertake an assessment for bats at an apartment which is required to inform a planning proposal to extend the existing building.
Key Ecological Constraints
<ul style="list-style-type: none"> All British bat species and their roosts are fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). (See Appendix 3 for full details).
Results
<ul style="list-style-type: none"> A site visit was carried out on the 18th August 2022. A thorough inspection of the building found that in accordance with Bat Conservation Trust guidelines (Collins, J. 2016) the proposed works area had ‘negligible’ potential to support roosting bats.
Recommendations
<ul style="list-style-type: none"> The proposed works to extend the building into the roof can proceed lawfully and with minimal risk to bats at this time. Additional bat roosting features, such as a Schwegler 1QF bat box, an integrated 1FR bat tube or readymade bat tiles could be placed on the roof of the building.
Mitigation
<ul style="list-style-type: none"> The use of artificial lighting will be avoided and restricted to the site. Scaffolding will be sensitively installed, taking care not to block bat access points to the weatherboarding on the side of the apartment. Care will be taken to avoid using breathable roofing membranes which can be harmful to bats through entanglement. Any habitats within the impact zone are carefully searched each day before works begin, to rescue any small mammals that may be present. With appropriate mitigation, the proposed development is highly unlikely to impact upon Chichester Harbour which holds various designations.

2. Introduction

2.1 Background and Proposed Development

Imprint Ecology was commissioned to undertake a Preliminary Roost Assessment (PRA) for bats and other protected species at an apartment located at 6 Regnum Place, Chichester, PO19 1DS, hereafter referred to as ‘the site’.

It is understood that the proposed development includes an extension and the addition of dormer windows in the roof of the east and west elevations.

2.2 Experience of Ecologists

The PRA was carried out by Emily Sabin and George Sayer. Emily Sabin (BSc (Hons) (*Wildlife Conservation*) is an ecologist with three years’ experience in ecological consultancy and a background in conservation research. She is experienced in carrying out a range of protected species surveys and is also the Water Vole Officer at the People’s Trust for Endangered Species. George Sayer (BSc (Hons) (*Environmental Sciences*), PgDip, (*Endangered Species Recovery*), MCIEEM, MArborA) holds a Level 2 Bat Licence from Natural England WML-CL18 – registration number 2018-34434. George is an ecological consultant with 10 years’ experience surveying and monitoring for bats and other protected species.

2.3 Purpose of the Report

This report contains the findings of an ecological assessment of the building and surrounding habitat. It seeks to identify any potential ecological constraints that the proposed development may have upon bats or other protected species and provides appropriate recommendations for further survey, impact avoidance, mitigation and enhancements where required.

This report is valid for a maximum of 18 months from the date of issue. Should the proposals or site alter in any way, an ecologist should be consulted to confirm that this report is still accurate.

2.4 Site Description

The site is located within central Chichester. The terraced, two-storey apartment is located above South Pallant car park and comprises of a large brick built building and hardstanding, with scattered mature trees nearby. The site is 1.2km from Chichester Harbour which holds various designations and lies within the Chichester Harbour Site of Special Scientific Interest (SSSI) Impact Risk Zone. A map showing the location of the site can be seen in Figure 1 and an aerial view is shown in Figure 2.

Figure 1 - Site Location. Map data ©OpenStreetMap contributors 2022.

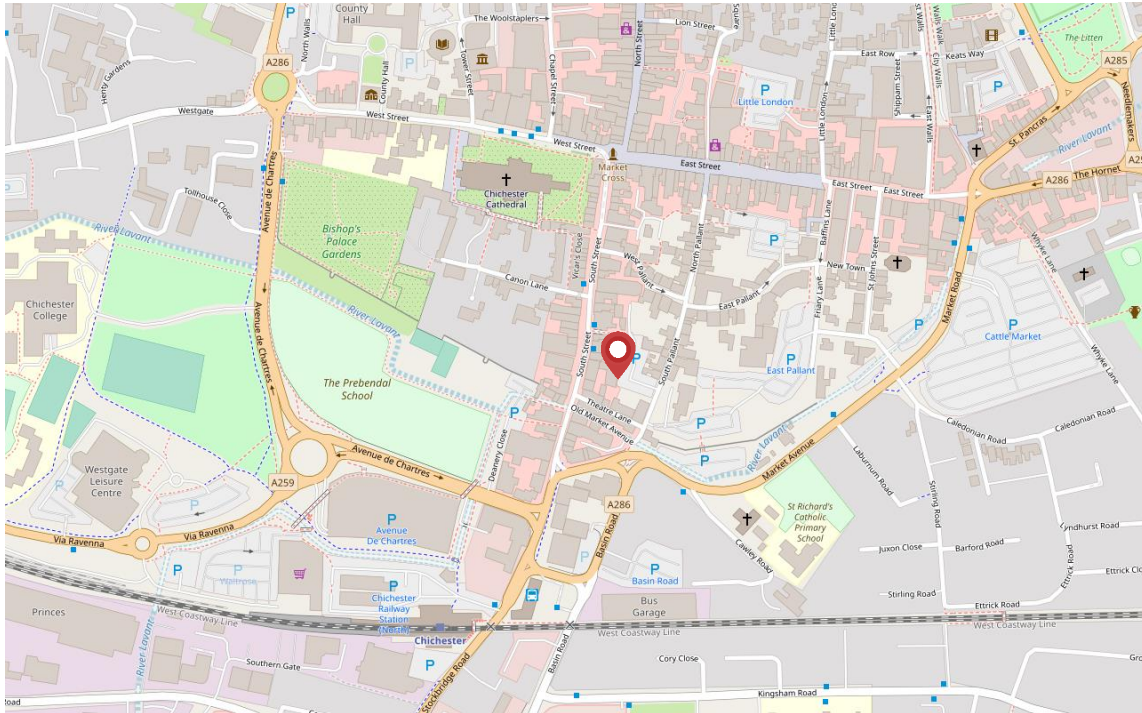


Figure 2 - Aerial view. Source: Google Earth, 2022



3. Methods

3.1 Desk Study

A desk study was undertaken to obtain ecological information about the site in context within the surrounding area. The [Multi-Agency Geographic Information for the Countryside \(MAGIC\)](#) website was accessed on 16th August 2022 to identify local statutory designated sites, priority habitats and European Protected Species Licences (EPSLs). The [Chichester District Council Interactive Map](#) was also used to search for non-statutory designated sites.

Satellite imagery from MAGIC and Ordnance Survey maps were used to understand the site's connections to surrounding countryside.

3.2 Site Assessment

A visual inspection of the building was undertaken during daylight hours by ecologists Emily Sabin and George Sayer – licenced under Natural England bat survey Class Licence WMLCL18 (licence number 2018-34434) on 18th August 2022, commencing at 14:00hrs.

The weather conditions were as follows: temperature = 29°C; wind speed = Force 0 (Beaufort scale); cloud cover = 5%; dry.

An endoscope, camera, binoculars and high-powered torches were used to search for evidence of bats and determine the potential for the building to support bats and other protected species.

The presence of potential roosting features (PRFs) and access/exit routes which bats could use to enter these features were surveyed. Evidence of use by bats was also looked for, such as scratch marks, urine stains, lack of cobwebbing, feeding remains e.g. moth wings, droppings, and actual bats. An assessment of potential commuting routes and surrounding habitat was also undertaken to determine their potential to support bats.

Bat PRFs are usually found in specific areas, such as joints, cracks, gaps and cavities within structures like mature trees and buildings. These were prioritised as areas to check for bat evidence. Roosting bat evidence is not easy to find and not always visible, so any potential roosting locations were also noted.

Following inspection, the buildings were categorised as having either 'high', 'moderate', 'low' or 'negligible' potential to support bats or as a 'confirmed roost or resting place for bats'. These categories are based on observations made during the survey and in the context of the descriptions laid out in Table 1.

Table 1 - Categorisation of bat roosting potential of structures (adapted from Collins, J. 2016.)

Suitability	Description
Confirmed bat roost or resting place	Presence of bats or evidence of bats.
High	Structure with many areas suitable for large numbers of roosting bats, with numerous potential access points. With good connectivity to high-quality foraging habitat, such as hedgerows, woodland and/or waterbodies. No evidence of current use by bats. E.g. large, uncluttered, draft-free loft spaces with access point or gaps beneath hanging tiles in a rural location.
Moderate	Structure with features suitable for moderate numbers of roosting bats, with good connectivity to the wider countryside. No evidence of current use by bats. E.g. cracks in walls, wooden soffit box with holes, gaps beneath fascia boards, under lifted roof tiles or lead flashing in a suburban or rural setting.
Low	Structure that offers a low number of roosting opportunities which could be used opportunistically by individual bats. Unlikely to be used by large numbers of bats on a regular basis. No evidence of current use by bats. E.g. small gaps under roof tiles, fascia boards or lifted lead flashing, with limited connectivity to fair-quality foraging or commuting habitat.
Negligible	Structure with no or very limited roosting opportunities for bats and/or where the structure is isolated from foraging habitat. No evidence of use by bats.

3.3 Site Inspection Constraints

One single site assessment represents a ‘snapshot’ in time, and it is possible that bats may not have been present at the time of survey but are present at other times of the year. For this reason, habitats and connecting features like hedgerows were assessed for their potential to support bats, even where no direct evidence (such as droppings) was found.

4. Baseline Ecological Conditions

4.1 Desk Study

4.1.1 Statutory/non-statutory designated sites and protected/priority habitats

The site is not located within any sites designated for nature conservation importance but it is located within the impact risk zone for Chichester Harbour SSSI which lies 2.2km west. Regard must be given to Paragraph 175 of the NPPF, which states that:

“... proposed development on land within or outside a Site of Special Scientific Interest, likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted.”

Chichester Harbour holds various national and international designations associated with the conservation of coastal habitats and wildlife, including a rich assemblage of wintering birds. The site falls within the 5.6 km zone of influence for Chichester and Langstone Harbours Special Protection Area (SPA). It is therefore subject to the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended), along with relevant provisions within Policy 50 of Chichester District Council Adopted Chichester Local Plan: Key Policies 2014-2029.

The site lies 9.6km south of the Singleton and Cocking Tunnels Special Area of Conservation (SAC), SSSI and is therefore within the 12km wider conservation area. Within this area, significant impacts upon bats and breaking of flightlines must be considered in line with South Downs Policy SD10. The tunnels are important especially for barbastelle *Barbastella barbastellus* and Bechstein's bat *Myotis bechsteinii*.

The following non-statutory designated sites lie within 2km of the site: Chichester Canal 480m south; River Lavant Marsh 1.9km southwest; Fishbourne Meadows 1.8km west; and Brandy Hole Copse 2km north.

The site does not lie within or adjacent to a Bat Movement Network area. The nearest Bat Movement Network areas lie 100m to the east, and 120m to the west.

The following protected/priority habitats lie within 2km of the site:

- Deciduous Woodland
- Ancient Woodland
- Lowland Meadows
- Mudflats
- Coastal Saltmarsh
- Traditional Orchard
- Reedbeds
- Coastal and Floodplain Grazing Marsh

These habitats of Principal Importance are listed in Section 41 of the NERC Act, 2006. Section 40 places a duty on Local Planning Authorities to have due regard to biodiversity.

4.1.2 Protected/Priority Species

All 18 species of bat in the UK have been recorded in West Sussex. Six European Protected Species Licences have been granted by Natural England within 1km of the site allowing the purposeful destruction or disturbance of bat roosts or resting places.

4.2 Preliminary Inspection for Bats

There was one brick built building with multiple apartments within, and no. 6 was traversing a car park driveway below leading to a rear courtyard. The surrounding habitat comprised hardstanding and some scattered mature trees to the north and east, including horse chestnut *Aesculus hippocastanum* and common lime *Tilia x europaea*.

An internal inspection found one small, west-facing internal loft void in the eaves currently uninhabited by bats. The void was accessed via a hatch in the eaves of the kitchen on the second floor, to the rear of the property. There was no loft to the front of the property as the ceilings were vaulted on this side. The small void in the kitchen was used for storing household items and insulated with loose fibre insulation. Timber rafters were visible and the lining material was in good condition with no gaps or tears. There was no daylight visible. There was artificial lighting present. No evidence of bats was observed.

An external inspection found the apartment to be clad with dark weatherboarding, terraced between the brick buildings. The roof comprised composite slate tiles and appeared in good condition, with no cracked, missing or lifted tiles allowing access for bats. The fascia and soffits were in good condition. The ridge line was in good condition with no crumbling mortar or slipped ridge tiles. The windows and doors were all tight with no suitable gaps for bats. The weatherboarding to the front and rear presented some small gaps big enough to allow individual crevice-dwelling bats opportunities to roost. However, the proposals are unlikely to impact the weatherboarding, and are restricted to the roof only. Therefore, following strict mitigation, works are expected to have a **negligible** impact upon bats.

5. Mitigation

In accordance with the findings of the inspection and the criteria presented in Table 1, this preliminary assessment of the site considers the proposed works area to have ‘**negligible**’ potential to support bats. Therefore, **the proposed development can proceed lawfully and with minimal risk to bats at this time while following the below Method Statement.** Should works be delayed by more than 18 months beyond the date of this report, a re-inspection of the building(s) on site by a suitably qualified ecologist holding a Natural England bat survey licence will be conducted before proceeding.

Method Statement:

1. Construction will be undertaken in accordance with best practice advice with regards to minimising dust, noise, light and emissions during and post-construction. The level of impact on designated sites and protected/priority habitats is expected to be negligible. Potential impacts include dust, fumes and emissions from machinery and higher pollution levels due to construction traffic. The increase in pollution would be minimal and short-term.
2. Scaffolding around the weatherboarding during the bat active season (April–October) will not obstruct bat access points. Bat access points are easily blocked by scaffolding poles, plastic sheeting or mesh. This also applies to sheeting often used to protect a building or for containing spray during cleaning works. Where sheeting or mesh is required, for example, for safety reasons near access points, it may be necessary to put it up and remove it daily for the duration of works in that area. Bats have been known to get into scaffolding poles so special care needs to be taken when dismantling the scaffold. Advice from a licenced bat ecologist can be sought before assembling the scaffolding to ensure bat access points are not blocked off.

3. Open pipework must be checked they are empty and then closed off at the end of each working day to avoid small animals entering them. Silt and water run-off must be managed so that it does not pollute the site. Any chemicals or fuel must be stored appropriately, fully-sealed and kept on existing hard surfaces.
4. Artificial light can adversely affect invertebrates and bats (as well as other nocturnal animals) so illumination of the site after dusk must be avoided. Any task lighting (during construction) or security lighting on the building, should not be directed at the new bat box, nearby vegetation or trees. Any security lighting should be set on short timers. Other lighting should be directed downwards to avoid light spillage. Brightness of lights should be kept as low as feasibly possible (ILE/BCT, 2007; BCT interim guidance 2014). The plans proposed for development within the site should include an 'ecologically sensitive lighting scheme' in accordance with guidance produced by the Bat Conservation Trust (2018) and the Institute of Lighting Professionals.
5. Avoid using non-bitumen coated (breathable) roofing membranes e.g. breathable roofing membranes such as 'Tyvec', along with other bitumen that contain polypropylene filaments e.g. type 5U, which can cause fatal harm to bats through entanglement and by creating unfavourable climatic conditions within a roosting area. All roofing spaces should be lined with traditional 1F hessian-backed bitumen felt which complies with BS EN 13707:2013 and BS 5250:2011 (as amended). The use of sticky fly paper, pesticide treatment and wood preservatives in roof voids can also be harmful to bats (see gov.uk/bat-roosts for further advice).

Providing that the precautions outlined above are strictly observed, the risk of a negative impact from the proposed development on protected and/or notable species will be negligible.

If any bats are found during the project, all work must be stopped immediately, and a licenced bat ecologist should be contacted for further advice.

6. Enhancements for Biodiversity

The proposed development represents an opportunity for habitat enhancements to benefit insects, birds, hedgehogs and bats.

1. The proposed development could include integrated bat roosting features. Suitable types can be found at www.birdbrickhouses.co.uk or the integrated Schwegler 1FR bat tube. Alternatively, readymade bat tiles could be placed on the west or east facing outside roof which can be sought from <https://www.tudorrooftiles.co.uk/bat.html>.

Should you need further advice or clarification of the information provided above, please do not hesitate to contact Imprint Ecology at emily@imprintecology.co.uk.

7. References

Bat Conservation Trust and Institute of Lighting Professionals (2018). Guidance Note 08/18 - *Bats and artificial lighting in the UK*. Available online at: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>.

British Standards Institute (BSI) (2011). BS 5250:2011 Code of practice for control of condensation in buildings (+A1:2016). BSI, London.

British Standards Institute (BSI) (2013). BS EN 13707:2013 Flexible sheets for waterproofing. Reinforced bitumen sheets for roof waterproofing. Definitions and characteristics. BSI, London.

British Standards Institute (BSI) (2013). BS42020 - Biodiversity Code of Practice for Planning and Change of use. BSI, London. BSI Standards Publication, Trees in relation to design, demolition and construction – Recommendations (2021)

Chichester District Council Adopted Chichester Local Plan: Key Policies 2014-2029, Policies 40, 49 – 52. Available online at: <http://www.chichester.gov.uk/CHttpHandler.ashx?id=24759&p=0>

Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd edition, The Bat Conservation Trust, London

HM Government (1981). *Wildlife and Countryside Act 1981 (as amended)*. Available online at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>

HM Government (2000). *Countryside and Rights of Way Act, 2000*. Available online at: <https://www.legislation.gov.uk/ukpga/2000/37/contents>

Mitchell-Jones, A.J., & McLeish, A.P. (eds). 2004., 3rd Edition *Bat Workers' Manual*, JNCC, Peterborough. Available online at: <https://data.jncc.gov.uk/data/e5888ae1-3306-4f17-9441-51a5f4dc416a/Batwork-manual-3rdedn.pdf>

Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough

South Downs National Park Authority. *South Downs Local Plan (2019)*. Midhurst. Available online at: https://www.southdowns.gov.uk/wpcontent/uploads/2019/07/SD_LocalPlan_2019_17Wb.pdf

Waring, S. D., Essah, E., Gunnell, K. and Bonser, R. (2013) Double jeopardy: the potential for problems when bats interact with breathable roofing membranes in the United Kingdom. *Architecture & Environment*, 1 (1). Pp. 1-13. ISSN 2329-2296. Available online at: http://centaur.reading.ac.uk/33044/1/ae_1361785788.pdf

Appendix 1 – Site photographs

Photo 1 – east facing elevation



Photo 2 – west facing elevation



Photo 3 – composite roof tiles, east facing elevation



Photo 4 – composite roof tiles, east facing elevation



Photo 5 – main void in the eaves



Photo 6 – east facing surroundings



Appendix 2 – Legislation and planning policy

The following legislation is relevant to survey findings and is only a summary.

Statutory Designated Sites

Designation	Relevant legislation
SSSI (Site of Special Scientific Interest)	Wildlife and Countryside Act 1981 (as amended)
SPA (Special Protection Area)	Conservation of Habitats and Species Regulations 2017 (as amended)
SAC (Special Areas for Conservation)	Conservation of Habitats and Species Regulations 2017 (as amended)
AONB (Area of Outstanding Natural Beauty)	Countryside and Rights of Way Act (CROW) 2000
Ancient Woodland	National Planning Policy Framework (2021)
Habitats of Principal Importance	Section 41 of the NERC Act 2006 and National Planning Policy Framework (2021)

Protected/Priority Species and Habitats of Principal Importance

Bats

All UK bats are European Protected Species.

All British bat species are defined in UK law as ‘Protected Species’ under Schedule 2 of the Conservation of Habitats and Species Regulations, 2017 (as amended). All bat species in England are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which confers additional protection under Section 9 of the act, and through the Countryside and Rights of Way (CRoW) Act, 2000.

All UK bats are listed in Appendix II and III of the Bern Convention. Bats and their habitats are listed in Appendix II of the Bonn Convention. Seven bat species are listed under Section 41 of the NERC Act 2006.

This combined legislation means that it is a criminal offence to:

- Deliberately kill, injure or capture bats
- Deliberately disturb bats, including in particular any disturbance which is likely to impair their ability to survive, to reproduce or to rear or nurture their young, or their ability to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance
- Damage or destroy a breeding site or resting place of a bat
- Damage or destroy, or obstruct access to, any structure or place which any bat uses for shelter or protection

- Disturb bats while occupying a structure or place used for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts a license may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. With suitable approved mitigation, exemptions can be granted from the protection afforded to bats under regulation 39 by means of a European Protected Species Licence (EPSL).

Natural England, for the Secretary of State for the Department for Environment, Food and Rural Affairs (DEFRA) is the appropriate authority for determining license applications for works associated with developments affecting bats. In cases where licenses are required, certain conditions should be met under the Habitats Regulations 2017 (as amended) to satisfy Natural England. These are:

1. Regulation 55(2)(e) states that licenses may be granted to ‘preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
2. Regulation 55(9)(a) states that a license may not be granted unless Natural England is satisfied ‘that there is no satisfactory alternative’.
3. Regulation 55(9)(b) states that a license cannot be issued unless Natural England is satisfied that the action proposed ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Natural England expects the planning position to be fully resolved as this is necessary to satisfy tests 1 and 2. Full planning permission, if applicable, will need to have been granted and any conditions relating to bats fully discharged. For test 3, Natural England should be satisfied that sufficient survey effort has been carried out and that the impact assessment and proposed mitigation measures (submitted with the license application) are adequate to maintain the species concerned at a favourable conservation status.

Planning policy

The National Planning Policy Framework (2021) outlines the government’s responsibility to minimise adverse impacts on biodiversity and bestow biodiversity net gains where possible. It states local planning authorities should “*aim to conserve and enhance biodiversity*” when considering planning applications, and that “*opportunities to incorporate biodiversity in and around developments should be encouraged*”.

The site is within the Chichester District; the proposals should be assessed against the Chichester District Local Plan – Key Policies 2014-2029. Policy 49 covers Biodiversity; the following criteria must be met for planning applications to be supported:

1. *The biodiversity value of the site is safeguarded;*

2. *Demonstrable harm to habitats or species which are protected or which are of importance to biodiversity is avoided or mitigated;*
3. *The proposal has incorporated features that enhance biodiversity as part of good design and sustainable development;*
4. *The proposal protects, manages and enhances the District's network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and stepping stones that connect them;*
5. *Any individual or cumulative adverse impacts on sites are avoided;*
6. *The benefits of development outweigh any adverse impact on the biodiversity on the site. Exceptions will only be made where no reasonable alternatives are available; and planning conditions and/or planning obligations may be imposed to mitigate or compensate for the harmful effects of the development.*