



# Rodborough Common SAC recreation mitigation strategy

FOOTPRINT ECOLOGY, FOREST OFFICE, BERE ROAD,  
WAREHAM, DORSET BH20 7PA  
WWW.FOOTPRINT-ECOLOGY.CO.UK  
01929 552444



Footprint Contract Reference: 664

Date: 9<sup>th</sup> May 2022

Version: Final

Recommended Citation: Liley, D. (2022). Rodborough Common SAC Mitigation Strategy. Report by Footprint Ecology.

## Summary

This strategy sets out a strategic approach to mitigate recreation impacts, associated with new housing growth, on Rodborough Common Special Area of Conservation (SAC). The SAC is part of a national network of sites that are of the highest importance for nature conservation and subject to strict legal protection.

The overall objective is to provide a framework under which applications for development likely to have a significant effect on Rodborough Common SAC as a result of an increase in recreational use can be permitted, with measures in place to ensure that adverse effects on the integrity of the SAC, alone or in-combination can be ruled out. This enables development, while ensuring sufficient protection in place for the SAC.

## Contents

|                                                  |     |
|--------------------------------------------------|-----|
| Summary .....                                    | ii  |
| Contents.....                                    | iii |
| Acknowledgements .....                           | iii |
| 1.      Introduction .....                       | 1   |
| Legislation .....                                | 1   |
| Rodborough Common SAC .....                      | 1   |
| Recreation use .....                             | 4   |
| Impacts from recreation .....                    | 5   |
| Approach to mitigation to date.....              | 8   |
| Strategy update .....                            | 8   |
| 2.      Mitigation measures.....                 | 10  |
| 3.      Implementation .....                     | 13  |
| Types of development .....                       | 13  |
| Cost per dwelling.....                           | 15  |
| Securing developer contributions .....           | 15  |
| Time covered by strategy and review points ..... | 15  |
| In-perpetuity.....                               | 16  |
| Appropriate assessment .....                     | 16  |
| Governance.....                                  | 17  |
| References .....                                 | 19  |
| Appendix 1: Measures and costs .....             | 21  |

## Acknowledgements

This strategy has been commissioned by Stroud District Council and our thanks to Conrad Moore for his steer.

We are grateful to the following for advice, information and helpful discussion: David Armstrong (National Trust), Richard Evans (National Trust), Sharon Gardham (Stroud Valleys Project), Clare Mahdiyone (Stroud Valleys Project), Antony Muller (Natural England), Deborah Russell (Stroud Valleys Project). Emma Bishop (Footprint Ecology) produced the maps.

## 1. Introduction

- 1.1 This strategy sets out a strategic approach to mitigation for recreation, associated with new housing growth, at Rodborough Common Special Area of Conservation (SAC). The SAC is part of a network of European sites that are of particular importance for nature conservation and subject to strict legal protection.
- 1.2 This strategy provides a framework under which applications for development likely to have a significant effect on Rodborough Common SAC can be permitted so that any adverse effects on the integrity are avoided. It updates the previous strategy that has provided mitigation since 2015.

## Legislation

- 1.3 The designation, protection and restoration of European wildlife sites is embedded in the Conservation of Habitats and Species Regulations 2017, as amended, which are commonly referred to as the 'Habitats Regulations'. Importantly, the most recent amendments (the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019<sup>1</sup>) take account of the UK's departure from the EU. Regulation 105 *et seq* addresses the assessment of local plans there is also recent Government Guidance on the interpretation and application of the Regulations<sup>2</sup>.
- 1.4 'European sites'<sup>3</sup> are the cornerstone of UK nature conservation policy. Each forms part of a 'national network' of sites that are afforded the highest degree of protection in domestic policy and law.

## Rodborough Common SAC

- 1.5 Rodborough Common SAC sits on the Jurassic Limestone of the Cotswolds just south of Stroud (Map 1). It is the most extensive area of semi-natural dry

---

<sup>1</sup> The amending regulations generally seek to retain the requirements of the 2017 Regulations but with adjustments for the UK's exit from the European Union. See Regulation 4, which also confirms that the interpretation of these Regulations as they had effect, or any guidance as it applied, before exit day, shall continue to do so.

<sup>2</sup> Habitats regulations assessments: protecting a European site. Defra and Natural England. 24 February 2021. <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site> (accessed 4 March 2021)

<sup>3</sup> We use this term in line with government guidance (see footnote above) and the Habitats Regulations Assessment Handbook, <https://www.dtapublications.co.uk/handbooks>

grassland surviving in the Cotswolds and forms part of a much larger network of unimproved grassland, good quality semi-improved grassland and woodland that stretches much of the length of the scarp. The SAC is legally underpinned by Rodborough Common SSSI.

- 1.6 The SAC is designated for the grassland habitat present on the site: the H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) and this includes the priority feature 'grassland with important orchid rich sites'. The SAC habitat type comprises CG3 *Bromus erectus* grassland and CG5 *Bromus erectus* – *Brachypodium pinnatum* grassland vegetation types (Rodwell, 1992). The site contains a wide range of structural types, ranging from short turf through to scrub margins, although short-turf vegetation is mainly confined to areas of shallower soils. Detailed background to the qualifying features and the conservation objectives are provided by Natural England<sup>4</sup>.
- 1.7 The site lies on a hill bounded either side by the Nailsworth and Frome valleys, with a number of dry valleys cutting into its margins. It thus consists of a central plateau area which drops away steeply on all sides. The wide variation of soil depth, slope and aspect defines the varied species composition and character of the vegetation, which is primarily that of unimproved, herb-rich, calcareous grassland.
- 1.8 The sward on the central plateau is maintained by free-roaming cattle and impacted by heavy public use, while the slopes are more varied with areas of thin skeletal soils grading to thicker soils with scrub. The slopes are particularly species-rich both for plants and insects. There are a high number of orchid species and the Pasque Flower *Pulsatilla vulgaris*. Scrub has developed over scattered parts of the Common, particularly near the margins. Of particular interest are areas containing Juniper *Juniperis communis* (Figure 1). Broadleaved woodland occurs on some of the site margins. The site supports a varied invertebrate fauna including a range of bugs, beetles and moths and rare butterflies such as the Duke of Burgundy *Hamearis lucina* (Figure 1), Adonis Blue *Polyommatus bellargus* and Small Blue *Cupido minimus*.

---

<sup>4</sup> Supplementary advice:

<http://publications.naturalengland.org.uk/publication/4660867861839872>



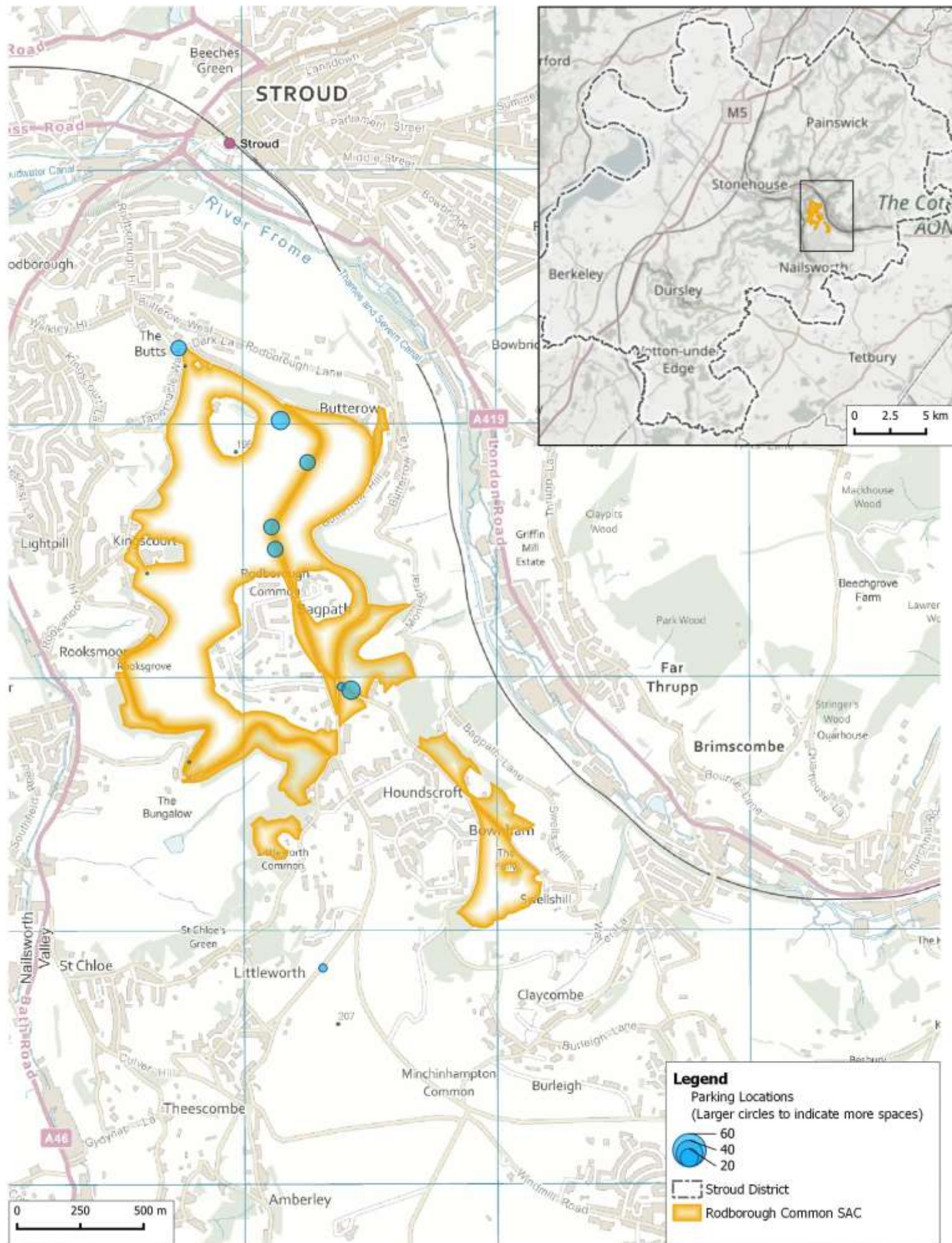
## Rodborough Common SAC Mitigation Strategy



**Figure 1: Rodborough Common and selected species: Pasque Flower (top left), Duke of Burgundy (lower left) and Juniper (lower right). All images Footprint Ecology.**



**Map 1: Location of the Rodborough Common SAC showing visitor access.**





- 1.9 Rodborough Common is access land and as such there is a right of access across the site. The Common is also crossed by a number of public rights of way. There is direct access from local housing, particularly towards the west of the site and numerous roads cross the Common, with free parking at around 10 different locations (see Panter & Caals, 2019). One of the attractions that add to the draw of the Common is the Winstones Ice Cream factory.
- 1.10 Visitor surveys at Rodborough Common (Panter & Caals, 2019<sup>5</sup>) highlight that the site is well used by local residents, with 93% of those interviewed on a short visit directly from home. Visits were particularly for dog walking (61% of interviewees) and walking (19%), with other activities including family outing, jogging, picnic and cycling/mountain biking. On average people visited for around an hour and came 1 to 3 times per week. Postcode data reflected local use with visitors living in nearby settlements including Stroud, Rodborough, Woodchester, Thrupp, Lightpill and Kingscourt. The median distance (home postcode to interview location) was 1.9km and 75% of interviewees lived within a 3.9km radius. 87% of visitors lived in Stroud District.
- 1.11 It should be noted that the visitor survey data relates to before the pandemic. Greenspaces in the UK have seen a marked surge in recreation as a result of the Covid pandemic (Burnett et al., 2021; McGinlay et al., 2020; Natural England & Kantar Public, 2021) and many changes, such as increased dog ownership (Morgan et al., 2020) may have long-lasting effects.

## Impacts from recreation

- 1.12 This mitigation strategy addresses impacts from recreation use related to new housing growth. The Common's close proximity to Stroud, open access, attractive views and position within the Cotswolds Area of Outstanding Natural Beauty means it is popular destination and draws people for a range of activities. Potential impacts are summarised in Table 1 and further detail and mapping of current impacts are provided by the Stroud Valleys Project (2021).

---

<sup>5</sup> The visitor survey is available on the [Stroud District Council website](#)

**Table 1: Current and potential impacts of recreation at Rodborough Common. Impacts are listed in approximate order of risk, with the most important at the top.**

| Impact                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Difficulty in achieving conservation grazing | Dogs and people have potential to deter graziers and make the management of the site difficult in the long term. People, dogs and fast moving traffic bring risks of cattle being spooked and running onto roads or being a health and safety risk, e.g. to walkers where they have been previously spooked (e.g. by dogs). There are particular risks in relation to road traffic at times of poor visibility. There is also risk of public opposition to grazing animals (e.g. from damage to parked vehicles, visitors being scared, muck etc.) that then result in challenges to manage properly and achieve the necessary grazing management. |
| Soil compaction/wear/erosion                 | Feet and bikes following same routes year-round results in damaged sward, loss of vegetation and damage to soil. Paths widen over time and further paths form, resulting in further damage. Monitoring has shown increases in footfall leading to path widening, loss of species diversity and sward quality (Stroud Valleys Project, 2021).                                                                                                                                                                                                                                                                                                       |
| Dog fouling                                  | Results in eutrophication (enrichment of soil) leading to change in vegetation and poses disease risk for cattle (adding to issues with achieving grazing).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Public perception                            | With increased visitor use comes increasing demand for additional facilities and infrastructure, for example additional parking, benches, bins etc. Plus increasing demand for ice cream vans, coffee pods etc. This all has the potential to result in incremental damage, increased litter, further increases in visitors etc. Changing public perceptions of the site as a recreation resource further add to the challenges with respect to grazing.                                                                                                                                                                                           |
| Fire                                         | Disposable barbeques and portable barbeques result in localised burns/scarring of vegetation (and possible risk of fire in extreme hot/dry weather?).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Spread of non-natives                        | Non-native plant species can be spread on clothing, fur and wheels. Risk of planting of ornamental trees, shrubs etc by visitors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Contamination of water                       | Dogs can enter water troughs and ponds with the risk of contamination of water through proprietary flea treatments, shampoo etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Litter                                       | Risks to livestock, possible contamination of soil and increased staff time to clear up.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

- 1.13 The supplementary conservation advice<sup>6</sup> highlights that the management of livestock grazing and public recreation are the main issue for achieving favourable condition of the site. Management is complex as the site is a registered Common, which has particular implications in terms of grazing rights, consultation requirements and the potential to erect fencing. The steep slopes and numerous roads create further challenges. High levels of public recreation use mean that achieving the necessary conservation management in the long term is increasingly challenging.



**Figure 2: The busy roads and roadside parking provide challenges for safe and effective long-term grazing**

---

<sup>6</sup> Produced by Natural England, see <http://publications.naturalengland.org.uk/publication/4660867861839872> accessed 4th May 2022

## Approach to mitigation to date

- 1.14 An interim mitigation approach was established in 2015<sup>7</sup> by Stroud District Council, in accordance with Policy ES6 (and supporting text) in the 2015 Stroud District Local Plan. The Council worked collaboratively with Natural England, the National Trust, the Rodborough Commoners and Stroud Valleys Project to devise an agreed strategy whereby monies were collected through S106 agreements were used to fund a suite of mitigation measures. The strategy applied to all new residential development within a 3km radius of the SAC. This approach enabled development while ensuring sufficient protection was in place for the SAC.
- 1.15 The interim strategy estimated housing growth in the zone of influence to be around 600 dwellings and the mitigation identified at the time was estimated to cost £119,500. The contribution per net dwelling was therefore £200.
- 1.16 Over the period 2015-2021, in line with the measures identified in the strategy, the developer contributions have been used or are committed to fund:
- Contribution towards a cattle grid at the Tablernacle;
  - Core funding for awareness raising work by the Stroud Valleys Project;
  - Participation by Stroud Valleys Project in the Stroud Festival of Nature in 2018, 2019 and Cattle Marking Day events in 2018, 2019. To be repeated in 2022;
  - Design and distribution of leaflets by the Stroud Valleys Project;
  - Surveys of Rodborough Common, including botanical survey work, path width survey and citizen science skylark surveys;
  - Information Board provision working with National Trust.
  - Erection of grazing paddocks electric fencing and dismantling/storage, with the National Trust;
  - Drone Survey working with National Trust and Stroud Valleys Project
  - Scrub clearance on selected slopes working with National Trust;
  - Cattle drinking trough provision and maintenance.

## Strategy update

- 1.17 Stroud District Council has been working on a review of its Local Plan and this was submitted for examination in October 2021. Habitats Regulations

---

<sup>7</sup> <https://www.stroud.gov.uk/media/208829/agenda-document-pack-19-march-2015.pdf>



Assessment (HRA) of the Local Plan Review has highlighted the need for the Rodborough Common interim strategy to be brought up to date.

- 1.18 There are currently around 24,529 dwellings within 3.9km of Rodborough Common (across all local authorities) and the submission version of the Local Plan Review includes 10 allocations of 560 new dwellings within 3.9km of Rodborough Common SAC. We therefore estimate that there could be around 600 dwellings (allowing for some windfall), an increase of around 2% over the period to 2040.
- 1.19 The strategy needs to be updated to address this scale of change and also:
- The zone of influence needs to be extended out from 3km to 3.9km, In-line with the more recent visitor data (Panter & Caals, 2019);
  - The mitigation measures need to be reviewed and costs updated, particularly in light of the Covid pandemic and associated increased use of greenspaces for recreation and upsurge in dog ownership.
- 1.20 This strategy therefore updates the interim strategy and sets out the mitigation approach necessary to accompany the Stroud Local Plan Review.

## 2. Mitigation measures

- 2.1 A package of mitigation measures is summarised in Figure 3 and these cover targeted habitat management work (additional to routine management), access infrastructure, wardening, awareness raising and monitoring. These measures are set out in detail in Appendix 1, which includes costs for each.



**Figure 3: Overview of mitigation measures covered within the strategy**

- 2.2 The package of measures is intended to be flexible and adapt to changing priorities. There needs to be the scope that mitigation money can be directed as necessary should new priorities or opportunities arise, for example in relation to changes in how the site is grazed.
- 2.3 In many cases, such as the targeted removal of non-native species and the increased ranger time, the measures are intended to fit with current management but provide for additional effort or changes to routine management to address the additional issues associated with gradually increasing levels of recreation use.
- 2.4 The measures include for a review of parking. This is intended to be a feasibility study or options appraisal to consider the potential for changes to parking provision at Rodborough Common and to support more sustainable

forms of transport. This is a difficult issue and could be contentious, and as such warrants careful consideration, review and planning. There are at present around 10 different parking locations around the Common and in virtually all cases visitors disperse from the parking with no clear route or direction indicated. Parking locations do not necessarily have a clear boundary. There may therefore be options to adjust the amount of parking capacity, rationalise parking, better direct visitors and improve engagement. The challenges with any changes relate to public opposition and the risk of deflecting parking. A review may be best done after a series of counts of parked vehicles (which is costed within the monitoring). The review should be undertaken by a specialist consultancy with the necessary experience with addressing issues at other sites and an understanding of the landscape sensitivity and particular requirements around commons.

- 2.5      The measures identified are targeted at Rodborough Common, which is the SAC. It is however important to recognise the connectivity with the other nearby grassland sites, especially Minchinhampton Common. Visitor use, traffic flows and grazing management are linked between the two sites and therefore there may be merit in some of the mitigation measures being extended beyond Rodborough Common if this ensures the effectiveness of mitigation in relation to the SAC.
- 2.6      Many strategic approaches to mitigation rely on Suitable Alternative Natural Greenspace ('SANGs') to deflect access. There are some challenges with reliance on SANG for mitigation at Rodborough. The zone of influence is small and as a consequence there is a limited geographic area within which to find and provide suitably large alternatives. Rodborough Common has a particular draw for the scenery and flat walks with wide views, and as the visitor survey results (Panter & Caals, 2019) indicate, the most likely alternatives will be similar sites such as Minchinhampton Common or Selsley Common. These are also SSSIs and potentially also sensitive in themselves to increased recreation. The 2019 visitor survey at Rodborough Common included a question about whether interviewees might use a new country park and only 14% of interviewees indicated that they thought they might use such a facility and this figure dropped to just 11% for dog walkers only. As such there is perhaps little potential to rely on alternative greenspace as mitigation, particularly given the likely cost of such provision and relatively small housing increase.
- 2.7      SANGs are therefore not costed or included in the strategy as mitigation for Rodborough Common. This conclusion should however be revisited in

future reviews of this strategy as SANGs are likely to be relevant as mitigation for recreation impacts to the Severn Estuary SAC/SPA/Ramsar and to the Cotswold Beechwoods SAC and implemented in the near future with respect to these European sites. As SANGs therefore become established in the general area they may serve to reduce the recreation pressure on Rodborough Common and monitoring data can be used to review the role of SANG as mitigation at Rodborough.

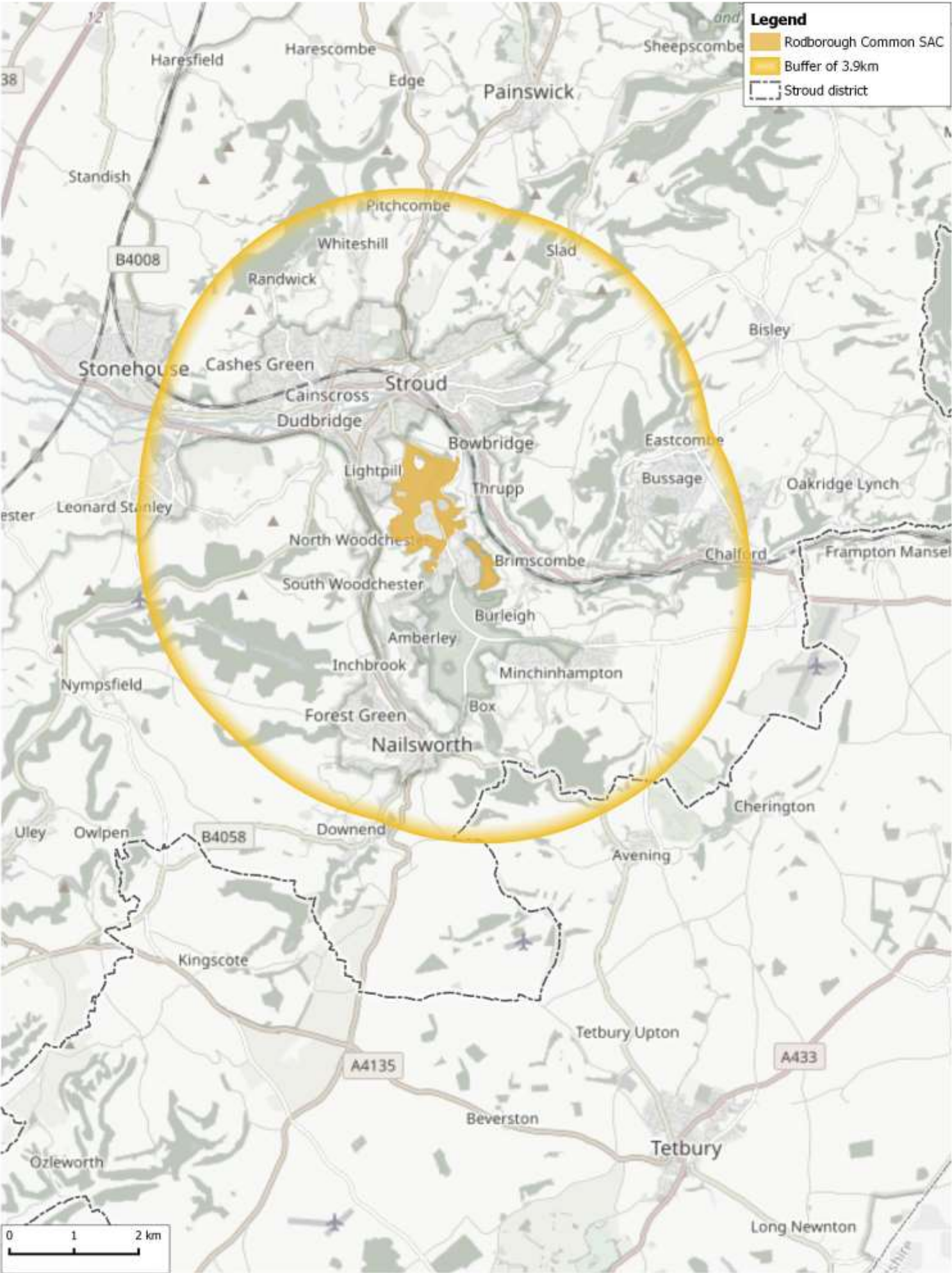
## 3. Implementation

### Types of development

- 3.1 This strategy applies to any development granted planning permission that results in a net increase in residential units (i.e. C3 Use Class), located within 3.9km of Rodborough Common SAC (see Map 2).
- 3.2 While the strategy is focussed towards C3 Use Class, there are other uses and forms of development that may have impacts on the SAC. Examples of other uses are listed below and will need to be assessed on a case-by-case basis:
- Houses in Multiple Occupation (sui generis);
  - Residential institutions within the C2 Use Class where the residents are not severely restricted by illness or mobility;
  - Student accommodation;
  - Sites for gypsy, travellers and travelling showpeople;
  - Tourist accommodation, including self-catering, caravan and touring holiday accommodation.
- 3.3 For the above types of development, this strategy can provide a means of ensuring effective mitigation. While in general each unit for the above could be considered a single dwelling, there may be a need to adjust the rate of contribution for different types, for example according to occupancy rates for tourist accommodation. This will need to be assessed on a case by case basis.



Map 2: Rodborough Common SAC showing the Zone of Influence.



## Cost per dwelling

- 3.5 Mitigation measures – as summarised in Section 2 and Appendix 1 – are estimated to cost £607,530.
- 3.6 Mitigation money collected to the end of 2021 and not currently allocated is £11,289. This figure is deducted from the overall cost of mitigation to give an overall cost of £596,241.
- 3.7 Housing growth is anticipated to be around 600 new dwellings over the life of the Plan (see para 1.18). This gives a cost per dwelling of £994. This is prior to the application of any administration fee. This standard fee is calculated by spreading the cost of the necessary mitigation across the amount of planned development. The estimated overall cost does not allow for inflation or discounting and administration fees will be set by Stroud District Council.
- 3.8 The mitigation costs include in-perpetuity funding and a 10% contingency. Per dwelling costs should be adjusted annually in line with inflation.

## Securing developer contributions

- 3.9 Developer contributions will be paid by planning obligation through a payment prior to commencement (Section 106 Agreement or unilateral undertaking). A model S106 agreement template available to assist applicants. The mitigation strategy is designed to enable development by ensuring mitigation for Rodborough Common SAC and impacts from urbanisation and recreation can be secured, however the option remains for developers to seek their own solutions. Any development that involves a net increase in residential properties within the zone of influence that opted out of contributing to the strategy would need to rule out adverse effects on integrity to Rodborough Common SAC through the provision of a shadow Habitats Regulations Assessment, which would need to be agreed with Natural England and the Council. Any necessary mitigation would need to be secured in perpetuity.

## Time covered by strategy and review points

- 3.10 The strategy covers the period 2022-2040. This means the strategy is aligned to the period covered by the Local Plan Review and the costs relate to the overall costs of delivering the mitigation necessary for the Plan. However, costs and the mitigation measures should be reviewed on a 5 year basis and the strategy updated as necessary every 5 years, or in line with the next Plan review.

## In-perpetuity

- 3.11 Mitigation needs to be effective in the long-term, lasting as long as necessary to address any impacts. It is however difficult to predict how access patterns will change in the long-term, and issues and priorities for mitigation may change over time. The pandemic has resulted in marked shifts in how people use their local greenspaces and this may have implications well into the future.
- 3.12 Costs have been derived assuming that mitigation will be delivered in-perpetuity<sup>8</sup>. Implementation of measures will be phased with housing growth, ensuring sufficient mitigation is in place before new housing is occupied. This means not all measures will be instigated at once and the amount of time each measure needs costing for will vary. Some measures will be short term in nature or will need to only run for a certain period. In estimating costs for mitigation, we have assumed only additional wardening time will be necessary for 80 years but all other measures have been costed over different time periods, as relevant and appropriate.

## Appropriate assessment

- 3.13 A Habitats Regulations Assessment (HRA) refers to the several distinct stages of Assessment which must be undertaken in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended) to determine if a plan or project may affect the protected features of a European site before deciding whether to undertake, permit or authorise it.
- 3.14 Any additional residential development within 3.9km of Rodborough Common SAC is likely to have a significant effect on the SAC, either alone or in combination with other proposals.
- 3.15 This strategy provides the framework for mitigation measures to comply with local plan policy and thereby enable Stroud District Council as competent authority to conclude through appropriate assessment that there is no adverse effect on the integrity of the Rodborough Common SAC from increased recreation, alone or in-combination with other plans or projects.
- 3.16 There may be instances when the applicant will be required to provide further information and agree to further avoidance and mitigation measures

---

<sup>8</sup> In line with other mitigation strategies this assumed to be 80 years.

to ensure adverse effects can be ruled out – this may be the case where development is in particularly close proximity to the site, there are other potential risks to Rodborough Common SAC (besides recreation impacts) or there are risks to other European sites besides Rodborough Common.

## Governance

- 3.17 It is essential that there is flexibility in how mitigation money is spent and priorities and issues may change over time. The costs allow for a broad package of mitigation measures which are sufficient to enable adverse effects on integrity from recreation to be ruled out but over time there may be different options or alternatives. Actual costs of work or mitigation delivery may change over time, and it will therefore be necessary for the funds to be reviewed at regular intervals.
- 3.18 A governance structure will therefore be established with an oversight group that can review the amount of money collected and authorise the budget. This oversight group would ultimately be responsible for ensuring resources were appropriately targeted in line with the amount of housing, funds available, the need to set money aside for long term funding and the priorities for mitigation. That group would be best established involving representatives from Stroud District Council and could include Ward members or District Councillors and Natural England. Stroud District Council welcome applications for specific projects from relevant partners that fit with the aims of the strategy and mitigation delivery and could provide alternatives or value for money. This provides the potential for parish and Town Councils, other organisations/bodies or community groups with an interest in the Common to promote new opportunities for projects to give the strategy flexibility and ability to adapt to changing circumstances or new opportunities. A proforma is available from the Council for any such applications and the oversight group would have the task of approving any such projects.
- 3.19 A working group can also meet more regularly and involve a less formal group of those involved in the mitigation delivery. This working group would ensure coordination of mitigation delivery and encourage the submission of proposals to the oversight group.
- 3.20 A suggested governance structure is shown in Figure 4. The mitigation costs include for some administrative support as shown in the diagram.



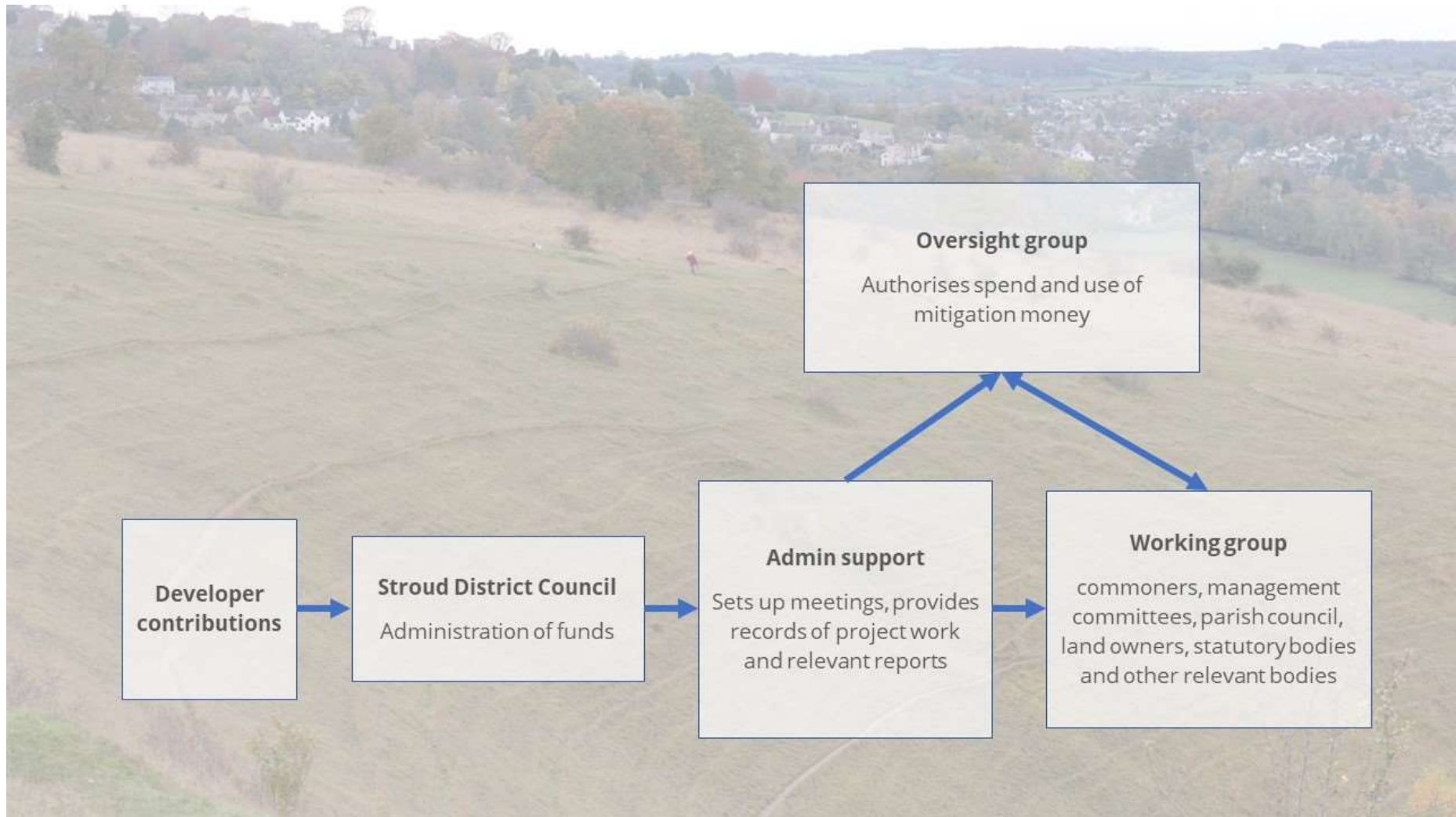


Figure 4: Suggested governance structure

## References

- Burnett, H., Olsen, J. R., Nicholls, N., & Mitchell, R. (2021). Change in time spent visiting and experiences of green space following restrictions on movement during the COVID-19 pandemic: A nationally representative cross-sectional study of UK adults. *BMJ Open*, 11(3), e044067. <https://doi.org/10.1136/bmjopen-2020-044067>
- McGinlay, J., Gkoumas, V., Holtvoeth, J., Fuertes, R. F. A., Bazhenova, E., Benzoni, A., Botsch, K., Martel, C. C., Sánchez, C. C., Cervera, I., Chaminade, G., Doerstel, J., García, C. J. F., Jones, A., Lammertz, M., Lotman, K., Odar, M., Pastor, T., Ritchie, C., ... Jones, N. (2020). The Impact of COVID-19 on the Management of European Protected Areas and Policy Implications. *Forests*, 11(11), 1214. <https://doi.org/10.3390/f11111214>
- Morgan, L., Protopopova, A., Birkler, R. I. D., Itin-Shwartz, B., Sutton, G. A., Gamliel, A., Yakobson, B., & Raz, T. (2020). Human–dog relationships during the COVID-19 pandemic: Booming dog adoption during social isolation. *Humanities and Social Sciences Communications*, 7(1), 1–11. <https://doi.org/10.1057/s41599-020-00649-x>
- Natural England, & Kantar Public. (2021). *Impact of Covid-19 on engagement with green and natural spaces* (Natural England Report No. PANS003). The People and Nature Survey for England. <http://publications.naturalengland.org.uk/publication/4513040482697216>
- Panter, C., & Caals, Z. (2019). *Rodborough Common Visitor Survey* (Unpublished Report No. 497). Footprint Ecology / Stroud DC.



Randler, C., Tryjanowski, P., Jokimäki, J., Kaisanlahti-Jokimäki, M.-L., & Staller, N. (2020).

SARS-CoV2 (COVID-19) Pandemic Lockdown Influences Nature-Based

Recreational Activity: The Case of Birders. *International Journal of Environmental*

*Research and Public Health*, 17(19), 7310. <https://doi.org/10.3390/ijerph17197310>

Stroud Valleys Project. (2021). *Rodborough Common Footpath, Botanical and Skylark*

*Surveys 2021*. Stroud Valleys Project.

## Appendix 1: Measures and costs

The table overleaf summarises the mitigation measures and costs included within the strategy.

The overall cost of mitigation delivery is £580,690. This includes contingency funding and in-perpetuity costs for certain elements, but excludes any administration fee. No account has been made for inflation or discounting.

### Mitigation measures and costs

| Type of measure                           | Measure                                                                                                 | Potential delivery | One-off cost | Annual cost | Multiplier for annual cost | Total cost | Notes                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------|--------------|-------------|----------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Habitat & grazing management              | Targeted removal of non-native species and selected scrub                                               | NT                 |              | £2,500      | 10                         | £25,000    | Funding specific to remove invasive species and managing scrub to ensure livestock can easily move away when people/dogs approach. Not funding routine habitat management                                                                                                                                     |
| Habitat & grazing management              | Specialist advice and subsequent implementation of measures to reduce risks to cattle from traffic      | various            | £12,000      |             |                            | £12,000    | Costs to provide specialist advice on long term options to address risks to cattle from traffic and recreation. Budget to then implement measures based on the advice with options to put in traffic calming measures, further signage, purchase reflective collars or use GPS tags to allow virtual fencing. |
| Access Infrastructure                     | Review of parking to include feasibility study and options appraisal of potential parking interventions | NT                 | £5,000       |             |                            | £5,000     | Would identify scope to sensitively rationalise and change parking to facilitate engagement and better manage visitor flows. Should include potential to encourage more sustainable forms of transport                                                                                                        |
| Access Infrastructure                     | Improvements to parking                                                                                 | NT                 | £25,000      |             |                            | £25,000    | Budget to provide contribution towards measures identified in review/feasibility study                                                                                                                                                                                                                        |
| Access Infrastructure                     | Waymarking / signage                                                                                    | NT                 | £2,000       |             |                            | £2,000     | Budget to provide for sensitive and appropriate waymarking/signage, as needed to direct visitor flows. Potential to try and reduce footfall in some areas to allow recovery.                                                                                                                                  |
| Rangers/staff time & face-face engagement | Increased ranger time to cover additional site visits                                                   | NT                 |              | £2,700      | 80                         | £216,000   | Annual cost provides approximate costs for 1.5 day staff time per month, assuming £25,000 p.a. salary plus 35% to cover NI etc and support costs and 225 days worked in a year.                                                                                                                               |

# Rodborough Common SAC Mitigation Strategy

| Type of measure                           | Measure                                              | Potential delivery | One-off cost | Annual cost | Multiplier for annual cost | Total cost | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------|------------------------------------------------------|--------------------|--------------|-------------|----------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rangers/staff time & face-face engagement | Establish volunteer ambassador scheme and volunteers | SVP/NT/MRCA C      | £2,000       | £3,600      | 25                         | £92,000    | Scheme would strengthen local community links and give volunteers skills and confidence to engage with visitors and help influence visitor behaviour. Annual cost provides approximate costs for 2 day staff time per month, £25,000 p.a. salary plus 35% to cover NI etc and support costs. One-off costs to cover additional training (e.g. around communication with dog walkers). MRCAC are currently setting up a pilot volunteer 'friends' scheme and this could inform how such a scheme would look and work. |
| Awareness raising                         | Events                                               | SVP/NT/MRCA C?     | £500         | £2,000      | 20                         | £40,500    | Funding for attendance and support at events, such as Marking Day and Stroud Festival of Nature, with these providing the opportunity to communicate key messages around conservation and responsible access, potential for volunteer recruitment. Annual costs to help cover staff costs, travel costs and specific materials plus one-off cost to cover equipment such as a gazebo. Also scope for dedicated events to be run for visitors and volunteers (e.g. around dog training or responsible dog walking).   |
| Awareness raising                         | Increased social media use and content               | SVP/NT/MRCA C?     |              |             | 20                         | £0         | This would be to promote conservation importance of site, engagement with local residents and visitors and support for volunteer ambassadors. This work area could be undertaken alongside the volunteer ambassador scheme and covered by the staff costs allocated to that work area                                                                                                                                                                                                                                |

## R o d b o r o u g h   C o m m o n   S A C   M i t i g a t i o n   S t r a t e g y

| Type of measure                           | Measure                                               | Potential delivery | One-off cost | Annual cost | Multiplier for annual cost | Total cost | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------|-------------------------------------------------------|--------------------|--------------|-------------|----------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring                                | Botanical survey including mapping non-native species | SVP                |              | £2,000      | 5                          | £10,000    | Surveys in line with previous surveys by Stroud Valleys Project and including mapping of non-native species. Cost £2000 per survey, budget for 5 surveys.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Monitoring                                | Fixed point photography                               | SVP                |              | £1,000      | 5                          | £5,000     | Surveys repeated annually but unlikely to be necessary in-perpetuity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Monitoring                                | Drone surveys                                         | consultant/NT      |              | £5,000      | 3                          | £15,000    | Provision of high resolution aerials to allow accurate mapping of vegetation (scrub) and paths. Cost per survey estimated at £5000, budget allows for 3 surveys                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Monitoring                                | Visitor survey                                        | consultant         |              | £10,000     | 4                          | £40,000    | Visitor survey to cover counts of parked vehicles and interviews with random sample of visitors, extended to selected parts of Minchinhampton Common to better understand links in access use between two sites. Survey undertaken at 5 year intervals and results used to help target awareness raising, signage etc with survey incorporating questions around mitigation effectiveness and awareness raising. Scope for budget to be targeted if necessary around particular mitigation measures such as how best to achieve behavioural change. Cost per survey estimated at £10,000, budget for 4 surveys. |
| Rangers/staff time & face-face engagement | Administration support                                | SDC?               |              | £3,600      | 18                         | £64,800    | Annual cost provides approximate costs for 2 day staff time per month, assuming £25,000 p.a. salary plus 35% to cover NI etc and support costs and 225 days worked in a year..                                                                                                                                                                                                                                                                                                                                                                                                                                  |



# Rodborough Common SAC Mitigation Strategy

| Type of measure                 | Measure | Potential delivery | One-off cost   | Annual cost    | Multiplier for annual cost | Total cost      | Notes |
|---------------------------------|---------|--------------------|----------------|----------------|----------------------------|-----------------|-------|
| <b>TOTAL</b>                    |         |                    | <b>£46,500</b> | <b>£32,400</b> |                            | <b>£552,300</b> |       |
| <b>10% contingency</b>          |         |                    |                |                |                            | <b>£55,230</b>  |       |
| <b>TOTAL (with contingency)</b> |         |                    |                |                |                            | <b>£607,530</b> |       |