

Feasibility Study for the eradication of *insert target species* from *insert site name, location*

Title page can include referenced photos of study site and/or species involved

Insert author(s) name, institution, contact details

If applicable, include notification of funding organisation / contractor

Reviewer(s): *Insert reviewer(s) name, institution, contact details, date of review*

Version History:

VERSION	DATE	AUTHOR	REASON FOR CHANGE

This report should be cited as: *Insert citation including all authors and date*

NOTE: Detailed guidance on how to complete a Feasibility Study can be found in Section 3 of the Overview document of the UK Rodent Eradication Best Practice Toolkit.

Template guidance is all provided in **Green** and should be deleted prior to completing the report.

This template has been adapted from the Pacific Invasives Initiative toolkit (PII, 2011).

Executive Summary

Provide an overview of the main points of the report. Provide enough information for the reader to get a summary of what is discussed in the full report. This should include:

- *Goal, objectives & outcomes*
- *The site, target species, impacts & benefits of eradication*
- *A decision on feasibility: (1) Can it be done?
(2) What will it take?
(3) Is it worth it?*
- *Why, when and how is it being undertaken, and by whom*
- *Any issues, risks and challenges that need to be considered*

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1 INTRODUCTION

Explain the purpose of this document, and set the context for the project. Include:

- *Details if this eradication project is part of a larger programme of work (of multiple eradications or a wider restoration project).*
- *Details of any national or international programmes that this project is related to, including any obligations under site / species designations.*
- *The expected audience of the Feasibility Study.*
- *Reference all relevant documents used as background information, and include a full citation in the References section.*

1.1 The Site *Insert site name*

Describe the physical character of the eradication site. Provide a map or aerial photograph.

Description should include:

- *Site name, location, number of islands*
- *Any site designations (e.g. SSSI, AONB) and site importance*
- *Area (ha) of each island*
- *Distances to other islands and/or mainland of each island*
- *Type of terrain and vegetation of each island*
- *Ownership / jurisdiction*
- *Inhabited / uninhabited*
- *If inhabited, include details of location and size of human settlements and how the residents use the land (E.g. agriculture, tourism, fishing port etc.)*
- *Island(s) access (pier, harbour, landing beach etc.)*
- *Other non-native species known or suspected to be present*
- *Native species present, including key breeding species*
- *Food sources for the target species (including human waste)*

1.2 Target Species *Insert target species name (including scientific name)*

Describe the introduced non-native species to be eradicated. Include:

- *Description of species biology, ecology and native range*
- *Seasonal variations in population in temperate regions*
- *Include site visit summary, including any information on the distribution, numbers and densities obtained of the target species (e.g. from index trapping), along with any previous data.*
- *State that voucher specimens/DNA samples of the target species have been collected (i.e. for confirmation of the identity of the target species and for comparison with specimens collected during incursion events. Samples can be stored for later analysis if not immediately required).*

1.3 Impacts

Describe the impacts of the target species at the project site. Consider all impacts of the target species: economic, biodiversity, social, health.

Describe the justification of eradicating the target species from the project site. Include case studies of previous successful eradication projects in the UK, or similar climates, outlining the benefits observed.

2 GOAL, OBJECTIVES AND OUTCOMES

The goal, objectives and outcomes should define what the project will achieve. These should be SMART (Specific, Measurable, Attainable, Relevant and Timely).

GOAL: A long-term desired result.

OBJECTIVES: Specific achievements that will help reach the goal.

OUTCOMES: A change resulting from the achievement of an objective.

3 FEASIBILITY

In this section we present and analyse the information available for each of the seven feasibility criteria to enable the feasibility of eradication *insert target species* from *insert site name* to be determined.

3.1 Technical feasibility

Describe if the eradication can be achieved via a ground-based bait station operation and how this conclusion has been reached. Description should include:

- *Island access*
- *The correct sized baiting and monitoring grid required*
- *Similar projects that have been successful*
- *Additional trials/data gathering requirements (e.g. bait palatability/acceptance trails)*

3.1.1 Choice of method

- *Consider the options for reducing the impacts of the target species (Table A).*
- *Consider the options for rodent management on the site (Table B).*
- *If the conclusion is that rodenticides are the best option, consider the options for rodenticides to use on the site (Table C).*

Table A: Alternative options for reducing the impacts of *insert target species* on the *insert site name*

Option	Outcome	Decision
Do nothing	<i>tbc</i>	<i>tbc</i>
Undertake long-term rodent control	<i>tbc</i>	<i>tbc</i>
Eradicate the entire rodent population	<i>tbc</i>	<i>tbc</i>
<i>Etc.</i>		

Table B: Options considered for *insert target species* management on *insert site*

Option	Advantages	Disadvantages	Outcome
Live trapping	<i>tbc</i>	<i>tbc</i>	<i>Tbc e.g. IMPRACTICAL</i>
Immuno-contraception	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>
Anticoagulant rodenticides	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>
<i>Etc.</i>			

Table C: Different rodenticides considered for the *insert target species* eradication on *insert site*

Refer to HSE database:

<http://webcommunities.hse.gov.uk/connect.ti/pesticides/viewdatastore?dsid=10116>

Rodenticide	Advantages	Disadvantages	Outcome
First Generation Anticoagulant Rodenticide (FGARs)			
Warfarin	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>
<i>Etc.</i>	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>
Second Generation Anticoagulant Rodenticide (SGARs)			
Bromadiolone	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>
<i>Etc.</i>	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>

3.1.2 Logistics

List all of the logistical challenges and how to overcome these, taking into account the island(s) access and terrain, and the baiting and monitoring grids required.

3.1.3 Non-target impacts

Consider the potential impacts on native species present and how these can be mitigated to an acceptable degree.

Consider impact of eradication on other non-native species present, notably house mice, and how this can be mitigated. Include the response required if house mice are found at a later date if initially thought not to be present.

Provide a risk assessment for the impacts on non-target species, Table D.

Table D: Risk assessment for non-target species during the eradication of *insert target species* on *insert site*

Species	Potential impact	Preventative action	Risk
<i>E.g. Domestic dogs</i>	<i>E.g. Direct poisoning Secondary poisoning Trophic interactions</i>	<i>E.g. Use of bait stations Antidote for rodenticide available</i>	<i>E.g. Low</i>
<i>Etc.</i>	<i>Etc.</i>	<i>Etc.</i>	<i>Etc.</i>

3.1.4 Key issues to resolve before operation proceeds

List all the issues required to address the logistical, non-target and other challenges prior to the operational phase.

3.2 Sustainability

Assessment of whether the benefits of the eradication operation can be maintained afterwards. This should include:

- Identify major-risk invasive pathways: distance to other islands / mainland, island(s) access etc. (Table E).
- An approximate budget for ongoing biosecurity costs

Table E: Potential invasion pathways for *Insert site*

Species	Source	Pathway	Risk	Prevention Strategy
Brown rat	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>
<i>Etc.</i>				

3.3 Political & legal acceptability

Describe the political and legal considerations that have to be taken into account to ensure the project is feasible.

- List all legal permits required to carry out the project.
- Outline all relevant UK laws and regulations pertaining to the site and the proposed activities.
- Outline all permits/approvals necessary from local authorities or Government to visit the islands, or to use toxins, traps, etc.
- Clearly identify any issues that will need to be resolved in the Operational Planning Stage.

3.4 Social acceptability

Assess whether the project is acceptable to and supported by all island residents, landowners and other key island users (e.g. graziers) and ideally with wider communities and other stakeholders.

- Include details of any stakeholder consultation already undertaken.
- Ensure all island residents are consulted at feasibility stage (at least – if not at project selection) by a rodent eradication expert.
- Include indication of the level of support from community and stakeholders.
- Describe how local community groups have been and will need to be involved in the project.
- Identify any issues that need addressing to make it socially acceptable

3.5 Environmental acceptability

Describe what measures need to be taken to ensure that the eradication does not have a net negative effect on the island environment including non-target species. Describe the short-term and long-term impacts of the eradication.

- Identify the likely impacts to the wider island environment and how to mitigate these.
- Identify the risks to non-target species, both native and non-native, and potential implications to the wider environment.
- Clearly identify any issues that will need to be resolved in the Operational Planning Stage.

3.6 Capacity

Assess whether the project partnership/implementing agency has the skills and expertise to undertake the project. Identify:

- What skills are needed to undertake the project (Table F)
- Identify any skills required that are locally available
- Any training needs

Table F: Key Skills needed to complete the project to eradication *insert target species* from *insert site*

Key Skill	Purpose	Method to obtain skill
Leadership of rat eradication projects	Lead technical phase of rat eradication	<i>tbc</i>
GIS expertise	Create and maintain maps of islands and associated rat eradication data (locations of bait stations, monitoring equipment etc.)	<i>tbc</i>
<i>Etc.</i>		

3.6.1 Project management

Provide a summary of how the lead institution has the capacity to manage the project.

3.6.2 Specialist input

Identify the requirement of specialist input, e.g. rope work or boat handling

3.6.3 Staffing

Outline any staffing considerations

3.7 Financial viability

Provide indicative costs for the project. Table G. Include:

- *budget for unexpected tasks identified during the later detailed planning*
- *Add a 20% contingency amount*
- *Consider annual running costs*
- *Mention any potential funders*

Table G: Indicative project costs for the eradication of *insert target species* from *insert site*

Item	Details	Cost (£)
Project Design Stage		
Salary: project manager	Planning and writing Project Plan	<i>tbc</i>
<i>Etc.</i>		<i>tbc</i>

Project Design Stage, Expected cost		<i>tbc</i>
Operational Planning Stage:		
Contractors	Planning costs – development of biosecurity, monitoring and operational plans	<i>tbc</i>
<i>Etc.</i>		<i>tbc</i>
Operational Planning Stage, Sub-total		<i>tbc</i>
Operational Planning Stage, Contingency (20%)		<i>tbc</i>
Operational Planning Stage, Expected cost		<i>tbc</i>
Implementation Stage:		
Bait purchase (primary)	5.5 tonnes Romak (coumatetralyl) blocks	<i>tbc</i>
<i>Etc.</i>		<i>tbc</i>
Implementation Stage, Sub-total		<i>tbc</i>
Implementation Stage, Contingency (20%)		<i>tbc</i>
Implementation Stage, Expected cost		<i>tbc</i>
Sustaining the Project Stage:		
Biosecurity: set up	Equipment: tracking tunnels, traps, labour costs etc.	<i>tbc</i>
<i>Etc.</i>		<i>tbc</i>
Sustaining the Project Stage running costs for 5 years (A)		<i>tbc</i>
Sustaining the Project Stage Set up costs (B)		<i>tbc</i>
Sustaining the Project Stage sub-total(C=A+B)		<i>tbc</i>
Sustaining the Project Stage Contingency (D=20% of C)		<i>tbc</i>
Sustaining the Project Stage, Expected 5-year cost		<i>tbc</i>
PROJECT TOTAL		<i>tbc</i>

4 CONCLUSION

Include a clear statement of whether the proposed project is feasible or not, based on:

- *The seven criteria of the Feasibility section.*
- *What it will take to overcome any issues*
- *Net benefits and costs of the project*

Conditional project feasibility can be granted, based on issues being resolved. If the project is considered NOT feasible, clearly describe why this conclusion was arrived at.

Include a table of the issues considered leading to the decision on feasibility, Table H.

Table H: The issues considered during the feasibility study for eradication of *insert target species* on *insert site* and recommendations to resolve these.

Issue	Recommendation
<i>tbc</i>	<i>tbc</i>
<i>Etc.</i>	

Acknowledgements

Insert name, institution/organisation of all those involved with the Feasibility Study

5 REFERENCES

Use this section to record full citations of other documents that have been used and referred to in preparing the Feasibility Study. Set a consistent format for referencing.

6 APPENDICES

Use this section to record background information and information that does not fit into any of the other sections but may be of use in later project phases, including details of all site visits.