General notes

1. The first stage of the ROAME (Rationale, Objectives, Appraisal, Monitoring, Evaluation) process requires a clear and succinct statement of the commissioning organisation’s rationale for funding research. The SID 1 provides the customer’s reasons for requiring research in a particular policy area and the policy and scientific objectives of that research. It forms the basis for all research proposals and is vital to ensure overall direction and ultimate evaluation of the research programme.

2. The level at which the SID 1 statement is set is for the policy customer to decide. Each Programme should focus on one or more related policy objectives and the related scientific objective(s). However, policy customers may wish to set SID 1 statements at a higher level, e.g. where a large research programme addresses similar policy and scientific objectives.

3. The SID 1 is an important working document, which stems from and supports Defra’s Evidence and Innovation Strategy. All SID 1s will be published and used to inform contractors and other funders of research of the rationale and key policy drivers underpinning Defra’s research programmes.

4. A SID 1 must be produced for each research programme. It should be approved at Director level, or at a lower level only through formal delegation of authority. Science Units within Defra are responsible for ensuring that all research is commissioned and contracted under a SID 1 which complies with this guidance. A SID 1 should typically be no more than 5-6 pages long, although this can vary depending on the complexity and size of the programmes covered.

5. SID 1s should be reviewed every 3-5 years. If new or revised forms are produced (for example, following a review), these should annex the original form to provide a historical record of programme change. Please refer to the Science Handbook for further guidance.

6. This form is in Word format and the boxes may be expanded, or reduced, as appropriate.

1. Area of Policy/Research

Please state the title of the proposed research programme – including FPS Programme Code Assessment Unit or Sub-Programme Code.

This document is the ROAME Statement for the UK Noise Research programme managed by the Noise and Nuisance and Environmental Noise teams (hereafter referred to collectively as ‘the teams’), within the Local Environment Protection section of the Department for Environment, Food and Rural Affairs (Defra). This replaces the ROAME covering Noise Research produced in 2003.

The teams are primarily responsible for neighbour, neighbourhood and environmental (ambient) noise issues in England, as well as statutory nuisance, and maintain a research programme to inform and support these policy areas. In addition, the environmental noise team has a co-ordination role for the development of a coherent policy for environmental noise within Defra and its interface with Europe, liaising with Other Government Departments (OGDs) as appropriate, but most importantly with the road, rail and aircraft divisions in those Departments. The teams also carry out projects and research with the Department of Health, Department of Communities and Local Government (CLG) and the Department for Business, Enterprise and Regulatory Reform (BERR).

In addition, the teams also manage policy and conduct research on statutory nuisance such as artificial light, odour, bonfire smoke, and insects.

More recently, a number of areas have come to dominate much of the teams’ noise research programme. These are:


- The Government’s stated commitment to develop a National Noise Strategy for England;
2. RATIONALE for Defra Funding

(a) Describe the policy problems to be addressed by this research.

The over-arching aim of the teams is to provide high quality, evidence-based advice to Ministers and local authorities regarding neighbour, neighbourhood and environmental noise and statutory nuisance issues in England, and within the EU for the UK, liaising with OGDs as appropriate. Consequently, Defra, and through them the Devolved Administrations of the Scottish Government, Welsh Assembly Government and the Department for Environment in Northern Ireland, fund research in support of their policy responsibilities. This research will meet the following goals:

- inform Ministerial decisions;
- guide the execution of policy;
- address issues on which Ministers may need to take decisions in the future;
- monitor the achievement of policy goals;
- support local authority enforcement; and
- provide reliable information to the public.

The teams seek to use publicly funded research to meet the Department's national and international goals and objectives and this need for research is based on two approaches. Firstly, there is the context in which noise and statutory nuisance are placed as major environmental issues affecting people’s lives and secondly, there are clear and robust policy needs aimed at understanding and reducing the impact that noise and vibration have on people and the environment.

Sound in the environment is a feature of everyday life. Noise, unwanted sound, is a major environmental pollutant for a significant number of people. The Noise Incidence Survey (NIS) and the Noise Attitudes Survey, (NAS), carried out in 1990/91 and 2000/01 are time series, national studies of noise levels in this country and provided a pattern of noise exposure in the population. The proportion of respondents who reported being adversely affected by noise from neighbours has increased from 21% to 26% over the last ten years. Thus, the problem of noise appears to be growing.

Noise and statutory nuisance can have an adverse effect on the environment and on the quality of life enjoyed by individuals and communities. It can irritate and annoy, interrupt sleep, increase stress and disrupt concentration at work. Prolonged exposure to very loud noise can do irreparable damage to hearing.

Some noise is an inevitable consequence of human activity, but more needs to be done to minimise nuisance and potential adverse effects on health of those exposed to excessive levels of noise. Much remains to be achieved through more appropriate standards, more effective controls and greater understanding of the health risks. The factors influencing the reaction of people to noise are complex, and the options for dealing with noise problems are many and varied. Consequently, research is required to aid the formulation of policy advice and the development of statutory and voluntary controls, and to improve the quality of the information disseminated by the Department.

(b) Explain how the research will support Defra Strategic Priorities, PSA targets and Evidence and Innovation Strategy.

The teams’ research programme reflects on Defra’s wider Public Service Agreement target objectives and Departmental Strategic Objectives, specifically:

- **PSA:** Secure a healthy natural environment for today and the future
- **PSA:** Lead the global effort to avoid dangerous climate change
- **DSO:** A healthy, resilient, productive and diverse natural environment
- Intermediate outcome: improved local environment quality

(c) Explain how this research will be co-ordinated with other Defra science and policy activity. This should cover co-ordination with other Defra research programmes, including economic, social science and the
Horizon Scanning Programme and other Defra science activity, e.g. monitoring and surveillance programmes.

The teams aim to hold departmental meetings where appropriate to discuss the research that it intends to carry out, to ensure that research does not overlap and where possible joint working is considered or even favoured. The teams' research proposals are published in a communal research funding paper, as well as being published online with other departments’ research proposals.

(d) Explain how the proposed programme will align with the work of other Departments and funders of research. This should cover UK funders and, where possible or appropriate, funders in other countries or international bodies; whether co-ordination is needed or foreseen and, if so, how and when such co-ordination or collaboration should take place.

The teams’ use of external expertise will ensure that national and international perspectives are considered and when necessary taken on board or considered. The teams’ aims will align with the work of others by ensuring that they are fully represented by membership of relevant industry bodies and by attendance at many of the working groups and technical working panels that exist throughout the UK and Europe. This will ensure that the teams keep abreast of developments, if not lead them.

(e) Provide a brief summary as to why Defra should fund the proposed research. You are required to justify the use of Defra resources for the proposed project. In your justification you should clearly set out that no other existing or current research or body of information meets the policy needs; why R&D is the most suitable method to provide evidence; and the intended outcome of the programme.

Responsibility for the control of neighbour, neighbourhood environmental noise, and statutory nuisance, is shared between central government and local government. In general, central government is concerned with the legislative framework and with providing technical advice and guidance on the use of legislative powers and on particular noise and nuisance issues. Most of the responsibility for action to prevent or abate noise and statutory nuisance rests with local authorities. Any action on regulations that are recommended by research programmes will need to address the appropriate level for enforcement, i.e. local, national or international.


The Government has previously stated its intention to develop a National Noise Strategy for England covering neighbour, neighbourhood and environmental noise. The proposed research will provide the evidence base for the Noise Strategy, where needed.

Noise is also a material consideration when considering planning applications for new developments. The environmental noise team has technical input to Planning Policy Guidance Note 24 (the Scottish equivalent is Planning Advice Note [PAN] 56 and the Planning Policy Wales Technical Advice Notice (Wales) 11 Noise (October 1997)) which gives advice on means of judging whether new schemes would, once completed, be subject to unacceptably high levels of noise. The noise and nuisance team hopes to work with CLG to develop future land use planning guidance on artificial light.

Noise and vibration are also material considerations with the emergence and increasing use of renewable energy technologies. The noise and nuisance team is currently working on noise and vibration issues in relation to the amending of the General Permitted Development Order with CLG and BERR.

### 3. OBJECTIVES

(a) State policy objectives which should be:
- achievable;
- testable (i.e. in a form capable of verification, preferably in a quantitative fashion); and
• time-bound (i.e. to be reached at a pre-determined date).

Noise and statutory nuisance policy is developed in the context of protecting the environment and enhancing the quality of life and public health. Research is necessary to underpin policy formulation, to develop action programmes and to measure progress. Policy objectives are delivered through:

- international action to set appropriate targets for environmental improvements;
- legislation to set national standards for environmental protection and establish suitable control mechanisms and penalties for enforcement;
- publicity and advice to increase awareness of environmental and behavioural issues and promote environmental and behavioural good practice;
- effective local authority enforcement;
- behaviour change; and
- contact with other sectors and with other Government Departments to develop environmental programmes in partnership with business and non-governmental organisations.

In the field of environmental policy, priority areas are:

- to promote sustainable development and in doing so to ensure that there is effective protection for the environment at home and abroad and that environmental concerns are reflected in all areas of policy;
- to improve the quality of life in urban areas through economic, social and environmental regeneration; and
- to improve the quality of life for people who live and work in rural areas and the facilities for enjoyment of the countryside, while protecting and enhancing its diverse flora, fauna and landscapes.

The aims of noise research are also set in the context of Defra’s PSA targets and Departmental Strategic Objectives described in 2(b) above.

### 3. OBJECTIVES continued

(b) State scientific objectives which must be achievable, verifiable and timebound. Science staff must decide where research can contribute to the achievement of policy objectives and agree with Policy DGs scientific objectives appropriate to meet the policy need. **They should also cover the key deliverables against which the success of the programme will be judged at review:**

- anticipated contribution to Defra policy development (i.e. to inform change of policy);
- other outputs, such as new or refined industry practices/standards;
- planned processes for Knowledge Transfer and Innovation and communication to the public.
In previous years Ministers have agreed the following broad objectives for the research programme, and these principles guide the current research programme;

i. **Trend Monitoring**
   *Continuation and improvement of monitoring so as to identify trends and understand better the problems arising from environmental noise*
   The work should collate information about important types of sources, physical acoustic features, propagation effects, sound exposure levels, typical receiver response, the main sources of noise giving rise to problems etc.

ii. **Noise Mapping**
   *To research and produce strategic noise maps*
   The work should involve the research and development of techniques to produce and analyse strategic noise maps. Additional research should be carried out in support of this in relation to calculation methods, noise mapping software standards, and GIS harmonisation;

iii. **Noise Assessment/Noise and Man**
   *To improve understanding of the effects of human exposure to sound and vibration*
   The work should examine exposure, types of response, health risks, and the role of non-acoustic factors in determining response. In order to provide a full description of a noise, the measures used to describe the sound exposure should be able to describe the significant physical features in a way that is meaningful in terms of their subjective impact; and

iv. **Noise Mitigation**
   *To develop techniques and procedures to monitor and control the impact of noise in the real environment*
   The work should assess the effectiveness of techniques such as noise mapping for the development of mitigation models and develop ambient noise benchmarks for the formulation of future policy

### 4. APPRAISAL

Explain your plans to ensure that you obtain fit for purpose research under this programme and value for money for the taxpayer. In particular, how will you ensure expert external input and challenge (e.g., through advice from expert groups/committees; peer review of project proposals; and level of competitively let contracts) are taken into account.

The term appraisal in the context of the ROAME relates to the manner in which the individual projects that make up the noise research programme are generated and selected. Selection of projects takes full account of the distinction between the teams as policy teams and other groups which have responsibility for specific aspects of noise policy or whose policies impact on noise policy e.g. the sustainable development, other Government Departments, and the Devolved Administrations.

The formulation, implementation and utilisation of the teams’ research programme, is overseen by the Noise Research Manager (NRM).

Every year, the teams forecasts their immediate research needs for the next financial year. This forecast is added to the published research newsletter, which lists all potential projects. Projects are divided four main categories, which reflect an order of priority:

- contractually committed for the following financial year;
- policy commitments for which new funding must be made;
- high priority projects which require new funding; and
- lower priority projects which would be undertaken, if and when appropriate funding is available

Projects included in these categories may originate from various sources, including:

- from within the division, suggested by divisional management, the heads of policy branches, the NRM, OGDs, or stakeholders;
- from previous projects carried out, where the conclusion of a project recommends that further research may be required in other areas to ensure robustness;
- from ideas or proposals received from prospective contractors; and
from other relevant sources e.g. the Defra-managed Noise Forum, which acts as a sounding board for outside concerns

All the projects are evaluated and assessed by the Research Project Board in the light of the functional objectives set out in the ROAME statement, the policy commitments, and other ongoing projects. They are then placed into a ranked order to include financial resource allocation and known constraints. In this way the projects are compiled into a proposed research programme for the following financial year.

Once the programme has been finally approved and budgets are known, arrangements for tendering and letting are set in motion. The presumption is that competitive tendering will always be used, unless exceptional circumstances prevail. Initial specifications of projects are prepared in draft and where appropriate are submitted to other relevant Departments for comment. In this way it may be possible to set up jointly funded projects.

The Department issues a Newsletter setting out the general details for research in the forthcoming year, which may be regularly updated as policy needs dictate. Defra invites organisations to write with an Expression of Interest (EoI). This EoI list provides a pool of information setting out capabilities, experience and knowledge relevant to particular areas of research.

The teams actively pursue opportunities to widen the range of organisations to whom it might issue an invitation to tender (ITT). This is achieved through use of its EoI database, searching for capabilities and experience through the internet sites, and contacts from other parts of Defra and Government generally. It also has a range of contractors who have demonstrated high quality performance in previous, related work and they too may be sent an ITT. Finally, the EC Procurement Directive provisions for advertising expressions of interest through the Official Journal (OJEU) will be applied where necessary. This has an added advantage in that it opens the first stage for gathering possible candidates from the widest possible field of interest. However, OJEU procedures do not apply to research projects and, thus, are not necessarily applicable to some parts of the teams’ research programme.

5. MONITORING

Please explain how you plan to monitor progress against programme and project objectives, in particular any key programme review points.

The teams follow the Department’s Procurement and Contracts Division’s guidelines for procurement. This involves making full technical judgement of individual tenders against clearly defined criteria before any consideration of the financial requirements for a project. It also places greater emphasis on risk assessment and management in projects. These systems help to ensure Value For Money and best economic option.

Once a contract has been awarded the teams use a system of standard project management techniques to monitor progress against milestone achievements, to ensure that the contracts are operating as planned.

The majority of projects start with an inception meeting between the contractor, the NRM and heads of the relevant policy branches. Not only is this an opportunity for all sides to meet but it also re-states the work to be done, and ensures that each side recognises how and when various milestone deliverables are to be provided. An ITT will set out objectives and timescales and it is expected that all organisations submitting project tenders to reflect these in their proposals.

The NRM is required to meet contractors on a frequent basis and receive interim reports of work which are reviewed by the NRM, the relevant policy branch head and other appropriate persons both within and outside the teams in consultation with the Devolved Administrations.

Given the size and complexity of noise mapping research contracts, and based on previous experience, special arrangements will be put in place. These are centred around the appointment of an external project manager who will let contracts for specific research projects. This work is overseen by an in-house technical steering group and project management board. Furthermore, the work is monitored by an external consultant providing quality assurance both on the types of contract let and the results received. However, the project management arrangements for noise mapping are built on, and reflect, established Defra best practice.

The teams run their own research financial monitoring system to support the compilation of progress reports providing details of all research, new contracts let, current issues/difficulties and the state of expenditure, both for individual projects and the programme as a whole. Where there are problems they should be monitored and pursued directly by the NRM.
When a research report has been finalised it becomes the property of Defra and the Devolved Administrations. The dissemination of the information in reports depends on the context of the information provided, i.e. whether it is information for Ministers for the formulation of future policy or whether it is to inform open debate. Summaries of reports will normally be sent to relevant bodies including Government Departments, expert bodies, relevant parts of industry and libraries. Full copies may be provided on request. It is also the aim to place research reports on the Defra web site for public use.

6. EVALUATION

Please specify how you intend to evaluate the outputs of the programme against its objectives, ensuring appropriate external input and challenge. This should also include an assessment of the future of the programme.

This ROAME statement has been prepared on the understanding that research undertaken during its period of coverage will be evaluated in line with all Defra requirements at the end of this period.

In undertaking the evaluation there will be specific analysis to ensure that all projects satisfy the rationale for research set out in section 2 and, unless agreed specifically by Defra management, and the Devolved Administrations as appropriate, fall within one of the areas described in section 3. There will be specific checks to ensure that key objectives specified in section 3 have also been achieved. There will also be checks that individual projects have adhered to their initial specifications, been delivered on time and have provided value for money.

It is clear that such evaluation will require specialist knowledge, both of policy and technical aspects of noise research work. Defra, and the Devolved Administrations as appropriate, will consider the advice of the available in-house resources in deciding whether evaluation should be undertaken by external consultants.

Whilst each individual project contains its own milestones and output schedules, supported by project management tools such as GANTT charts and financial management spreadsheets, the key milestone outputs in the Noise Research Programme in the current period are:

- A better understanding of the significant adverse impacts of noise;
- Improved methods of mitigating and minimising the adverse health impacts of noise; and
- Provide a framework to contribute to improvements of health and quality of life through the effective management and control of noise.

This research programme will be reviewed by (insert year) 2013

Approved by

Date

Name

Unit