UKEOF
ENVIRONMENTAL OBSERVATION FRAMEWORK

Finding Opportunities to Improve Monitoring Activities: Hampshire-Avon
Summary of Questionnaire Analysis

INTRODUCTION

UKEOF worked with Natural England in 2011 to map locations of environmental monitoring activity from a range of organisations in England and Wales. The results showed high levels of geographically coincident monitoring locations. To find out if organisations will benefit from collaboration with other organisations monitoring close by, a pilot project is being run in the Hampshire-Avon catchment, which was one area shown to have several coincidences in monitoring sites.

24 organisations were contacted to determine if this project would be relevant. 16 organisations returned questionnaires about their monitoring activities, and 17 organisations are attending the workshop which aims to provide the opportunity for organisations to discuss potential collaborations in their monitoring activities.

INVOLVEMENT IN THE PROJECT

⇒ **16 organisations** carrying out environmental monitoring in the Hampshire-Avon returned questionnaires about their activities

⇒ **37** different **survey programmes** were highlighted in the responses

Participating organisations

Amphibian and reptile conservation trust	Hampshire & Isle of Wight Wildlife Trust
Botanical society of the British Isles	Hampshire Biodiversity Information Centre
British Trust for Ornithology	Natural England
Centre for Ecology and Hydrology	NOC – (Christchurch Harbour Macronutrients Project)
Environment Agency	Plantlife
Forestry Commission	Wessex Chalk Stream and Rivers Trust
Freshwater Habitats Trust	Wessex Water
Game & Wildlife Conservation Trust	Wiltshire Wildlife Trust
Hampshire Avon Demonstration Test Catchment	

In general, organisations were very positive about being involved in the project, and returned comprehensive questionnaires about their monitoring activities. The majority of the work to involve organisations was carried out during the summer months and at times it was difficult to contact the relevant staff within organisations due to holiday periods. There were some comments that the questionnaires took longer than expected to complete, and that a map of the catchment area would have been helpful for those organisations not familiar with the Water Framework Directive catchment areas.

MONITORING PRIORITIES

Understanding what organisations are monitoring and why can help us to understand the monitoring priorities within an area and where there are links between organisations. Providing the opportunity for organisations to discuss these priorities will help develop collaboration opportunities.

The questionnaire results showed that **89%** of organisations are already collaborating to some degree over their monitoring activities, and **83**% of organisations use data collected by other organisations.

The high percentage of organisations already collaborating shows that the scope for collaboration is real, and implies that there must be real benefits to collaboration.

Figure 1 shows that a range of environmental domains are being covered by monitoring activities, although the most common are **biosphere** and **freshwater** observations.

Data collected from different domains may provide relevant contextual information for monitoring activity in other domains.

73% of organisations stated that extra data would be useful to their monitoring work.

A question to be discussed is whether extra data from other domains could be used.

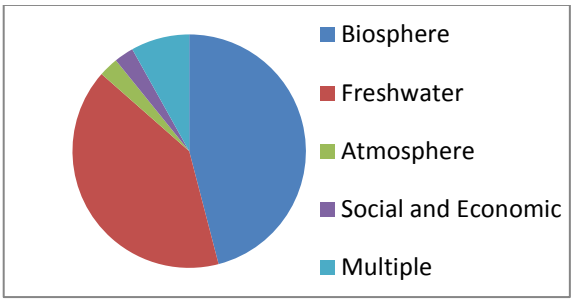

Figure 1: Environmental domain covered by surveys

The questionnaire results also show that **78%** of surveys are being carried out as part of a wider monitoring programme.

Monitoring activity from other organisations may be complimentary to the wider monitoring programme, and the wider monitoring programmes may also provide additional useful information to organisations.

MONITORING DELIVERY

Figure 2 shows that the majority of surveys are being carried out on a catchment-wide basis.
This suggests potential for collaboration where sites overlap/are close-by, and that there is a large amount of monitoring information available across the catchment that may be of use to different organisations.

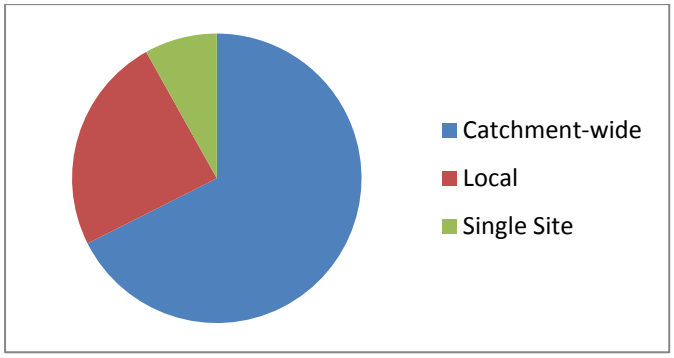

Figure 2: Geographical remit covered by surveys

Organisations were asked to provide details of who organises, and collects the data on surveys. The majority of organisations showed their surveys are organised by professionals, but the data collectors were more varied, as highlighted in Figure 3.
Sharing of data collectors may be possible particularly when utilising paid staff, and could be a real efficiency saving, accepting that skillsets will need to be assessed and additional training may be required.

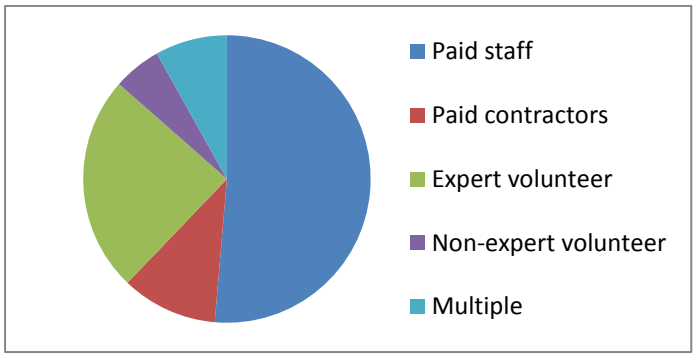

Figure 3: Data collectors for surveys

The frequency of surveys varied across the organisations as highlighted in Figure 4.
Where there are regular monitoring activities there is greater potential to share resources through co-ordinating activities.

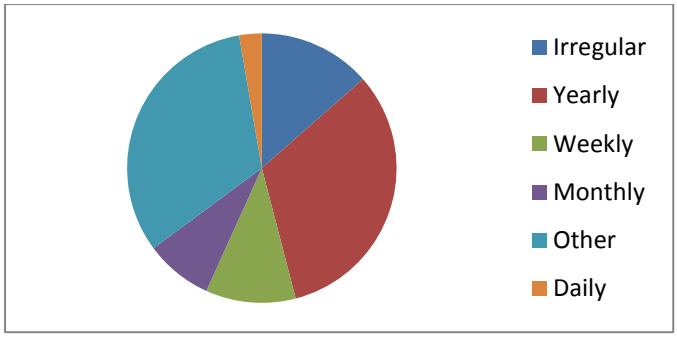

Figure 4: Frequency of surveys

RESOURCES

In the questionnaires, organisations were asked to supply details of the equipment needed for surveys and the skills required by data collectors. The following shows the areas that were identified as necessary for monitoring activities.

Equipment:

Hand lenses • notebooks • recording cards • OS maps • moth traps • weather stations • air quality monitoring equipment • GPS • soil sampling equipment • EXO 2 sondes • ISCO 6712 water samplers •grapnels • ID guides •temperature loggers • binoculars • measuring loupe • dissecting microscope • waterproofs • cameras • nets • samplers for Ammonia monitoring • electric fishing equipment • boats • quadrats • telescope • binoculars • ringing equipment • scales • callipers • dormouse boxes

Skills:

ID skills • map reading skills •GPS understanding • water-sampling skills • electric fishing training, • kick-sampling • diatom analysis • ability to drive • people skills • lab skills • field craft skills

DATA SHARING

Sharing data collected through monitoring activities is a key method of collaboration and allows organisations to gain access to a far greater range of monitoring information than they may be able to collect directly themselves.

However, in order to have confidence in the information that they have been provided with organisations require data to be robust, and key to this is following a specific monitoring protocol.

46% of organisations had an existing protocol that they used for surveys and the other **49%** had specifically developed protocols for particular surveys.
76% of organisations have a quality assurance process in place for checking data.
Understanding monitoring methods and quality assessment used by different organisations can help to provide confidence in the data produced and therefore increase understanding of its applicability and potential use.

Understanding organisations' handling of data will also be key to beginning the collaboration

process. Organisations were asked to supply details of how their data is held and whether it is available to access. The majority of organisations hold their data either in a database or spreadsheet (Figure 5). There was variation over the accessibility of the data (Figure 6).

Issues of data accessibility can be discussed to ascertain whether organisations would be willing to share data, and where this is not possible to establish why, and if any steps could be taken to remove barriers to gaining access to data.

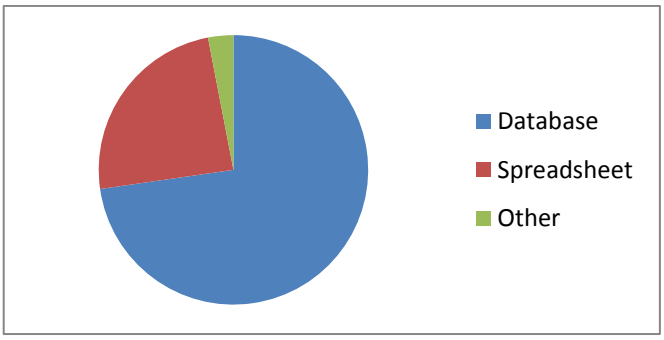

Figure 5: Storage of data

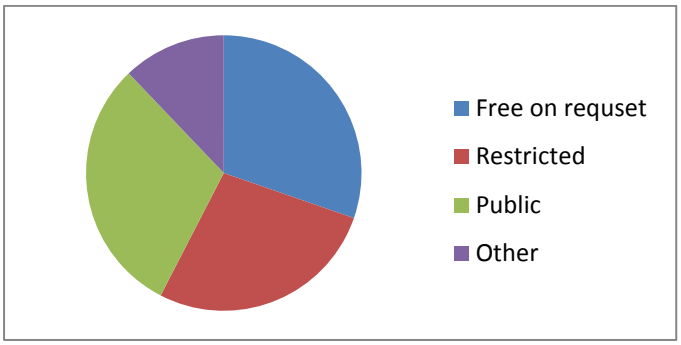

Figure 6: Availability of data

DISCUSSION

The questionnaire results show that collaboration is already happening between organisations, and there is great potential to consider where this can be built upon and new collaborations encouraged. The majority of organisations indicated that more data would be useful for collaboration, and so clearly there is an appetite to develop this area further.

The questionnaires have helped identify particular issues that could be discussed at the workshop. Some questions are suggested below that are intended to provide a starting point for discussion. They have been arranged under the following three headings:

Resource Sharing

- Does your organisation have equipment that could be shared with other organisations? Or, is there equipment held by other organisations that it would be useful for you to have access to?
- Do your data collectors have the necessary skills to undertake other types of monitoring? Is there the potential to undertake new or share training to increase the breadth of skills in both your and other organisation's teams to help collaborate in the field?

- Does your organisation have the flexibility to schedule your monitoring activities to enable collaboration?

Knowledge Exchange

- Is your organisation sufficiently aware of other monitoring activity happening in the catchment area?
- Are there opportunities to exchange knowledge between your organisation and others?
- Is your organisations aware of opportunities to exchange knowledge? What could be done to make organisations more aware and encourage knowledge exchange?
- Can public/private/voluntary organisations exchange knowledge fluidly? If not, what are the barriers and how might they be overcome?

Data synthesis

- Can data be shared simply across your organisations I.T. systems etc?
- Can public/private/voluntary organisations share data? What barriers have you come across and how might they be overcome?
- Are there restrictions on some of your organisation's data, e.g. sensitive data? Do these need to be blanket restrictions or could some data be shared with known organisations where the use of the data is known?
- Are data accessible, e.g. in a sharable, searchable format? If data is not accessible, why is this the case and what steps could be taken to help the situation?
- What resolution is your organisation's data available at?