River Lugg Internal Drainage Board

Environmental Screening and Ecological Impact Assessment

1 Introduction

The River Lugg Internal Drainage Board (RLIDB) manages over 220 km of watercourses within Herefordshire with the aim of maintaining year-round conveyance of water flows and reducing flood risk, while seeking to retain and protect biodiversity and the natural water environment.

As part of its statutory responsibilities and legal compliance, the RLIDB undertakes environmental screening and risk assessment in connection with the flood protection works it carries out on watercourses within its district. RLIDB Environmental screening also aims to meet Environment Agency commitments to environmental risk assessment, mitigation and legal accountability.

2 Environmental Screening and Initial Risk Assessment

The screening and risk assessment process (Figure 1) utilises a screening database of all watercourses managed and maintained by the RLIDB within its district, and which are subject either to annual flood protection maintenance works or one-off capital works, such as land drainage consented works. The database provides the baseline screen against which environmental decisions are made.

Works on RLIDB maintained watercourses are screened against relevant environmental data including the following features:

- Scope for proximity to statutory designated sites, including European Sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA)), Sites of Special Scientific Interest (SSSI), Areas of Outstanding Natural Beauty (AONB), National Nature Reserves (NNR), Local Nature Reserves (LNR), Nitrate Vulnerable Zones (NZ) and other designated/sensitive sites;
- Scope for proximity to non-statutory sites, including National Priority Habitats (NERC 2006, Section 41 Habitats of Principal Importance and Priority River Habitats), ancient woodland, Local Wildlife Sites (LWS) and other county Nature Reserves;
- Scope for proximity to records of legally protected species (e.g. bats, otter, water vole, white-clawed crayfish and protected fish species) priority species (NERC 2006, Section 41 Species of Principal Importance), notable/red-listed/red data book species and non-native invasive species (e.g. Himalayan balsam, signal crayfish), and known populations of such species;
- Scope to identify potential risks and relevant mitigation in relation to River Basin Management Plans and to fulfil Water Framework Directive compliance;
- Scope of Herefordshire Council planning portal for detail of planning applications associated with works, including comments from statutory bodies, such as Natural England and the Environment Agency, and any relevant planning conditions of approved applications;

- Scope to identify opportunities for biodiversity enhancement, including opportunities targeting both RLIDB and Local Biodiversity Action Plan (BAP) habitats and species, and Habitats and Species of Principal Importance for the purpose of conserving biodiversity in England (NERC Act 2006, Section 41); and
- Scope for local initiatives, other stakeholder interests, and opportunities or synergies for partnership working.

A variety of resources are used in the screening process including public body websites and associated datasets (e.g. Herefordshire Council planning portal, Natural England, Environment Agency, MAGIC, NBN Atlas), the Herefordshire Biological Records Centre dataset, and consultation with environmental NGOs, specialist groups and key stakeholders within Herefordshire (e.g. Herefordshire Council, Herefordshire Wildlife Trust and the Wye and Usk Foundation).

The key outputs of the screen include identification of important ecological features and associated proximity mapping, identification of potential ecological and environmental impacts, identification of relevant stakeholder comments, initiatives and interests within the district, identification of WFD status and reasons for not achieving good status, identification of opportunities for biodiversity enhancement in line with both the RLIDB and Herefordshire Biodiversity Action Plans and National priority habitats/species, and opportunities for working partnerships with key stakeholders. The works are then assessed for the risk of significant impacts upon identified features.

Appropriate recommendations are outlined for each watercourse and/or proposal relevant to the findings of the screen; these may include recommendations for further ecological impact assessment (see below), site visit and targeted surveys, consultation with key stakeholders, standard precautionary measures or prescriptive mitigation, monitoring, and opportunities for ecological/environmental enhancement and partnerships. Finally, the screening database is updated annually, as and when new information arises, and thus the process is iterative and up to date.

3 Ecological Impact Assessment

Following screening and initial risk assessment, works on watercourses identified as having a high environmental risk, or where high-risk activities are planned, will require a more focussed ecological impact assessment (EcIA).

The purpose of the EcIA is to identify all important ecological features and processes that could be impacted by the proposed works; identify, describe and evaluate all the potential impacts associated with the works, and identify likely significant ecological effects of the works. The EcIA will also sets out the mitigation, compensation and enhancement measures required to address significant ecological effects and to ensure compliance with nature conservation legislation and national policy. Relevant nature conservation legislation and policy is listed in Appendix 1.

Depending upon the nature and extent of the planned works, the watercourse would be visited by the IDB engineer and ecologist to discuss and identify potential impacts, and may also include more targeted ecological surveys to identify important ecological features, such as bat roosts or fish spawning habitat.

Further advice and expertise on potential impacts and appropriate mitigation will be sought from groups such as the Environment Agency, Natural England, other IDBs and relevant local stakeholders. Where impacts cannot be mitigated by standard methods, more targeted measures will be prescribed for the site, with advice and guidance from other stakeholders as appropriate.

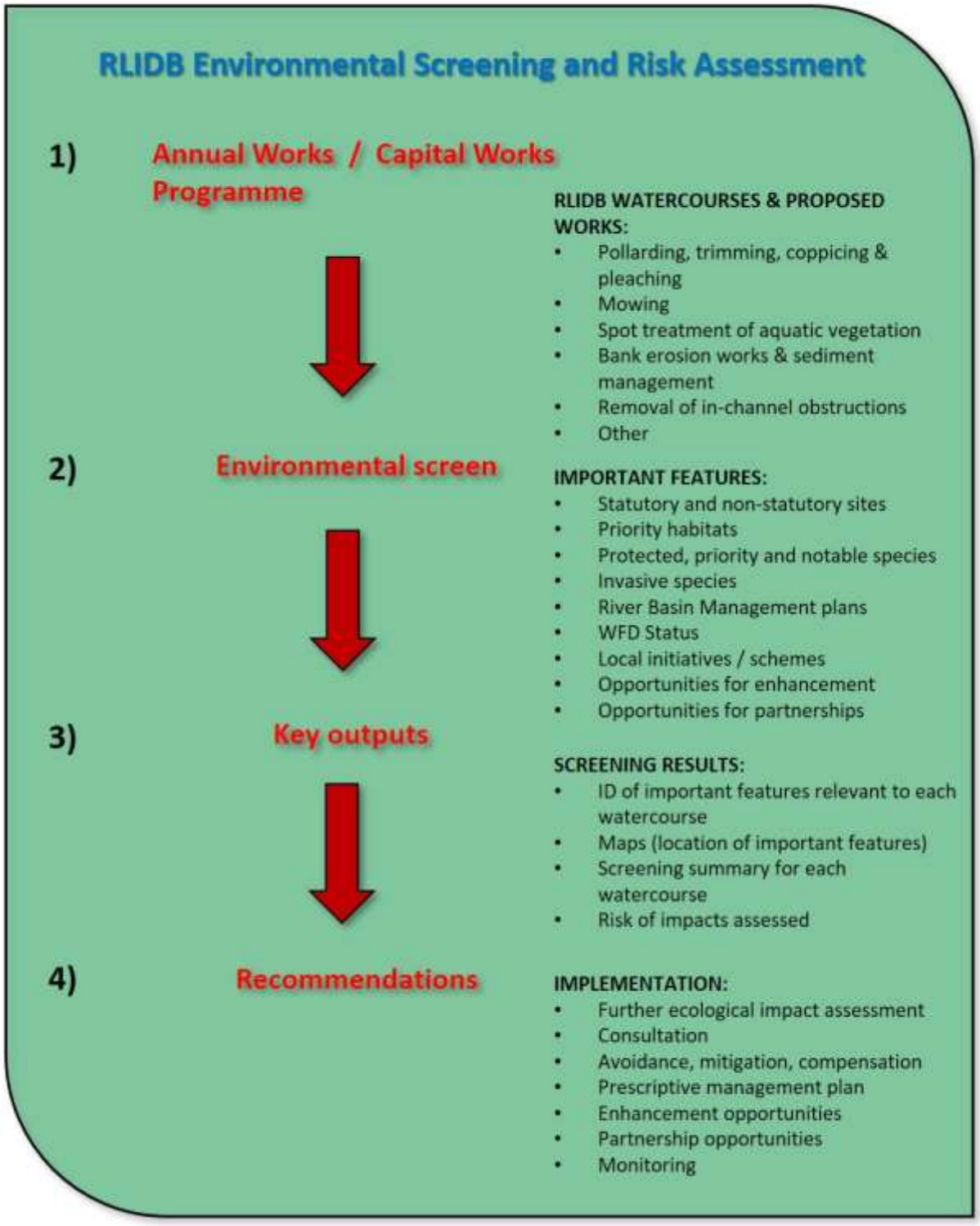

Figure 1: River Lugg Internal Drainage Board environmental screening and risk assessment. All proposed works (1) on RLIDB maintained watercourses are screened against a suite of important features, initiatives and opportunities (2) resulting in a summary output for each watercourse (3) and recommendations for further EcIA, consultation, avoidance, mitigation, compensation, and opportunities for enhancements and/or working partnerships (4).

4 Relevant Legislation and National Policy

- The Land Drainage Act 1991, 1994 as amended
- The Wildlife and Countryside Act 1981 (as amended)
- The Environmental Protection Act 1990
- The Countryside and Rights of Way (CRoW) Act 2000 (in England and Wales)
- The Natural Environment and Rural Communities (NERC) Act 2006
- Conservation of Habitats and Species Regulations 2017 (which implements the Habitats Directive 92/43/EEC and parts of the Birds Directive 2009/147/EC in the United Kingdom)
- The Protection of Badgers Act 1992
- The Eels (England and Wales) Regulations 2009
- Salmon and Freshwater Fisheries Act 1975
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003
- EU Regulation 1143/2014 on Invasive Alien Species
- The Environment Impact Assessment (Land Drainage Improvement Works) Regulations 1999 (SI 1999 No 1783)
- The Flood and Water Management Act 2010
- The National Environment White Paper (England) (DEFRA, 2011)
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services (DEFRA, 2011), which underpins the UK Post-2010 Biodiversity Framework (JNCC & DEFRA, 2012)

5 Best Practice Guidance

Buisson, R.S.K., Wade, P. M., Cathcart, R. L., Hemmings, S. M., Manning, C. J. & Mayer, L. (2008). *The Drainage Channel Biodiversity Manual: Integrating Wildlife and Flood Risk Management.* Association of Drainage Authorities and Natural England, Peterborough.

Environment Agency. (2014). *Environmental Good Practice Guide: Guidance to help you maintain your watercourse in River Maintenance Pilot Areas.* Environment Agency, Bristol.

Additional References:

RSPB, EN & ITE (1997, reprint 2012). *The Wet Grassland Guide: managing floodplain and coastal wet grasslands for wildlife.* Royal Society for the Protection of Birds, English Nature & the Institute of Terrestrial Ecology

RSPB, NRA & RSNC (1994, reprinted 2001). *The New Rivers & Wildlife Handbook.* Royal Society for the Protection of Birds, National Rivers Authority & RSNC.