There is a great deal of published material on the impacts of mining on biodiversity and natural ecosystems. Below, a non-exhaustive list of guidelines that may be relevant for non-energy extractive activities is provided.

**International organizations and NEEI**


This Guidance provides the mining industry with an outline of the steps required to improve biodiversity management throughout the mine cycle. It is intended to be helpful to mining professionals and specialists.


The report summarises and reviews the key considerations in biodiversity conservation performance measurement.


The GRI Guidelines are a framework for reporting on economic, environmental, and social performance.


**Mining and critical ecosystems: mapping the risks.** 2003. World Research Institute.

This study provides indicators for ecosystems and communities that are vulnerable to the negative impacts of mining. It is intended to be used by financial institutions and insurance companies as a method of assessing environmentally and/or socially vulnerable areas to mining.


This publication aims to contribute to planning and management approaches that minimise land degradation and desertification in arid and semi-arid zones as a result of the operation of extractive industries.


This paper provides a brief analysis of some of the dilemmas surrounding the issue of whether or not to mine in or around areas of valuable biodiversity.
The guidance is designed to help Rio Tinto staff evaluate, assess and manage biodiversity issues on their sites.

These Guidelines address mining and sustainable development; regulatory frameworks; environmental management; voluntary undertakings; and community consultation and development; as applied to all stages of a mining operation. It also includes a section on small-scale and artisanal mining.

To Dig or Not to Dig? Criteria for determining the acceptability of mineral exploration, extraction and transport from ecological and social perspectives. 2001. World Wide Fund for Nature (WWF).
The paper describes criteria and indicators for helping to make decisions about the suitability of prospecting for, extracting, transporting, processing and disposing of oil and other minerals in sensitive environments.

Environmental Guidelines for Mining Operations. 1998. United Nations Department of Economic and Social Affairs (UNDESA), UNEP.
These guidelines present recent examples of sound environmental management practices and regulations from various mining countries worldwide and are designed to assist government and industry, from both developing and developed countries, encourage sustainable mining practices.

Habitat Creation Handbook for the Minerals Industry. 2003. RSPB (Graham White and Jo Gilbert Eds.)
A practical guide to the creation of priority Biodiversity Action Plan habitats on mineral workings. Guidelines Cover sand and gravel, clay, soft and hard rock quarries and opencast coal. It aims to provide a reference for the process of planning habitat creation and presents the latest ideas and methodology for the creation of priority habitats appropriate for mineral extraction sites. Also shows practical management and restoration experience through case studies.

European Commission

Guidance document on Article 6(4) of the ‘Habitats Directive’ 92/43/EEC. 2007. EC.
The document provides clarification of the concepts of: Alternative solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission. 2007. EC

Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. 2007. EC
The essential focus of this document is on the main obligations under Articles 12 and 16 of Directive 92/43/EEC, which establish a system of strict protection for the animal species listed in Annex IV(a), but allow for derogation from these provisions under defined conditions.

Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. 2001. EC
This document provides non mandatory methodological help to carry out or review the assessments required under Article 6(3) and (4) of the habitats directive. These assessments are required where a project or plan may give rise to significant effects upon a Natura 2000 site.

This document is intended to facilitate the interpretation of Article 6 by competent authorities in the Member States.

Belgium

Guide pratique de la législation wallone sur les carrières et leurs dépendances. YEAR??. Ministère de la Région Wallonne.
This guide presents the Wallonian legislation on quarrying.

This document presents case studies illustrating a number of good practices employed in the extractive industry.

Finland

The purpose of this handbook is to provide mine operators, regulatory authorities and industry consultants with guidelines relating to planning and implementation of mine closure strategies.

Exploration and Mining in Finland’s Protected Areas, the Sami Homeland and the Reindeer Herding Area. 2007. Ministry of Trade and Industry.
This guide describes the conditions for exploration in Finland's protected areas.

France

The guide aims to help operators to implement an evaluation of the impact of their operations on environment. It also aims to facilitate the dialogue between stakeholders and to develop sustainable practices.

Technical guide devoted to the consideration of landscape and natural environment in the impact assessment of quarries in the Provence-Alpes-Côte d’Azur region.
Granulats en Ile-de-France: Mieux prendre en compte la ressource en matériaux dans les documents d’urbanisme. 2005. DRIRE Ile-de-France, France.

The guide aims to provide policy makers with elements to consider the raw material resources and extractive activities in urban planning.


The objective of the guide is to provide technical assistance and to describe the ecological bases for the ecological recovery of quarries in alluvial environments and on rocky areas, which offer opportunities for the creation of wetlands.

Spain


This guide of good practices that can be carried out in this industry sector can help minimize the impacts on the environment of waste management in extraction sites, illustrated with real examples.


This guide provides some recommendations that may help in the restoration of open pit quarries, taking into account all variables necessary to ensure the success of the action.


This guide of good practices can help minimize the impacts of quarrying on the environment. The professional sector will find details on good practices that can be carried out in this industry sector, illustrated with real examples, as well as proposals for future actions to move forward on the path of sustainability.


This guide provides some recommendations that may help in the restoration of open pit quarries, taking into account all variables necessary to ensure the success of the action.


The environmental good practices with real examples of application are a tool for the aggregates companies to achieve sustainable development objectives.


This guide reviews environmental practices developed by the extractive industry at the different stages of the extraction process. It also deals with maintenance and rehabilitation of affected zones.
This guide provides some recommendations for the restoration of those areas affected by extractive industries.

Practical guide that provides the best technology available and the quality control protocols for the limestone quarries restoration processes within the Mediterranean climate.

**Sweden**

Guidance for mineral prospectors, but also for politicians and civil servants involved in permit-giving and monitoring of prospecting activities on the national, regional and municipality levels.

General instructions and guidelines for practical implementation of the national legal framework related to the protection and management of Natura 2000.

**Switzerland**

This guide is intended to hard rock exploitations and it addresses conflicts that may arise from such exploitations.

**United Kingdom**

The guide focuses on mineral information within the central belt of Scotland.

The RSPB have prepared this guide to set out their view on: when AA is or is not required; what the AA should examine; the level of detail required; and how to use the results of the AA as a key part of the plan-making process.

This guide offers advice on how AA may be carried out as part of plan preparation and linked to the sustainability appraisal (SA) process. It is not a legal interpretation of the Habitats Directive.


The purpose of this guidance is to increase and improve the sum of wetland achievement in the UK.


The handbook provides best-practice advice for creating a wide range of different habitats.


A guide to planning, operating, restoring and managing mineral sites for biodiversity. (http://www.mineralsandnature.org.uk/downloads/biod.pdf)

Australia

Guidelines for Management of Declared Rare Flora in Mineral Exploration and Mining. 2006. Department of Industry and Resources, Western Australia.

The guide details the management approach required by state legislation and regulation to ensure protection of rare flora.


This Code of Practice is intended to promote responsible land-use practices during mineral exploration so as to minimize environmental impacts and preserve future land use opportunities.

Marine extractive activities

Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives. 2007. EC

The guide aims to explain the relevant legal and technical concepts needed to underpin the establishment of Natura 2000 throughout the marine area of application of the (79/409/EEC) Birds and (92/43/EEC) Habitats Directives. It covers both the inshore and offshore marine environments.


This document has been prepared with the aim of stimulating debate on the feasibility and merits of undertaking restoration at marine aggregate dredging sites. Recommendations on approaches to the assessment of when, where and how to restore sites form a central theme of the document.
