Landscape planning
for sustainable municipal development
The German Federal Agency for Nature Conservation (Bundesamt für Naturschutz, BfN) is the central Federal scientific agency for national and international nature conservation and landscape management.

The Federal Agency for Nature Conservation has its headquarters in Bonn. It maintains field offices in Leipzig and on the Isle of Vilm, near Rügen.

The Federal Agency for Nature Conservation

**advises** the German Environment Ministry (BMU) and the Federal Government on issues relating to national and international nature conservation and landscape management,

**supports** large-scale conservation projects in the German regions as well as pilot (testing and development) projects of importance to conservation,

**issues permits** for the import and export of protected species of plants and animals,

**undertakes research** in support of these tasks and awards research contracts, and

**provides information** on conservation issues.
Contents

Is this your experience, too? .................................................. Page 4

What is landscape planning? ................................................. Page 6

How does landscape planning work? ..................................... Page 10

What are the benefits of landscape planning? ......................... Page 19

Addresses and literature ...................................................... Page 22
Is this your experience, too?

You are going for a walk or for a drive in the countryside and somehow the landscape has changed.

You note that the river has been straightened and the little woodland has been cut down.

The industrial estate wasn’t there the last time you were, and the track has been widened and asphalted.

The beautiful tree-lined avenue also had to give way.

And you wonder whether next time you should go for a walk somewhere else.
To ensure that you will continue to be able to enjoy nature both in the open countryside and in your village or town, for over twenty-five years landscape planning has been exercised in Germany.

Landscape planning enables your municipality to devise a full-coverage strategy, tailored precisely to the municipality’s interests, in the form of a local landscape plan (Landschaftsplan) with the aim of largely maintaining nature and landscape as well as facilitating municipal development.

The local landscape plan is thus a means of exercising environmental precaution. It creates the planning prerequisites that will enable you as well as future generations to live in an ecologically intact environment, and it supports sustainable municipal development.
Landscape planning is the key planning instrument for nature conservation and landscape management.

Apart from the landscape plans at the local, i.e. municipal, level there are landscape structure plans (Landschaftsrahmenpläne) at the district or planning region (Regierungsbezirk, Landkreis, Planungsregion) level and the regional landscape programme (Landschaftsprogramm) for an entire regional state (Land). The local landscape plans (örtliche Landschaftsplaene) are based on the specifications contained in the regional landscape programme and the landscape structure plans.

At all levels landscape planning makes an important long-term contribution to the conservation of natural resources. It not only addresses the narrower areas of particularly valuable protected sites, but also devises strategies for full-coverage, sustainable conservation and long-term development of nature and landscapes.

The statutory basis for landscape planning is found in the Federal Nature Conservation Act (Bundesnaturschutzgesetz).

This Act not only defines the general tasks but also the substantive elements of landscape planning. The regional states (Länder) can adopt more far-reaching provisions in this regard, for example in their Länder nature conservation laws.
The substantive elements of landscape planning

Article 14 (1) of the Federal Nature Conservation Act

The requirements and measures of nature conservation and landscape management shall be laid down in the form of regional landscape programmes or landscape structure plans as well as local landscape plans. Such plans shall contain information on:

1. the existing and anticipated status of nature and landscapes
2. the objectives and principles of nature conservation and landscape management detailed for the planning area in question
3. an assessment of the existing and anticipated status of nature and landscapes on the basis of these objectives and principles, including any resultant conflicts
4. the requirements and measures

a) to avoid, reduce or eliminate adverse effects upon nature and landscapes,
b) to protect, conserve and develop certain parts of nature and landscapes within the meaning of Section 4, as well as of biotopes and biotic communities of wild species of fauna and flora,

c) in areas which, by virtue of their status, location or natural opportunities for development are particularly well-suited to future nature conservation and landscape management measures or to the development of habitat network systems,
d) to develop and protect the European ecological network "Natura 2000”,
e) to protect, improve the quality of and regenerate soils, waterbodies, air and climate,
f) to conserve and develop the diversity, unique character and beauty of nature and landscapes, also as a place for human enjoyment and recreation.

When drafting landscape plans, consideration must be given to their usability in regional plans and physical development plans.
At the municipal level landscape planning also supports the search for mitigation sites and the determination of mitigation and environmental compensation measures (Ausgleichs- und Ersatzmaßnahmen) as part of the impact mitigation procedure (Eingriffsregelung) required under nature conservation law.

The aim of impact mitigation is to prevent deterioration of the natural potential and functional capacity of the natural environment – the ecological services for flora, fauna and their habitats as well as for soils, water, air and climate – and of the unique character and beauty of landscapes’ scenic qualities, both inside and outside of protected areas.

To this end, impact mitigation procedures establish prevention and compensation requirements which must also be taken into consideration in local development planning.
What is landscape planning?
How does landscape planning work?

Inventory

As the first step in the planning process, baseline information on the current state of nature and the landscape, on the functional capacity of the natural environment, on the scenic qualities of the landscape, on development potential as well as existing and foreseeable problems and conflicts with other existing or foreseeable land uses are collated (inventory).

This type of information is often already held by the municipalities, the nature conservation authorities or by conservation organizations and individuals; some data will need to be collected through new surveys.

During the inventory phase the planner must first gain an overview of the natural conditions and the special problems of the planning area. Subsequently the current state of nature and the landscape as well as foreseeable changes are described and depicted in text form and maps.

Focal topics are soils, water, air, climate, flora/vegetation and fauna as well as the amenity value of the landscape, i.e. its value as an area for experiencing nature and for recreation. In this manner a comprehensive overview is gained of the state of nature and the landscape in the municipality.
The collected information is documented and graphically depicted in thematic inventory maps. Here the inventory map for "Habitats and landuse structure" is shown.

Furthermore, the following is recorded:

- conditions in the landscape for recreation and opportunities for experiencing nature,
- structural characteristics of environmental waters,
- goal conflicts which indicate the current and prospective state of nature and the landscape.
How does landscape planning work?

Evaluation

Based on this information the evaluation of nature and the landscape is the second step in the planning process.

The interaction between inventory, evaluation, and planning is very important in order to arrive at planning statements which are comprehensible for everyone. This process produces site-specific statements as to areas which are to be protected or which sites require development and maintenance measures.

Comparing the information collated for the individual focal topics it becomes clear where there are difficulties or conflicts. Comparison with information produced through other planning processes highlights areas where conflicting land-use claims must be reconciled, and contributes to finding environmentally sound development variants.

The evaluations cover i.a.:
- the importance of biotopes as habitats for plants and animals, e.g. ...
- based on characteristics such as species composition and structural diversity; here: A structurally rich mixed woodland which is of high importance as a habitat for plants and animals and has further development potential (top)
- based on criteria such as naturalness, presence of rare species, degree of integration into a habitat network; here: A near-natural small body of water in a floodplain area which is of very high importance as a habitat for plants and animals.
- based on their development stage; here: An extensively managed orchard of young to medium age which is of medium importance as a habitat for plants and animals but has a high development potential (left).
As a result of the evaluation, the importance for nature conservation of various areas in the municipality is cartographically depicted; here: Evaluation map for “Importance for species and habitat protection” with a five-part colour scale ranging from red (= very high importance) to a pale yellow (= currently low importance).

How does landscape planning work?

- the degree of negative impacts arising from land uses, and existing development potentials, e.g. based on existing site conditions; here: An intensively managed tillage field which is currently of low importance as a habitat for plants and animals but offers development options, particularly along the field margins.

- the importance of structures which are characteristic of a particular landscape for the quality of the human experience therein, based on criteria such as diversity, unique character, and beauty; here: The old characteristic oak-lined avenue which is of very high importance for the scenic quality of the landscape;
How does landscape planning work?

Planning – Objectives

In the subsequent planning phase a guiding vision and a set of planned objectives for the municipality is developed.

The specific requirements and measures needed for the protection, management and development of nature and landscapes in the respective municipality are deduced from the results of the evaluation, the guiding vision and the planned objectives.

It is of particular importance that the guiding vision, the planned objectives and the requirements and measures are developed together with all stakeholders (municipal council and administration, land owners and users, citizens, landscape planners, relevant government offices, associations and NGOs). In this process great importance should be attached to making the contents easily understandable and comprehensible.

In order to improve the implementation of the planned measures, these are not only described in some detail (e.g. which tree and shrub species will be used to establish new hedges, what is the envisaged structure of the hedge) but a timescale for implementation and the respective addressees of the measure are listed.

Information on how, where and through whom supporting funds can
The results of the discussions on guiding visions and of the development of planned objectives is depicted for each site with symbols on maps; here: “Planned objectives for soils/mineral extraction” containing statements on e.g. the exclusion of areas from dredge mining or the preservation of relief structure.

On the basis of the planned objectives, management proposals are set out, such as measures:

- to maintain cliff faces as habitats and as areas for experiencing nature (top)
- to reinstate mining sites following the cessation of mining operations in order to allow for habitat development by way of natural succession (bottom),

and discussed with the stakeholders.
The proposed measures can be very diverse and can include, for example:

- the planting of tree rows,
- the extensification of field margins in tillage fields, or
- the preservation of unsealed farm tracks for the purposes of habitat networking and to increase the attractiveness of the scenic qualities of the landscape (top left);
- recommendations for the management and development of wet grassland (bottom left);
- the development of feeding habitats of protected species such as the white stork.

The planned objectives are underpinned by proposed measures. Both are shown on a planning map in a site-specific manner, here: “Planned measures” including proposed measures for:

- agricultural lands, e.g. maintenance and management of fallow grasslands
“Planned measures for recreation” including special proposed measures

- in order to avoid conflicts between habitat and species protection and recreational use, e.g. the targeted designation of lakes for swimming
- in order to increase attractiveness, e.g. by marking features of cultural and historic importance
- woodlands, e.g. conversion of coniferous forests to mixed forests
- standing waters and watercourses, e.g. discontinuation or scaling down of angling
- settled areas, e.g. preservation and management of parks
- special habitats, e.g. management of dwarf-shrub communities
Implementation

The implementation phase, following the completion of the actual planning procedure, is very important.

Implementation can be carried out in many different ways. One possibility is that the requirements and measures are integrated into the relevant physical development plans of the municipality or into other sectoral plans, as appropriate, and thus realized. Another possibility is that they are implemented by land owners and land users. Every citizen can become active: possible activities include, for example, plantings on private land, establishing green roofs and planting facades, refraining from the use of chemical fertilizers and plant protection products, looking after old fruit trees especially on the margins of towns and villages, or becoming actively involved with planting and management campaigns organized and run by the municipalities or conservation organizations.

Multifunctional measures carried out in cooperation with land owners and land users have the best chances of actually being implemented. These include, for example:

• the creation of a Streuobstwiese (traditional type of extensive grassland-orchard management system) which not only creates new habitat structures and enhances the scenic qualities of the landscape but can also generate income for orchardists or initiatives devoted to the maintenance of these systems,
• the planting of multiple-row hedgerows which not only enhance habitat networks and the attractiveness of the landscape but also have a positive effect on microclimates and reduce the erosion of soils on adjacent tillage ground from wind action,
• the re-creation of formerly infilled waterbodies which allows threatened species using such habitats to return to an area and which also increases the recreational value of the landscape.
What are the benefits of landscape planning?

“Do we need a landscape plan at the municipal level?”, is a question that is often asked. Arguments against local landscape plans are rooted in the concern that they might have a restricting effect on the municipality and that its economic development may be constrained. The development taking place in over 5000 municipalities which have drawn up local landscape plans, and have in many cases already produced updates, shows that this concern is unfounded.

Local landscape planning aids these municipalities in that it serves as an important decision-making tool for sustainable municipal development. It creates important preconditions for:

• sustainable town and country planning with low levels of land consumption and landscape impact,
• increased planning certainty and acceleration of planning processes,
• underpinning the municipality as an attractive business location with an improved residential and work environment,
• comprehensive protection of the integrity of natural life-support systems,
• improved recreational opportunities and tourism development,
• improved integration into marketing opportunities for regional products, and
• improved regional identity.
What are the benefits of landscape planning?

“On the basis of the local landscape plan the municipality could immediately propose mitigation sites for me as an investor. That is very advantageous. We didn’t have to engage in the endless search for suitable sites which saved us a great deal of time and money. It was the decisive factor for us to locate here. Our development is also very well integrated into the townscape. In fact, it is so good that we can use it in our advertising.”

“As a citizen I have only become aware of the ecologically valuable sites we have here and what is typical of our municipality through the discussion of the local landscape plan. Before that I also did not really know what I could do to enhance nature and the landscape. That’s different now. I have already started to plant climbers along the garage wall. The joint volunteer actions for community improvement and to enhance the landscape have shown us that if we work together, even with limited means we can make a difference.”

“For me as a town planner the local landscape plan is a very important planning instrument. Last year we had to find an environmentally sound site for wind turbines and a consultation of the local landscape plan helped as find alternative sites and avoid or minimize land-use conflicts. The local landscape plan thus creates legal certainty in the process of weighing up land-use interests with conservation interests in town and country planning. It is also useful when developing arguments in the preparation of statements on projects planned by other agencies, such as the extension of a motorway, that help underpin the need for sustainable and environmentally sound implementation of the works.”

“To be honest, as a farmer I was quite sceptical at first about landscape planning. But the landscape planner has given me excellent advice on how I can manage my lands in a more environmentally-friendly manner and how I can market products locally. That works really well in our municipality. I also converted my sloping sites into grassland and now graze them with sheep. This qualifies as an extensification measure which means that I even get financial support for it now.”

“As mayor I’m delighted with the local landscape plan as it provides an overall plan for town and landscape renewal and also integrates nature-based recreation. That will bring progress for us in our tourism development. Many of our measures have even attracted funding due to the local landscape plan. The municipal council also frequently consults the local landscape plan when housing development decisions are taken. These arguments go down well with the citizens and our decisions are more comprehensible.”

“On the basis of the local landscape plan the municipality could immediately propose mitigation sites for me as an investor. That is very advantageous. We didn’t have to engage in the endless search for suitable sites which saved us a great deal of time and money. It was the decisive factor for us to locate here. Our development is also very well integrated into the townscape. In fact, it is so good that we can use it in our advertising.”
As the spokesperson for an environmental organization I often write technical submissions on proposed developments from the conservation point of view. This has become much easier for me since we have the local landscape plan as it a good foundation on which to base my arguments. A further advantage of the local landscape plan is the roundtable of the regional conservation organizations. It was set up during the drafting phase of the plan and is still in existence. Now that everybody follows the same plan and jointly works on its further development it has become a lot easier for us to coordinate and focus our efforts.

"Due to the fact that the preparatory land-use plan (Flächennutzungsplan) and the local landscape plan (Landschaftsplan) were drawn up in tandem we were able to integrate many of the objectives for nature conservation and landscape management into the newly drafted preparatory land-use plan. This was of benefit to the municipality and its citizens. However, for me as the Head of the Planning and Building Department the depiction of sites for mitigation and environmental compensation measures for building developments is the most interesting part."

"Personal, and also as an employee of the local tourist office, I like the fact that the local landscape plan now provides a strategy for the improvement of the landscape structure for recreation. New cycling and walking routes have been developed. Now you can hire boats and row them across restored waters which used to be frankly dull and boring. Now it's really fun to be here. And it also means that our guests like to come back."

"For us as employees of the Environment Department the local landscape plan provides a starting-point from which to make more room again for nature and the environment. I can see which of the tasks are the most pressing ones and where the focal points for conservation are in our municipality. Based on the local landscape plan, planning for protected areas and habitat networks has become a lot easier."

As the spokesperson for an environmental organization I often write technical submissions on proposed developments from the conservation point of view. This has become much easier for me since we have the local landscape plan as it a good foundation on which to base my arguments. A further advantage of the local landscape plan is the roundtable of the regional conservation organizations. It was set up during the drafting phase of the plan and is still in existence. Now that everybody follows the same plan and jointly works on its further development it has become a lot easier for us to coordinate and focus our efforts."
Completed local landscape plans can be consulted locally in the respective municipalities. It is also becoming more and more customary that municipalities and towns make their draft or final plans accessible on the Internet. Some examples can be found by following the links below.

Karlsruhe: http://nachbarschaftsverband.karlsruhe.de/nvk7.htm
Aiterhofen: www.gemeinde-aiterhofen.de/landschaftsplan.htm
Böhmfeld: www.altmuehlinet.de/gemeinden/boehmfeld/index.html
Langenquaid: www.keh.net/langquaid/lanplan/fr_set.htm
Lechbruck am See: www.lechbruck.de/landschaftsplan/index.html
Nürnberg: www.landschaftsplan.nuernberg.de
Retzstadt: http://landkreis.mainspessart.de/retzstadt.html
Fulda: http://www.fulda-online.de/inhaltsseiten/buergerservice/statische_seiten/landschafts-plan/index.htm
Groß Umstadt: www.gross-umstadt.de/entwicklung/index.htm
Rossdorf: http://landschaftsplan.rossdorf.de
Güstrow: www.guestrow.de/rathaus/landschaftsplan/index.html
Königs­lutter am Elm: www.koenigslutter.de
Hagen: http://www.umweltamt.hagen.de/arb­beitsbereiche/landschaftsplan.htm
Nordkirchen-Herbern: www.kreis-coesfeld.de/sislandschaftsplan
Further information as well as aids for the development and promotion of local landscape plans and potential financial support for their implementation can be obtained from the regional state ministries with responsibility for conservation, from the respective regional state environmental authorities and from the nature conservation authorities at the regional administrations and the district authorities. The relevant regional landscape programmes (Landschaftsprogramme) and landscape structure plans (Landschaftsrahmenpläne) can also be consulted at these offices. Furthermore, a number of model local landscape plans are available.

If you are interested in further information on landscape planning please visit our website at www.bfn.de.

On our website you will also find the directory of landscape plans as developed by the German Federal Agency for Nature Conservation (BfN). This directory is the most comprehensive listing of landscape plans in Germany. It contains all the regional landscape programmes (Landschaftsprogramme), landscape structure plans (Landschaftsrahmenpläne) and local landscape plans (Landschaftspläne) known to the BfN which have been drawn up in Germany or which are currently being drawn up.
Imprint

Published by: German Federal Agency for Nature Conservation (Bundesamt für Naturschutz, BfN)

Content by: BfN-AS Leipzig field office, Fachgebiet Landschaftsplanung, Torsten Wilke, Jens Schiller & Monika Könze and contributions by Katja Schmalzried, Leipzig

Photo credits: BfN (p. 2 top and bottom, p.16 bottom), G. Fröhlich, Wurzen (p. 1 centre-top and p. 16 top), H. Krug, Ökologische Station Borna (p. 10 centre-top), Prof. Dr. F. Luz, Büro für Landschaftsentwicklung Freising (p. 15 bottom), F. Mayer, BfN-AS Leipzig (p. 18 top and centre), T. Wilke (p. 1 bottom, p. 3, p. 4 centre, p. 5 top, p. 6, p. 11 top, p. 12 top and centre, p. 13 top, p. 14 top and bottom, p. 17), all other photographs: J. Schiller

Graphics and figs.: BfN, huth & möller graphische gesellschaft bR, Leipzig

Design: huth & möller, graphische gesellschaft bR, Leipzig

Map sections: Landschaftsplan Edemissen, Planungsgruppe Ökologie und Umwelt, Hannover

Please note: The photographs used in this publication do not depict the areas shown in the map sections.

Translation: Christopher Hay, Translation Bureau for Environmental Sciences, Seeheim

Printing: Druckerei Jürgen Risse, Leipzig

As at: 2002

Cover and content printed on 100% recycled paper.