

THEMATIC CONCEPT

# GREEN AND OPEN SPACES





# VIENNA'S **OPEN SPACE NETWORK**

Green spaces
Woods, vineyards and meadows,
Large-scale urban green spaces
(e.g. Schönbrunn Palace Gardens),
Parks and cemeteries (>10 hectares)

Mainly agricultural landscape

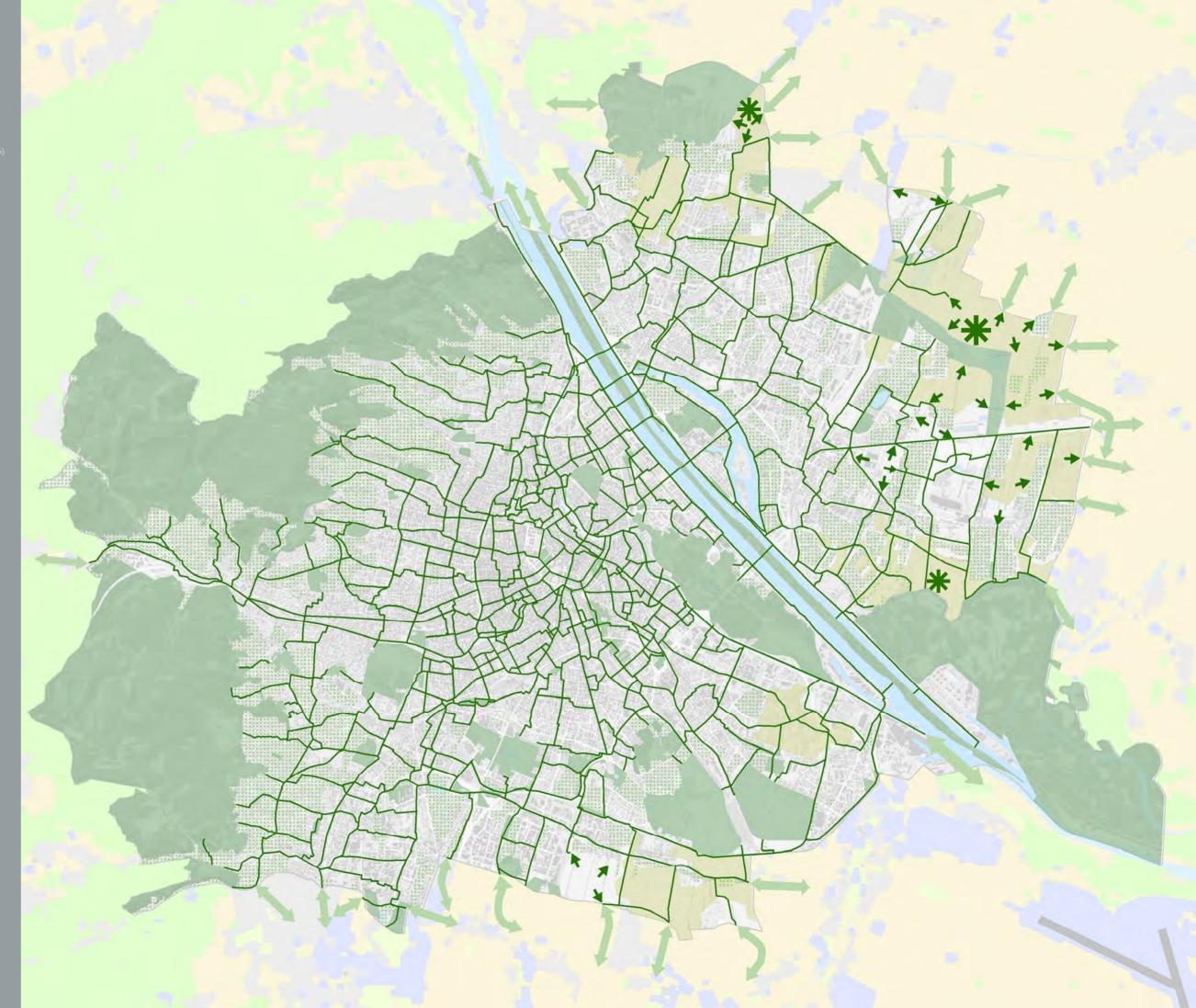
**Green settlement areas**City quarters with a comparably low degree of development density and a high degree of urban greening

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STEP

THEMATIC CONCEPT



# THEMATIC CONCEPT GREEN AND OPEN SPACES SHARING THE OUTDOORS

### THEMATIC CONCEPT

# GREEN AND OPEN SPACES

## **SHARING THE OUTDOORS**

### CONTENTS

FO	REWORD	6
IN	TRODUCTION	8
1.	OBJECTIVES	12
	1.1. INSTRUMENTS FOR VIENNA'S GREEN AND OPEN SPACE PLANNING	13
	1.2. FOCUS OF DEVELOPMENT	14
2.	STARTING POINT AND CHALLENGES	18
	2.1. HISTORIC DEVELOPMENT OF VIENNA'S CITYSCAPE	18
	2.2. CORNERSTONES OF VIENNA'S GREEN SPACE DEVELOPMENT	20
	2.3. VIENNESE LANDSCAPES	
	2.4. GLOBAL AND REGIONAL CHALLENGES FOR GREEN AND OPEN SPACE PLANNING	
	2.5. CHALLENGES AND TASKS IN DIFFERENT SEGMENTS OF CITY-LIFE	25
3.	THE IMPORTANCE OF GREEN SPACES IN VIENNA	32
	3.1. ECOLOGICAL IMPORTANCE	32
	3.2. ECONOMIC IMPORTANCE	
	3.3. SOCIAL IMPORTANCE	36
4.	OPEN SPACE TYPES AND THEIR APPLICATION IN PLANNING	42
	4.1. STRUCTURE OF VIENNA'S OPEN SPACE NETWORK	
	4.2. NETWORK FUNCTIONS	
	4.3. TYPOLOGY OF VIENNA'S OPEN SPACES	
	4.4. THE 12 OPEN SPACE TYPES	
	4.5. INNOVATIVE APPROACHES FOR THE CITYSCAPE	
	4.6. THE "LOCAL GREEN PLAN" METHOD	
	4.7. GREEN AND OPEN SPACE SUPPLY STANDARDS	84
ΑN	NEX – LEGAL FRAMEWORK CONDITIONS, STRATEGIES, CONCEPTS, GUIDELINES	86
LE	GAL NOTICE, LIST OF ILLUSTRATIONS	94
SU	RVEY MAP OF GREEN AND OPEN SPACE NETWORKS IN VIENNA, FOCUS LEISURE ZONES COVE	
$\sim$ 1	EDVIEW ACTORS DROOFSSES STRATEOISS INLVIENDAYS OREAL SPACE	IED DAGI





Maria Vassilakou
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Vienna is growing. By 2027 Vienna will have about 2 million inhabitants\*. This means that we need to create housing space, jobs and an appropriate social infrastructure, but we must also create enough high-quality green space in the city. The thematic concept "Green and Open Spaces" by the City of Vienna will set the course for green and open space planning for the next ten years. The concept thus puts the goals and objectives defined in the 2010 governmental agreement into concrete terms.

More quality of life in our city means that we need to develop more recreation zones for leisure-time activities and provide more green and open spaces close to residential areas to give children the possibility to play and run around. The thematic concept defines the necessary framework conditions.

I invite all citizens of Vienna to actively take part in planning and designing their neighbourhoods, so that green spaces will become a central element of a vibrant, urban city in which quality of life also entails social cohesion.

<sup>\*</sup> Source: STATISTICS AUSTRIA (November 2014)

## INTRODUCTION

As a dynamic city in Central Europe with a high quality of life, Vienna will face significant growth in the number of inhabitants in the next decades. This development provides many opportunities for further development of urbanity combined with economic power and social possibilities. However, this development will only be sustainable for the Viennese if the city's high quality of life is maintained and developed even further. In this context, the green and open spaces of the city will play a central role in the future, from green streets to parks and large recreation zones, whereby the interests of the general public outweigh individual or group interests.

In the next decades the growth of the city thus needs to go hand in hand with further qualitative and quantitative growth of green and open spaces in Vienna. Green spaces take up more than 50% of Vienna. This high share should also be maintained in the future. In a city that provides social justice for all, green spaces must be equally distributed between individual residential areas. The task to provide Vienna's citizens with affordable housing is combined with the need to provide sufficient high-quality green and open spaces in their neighbourhoods. High-quality green and open spaces are not reserved for exclusive residential areas. It is essential to ensure this quality of life especially for the segment of affordable housing.

Only a city for children is a vital city. In the last decades, children have gradually lost space where they can play and run around on their own. The city should once again make it possible for children to walk to school instead of going by car, play in unspoilt areas and experience adventures.

One of the objectives of the Urban Development Plan 2025 (STEP 2025) is to significantly increase the share of non-motorised individual traffic in the city. The green and open space network in Vienna supports this objective even today and holds a lot of potential for the future. It is also the basis for a better connection of public transport service with cycleways and walking routes according to STEP 2025 and its eco-friendly means of transport.

The climate of the city is significantly influenced by the share of green space and bodies of water. This includes making use of unconventional types of greening, such as roof or façade greening, and thus helping the city to adjust to climate change.

All of these tasks blend into the Smart City Wien Strategy, which was agreed upon in June 2014 and goes far beyond the scope of STEP 2025. It provides the framework for the targeted development of the City of Vienna until 2050, focusing on maintaining the high quality of life in the city while, at the same time, ensuring resource protection and the use and promotion of innovative approaches. Detailed goals, such as a target value for the reduction of  $\mathrm{CO}_2$  consumption per capita, require solutions which will also be part of green and open space planning in Vienna.

















6<sup>th</sup> district, Mariahilfer Straße

The increasingly growing network of green and open spaces in the city also entails big administrative and budget-related challenges. New types of development, supply, maintenance and care of green and open spaces thus need to be further developed, ranging from self-organisation in urban gardening to the activation of micro open spaces and PPP models. Mobilising large, contiguous areas is especially important in this concept.

Landscape-wise Vienna is linked to the Federal Province of Lower Austria and to the municipalities surrounding it. Regional cooperation is therefore a central factor for success, especially concerning green and open spaces. The strengthening of the cooperation will be expanded to additional administrative units outside of Vienna which are of significant importance for Vienna's green and open spaces, such as the Bundesgärten (Federal Gardens) and the Via Donau (Austria's Waterway Company).

The STEP 2025 thematic concept "Green and Open Spaces" was developed based on the principles of STEP 2025 and goes into more subject-specific depth. Integral elements of the concept are 12 types of open spaces, standards of supply with green and open spaces and the linear definition of a network of open spaces for the whole city. "Local green plans" can be the basis for land allotment procedures, compensation measures and agreements on urban development.

On the construction site the design concept ensures the individual steps for implementation according to the Building Code for Vienna. It guarantees that the citizens on site benefit from the ideas and philosophies regarding urban development.

Although the pragmatic and rational tasks of green and open spaces are very important, the beauty of the Viennese cityscapes must not be forgotten. From the Vienna Woods to Vienna's Danube area and the historic parks, from popular vineyards to contemporary landscape architecture and green oases in backyards – all these elements of Vienna's urban cityscape are essential characteristics and represent the distinctive charm of Vienna.





# **OBJECTIVES**



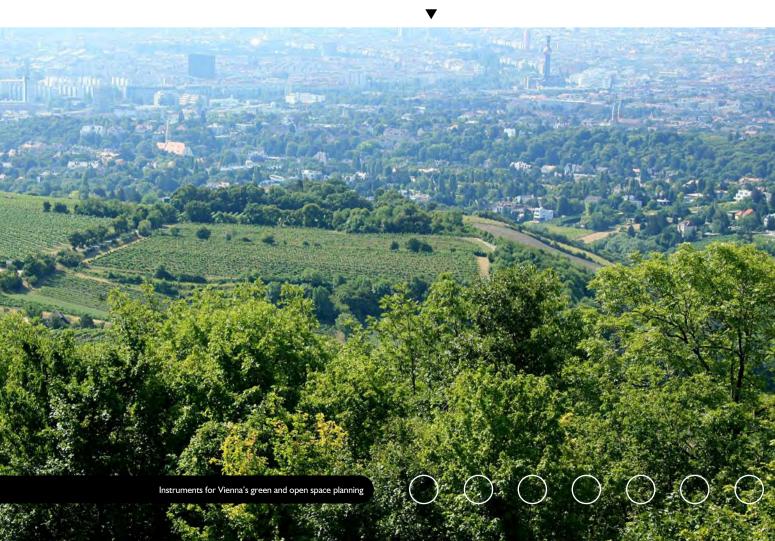
# **OBJECTIVES**

The thematic concept "Green and Open Spaces" was designed for the maintenance and development of high-quality green and open spaces in Vienna and is part of STEP 2025.

It takes into account quantitative as well as qualitative aspects of the development of open spaces, which were defined in 2010 in the governmental agreement on urban development, quality assurance, public space, mobility, rainwater management, green space, nature conservation and agriculture as well as housing construction and urban renewal.

### Green Vienna

From the hillsides of the Vienna Woods to the green backyards of the Gründerzeit era buildings: the diversity of the urban green and open space network is the basis for the fulfilment of its different functions.



# 1.1. INSTRUMENTS FOR VIENNA'S GREEN AND OPEN SPACE PLANNING

The STEP 2025 thematic concept "Green and Open Spaces" defines focuses and objectives for the development of green and open spaces for the next decades and provides the instruments needed. They are a combination of spatial planning (▶ open space network and open space typology, chapters 4.1. to 4.4.) and development planning instruments (▶ chapter 4.5. Innovative approaches for the cityscape), which include and apply the legal framework as well as existing strategies and guidelines of

urban development (▶ annex). The STEP 2025 thematic concept "Green and Open Spaces" is a useful, sustainable development instrument for urban development and provides facts regarding the objectives of the development of the individual open space types in Vienna (▶ chapter 4.4. The 12 types of open spaces). The application of "Local Green Plans", which are developed for specific areas as occasion demands, guarantees a high level of accuracy and promotes their realisability (▶ chapter 4.6. "Local Green Plan" Method).

# "OPEN SPACE" IN THE THEMATIC CONCEPT

The term "open space" can be applied to every undeveloped area of the city, whether sealed, non-sealed or green. Although it includes green space structures, the term "green and open spaces" will be used in the following in order to emphasise their importance.

The thematic concept includes green and open spaces which are relevant for one or more of the following functions:

- everyday life and recreation: leisure time, social life, mobility, etc. of the Viennese
- structuring of the urban fabric: significance of open and green spaces for the structuring of the urban fabric, orientation and identity creation
- ecosystem services: urban climate, air quality and water household
- nature conservation: significance of open and green spaces as habitats of animals and plants, the biotope network and ecosystem protection as well as for the promotion of biodiversity

This applies especially to ...

• publicly accessible green and open spaces such as parks, public places and streets for pedestrians,

- partially public green and open spaces in residential and working areas as well as open spaces of public buildings with limited accessibility,
- green and open spaces with restricted access (private gardens, areas owned by the municipality, such as swimming facilities, open spaces in schools, sports facilities, etc. with potential for multiple use),
- agriculturally used areas (apart from greenhouses and agricultural outbuildings),
- woodland,
- water bodies and shore areas, as well as
- brownfield areas (ruderal areas, industrial wasteland, landfill sites and gravel pits) relevant for ecosystem services and/or nature conservation.

### Excluded are ...

- traffic areas which are primarily used by motorised traffic (see STEP 2025 thematic concept "Mobility") as well as
- non-accessible, industrially/commercially used areas which are of no significant ecological importance.

The STEP 2025 thematic concept "Public Space" will be designed for public open space in urban areas (streets, public places, pedestrian areas, ...) in order to define relevant measures in greater detail.



### 1.2. FOCUS OF DEVELOPMENT

Green and open spaces have played an important role in the development of the City of Vienna, at least during the past 150 years.

Time and again a dual function of recreation zone and future urban building land or traffic use has been observed.

Green and open spaces are increasingly taking over a more central infrastructural task in urban life. The focus of green and open space planning in Vienna is nowadays the creation and continuous development of urban cityscapes, the continuous development of green and open space as an element of infrastructure for everyday life and the consistent supply of green infrastructure to all citizens.

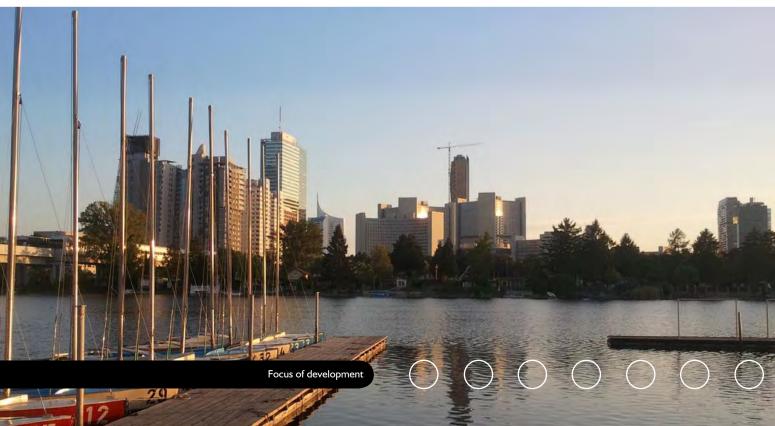
### 1.2.1. Cityscapes

In 2015 Vienna is facing new challenges of a dynamic city growth. The forecast for 2029 includes 2 million inhabitants, which require a compact city with an appropriate amount of green and open spaces. At the same time the demand of the Viennese for high-quality green and open spaces is getting increasingly stronger. The solution to these challenges lies in safeguarding the

network function of green and open spaces as a basic element of high-quality cityscapes. In order to achieve this, the city and the landscape have to be developed as two components complementing each other. Developed and undeveloped urban spaces are equally important as a basis for this achievement. The characteristic cityscapes of Vienna need to be further developed along the lines of their present identities.

### $22^{\text{nd}}$ district, cityscape Alte Donau





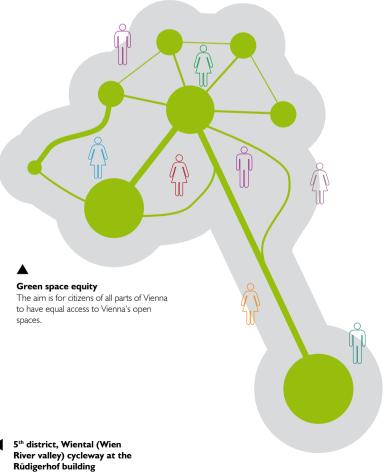
### 1.2.2. Infrastructure of everyday life

The functional demands on green and open spaces in Vienna are becoming increasingly diverse. Urban infrastructure needs to fulfil economic, ecological and social tasks and structure the urban fabric. The "city of short distances" as a concept of urban development is supported by these green infrastructural axes which give room and potential to non-motorised movement in the city. Recreation has merged with our daily work life and is no longer just a weekend task. Relaxing during the lunch break has become as important as the stress-free walk or bike ride to work. Essential social facilities such as kindergartens or schools need to be well-connected by infrastructural axes (= "urban routes"), enabling good accessibility on foot, by bicycle and public transport. These tasks require a strong interconnection of green and open space planning with all other areas of urban development. The supply of green and open space is hence an infrastructure service and can be compared to technical infrastructure services of the City of Vienna (road network, sewer network, etc.) regarding the supply and network function.

### 1.2.3. Green space equity

Vienna has a total of more than 50% green space. This high share of green space will be maintained in the future, which makes green space equity a vital issue: all citizens have the same right to high-quality provision of green and open space. These serve everyday life and need to be provided comprehensively. Green and open space increases the value of residential areas. The appropriate connecting elements should safeguard a consistent infrastructural supply with green and open spaces to the best possible extent. By developing a robust open space system and safeguarding the required areas, future generations will be provided with continuous access to high-quality green and open spaces in a growing city. When it comes to superordinate green space planning, Vienna focuses on urban large-scale recreation zones in the size of Norbert-Scheed-Wald.







# STARTING POINT AND CHALLENGES



# STARTING POINT AND CHALLENGES

Current developments, forecasts regarding the development of the population, changing conditions and demands on city structure and ecology as well as social and economic issues – based on today's green and open space situation in Vienna – are the basis for setting the goals and focuses of green and open space planning.

### 2.1. HISTORIC DEVELOPMENT OF VIENNA'S CITYSCAPE

Vienna's rich and high-quality provision of green and open spaces is based on the unique natural conditions of this region, the large historic green spaces and the political decisions made during the Austro-Hungarian monarchy, the interwar period and between the 1960s and the 1990s. In 1905 the Vienna Wood and Meadow Belt Decision set the course for further developments: for the first time, safeguarding green space was made the focus of a development strategy.

### 2.1.1. The green legacy of feudalism

The safeguarding of today's green and open spaces in Vienna dates back to the times of the Austro-Hungarian monarchy. Included in this concept were the Vienna Woods with the Lainzer Tiergarten, the Lobau wetlands, the Prater area and the large parks such as Schönbrunn Palace Gardens, Augarten park, etc.

These areas, which were originally situated far outside the city borders, were for centuries strictly reserved for the imperial family. It was only in the 18th century that all these areas were gradually opened to the public, starting with the Prater area.

# 2.1.2. Increasing demand for green space in the 19<sup>th</sup> century

Hardly any metropolis in the world has such beneficial natural conditions as Vienna. During the past centuries, people knew how to make use of them – urban development happened morphologically. Green space – mostly agricultural space – was equally important as

developed space. Industrialisation in the  $19^{th}$  century and the rapid growth of the population brought about urban densification – a development which soon called for counteraction.

The dense perimeter block development of the Gründerzeit era with its obstructed backyards and narrow light wells had negative effects on the health of the citizens. Parks were created mainly for representative reasons (e.g. Stadtpark).

# 2.1.3. Green and open space in socialist Vienna

In the First Republic green spaces were boosted enormously by social housing. A new philosophy regarding housing and the related construction design made generous green zones in the form of yards possible. Up to this time the trend was to cover almost all of the available building area with houses, but from now on 50% of the surface was reserved for green space.

At this time another trend for new types of open spaces emerged together with social housing: allotments, little

















pieces of land for self-supply and recreation of the working class. With the shutdown of many local cemeteries, additional areas were made available that could be used for recreational purposes. Many parks and other green spaces were realised then, for instance the Kongresspark in the 16th district and the Herderpark in the 11th district.

# 2.1.4. Green and open spaces between the 1960s and 1990s

Between the 1960s and the 1990s Vienna's green and open space development was especially shaped by four major projects, which have been among the most important recreation zones in Vienna ever since:

### Donaupark (WIG 1964)

Until 1960 large parts of the area between the Wagramer Straße, the Siedlung Bruckhaufen, the Arbeiterstrandbadstraße and the Hubertusdamm in the 22<sup>nd</sup> district (Donaustadt) were used as landfill sites. This area, four kilometres away from the city centre, was cleaned up and turned into a park. Vienna's city government decided to host the "Viennese International Garden Show 1964" ("Wiener Internationale Gartenschau 1964", WIG) on the grounds. Today about 60 of the originally 100 hectares are accessible to the public and can be used by the Viennese.

### Kurpark Oberlaa (WIG 1974)

Ten years after the first WIG at Donaupark, the Vienna City Council decided to hold another international garden show on the south side of the Laaer Berg in the 10<sup>th</sup> district (Favoriten), the site of a former clay pit, since the first one had been such a success. Aside from the fact that some exposition buildings were torn down, today's Kurpark Oberlaa with its 86 hectares has remained unchanged since then and is one of the largest recreation zones in the south of Vienna.

### Vienna's Danube Island (Wiener Donauinsel)

In the 1960s the City of Vienna started to make plans for efficient flood control along the banks of the Danube. The new flood relief channel was supposed to replace the former flood area between Langenzersdorf and Ölhafen Lobau. It was built as a 160-metre-wide new river bed called Neue Donau (New Danube), which was separated from the River Danube by the 21 kilometre long and, on average, 200 metre wide Donauinsel (Danube Island). For a long time, it was not clear that Danube Island would become the largest Viennese recreation paradise. This development was based on the decision to keep this newly gained green space entirely free of buildings. When the Danube power plant Freudenau was built at the end of the 1980s, the river banks were reconstructed and ecologically upgraded. Calmed water zones and constructed embankments of islands created a new, nature inspired bank landscape, which is an important ecological connecting element and runs through the whole city as a green corridor.

### Wienerberg

After having purchased the entire area of the former clay mining sites at Triester Straße, the City of Vienna could go about redesigning the Wienerberg area with its 120 hectares between 1983 and 1995. The ruins of former factory buildings, landfills and storage areas were transformed into a high-quality, ecologically oriented recreation zone with quasi natural woods, meadows, wetlands and bodies of water. For the realisation of the project, new financing possibilities were applied, which were made available by the association "Niederösterreich-Wien, gemeinsame Entwicklungsräume" (Lower Austria-Vienna, joint development areas) or by site remeditation. Many forms of cooperation were implemented, as well, e.g. excavated soil from the city's expansion projects was re-used.



### 16<sup>th</sup> district, Kongresspark, 1928

One of the large parks from the interwar period.
This picture shows the Kongresspark shortly after its completion. (Copyright Wien Museum)











### 2.2. CORNERSTONES OF VIENNA'S GREEN SPACE DEVELOPMENT

Vienna's citizens have grown used to the constant availability of large recreation zones, parks and green connections in and around Vienna. However, their existence is owed to the fact that Vienna's city planning has actively safeguarded the city's green spaces for more than 100 years.

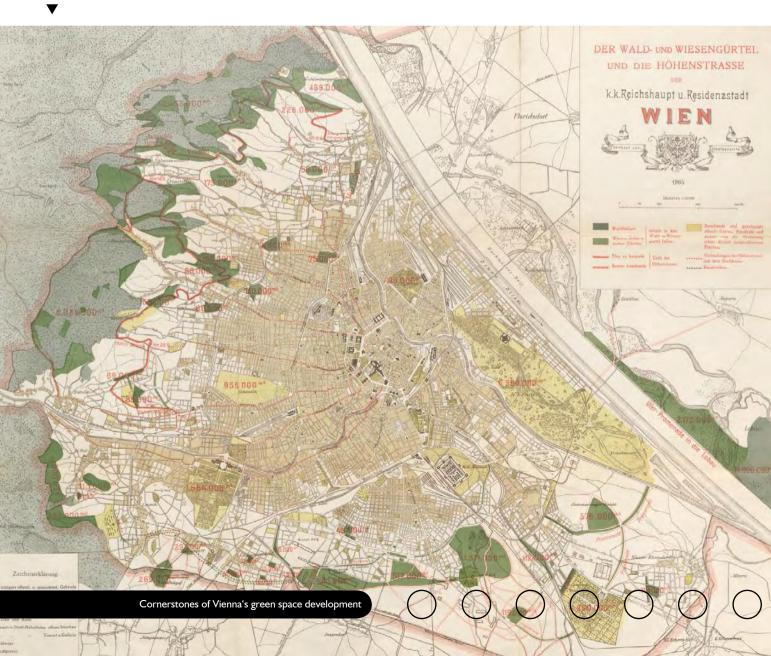
### 2.2.1. 1905: Vienna's Wood and Meadow Belt

After the enormous urban densification processes in the wake of industrialisation in the 19th century, the first ideas on creating a protected area were born as early as the 1870s. Especially the northwest of Vienna was destined to stay free from further construction, thus serving the citizens as an urban recreation zone. In 1905 the City

Council agreed upon Vienna's Wood and Meadow Belt "to permanently safeguard the health conditions in our city and to maintain the beauty of its natural frame." Vienna's Wood and Meadow Belt was protected by law, which made it possible to gain space for recreational purposes.

1905 Vienna's Wood and Meadow Belt





# 2.2.2. 1994/95: 1,000 Hectare Programme and the Vienna Green Belt

In the 1990s Vienna's urban planning departments designed the "Guidelines for Vienna's Urban Development" ("Leitlinien für die Stadtentwicklung Wiens") and subsequently the fundamentally reviewed Urban Development Plan was adopted in 1994 (STEP 94).

At the same time, the "I,000 Hectare Programme" defined superordinate green spaces (green belts, green wedges, green links) and wide areas on the urban outskirts potentially available for construction projects were exempted from the defined areas for urban development in order to close the green belt around Vienna. These measures served the implementation of the political commitment to the importance of large-scale and inner-city urban green spaces defined in the 1986 Vienna Green Space Declaration (Wiener Grünlanddeklaration 1986). In 1995 the Vienna Green Belt agreement (Grüngürtel Wien 1995) plus the respective measures were adopted, including the protection of additional areas, the safeguarding of free areas through land-use provisions, the designing and planning of green and open spaces according to landscape and green space plans, as well as the definition of surfaces and spaces which needed to be purchased in order to be able to safeguard the green belt. So far, the latter could only be realised to a small extent.

to develop without any economic restraints and thus guaranteeing that the unique beauty of its landscape will be maintained for generations to come.

### 2.2.4. 2005: Biosphere Park Vienna Woods

The Federal Provinces of Lower Austria and Vienna initiated the idea to comprehensively protect the Vienna Woods region. Both provinces implemented this idea within the framework of the UNESCO Biosphere Park Concept, an international instrument for the protection and development of regions with a high level of natural values. In 2005 the Vienna Woods were awarded the UNESCO designation of biosphere park and since then, the Vienna Woods have been a UNESCO model region for sustainability. The aim is to protect nature wherever habitats and species need protection while developing the area into a region of living with a focus on responsible management and actions. In order to reach this goal, the landscape was divided into three different categories of use and development. The whole region of the Vienna Woods biosphere park in Lower Austria and Vienna comprises an area of 106,645 hectares, seven Viennese districts and 51 municipalities in Lower Austria.

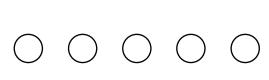
### Biosphere park Vienna Woods

▼

### 2.2.3. 1996: Donau-Auen National Park

Vienna is the only metropolis in Europe that hosts a national park in its urban area. The Lobau wetlands, situated on more than 2,400 hectares, are a unique natural region and a habitat for a wealth of different animals and plants. The Donau-Auen National Park is situated between the European capitals Vienna and Bratislava and preserves the last large floodplains landscape in Central Europe on an area of more than 9,300 hectares. The Danube, the lifeline of the national park, flows freely in this area for approximately 36 kilometres. With the founding of the Donau-Auen National Park in 1996, this area was put under permanent international protection, allowing nature





# 2.2.5. 2005: STEP 05, mission statement "Green Spaces of the Urban Region"

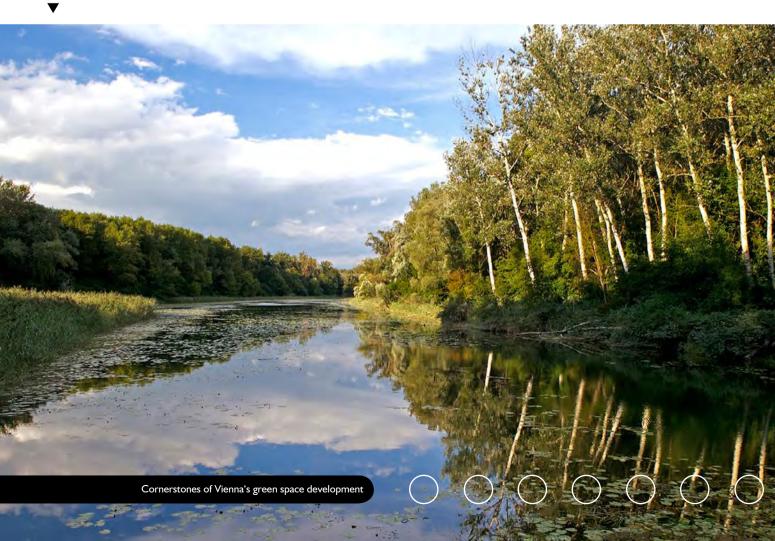
STEP05, the urban development plan of 2005 and its mission statement "Green Spaces of the Urban Region" focus on five different landscapes: the Bisamberg region, the cultural landscape of the Marchfeld, the Vienna Woods, the Danube region and the terrace landscape in the south of Vienna. In a development targeted at sustainability, these landscapes are an integral part of the economic development of the region according to the mission statement and are therefore the basis for the long-term protection of the quality of life in the city region. The mission statement "Green Spaces of the Urban Region" therefore aims at safeguarding and further developing the landscapes and defines the borders to the buildable city area (settlement border). STEP 05 thus documents the equal status of the Bisamberg, Marchfeld and Danube regions, the terrace landscapes in the south

of Vienna and the Vienna Woods region, which has already been recognised and safeguarded by high-ranking protection categories. The STEP 05 mission statement "Green Spaces of the Urban Region" remains the same regarding its principles for STEP 2025.

### 2.2.6. "Norbert-Scheed-Wald"

In 2013 Vienna's City Council agreed upon defining contiguous surfaces in the northeast of Vienna to be permanently safeguarded as a diverse natural and recreation region. Gradual transformation will engender a natural leisure area that will offer relaxation for people and a habitat for wild animals and plants. At the same time, land for city-compatible agriculture will be protected. This was also defined as a significant measure regarding green and open spaces in STEP 2025.

Donau-Auen National Park



### 2.3. VIENNESE LANDSCAPES

Five large and highly diverse sub-regions constitute the natural basis for the development of green and open spaces in Vienna. Their different features characterise the "Vienna

landscapes". They are geographically and climatically diverse and differ in the overall appearance of their landscapes, their special challenges and their potential.

The five major landscapes



### **Bisamberg**

The Bisamberg region is characterised by woods, valuable biotopes, vineyards and farm land. It is a very important local recreation zone for both the 21st district and the surrounding municipalities in Lower Austria. The foothills of the Bisamberg are becoming increasingly attractive as a settlement area.



### **Marchfeld**

The fertile Marchfeld area supplies the city with vegetables and cereal crops. At the same time, it provides enough space for urban and green space development due to its width and openness. The dynamics of regional development in this area require further development of the specific qualities of this landscape in cooperation with the neighbouring municipalities.



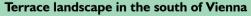
### Vienna Woods

The mixed forests in the northwest/west of the city, called Vienna's "green lung", are of major ecological and climatic importance for the city. The Vienna Woods filter the urban air and hold off precipitation, but they are also a popular local recreation zone for the Viennese. The succession of forest and open spaces, which are also used for agricultural purposes, is typical of the Vienna Woods. Its special characteristic is its viticulture within the city borders.



### Vienna's Danube area

The Alte Donau and Neue Donau regions as well as the Lobau wetlands as part of the Donau-Auen National Park are unique habitats and recreation oases. Vienna is the only European metropolis hosting a national park. These high-quality recreation zones need to be preserved for the future and their environments need to be continuously upgraded.



The wide plain of the southern Vienna Basin is run through by many west-east flowing brooks and is surrounded by the Wienerberg, Laaer Berg and Goldberg in the north. The landscape is characterised by the recreation zones Wienerberg, Heuberggstätten, Laaer Berg and Löwy-Grube.



# 2.4. GLOBAL AND REGIONAL CHALLENGES FOR GREEN AND OPEN SPACE PLANNING

### 2.4.1. Population development

According to current forecasts, the population of Vienna will grow as rapidly in the next decades as it did in the Gründerzeit era. In the last ten years the population grew by 10%, i.e. from 1.57 million (2002) to 1.73 million people (2012)<sup>1</sup>, mainly through migration. Vienna will have two million inhabitants in 2029 according to the forecasts – this many people last lived in the city before the First World War broke out.<sup>2</sup>

From the perspective of urban development, this primarily means that there is an urgent need to create additional housing space and infrastructure.

Green and open space development needs to develop and implement instruments and measures in order to be prepared for a growing Vienna. It needs to make sure that the green and open space infrastructure keeps up with the growth of the population.

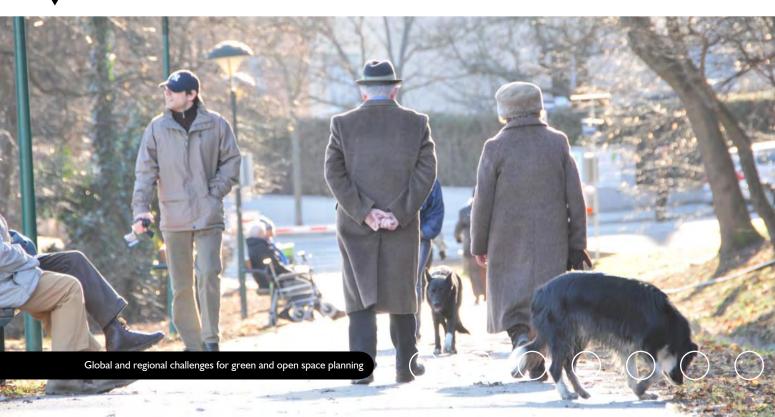
### 2.4.2. Demographic change

The projected development of the population and the long-term shift in the population structure also bring about new challenges for green and open space planners. The city government aims at equally satisfying the highly diverse needs of all parts of the population.

The age structure of the Viennese will be decisive. According to current forecasts, the number of over 65-year-olds will equal the number of under 19-year-olds by 2035<sup>3</sup>. Green and open space planners need to react and think about how to design the public space in order to enable elderly people to stay active and live a self-determined life in their own neighbourhood for as long as possible.

3 STATISTICS AUSTRIA, population forecast for Vienna, 2012

13th district, Roter Berg



I STATISTICS AUSTRIA, population forecast, 2012

<sup>2</sup> Municipal Department of the City of Vienna, MA 23 – Wirtschaft, Arbeit und Statistik, Studie 'Wien wächst ...', 2014 (Economic Affairs, Labour and Statistics, study, 'Vienna is growing...', 2014)



Another significant demographic shift will occur regarding the origins of the citizens. The share of immigrants is expected to increase from 19% today (309,000) to 28% (560,000) in 2035, if the trend remains unchanged.<sup>4</sup>

The big changes regarding the composition of the city's population in the next 25 years not only have effects on the target group-specific needs (gender and diversity), but will also entail challenges for green and open space planning, which will need to take steps to ensure that Vienna's open spaces are doing justice to the changing population.

### 2.4.3. Climate and energy

Climate protection and resource efficiency are two of the biggest global challenges of the 21st century. Cities with their high energy consumption have an especially large potential to save energy and improve the energy situation. The City of Vienna embraces its responsibilities and satisfies the 20-20-20 targets of the EU climate and energy package\* by implementing the Vienna Climate Protection Programme II (KliP II). The programme covers the most important areas in which significant reductions of greenhouse gas emissions can be achieved.

Open space planning can do a lot for mobility by implementing a good network strategy. Better connections for walking and cycling increase the share of eco-friendly modes of transport in the modal split. This also contributes to the reduction of greenhouse gases and energy consumption.

 due to the required area – a challenge will be the development and availability of fresh air corridors and cold air collection zones for which green spaces on the outskirts of the city and inner-city greening will play a decisive role.

Regarding the urban climate, a basic necessity and also

Wiental (Wien River valley) – the large fresh air corridor in the main wind direction is decisive for the urban

climate in Vienna

# \*EU CLIMATE AND ENERGY PACKAGE

In 2008 the European Parliament adopted a climate and energy package, which comprises numerous individual measures and aims to implement the following 20-20-20 targets by 2020:

- Reducing EU greenhouse gas emissions by at least 20% compared to the 1990 levels (30% if other industrialised countries commit to comparable reduction rates):
- Raising the share of EU energy consumption produced from renewable resources (wind, solar, biomass, etc.) to 20% of the total energy production (currently ± 8.5%);
- Reducing the EU's energy consumption by 20% compared to the projected level of 2020 by improving energy efficiency.

<sup>4</sup> STATISTICS AUSTRIA, population forecast, 2012











### 2.5. CHALLENGES AND TASKS IN DIFFERENT SEGMENTS OF CITY-LIFE

# 2.5.1. Green and open space – existing devoloped urban area

# Upgrading open spaces and increasing their accessibility

The population growth and the subsequent urban densification call for permanent quality improvement. Green and open spaces thus play a major role in the revitalisation and further development of the quarters of the Gründerzeit era. In this respect, parks will remain the most important open space type. High-quality parks are the basis for open spaces in the already existing urban quarters. In densely built-up urban areas, supply deficits need to be compensated primarily by qualitative upgrading, e.g. by making use of so far unutilised micro spaces and remaining areas in the public space (micro open spaces), by improving the environment of open spaces, by promoting vertical and roof greening, as well as by making backyards more attractive. Measures reducing motorised individual traffic also help residents regain public space (e.g. public places, pedestrian zones).

### **Creating connections**

The existing network of green and open spaces shows many gaps. Innovative design and/or administrative approaches are thus needed in order to create walking route and cycleway connections. Examples of the greening of traffic infrastructure are the Nevillebrücke project or the concept for the Landstraße passages in the 3<sup>rd</sup> district (Landstrasse). The implementation of these network connections in the system of green and open spaces is a low-threshold measure with high impact.

# 2.5.2. Green and open spaces in the expanding city

# Transformation and development of city quarters

Parks are an essential element of the urban development concept in development areas. They have landmark value, ensure the quality of (everyday) life in the new city quarters and need to be designed according to the high demands on sustainability, robustness and design quality. Multifunctional green links are of special significance for further development of green and open space infrastructure in these areas because they need to be wide enough in order to allow for several non-motorised ways of movement and recreation next to each other, and they also need to provide for the promotion of bio-diverse structures. At the same time, the economical handling of the limited spatial resources in the city needs to be ensured. Developing new urban quarters requires multi-functional street space that takes over network functions for green and open space and simultaneously fulfils all other functions of a street.

# Safeguarding the supply of green and open space

In urban development competitions, master plans and during land classification procedures it is especially important to provide development areas with green and open spaces. Regarding regional planning, this goes beyond conventional land classification tasks and comprises additional approaches to efficiently safeguard land through e.g. land acquisitions or agreements of use.

### Development of urban recreation zones

The city is growing and with it the need for new large-scale urban green space, especially in the districts north of the Danube with their large urban expansion areas. Therefore



it is indispensable to duly define space that is available for future urban recreation zones even today. STEP 2025 thus defines two such urban recreation zones, the "Norbert-Scheed-Wald" and the "Lobau Foreland", for which the respective master plans and strategies are currently being developed ( > STEP 2025, chapter "Vienna revives – open spaces: green & urban").

Another example of a potential new urban recreation zone is the Rendezvousberg in the 21st district, which will be of essential importance for the urban development region Brünner Straße. Currently this region is used by landfills and reprocessing plants; on a long-term basis it will be necessary to promote the re-establishment of the landscape as an urban recreation zone.

In order to implement the large-scale urban recreation zones which will connect superordinate green spaces and will expand the green belt, inter-departmental efforts of the whole city will be necessary. Possible scenarios can be found in the more recent history of the city: Vienna has already had good experiences with the development of large-scale green spaces, e.g. WIG 64 (Donaupark), WIG 74 (Oberlaa) and the Danube Island. They were developed by a lot of efforts by the city, which brought about long-term positive effects for the entire urban development. Until 2025 it will be necessary to give a similar impetus for the northeast of Vienna in the  $21^{\rm st}$  and  $22^{\rm nd}$  district.

# 2.5.3. Green and open space in the city's environs

### Joint development of the landscape

The border between Vienna and Lower Austria is of an administrative nature and is not defined according to landscapes. In the west the Vienna Woods are shared between Lower Austria and Vienna, in the northeast the Marchfeld region reaches into the 22<sup>nd</sup> district. The Donau-Auen National Park and the biosphere park Vienna Woods are based on the close cooperation between the

two Federal Provinces in order to safeguard joint green and open spaces. Further cooperation organisations are the spatial planning board Planungsgemeinschaft Ost (PGO), the City-Environs Management (SUM, Stadt-Umland Management) and the association "Niederösterreich-Wien, gemeinsame Entwicklungsräume" (Lower Austria-Vienna, joint development areas). This cooperation will be intensified in order to jointly develop and carry out planning and implementing instruments (e.g. landscape account model,  $\blacktriangleright$  annex).

# Added value through connections to the environs

In the Bisamberg, Vienna Woods and Lobau regions the implementation of joint recreation zones has already been ensured. However, future tasks will focus on the Marchfeld region as well as other regions in the south of Vienna. In these areas, the system of green and open space infrastructure needs to be linked to the municipalities in the environs of the city and to be harmonised with the walking route and cycleway network, bringing significant added value to the urban open space regarding its recreational and ecological function through its connection to the recreation zones in the environs of the city.

### 2.5.4. Open space networks and mobility

### Function diversity of the Green Infrastructure

The social, urban-ecological and city-structuring functions of green and open spaces are essential factors for a functioning, high-quality urban life. These functions are satisfied by different types of green and open spaces defined in the STEP 2025 thematic concept "Green and Open Spaces". Every part of this infrastructure fulfils a special task, from street space to public spaces, from pedestrian zones to protected areas of the Vienna Woods and the Lobau wetlands (▶ chapter 4.4. The 12 types of open space). Targeted interventions serve to close existing network gaps and thus increase the functionality of the entire Green Infrastructure.

### Urban routes and accessibility

Traffic route networks for non-motorised individual traffic are playing an increasingly important role. Based on the existing network of green and open spaces and the cycleway and walking route network a new infrastructure of urban mobility is developing ( > Urban routes, annex) in the urban development zones as well as in the densely built-up urban areas. The connection with public transport stops is also important in this respect. Especially underground stations are increasingly turning into hubs in the urban routes network and thus influence the network of the urban routes.

### 2.5.5. Blue-Green Infrastructure

### Vienna's water landscapes

Vienna is a city of water. The Danube, the Danube Island and the Wiental (Wien River valley) shape the city with its Blue-Green Infrastructure as much as the urban spaces characterised by water, such as the Lobau wetlands, the Alte Donau, the Liesingtal or the "Donaustädter Seenplatte" (Donaustadt lake district). Even newly developed areas like aspern Vienna's Urban Lakeside (Seestadt) use water as a means of design for urban development.

The interlinking of blue and green infrastructures as "water landscapes" will be essential in the future and needs to be intensified. The main goals are the accessibility of large parts of the shore areas without commercial activities for the public<sup>5</sup> and the promotion of water-facing urban development (e.g. Waterfront – development in Vienna's Danube area).

# 2.5.6. Open space, ecosystem services and nature conservation

# Safeguarding the functions of ecosystem services and nature conservation

The ecological and urban climatic role of green and open spaces will be of essential importance in the future, besides their function regarding their use by the citizens. The green and open spaces of the city fulfil important functions for the urban climate, such as cooling, filtering dust and increasing humidity. They also play an essential role regarding water supply. Green and open space planning has the important task to maintain and improve efficiency in these areas. Urban green and open spaces are habitats for many different species of wild animals and plants and green and open space planning needs to provide for the preservation of these habitats.

Green and open spaces are also important for the city's water cycle because they allow for water to seep away where precipitation falls to the ground. Large-scale green spaces such as the Danube Island and the Lobau wetlands are central retention spaces against flood damage. In the future it needs to be ensured that precipitation can seep away and is retained as closely as possible to where it comes down, which will contribute to flood protection and will relieve the sewage system.

### 2.5.7. Open space for all

### User-friendly open spaces

Since green and open space planning is an integral part of Vienna's urban development, satisfying the diverse wishes of the citizens is a core issue: living near green spaces, attractive recreation zones and high-quality infrastructure for non-motorised individual traffic. Fulfilling these tasks serves the goal to keep the urban living space attractive and accessible during all phases of life. Especially children,













<sup>5</sup> See also the text of the Vienna Charter 2012, which emphasises that open space is living space for all: charta.wien.gv.at: "Öffentlicher Raum – Lebensraum für uns alle" ("Public space – room for all of us").

teenagers and elderly people need to regain more mobility. As always, it is important to take into account the individual needs of different groups of the population. Recreation zones should meet these diverse requirements and should be in the immediate proximity of residential quarters. Superordinate recreation zones should be accessible to all citizens by public transport.

### Participation in the planning process

The degree of citizen involvement in the process of deciding on the design of green and open spaces in their neighbourhoods will be essential for the level of adoption and responsibility. Involvement in the decision-making

process regarding green and open space planning is therefore not only of political importance, but also relevant for the success of individual projects. Ensuring a high level of quality and identity for green and open spaces means to make use of the local knowledge and the creativity of the citizens involved. In this respect, the focus should be especially on groups which are usually not heard enough ( Practice Manual on Participation, annex).

# GREEN AND OPEN SPACE DEVELOPMENT IN DIFFERENT PARTS OF THE CITY

- Central open spaces with essential ecological, cultural, social and historic importance need to be maintained in their current state and function as part of the natural and cultural heritage of Vienna. They play a vital role, both for the quality of life in Vienna and as identity spaces. Examples are the woods and vineyards of the Vienna Woods and the Bisamberg region, the Lobau wetlands or the Danube Island.
- Quality improvement is an essential goal regarding
  the inner-city urban development. Through better
  connections of green spaces in densely built-up urban
  areas a higher degree of green space equity should
  be obtained. In the course of the revitalisation of
  residential areas the quality improvement of green
  and open spaces and the vegetation stock is an
  important starting point. Activating so far unused
  micro open spaces can contribute a lot to quality
  improvement. Strengthening green and open spaces
  thus needs to be integrated into future development

- measures in existing structures in order to ensure high quality of life also in densely developed urban areas.
- High-quality green and open spaces are planned within the new urban development areas such as Vienna central station (Hauptbahnhof Wien), the former Northern central station area (Nordbahnhof) or aspern Vienna's Urban Lakeside (Seestadt), a 240 hectar development area at an abondened airfield in the 22<sup>nd</sup> district. It is essential to execute those plans in high quality and sustainably in order to be able to maintain it for future generations. With the help of landscape architecture, these quality requirements are to be transformed in contemporary shapes and designs. Multifunctional green links serve as the central development axes of the new urban quarters.
- In areas where the city border has not yet been developed especially north of the Danube and in the south of Vienna it is essential to implement green and open space zones in the course of urban development on a long-term basis and to link them to existing superordinate green spaces. This is done in close cooperation with the municipalities in the environs of Vienna and with the Federal Province of Lower Austria.



# IMPORTANCE OF GREEN SPACES IN VIENNA



# THE IMPORTANCE OF GREEN SPACES IN VIENNA

The following list of arguments emphasises in how many ways green and open spaces are important for the functioning of the city, serving the competent municipal departments and external planning offices as supporting arguments in the course of the ongoing planning work as well as explaining the need for green space measures and the related efforts to the population.

### 3.1. ECOLOGICAL IMPORTANCE

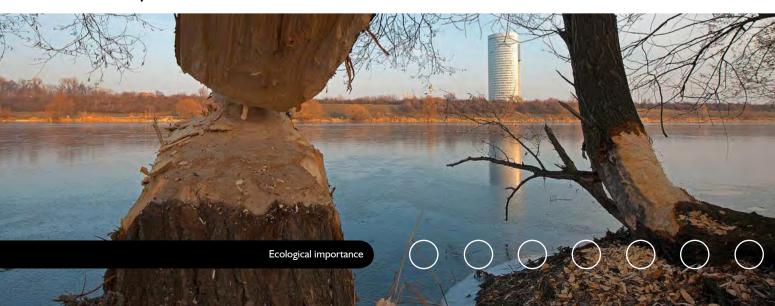
### 3.1.1. Urban climate

The location, size and transformation of green and open spaces have a positive impact on the urban climate:

- Depending on location and wind direction, linear open space structures contribute to a different extent to more air circulation in the city and to an exchange of air with the environs.
- Plants produce oxygen by absorbing the sunlight through their green leaves and using it for photosynthesis. They contribute to a better air quality and to the conversion of radiant energy.
- Leaves actively cool the air as water evaporates from their leaves.

- Water surfaces also cool the air through evaporation.
- Treetops shield and shade the floor.
- Trees and bushes are an obstacle for air movement and slow down strong winds.
- This protective effect can especially be used in the city centre to influence the local micro climate and the energy consumption of buildings.
- The favourable effects of green and open spaces on the urban climate contribute to the well-being and health of the citizens (> chapter 3.3.3. Health).

2 I st district, Danube Island



### 3.1.2. Ecology and nature conservation

The large superordinate and contiguous green spaces are the ecological basis for the entire green of the city. Green and open spaces with their fragmentation into small units and their diverse structure play an important role in the urban area regarding the protection of species and living space.

- The ecological diversity of the city usually outperforms the city environs which are characterised by both intensive and extensive agriculture.
- Wooded areas which are publicly and privately owned and accessible to the public amount to more than 20% of the city surface.
- One of the essential ecological quality criteria of the urban open space lies in the biotope network within the city.
- Another function is the linking of the urban open spaces with the landscape in the city environs through green ways and corridors.
- Urban open spaces serve as retreats for species whose living space has become more and more restricted.
- Urban structures are sometimes typical and unique habitats themselves, for instance ruderal areas, industrial fallow land and other unused areas. First they are colonised by pioneer species, which are the basis for the development of typical urban plant and animal communities.

# 3.1.3. Water cycle and rainwater management

Green spaces and unsealed, non-vegetated open spaces are of special importance to the (rain)water household of the city due to their water-holding capacity. Open space is therefore an essential topic for the integrative rainwater management of the Vienna City Administration:

- Rainwater infiltrates unsealed surfaces, which reduces the need for drainage systems.
- Green spaces have strong water-retaining capacities due to the ability to temporarily store water in plants and soil, serving the relief of drainage systems especially during heavy rainfalls.
- Roof greenings despite their thin substrate layer are able to absorb large amounts of water and hence also contribute to the relief of drainage systems.
- Stored rainwater partially evaporates and thus improves the air humidity; moreover, it keeps the soil wet.
- Green spaces and other infiltration areas with their capability to absorb water play an important role regarding the reduction of flood damage and reduce the expenditures on flood protection measures.





### 22., Lobau, Danube-Oder canal



### 3.2. ECONOMIC IMPORTANCE

### 3.2.1. Farming

Farming not only shapes the cultural landscape of Vienna, it also contributes a lot to the supply of the city.

- Agricultural use and gardens in Vienna are of significant importance in many different segments, from the little garden paradise to the world-famous vineyards and the extensive farming and cultivation of vegetables. The development targets for Vienna's agricultural sector are defined in the Agricultural-Structural Development Plan ( AgSTEP 2014, annex).
- Almost 6,000 hectares, i.e. approx. 16% of Vienna's total area, are agriculturally used; approx. 1,000 hectares are used for organic farming. The main production areas of the approx. 650 farms are horticulture, viticulture, farming and fruit production and their annual production value is about € 90 million (e.g. € 94.2 million in 2012).
- Since the transport ways for produced food are potentially short in Vienna, city farming contributes to energy efficiency and climate protection. Vienna's viticulture has a special status. Due to the growing conditions wine is grown mostly in the north and northwest of the city, contributing significantly to the landscape of the protected zone Wood and Meadow Belt (Sww) creating identity.

- Allotment gardens have always served recreational purposes, but also self-supply. Especially in times of a crisis allotment gardens played an important role in the food supply for the city.
- The international trend of "urban farming" has turned many citizens into active gardeners.
- "Urban gardening" is the keyword for local residents to plant small green spaces in partially public areas. Some social projects involve their participants in farming und gardening. The joint (planting) work also brings about an upgrade of the residential area. There are some successful examples in Vienna, e.g. Heigerleingarten in the 16th district or Gemeinschaftsgarten Monte Laa in the 10th district.
- Extensive cultivation serves the maintenance of open spaces of special value for nature conservation, e.g. meadows in the Vienna Woods or in the Lobau wetlands.

Vienna's agricultural sector plays a very important economic and cultural role.

Total output value of agriculture acc. to EAA (Economic Accounts for Agriculture) for Vienna in 2012, Agricultural Report Vienna 2013, Agricultural Chamber Vienna



Economic importance



### 3.2.2. Real-estate industry

- Green and open spaces are core decision motives and selling arguments, especially in the housing segment.
   Since the costs for the production of green and open spaces are comparably low (usually approx. 3–5% of the total construction price) they have a very favourable cost-benefit ratio.
- Green and open spaces hence have a strong leveraging effect: with only few resources, the overall quality of a project can be significantly upgraded.
- Green and open spaces are especially efficiently developed when they are well-integrated into the time line of the project development. Efficient development means that plants and open space transformation present the site in the best possible light depending on the project phase, e.g. after the project start a sea of red poppy turns people's attention to the project; after the construction start the street trees are planted, while the delicate design elements are only planted when people start to move in.
- Presenting the mechanism of early green space development with all its benefits should bring about a change of view and rejection of the approach to green space as "residual space" prevailing in the real-estate sector ( > Studie "Frühes Grün", Early Green (study), annex).

### 3.2.3. **Tourism**

Urban open spaces are not only used by the citizens, but also by visitors and tourists. Vienna's historic gardens and its contemporary parks are important tourist venues. Also the more recent urban use of open space, e.g. along the Danube Canal or the Wien River, are important for tourism, not to mention the big open space events such as the Danube Island festival or the events at the Rathausplatz in front of the City Hall.

- Open spaces characterise the unique image of the city and essentially define how citizens and tourists perceive the city.
- This is especially true for Vienna due to the many historic, large-scale urban green spaces which are connected to (listed) buildings.
- Vienna's image as one of the best cities in the world to live in, recognised by the annually issued Mercer ranking, among others, is tightly linked to its green and open space transformation and contributes to the positive image the City of Vienna has all over the world.

### 22<sup>nd</sup> district, aspern Vienna's Urban Lakeside (Seestadt)

Temporary planting made the first construction fields of the project visible in 2007. From the roof of an information point visitors had a good overview of the dimensions of the future part of the city.





### 3.3. SOCIAL IMPORTANCE

When it comes to green and open spaces, the safeguarding and supply of sufficiently large areas is as essential as their transformation and facilities. In some cases no extra facilities can be a benefit, when the purpose of the space is to be kept as open to different uses and ideas of future generations as possible.

### 3.3.1. Leisure and recreational purpose

Vienna's green and open spaces serve the citizens for recreation and are important areas for exercising, playing and sports. Free-of-charge use of open space for playing, sports and recreation invites all people, regardless of their social or cultural background, to take part in city life, which is essential for the social mix in urban life. Open space has many functions:

- Open space for recreational purposes
- Open space for children of different age groups for playing (playgrounds, "urban wilderness", etc.)

- Open space for different individual sports (e.g. cycling, running, Nordic walking, slack-lining, urban boulder, free running, etc.)
- Open space for team sports (e.g. basketball, football, volleyball, etc.)
- Open space for learning more about the environment (forest school, national park house, etc.)

# 3.3.2. Open space in our everyday life: communication, encounter and mobility

Urban open space is the "living room" of the city and hence the most important meeting point and place for communication for citizens of different social, cultural and ethnic backgrounds, which makes the maintenance and development of open space essential for a functioning urban life and social cohesion. A city worth living in is characterised by the high quality, safety and attractiveness of its open space. People attract people, which is why good planning, careful design and especially the active



involvement of the citizens are of vital importance. The following factors are decisive:

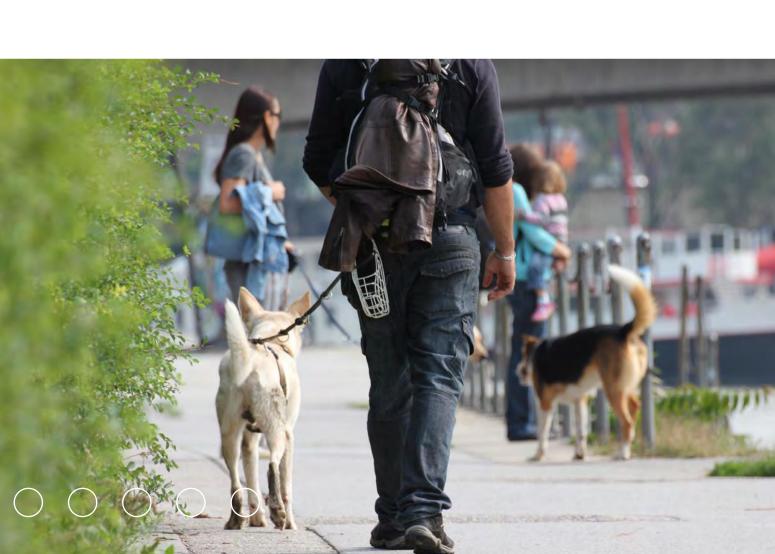
- The basic prerequisite for social interaction is the possibility to use the open space free of charge in everyday life and for leisure.
- A key factor for citizens to embrace open spaces is the
  possibility to acquire it, as is the case with common
  grounds in the countryside. Only then may the users
  get the feeling of a commonly used "living room".

  This adoption brings about a feeling of identification
  and responsibility in the participating citizens and thus
  contributes to the maintenance and supervision of the
  spaces (e.g. protection against vandalism).
- The potential for adoption contributes significantly to the identification with one's urban neighbourhood.
- A certain degree of social control is especially ensured in open spaces partially accessible to the public in which primarily a restricted group of people socialises, e.g. residents of a building complex.

• For the degree of identification and responsibility it is essential in how far the citizens are involved in decisions regarding green and open space in their living environs.

Especially linear green and open space structures together with the network of walking routes and cycleways as an "urban routes network" are the basis for non-motorised everyday mobility in the city. Decisive elements are:

- Traffic planning according to the needs of the citizens
- Structural facilities and quality (e.g. sufficient dimensioning, accessibility, etc.)
- The degree of connectivity



#### 3.3.3. Health

Green and open spaces contribute to improving the health of the citizens in many different ways. As a member of the WHO European Healthy Cities Network, the City of Vienna has initiated the programme "Healthy city architecture, creativity and quality of life" (Gesundheitsverträgliche Stadtgestaltung, Kreativität und Lebensqualität). Along the lines of the WHO call for health equity, which aims at providing equal health opportunities worldwide, green space equity aims at equal access to green space to improve the health of the citizens. Arguments for the health-promoting effect of the urban green and open spaces are, e.g.:

- Exercise is only possible where there is enough space. Exercise in general and exercise performed in the proverbial fresh air help to keep citizens healthy.
   Especially the young generation can make use of the publicly accessible sports grounds of the City of Vienna.
- In the city's green spaces, noise, emission and dust pollution are low compared to built-up environment, which makes them fresh air oases.

- Plants influence physical/chemical emissions, e.g. through the
  - improvement of air quality by bonding pollutants and producing oxygen
  - reduction of the ozone production by shading and absorbing nitrogen oxide
  - filter effect of vegetation for the reduction of particulate matter contamination.
- Green spaces improve the urban climate in many different ways (details ► chapter 3.1.1. Urban climate).
- Green and open spaces allow for necessary recreation and relaxation by reducing the speed of everyday life (resting areas).
- In terms of emotional health, green and open spaces contribute to well-being, identification, a sense of home and solidarity.
- Being outside in open space increases concentration and performance, i.e. green spaces are especially important in the vicinity of schools and workplaces.
- The keyword "Green Care" subsumes green and open spaces which are used for therapeutic purposes to increase physical and mental health.
- Even a view of green space may have a healthy effect, which is proven by studies on the recovery period in hospitals, for example: patients staying in rooms with a view on green space have been observed to recover much faster.



THEFTEEL

Relaxing and exercising in the park

#### 3.3.4. Urban structure and identification

Open spaces together with architectural design play a decisive role for the urban structure.

- Green and open spaces fulfil important functions
  regarding orientation in the urban quarter by keeping the
  axes of vision and movement clear and breaking down
  the built-up structure. They are thus core elements of
  cognitive maps in the consciousness of the citizens.
- In addition to old preserved buildings, many open spaces are remaining testimonies for historic urban structures and therefore important identification criteria in the city.
  - Many former centres of incorporated villages are reflected as place and open space structures in today's cityscape and thus remain local centres and identification features of the respective neighbourhoods.
  - The naturally determined historic development
    of the city also remains present in today's green
    space structure, e.g. along the radial green
    axes. They follow the brooks of the Vienna
    Woods which flow through the city towards the
    Danube today mainly underground. The brooks
    Schreiberbach, Dornbach and Lainzerbach are
    just a few to mention.

- Green and open spaces in the city are essential for its structure, are vivid testimonies for the city's history and unique features of the image of the city.
- The Danube has a superior structuring effect. For a long time it was a real obstacle in the landscape, separating the city into two almost totally disconnected parts at each side of the river. Waterfront developments such as Donaucity or Donaumarina show the positive effects of the efforts of urban development towards the river, which have brought about a stronger integration of Vienna's Danube area into the city structure.



#### City structure

For a long time the river Danube, as the central structural element of the city, was the dividing line between two separate space developments. Today regarding its importance for the entire city the integrating effect of the Danube and Danube Island recreation zone is emphasised.



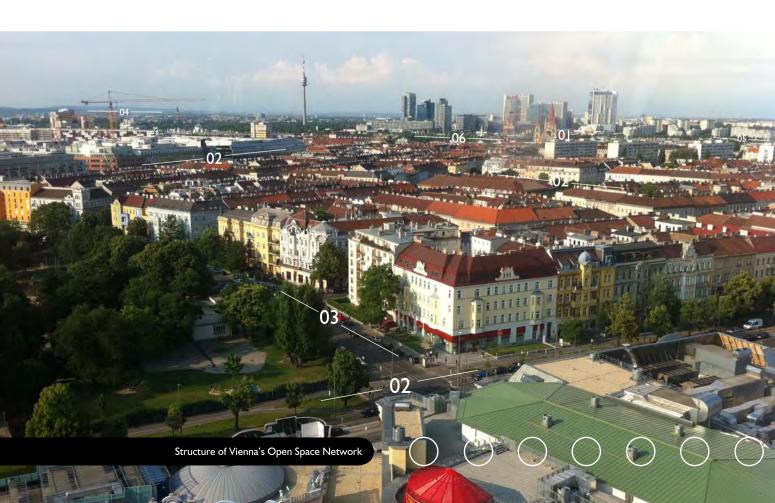


# OPENSPACE TYPES AND THEIR APPLICATION IN PLANNING

## OPEN SPACE TYPES AND THEIR APPLICATION IN PLANNING

Up to now, parks and the green belt surrounding the city have served as the structural core elements for green and open spaces in Vienna. The challenges urban planning has had to face in the last decades have brought about a higher degree of differentiation and functional definition.

Vienna's green and open space system is changing from a zone system to a network system. The development of this network promotes green space equity for the citizens as well as the preservation of the city's ecological, social and economic functions.



OPEN SPACE TYPE	Α	S	Е	N
① Lively streets and pedestrian zones	•	[•]		
Greened streets	•	•	[•]	[•]
Streets with adjacent green spaces	•	•	[•]	[•]
Green axes	•	[•]	•	[•]
Green ways	•	•	•	•
Green corridors				

- Network function of priority
- ( ) Optional network function
- A Function for everyday life and recreation
- G Function for the structuring of the urban fabric
- Ö Function for ecosystem services
- N Function for nature conservation



▲ Table of linear open space types and related network functions

#### 4.1. STRUCTURE OF VIENNA'S OPEN **SPACE NETWORK**

Vienna's open space network was designed to develop a green and open space network with a maximum mesh size of 500 metres. The necessary connecting axes and segments were each assigned to one of the 6 linear open space types (e.g. Type 02, Greened streets). According to the definition of these open space types

(► chapter 4.4. The 12 open space types), these segments need to fulfil one or more of the four network functions

(▶ chapter 4.2. Network functions). The current degree of implementation and, if necessary, constructional measures for reaching the goals are defined in a data base for every segment.

#### 4.2. NETWORK FUNCTIONS

The types of open spaces are described regarding their functionality. If a space or a linear segment of the open space network has been defined as a particular type of open space, it has to fulfil certain functions.

The following functions are differentiated:

#### • Function for everyday life and recreation

Significance of green and open spaces for walking and cycling, social contacts regarding communication, for leisure time and recreation

#### • Function for the structuring of the urban fabric

Significance of green and open spaces for the structuring of the urban fabric, orientation and identity creation

#### • Function for ecosystem services

Significance of green and open spaces for the urban climate (e.g. cooling effect), air quality and water household

#### • Function for nature conservation

Significance of green and open spaces as habitats of animals and plants, the biotope network and ecosystem protection



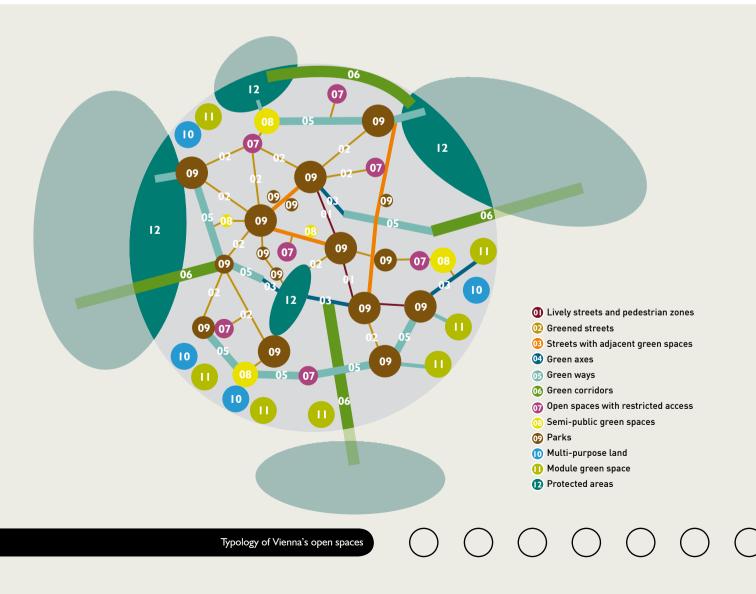
### 4.3. TYPOLOGY OF VIENNA'S OPEN SPACES

In combination with the 6 linear open space types of Vienna's open space network, 6 wide open space types build the basis for green and open space planning of the city. In contrast to the linear open space types, the wide open space types are not defined in the plans for Vienna's open space network. However, due to their defined properties (▶ chapter 4.4. The 12 open space types) they can clearly be assigned and can also be applied in new plans (e.g. in the Local Green Plan ▶ chapter 4.6. "Local Green Plan" Method).

The 12 open space types provide a uniform tool for green and open space planning in Vienna for expert departments, planning offices and politicians.

The 12 open space types are on the one hand subdivided into linear (types 01–06) and wide (types 07–09) open spaces according to their shape, and on the other hand, according to their landscape character, into urban (types 01–03, 07–09) and rural (types 04–06, 10–12) open spaces.

Schematic illustration of the green and open space network
Combination of linear (open space network) and wide open space types
in the open space network structure



#### 4.3.1. Linear urban open spaces

Urban open space axes (types  $0\,l-03$ ) are usually part of densely built-up urban areas and primarily serve to connect individual urban quarters to the next destination points of everyday life as well as green and recreation zones by walking paths or cycleways.

Urban open space axes are places of communication and social interaction, for resting and meeting people. They thus have important social functions, especially in residential quarters.

#### 4.3.2. Wide urban open spaces

Wide urban open spaces such as "open spaces with restricted access", "partially public green spaces" and "parks" (types 07–09) can be found both in the city centre and on the urban outskirts of the city. Their significance grows with the increasing building density.

Partially public as well as private open spaces are essential, since they have potential for multiple use and for filling gaps between the city's green spaces.







Ist district, Sigmund-Freud-Park
Open space type 09 Parks



#### 4.3.3. Linear rural open spaces

Green and open space connections characterised by natural landscape (open space types 04–06) can usually be found on the outskirts of the city or in the periphery of the large Viennese landscapes (inter alia in the border area of the Vienna Woods, Viennese part of the Marchfeld region, Vienna's Danube area). Apart from their functions for everyday life and recreation (resting, exercise, playing, sports, walking routes and cycleways) they also fulfil important urban sanitary and ecological functions (groundwater recharge, climate improvement, air quality, etc.). These are also essential elements when it comes to nature conservation and ensuring biodiversity. Since these spaces are used for recreation and leisure and, at the same time are very important regarding nature conservation, a certain minimum width depending on the type of open space is necessary in order to avoid any mutual impairment of functions. The subtype "bodies of water" with its quasi natural shores is especially important in this context.

#### 4.3.4. Linear urban open spaces

The large green space and urban development zones of the city are defined by the open space types 10 (Multipurpose land) and 11 (Module green space), the majority of which are situated in the outskirts of the city. These zones fulfil a dual function, preserving the open space of the city and providing urban development zones. The interaction of both zones serves to ensure green space in times of population growth.

The open space type 12 (Protected areas) includes the land use categories Sww (protected zone Wood and Meadow Belt) and Spk (protected parkland) as well as nature conservation areas (protected landscapes, nature reserve, national park, etc.).







2<sup>nd</sup> district, protected landscape Prater

Open space type 12 (Protected areas)











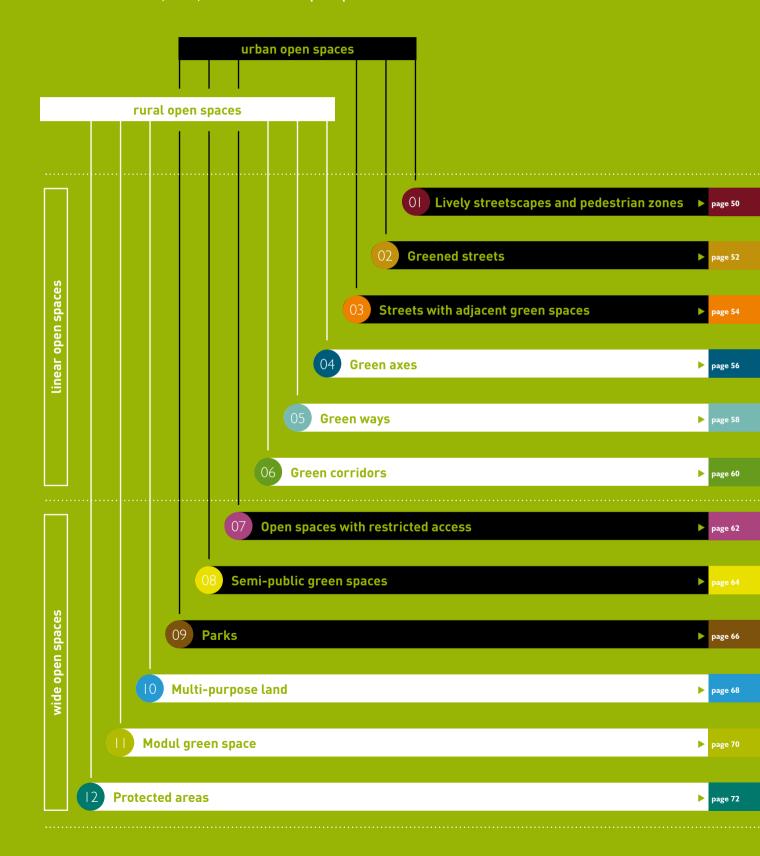






#### 4.4. THE 12 OPEN SPACE TYPES

Overview: linear, wide, rural and urban open spaces





4.4.1. Type 01 Lively streetscapes and pedestrian zones

100

**Description** Street spaces and pedestrian zones with exercising and resting zones for pedestrians and cyclists, contiguous space that allows for crossing traffic surfaces without risk

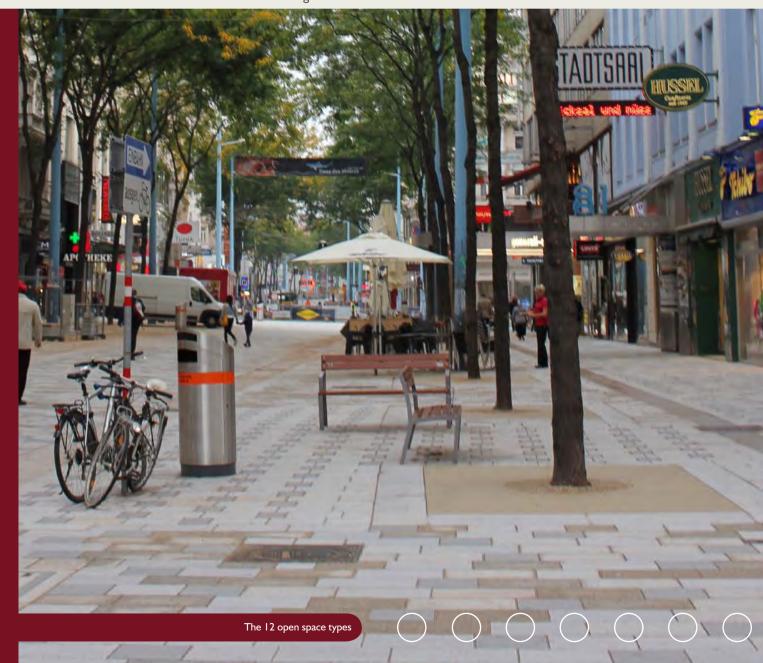
**Examples** Mariahilfer Straße, Stephansplatz, Rotenturmstraße

**Functions** • Functions for everyday life and recreation (especially for pedestrians and cyclists, resting, encounter, communication and consumption)

• Potential function for the structuring of the urban fabric (urban networking/connections)

**Strategies** Improving and ensuring the passability for non-motorised traffic

**Tasks** Development of high-quality tree locations, use of micro open spaces, creation of resting zones without commercial activities, promotion of façade greenings, front gardens and side-walk café gardens



#### Type 01 today

Streets and pedestrian zones with adjacent public squares already play an important role in Vienna. Every development of this open space type, however, engenders conflicts of interest which today are usually solved at the expense of the quality of open space.

The improvement of public transport and Vienna's cycleway network has already relieved road traffic to some extent, which continuously helps to optimise this type of open space and to compensate for deficits in open space supply in densely built-up urban areas. For the preservation or revitalisation of the quality of this open space type as a resting and communication area it is essential to create a fair balance regarding the use of the space.

#### Type 01 outlook 2025

Lively streets and squares optimised for pedestrians as a city "living room" are very important elements of highquality urban appeal. Following the trend of "shopping around the corner", these locations are regaining their top position also for consumption, and traditional shopping streets are experiencing a renaissance. Highquality landscape architecture provides competent open space solutions also for small-size squares. Micro open spaces and spaces so far considered "residual areas" gain a living-room character through individual interventions and cooperation in the neighbourhood. Accessibility has been implemented in the existing structures and - just like including sustainability principles in design - has become second nature to planners in the establishment or redesign of public places. Plants and façade greenings increasingly contribute to a pleasant atmosphere of these open spaces and a significantly lower share of motorised individual traffic brings about a certain reduction of conflicts regarding their use, although there is still great space demand for traffic purposes.

#### Fields of action

- Trees are the determining green elements of this open space type, since their positioning helps with orientation due to their strong impact on the space. The focus lies on the planning of high-quality tree locations which give the space a special character.
- Moreover it is important to upgrade as many open spaces as possible, even smaller ones (micro open spaces) through smart interventions and creative designs. (▶ chapter 4.5 Innovative approaches for the cityscape)
- Especially this open space type should be planned in close connection to the ground-floor zone. Flexible possibilities of adoption increase diversity and reduce costs for maintenance. Façade greening, front gardens and side-walk café gardens motivate local residents to increasingly assume responsibility for open spaces.
- If an open space is newly built or redesigned, the checklist of the guideline "Nachhaltiger Urbaner Platz" (Sustainable urban space) must be applied in order to strengthen the ecological components of public places and to ensure sustainability principles for planning and material use. (▶ annex)

Ist district, Kärntner Straße







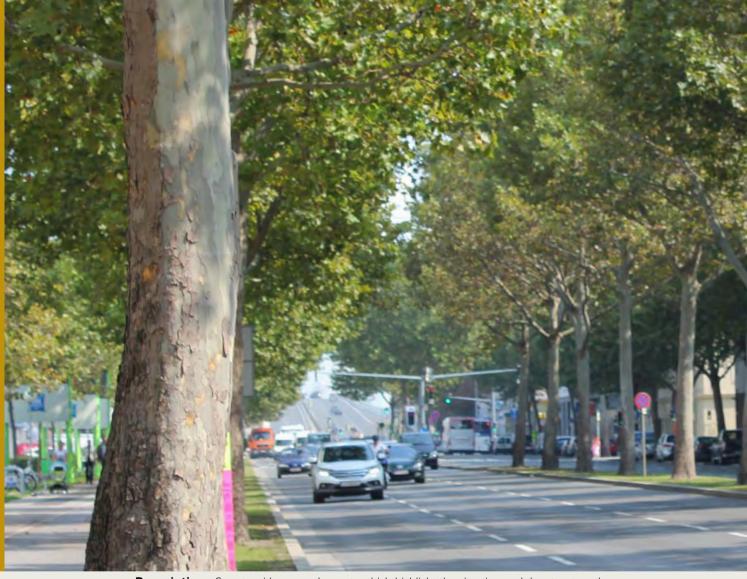












**Description** Streets with green elements which highlight the situation and the street, such as green structures accompanying the street, series of green islands, lines of trees, promenades, hedge belts

**Examples** Praterstraße, Hasnerstraße, Lassallestraße

- **Functions** Functions for everyday life and recreation (connections for pedestrians and cyclists, resting, encounter, communication and consumption)
  - Functions for the structuring of the urban fabric (urban networking/connections)
  - Potential functions for ecosystem services (urban climate and air quality)
  - Potential selective functions for nature conservation

**Strategies** Ensuring the passability for non-motorised traffic, intensifying the coordination between transport planning and green and open space planning

**Tasks** Intensifying the coordination between green and open space planning and traffic use, development of high-quality tree locations, improving the design and facilities

#### Type 02 today

Many important urban traffic axes are greened streets. Their task is to provide best possible conditions for all traffic participants on an equal basis. This open space type also focuses on trees as a means of greening, since they have a high urbanistic effect, their value increases with age and their care requirements decrease when they grow under appropriate conditions. This type of open space can be summarised as urban street in the best sense of the word. Currently there is an imbalance between the different types of traffic use, and the synergies between traffic planning and green and open space planning still have a lot of potential for further development.

#### Type 02 outlook 2025

The urban street as a greened street with walking routes and cycleways has become the central type of infrastructure development in the city. It provides equity for all traffic participants and is a genuine green and open space axis leading through all quarters. The urban street is the predominant type of infrastructure development especially in newly developed building areas, making Vienna a city of walkers and cyclists in its newly developed quarters.

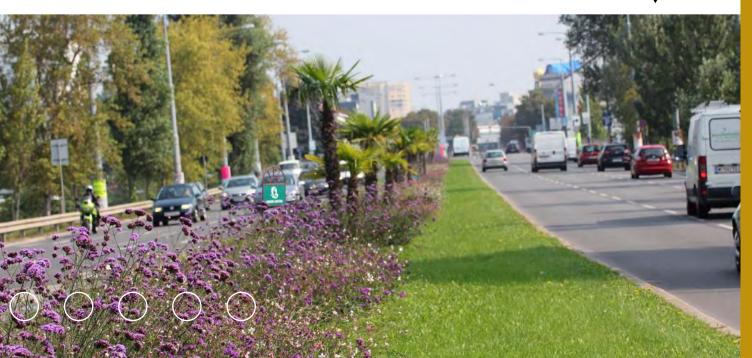
#### Fields of action

- The urban street with its greened streetscape is to be used as the main type of open space axis in future planning projects.
- Transport planning is to be coordinated with green and open space planning.
- High-quality tree locations need to be developed, providing the tree with durability and a long-term living environment, which will pay off regarding the costs for care.
- The amenity function and the necessary design and features are essential in order to promote the highquality socio-spatial value of this open space type.
- Safeguarding the feasibility of greened streets already at the level of land use and development planning (tree lines, promenades)
- Implementing the General Design Guideline for Roadside Planting in Vienna as a fundamental prerequisite of uniformly high-quality design and facilities (MA 42)
- Considering different types of use regarding the facilities for exercise and play along the way and regarding safety-relevant aspects

22<sup>nd</sup> district, Wagramer Straße



2nd district, Lassallestraße





4.4.3. Type 03 Streets with adjacent green spaces



**Description** Spacious, often historic street spaces, usually characterised strongly by motorised individual traffic. Adjacent green spaces promote their amenity quality and ecological functions and are responsible for the character and openness of the city.

**Examples** Ringstraße, Winarskystraße

**Functions** • Functions for everyday life and recreation (connections for pedestrians and cyclists, resting, encounter, communication and consumption)

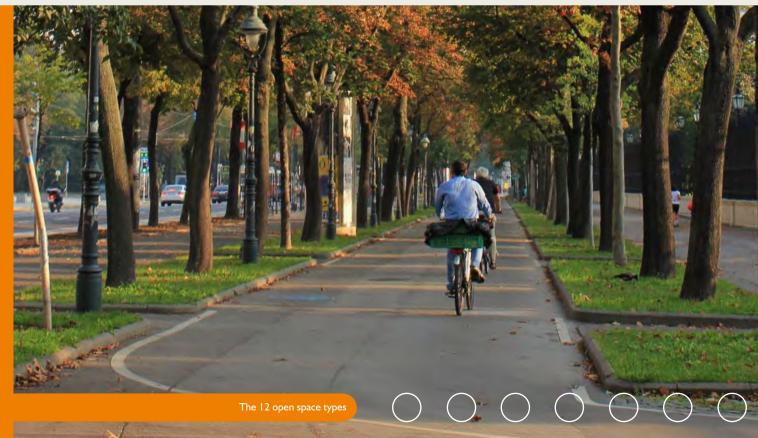
• Potential functions for the structuring of the urban fabric (urbanistic networking)

• Potential functions for ecosystem services (urban climate and air quality)

• Potential selective functions for nature conservation

**Strategies** Ensuring the passability for non-motorised traffic, improving amenity quality

**Tasks** Preserving the adjacent green spaces, improving the amenity quality and connecting function for pedestrians and cyclists



#### Type 03 today

Street spaces with adjacent green spaces already provide higher recreational functions and are often combined with representational spaces (e.g. Ringstraße). This open space type has historic significance and can also be newly developed nowadays, e.g. in the combination of a greened street with a park.

#### Type 03 outlook 2025

This linear open space type does not play a very important role in planning due to its high level of space requirement. Representative streets such as the Ringstraße primarily have historic significance regarding urban development planning. Preserving these spaces is thus essential, serving the representative image of Vienna as well as recreation and tourism.

This type will also be significant in the future because of its adjacent parks and front gardens.

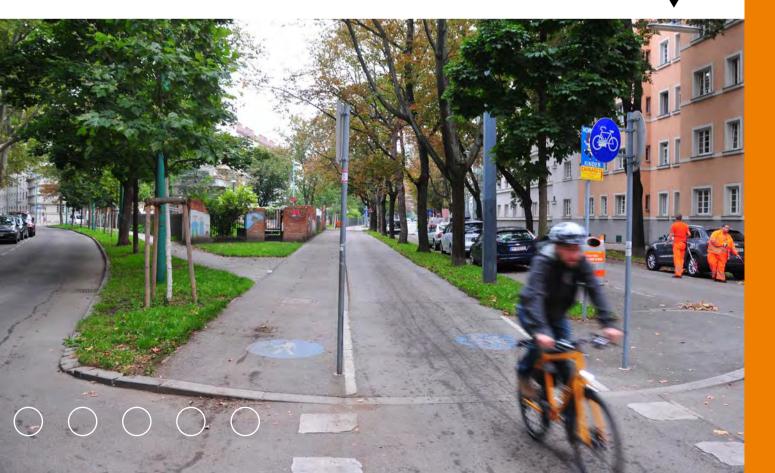
#### Fields of action

- The focus of this type of green space is the highquality maintenance and preservation of historic gardens adjacent to historic streets.
- However, very often this type of open space is connected with heavily used streets, which is seen as an opportunity to strengthen the boulevard character of the adjacent green spaces and to improve the amenity quality even in heavily used streets.
- Moreover it will be necessary to implement measures for strengthening the connecting function for non-motorised means of mobility.
- Ongoing maintenance and renewal of tree locations
- **Visibility** of the adjacent green spaces (e.g. no intransparent fencing)

20<sup>th</sup> district, Winarskystraße Street with adjacent green spaces



The famous boulevard connects many historic green spaces such as Stadtpark, Burggarten, Volksgarten, Rathauspark and Maria-Theresien-Platz.





**Description** Superordinate linear open space elements of up to 30 metres width, segments of a landscape character are in the foreground, the green structures accompanying the street (tree lines, hedge corridors, meadows, etc.) are the predominant unique feature.

**Examples** Wiental (Wien River valley): Nikolaisteg to Danube Canal, connection between Pfaffenau, Central Cemetery (Zentralfriedhof) and Ailecgasse, Schreiberbach

- **Functions** Functions for everyday life and recreation (connections for pedestrians and cyclists, leisure and recreational function)
  - Potential functions for the structuring of the urban fabric
  - Functions for ecosystem services (important fresh air corridors)
  - Potential functions for nature conservation

**Strategies** Maintenance and renewal, improvement of passability

**Tasks** Renaturalisation, establishing the passability of walking routes and cycleways, closing gaps

**Subtype** A Bodies of water (incl. shore areas)

#### Type 04 today

Green axes are superordinate linear open space elements that put the cityscape in the focus. Trees, hedges, meadows and smaller woods are characteristic for this type of green space. Currently the quality of these green axes is often mantled by other functions, such as flood protection and traffic, and thus the passability is often not guaranteed. In these cases, green axes fail to fulfil their urbanistic functions for the citizens.

#### Type 04 outlook 2025

Green axes as the smallest independent type of green linear infrastructure are upgraded due to their significance for the urban routes network. Green axes are the basis for many main access ways for the walking route and cycleway network. Renaturalisation measures lead to higher ecological value. The entire city is accessible through green axes or wider green ways and green corridors. They are significant for the quality of life and are accessible from all residential quarters within short walking distance. The preservation of these green axes as fresh air corridors is becoming increasingly important for the urban climate.

#### Fields of action

- The focus lies on the **renaturalisation** of green axes and the establishment of a **passability** of walking routes and cycleways. Bodies of water and shore areas need to be especially considered.
- Preservation and development of green axes as fresh air corridors
- Green axes shall be closed through little interventions called **braces** which will bridge the gaps in the green axes and link green corridors and green ways. These interventions range from opening up passages to establishing walking and cycling bridges (▶ chapter 4.5. Innovative approaches for the cityscape).
- In urban expansion projects high-quality implementation and sufficient width of the proposed green axes need to be especially considered.

Wiental (Wien River valley) between Nikolaisteg and Danube Canal

19th district, green axis along Schreiberbach





4.4.5. Type 05 Green ways



**Description** Superordinate green space connections with a width of min. 30 metres and great significance for the urban climate, the landscape balance and the biotope network

**Examples** Liesingtal (Liesing River valley), outer Wiental (Wien River valley) between Weidlingau and Nikolaisteg, Danube Canal

**Functions** Due to their width, green ways can fulfil several functions at once, e.g.

- functions for nature conservation can be satisfied together with functions for everyday life and recreation.
- Green ways structure the urban fabric and
- they are important urban ecological elements, e.g. as fresh air corridors (urban climate and air quality).

**Strategies** Ensuring passability, connection to the environs, closing gaps

**Tasks** Interdisciplinary development in order to ensure the variety of functions, nature-inspired transformation

**Subtype** A Bodies of water (incl. shore areas)



#### Type 05 today

Green ways, which can be compared to greened streets in urban areas (type 02 ▶ chapter 4.4.2.), are the central tool amongst rural linear open spaces. Green ways are already the basis of many revitalisation measures, e.g. in the Liesingtal (Liesing River valley) and the outer Wiental (Wien River valley).

#### Type 05 outlook 2025

Green ways are the main network of Vienna's green infrastructure. They have landscape character with a width of up to 50 metres and provide space for numerous ways of recreation. Their diverse plants, appropriate for the location, are valuable for ecosystem services. Their dimensioning provides for local climatic impacts and the upgrading of residential areas. Even in densely built-up areas green belts are never too far away, making trips into nature possible right in the middle of the city. That also includes bodies of water and their nature-inspired shore areas.

#### Fields of action

- The planning of green ways calls for an interdisciplinary development which focuses on their functional usability in everyday life. Different departments are thus involved in the development of green ways. Continuity and common use need to be developed more intensively.
- Green ways need to be transformed in a natureinspired way due to their increasing ecological significance.
- The transformation of green ways and urban routes is done in connection with urban development zones and is part of project development.

14th district, outer Wiental (Wien River valley),

at Auho



23rd district, Liesing River



#### 4.4.6. Type 06 Green corridors



**Description** Superordinate green space connections with a corridor width of more than 50 metres and great significance for all four network functions of green and open space

**Examples** Connection Alte Donau/Marchfeld canal, right and left shore of the Danube, Danube Island

**Functions** Due to the minimum width of 50 metres, all four network functions can exist alongside each other without conflicting. Wherever possible, however, a width of 100 metres is the goal.

- Functions for everyday life and recreation (espec. leisure and recreation incl. natural experience)
- Functions for the structuring of the urban fabric (great structuring and identity-creating effect due to the spatial dimension and characteristics typical of the location)
- Functions for ecosystem services (fresh air corridors and air quality effect)
- Functions for nature conservation (extensive habitats and essential function in the biotope network city/city-environs)

**Strategies** Ensuring the ecological connecting function and passability of non-motorised traffic

**Tasks** Maintenance and preservation, connection to the environs by closing gaps

Subtype A Bodies of water (incl. shore areas)

#### Type 06 today

Green corridors are important linear connections with landscape character. They are identification elements in the urban area, such as Alte Donau. They can fulfil many different network functions, a very important one is, for instance, that they have landmark value. They also serve as bridges to wide open space types. The distinction between this open space type and wide open space types such as type 11 (Module green space) or type 12 (Protected areas) is blurred. The term green corridor reflects its linear significance and connecting function. Sometimes green corridors develop through the natural succession of fallow land or the subsequent use of landfills.

#### Type 06 outlook 2025

Existing green corridors are preserved and developed. However, the connection of the infrastructure of green and open spaces within the framework of urban development is increasingly implemented through green ways (type 05). In the northeast of Vienna, from the Lobau wetlands to Bisamberg, from the Marchfeld canal to Alte Donau and between S2 motorway and Süßenbrunner Straße the connections are partially implemented as green corridors. In these cases green corridors develop out of a combination of green ways and agricultural land. Green corridors are also essential elements regarding Vienna's connection to the Lower Austrian municipalities in the environs of Vienna, which is why they need to be coordinated with the development plans of Lower Austria within its regional planning programmes for Vienna's northern and southern environs (RegROP Wien-Umland Nord, RegROP Wien-Umland Süd).

#### Fields of action

- Maintaining and preserving existing green corridors is especially essential and special care needs to be taken regarding bodies of water and their shore areas.
- Green corridors create landscape identity and need to be maintained as important reference spaces.
- Since green corridors especially serve recreational functions, they need to be linked to residential areas with insufficient green space and to the environs. Braces (see green axes) can close gaps and optimise the entire corridor.
- Green corridors are the basis for efficient urbanistic superordinate green spaces and thus are developed contiguously. Green corridors also serve to upgrade adjacent agricultural land regarding recreational functions and the impact on the cityscape.

21st district, Marchfeld canal





21st and 22nd district, Danube Island











4.4.7. Type 07 Open spaces with restriced access



**Description** Green and open spaces that are not accessible to the public at all or only accessible for a fee. The use and the awarding of (mostly very clearly defined, limited and chargeable) rights of use to the public or certain groups of users are reserved to the owners.

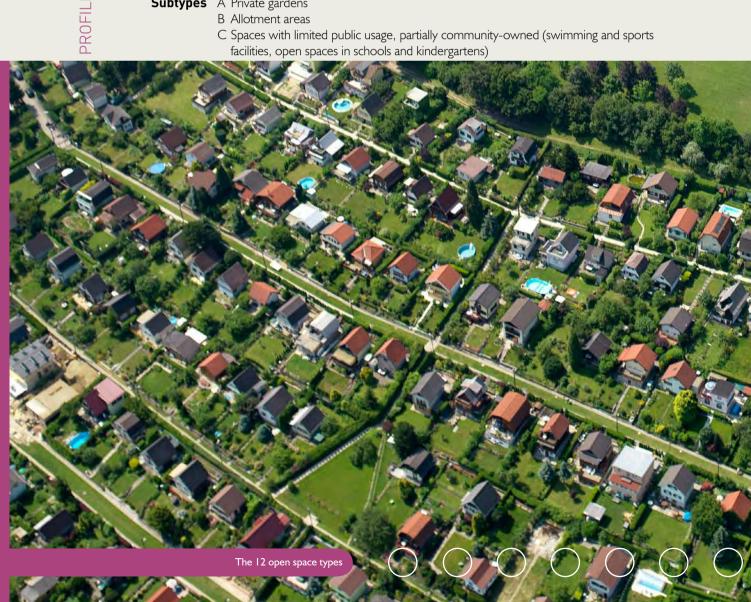
**Examples** Green residential zones, allotment areas (e.g. Schmelz), roof gardens

- Functions Functions for everyday life and recreation (espec. leisure and recreation functions for the respective residents)
  - Functions for the structuring of the urban fabric (espec. urban climate)
  - Potential functions for nature conservation (espec. as habitats, e.g. for insects, birds and small mammals)

**Strategies** compact settlement structures with compact private open spaces

Tasks Urban densification while maintaining sufficient green space, incentives to open up for new uses

- **Subtypes** A Private gardens
  - B Allotment areas
  - C Spaces with limited public usage, partially community-owned (swimming and sports facilities, open spaces in schools and kindergartens)



#### Type 07 today

Private green areas (subtypes A and B) in Vienna are usually either single-family home gardens, rental gardens, allotment gardens or roof gardens. These gardens are of great significance for the city areas. Although accessibility is limited to private owners, private gardens in total are an essential element for green space supply for the citizens and thus also serve the relief of public green and open spaces.

Moreover these private gardens fulfil essential climate functions and are an important refuge especially for wild animals (birds, bats, etc.). In combination with other green spaces with limited public access, such as swimming and sports facilities (subtype C), private open spaces contribute a great deal to the high share of green space in Vienna.

#### Type 07 outlook 2025

Settlement types with low built-up density are not ideal in a growing city. In the future the goal is to consolidate urban structures; however, both contiguous allotment gardens and single-family home settlements fulfil urban ecological functions and are of social importance for the owners. Any measures of consolidation are controlled in such a way that green and open spaces are maintained to a large extent. In urban areas with a higher density, such as the city centre, backyards and roof gardens are an essential contribution to safeguarding green and open space supply.

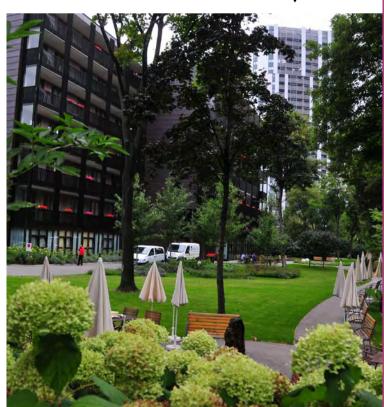
#### Fields of action

- Due to the high share of private green and open spaces
  even reductions of a smaller extent have a high overall
  impact. Urban densification measures targeted at this
  type of open space are therefore designed in such a way
  that the green and open space supply is maintained to
  the extent to which it is functionally necessary, e.g. by
  interspersing more compact settlement structures with
  high-quality open space structures.
- Ongoing monitoring of the green space balance is the basis for planning decisions.
- Open spaces of this type can temporarily be opened to the public through the promotion of innovative approaches regarding multiple or intermediate use.
- Ensuring high-quality green and open spaces at building sites through construction-site-related landscape design concepts for areas which need to be horticulturally designed according to the Building Code for Vienna

Open space type 07 (subtype C)

retirement home in Brigittenau (20th district)



















#### 4.4.8. Type 08 Semi-public green space

**Description** Green and open spaces with limited public access that belong to private or public build-

ings. The use permitted by the owners includes all groups (tenants, owners, patients, employees), is free of charge and at most limited by house rules and, possibly, opening

hours. This type does not include private gardens and public green spaces.

**Examples** MuseumsQuartier, semi-public, commonly usable open space in subsidised housing, Altes AKH

**Functions** • Functions for everyday life and recreation (connecting function in the urban routes network, communication and encounter, quality of life in the living and working environment)

• Functions for ecosystem services (espec. urban climate)

• Potential functions for nature conservation (espec. as habitats, e.g. for insects, birds and small mammals)

**Strategies** Maintaining semi-public function and ensuring quality, also in urban expansion

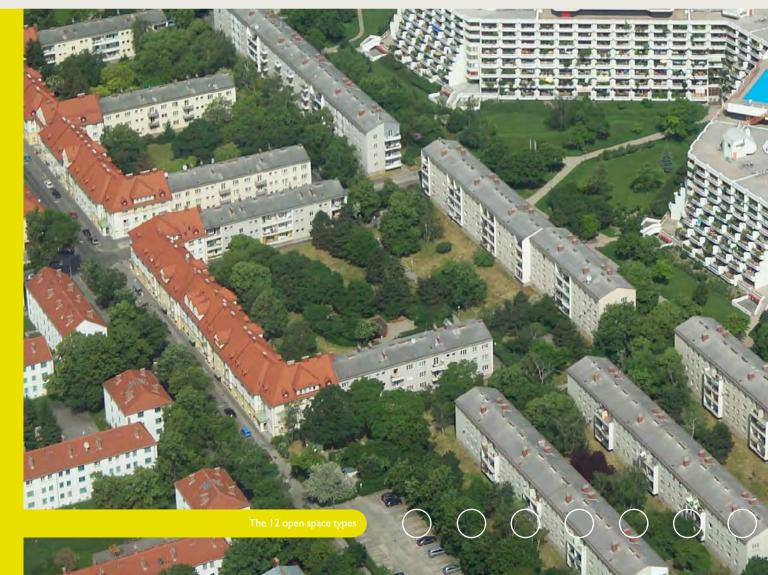
**Tasks** Development through mandatory open space concepts

**Subtypes** A Semi-public zones in the living environment

B Semi-public zones in the working environment

C Semi-public open spaces of public buildings (green space of large-scale building constructions, e.g. hospitals)

D Cemeteries



#### Type 08 today

Vienna's semi-public green spaces have shaped its urban development since the interwar period. The large municipal housing estates of the 1920s and 1930s base their quality inter alia on the large common green spaces, which are on the one hand open to all tenants, but on the other hand also accessible to the public (with only a few limitations). This quality has been maintained to a large extent in the municipal housing estates and subsidised residential buildings up to date. Due to land-use provisions and definitions regarding the implementation of subsidised housing with large-scale housing projects, this goal is continuously pursued.

#### Type 08 outlook 2025

While other cities jeopardise their urban appeal and sense of community through closed and guarded residential quarters, Vienna focuses on contiguous semi-public green and open spaces, especially in densely built-up residential areas, but also in business districts and in the vicinity of public buildings. Due to the interaction of regional planning policies and funding policies this quality is further developed and transformed through contemporary landscape architecture. Wherever possible, semi-public green spaces are linked to public green and open space infrastructure and are thus part of Vienna's open space network.

#### Fields of action

- Intensifying and developing the interaction of land-use provisions and the guidelines of subsidised housing
- Moreover the quality of commonly used space needs to be a goal in the privately financed housing segment.
   Avoiding gated communities in Vienna through diverse tools, starting with land-use provisions
- Ensuring neighbourhood-related green space
   through respective specifications in competitions and
   cooperative planning processes; the goal is to avoid the
   relocation of playing areas in residential quarters to parks
   or indoor playgrounds
- Ensuring high-quality green and open space at building sites through the construction-site-related landscape design concept for areas which need to be horticulturally designed according to the Building Code for Vienna

21st district, housing constructions
Brünner Straße/Marco-Polo-Promenade

21st district, Donaufelder Straße Siedlung Autofreies Wohnen (car-free residential quarter)















4.4.9. Type 09 Parks



Description

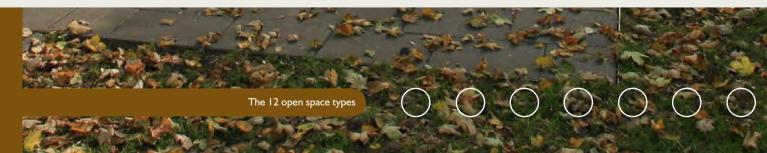
Urban parks open to the public; some parks have opening hours, but none of them have restrictions regarding user groups. Regarding types of usage, the spaces are usually subject to park regulations. Vienna's parks are subdivided into parks (land use category leisure zone park, Epk) and protected parkland (land use category protected parkland, Spk), which overlap with open space type 12 (Protected areas).

**Examples** Herklotzpark, Donaupark, Türkenschanzpark, etc.

- Functions Functions for everyday life and recreation (walking, exercise and sports, health, leisure and recreation, encounter and communication)
  - Functions for the structuring of the urban fabric (so-called "Beserlparks" small parks - as stepping stones of the open space network in densely built-up areas, large-scale parks as structuring elements for the entire city)
  - Functions for ecosystem services
  - Potential functions for nature conservation (espec. as habitats, e.g. for insects, birds and small mammals)

**Strategies** Restoring, maintaining and safeguarding quality Innovative types of participation and financing

Tasks Modernisation, restructuring, expansion and construction of parks in all Viennese districts



#### Type 09 today

Vienna's parks show a high level of maintenance and provide a large part of the population with playing, sports and recreation areas. In some densely built-up areas there is a deficit in the supply of parks; however, in new urban development areas parks play an essential role in urban development designs and are built as part of urban development projects (e.g. Sonnwendviertel quarter, former Northern central station).

#### Type 09 outlook 2025

Many parks are fundamentally redeveloped and renewed. Creative designs of landscape architecture, new types of public participation and the temporary, multiple use by citizens provide significant stimuli. Culture, gastronomy and public open spaces such as parks are identification elements of the urban quarter and support a vibrating urban life. Existing deficits are compensated by one new park in each district as an impulse programme - preferentially in existing, densely built-up parts of the city. Parks also play an essential role in the urban routes network. In specific cases (especially in the main cycleway network of Vienna) compromises are sought in order to question the ban on cycling and enable the construction of cycleways. In the new urban quarters the necessary financial means are provided for the realisation of large-scale green spaces included in the urban development designs and competitions.

#### Fields of action

- New plans and redesigns for parks need to apply the
   General Design Guideline for Parks in Vienna
   (Parkleitbild) by the municipal department MA 42,
   ensuring the implementation quality with respect
   to range of usage, suitability for daily life, gender-specific
   design and safety.
- Contemporary landscape architecture, public participation and innovative planning approaches interact in this process.
- The overall responsibility of the public authority for parks is becoming increasingly challenging. The demand for new parks and the costs for maintenance call for additional innovative financing models. This can be achieved through compensation measures or closer cooperation of local players, e.g. in the fields of sports and gastronomy, out of which new financing models can be developed.
- Through innovative approaches regarding the design and use of natural succession, zones of extensive transformation and low maintenance will be developed – if possible – in the parks of Vienna. These zones will be monitored regarding adoption possibilities and value of use by means of appropriate, target-specific expert assessments.

5th district, Bruno-Kreisky-Park

I5<sup>th</sup> district, Vogelweidpark



4.4.10. Type 10 Multi-purpose land



**Description** Areas with low relevance for the network function of green and open spaces, different areas in use, as well as areas for agricultural production

**Examples** Axis Telefonweg-Ponysee

**Functions** • Significance for many city-relevant types of use

 $\bullet$  No essential function for the green and open space network

**Strategies** Development of different options of use with continuous consideration of the adjacent

green and open spaces that serve a protecting and networking function

**Tasks** Securing of land for many functions of use

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#### Type 10 today

The network system of green and open spaces is under development and is based on the existing protected areas of type 12 (Protected areas), as well as on areas, which need to be developed yet (type 11 Module Green Space). Additional green and open spaces as well as other types of spaces are comprised in type 10 (Multi-purpose land). They may include intensively used agricultural areas, former excavation areas, fallow land or recultivated landfills. They fulfil many different functions in the urban fabric. However, they have no essential significance for the network construction in the sense of Green Infrastructure of the green and open space system in Vienna.

#### Type 10 outlook 2025

Depending on the different tasks of usage of these areas, individual development targets are defined and implemented independently of the network construction purpose of the green and open spaces.

#### Fields of action

- Building with surface-saving methods, especially in areas with high-quality soils, meets the requirements of the principle of resource-efficient building.
- Due to the diversity of the areas comprised in type 10, it is necessary to independently determine the goals of development and use of these areas (e.g. agricultural development plan).

21st district, diverse use in the Donaufeld area,

partially without special network relevance







**Description** Zone for anticipatory safeguarding and transformation of green space and agricultural production

**Examples** Area of former Breitenlee train station, Rendezvousberg, Lobau Foreland

**Functions** • Functions for everyday life and recreation (leisure and recreation, natural experience)

• Functions for ecosystem services

• Development and networking of green space

• Agricultural production compatible with other functions

**Strategies** Zone for balancing land use, compensatory measures regarding environmental impact assessment, compensatory measures regarding compliance with the regulations related

to the preservation of species, landscape account (▶ annex)

**Tasks** Making land available, upgrading of fallow land with regard to recreational functions in accordance with nature conservation goals, intensifying coordination with the city environs, ensuring the goals of agricultural development, networking of green spaces and bodies of water

**Subtype** A Water bodies (incl. shore areas)

#### Type 11 today

The transformation of former fallow land, landfills and clay pits into high-quality green and open spaces has proven to be a good concept. Both Donaupark (22<sup>nd</sup> district) and Oberlaa (10<sup>th</sup> district) were developed in this way as part of WIG 64 and WIG 74, the Viennese International Garden Shows of 1964 and 1974. The open space type 11 (Module green space) identifies spaces which need to be ensured in order to contribute an essential part to urban development as green and open spaces in the future.

#### Type 11 outlook 2025

The type I I areas are ensured to a large extent. The first steps of implementation have been taken. As venue of the Viennese International Garden Show, the Rendezvousberg, for example, can be developed as a high-quality green and open space in the long run. A large-scale green space at the north-eastern city border ("Norbert-Scheed-Wald"), serving as a day-trip destination, is developed in several stages. In order to take some of the visitors' load from the Donau-Auen National Park, the Lobau Foreland are made more attractive as a green and open space.

 $22^{\text{nd}}$  district, former train station Breitenlee

21st district, Rendezvousberg



#### Fields of action

- Securing land on time and with foresight by defining it in the land use and development plan, through purchase or agreements of use
- Designing development concepts for landscapes of superordinate significance (e.g. Lobau Foreland)
- In addition to securing land, innovative approaches for temporary use and upgrading for type II areas are developed (master plan north-east).
- With regard to the ecologically valuable areas of type II, the respective nature conservation goals of Vienna's "Netzwerk Natur" (nature network) are further pursued.
- Preserving these areas such as, e.g. the former train station Breitenlee, as protected landscapes is going to be promoted in the future.
- For spatial coordination of compensation and replacement measures a landscape account platform will be set up (▶ annex).
- For bigger projects implementation strategies such as
  a garden show will be developed in order to ensure a
  "Gründerzeit" era for green and open spaces in
  Vienna also in the 21st century.



#### 4.4.12. Type 12 Protected areas



**Description** Protected areas according to Vienna's Nature Conservation Act, international criteria and the Building Code for Vienna (Sww category – protected zone Wood and Meadow Belt, Spk category – protected parkland); these areas are often used for agricultural, forestry or garden purposes; however, their protective function is predominant

**Examples** Vienna Woods, Lobau wetlands, Laaer Berg, urban wilderness at the Donauprallhang (3<sup>rd</sup> district, natural monument 752)

- **Functions** Functions for everyday life and recreation (espec. adventure, leisure and recreation space, natural experience)
  - Functions for the structuring of the urban fabric (espec. landscape structure, identitycreating function)
  - Functions for ecosystem services (urban climate and air quality "green lung", groundwater)
  - Potential functions for nature conservation

**Strategies** Upholding their sanctity

Tasks Ensuring their protected status, development based on the high level of public interest in natural regions and landscapes

**Subtype** A Water bodies (incl. shore areas)



#### Type 12 today

Type 12 (Protected areas) is the identification element of Vienna's landscape and the basis for the high quality of life in Vienna. With the Lobau wetlands, Vienna holds an essential share of the Donau-Auen National Park. Together with Lower Austria, Vienna ensures the preservation of the Vienna Woods within the scope of the biosphere park Vienna Woods. In other areas of type 12, such as the Laaer Wald region, efforts are made to connect superordinate recreation zones with green corridors. The Danube Island is another example of type 12 and a core recreation axis in Vienna's Danube area.

#### Type 12 outlook 2025

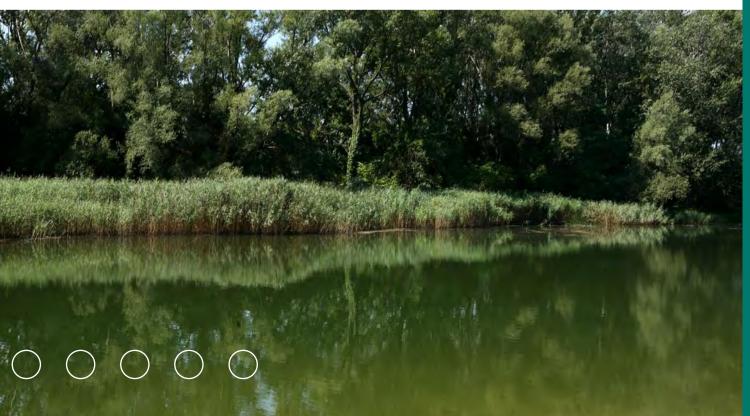
Vienna's protected areas are ensured and they continue to remain untouchable for private interests. Continuous maintenance work helps to improve especially those areas that were transformed a long time ago. This holds particularly true for the revitalisation of the Green Infrastructure of parts of the Danube Island. Moreover maintenance measures in the interest of nature conservation are essential. Special focus lies on bodies of water and quasi natural shore areas.

#### Fields of action

- The high degree of protection demand needs to be maintained.
- Especially in the protected areas it is essential to ensure compliance with the European Habitats Directive and the Birds Directive.
- The definition of green ways and green corridors serves the relief and networking function of protected areas.
- Protection categories such as nature reserves,
   protected landscapes, protected landscape elements,
   etc. (according to Vienna's Nature Conservation Act)
   and land use categories such as Sww (protected zone
   Wood and Meadow Belt) and Spk (protected parkland)
   are combined in this open space type. It also includes
   definitions such as biosphere park (core zone and
   maintenance zone). The development of protected
   areas focuses on the strong public interest in nature
   conservation and landscape on a national as well as on
   an international level.

**16<sup>th</sup> district, Vienna Woods** View from the Jubiläumswarte platform 22<sup>nd</sup> district, Lobau wetlands, Mühlwasser





**Innovatice** 

approaches

for: Type 11

space

Module green

#### 4.5. INNOVATIVE APPROACHES FOR THE CITYSCAPE

This chapter gives some examples of innovative approaches for the realisation and ideal use of Vienna's cityscape. All of these elements, ranging from small planning interventions to strategic instruments, have their impact on the green and open space network. They are applied to Local Green Plans (▶ chapter 4.6.) and regular planning activities for the transformation of public space.



#### Vienna's future starts now

Intelligent interlinking of existing recreation opportunities (e.g. walkways, cycleway network, swimming facilities, restaurants and bars) is at the core of every development to which attractive recreation opportunities and transformation elements can be added gradually. Such a green and open space development helps to support future city developments by early securing of green and open spaces.

When it comes to developing zones with a high potential for green and open space supply, the consolidation of public and private stimuli facilitates the feasibility through individual implementation steps.



through nature and landscape in combination with landscaperelated recreation









walking route and cycleway connection



OPEN SPACE TYPE 05



#### Greenway with urban route (schematic)

The walking route and cycleway connection is implemented first, as a minimum facility for guaranteeing the linking function within the urban routes network. The entire green way (open space type 05) is implemented in sections.



#### Green way with urban route Example: Project Ponysee lake (22<sup>nd</sup> district):

The walking route and cycleway network is designed to guarantee the up to now missing link between the existing settlement areas aspern Vienna's Urban Lakeside (Seestadt), completing the existing urban routes network as a means of "minimum utilities in the area". The required paths comprise the link between the settlement area Pfingstrosenweg and the green bridge aspern Vienna's Urban Lakeside (Seestadt) and U2 Underground station Aspern as well as the link between the settlement areas and the area of Breitenlee.

#### Green way with urban routes

A newly designed green way must have a minimum width of 30 metres and thus requires a certain amount of space. Therefore it is sometimes not possible to entirely implement it in one single development project.

The urbanistic goal to develop a green way has an impact on all development projects in its surroundings and needs to be seen as a fairly long-term task for the entire city. This means that a comprehensible, aliquot share of the green link can be allotted to every neighbouring project.

#### Green paths

Generously designed walking routes and cycleways in green spaces or streets adjacent to green spaces serve as the spine of public space. Green paths provide room for interaction, for strolling and as "fitness axes of the city".

**Innovative** approaches for: Open space types 02 (Greened streets) and 03 (Streets with adjacent green spaces)

#### 2<sup>nd</sup> district, Praterhauptallee promenade

Example of an especially generously designed multiple-use axis of movement





**Innovative** 

for: all water

landscapes in

approach

Vienna

#### Living at the waterfront

Bodies of water need to be maintained as quasi natural landscape areas typical of the type of water body, e.g. along the Liesingbach, whereby the shores of the water bodies need to remain or become accessible to all citizens. Developments regarding the integration of inner-city culverts (e.g. Wien River, Danube Canal) contribute to removing their barrier effect and create new qualities in urban open space. Restaurants and bars close to the water provide a modern combination of consumption, architecture and open space, generating a special quality of living in the environs of urban water bodies. Again the prerequisite needs to apply that the river banks and shores must remain freely accessible and usable also without consumption.

Technical constructions that create a direct connection to the water should not be established at the expense of areas of unspoilt nature.



#### Wiental (Wien River valley) terraces

Roofing and connection across the Wiental (Wien River valley) /U4 Underground:

A total of 2,500 m²/square metres of newly designed recreation zones until 2015











#### 20th district, Millennium City

Overpass linking the residential and office buildings of the Millennium City to the green corridor on the right bank of the Danube



Innovative approaches for the cityscape





#### New types of gardening

All citizens are welcome to contribute to new concepts of use. The goal is to maintain the accessibility of as many areas as possible. New open spaces can thus also develop from intermediately used inner-city gaps between buildings or in existing public spaces, providing additional functions and qualities. Apart from social aspects such as the establishment of communities, upgrading of the neighbourhood and identity creation, a new sense of responsibility for one's own residential quarter develops due to the adoption of plots which have been handed over to the citizens for self-administration. This is demonstrated by examples of already realised neighbourhood gardens ("responsibility for my own city") and "self-harvesting" plots ("eco plots") as a relatively new form of urban farming, which reflects people's desire to produce their own food.

#### PPP models in the park

Cooperating with private investors is a way to adopt new forms of financing for the construction and maintenance of parks. This includes individual forms of commercial use in combination with the recreational purpose of parks, as long as the commercial function is not predominant and serves the overall experience and recreational value.

9<sup>th</sup> district, Viktor-Frankl-Park

Example of a cooperation project between the City of Vienna and developers (photo credit: Wolfgang Ruc)

#### 21st district, Orașteig

The association "Wilde Rauke", whose members are mainly residents of the Orasteig settlement, operates one of the first CSAs (Community-Supported Agriculture) in Vienna on a 6,000 square-metre plot owned by the City of Vienna between Marchfeld canal and Stammersdorf.

Innovative approach for: Open space types 07 to 11

Innovative approach for:
Open space
type 09



Innovative approach for: Open space type 08 (Semi-public green space)

Innovative approach for:

**Densely built-**

up urban areas

**Innovative** 

Open space

type 07

access)

approach for:

(open spaces

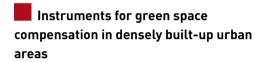
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## Landscape architecture as a key factor for vibrant semi-public green space

The success of new semi-public green spaces as "living rooms of the city" significantly depends on the architectural design of the landscape, the facilities and the solutions in detail. Hence space for community and communication, as well as for retreat, tranquillity and individuality is created by interchanging density and openness.

2<sup>nd</sup> district, Bike City

Semi-public open space in a subsidised housing construction, landscape architecture: architects Rajek-Barosch



Greening façades, backyards and roofs brings about an enormous added value for densely populated urban areas. The development of greening buildings or rainwater management can be promoted, in a first step, by consolidating incentive models or by introducing further steering measures.

### Connection of open spaces at schools and public space

Visionary illustration for "Open Space for All" (Freiraum für alle), by municipal department MA 18





#### Connections of open spaces and multiple

#### us

By connecting open spaces of different types and use with regard to construction and administration (e.g. open spaces of schools and kindergartens, swimming facilities, semi-public spaces and parks), several needs can be satisfied simultaneously in terms of multiple use – playing and sports as well as social interaction.





## Traffic infrastructure turns into green and open space

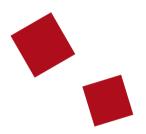
International examples demonstrate impressively the after-use of former traffic infrastructure (e.g. the Highline Park, a public park built on a historic freight rail line in New York) to create high-quality urban open spaces. In Vienna the Nevillebrücke (Neville bridge) over the Wien River (between the 5th and 6th district) shows how streets can become gardens. Another example is the Bertha-Zuckerkandl-Weg promenade on top of the former Stadtbahn viaducts in Spittelau (9th district).

#### Micro open spaces

The use and transformation of micro open spaces is a cost-efficient tool to create open spaces that do not require much effort. Especially in densely built-up urban areas precious open space elements can be created from small, unused residual areas. The cooperation between residents and/or local businesses creates little treasures within the urban open space, which also serve the promotion of identity and self-responsibility in the neighbourhood. Since micro open spaces are often used on the residents' initiative, the task of the public authorities lies less in active planning than in motivating, promoting and enabling the realisation of creative ideas.



#### 5<sup>th</sup> & 6<sup>th</sup> district, Nevillebrücke



Innovative approach for:
Former traffic infrastructure

#### 16<sup>th</sup> district, micro open space "Süsses Eck" (Sweet Corner)

This micro open space in Maroltingergasse (in Vienna's 16<sup>th</sup> district) was created through ground markings and simple utility elements (GB\*7/8/16 in cooperation with local businesses, BV Ottakring, MA 28 and MA 42)



Innovative approach for:
Open space
types 01-03









Innovative approach for: Gaps in the open space network

#### Reviving of the city

A reviving of densely built-up urban areas can be achieved through greening measures which bring about urban climatic and ecological benefits. Citizen initiatives, such as guerrilla gardening and similar urban phenomena, are to be promoted and permitted.



**2<sup>nd</sup> district, Danube canal**At suitable places "wild gardening"
can be permitted.

## Braces: small interventions with big

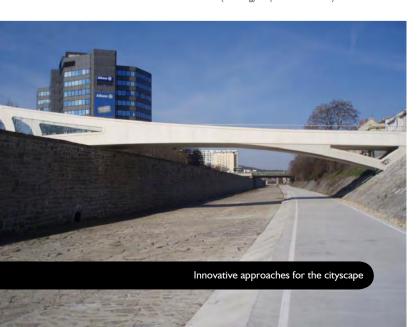
Vienna's green and open spaces are developed as a network so that a Green Infrastructure is created for Vienna. It is made up of the 12 open space types, which are additionally connected by walking routes and cycleways. The urban routes link residential quarters and working places to public transport, thus increasing their significance for everyday quality of life.

Every network is only as good as the connections between its individual elements. At many points Vienna's green and open space network shows gaps and barriers. So-called braces are supposed to create the necessary connections and better links between existing green and open spaces, to residential quarters and to public transport stops. These braces can be built as bridges for non-motorised traffic over streets with heavy traffic. Opening up passages optimises the use of the city. Several creative examples will be designed with the involvement of the citizens.

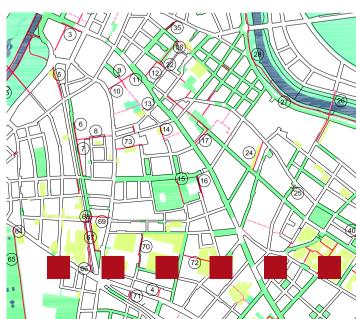
Innovative approach for: Gaps in the open space network

■ 13<sup>th</sup> & 14<sup>th</sup> district, Paul-Amann-Brücke

This brace has bridged the Wien River since 2010, connecting Baumgarten, a part of the 14th district (Penzing) with Unter-St.-Veit in the 13th district (Hietzing) for pedestrians and cyclists.



3<sup>rd</sup> district, Landstraßer Durchgänge (passages of Wien-Landstraße)
Reviving of existing passages and creation of new connections



#### 4.6. THE "LOCAL GREEN PLAN" METHOD

Local Green Plans will be the future standard description instrument for green and open space planning in Vienna. They can be designed with regard to subregions and occasions, especially in urban development areas and in areas of compaction, i.e. in areas where significant structural changes occur. Local Green Plans locate the 12 open space types within individual subregions. Their location is based on the linear definitions for the entire city (Vienna's open space network) and documents the green and open space supply for the respective area.

The Local Green Plans serve as initial information for concrete planning solutions in the considered subregions. The consistency of the location of open space types has been ensured by guaranteeing that they comply with the objectives of overall city planning. This includes the existing protected areas and linear network structures as well as adherence to the given standards (► chapter 4.7. Green and open space supply standards).

#### 4.6.1. Functions

- Local Green Plans provide the possibility to locate the fields of action of the open space types (► chapter 4.4.) directly within individual subregions.
- Occasion-related Local Green Plans are an essential coordination tool due to their uniform design method. Local Green Plans also support environmental assessments.
- Stocktaking and type assignments for Local Green Plans can be part of the baseline survey in the course of designing land use plans.
- ▶ Definitions within the Local Green Plans can be used as a basis for the implementation of agreements within the framework of urban development contracts.
- ▶ Local Green Plans can be a basis for urban development proceedings and competitions. They ensure that all participants start from the same basis and that quality assurance and network building within the framework of urban development proceedings are guaranteed. This also ensures that juries can take their decisions in urban development proceedings based on suitable technical principles.

- ▶ Local Green Plans are the basis for master plans by recommending the necessary dimensions of parks or large-scale green spaces. The aim is to make parks easily reachable, to make them available in the open space network and to ensure a large-scale green space on a long-term basis also in the northeast of Vienna.
- ▶ Local Green Plans serve as a basis for more consolidated joint planning and for the cooperation of different organisation units responsible for green and open spaces.
- ▶ Local Green Plans provide for a methodical basis for a more consolidated cooperation with the municipalities in the environs of Vienna and with the Province of Lower Austria.
- ▶ Local Green Plans support the implementation of similar concepts of the City of Vienna, such as, e.g. Vienna's nature network (Netzwerk Natur).

on the basis of existing spaces, determinations, framework conditions, strategies and concepts

#### 4.6.2. Designing a Local Green Plan

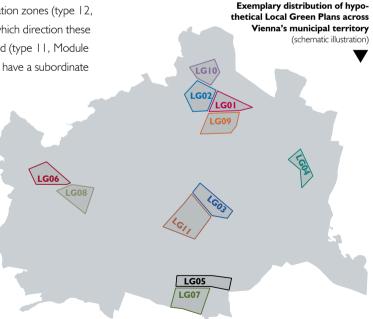
Local Green Plans are designed for either projects or for certain occasions, which are usually significant changes in parts of the city (city expansion, conversion, densification).

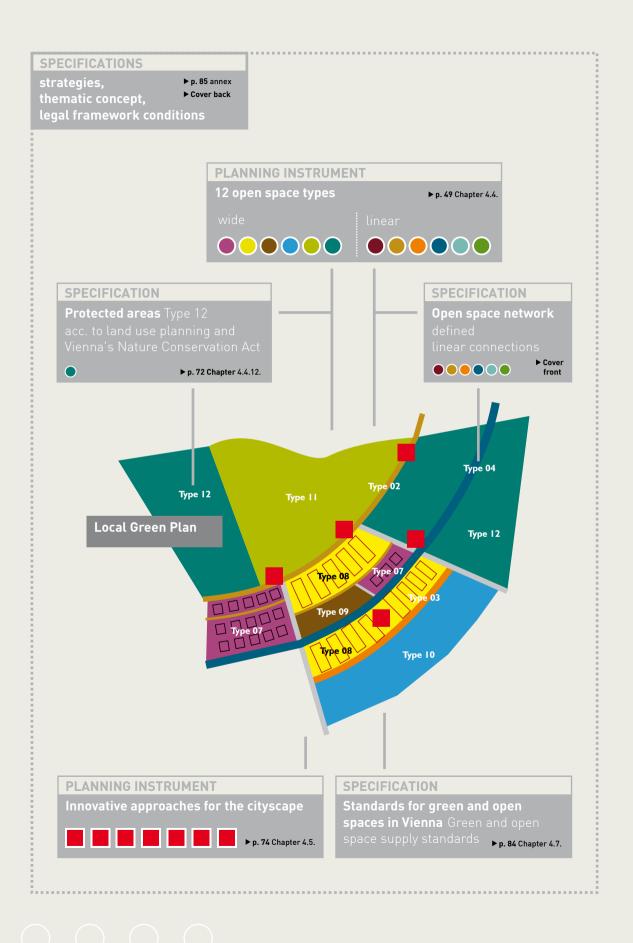
Designing Local Green Plans comprises

- · linear open space types,
- wide open space types and
- urban development planning instruments such as the innovative approaches for the cityscape.
- ▶ The linear open space types of Vienna's open space network (types 01–06, page 50 et seqq.) provide information on where connections already exist, in which quality, or where they should be implemented with top priority. They are defined for the entire municipal territory within Vienna's open space network. Additional linear definitions in Local Green Plans are possible depending on the demands of the concretely planned developments in the planning area.
- ▶ In the course of designing a planning area the wide open space types (types 07-12, page 62 et seqq.) are assigned according to their respective definitions, i.e. it is stated, for instance, which areas remain untouchable as nature conservation and recreation zones (type 12, Protected areas), it is defined in which direction these qualities are going to be developed (type 11, Module green space) and which areas will have a subordinate

function for the network of green and open space infrastructure (type 10, Multi-purpose land). If and which wide open space types are really going to be located in the end depends on the size and the location of the planning area.

- Innovative approaches for the cityscape may include contemporary forms of use such as urban gardening and micro open spaces or small interventions (bridges, multiple use), which, amongst other things, also add to the connection purpose (► chapter 4.5.).
- The "standards for green and open spaces in Vienna" serve as a basis for the assessment of the necessary degree of open space supply (► chapter 4.7.).
- The definitions made based on the method "Local Green Plan" follow the **strategies and concepts of urban development** and take into account the open space-relevant mission statements and guidelines of the City Administration of Vienna (▶ annex).







#### 4.7. GREEN AND OPEN SPACE SUPPLY STANDARDS

Our ways of living demand more and more space. This also includes green and open space. Higher demands on urban green and open spaces and the growth of the population make a definition of standards for green and open space supply necessary.

These standards depend on the current and forecasted population density and can be identified by the means of the "Standards for green and open spaces in Vienna" (▶ table). These define quantitative minimum space requirements per person. Every person needs green and open spaces within a conveniently reachable distance. The standards need to be applied to urban expansion projects as well as to existing projects and are divided into four categories.

In order to complement these requirements with qualitative features, minimum sizes of the respective green and open spaces as well as a minimum width of 25 metres are defined.

The supply quality can be increased by integrating all possibilities of use of the environs, such as play streets, multiple use of space, connections to other open space types and by improving the continuity of private and semipublic green and open spaces. The quality of individual green and open spaces is assessed based on their features and mandatory subareas. These include, e.g., age-specific playgrounds for girls and boys, playing meadows, open spaces for teenagers, resting zones, paths, dog parks and landscape-specific nature zones.

Table

Standards for green and open spaces in Vienna



GREEN AND OPEN SPACES	CATCHMENT AREA (m)	SIZES (hectare)	m² per inhabitant		
Neighbourhood	250	<	3.5		
Residential area	500	I <b>-</b> 3	4.0	8.0	13.0
Urban quarter	1,000	3–10	4.0		
	1,500	10–50			
Region	6,000	> 50	5.0		
+ sports ground			3.5		
+ green spaces per working place (catchment area 250 m)			2.0		

# ANNEX

# ANNEX – LEGAL FRAMEWORK CONDITIONS, STRATEGIES, CONCEPTS, GUIDELINES

#### LEGAL FRAMEWORK CONDITIONS

The enshrinement in law of green and open spaces in Vienna as well as their different types consists of the specification of land use categories as part of land use planning (Vienna Building Code) on the one hand and, on the other, the identification of different protected area categories in the Vienna Nature Conservation Act. In addition, there are regulations concerning special topics of relevance for green and open spaces such as the Act on Allotment Gardens, the Tree Conservation Act, etc. With regard to the environmental impact of projects, the Federal Act on Environmental Impact Assessment regulates the application of environmental impact assessment procedures.

#### **REGIONAL PLANNING**

#### VIENNA BUILDING CODE (BAUORDNUNG FÜR WIEN)

The Vienna Building Code (Wiener Bauordnung) defines land use categories for green and open spaces as part of land use planning:

#### Grassland comprises

#### a) Rural zones (Ländliche Gebiete, L)

Zones designated for agricultural and forestry purposes. In rural zones it is only permitted to erect buildings or facilities that serve agricultural, forestry or professional gardening purposes, such as agricultural company buildings, greenhouses, farmers' residential buildings etc.

#### b) Leisure zones (Erholungsgebiete, E)

Zones designated for premises that are for the recreation of the population:

- I. Parks (Parkanlagen, Epk)
- 2. Allotment areas (Kleingartengebiete, Ekl)
- 3. Allotment areas for all-season living (Kleingartengebiete für ganzjähriges Wohnen, Eklw)
- 4. Sports fields and playgrounds (Sport- und Spielplätze, Esp)
- 5. Open-air baths (Freibäder, Ebd)
- 6. Building areas for bathing huts (*Grundflächen für Badehütten*, *Ebh*)
- 7. Other building areas required for public health and the recreation of the population

It is only permitted to erect buildings that are required for preserving or using these areas.

#### c) Protected zones (Schutzgebiete)

- 1. Wood and Meadow Belt (Wald- u. Wiesengürtel, Sww) The Wood and Meadow Belt is designated for the recreation of the city's population. Here it is only permitted to erect buildings that are used for the recreation of the general public, such as inns for day trippers. Use for agriculture and forestry purposes is permitted.
- 2. Wood and Meadow Belt agricultural use (Wald- und Wiesengürtel – landwirtschaftliche Nutzung, SwwL)
   These areas are exclusively reserved for agricultural

use. Here it is only permitted to erect agricultural utility buildings that do not comprise any living space.

- 3. Protected parkland (*Parkschutzgebiete*, *Spk*) Areas designated as a park or garden.
- d) Cemeteries (Friedhöfe, F)

#### e) Special use zones (Sondernutzungsgebiete, SO)

 For creating quarries, gravel pits, sand pits, clay pits and clay works as well as other facilities aimed at exploiting the subsoil while, at the same time, specifying a final categorisation of the land use under the "Grassland" category for the final use of the land areas.



Bauordnung für Wien (▶ PDF: German) (Building Code for Vienna)

(www.wien.gv.at/recht/landesrecht-wien/rechtsvorschriften/html/b0200000.htm)

#### VIENNA ACT ON ALLOTMENT GARDENS (WIENER KLEINGARTENGESETZ)

Allotment gardens are plots on larger premises which, as a rule, are managed by allotment garden associations. These plots are leased to the association's members. They are mainly for recreational use, but sometimes the self-sufficiency of the allotment holders as well.

The use and management of allotment gardens in Vienna is regulated by the Vienna Act on Allotment Gardens (Wiener Kleingartengesetz). It must be applied to zones with the land use category "Grassland - Leisure zone - Allotment area" and "Grassland - Leisure zone - Allotment area for all-season living" and, by establishing rules (such as the opening hours of the premises) and limitations (regarding use as living space and the building density, for example), it aims to ensure that recreational use of the zones remains in the foreground and that allotment gardens are not misused as cheap building land.

## Regulation concerning the land use of allotment gardens

According to the Vienna Act on Allotment Gardens, an allotment building must, as a rule, not exceed a surface area of 35 m². In line with the wishes of many allotment holders, the option was created in the 1990s of re-classifying the zone as an "Allotment area for all-season living". The so-called residential allotment buildings are permitted to comprise a surface area of 50 m² there and used for living in year-round. The prerequisites for such a categorisation

include a frost-proof fresh water pipe, a sewer junction and sufficient environmentally-friendly energy supply.

The limiting factor for an allotment building and a residential allotment building is, in all cases, the size of the plot: 75% of the plot must remain undeveloped in both variants.



Vienna Act on Allotment Gardens
Wiener Kleingartengesetz (► PDF: German)
(www.wien.gv.at/recht/landesrecht-wien/rechtsvorschriften/html/b2400000.htm)

#### NATURE CONSERVATION/ ENVIRONMENTAL COMPATIBILITY

#### VIENNA NATURE CONSERVATION ACT (WIENER NATURSCHUTZGESETZ): PROTECTION OF BIOTOPES AND SPECIES AS WELL AS OF TERRITORIES AND OBJECTS

When implementing any project of relevance for the region with an impact on the environment in Vienna, the **legal provisions on the protection of species** for animals and plants that are protected under the Vienna Wild Plant and Animal Protection Ordinance (Wiener Naturschutzverordnung) need to be observed.

In the field of **biotope protection** the Vienna Provincial Government is obliged to identify "protected biotopes", in which all interventions are prohibited that run contrary to the purposes of protection:

## Protected biotope (biotope protection) (Geschütztes Biotop)

Example: Fasangarten (Schönbrunn Palace Gardens)

- Protection of biotope types according to Annex I of Council Directive 92/43/EEC
- Protection of biotope types that are in danger of disappearance in Vienna

In the field of **regional and object protection**, the protection categories identified in the Nature Conservation Act are European areas of conservation, national parks, nature reserves, protected landscapes, protected landscape elements, ecological development zones.

#### National park

## according to the Act on National Parks (National-parkgesetz)

Example: Lobau wetlands as a part of the Donau-Auen National Park

- Conservation of almost original and diverse natural areas
- The population can experience nature.

# European area of conservation (Europaschutzgebiet) (areas according to the Flora-Fauna-Habitat Directive and the Directive on the Conservation of Wild Birds)

Example: Bisamberg (Vienna section)

- Conservation of internationally important natural areas
- Promotion of biotopes or of animal and plant species of European importance

#### Nature reserve (Naturschutzgebiet)

Example: Lainzer Tiergarten

- Conservation of nationally important natural areas
- Conservation of an intact landscape balance, of rare or endangered species, special biotic communities or natural formations as well as the ecological and economic importance of an area

#### Protected landscape (Landschaftsschutzgebiet)

Example: Prater

 Conservation of areas with a special landscape structure, important cultivated landscapes, or landscapes used for nature inspired recreation. Due to the authorisation requirement of projects in the protected landscape, there is as little impairment as possible to the landscape balance, landscape structure and recreational effect of the landscape.

## Protected landscape elements (Geschützte Landschaftsteile)

Example: Wienerberg

- Conservation of regionally important natural areas
- Protection of small areas that characterise the landscape structure, are used for nature inspired recreation, and are important for the micro-climate, ecology or cultural history, such as bodies of water, humid biotopes or characteristic topographies

## Ecological development zone (Ökologische Entwicklungsfläche)

Example: Erdberger Stadtwildnis (Erdberg urban wilderness)

- Conservation, development and creation of green structure networks in the city
- Implementation of Vienna's Nature Network (Netzwerk Natur)

#### Natural monument (Naturdenkmal)

Example: Toter Grund (Danube Island, 22<sup>nd</sup> district)

- Conservation of special natural formations
- Objects that characterise the landscape structure, have special functions for the landscape balance, or are of academic and cultural importance – such as groups of trees, springs, rock formations and the like

## VIENNA TREE CONSERVATION ACT (BAUMSCHUTZGESETZ)

The tree population in the urban zone is protected according to the provisions of this act, with the goal of preserving a healthy environment for the Viennese population - regardless of whether the trees are on public or private land.

**Exceptions:** Forests (forest legislation), tree nurseries and market gardens, fruit trees, removal due to water construction projects, agricultural production purposes, allotment gardens

Maintenance obligation: Obligation of property owners (or holders of building licences) to maintain the tree population growing on their property

**Authorisation requirement:** The removal of trees requires official authorisation.

**Substitute planting:** Where the removal of a tree is authorised, as a rule a substitute tree must be planted or a countervailing charge must be paid.



Vienna Tree Conservation Act (Wiener Baumschutzgesetz) (► PDF: German) (http://www.wien.gv.at/recht/landesrecht-wien/rechtsvorschriften/html/l5400000.htm)

## VIENNA ACT ON BIOSPHERE PARKS (BIOSPHÄRENPARKGESETZ)

This act, which was adopted in 2006, aims to set up, maintain and develop the Vienna Woods Biosphere Park. Among other objectives, the act defines the goals of protection, development, education and research for the region and sets out requirements regarding regional management.

The Act on Biosphere Parks (*Biosphärenparkgesetz*) additionally specifies zoning the Biosphere Park into three zones:

- Core zones: Zones suited to protect ecosystems, animal and plant species of sufficient size and quality. Prohibition of any agricultural and forestry use.
- Cultivation zones: Zones suited to cushioning or functionally linking the core zones or to preserving and developing the cultivated landscape through targeted agricultural and forestry use.
- Development zones: Zones for developing models of use that fulfil the requirements of man and nature equally.

The Biosphere Park Ordinance (Biosphärenparkverordnung) was adopted in 2009 to delimit the zones according to these specifications.



Vienna act on biosphere parks (Wiener Biosphärenparkgesetz) (► PDF, German)

(www.wien.gv.at/recht/landesrecht-wien/rechtsvorschriften/html/l4100000.htm)



Specification of regions (maps) in the Vienna Ordinance on Biosphere Parks (Wiener Biosphärenparkverordnung) (> PDF, German)

(W-PDF, German)
(www.wien.gv.at/recht/landesrecht-wien/rechtsvorschriften/html/l4100200.htm)

#### **SOIL PROTECTION**

Soil protection is enshrined as one part of environmental protection in the Federal Act for Comprehensive Protection of the Environment (Bundesverfassungsgesetz über den umfassenden Umweltschutz, Federal Law Gazette No. 491/1984). According to the Federal Constitutional Act, soils are an asset of the environment worthy of protection.

The implementation of soil protection is incumbent on the legislation of the individual federal provinces. Dedicated soil protection acts have been adopted in five federal provinces, whereas in the other federal provinces, such as Vienna, provisions related to soil protection legislation are regulated in various other ordinances.

# STRATEGIC ENVIRONMENTAL ASSESSMENT (STRATEGISCHE UMWELTPRÜFUNG, SUP)

The Strategic Environmental Assessment (SUP) describes and assesses the environmental impact of plans. The goal is that, with the help of SUP, the environment is afforded the same importance as economic or social aspects.

SUP can be carried out for all planning activities upstream of the project level. Generally speaking, these levels of planning can refer to policies (*Politiken*) including legislative proposals, programme-making (*Programme*) and plans (*Pläne*) (PPP). SUP is increasingly applied as an instrument for sustainable development.

SUP aims at the early identification and prevention of any possible problems in the approval of projects prior to the actual approval procedure.

SUP is a process comprising different steps such as screening, defining the boundaries of investigations (scoping), analysis of alternatives, documentation (environmental report), participation of the public and of environmental and health authorities (consultation), consideration of SUP results in decision-taking (summarising statement), and monitoring.

#### ENVIRONMENTAL IMPACT ASSESSMENT (EIA/UVP) PROCEDURES ACCORDING TO UVP-G 2000

The Environmental Impact Assessment Act 2000 (Umweltverträglichkeitsprüfungsgesetz 2000, UVP-G 2000) is the implementation of the EU Council Directive on the assessment of the effects of certain public and private projects with a regional impact on the environment.

The act regulates the tasks pursued via the UVP, the procedure itself, the spheres of responsibility, and various special provisions. Annex I lays down the scope of application. This comprises types of projects from the fields of waste management, energy industries, infrastructure, extractive industry, water management, industry, and agriculture and forestry.

In the legal document, the list of projects is divided into three columns, which - based on graded threshold values for the projects - lay down if an UVP, a simplified procedure or a case-by-case examination must be carried out. In contrast to the simplified procedure, an environmental impact assessment must be carried out and a post-project analysis is foreseen in the UVP. Citizens' groups have locus standi in the procedure; in the simplified procedure, citizens' groups may participate as parties involved with the right to inspect the files.

In Vienna, environmental impact assessments are regularly carried out for large infrastructural projects (such as aspern Vienna's Urban Lakeside (Seestadt), Lobau tunnel S1).

www.ris.bka.gv.at)



Act on Environmental Impact Assessment 2000 (Umweltverträglichkeitsprüfungsgesetz 2000 – UVP-G 2000) (► html) (Rechtsinformationssystem des Bundeskanzleramts:

#### STRATEGIES. CONCEPTS AND MISSION STATEMENTS

Implementation projects as well as strategies and concepts of relevance for green and open spaces in the City of Vienna in the following areas:

#### **URBAN DEVELOPMENT**

#### AGRICULTURAL-STRUCTURAL DEVELOPMENT PLAN (AGRARSTRUKTURELLER ENTWICKLUNGSPLAN FÜR WIEN, AGSTEP)

The agricultural-structural development plan for Vienna from 2014 formulates the strategy and measures for safe-guarding the timely development of agriculture within the city boundaries. The key objectives are the far-reaching preservation of the cultivation of agriculturally used areas in coordination with the objectives of city development (Urban Development Plan, "Green and Open Spaces" thematic concept) and the further ecologisation of cultivation (further expansion of ecologically sound, sustainable agricultural production).



AgSTEP 2014 (► PDF: 9 MB, German) (www.wien.gv.at/umwelt/wasserrecht/agrarwesen/ agstep-2014.html)

# CLIMATE PROTECTION PROGRAMME - FIELD OF ACTION: "MOBILITY AND URBAN STRUCTURE" (KLIMASCHUTZPROGRAMM – HANDLUNGSFELD "MOBILITÄT UND STADTSTRUKTUR", KLIP II)

In 2009 the City Council adopted an update of the Vienna Climate Protection Programme (KliP) with a period of validity to 2020 (KliP II). This update of KliP I, which was adopted in 1999, comprises 37 packages of measures with a total of 385 individual measures in five fields of action. Within the framework of KliP I, the amount of greenhouse gases annually emitted was reduced by as much as 3.1 million tonnes.

In the C.1 "Urban Structure and Quality of Life" package of measures, KliP II clearly highlights the importance of green and open spaces. The objectives of the package of measures in KliP II are as follows:

- Mobilisation of inner-city building land reserves or densification reserves and concentration of architectural development along the major public transport routes to prevent urban sprawl
- Consideration of aspects of relevance for energy in spatial and urban planning
- Promotion of functionally mixed usage (living, working, recreation, social services)
- Strengthening local supply
- Focus on integrated packages of measures to enhance the quality of life in the built-up zones of the city (greening of the street space, courtyards and roofs, reduction of sealed land, upgrading of green and open

- spaces, improving the atmospheric quality in public spaces, a tightly knit public transport network within easy reach, etc.)
- Implementation: To achieve the objectives laid down in this package of measures, measures related to organisation, planning and spatial planning have been developed. In addition, measures related to public transport and traffic calming as well as green and open spaces have been incorporated.



Climate Protection Programme of the City of Vienna 2010-2020 (Klimaschutzprogramm der Stadt Wien 2010-2020)
( > PDF: 2 MB, German)

(www.wien.gv.at/umwelt/klimaschutz/programm/klip2)

#### LANDSCAPE ACCOUNT SCHEME

As part of City-Environs Management, a scheme has been developed in the form of the Landscape Account scheme, which aims at the intermunicipal regional development and cultivation of green spaces, based on the German Eco-account Scheme. The goal is to coordinate compensatory and alternative measures at the regional level that are relevant in terms of the ecology and the landscape and that to date have been specified without any regional coordination, in the course of EIA procedures for example. According to the scheme, these measures will be implemented at regionally meaningful locations. The instrument of the Landscape Account scheme aims to bring together appropriate areas.



Landscape Account Scheme, City-Environs
Management (Landschaftskontomodell, StadtUmland-Management) (> PDF, German)
(www.stadt-umland.at/index.php?id=83)

## SMART CITY WIEN FRAMEWORK STRATEGY

The Smart City Wien Framework Strategy is a long-term umbrella strategy for Vienna to 2050 that will establish a conducive, long-term, structural framework that will exist alongside other established documents, plans and programmes. It was adopted by the City Council on 25 June 2014.

In three fields of action – resources, quality of life and innovation – objectives are pursued that serve the key objective of maintaining and creating the best quality of life for all inhabitants of Vienna while minimising the consumption of resources. Beyond its vision, the framework is intended to facilitate goals and goal hierarchies, specific strategic approaches, project evaluation criteria for the Smart City Wien initiative, as well as coordinated policy action. This will be implemented with specific, time-phased goals that will be subject to ongoing monitoring and review.

In addition to the reduction of  ${\rm CO}_2$  emissions from currently 3.1 tonnes per capita to 1 tonne per capita by 2050, specific objectives in the fields of energy, mobility, buildings, innovation, social affairs/health care, and environment have been defined.



Smart City Wien Framework Strategy (> PDF: 12.5 MB, English) (zum Download auf www.smartcity.wien.at)

#### URBAN DEVELOPMENT PLAN VIENNA (STEP) 2025

STEP 2025 was adopted by the City Council in June 2014. It is predominantly strategic in character and points the way forward for urban development at the level of society as a whole until 2025.

One of the main starting points for Vienna's urban development is dynamic growth of the city and region. This leads to challenges for land development, for the housing and labour market, green and open spaces, as well as for mobility and also the social sphere. Planning considerations are based on the political values of the city and will also characterise Vienna in the year 2025: liveable, social and gender-equitable, cosmopolitan, prosperous, learning, ecological, participatory, and with good cooperation with its neighbours.

In this context, STEP 2025 is not a standalone document. Rather, it takes account of the specifics, strong and weak points of Vienna, includes spatially relevant aspects of specialised concepts of various municipal departments and is based on a number of fundamental positions that sketch the perspective of a "city of the future" and are key drivers of Vienna's urban development.



Vienna Urban Development Plan 2025 (► PDF: 7 MB, English)

(http://www.wien.gv.at/stadtentwicklung/studien/pdf/b008379b.pdf)

## FOREST DEVELOPMENT PLAN (WALDENTWICKLUNGSPLAN, WEP)

The WEP is the result of the spatial planning of forests in graphics and texts. It is drawn up in a ten-year cycle and regulated in the Federal Forest Act (Bundesforstgesetz). By applying forward-looking planning, the intention is to safeguard the four effects of the forest (according to the Forest Act) as best as possible:

- Benefits: the economically sustainable yield of wood as a raw material
- Protective effect: protection against natural hazards and damaging environmental factors as well as preservation of the soil against soil erosion and drift, formation of debris and landslides
- Welfare effect: impact on the environment, in particular on balancing the climate and water supply, on cleaning and renewing air and water
- Recreational effect: effect of the forest as a recreation zone on visitors to the forest

The Forest Development Plan presents the effects of the forest for the entire region and weights their importance. The principal function in each case is primarily the interests of the public.



Forest Development Plan in Vienna (Waldentwicklungsplan in Wien) (> further information: html, German)

(www.wien.gv.at/umwelt/wasserrecht/ landesforstinspektion/waldentwicklungsplan.html)

#### VIENNA HEALTH PROMOTION (WIEN-ER GESUNDHEITSFÖRDERUNG, WIG) - WHO EUROPEAN HEALTHY CITIES NETWORK

VIENNA HEALTH PROMOTION (WIG) - WHO EURO-PEAN HEALTHY CITIES NETWORK

The City of Vienna has been a member of the WHO Healthy Cities Network since 1988. The focus is on a health-promoting overall policy. It aims to improve physical and mental health and well-being, and the living conditions of people in Europe's cities. Vienna is also cooperating in the current Phase V of this international city network. The overarching theme of this Phase V is "Health and health equity in all local policies".

In core theme 3, "Healthy urban environment and design", the focus is on issues of urban planning and design. A particular focus here is on maintaining the high quality of life in Vienna, and attention is drawn to the fact that as well as safety, stability and healthy local supply - green urban recreation zones and leisure offerings make a major contribution in this regard.

The main focuses in this thematic field are the following: Schwerpunkte sind in diesem Themenfeld:

- healthy urban planning,
- housing and regeneration,
- healthy transport,
- climate change, safety and security,
- exposure to noise and pollution,
- · healthy urban design,
- · creativity and liveability.



Vienna Health Promotion (Wiener Gesundheitsförderung) (► html) (www.wig.or.at)

#### CREATING NETWORKS

## VIENNA'S OPEN SPACE NETWORK (FREIRAUMNETZ WIEN)

More than 150  $\text{km}^2$  of natural landscape green and some 22  $\text{km}^2$  of public parks and gardens as well as 19.25  $\text{km}^2$  of water body surfaces make the City of Vienna a "green city".

But it is evident that green and open spaces are spread unequally across the city's territory. The intention is to create green and open space corridors mainly in densely developed urban areas that do not boast sufficient green and open spaces.

The Vienna Open Space Network has been developed to consistently implement the Urban Development Plan 2005

and, by further developing the previously implemented measures to secure the Vienna Green Belt, set up a stable main network of green and open spaces for the whole of Vienna. The focus here is on usability for the population and suitability for daily use.

With its six linear types of open spaces, the Vienna network of open spaces - as a fundamental structure of the development of green and open spaces - forms an integral part of the STEP 2025 thematic concept "Green and Open Spaces".

## VIENNA'S NATURE NETWORK (NETZWERK NATUR)

The preservation of biodiversity is an important task for the city. One major instrument in this connection is the creation and safeguarding of the ecological functioning by creating networks of partial habitats: The better the individual habitats are linked with each other, the higher the quality. Water bodies in their capacity as linear elements or as a stepping stone biotope lend themselves for setting up vital connections.

The Vienna scheme for the protection of species and habitats, which was issued by Municipal Department 22 - Environmental Protection in Vienna, aims at ensuring permanent preservation of the variety of life in Vienna. This is achieved by implementing targeted individual measures from the following fields:

- Maintaining biodiversity and migration corridors in fields,
- Drafting management plans for meadows,
- Protection of species at bodies of water,
- Maintenance measures in vineyard landscapes and
- Contributions to setting up quasi-natural green zones,
- Protection of species on buildings (including for house martins and swifts).



Projects and habitats of Vienna's Nature Network

(► Stadtplan Wien Umweltgut)

(http://www.wien.gv.at/umweltgut/public/grafik.aspx)

#### URBAN ROUTES NETWORK: NET-WORK OF OPEN SPACES & NETWORK OF CYCLEWAYS AND WALKING ROUTES

As many important cycleway connections and walking routes run over traffic surfaces which – as green space connections – do not form part of the network of open spaces, it is necessary to look at all three networks simultaneously in order to get a complete picture of the existing and future connectivity within the city boundaries. The urban routes network therefore represents the intersection of linear green space structures in the open space network (open space types 01-06) with the network of cycleways and walking routes.

## DESIGN PROJECTS / QUALITY ASSURANCE

## EARLY GREEN, STUDY (STUDIE FRÜHES GRÜN)

There is a varied range of measures that aim at "an early green". What they all have in common is that they aim to make green spaces in real estate projects or in urban planning usable as soon as possible. This creates benefits for future users and the project operators. The quality of green spaces can be used as an image carrier in the early stage of a construction project, for example.



Studie Frühes Grün (Early Green) brochure (▶ PDF: 5.7 MB, German)

(www.wien.gv.at/stadtentwicklung/projekte/landschaft-freiraum/landschaft/wert)

#### GENDER MAINSTREAMING IN URBAN PLANNING AND URBAN DEVELOP-MENT (MANUAL)

The manual comprises the experiences gathered by different municipal departments in different projects that implement gender-sensitive planning. On this basis, a catalogue of objectives and quality criteria as well as a set of transferable methods and instruments was formulated. The set refers to different planning levels such as a master plan, land use and development plan, and individual projects.

The manual is to serve as a practical working tool and comprehensive reference document in the everyday activities of planners and administrators. In addition, it creates and raises awareness and aims to contribute to integrating gender mainstreaming in everyday planning even more strongly.



Gender Mainstreaming in Urban Planning (▶ PDF: 6 MB, German)

(www.wien.gv.at/stadtentwicklung/grundlagen/gender)

# SUSTAINABLE URBAN SQUARE (GUIDE) (NACHHALTIGER URBANER PLATZ)

Based on a two-year interdisciplinary discourse on "sustainable squares", a guide has been developed with the aim of simplifying the planning and designing of sustainable urban squares. In this process, great importance has been attached to the ecological component, which is often not given sufficient attention in planning and design work. The fundamental idea is here that the right planning and design of public squares can make a substantial contribution to the sustainability of the city. Using a checklist based on the guide, it is possible to examine plans and designs for sustainability.



Guideline for sustainable urban squares (Leitfaden für den nachhaltigen urbanen Platz) (> PDF: 4 MB, German) (www.wien.gv.at/umweltschutz/raum/nup)



Checklist for sustainable urban squares (Checkliste für den nachhaltigen urbanen Platz) (> RTF: 0.7 MB,German)

(www.wien.gv.at/umweltschutz/raum/nup)

# PUBLIC SPACE DEVELOPMENT PLAN (ENTWICKLUNGSPLAN ÖFFENTLI-CHER RAUM)

The Public Space Development Plan ("Entwicklungsplan öffentlicher Raum") is intended for the densely built-up city areas in Vienna. It is based on the "New interpretation of public space" programme, which was evaluated in 2013/14 and recommended for continuation. Due to administrative implementation processes, it is delivered separately by the individual districts, while work is also conducted jointly by several districts in some cases. The methodology builds on the basic idea of contrasting the deficits and needs in the respective area with existing spatial potential.

The plan was elaborated in three working steps:

- A. Analysis of the current status determination of content-related deficits and needs in public spaces
   The wishes of the population are determined by means of surveys, the spaces for lingering in the individual district are recorded, and the facilities for communication, play, relaxation, sport and exercise, as well as events and festivals, are analysed and assessed.
- B. Development concept with a survey of additional potential for upgrading public spaces

  A survey is conducted of the potential of spaces for serving to eliminate the identified deficits. The result is a development concept for the respective free spaces and a concept for creating networks between them.
- C. Thematic concept for public space

  The thematic concept defines the strategic objectives to upgrade public spaces and suggests measures as well as guides for actions to be implemented.



Workshop Report on the New Interpretation of the Public Space (Werkstattbericht Neuinterpretation öffentlicher Raum) (▶ PDF: German, 5.4 MB)

(www.wien.gv.at/stadtentwicklung/architektur/oeffentlicher-raum/neuinterpretation.html)

#### PUBLIC SPACE GUIDELINES "FREIRAUM STADTRAUM WIEN"

This guide is the result of coordinated efforts between the Vienna City Administration, external experts and district politicians. It contains guidelines on the provision, design and management of free public spaces. In addition, it picks up various questions and trends related to public space and specifies goals:

 Provision: In view of the growth of the city population, the provision of new public spaces and safeguarding of the quality of life for current and future users is a challenge. Therefore, the early planning and actual provision of free space represent a key requirement in this mission statement.

- Design and facilities: Aesthetic demands should go hand in hand with the quality of use. The public space fulfils its tasks where it meets the different needs of people in terms of its design and facilities.
- Management: Efficient management of free space should safeguard the balancing of the requirements of individual groups and public interest.



Freiraum Stadtraum Wien ( > html, German) (www.wien.gv.at/stadtentwicklung/strategien/freiraum-stadtraum-wien.html)

## PUBLIC SPACE: PROJECT PLANNING MANUAL

To compile the project planning manual, all laws, standards, guidelines and internal rules for project planning in public space that are valid in Vienna have been screened and their relevance for planning in Vienna appraised. The result is the definition of the planning parameters currently applicable in Vienna

The manual makes available to users all technical data required for a first draft (the boundaries of dedicated land use categories, general projects and concepts). For more detailed drafts, the regulations and guidelines of the individual municipal departments also need to be consulted. The manual refers to these sets of rules where appropriate. The latest version of the manual already incorporates the experiences gathered by users.



Project planning manual for the public space (Projektierungshandbuch öffentlicher Raum) ( > PDF, 6 MB, German)

(www.wien.gv.at/stadtentwicklung/grundlagen/projektierungshandbuch)

#### PUBLIC SPACE PLANNING MANUAL ASPERN VIENNA'S URBAN LAKE-SIDE (PARTITUR DES ÖFFENTLICHEN RAUMS)

For the urban expansion zone aspern Vienna's Urban Lakeside (Seestadt) a comprehensive and exemplary planning instrument for structuring and designing public space has been developed in the form of this planning manual:

#### Ringstraße (Aspern Ring)

The Ringstraße street plays a special role in the overall concept of aspern Vienna's Urban Lakeside because it is the backbone for traffic-calmed residential zones and an efficient distribution system in the new part of the city from the beginning onwards.

#### • "Rote Saite" (Red String)

The "Red String" is the "lifeline" of aspern Vienna's Urban Lakeside with a shopping street, cultural facilities and residential areas. It is an expression of the diversity of urban life.

"Blaue und Grüne Saite" (Blue and Green String)
 The lake is at the centre of the "Blue String". Water landscapes and vegetation invite citizens to carry out

various activities - or relax - at and around the lake. The "Green String" links parks and places of the Seestadt with each other and with the surrounding landscape areas, such as the Danube floodplains and Bisamberg hill.



Partitur des öffentlichen Raums (> PDF: German, 34 MB) (www.wien.gv.at/stadtentwicklung/studien/b008068.html)

## GENERAL DESIGN GUIDELINE FOR PARKS IN VIENNA (WIENER PARKLEITBILD)

This handbook issued by the "New Green" Unit of Municipal Department 42 (Parks and Gardens) sets out specifications for the planning and provision of facilities in existing and future parks in Vienna. It summarises the complex requirements made on modern public parks regarding the usable width, suitability for everyday use, gender-selective usability, safety, etc. The guideline involves future users and takes realisable wishes into account, to guarantee that park users can identify with their free spaces.



Wiener Parkleitbild MA 42
( > PDF: German, I MB)
(www.wien.gv.at/umwelt/parks/stadtgaerten.html)

#### PLANNING - BUT SECURELY! - SE-CURITY IN PUBLIC SPACE PLANNING GUIDELINE (PLANEN - ABER SICHER!)

The municipal department's project "Physical and social insecurity phenomena" was aimed at exploring factors that impact on the sense of security of the people in the city and presenting the contribution that urban planning can make for a safe Vienna. The manual describes the various factors that have an influence on security/lack of security. These factors can be of a constructional, interactive (different groups of people in the places), and subjective (previous experiences in the public space) nature. The manual summarises the security-related aspects of this constructional-spatial area, for planners to implement them.



Leitfaden "Planen – aber sicher!"
(► PDF: German, 52 MB)
(www.wien.gv.at/stadtentwicklung/studien/b008269.html)

## PLANNING AS A PROCESS (STUDY) (PLANUNG ALS PROZESS)

This study from 2010 serves as a working aid for the Vienna City Administration and external planners when designing complex master plan processes related to urban development. Rather than limiting spaces for creativity and customised processes, it aims to open them up. In this process, the guide encourages conscious work on factors that have contributed to enhancing quality in previous successful planning processes and master plans.



Studie Planung als Prozess

(> PDF: German, 5 MB)

(https://www.wien.gv.at/stadtentwicklung/studien/b008341.html)

## PRACTICE MANUAL ON PARTICIPATION (PRAXISBUCH PARTIZIPATION)

This practice manual aims to support the staff of the Vienna City Administration who work in urban development or related fields such as the designing of public space and who want to involve the public in programmes, plans and projects. The practice manual enables participation processes to be prepared and carried out professionally.



Praxisbuch Partizipation
(► PDF: German, 14 MB)
(www.wien.gv.at/stadtentwicklung/studien/b008273.html)

#### "RAUM ERFASSEN" – FUNCTIONAL AND SOCIAL SPACE ANALYSES IN PUBLIC SPACE (MANUAL)

This manual provides orientation on how to apply the instrument of functional and social space analyses in the public space. It gives an overview of its potential and describes quality standards related to the process flow and application of methods. The manual's target groups are the planning municipal departments of the Vienna City Administration and their contractors that carry out functional and social space analyses.



Raum erfassen (> PDF, 9 MB, German) (http://www.wien.gv.at/stadtentwicklung/studien/b008274.html)

#### VIENNA GUIDELINE FOR ROADSIDE PLANTING (STRASSENGRÜN-LEITBILD)

This Guideline issued by the "New Green" Unit of Municipal Department 42 (Parks and Gardens) sets out specifications for the planning and provision of facilities in existing and new green areas in the streetscapes and of roadside greenery. The focus here is guaranteeing consistent design solutions that match the surrounding area and are suitable for everyday life. In addition, aspects related to ecology and road safety are taken into account.



Wiener Straßengrün-Leitbild 2012 (> PDF, German) (www.wien.gv.at/umwelt/parks/stadtgaerten.html)

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#### THEMATIC CONCEPT

#### GREEN AND OPEN SPACE

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p. 7 Knollconsult, p. 8 Lukas Beck, p. 9, 10 Knollconsult, p. 12 MA 18, p. 14 Knollconsult, p. 15 MA 18, p. 16 Knollconsult, p. 19 Wien Museum, p. 20 MA 8, p. 21 A. Cserny, p. 22 Nationalpark Donau-Auen, Franz Kovacs, p. 23 | Peter Lenz, 2 Stadt-Umland-Management, 3-4 MA 18, 5 Stadt-Umland-Management, p. 24 A. Cserny, p. 45 mediawien, p. 29 Knollconsult, p. 32, 33, 34 MA 18, p. 35 mediawien, p. 35 mediawien, p. 36 MA 18, p. 37 Knollconsult, p. 38, 39 MA 18, p. 40 Knollconsult, p. 42 A. Cserny, p. 45 Knollconsult, p. 46, 47, 50–55 Knollconsult, p. 56 MA 18, p. 57, 58 Knollconsult, p. 59 MA 18, p. 6-62 mediawien, p. 63 Knollconsult, p. 64 mediawien, p. 65 Knollconsult, p. 67 Knollconsult, p. 78 mA 18, p. 67 Knollconsult, p. 76 top Knollconsult, p. 77 top Knollconsult, p. 77 bottom Wolfgang Ruc, p. 78 top Rajek Barosch Landschaftsarchitektur, p. 79 top Knollconsult, p. 79 bottom GB\*7/8/16, p. 80 top Knollconsult, p. 80 bottom right MA 29, p. 80 bottom left Arch. DI Rudolf Zabrana, p. 84 Knollconsult Illustrations: Knollconsult

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▶ p. 36

Landscape architectural

einfach-mehrfach

Project coordination to assist.

stakeholders in multiple and

**Public space guidelines** 

"FreiRaumStadtRaum Wien"

square (guide)

squares

space

Sustainable urban

Guidelines for the economic,

ecological and social design of urban

"The score for public

Exemplary planning manual for the

space": planning manual

urban expansion zone aspern Vienna's

Urban Lakeside (Seestadt) based on

different zones and facilities of public

Planning as a process,

**study** (Best practice in master

planning)

intermediate use projects

accompany and connect

▶ p. 93

▶ p. 93

▶ p. 91

Public/private contracts on urban developments

Landscape design concepts (according to the Building Code)

**Mobility agency** 

Bridge between cyclists

and pedestrians, politics

and administration/

public relations

planning; planning and

**General Design Guideline** 

for Parks in Vienna

Design requirements for new

**Development plan** 

different user groups

public space

and strategy concepts

**Planting** 

rary green space

**General Design** 

Early Green, study

Efficient and sustainable real estate

development through early or tempo-

constructions and the renovation of

parks with special focus on the needs of

Analyses of the different parts of public

space (need, potentials), development

**Guideline for Roadside** 

Local Green Plan

Planning tool for subregion-related Vienna open space type identification network ▶ p. 43, p. 90 of open spaces as a basis for...

**Regional cooperation** 

Urban routes p. 91

Stadt-Umland Management (SUM, City-Environs Management)

is the platform for planning cooperation of the federal provinces

Planungsgemeinschaft Ost (PGO), the federal provinces Vienna,

Lower Austria and Burgenland work together on joint projects.

**Public space** 

project planning manual What needs to be taken into account

"Raum erfassen" Pp. 93

Planning - But securely!

**Gender mainstreaming** 

urban development ▶ p. 91

in urban planning and

(manual) Functional and social

space analyses in the public space

(manual) Security-related

aspects in public space

in the planning process

of Vienna and Lower Austria. In the spatial planning board

**Innovative** approaches for the cityscape ► p. 74

Open space types

the identification green and open

Analysis of Vienna's supply with publicly accessible green spaces

plementation

SMART CITY WIEN

Smart City Framework Strategy

Praxis manual on participation Involvement of citizens

▶ p. 92

▶ p. 93

▶ p. 89

STEP

efinitions, Strategies, Instruments

 $\bigcap$ 

**Development Plan** (STEP) 2025 Urban

Women

Men

uman beings

Parents and chaperones

Children

**Adolescents and** young adults

Older people

Migrants, ethnic minorities

People with special needs

**Tourists and visitors** 

Working population

**Unemployed people** 

**Commuters** 

**Mobility in** everyday life

**Playing** 

Cycling, walking and public transport are playing an increasingly important role in everyday life in the city.

Playing is an important open

space function – for children

and also increasingly for

older generations.

▶ p. 36

▶ p. 36

Leisure time/ recreation

Green and open spaces provide space for recreation and leisure time activities.

Sports/exercise

Urban open spaces are also

individual sports, as well as

places for team and

everyday life.

for a lot of exercise in

Tourism and image of the city Green and open spaces are

characteristic features of the image of the city of Vienna and make the city well "walkable"

New types of use

Openness to different types of use for public space on a temporary basis such as guerilla gardening or 'Gehsteig Guerilleros' (pavement guerilleros), etc.

▶ p. 34, p. 37

Communication

Open space and its importance for communication

▶ p. 36

**Urban farming** 

and self-supply

Eco-plots and allotment

approach for self-supply

for citizens and as an

Habitat for

animals and

plants

gardens as counterbalance

contacts Role of open spaces as places for

encounters in pub-

▶ p. 36

**Production** 

than 700 companies,

contribution to energy

efficiency due to short distances of transport

p. 34

Source of income for more

of food

lic or semi-public

Social

spaces

tion Open spaces as

Identifica-

▶ p. 36

essential identification features in the urban quarter and the entire city ▶ p. 39

Urban structure

Linear and large scale open spaces provide for structuring of the urban fabric and for orientation ▶ p. 39

Important identity creating

▶ p. 34

Viennese wine

feature for Vienna (to the outside and the inside), economic factor, cultural landscape heritage

AgSTEP

Agricultural-Structural Development Plan for Vienna

Forest Dev.

Plan Spatial planning for Vienna's forests ▶ p. 90

Vienna Act on Allotment Gardens p. 86

**Eco Plots** Leasing of space to private persons for maintenance and self-supply ▶ p. 77 Neigh- P. 77 bourhoodgardens

**Tree Conservation Act** Protection of Vienna's trees by regu-

lating the permissions of removals

and substitute plantings

**Fauna** 

**Flora** 

**Habitats** 

▶ p. 33 Natural heritage

▶ p. 34

Soil functions

Basic life support, habitat, supply of energy, water and minerals ▶ p. 33

Protected areas ▶ p. 33

Water balance

The capacity of green spaces to store water to relieve the drainage system and contribute to flood prevention **Pp. 33** 

Urban climate

Open space facilities and networking as important factor for the urban climate ▶ p. 32

Health effects through exercise, recreation, pollution filtering and urban climate

Health

effects

Protection of species,

areas and objects

**KLiP II: Mobility & Urban Structure** 

Part of the Climate Protection Programme of the City of ▶ p. 89 Vienna Health **Promotion (WiG)** 

Measures for the promotion of health "Healthy urban planning, creativity and ▶ p. 90

**SAE** Assesses the environmental impact of projects as early as in the planning phase ▶ p. 88

**Impact Assessment** 

Protection of biotops, species, territories and objects

According to the Vienna Nature Conservation Act, the Act on Nationalparks, the Vienna Act on Biosphere Parks and international criteria (Natura 2000 etc.)

Vienna's Nature

of goals for natural regions, linking of biotopes and individual measures ▶ p. 91

**Network** Development

**Environmental** (EIA/SUP)

▶ p. 88

p. 87