

## CHAPTER 9

# The Vienna Green Belt: From Localised Protection to a Regional Concept

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### Introduction

The Vienna green belt is one of the oldest urban green belts in the world. One hundred and fifty years ago Vienna's citizens realised that an effective protection of urban greenspace was needed. The protection of the *Wienerwald*, the first of the five landscapes of the Vienna green belt, was the first step. By 1905, four additional landscapes – Bisamberg, Marchfeld, Donaauraum, Terrassenlandschaft had become part of what was then called the Viennese forest and meadows belt. Later, the aim was to protect single smaller green areas and to unify them with the growing green belt of Vienna. Today, the Vienna green belt comprises about half of Vienna. While the protection of the green belt was realised at an early stage, a connection with the limited urban green in the central parts of Vienna within this green belt has not yet happened. This remains a target for the future, as does the integration of the green belt within a larger regional setting: either the twin city concept Vienna-Bratislava or the even larger concept of the EU level CENTROPE region.

The needs of the Vienna green belt have shifted over time with standards of living. In times of crisis, such as the early post-War periods, the Vienna green belt was a major source of the supply of fuel wood and emergency food and enabled large parts of Vienna's population to survive. In times of abundance, the needs are primarily directed towards recreation and to environmental services like providing clean water and clean air and the provision of high bio diversity in and around Vienna. Together with the inner city parks and remaining green areas of Vienna, the green belt provides environmental safety for the population.

Compared to many other West European cities, Vienna is still growing and development is taking place primarily in the northern, eastern and south-eastern sections of the city. This has to be seen in connection with the opening of Vienna to the north and east. For many decades, any development in this direction was limited and, to some extent, a lifting of this limit is now taking place. The rapid growth of Eastern European cities, and the vicinity of Vienna to some of these cities, pose major challenges for landscape planning. Green corridors should be secured within urban settings. The flora of Vienna, with 2,187 registered wild plants can be considered very rich in species (Erhard, 2005). People have started to discuss the extent to which

a much larger green belt could protect the metropolitan area of Vienna-Bratislava or the even larger metropolitan area Vienna-Bratislava-Győr-Brno, currently one of the most dynamic places of economic growth in Europe.

In the following, we mainly limit this discussion to Vienna. The city comprises 415 km<sup>2</sup> of land and approximately half of this is green space. Today, the urban forest covers 75 km<sup>2</sup>, agriculturally used land amounts to 65 km<sup>2</sup>, meadows extend over 24 km<sup>2</sup>, and parks, small house gardens and sports fields together account for 37 km<sup>2</sup>. The details of Vienna's green spaces, with regard to the appropriate hectare area and the percentage in the city, can be found in Table 9.1.

Until 1920, Vienna and the surrounding province of Lower Austria were unified. Functionally, the land around today's border between Vienna and Lower Austria belongs together and the green space continues, but is not accounted for Vienna's statistics.

**Table 9.1: Current land use in Vienna**

Land Use	Area (ha)	%
Total land in Vienna	41,490	100.00
Total green space	20,022	48.25
Forests	7,504	18.09
Agricultural Used Areas	6,506	15.68
Meadows	2,358	5.69
Allotment gardens	1,264	3.05
Parks	1,622	3.91
Sport fields & recreational areas	765	1.85
Water bodies	1,939	4.67

Source: Stadt Wien, Land Use in Vienna 2001, MA 41 Inventory of Use 2001, MA 14 and MA 21A, author's calculation

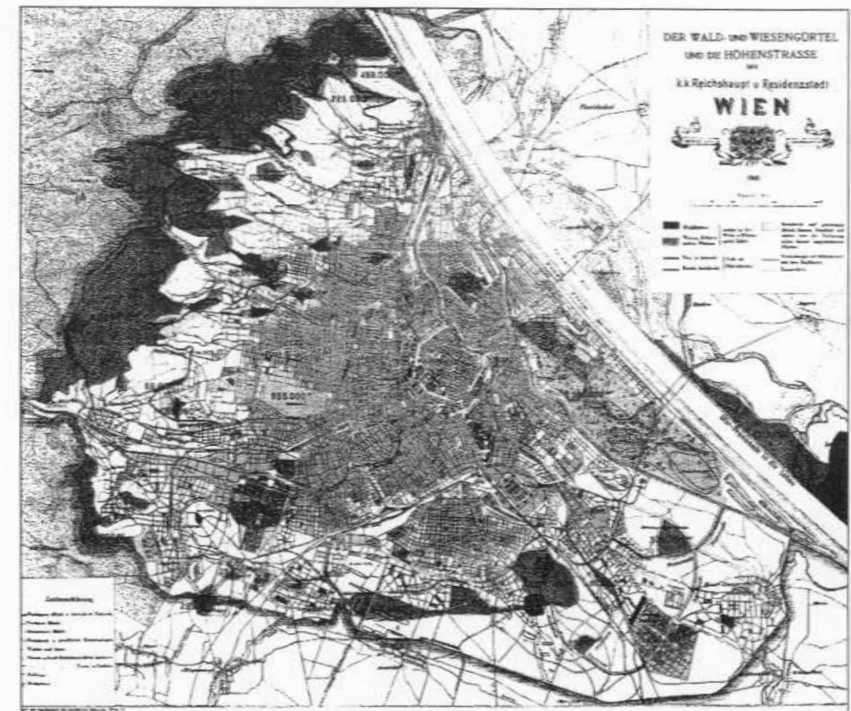
In the first section, we discuss the historic development of the green belt in Vienna and in the second, we deal with the five particular landscape units, their use and change in use over time, including the expected future uses. The third section covers the upcoming possibilities of urban green belt extension on the international scale.

### History, Use and Development of Vienna Green Belt

In the first century AD, the Romans set up a military camp, called Vindobona, which formed part of the large number of similar facilities along the Limes frontier. Around 1150, the Austrian margraves from the Babenberg dynasty moved their residence to Vienna. In this time Vienna developed into a veritable town. By 1500, the city had some 20,000 inhabitants. The medieval town was enclosed by town walls and the glacis and surrounded by fields, villages, vineyards and woods. The glacis was a

spacious meadow area, intended for military defence against the Turks, who almost invaded Vienna twice; once in 1529 and again in 1683. After the defeat, several new castles with related green areas were built, including Schönbrunn Castle, the summer residence of Maria Theresia. By 1790, the number of inhabitants had increased to 200,000. Many aristocratic families built residences with baroque gardens outside the glacis such as the Belvedere in the 3rd district. The history of the green belt started when the walls of the inner city were demolished in 1856 and the inner city of Vienna was unified with the surrounding outer suburbs and the even more peripheral districts. At that time, Vienna was already approximately the size of today and had more than 600,000 inhabitants in 1869.

One of the highlights in the history of the Vienna green belt – in former times called the Viennese forest and meadow belt – was the rescue of the *Wienerwald* by Josef Schöffel (1832–1910). In 1870, a crisis in the Austrian state economy following the war against Prussia led to the empire law of 'the sale of state property'. This also concerned the *Wienerwald*, which was to be sold as state property for the



**Figure 9.1: The Vienna Woods and Meadows Belt with the 'Höhenstraße' 1905**

Source: Stadt Wien (Hg.) (2005a, 76)

replenishment of the empty treasuries. It was expected to raise 20 million guilders. In particular, the Viennese wood dealer Moritz Hirschl profited from this law as he was able to buy the right to cut the forest at favourable conditions. In 1863, the public domain Waidhofen/Ybbs had been sold and the first buyers eagerly cut timber. Hirschl had the option to strike 770,000 *klafters* of wood. One *klafter* is a cube of 1.8m side length making a total amount of 2.5 million m<sup>3</sup>, nearly a quarter of the *Wienerwald*.

The Vienna municipality apathetically neglected to counter the threatening destruction of its forest belt. There was nobody in the imperial state council, who would have arisen against this threatening 'robbery of the state property', because a large part of the representatives profited personally from it' (Museen der Stadt Wien, 1993, 162).

In this situation, the journalist and later mayor of Mödling in Lower Austria, Josef Schöffel started his campaign for that office, in which, as he wrote, 'the boldest swindlers and impostors sat'. In numerous newspaper articles, he mobilised the population and accused individuals of being corrupt. There were murder threats, accusations and bribery attempts, but Schöffel steadfastly continued his campaign. The population responded with a storm of protest and, under Schöffel's leadership, the efforts to save the *Wienerwald* became the first Austrian citizens' initiative. Numerous petitions finally forced the local council to act. In 1872, the law of 1870 was rescinded, the contract with Hirschl was dissolved and the total prohibition to cut timber in the *Wienerwald* was proclaimed (Seebauer and Weisgram, 1996, 34). 'Schöffel was an uncommonly stubborn person, who fought to overcome all obstacles and thereby made the impossible, possible and brought a law, already sanctioned by the Emperor, to fall' (Schlindner quoted in Lahner, 1999).

Schöffel's commitment also succeeded, for the first time, in demonstrating the tremendous value the *Wienerwald* deserves from ecological and economic viewpoints. The *Wienerwald* was recognised as being the 'green lung' of the city of Vienna. In the year 1905 the *Viennese forest and meadow belt* was formally established as an environmentally protected area by the town council and, since then, has contributed to the Vienna green belt (Figure 9.1). At that time, Vienna reached its highest population level with 2,080,000 people on today's area. A principal purpose for establishing the forest and meadow belt was, at that time, 'to guarantee the supply of pure air' in the city and 'the preservation of the green areas at the western and northern border'. The main winds come from the west and the forest was considered as the source of clean air. For the densely populated southern districts of Vienna 'green areas' were important for a higher supply. Towards the south, new forest and meadow areas came into existence and expanded the Viennese forest and meadow belt. More isolated patches were interconnected through 'broad garden lanes'. The Viennese districts beyond the Danube were predominantly agriculturally used in 1905. Therefore, no concrete preventive measures were undertaken there. An exemption was the Lobau wetland forest in the southeast edge of the city which, at that time, already contributed to the forest and meadow belt. The Viennese forest and meadow belt turned into a recreation place for all levels of the population and

contrasted to the urban parks with their ornamental gardens and limited freedom of movement.<sup>1</sup> The report mentions an area of 4,400 hectares while calculations according to the project plan suggest an area of 5,860 hectares (Stadt Wien (Hg.), 2005a, 77).

The development pressure decreased sharply after the two World Wars, as Vienna lost its status as the capital of a large empire in 1918, and because of a major reduction in population ending in 1945. Between the First and Second World Wars Vienna also contained one of the largest Jewish populations, numbering 300,000 out of a total population of 2,000,000. The decrease in development pressure was also the result of the Iron Curtain that had fallen 30km from Vienna and where major ecological zones could flourish safe from human impacts. Vienna's peripheral position benefited the green belt by keeping land prices relatively low for decades. The forest and meadow belt was further closed by purchasing land and forestation (Auböck and Ruland, 1994, 42).

In the 1950s, 1960s and 1970s there was an aim for a clear and modern conception for the green areas of Vienna. Until now protection has been enabled by a dedicated zoning system consisting of 'Forest and Meadow Belt, Protected Zone' (in German: *Schutzzone wald und wiesengürtel* Sww) within the city boundary of Vienna. Further zones within the Vienna Green Belt are: 'Protected Park Zone' (in German: *Parkschutzgebiet* Spk) and 'Agricultural Lands' (in German: *ländliche Gebiete* L). The particularly protected park and landscape areas include: the park of Schönbrunn Castle, the Auer Welsbach Park (1922), the Lainzer Tiergarten (1937), the Laaerberg (1953), parts of the Bisamberg (1965) and the Danube Island (1978).

In recent decades, there was a diversification in the development within different categories of land use and even within the same category. Agricultural use went in two directions. While most of the land is no longer primarily directed towards harvesting but to the provision of a particular traditional type of agricultural, horticultural and viticulture landscape, a minority of land has been developed and devoted to industry-like agriculture using large, concrete greenhouses and producing monocultures with high resource inputs that could also be located in any other highly industrialised city. Less than ten farms produce tomatoes or cucumbers for several million people at world market prices. On the other hand, the health objective of foods and organic agriculture is particularly well developed in Vienna. The largest organic farm of Austria is situated in Vienna and the municipality is also its owner. Without the support of the city, the organic farm could not survive.

A special aspect of the Vienna green belt, sometimes quite isolated in central parts of the city, are the small garden allotments, the so-called *Kleingärten*. They are an important part of the urban green structure and were an important source of personal food supply of vegetables and fruit. It was forbidden to have a house on this land, with only a cottage being allowed. Many owners originated from the working class,

<sup>1</sup> Citation of the Town Council of Vienna from May 24th, 1905 (Wiener Gemeinderat, 1905).

**Table 9.2: Green belt development in Vienna**

Year	Size of the green belt (ha)
1905	4,400–5,860
1940	10,700
1995	19,250
2005	21,500

Source: Stadt Wien (Hg.) (2005a, 73)

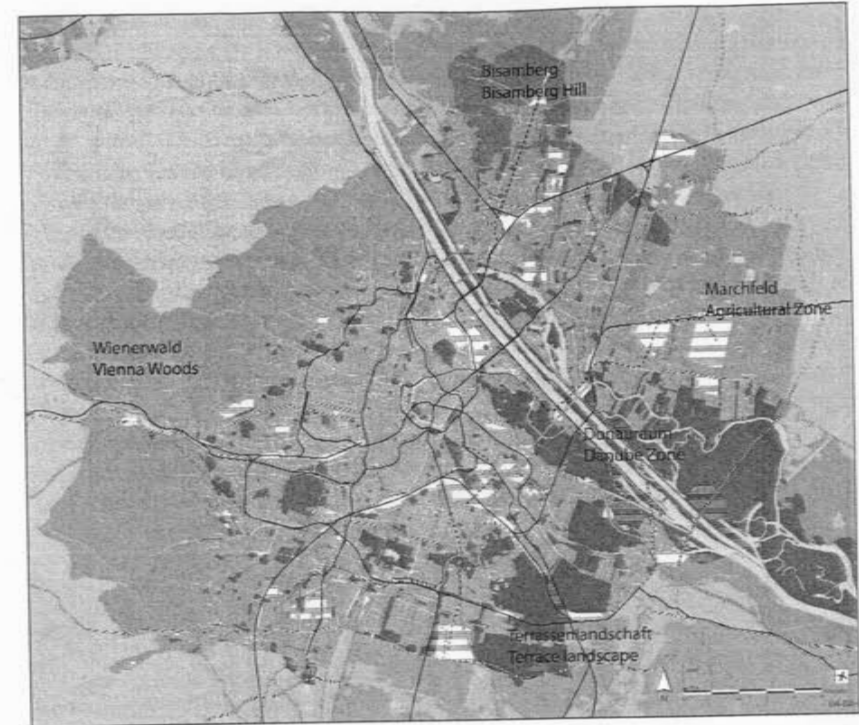
lived in a city-owned flat and spent much of their time in spring, summer and autumn in the garden. This started to change in the 1980s, when it became possible to build more solid, but still moderately sized, houses for year-round living. Food prices no longer make it necessary to produce one's own supply. If not already in use for permanent living, the gardens are today used for hobbies, gardening, relaxing and recreation. Production and harvest are no longer the most important aspect of forestry. Previously, in particularly in times of crisis, the forest was an important source of energy. Without fuel wood from the *Wienerwald*, many people would have died shortly after World War I when the new state Austria was cut off from major resources. Even at the end of World War II, it was a major relief to have the forest as a resource base and supplier of energy.

Table 9.2, shows the size of the Vienna green belt. As the city has had different extensions over the years, the exact percentage cannot be given. In 1988, the green belt area of the city had grown to 19,250 ha, or 46% of the total area. Some 10,700 ha are dedicated as Sww. In 1994, the 'one thousand hectare program' was decided by city council to secure the landscape in the northeast of Vienna and extend the forest and meadow belt. On 29 November 1995, the Vienna city council approved the plan for the 'Vienna Green Belt 1995'. Accompanying programs and measures were prepared to secure the green belt for future generations (Jedelsky, 2004). A new zone of 'Wood and Meadow Belt, Protected Agricultural Area' was introduced in 1996 and replaced Sww with the inclusion of agricultural land. In 2005, about half of the land in Vienna belonged to the green belt. The population size was 1,638,000, with an increasing tendency to fluctuate during the 20th century.

While the development of the urban green belt has advanced during recent history, there is a lack of urban green in the centre of the city. Unlike the favourable development on the periphery, the patches of small parks and green areas in the inner districts did not merge to a larger entity and still remain isolated.

#### Types of Landscapes and Particular Uses of Green Belt

The Viennese landscape is unusually varied. There are very few cities in Europe which are comparable in shape and form, because Vienna is geographically and



**Figure 9.2: Overall concept – green areas of the city region Vienna**

Source: Stadt Wien (Hg.) (2005b)

geologically situated at the intersection of different landscape types and climatic areas. Following the sandstone part of the *Wienerwald*, a set of terraces descends in the form of steps to today's city centre and further to the Danube. The set of terraces is caught in the south by the spur of the Wienerberg and the Laaerberg. In the north and northeast, this structure is supplemented by the Bisamberg and the Marchfeld plain with their particular corridor forms and rubble stone ponds (see Auböck and Ruland, 1998, 8–9, 51–2).

The inner city or centre, the suburbs and the urban villages up to the outlying districts stretch out on the individual terraces. In the west, the *Wienerwald* surrounds these urban settings and the Prater terrace, city terrace, Simmering terrace and the Laaerberg terrace form the hilly continuation of the green belt in continuation of the *Wienerwald*. Numerous brooks flow from the *Wienerwald* and have cut the terraces mentioned and formed broad valleys over the course of time. In between, remaining pieces of the original uniform terrace are preserved. This is most clearly recognisable with the Wiental terrace (cf. Auböck and Ruland, 1998, 9).



Vienna is situated at the border of the Central European, the Alpine and the Pannonian climatic zones; continental and oceanic influences are equally valid here. Therefore, the weather in Vienna is described as unbalanced and hardly predictable. The main wind directions are, dependent on the situation, northwest/west/southeast. The vegetation phases are quite different in the individual districts of Vienna. In the west of the city, spring often comes later than in the remaining districts.

The Viennese flora corresponds with the geological and climatic variability and diversity. In Vienna, the region of the European mixed woodland (beech, maple, oak and hornbeam) meets the Pannonian vegetation with its oak forests and drying lawns. In Favoriten, the 10th Viennese municipality district, we find a relict forest of Downy Oaks (*Quercus pubescens*). The far reaching beech forests in the northwest of Vienna, the dense combination of forest edges and meadows in the west, and the unusually various river landscape of the Lobau are considered to be the most beautiful landscapes in Austria.

The Vienna green belt consists of five large landscapes: the *Wienerwald* or Vienna Woods, Bisamberg or Bisamberg Hill, the Marchfeld or Marchfeld Agricultural Zone, the Donauraum or Danube Zone and the *Terassenlandschaft* or terrace



Photo: Ingrid Gregor

Figure 9.3: *Wienerwald*, Vienna

landscapes to the south of Vienna (Figure 9.2). Special protection categories and programs exist for the individual landscapes of the green belt as described below.

#### *The Vienna Woods or Wienerwald*

The *Wienerwald* encloses the west of the city in an elbow of more than 20km length, starting from the Danube break-through in the north, called the 'Viennese Gate' to the southern edge of the city. The shady forests, predominantly red beeches, are a popular recreational spot for Viennese people. Most visitors come simply in order to enjoy nature and the view over the city. Hiking in the summer and sledging on the *Wienerwald* meadows in the winter are very popular. Mountain biking is an attractive activity due to the many ups and downs in the landscape. In 2002, the so-called '*Wienerwald* declaration' was approved by the Vienna Town Council and the local parliament of neighbouring Lower Austria. It is a catalogue of protection and development targets to preserve the *Wienerwald* as a nature protection zone and recreation area for future generations.

In 2005, the *Wienerwald* in Vienna and in large parts of Lower Austria was recognised as a biosphere park (Biosphere Park *Wienerwald*) by UNESCO. It covers a total of more than 105,000 hectares in 51 municipalities of Lower Austria and seven districts in Vienna. The city of Vienna regards the recognition as a biosphere park as an additional possibility to ensure the protection of the *Wienerwald* as an important part of the Viennese green belt. It is planned to be further developed as a landscape and cultural area. The various functional relationships between the individual regions of the biosphere park and adjacent Lower Austria, the combination of uses such as agriculture, forestry, leisure and tourism, and nature protection, are important. The biosphere park forms a new cooperation model between Vienna and Lower Austria, dealing exclusively with the *Wienerwald*. Besides the public actors in the municipalities and districts, we find many private interest groups representing nature protection, agriculture and forestry, tourism, restaurant and catering services and others as important contributors of an, even economically, successful model region.

#### *Bisamberg (Bisamberg Hill)*

The Bisamberg in the north of the city is part of the alpine elbow and the continuation of the *Wienerwald* on the other side of the Danube. It takes an outstanding position as a northern entry point into Vienna. The slopes on the west side drop steeply to the Danube. Towards the east, the slopes have more room and fall gently. A thick loess layer and fertile soils are characteristic in the east. Numerous rare plant and animal species make the Bisamberg a valuable nature experience. The vineyards can be explored using the many trails which usually cut underground as so-called 'cellar lanes'. The locals enjoy the wines and the culinary specialities of the *Heurigen* (traditional wine farms with the right to sell their domestic wine to visitors) during their weekend and evening trips. In a 'landscape and open space concept' for the



Photo: Meinhard Breiling

**Figure 9.4: Bisamberg Hill, Vienna**

northeast of Vienna from 1994, large parts of the Bisamberg were regarded as being a highly valuable cultural landscape. The wine quarters were included in the green belt concept and resulted in an intensified cooperation between wine farmers and planners. An association for the development of a common recreation region between Lower Austria and Vienna was created.

A concept to unify individual biotope patches on the Bisamberg emerged in the year 2000. It considered the special meaning of individual elements within this landscape, for example, three defence constructions against Turkish invaders from the 17th century (*Alte Schanzen*). Now, a hiking path links them. The 'Agricultural Structural Development Plan' of 2004 designates the vineyards on the Bisamberg as an agricultural preference area. Many farmers also take part in a contract-based nature protection program: the 'habitat field' emphasising the important role of farming in the bio diversity of Vienna. Here, suitable care measures are used to convert agricultural areas into nature protection zones. Further programs with the same intention are the 'habitat vineyard' and 'habitat hedge' programs.

At present, a trans-boundary green belt concept between Vienna and Lower

Austria is under consideration: the Vienna green belt should be integrated into the landscape of Lower Austria. A possible instrument for this would be a transboundary regional park.

#### *Marchfeld (Agricultural Zone)*

North of the Danube, the landscape is characterised by predominantly gentle transitions and the hardly recognisable borders between the individual landscape units. The Marchfeld is a landscape area and part of the Viennese basin and slopes gently towards the southeast. Here, in the northeast, the majority of the agriculturally used land of Vienna is situated, altogether 17% of the city. It is 'the granary' and 'vegetable garden' of the city. The landscape of the Marchfeld stretches to the March River and the border to Slovakia. The strongly increasing settlement activity in this part of the city is changing the landscape and the new inhabitants are seeking opportunities for leisure activities: jogging, bicycling, walking among other activities.

The Agricultural Structural Development Plan of 2004, points to an expansion of urban agriculture as well as the promotion of urban agriculture. It investigates the options of improved marketing, new branches of production and cooperation possibilities between the city administration and farmers (see PlannSinn in Stadt Wien (Hg.), 2005a).

The Austrian agro-environmental program, ÖPUL 2000, supports the farmers with the advancement of environmentally friendly production methods. Among other things, we find a 'groundwater care program' and the previously mentioned programs with a contract nature such as the 'habitat field' and others. One goal is agriculture in the service of nature protection where all the partners involved profit: the farmers, the citizens, the endangered plants and animals.

Besides the programs for agriculture in this part of the green belt, there is another idea of a 'Cultural Landscape Park Marchfeld'. The value for tourists should increase and the newly restored *Schloß Hof* or 'Hof Castle' in Lower Austria, near the Slovakian border, should become a main attraction in this context.

A development concept for the northeast surroundings of Vienna, a by-product of the strategic environmental impact assessment of the planned northeast motorway by-pass, is currently being elaborated. Here, the emphasis lies on agricultural development. There are considerations of new landscape types such as a 'pond landscape' for recreational purposes in which agricultural use is excluded.

#### *Donauraum (Danube Zone)*

The settlement history of Vienna is closely related to the development of the Danube and the alteration in the river landscape. At the 'Viennese Gate' between Leopoldsdorf and Bisamberg, as the natural gate and border to the Viennese basin, the Danube reaches the urban space and leaves it again after 21km in the southeast in the wetlands of the National Park Lobau. The many floods, inundations and channel

regulations over the centuries have determined the development of today's differentiation into the Danube Channel, the actual Danube stream, the new Danube and the Old Danube. This entire river area forms one of the most important close-to-the-city recreational landscapes in Vienna. The Danube Island was developed in the course of the last Danube regulation in the 1970s. Up to 200,000 visitors visit the Danube Island on beautiful summer days: swimming, sunbathing, walking, jogging, playing, skating, rowing, or doing something else. The Danube Island Festival at the end of June is a three-day festival which attracts more than 2 million visitors. Vienna and Lower Austria declared the water dominated landscape (*Aulandschaft*) in the south of Vienna along the Danube towards the Slovakian border as a national park in October 1996. In 1997, the IUCN recognized the 'Donauauen' National Park according to the criteria of the category II as a protected area for conservation and recreation purpose.

Important objectives for the development are the promotion and preservation of the area as a close-to-nature and highly valuable landscape of national and international importance including the opening of the area for the purposes of education, recreation, science and research (cf. Stadtentwicklung Wien (Hg.), 2001).

In addition to flood protection, the 2000 'Vienna Danube Zone Structure Plan' particularly concentrates on aspects of recreation along the Danube area and its improved accessibility and unrestricted passage. The Danube area takes on two important tasks within the green belt. It belongs to the most important local recreation areas inside Vienna with a large offer of activities in, at, and on the water and, as a national park, simultaneously represents one of the most interesting habitats for animal and plant species in the southeast of the city.

At present, a motorway circuit around Vienna is being planned and construction is already completed in the south. In the Danube area, a tunnel is under discussion as the only alternative to preserve the devoted use as a national park. This solution was the result of a strategic environmental impact assessment. The effects on the National Park 'Donauauen' and the possible development of the green belt in the northeast of Vienna are being discussed. The completion of the motor circuit can result in a further carving into and/or reduction of the remaining areas which are applicable for the advancement of the green belt in the northeast of the city.

#### *Terrassenlandschaft (Terrace Landscape in the South of Vienna)*

The terrace landscapes in the south of Vienna include the Goldberg, the Laaerberg and the Wienerberg, all deposited by the *Urdonau* (the original course of the Danube in the south), which, over the centuries, were covered with a fertile loess soil layer. Clay excavation and viticulture were the principal forms of development in these areas. Today, there is a recreational landscape with ponds and hiking paths framed by the settlements of the urban extension in the south of Vienna. For the densely populated southern quarters of Vienna, the Wienerberg and Laaerberg belong to the most important local recreation areas.

For the improvement of the functionality of the terrace landscape in the south,

some single projects were developed in the course of the years: the afforestation measures on the Laaerberg in the 1950s, the Viennese International Horticultural Exhibition in 1974 for the development of the Oberlaa Spa Park – WIG 74, the landscape concept for the Wienerberg in 1983, and the reorganisation of the waste dumps at Wienerberg West in 1995.

As urban development is particularly intensive here, the green islands and the combination of green patches are particularly important. The green course of the Liesingtal is an important liaison in the green belt of Vienna. The river Liesing, until then canalised in concrete, started to be reopened in 1992 as a pilot project in the context of the EU-LIFE program (Goldschmied and Schmid, 2006; Birli, 2006). A goal is to achieve the 'maximum ecological potential' for a 'heavily modified water body' as demanded by the EU water framework directive of 2000 (Breiling, 2006).

Among other things, that means an improvement of the water quality to grade II of the sapro-biological system and creation of new habitats for priority species (see European Union, 1992) for the Liesingtal. Current projects, besides the ecological restoration of the Liesing River and its surrounding landscape, include improved access for pedestrians and cyclists to use the area for recreational purposes. An accompanying measure is the information of citizens in these relatively densely settled, primarily industrial, areas in the south of Vienna. Information is displayed in small parks, green spots or other information points.

#### **Current Activities and Future Plans to Develop the Vienna Green Belt and a Larger Scale Metropolitan Green Belt**

Today's objectives for the Vienna green belt go beyond the city borders of Vienna and are oriented on landscape, and no longer political, borders. The green belt is divided into different protection categories with particular development concepts to achieve the aims for protection, preservation and development. Very often, this is performed in cooperation with the adjacent province of Lower Austria. The nature protection law of Vienna includes the following protection categories: national park, protected area, landscape protection area, protected landscape.

Large parts of the Danube area in the southeast of Vienna are protected as the 'Nationalpark Donau Auen' and Vienna is probably the only city of a comparable size to have a share of its area in a national park. The Lainzer Tiergarten (part of the *Wienerwald*) and the Lobau (part of the Danube zone in the southeast of the city) are protected areas. The River Liesing – the combining element of the green belt in the south of Vienna – the upper part of the Lobau and parts of the Bisamberg are landscape protection areas, the Wienerberg (part of the terrace landscape in the south of the city) is a protected landscape section.

Many of the larger areas, such as the *Wienerwald* in the west, the Lobau in the southeast, Wienerberg, Laaerberg and Goldberg areas in the south and the Bisamberg in the north, are secured under particular protection categories in the Viennese building ordinance as a part of the master plan of Vienna. The most important



protection categories are: protected area forest and meadow belt, Sww, and the supplementary category SwwL (Wood and Meadow Belt, Protected Agricultural Area), category L (Agricultural land) and as park protected areas, SPK (Protected park zone).

Some of the areas of the green belt are additionally protected by the so-called NATURA 2000 directive of the European Union for the protection of natural habitats and endogenous species: the National Park Donau-Auen (Viennese part), the protected area Lainzer Tiergarten, the landscape protection area Liesing and all parts of the Bisamberg that are under landscape protection.

In the Viennese species and habitat program – ‘nature network’ nature protection guidelines have been developed for individual districts of Vienna. Here, one protects and/or promotes rare habitats in particular areas of the green belt with concrete projects of primarily important animal and plant types. A goal is to increase biodiversity and link biotopes and promote the nature experience of the city dweller inside Stadt Wien, Geschäftsgruppe Umwelt, MA 22 (Hg.) (2002).

At present, everywhere in the European Union, the water framework directive has to be implemented. The ecological restoration of the River Liesing was undertaken to fulfil the objectives the water framework directive.

### Future Perspectives for the Vienna Green Belt

The ‘green belt’ project to be regarded as an attempt of a large-scale open space planning exercise to secure the existing qualities in Vienna. Open spaces are regarded as an important feature of urban development where they take on a role of mediation between the city and nature. Three strategies contributed to the situation today. First, the unification of single green areas to larger ones with a higher protection status was aimed at in recent decades. Second, the purchase of new land by the city was very important. The ‘1,000 hectare program’ of the Vienna town council between 1994 and 1995, which was, in particular, established to increase and develop the Vienna green belt, was an important step towards safeguarding and altering the green belt. Third, the improvement of second-class open spaces to first-class green recreation areas as is currently the case with the River Liesing.

The development of the individual landscape areas takes place in the context of many individual measures and under various names and programs. Depending upon the landscape area – as we described above – different cooperation agreements and financing models are needed and also partly established. The green belt is a common frame for the remaining fragments that are not, or not sufficiently, well integrated into urban planning and where single areas do not relate to each other. In meetings, publications and discussions to celebrate the 100 year anniversary of the establishment of the Vienna green belt in 2005, the people involved repeatedly stressed the privilege of Vienna with its five landscapes described above. There is a hiking pass around the green belt of Vienna called *Rundumadum*. Throughout the year, walking tours were organised along particular sectors to increase awareness

and promote the green belt, with the participation of prominent persons along with the resident population (cf. Stadt Wien, Geschäftsgruppe Umwelt, MA 22 (Hg.), 2005). However, at the latest, this showed that the green belt is not complete. In some places, in particular in the south in the 23rd district Liesing and in the northeast in parts of the 21st and 22nd districts called Floridsdorf and Donaustadt, improvements are necessary as the green belt is partly missing or, to some degree, too narrow. Besides closing and extending the green belt on the outskirts of Vienna, it has to be complemented within the boundaries of the city. The existing green areas within the city are understood as green patches and relate to the green belt. However, unlike Hamburg, the German partner town of Vienna, where we no longer find a single green belt, but a green net, Vienna has not yet developed instruments to consider such a development with connected green spaces in urban planning (Fachamt für Landschaftsplanung Hamburg (Hg), 1997). This may become a challenge for the coming years.

In the south and northeast of the city, the current urban development of Vienna has set different priorities from the green belt. Here, residential, manufacturing and industrial development receives the highest priority. The traffic planning with a motorway circuit around the south and northeast part of the city creates new opportunities for additional large-scale project development. South of Vienna, there is the largest shopping center in Europe, the ‘Shopping City Süd’ and competing centres are planned in the vicinity of, or even inside, the borders of Vienna. This is in strong conflict with the aim of strengthening the Vienna green belt. On the other hand, the most expensive variant of the motor circuit under the Lobau and Danube was recently approved by the town council and tempered the conflict over the motor circuit with the Lobau area.

The expansion of the green belt into the adjacent regions of Lower Austria is an expressed aim of the town development plan of 2005 (STEP 2005) (Stadt Wien (Hg.), 2005b). There are more opportunities to protect and alter the value of the landscapes of the Vienna green belt in an ensemble with the neighbouring municipalities. The political borders between the provinces should become insignificant for planning considerations. A goal is to regard the green belt regionally and use it together with the adjacent municipalities of Lower Austria in order to gain a maximum of synergetic potential for protecting the landscapes. In the west, there is already a common development of the green belt between Vienna and Lower Austria and an established biosphere park *Wienerwald*. The topographic conditions – the *Wienerwald* is the eastern starting point of the Alps – favoured this cooperation from the very beginning. In particular, towards the northeast and southeast, agriculture is the prime use of the greenbelt and was also highlighted in the Agricultural Development Plan (Stadt Wien (Hg.), 2004). A main reason for the recent increased attention to urban agriculture is the trend to supply fresh and healthy food locally, combined with its value as an inexpensive recreational activity. The concern in Vienna is probably higher than in most other European cities as Vienna has a distinct strategy for agriculture in the current town development plan STEP 2005, while many urban planning divisions in other European cities do not yet consider agriculture as their task of interest (Lohrberg, 2001).



In the north and the east, the concepts of the twin city region Vienna–Bratislava and CENTROPE region, have been under discussion, starting with the fall of the Iron Curtain in 1991 and, in particular, since the accession of Slovakia to the European Union in 2004. The distance Vienna–Bratislava is only 40km and nowhere in the world are two national capitals situated so close together. A goal is for an extended cooperation within a European region. In the twin city region we find 3.4 million inhabitants. The direct connection is the Danube. There are two development axes north and south of the Danube. The National Park *Donauauen* between these two cities is regarded as a source for a high quality of life. The national park connects the two cities and pulls the green belt along the river into Slovakia. Bratislava has qualities similar to Vienna but on a smaller scale. It is like a mirror of Vienna, where east and west are mirrored. The Carpathian Mountains rise to the northeast of Bratislava and the south is an open landscape. Many of the concepts and experiences of Vienna could be used to develop the green belt in a twin city approach.

The CENTROPE region goes beyond the twin city region and is strategically located in 'new Europe'. It is even larger than the capitals Vienna and Bratislava with their surroundings and four countries contribute to the region. The CENTROPE region includes the Czech city Brno and the Hungarian town Győr with their surroundings and represents one of the continent's most dynamic economic regions with more than 5 million inhabitants. Economic cooperation should be multiplied here. In particular, the growth of tourism along the Danube with its tributary March/Morava and the Neusiedler See/Fertöd Lake region is considered a possibility. CENTROPE should also be a platform for small-scale initiatives coming from the region. The urban green of the cities should be linked with green corridors including many of the existing cultural and natural treasures within this region and complement the new developments going on just now.

### Conclusions

The development of the Vienna green belt has not finished. Major aims were established in closing the green belt while unification with the green of the inner city remains a target for the future. Larger visions of a Vienna green belt, or even a larger regional belt, are an important stimulus to preserving the surrounding landscapes and developing the green belt in an international context for the larger region. On the other hand, we have experienced an acceleration in urban development since the fall of the Iron Curtain and, in particular, since the accession of the Czech Republic, Slovakia and Hungary to the EU in 2004; all of them less than 100km away. What was not possible for decades is now happening and is likely to continue for some time. Major conflicting projects, like the enlargement of the traffic system, new shopping centres, settlements and new industrial zones, challenge the ideas of a larger green belt on the local Viennese level and on the international level of a larger region. Development initiatives have to be combined in such a way that the growth of urban green can continue, at least proportionally, to what was the case in the past.

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