CITY OF THE TREES

Turku – the arboretum of the future
The main objective of the Urban Tree Policy is to raise awareness and ensure the well-being and value of trees.

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Preface

Trees are a special characteristic of the urban environment that have to be taken into account in the measures of all administrative branches across the board. We are all responsible for ensuring the well-being of trees, from the different administrative branches of the city to the other bodies operating in the city.

The Urban Tree Policy is the city’s shared mission, the main objective of which is to raise awareness and ensure the well-being and value of trees. The policy examines trees from the perspectives of cultural history, the cityscape, diversity, tree species, building, maintenance, the monetary value of property, and benefits. The policy is updated in its entirety every 15 years.

The policy pertains to the over 30,000 street and park trees in built green areas that are owned by the City of Turku and under the responsibility of the Municipal Property Corporation. The policy does not pertain to forests, afforestation or unzoned areas. It also does not cover trees owned or managed by other parties on plots.

The Urban Tree Policy can be utilised by all residents of Turku, even though the policy is primarily intended to be used by different administrative branches in town planning, planning, building and maintenance. The Urban Tree Policy will increase the appreciation for urban trees in Turku, raise awareness about their benefits and ensure the preservation of healthy planted trees in the changing urban environment.
Turku’s current tree stock and the future

At best, trees have a strong effect on the overall look of the city. Turku’s look could be described as verdant, which is thanks to the architecture as well as the large and old broad-leaved deciduous trees that stretch magnificently towards the sky.

TURKU’S CURRENT URBAN TREES
The current cityscape of Turku was greatly influenced by the Great Fire of 1827. This fire was the largest urban fire in the history of the Nordic countries, and it largely destroyed the largest city in Finland at the time. A great many of the city’s planted trees were also destroyed in the fire.

In the new town plan designed by the German architect Carl Ludvig Engel in 1827, the majority of the city’s future greenery was placed in the plots to be built as firebreak trees. For this reason, very few tree lanes and urban tree groupings were placed along the city’s public transport network. Instead, many trees were planted in the rocky hills surrounding the city centre, on the bank of the Aura River and in the surroundings of the Old Great Square and the Cathedral Square. Now, almost 200 years later, the situation can be said to be similar. The trees lining the bank of the Aura River and the parks in the old city centre are an important part of the Finnish national landscape. The bare hills have been turned into parks. Puolalanmäki, Vartiovuori, Samppalinna Hill and Sports Park are some of the most important public green areas in Turku and also some of the most valuable built parks nationally.

SOME OF THE OLD TREES ON PLOTS still grow in current street spaces. These include Julin’s maple tree (Eerikinkatu 4) and the ash trees located at Eerikinkatu 31 and Puolalankatu 3. The aim is to preserve these trees in the street landscape for as long as possible. They are part of the living cultural history of Turku. The tree species in the current centre of Turku reflect the city’s development history.

THE BUILT GREEN AREAS IN TURKU house a total of 33,637 trees as of 1 January 2016. Of this number, 27,330 are broad-leaved trees and 6,307 are coniferous trees. A total of 11,538 are street trees growing along the streets, with 22,099 park trees located in parks. These numbers do not include private trees.
Cultural history and the cityscape

The trees lining the river banks created the heart of Turku

The urban structure of the centre of Turku is based on a town plan drafted after the Great Fire of 1827, the so-called Engel town plan. A grid plan was the customary method for arranging urban settlements at the time. What was new, however, was the amount of vegetation planned for the city in the town plan and building code and the spaciousness with which the city was built.

Goal

The cultural and historic environment is kept alive and trees are a part of the identity of Turku and its residents. Urban trees highlight the distinctive characteristics of different areas.

Means

• Taking care of protected and scenically important tree groups and lanes for as long as possible
• Preparing renewal plans proactively
• The original plan will only be changed on reasonable grounds
• Restoring and maintaining valuable open landscapes and views
• Avoiding complementary construction in historic parks
• Treasuring tree lanes and restoring a lane in another place if necessary
• Avoiding the placement of electrical cabinets, billboards or other structures in old tree groupings and lanes

Benefits

• Nationally important historic green areas are preserved
• The residents of Turku appreciate their own environment
• The cultural and historic environment with its planted trees provides comfort for residents and tourists
• Trees are an essential part of the Turku National Urban Park

Complementary construction poses new challenges for the trees in the grid area that are important in terms of cultural history and the cityscape.
Diversity

Good conditions for trees and many organisms

It is only in recent years that we have understood that well-maintained parks may play an important role in providing a habitat to a great many organisms. The survival of the species can be facilitated with a good planting plan that entails planting young trees of the same species near old trees sufficiently well in advance. This provides the species of organisms with an opportunity to settle down into a new habitat before the old trees are removed.

Several threatened species are known to live in the parks in Turku, but sightings are based on sporadic encounters. In order for the diversity of species to be taken into account in the maintenance instructions for parks, more research must first be carried out.

Goal

The benefits and disadvantages of diversity are understood. The biodiversity of the green areas in Turku is preserved.

Means

- Trees act as an ecological green corridor in the densifying urban environment
- Preserving decaying and hollow trees where possible
- Taking the range of fungal, insect and mammalian species into account when deciding on landscape permits
- Leaving felled tree trunks on the ground, but not in maintained lawn areas
- Informing people about the purpose and benefits of tree trunks left on the ground with information boards
- Monitoring the status of invasive species at a national and international level

Benefits

- Genetic diversity is preserved
- Risk management with regard to diseases and pests is improved
- Biodiversity increases the comfort of residents
- The living conditions of species living in decaying trees is ensured
- Cost savings in the transport of felled trees

JARMO LAINE
Environmental Protection Inspector, Environmental Protection

Read more: www.turku.fi/kaupunkipuulinjaus (in Finnish)
Range of tree species

Treasuring old trees, trying out new ones

Turku’s current urban tree stock will face new challenges in the future. Climate change is making the conditions in cities more challenging for trees while the urban structure becomes denser. The urban tree stock must keep up with the times and react to new challenges and threats in an anticipatory manner. For this reason, the decision-makers in Turku have decided to purposefully expand the range of tree species.
Planning

Even individual trees play an important role in a city

The large trees in the city centre are a distinctive and important part of the built cultural environment of Turku. Many of the trees date back to a period when most buildings in Turku were still wooden, which makes these trees older than the building stock in numerous districts. The urban trees are our shared treasure, which must be taken into account in all town planning and construction.

“It is our duty to treasure this cultural heritage that is characteristic of Turku. It is difficult to replace the scenic value of a large tree. Even if we planted new trees in their place, we would never live to see them fully grown.”

JOHANNA SALMEla, Landscape Designer, Urban Planning
Read more: www.turku.fi/kaupunkipuulinjaus (in Finnish)

Goal
To create a comfortable Turku for everyone with good landscape planning and high-quality urban landscaping.

Means
• Cooperation between the experts of different administrative branches
• Taking the forests surrounding plots into account in town planning, in addition to considering the amount of space reserved for planted trees both above and under ground
• Carrying out complementary construction in such a way that as many large trees as possible are preserved
• In the building of the cityscape, taking into account any unpaved areas built on ground so that trees with the potential to grow large can be planted
• Channelling storm water to be utilised by urban trees by favouring permeable surface materials, depressions and other natural storm water solutions
• Choosing the tree species/variety that is best suited for the conditions

Benefits
• In a dense urban environment, even individual trees play an important role with regard to the cityscape and the comfort of the residential environment
• Plantings can help solve financial issues related to storm water problems
• Good planning and open cooperation will provide savings in maintenance costs in the future
The development of urban soils and tree planting technology is continuous and important work. Our experiences with structural soils have been relatively positive thus far. We continue to develop the technology and work methods.”

AKI MÄNNISTÖ, Tree Specialist, Municipal Property Corporation
Read more: www.turku.fi/kaupunkipuulinjaus (in Finnish)

Building

Planting with latest technology

Successful planting of trees in cities is very challenging nowadays. Planting trees in key areas often requires that demanding underground structures are built to arrange adequate seedbeds. Together with Helsinki, Turku has been one of the first cities in Finland to utilise structural soil.

Goal

In the construction of urban soils for trees, Turku will develop the technology related to structural soils and load-bearing soil cells. The city will also actively follow the trends in the field. Trees are planted in a technically correct way and with high-quality plants.

Means

• Taking trees into account and protecting them during the construction of buildings and municipal infrastructure
• Systematically applying and trying out different technical solutions involving structural soil, load-bearing root bridges and high-quality plants
• Making plant procurements in accordance with the plant quality requirements for broad-leaved trees prepared by the Finnish Association of Landscape Industries and, with regard to coniferous trees, in accordance with the valid InfraRYL quality requirements
• Implementing urban tree soils and carrying out construction in accordance with valid InfraRYL quality requirements
• Choosing contractors who meet the qualification requirements to be in charge of planting trees, and monitoring the quality of work
• Ensuring that the trees start to grow with intensive care during the first two years

Benefits

• Urban soil solutions and high-quality planting material increase the lifespan of trees and help avoid incurring repair debt
• The utilisation of storm water in green areas reduces maintenance costs and provides affordable storm water solutions
Successful early growth makes tree care easy

The goal in tree care is to keep the maintenance of urban trees safe, viable and as long term as possible. In accordance with the goal, the ecosystem services provided by urban trees will be ensured in full, for as long as possible, while simultaneously maintaining a good and aesthetic environment.

The care of urban trees is comprehensive work. A new and young planted tree plant is an investment that is shaped into a long-lived urban tree of the future with the help of regular and professional further care.

AKI MÄNNISTÖ
Tree Specialist
Municipal Property Corporation

Goal
With anticipatory, regular and long-term care, the safety and vitality of trees can be ensured for as long as possible.

Means
• Ensuring the professional capability of contractors carrying out tree care with the help of qualification and quality requirements in contract documents
• Standardising the approaches taken in tree care in property units and public areas
• Investing in the care of young planted trees as early as possible
• Monitoring the general condition of trees regularly and saving the information in the tree register
• Assessing special issues related to old trees on a case-by-case basis, taking scenic, ecological, cultural, historic and financial factors into account
• Removing seedlings and healthy urban trees from the vicinity of buildings and from green areas when it is reasonable due to building maintenance, the cityscape or historic reasons
• In principle, the aim is to plant new trees in place of felled ones
• Investing in planting also means committing to the costs resulting from their future care

Benefits
• This ensures a comfortable, aesthetic and safe environment
• This ensures a tree stock that is as vibrant and has as long a lifespan as possible
• The good condition of buildings is ensured
• Care maximises the ecosystem services provided by trees

Read more:
www.turku.fi/kaupunkipuulinjaus (in Finnish)
Permits

New plants to replace felled trees

The felling of trees is subject to a permit in areas included in the town plan. In Turku, landscape permits for felling trees are regulated by Building Control, a section under the Environmental Division, where matters related to tree felling are the responsibility of a horticulturist. When assessing the need for a felling permit, the change in the landscape is always assessed.

"A tree is an investment, and even if you only look at it in terms of cost, it is sensible to keep the tree healthy for as long as possible. Increasing our knowledge of trees is of key importance if we want to promote the well-being of trees."

ANNE HUTTUNEN, Horticulturist, Building Control

Read more: www.turku.fi/kaupunkipuulinjaus (in Finnish)

Goal

The preservation of the living conditions of trees is taken into account in the granting of excavation and general area usage permits. Clear methods ensure a smooth permit process.

Means

• The updated Phappuopas (Yard Tree Guidelines, Building Control 2016) and acting accordingly
• The trees to be preserved or removed are recorded in the plan
• The trees to be preserved or removed are included in the building permit
• Looking for alternative routes when granting excavation and general area usage permits
• Securing sufficient resources for the control of excavation, general area usage and fencing permits

Benefits

• Secures the living conditions of planted trees and the preservation of property
• A smooth process ensures the functionality of the permit practices and prevents residents and contractors from taking unauthorised actions
Property management

All of the 34,000 trees in Turku are listed in the register

In practice, the care of the city’s trees, as well as the related investments and development, are impossible if the management of the entire public tree stock is not up to date. In Turku, the development of a new street and park tree register began in 2005, and the very last site was completed at the end of 2015.

The main purpose of the tree register is the planning and ordering of tree care work sites as regional contract work related to the maintenance of street and green areas. Through the register, we can comprehensively obtain all the necessary information on the trees being cared for.”

AKI MÄNNISTÖ
Tree Specialist
Municipal Property Corporation

Goal
An up-to-date property management system comprehensively ensures new investments and repair investments for urban trees, in addition to ensuring their care. It also helps create a model of the ecosystem services provided by the trees.

Means
• Ensuring sufficient resources for maintaining the tree register
• Keeping the tree register up to date
• Entering any structural soil sites, special structures, etc. in the tree register

Benefits
• The information in the tree register can be applied in multidisciplinary cooperation between different administrative branches
• The information in the tree register provides assistance in investment projects, from town planning to detailed planning
• The information is used in regional maintenance contracts to order tree care, and it therefore makes it possible to allocate resources correctly
• The up-to-date register makes it possible to use the i-Tree software

Lue lisää: www.turku.fi/kaupungipuulinjaus (in Finnish)