



Urban Nature Plan

safeguarding biodiversity and promoting the recreational use of nature in Espoo

Nature-wise Espoo 5/2024

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Foreword

The Urban Nature Plan is a publication that the European Commission recommends cities to prepare on the basis of the EU biodiversity strategy. Preparing such a publication will strengthen biodiversity, the recreational use of nature and ecosystem services provided by green areas in cities. The voluntary plan serves as communications material for other cities, the international public and the European Commission about the impressive nature work performed by Espoo.

Espoo has long sought to safeguard biodiversity, the high quality of urban green elements and ecosystem services through various programmes and plans. That is why Espoo's Urban Nature Plan describes such practices and measures that are included in already completed action plans. Many of these policies and measures are only just beginning to be implemented or are at a more detailed planning stage, so they are well suited to being included in the Urban Nature Plan referred to by the EU.

The preparation of Espoo's Urban Nature Plan has been the responsibility of a team of experts from the Urban Environment Sector. The publication has been compiled by Espoo Environmental Protection.

The publication has been prepared as part of the Nature-wise Espoo work set by the City Council. The results and materials of the Urban Nature Plan will be utilised in the Nature-wise Espoo work on the path towards no net loss of biodiversity in Espoo.

Espoo, 29/2/2024

Jukka Mäkelä the Mayor of Espoo

Summary

Espoo is one of the fastest growing cities in Finland. Rapid population growth requires the establishment of new residential areas and making the current ones denser through infill development. At the same time, this means that construction is being carried out in local recreational forests and the green area network is shrinking. In the Espoo story, i.e. the city's strategy, Espoo is committed to ensuring that urban development maintains, revives and increases biodiversity.

The Urban Nature Plan describes policies and practices through which Espoo supports the high quality of green areas, ecological connectivity, ecosystem services and recreational use of nature. For such a large city, Espoo still has exceptionally much diverse nature that provides Espoo residents with a wide range of ecosystem services. In Espoo, city planning secures the most important natural values, areas central to biodiversity and sufficient recreational areas. The new master plan prepared by Espoo is an important tool for this.

Espoo protects biodiversity by, for example, establishing new nature reserves, combatting invasive species, and establishing and managing meadows. By managing the forests owned by the city, Espoo is securing the biodiversity of forest nature and promoting the sustainable recreational use of forests.

Espoo restores lakes and streams whose natural condition has deteriorated or that have become eutrophic. Through the Baltic Sea Challenge, Espoo contributes to the efforts to protect our sea. The city offers Espoo residents the opportunity to take responsibility for the management of their local environment and, for example, to implement restoration measures to improve the state of water bodies. Participatory planning is part of Espoo's urban planning, green area planning and nature management planning.

In order to achieve no net loss of biodiversity, Espoo has launched the project Nature-wise Espoo. The work will result in a roadmap that defines Espoo's objectives, operating principles and development solutions to secure biodiversity and ecosystem services. The first part of the Nature-wise Espoo roadmap will be completed in 2024.

Biodiversity in a growing city

The nature found in a man-made environment can be surprisingly diverse and rich in species. However, human activity exposes habitats and species to a wide range of disturbances. In an urban environment, in particular, the loss of habitats and the fragmentation of the ecological network due to changes in land use reduce the survival chances of species.¹ On the other hand, urban forests are often quite diverse in terms of natural values and may resemble forests in their natural state.²

The objective of the biodiversity strategy of the European Union set for 2030³ is to ensure that Europe's biodiversity will start to recover by 2030 for the benefit of people, the climate and the planet. The Espoo Story⁴, i.e. the City of Espoo's strategy, also aims to ensure that, by 2035, biodiversity will no longer be deteriorating and Espoo's urban development will have adopted an approach that protects biodiversity and revives and increases it. In addition to the biodiversity strategy of the European Union, Espoo's efforts are also guided by Finland's national biodiversity strategy⁵ and plan as well as the UN Convention on Biological Diversity⁶.

Espoo has long sought to safeguard biodiversity, the high quality of urban green elements and ecosystem services. Therefore, this publication describes such policies and practices that are already included in completed action plans and programmes and through which Espoo supports the high quality of green areas, ecological connectivity, ecosystem services and the recreational use of nature. The publication is a clear presentation of the current state of biodiversity and ecosystem services in Espoo and summarises the actions implemented and planned by the city.

Biodiversity and the loss of biodiversity

Biodiversity refers to all the diversity and variation that occurs in nature. The complex relationships between species and their habitats safeguard the conditions for life on Earth.

Biodiversity is...



inherent diversity within a species, which allows the species to adapt to changes in the environment.



the number of different species in a habitat, which indicates how rich and variable the environment is.



diversity of different biotopes and habitats.

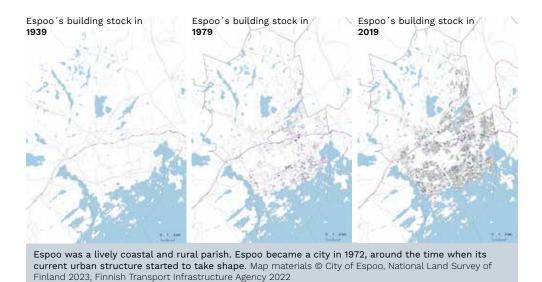
Different species have adapted to different habitats, which means that they are encountered in places such as groves and rocky meadows – the loss of one habitat cannot be replaced by another.

Human activity threatens the biodiversity in many ways. The deterioration of diversity found in nature is called biodiversity loss. It is caused by things such as change in land use, utilisation of natural resources, environmental pollution, climate change and invasive species.

The distinctive features of Espoo's urban structure are its densely built and lively urban centres, the residential areas surrounding them and the region's extensive green area network. Espoo is one of the fastest growing cities in Finland⁸. Rapid population growth requires the establishment of new residential areas and making the current ones denser through infill development. In Espoo, population growth is mainly directed to existing urban centres and residential areas with good public transport connections.

Pressure to construct more creates pressure to destroy local forests and reduce the green area network. In Espoo, there are relatively few former industrial areas and unbuilt plots to which new construction can be directed, as a result of which construction is being directed to existing green areas. Compared to other European cities, the number of green spaces in Nordic cities is quite high in relation to the number of inhabitants. Espoo's polycentric urban structure also supports having green areas located near residents.

Proximity to nature is one of the city's most important elements of attraction for Espoo residents. Espoo residents appreciate the city's diverse nature and the green areas are places of well-being and reassurance for them. However, Espoo residents are concerned about the preservation of local nature as the city grows.



Nature-wise Espoo

In the Espoo story, i.e. the city's strategy, Espoo is committed to ensuring that urban development maintains, revives and increases biodiversity. In addition to this, the city aims to achieve a state of no net loss by 2035. It is a state where human activity does not decrease biodiversity or the benefits of nature to humans.



Luontoviisas Espoo

The Nature-wise Espoo project, established to achieve this goal, explores how Espoo can increasingly safeguard biodiversity. The work will result in a roadmap to no net loss of biodiversity, which defines biodiversity preservation goals and actions. As the city grows and the pressure of construction increases, the roadmap will be used to develop practices on how to better take natural values into account in all planning and how to achieve a situation where biodiversity as a whole does not deteriorate.

No net loss of biodiversity

No net loss of biodiversity is a state in which the loss of natural values and harm caused to nature by human activity is minimised so that the total state of natural values does not deteriorate. No net loss of biodiversity is based on a mitigation hierarchy in which the first action is to always avoid causing harm to the environment, and then the following actions are to mitigate the harm and to restore the natural values on site. In an urban environment, this often means that valuable natural sites are excluded from construction or, for example, some green areas or ecological connections are maintained in the area of construction.

The last option in the mitigation hierarchy is to compensate for the remaining harm to nature.¹¹
In this case, the harm caused to

biodiversity by human activity

is compet by increated biodivers. In the net Conservation at the narm to nature elsewhere is compensively voluntary.

is compensated for by increasing biodiversity elsewhere. In the new Nature Conservation Act (2023), ecological compensation is voluntary for construction projects.¹²

2 Nature and ecosystem services in Espoo

For a city of its size, Espoo still has exceptionally large and diverse natural areas of great value. The largest forest areas are located in northern Espoo, but there are numerous local forests and green areas of different sizes in central and southern Espoo as well. The forests are largely spruce- and pine-dominated peaty forests and mixed forests where deciduous trees, such as birch and aspen, are also present. Espoo is located in the hemiboreal forest zone, and some groves do have hardwoods and hazels. A large part of the boglands are small swamps or hardwood swamps located in forest hollows and rock depressions. The foundation of the biosphere in Espoo is the region's rugged rocky topography and broken, varying bedrock.

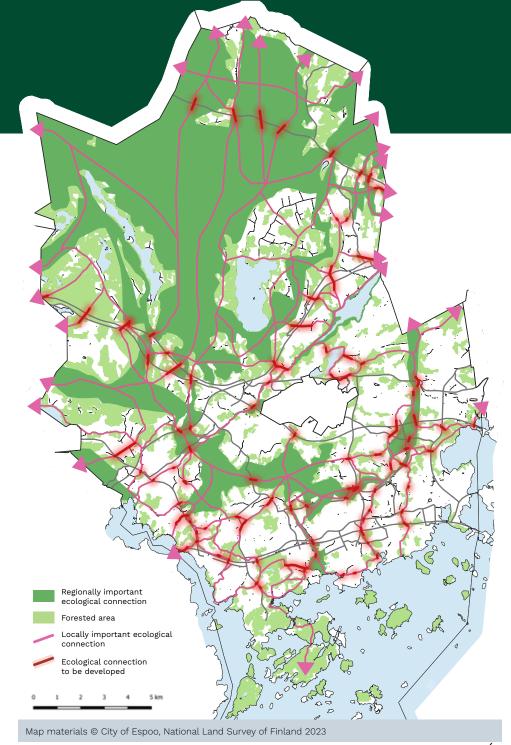
Ecological network

Nature areas, areas that are not fully in their natural state and the green connections between them form an ecological network that allows living organisms to move from one area to another¹³. Ecological connections support many species' movement and their spreading between different parts of the network.

The Espoo area has a largely functional ecological network, which connects large green areas and water areas to each other. Nature

Finnoonlaakso is part of the regionally important ecological corridor that connects the coastal areas of southern Espoo to Espoo Central Park and through it to the extensive forest areas of northern Espoo. Image: Marika Rönnberg

reserves and regionally significant natural sites form the backbone of Espoo's ecological network. The ecological network is interrupted by large roads, railways and built-up areas. In addition, many of the green connections are narrow and susceptible to disturbances. Espoo's nature is part of the Helsinki Metropolitan Area's regionally valuable green area network. Continuing green connections even outside city borders is vital for biodiversity.



The extensive forest areas in northern Espoo are a mosaic of forests on rocky terrains, peaty forests and wooded mires. The species in old forests, lush meadows and verdant valleys, as well as numerous pond species, thrive on the rocky lake uplands. Several dozens of endangered species of animals, plants and fungi are found in Nuuksio National Park.

Espoo Central Park is a nature area consisting of meadows, rocks and mires in the middle of Espoo. It is part of an important ecological connection from the sea to northern Espoo.¹⁵ The majority of the Central Park is coniferous forest rich in blueberry bushes, dotted with pine-dominated rocky ridges, lush herb-rich forests, wildwood hollows and open meadows.

The Baltic Sea and the archipelago

define the nature of southern Espoo. Espoo has 58 kilometres of Baltic Sea shoreline and 165 islands in its sea areas. Various rocky, stony and sandy beaches are found along the coast, as well as eutrophic, overgrowing reed bays. On the rugged outer island are several islets that are protected for the duration of birds' nesting seasons.

Traditional landscapes, meadows and open areas are a record of Espoo's long agricultural history. Meadows, grazing forests and pastures rich in species need continuous care to survive. Large stretches of fields in places such as Röylä are important for birds that thrive in fields. Meadow plants are favoured by many butterflies and pollinators.

Flowing waters and lakes offer many options for recreational use and significant landscape and ecological values. The largest of the region's flowing waters are the rivers Espoonjoki and Mankinjoki, in addition to which Espoo boasts countless streams, ranging from natural spring tributaries to small brown-water streams and urban streams. With the exception of the Nuuksio lake uplands, many of the lakes in Espoo have become eutrophic due to human activity.

In the urban areas of Southern Espoo, green areas are mainly urban forests and parks, which are important recreational areas for the local residents. Along the coast are several wetlands with valuable birdlife.

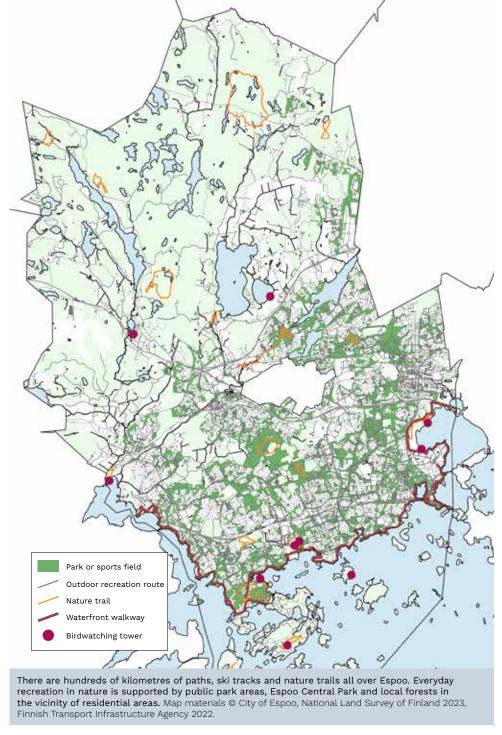
Green areas and recreational services

Espoo's numerous forests and green areas offer Espoo residents a wide range of nature benefits and recreational options. The main body of the recreation area network consists of the expansive outdoor areas of northern Espoo, Espoo Central Park and the Rantaraitti waterfront walkway. In addition, each urban centre has smaller recreational areas of less than 20 hectares. Outdoor recreation routes connect the urban centres of Espoo to each other.

In Espoo, the sea and the archipelago have high recreational value. In the summer, there is a boat connection to islands suitable for outdoor recreation, and the islands also have hiking structures and moorings for boats. The Rantaraitti waterfront walkway is a unique outdoor recreation path that follows Espoo's seashore, covering almost the entire shoreline from Laajalahti to Espoonlahti. Along the walkway are several outdoor exercise facilities, cafés and beaches suitable for swimming, as well as benches for resting and admiring the scenery.

Recreational services, such as playgrounds and sports facilities, are most common in the southern and central parts of Espoo. Nature exercise services provided by the city include, for example, nature trails, beaches suitable for swimming and disc golf courses, as well as ski tracks maintained in winter. Almost every Espoo resident lives within 300 metres of the nearest green recreation area. There are local exercise facilities within walking distance in almost all residential areas of Espoo.



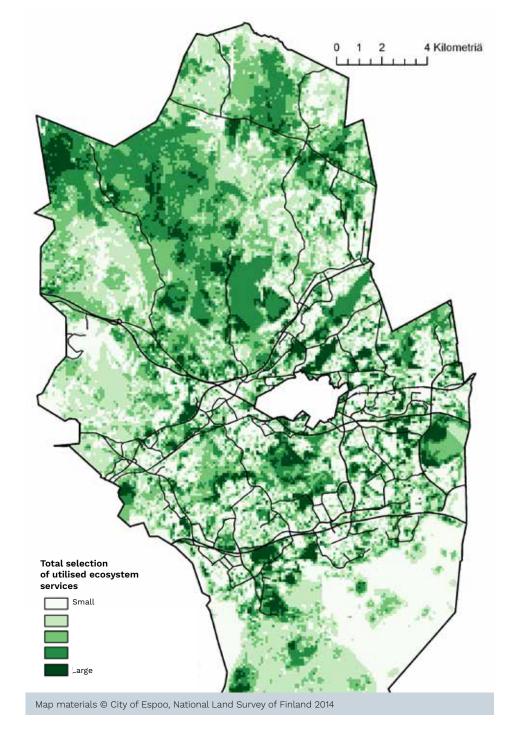


Nature benefits in the city structure of Espoo

The blue-green structure directly and indirectly provides people with various ecosystem services, that is, nature benefits. In a survey conducted in 2018, Espoo identified entities providing ecosystem services and developed a simple method for surveying ecosystem services. In **the Ecosystem Service Analysis**, the value of ecosystem services was determined on the basis of whether there are potential users, i.e. demand, for the service in the area. Based on the analysis, Espoo's network-like and polycentric urban structure supports well the matching of the supply and demand of ecosystem services and thus promotes the benefits that residents get from nature.

Within the city structure, the most important ecosystem services are local recreation services and many regulatory and maintenance services that affect the health and safety of the living environment. These include, for example, noise abatement, water circulation regulation and the cooling effect of vegetation. These services cannot be provided outside the urban structure, far from the population. Ecosystem services that benefit a wider area include large forest areas, urban forests and bodies of water. These areas offer regional recreational services, regulate water circulation and absorb carbon.

Ecosystem services ECOSYSTEM SERVICES Bio-Human The intangible and diversity well-being Supporting tangible benefits to services e.g. health, people arising from the safety, social structure and operations e.g. soil of ecosystems¹⁷. Such water benefits include circulation, photosynthesis the impact that the Regulatory recreational use of nature services has on people's health and mood, and more tangible benefits such as the absorption of stormwater, pollination Cultural as well as berries and services mushrooms picked from e.g. landscape forests. cultural heritage



3 Safeguarding biodiversity and promoting the recreational use of nature in Espoo

Espoo aims to develop as a pleasant, safe and nature-oriented city. Preserving biodiversity and enabling the recreational use of nature contribute to achieving this goal. Although the city is growing at a rapid pace, urban development and the efforts to promote biodiversity will be reconciled so that biodiversity is safeguarded, revived and even increased.



Saarnilaakso is classified as a landscape meadow. Managing the meadow aims to secure its biodiversity and the surrounding open cultural landscape.

3.1. Protecting biodiversity

In Espoo, nature conservation is based on comprehensive surveys, monitoring and assessments of the state of the environment and related aspects, such as the habitats of endangered species. In the coming years, Espoo will make proposals for the establishment of new nature reserves so that valuable natural sites are preserved for future generations.

Espoo combats invasive species and increases diversity in public green areas by, for example, establishing meadows and favouring domestic, pollinator-friendly plant species. In densely built urban areas, having even small green spaces makes the environment more pleasant. Small green structures are also important for biodiversity. For example, a park area can result in more decaying wood or species that thrive in shrubs.



The Himalayan balsam is an invasive species that spreads along streams and rivers in particular. In Espoo, its spreading is being prevented as part of maintenance work and volunteer work. Image: Venla Vuosalmi

Programmes and plans guiding the development of urban green in Espoo Nature conservation measures 2021–2030

In the work for the nature conservation measures, Espoo investigated and defined ways to safeguard existing natural values and to supplement the nature conservation network, both regionally and qualitatively. The nature conservation measures package consists of three parts:

- 1. **Ecological Network's Current State Survey**, which forms an overview of the state of Espoo's nature and ecological network. The report presents nature's value concentrations and examines the quality of the city's ecological connections.
- 2. Espoo's practices for the promotion of biodiversity is a report, which collects and presents Espoo's existing and developing practices for taking biodiversity into account and promoting it.
- 3. The Action Programme for Biodiversity 2021–2030, which presents a plan to complement Espoo's nature conservation network. In addition, the programme presents other natural sites that are significant from the perspective of biodiversity and the ecological network and which should be protected.

The Action Programme for Biodiversity presents a total of 84 sites, the securing of which complements Espoo's nature conservation network and maintains biodiversity. These sites include regionally and locally valuable nature areas, ecological connections and support areas, and sites that can best be protected by managing them. Sites that have been proposed for conservation are located on land owned by both the City of Espoo and other land owners.

Class Number, total area (hectare)	Definition	Means with which Espoo secures the natural values
Nature reserves 26 pcs, 392 ha	Areas for which a nature reserve is proposed to be established	Establishment of a permanent nature reserve
Natural value parks 4 pcs, 1,094.2 ha	Key entities combining recreational and natural values	Decision to found the city. Delimitations and the preconditions for land use are specified in planning.
Regional valuable sites 16 pcs, 685.9 ha	An area of key natural value that is also of regional importance	Plan symbols and regulations, nature management measures and control of recreational use
Local valuable sites 41 pcs, 319.4 ha	An area of key natural value that is also of local importance	
Ecological connection area and supporting area 8 pcs, 239.2 ha	Areas supporting and connecting valuable nature areas that are important for maintaining ecological connectivity	
Managed sites 19 pcs, 16.7 ha	Sites whose natural values are protected with nature management measures that promote biodiversity	Planning and implementation of nature management
Other sites worth conserving 30 pcs, 540 ha	Sites of other landowners for which the voluntary establishment of a nature reserve is proposed	Communications to landowners
Other management sites 8 pcs, 5.4 ha	Sites of other landowners for which voluntary nature management measures are proposed to preserve natural values	

Programmes and plans guiding the development of urban green in Espoo Espoo's action plan for meadows and open areas 2021-2031

Espoo's action plan for meadows and open areas directs their maintenance and development. The programme assesses the current state of Espoo's meadows and open areas from the perspective of. among other things, landscape values, cultural environmental values, recreational values and natural values. Based on this analysis, the programme presents a plan for the meadow network and management measures that maintain the network. With the help of the meadow network plan, land use planning is guided to preserve key meadow areas and their special characteristics.

In accordance with the action plan, Espoo will take the following measures:

- Timing of mowing and mowing techniques that affect the development of the meadow's species and the successful nesting of birds on the ground
- Mowing waste collection that deliberately depletes the soil
- Grazing, which is a natural and effective way to manage various kinds of meadows
- Control of invasive species, preventing the spreading of invasive species
- Cultivation of landscape fields
- Monitoring of management quality and development of operating models
- Cooperation with residents and communications, which reduce customer feedback arising from a change in management classification

Programmes and plans guiding the development of urban green in Espoo Operating model for the management of Espoo's forests

and meadows

The operating model for the management of Espoo's forests and meadows is a policy on what the objective of the maintenance of Espoo's forests and meadows is and how such work will be implemented. In accordance with the operating model, recreational forests and meadows in Espoo are managed sustainably so that they are diverse, comfortable and safe. Espoo protects the natural values of forests and meadows while maintaining a diverse landscape structure typical of Espoo.

Objectives of the management of Espoo's forests and meadows:

- Forests provide diverse ecosystem services.
- The diversity of species living in forests is protected.
- Forests' capacity to withstand changes in their growing environment is strengthened.
- Valuable landscapes are managed by strengthening their characteristics.
- Residents and stakeholders can influence the processes of forest and meadow management.

The objectives recorded in the operating model serve as a basis for all nature and landscape management plans and forest work programmes prepared by the Nature Management Unit. Practical forest management guidelines are recorded in the work instructions of the operating model.

We collect information on the state of nature and the environment

Conservation of water and nature is always based on adequate information on the state of the environment and natural values. Espoo monitors the state of nature by, for example, ordering nature surveys. These surveys and reports provide up-to-date information about the city's natural values, such as endangered and protected habitats, bird species nesting in bird waters, and the habitats of directive species and endangered species.

The information collected in the nature surveys and reports is saved in the city's geographic information systems. Geographic information helps city employees interpret and utilise information on valuable natural sites in their own actions. Geographic information material open to all can be found in the city's own map service at www.kartat.espoo.fi.

The most significant reports still in use include:

- Current state of Espoo's ecological network (2021)
- Survey of endangered biotopes in Espoo (2020–2023)
- Survey of flowing waters in Espoo (2020–2021)
- Comprehensive survey of the flying squirrel in Espoo (2016)
- Current state and management instructions of protected biotopes in Espoo (2015)
- Traditional environments in Espoo (2014)
- Ecological connections and green area networks in Espoo (2014)
- Report on flowing waters in Espoo (2008)



Valuable natural sites worth conservation can be found in Espoo in both expansive forest areas as well as densely built urban environments. Therefore, measures such as planning include effort to ensure that there is extensive information available on the natural values of the area. Image: Noelle Renberg



Espoo is in many ways a pioneer in collecting, recording and utilising geographic information about the flying squirrel. When preparing nature reports, precise information about the trees used by flying squirrels is recorded using GPS meters. Image: Noelle Renberg

Several different indicators are used for monitoring and assessing biodiversity and, with these indicators, Espoo assesses the ecological status of different habitats and their development. The six largest cities in Finland have developed a uniform reporting method and indicators for monitoring¹⁸ sustainable development. In terms of biodiversity, the indicators measure the share of a municipality's forest areas and old forests, forest areas important for biodiversity, the share of nature reserves and the ecological condition of surface waters.

Some of the nature surveys and reports commissioned by Espoo are updated at certain intervals and, if the methods are kept sufficiently uniform, the surveys can produce long-term monitoring materials. For example, bird counting efforts launched in 1984 provide a lot of valuable information on the condition of Espoo's many valuable wetlands and the changes that have taken place over the decades.

We control invasive species

The spreading of invasive species is one of the greatest threats to the preservation of biodiversity. Invasive plant species spread aggressively in meadows and along streams where they displace native vegetation and affect the landscape by reducing the range of species found in it. In Espoo, the most common species currently listed as invasive by the EU or the government are the Himalayan balsam, rosa rugosa, reynoutria, giant hogweed and garden lupine.

Espoo controls the Himalayan balsam and rosa rugosa, especially in areas where they threaten to spread to valuable habitats and nature reserves. Espoo aims to eradicate all occurrences of the giant hogweed by 2037. The city combats the spread of lupine through the management of meadows and roadsides. Espoo also encourages its residents, associations, educational institutions and companies to combat invasive species through voluntary work. Species that are suitable targets for volunteer work are the Himalayan balsam, rosa rugosa and lupine.

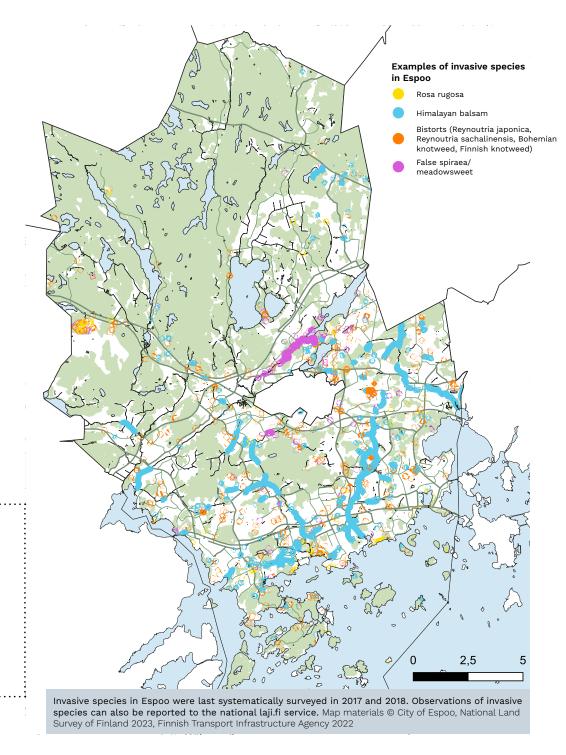
In addition to invasive plant species, animals that move to new habitats can adversely affect native species in the area. In Espoo, invasive animal species classified as harmful are the mink, common raccoon dog and Spanish slug. The city has concentrated its efforts of catching small predators in protected bird wetlands.



Lupine is an invasive species that takes up living space from local meadow plants, especially along roadsides. Weeding lupin is easy, but complete eradication is difficult.

Invasive species

Invasive species are, for example, plant, mammal and insect species that have spread to new habitats due to human activity. Some invasive species are harmful as they can spread aggressively and take up living space from native species in the area.



We maintain and manage meadows

A significant portion of Finland's endangered plant species grow in meadows. In addition, many insects, such as many pollinators and butterflies, depend on meadow plants.¹⁹ Espoo is developing operating methods for the maintenance of meadows and open areas. In 2022–2023, the grass areas of 11 city parks have been converted into meadows. It is also possible to sow grass seed mixture or set up sunlit environments in traffic areas in places such as the centres of roundabouts, green strips of streets and central reservations of roads.

In accordance with the proposals presented in the action plan for meadows and open areas, Espoo has developed the timing of meadow management, mowing methods and control of invasive species. Most of the meadows in Espoo are mown mechanically. In the summer, about ten such traditional landscape sites that are difficult to reach and cannot be accessed by machines are managed manually.

We protect biodiversity with forest management

In Espoo, forest management is based on the principles of sustainable forest management: the city aims to grow forests that are rich in species and which can grow to be as old as possible, and to achieve this the city favours trees of different ages and species. Unmanaged thickets, artificial snags and decaying wood are allowed to remain in the forests. In addition to promoting the recreational use of forests, forest management protects species living in forests. More large-scale forest management work takes place outside the nesting season of birds. Forest management work carried out in wintertime protects the vegetation from breaking.

In places such as nature conservation areas, places of occurrence of endangered species, sites of ancient monuments and sites that meet the criteria of the METSO programme, Espoo aligns forest management measures with the conservation values of the area. Nature and landscape management plans also safeguard locally valuable natural sites.



Meadows provide the cityscape with variety and diversity. The borders of the paths running through meadows are cut open for easy access and to guide people to use them. Image: Noelle Renberg



In Suvisaaristo, meadows are maintained by sheep, which are cared for by the Sommarö association.
Grazing increases biodiversity, keeps the meadow landscape open and produces diverse recreational services and experiences. Image: Tiina Peippo



We promote biodiversity and climate change adaptation in built street and park areas

In built environments, solutions implemented in a natural manner promote the richness of species in nature and provide local residents with a diverse environment. For Espoo residents, places such as playparks, exercise areas and allotments offer an opportunity to relax and enjoy nature. In turn, biodiversity can be supported with meadows, stormwater wetlands and various green elements. In a high-quality and healthy urban environment, nature is diverse and offers a wide variety of ecosystem services to local residents.

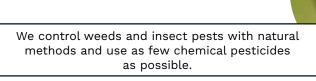
The materials and elements used in the new green areas are selected and adapted to the nature of each urban space. In many places, the available management work options determine the materials used in green spaces - many natural materials cannot withstand the heavy use that a large number of users causes. It is therefore important that users such as children come into contact with natural materials, vegetation, stones and water elements in their local forests.

Espoo always ensures that plants in street areas suit the look of the area in question. Street greenery on the central reservations and borders of roads can be developed to be more diverse and natural.

We promote biodiversity in green areas through many solutions, such as:

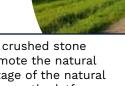


In terms of plants, we favour domestic plant species typical of the environment. The plants are multi-species and multi-layered.



We restore broken and deteriorated green connections by planting trees, building green bridges and underpasses designed for animals. In Latokaskenniitty, trees have been planted to strengthen the routes that flying squirrels use.





We cover outdoor recreation routes with crushed stone fines that are permeable to water and promote the natural management of stormwater. We take advantage of the natural soil of each place and the seed bank of the growth platform.

Images: Mauri Ratilainen, Noelle Renberg, Anna Hakala, Kristina Rocha

3.2. Securing the blue-green structure

The preservation of large green areas is important from the perspective of biodiversity, recreational use of nature and ecosystem services. In addition to diverse green areas representing different habitat types, it is also essential to ensure their connectivity in cities so that organisms can move from one area to another and no sub-populations are formed. Planning secures the most important natural values, areas central to biodiversity and sufficient recreational areas.

Blue-green structure

A network formed by the vegetative areas and water bodies of an urban structure and the green connections between them. In addition to a strategically planned green area network, the green structure includes all areas covered by the vegetation of the urban structure, regardless of the planning situation or land ownership. For example, courtyards, roadsides, street trees, parks and urban forests are part of the green structure, be they natural or planted. The blue structure complements the green structure with water elements, such as sea areas. small bodies of water and artificial water structures.20



City planning and land use planning are used to direct the placement of different operators and the formation of the cityscape. Monikonpuro stream running through Leppävaara has been heavily cultivated in places. Despite this, it still provides the local residents with a wide range of ecosystem services. Image: Saara Olsen

Programmes and plans guiding the development of urban green in Espoo Action plan for adaptation to climate change 2022–2025

The action plan for adaptation to climate change presents Espoo's measures for preparing for and adapting to climate change. The tasks listed in the action plan are based on Espoo's Sustainable Energy and Climate Action Plan (SECAP). The plan describes the key actors in the city organisation and their responsibilities for adapting to and preparing for climate change. In an urban environment, the main risks caused by climate change include heavy rains, floods, droughts, forest fires and hot weather.

Key measures in the action plan:

- Report on stormwater flood risks management and report on flood routes in urban centres
- Presentation of stormwater management goals and principles in southern Espoo and their implementation in northern Espoo)
- Deregulation of Lake Bodom and Lake Matalajärvi
- Implementation of a register of green roof structures and introduction of a green factor tool
- Survey of habitat restoration
- Taking shading trees into account in park area planning)
- Training and instructions for health centre and care service staff about the impacts of hot weather

Master Plan 2060 is our tool for achieving a denser and more nature-oriented network city

Espoo is preparing its first city-wide master plan. The plan set for 2060 anticipates the city's development over the coming decades. The master plan is a general land use and transport plan that guides other planning, such as detailed planning. The master plan is based on the Espoo Story and it outlines the directions, methods and emphases of the city's development on a general level.

Preparation of the plan began in spring 2022 and, in 2023, the City Board approved the goals of the master plan:

- 1) A sustainably growing and densifying Espoo
- 2) Espoo is a climate-smart city of networks
- 3) Espoo is pleasant and close to nature

The master plan is a tool with which Espoo prepares for growth in the city's population. New construction will be directed to the surroundings of current and future rail connections and the most significant public transport routes. In addition to sustainable mobility, Espoo promotes climate-smart approaches by identifying regional risks caused by climate change and promoting climate change adaptation. This means, among other things, flood prevention, stormwater management and adaptation to prolonged and intensifying heat waves.

Espoo's nature-oriented aspect is promoted by things such as expanding Espoo Central Park and securing the accessibility of green and recreational areas. In Espoo, the Baltic Sea and diverse flowing waters are important for biodiversity and the comfort of the urban environment.

Master Plan 2060 is strongly linked to the Nature-wise Espoo work, as both aim to strengthen Espoo's biodiversity. The preservation of biodiversity in Espoo is promoted by the safeguarding of expansive green areas, smaller local recreational areas and the ecological corridors between them.

We promote the construction of green roofs and green walls

In 2020, Espoo prepared the Green Roof Vision (finn. Viherkattovisio) that develops methods for adding artificial green structures to buildings. The Green Roof Vision includes methods by which Espoo can promote the building of green roofs and direct their design and implementation as part of detailed planning, plot assignments and building permit processes.

Green roofs contribute to several of Espoo's strategic goals, such as residential comfort, water protection and climate change mitigation and adaptation. As the urban structure becomes denser, the need for green roofs will increase, because they can reduce the adverse effects arising from construction.

Green roofs can already be found on public buildings such as the Ruusutorpan koulu comprehensive school and Matinkylä Swimming Hall, and new ones are already in the works. Local detailed plans place green roofs in places suitable for them. Building green roofs for carports and garden buildings is easier than for residential buildings, and the green structures set for these structures in the relevant plan are often realised as planned.



The multi-storey car parks in Revontulikortteli in Tapiola have a roof deck garden on which small trees, shrubs, dry peat and grass grow. The extensive deck garden can be seen from the surrounding buildings and provides a place for activities such as playing ball in an area of open grass. Image: Pyry Kantonen

We direct construction away from valuable natural sites and secure diverse urban green elements

In a rapidly growing city, city planning secures natural values, ecosystem services and recreational services. A detailed plan indicates the most valuable natural sites, parks and local recreation areas. The plan also guides the vegetation of courtyards and street spaces. High-quality city planning and green area planning ensures that Espoo residents have opportunities for diverse recreation and nature hobbies in local nature.

Espoo is constantly developing new tools and methods to ensure the high quality and quantity of natural values. The green factor is a tool that controls the green structure of either city blocks or larger areas. A block-specific green factor describes the green efficiency of a given plot or block i.e. the ratio of vegetation and various stormwater retention solutions to the total plot area. It directs, among other things, the construction of green roofs and other green structures, the preservation of existing trees and the planting of

new vegetation. The regional green factor, in turn, identifies ecosystem services provided by larger areas such as city districts. The tool makes it possible to assess not only existing green areas, but also the impact of new green areas and structures on the amount of vegetation and biodiversity.

In a growing city, it is not always possible to protect all valuable natural sites or local forests that are important to residents. Espoo reconciles many different needs, such as local services, housing, traffic, recreational services and natural values, with each other.

Criteria for the classification of natural values

During the Nature Conservation Measures programme, Espoo prepared a set of criteria for classifying natural values to support nature surveys. With this set of criteria, parties carrying out nature surveys determine the value of different habitat types on the basis of pre-defined indicators that are easy to monitor. Uniform indicators and criteria make the assessments carried out by different experts mutually comparable. In the classification of natural values, sites are valued based on habitat types, species and other general criteria.

We support biodiversity with detailed plan and master plan regulations:



We secure large and connected green areas

We ensure a sufficient quantity of recreational areas



We guide solutions that support green efficiency and biodiversity in city blocks

We instruct ecological connections to be maintained and strengthened



We control the management of stormwater



We secure valuable natural sites with conservation markings

Kuvat: Hannu Vallas, Tage Strandström, Olli Urpela, dspmedia, Patrik Fagerström

3.3. Improving the state of water bodies

Espoo improves the condition of the environment by restoring lakes and flowing waters whose natural state has deteriorated or which have become eutrophic due to human activity. Through the Baltic Sea Challenge, Espoo contributes to the efforts to protect our sea. Monitoring the condition of water bodies provides important information with which to set out water conservation measures. For example, waste management plants and industrial plants are also obliged to collect information on the condition of surface waters so that the impact of plant operations on the state of the environment can be actively monitored.



The sea defines the landscape of southern Espoo. The protection of the Baltic Sea requires cooperation between many different operators, both nationally and internationally. Image: Tommi Heinonen

Programmes and plans guiding the development of urban green in Espoo Water protection action plan 2022–2027

Espoo's action plan for water protection promotes the achievement and maintenance of the good condition of surface waters and groundwater in Espoo. The action plan identifies the key factors affecting the condition of surface water and groundwater in Espoo, as well as measures to reduce the adverse effects of these factors on surface water and groundwater. The action plan includes both proactive water protection measures as well as restoration measures.

Highlights from the action plan for water protection:

- Implementation and monitoring of groundwater protection plan measures
- Reduction of salting on streets and roads in backup water intake plant areas
- Location of properties not connected to the sewer network and enhancing their connection
- Report on the most loading field areas of agriculture and communications with landowners
- Utilisation of the results of a survey of Espoo's flowing waters in the management of creek bank sites
- Preparation and implementation of a construction site water guide for the Helsinki Metropolitan Area
- Implementation of a stormwater programme for different sectors of the city
- Promotion of natural stormwater treatment methods
- Minimisation of non-permeable surfaces through planning
- Implementation of lake and coastal water restoration
- Provision of grants for water bodies restoration and resident cooperation
- · Removal of migration barriers and construction of fishways
- Habitat and fishery restoration of flowing waters as well as deregulation
- Assessment of eutrophic bays' need for restoration and their actual restoration

Programmes and plans guiding the development of urban green in Espoo Baltic Sea action plan 2024–2028

Espoo's Baltic Sea action plan has been prepared as part of the Baltic Sea Challenge in which the organisations committed to the challenge implement voluntary measures to protect the Baltic Sea. Espoo has been involved in the Baltic Sea Challenge since 2007.

During the 2019–2023 programme period, Espoo increased the share of the Baltic herring and cyprinids in food procurement, installed sewers in carpet washing places, combatted the rosa rugosa and surveyed the underwater nature of coastal waters. In the future, agricultural producers farming the city's fields will be required to commit to the environmental compensation scheme for agriculture.

With the Baltic Sea action plan 2024–2028 being prepared, Espoo aims to reduce nutrient loads, the discharge of harmful substances, littering and invasive species in its marine area. In addition, Espoo is committed to increasing its residents' and employees' awareness of the Baltic Sea and active approach to the topic.



During the summer season, the archipelago boat transports visitors to enjoy maritime Espoo. Image: Patrik Fagerström

We monitor the condition of water bodies and survey valuable areas of underwater marine nature

The monitoring of the quality of surface water and groundwater provides information for guiding land use and planning water body restoration. In Espoo, the quality of water bodies is monitored in a total of 11 lakes, 4 rivers and 7 streams. We collect valuable monitoring data on changes in the quality and environment of water bodies, including the eutrophication, oxygen levels and concentrations of harmful substances of waters.

The joint marine water quality monitoring programme of Helsinki and Espoo monitors changes in the eutrophication and water quality of the marine areas of the Helsinki Metropolitan Area. Marine areas in both Helsinki and Espoo have several observation sites. Through this joint monitoring, the cities follow the impacts that significant emission actors, such as ports, wastewater treatment plants and dumping areas of dredging waste, have on the condition of the Baltic Sea.

In 2021, the Finnish Inventory Programme for Underwater Marine Diversity VELMU collected data on the occurrence of underwater biotopes and species and the communities they form in the Espoo sea area. The locally ecologically significant underwater areas in Espoo are recorded in the city's internal geographical information system. The city takes them into account in the planning of land use and recreational use, the targeting of protection measures as well as other use of the water area.

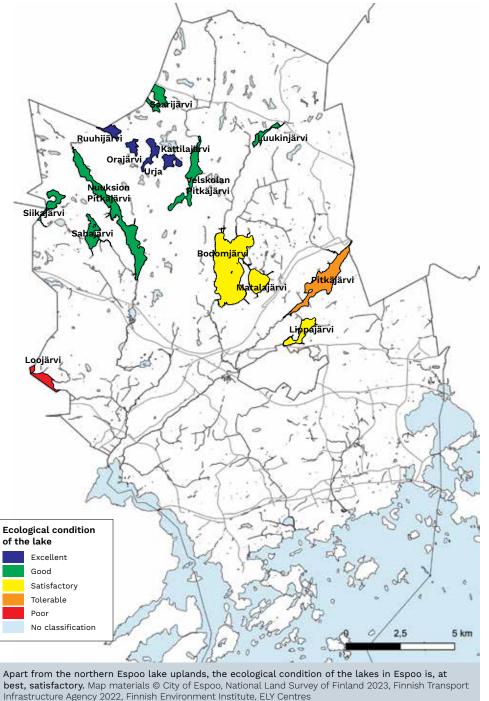
We restore lakes whose natural state has deteriorated

Some lakes in Espoo have deteriorated and which have become eutrophic. To restore them, the city has, in cooperation with local city district associations and environmental associations, been carrying out restoration work for several decades. Espoo has prepared an improvement plan and is implementing improvement measures pursuant to it in lakes Pitkäjärvi, Lippajärvi, Loojärvi and Hannusjärvi.

Restoring a lake brings the lake closer to its original state or preserves the condition of the lake as it is. Reducing the amount of nutrient load entering the lake from its catchment area is often an important measure. In 2022-2024, Vantaa, Espoo and the Uusimaa ELY Centre are exploring solutions to improve the condition of Lake Pitkäjärvi. During the project, the cities will draw up a joint water management plan for the entire catchment area in order to implement water management for agricultural and forestry areas and the built environment. In addition, Espoo and Vantaa will both implement one natural water management structure. These solutions will alleviate the flooding problems in the catchment area of Lake Pitkäjärvi and reduce the nutrient load of the lake.



In recent years, management fishing has also been carried out in lakes Pitkäjärvi and Lippajärvi, which brings the lakes' fish stock closer to its natural state and reduces their internal nutrient load. Image: Noelle Renberg



Stream in its natural state or close to it Urban stream in a natural environment Urban stream in a built environment Heavily cultivated 5 km urban stream

Espoo has developed a classification system for the assessment of the condition of urban streams. The four-step classification system assesses aspects such as the morphology of the streambed, the land use of waterfront areas, the impact of human activity and the diversity of species. Map materials © City of Espoo, National Land Survey of Finland 2023, Finnish Transport Infrastructure Agency 2022

We restore flowing water sites

In previous decades, Espoo has restructured riverbeds and streambeds to suit the needs of agriculture, urbanisation and flood control, among other things. Due to the restructuring, the water quality and range of species in the flowing waters have deteriorated. In the flowing water surveys carried out in recent years, Espoo has surveyed migration barriers and valuable flowing water sites as well as the natural state and transformation of smaller flowing waters.

Espoo restores flowing waters so that their ecological state improves. The city achieves this by, for example, dredging overgrown vegetation. Fish in particular will benefit from the removal of migration barriers and the addition of rocky spawning areas. The most recently restored flowing water sites include the Gumböle fishway and the river Espoonjoki. There are still several streams, rivers and channels in Espoo that are in poor ecological condition.



In 2020, a 190-metre-long fishway was built on the Gumbölenjoki dam, allowing migratory fish to pass the dam. Large stones have been placed in the winding channel to direct the flow of the water and create varying flow conditions. Image: Noelle Renberg

3.4. Promoting the recreational use of nature

Diverse green areas provide Espoo residents with many opportunities for outdoor activities and recreation. Espoo maintains a comprehensive network of outdoor trails and various nature exercise services, such as outdoor gyms, orienteering tracks and beaches. The city protects the terrain from heavy use by directing outdoor enthusiasts to existing paths.



Espoo nature offers plenty of opportunities for outdoor activities and recreation. For many Espoo residents, Espoo Central Park is a forest of daily recreation. Image: Janne Ketola

Programmes and plans guiding the development of urban green in Espoo Green area programme 2014–2028

The green area programme presents the current state and developmental needs of the city's outdoor services.

The green area programme includes the following programmes:

- Play area programme 2016-2026, updated 2019
- Espoo's dog park programme 2018-2028
- Local exercise place programme 2019–2028
- Espoo skateboarding place programme 2014–2024
- Urban agriculture programme 2018–2027

The parts of the green area programme form a comprehensive picture of the services provided by the city and a plan for complementing the service network of the service in question. The plans are based on area-specific needs, available investment resources and future changes in land use.

Espoon kaupunkivihreän kehitystä ohjaavat ohjelmat ja suunnitelmat Nature exercise programme

The Espoo nature exercise programme clarifies the objectives of nature exercise and the development measures of the nature exercise services offered by the city. The programme introduces the provision of outdoor routes and areas, outdoor recreation centres and other outdoor exercise services. Development needs include the implementation of local exercise facilities and outdoor routes, and accessible exercise opportunities in nature. The city will also create a new operating model for reaching out to people in need of special support and for encouraging them to engage in adapted nature exercise, so that the guided outdoor activities will also reach people other than those able to act and capable of independent movement.

We promote the sustainable recreational use of forests

Urban forests offer many different ecosystem services to local residents. The city supports the recreational use of forests by, for example, removing dilapidated and dangerous trees along outdoor recreation routes and by clearing small trees from areas near the routes. Nature management supports the characteristics of different residential areas. This means that, for example, forest management in the garden city district of Tapiola is different from that carried out in the wooded residential area of Niipperi.

The recreational use of forests can wear out the terrain significantly. If the condition of the terrain deteriorates, this adversely affects the vitality of trees and normal processes in the soil. Espoo prevents the deterioration of terrain by directing outdoor enthusiasts to use existing trails. The city also marks official nature trails in nature, which contributes to people staying on the trails and lowers the threshold for moving around in nature. Any increase in a city's population also increases the number of people moving around in local forests, thereby increasing the wear of the terrain.



Being in nature is good for both mental and physical well-being. The management of the city's forests ensures that forests are safe and comfortable for outdoor enthusiasts. Image: Noelle Renberg

We promote nature exercise and support nature hobby opportunities

Espoo maintains a comprehensive network of outdoor recreation trails as well as fitness tracks covered with crushed stone fines, many of which are illuminated. Outdoor recreation routes connect Espoo's urban centres, outdoor areas and the Rantaraitti waterfront walkway. In addition to recreational use, the routes also enable commuting, running errands and schoolchildren walking or cycling to school. Outdoor routes are constantly being built and repaired.

There are several islands in Espoo that are suitable for outdoor recreation and where various outdoor services have been implemented. The route traffic in the archipelago makes the unique archipelago nature accessible to everyone. Camping is allowed on a few islands.

Espoo encourages and guides its residents to move around in nature and take advantage of the city's diverse natural areas. Nature hobbies available to everyone include mushroom picking and berry picking, birdwatching, fishing and gathering wild herbs. The diverse nature of Espoo offers many opportunities for these.

6 workout stairs

23 nature trails

5 orienteering trails with fixed control points

30 outdoor gyms

23,000 hectares of areas for outdoor activities

25 beaches or swimming areas

200 km of ski tracks

7 marinas

11 disc golf courses

11 winter swimming places

11 recreational islands

1,600 allotment gardens

24 dog parks

1 dog beach

12 birdwatching towers

We guide the placement of recreational services

According to the Espoo Story, Espoo's strengths are local nature appreciated by residents, recreational areas, lakes, the Rantaraitti waterfront walkway and the city's marine aspect. To safeguard and strengthen these characteristics, Espoo draws up regional recreational visions.

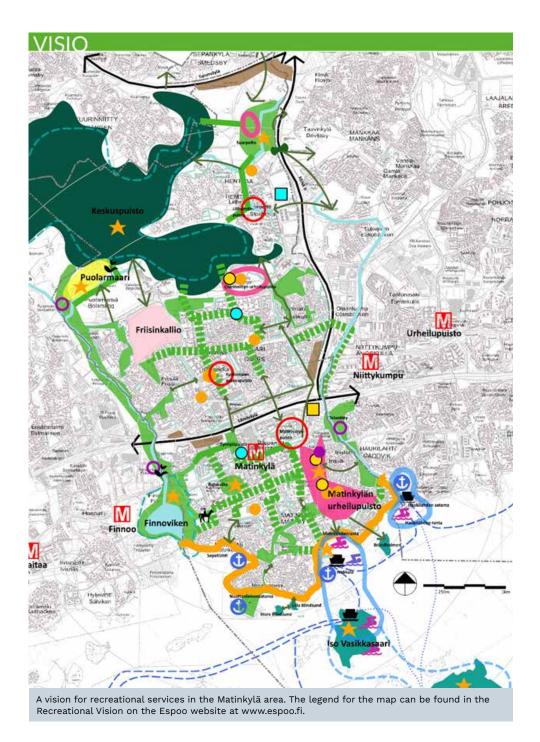
Espoo has prepared the following recreational visions:

- Suur-Espoonlahti recreational vision
- Suur-Tapiola recreational vision
- Suur-Matinkylä recreational vision
- · Suur-Leppävaara recreational vision
- Marine recreational vision

The visions create a comprehensive picture of each area's need for exercise and recreational services in 2050, and reserves enough space for these in the planning of land use. The recreational vision will be reconciled with other themes related to land use planning, such as natural values, construction and traffic. Recreational visions cover a wider area than individual detailed plans. Thus, recreational visions make it easier to perceive the entirety of sports and recreational services in the context of individual planning and construction projects.



Vegetation significantly enlivens any cityscape. Monikonpuro stream in Leppävaara can, at some points, be admired from up close. Image: Noelle Renberg



3.5. Increasing knowledge of nature and cooperation with residents

Espoo encourages residents, communities and associations to act to promote the comfort and biodiversity of their local nature. Joint nature management activities are carried out in Espoo through, among other things, water restoration grants, voluntary work and Our Park agreements.



Espoo is planned for its residents. In resident surveys and residents' events, the residents can share their ideas and wishes concerning the future of Espoo. Image: Janne Ketola

We share information about nature in Espoo

The Nature House Villa Elfvik houses exhibitions on the nature in Espoo, in addition to which the Nature House offers environmental education materials and organises events. The Nature House's activities and events provide visitors with information on the nature in Espoo, moving around in nature and sustainable lifestyles, among other things.

By raising the awareness that Espoo residents of different ages have of the significance of biodiversity, Espoo encourages its residents to move around in nature and guides them to practise sustainable camping. These efforts then promote responsible recreational use of nature, directing the pressure of recreational use to existing paths so that green areas and recreational areas remain free of litter and valuable natural sites remain untouched.



Villa Elfvik, an art nouveau villa built in 1907, houses Espoo's environmental education centre. The Nature House exhibitions, events and guided tours are open to all. The villa also has a nature school. Image: Noelle Renberg

We provide our residents with the opportunity to take responsibility for the management of their local environment

Our Park is Espoo's operating model that allows residents to participate in the maintenance and management of their local environment. The operating model is based on an agreement, based on which individual residents, resident communities or city district associations manage the city's public green areas. The management methods and objectives are agreed together with the city. So far, more than a hundred Our Park management permits have been issued around Espoo.

An Our Park agreement can allow things such as cutting grass, removal of small sapling stands, weeding of invasive species or mowing reeds. Usually, operators that have concluded these agreements manage plantings and cut the grass.

Voluntary, often one-off restoration measures are also carried out as community efforts. In Espoo, workshops have been organised to, for example, control invasive species and collect litter from public areas. The city supports the organisation of the workshops and processes the collected invasive plant species waste and other litter after the workshops. Espoo also encourages residents, associations and educational institutions to organise community efforts to remove invasive plant species.



The Olari health nature trail has been built in Espoo Central Park at the initiative of the local association Olari-seura. The association is also responsible for the maintenance of the nature trail in collaboration with the city. Image: Janne Ketola



Volunteers have participated in the restoration of several natural sites in Espoo. The ecological condition of Lukupuro stream was improved as a result of volunteer work in 2015.

We offer grants to associations for water restoration projects

Local activity is important in the restoration of water bodies that are eutrophic or whose natural state has deteriorated. Therefore, Espoo has annual grants for restoration actions pursuant to Espoo's action plan for water protection.

The grants are particularly suitable for carrying out small restoration measures or studies and plans to support restoration. Grants have been awarded to a community effort to restore the Lukupuro stream, improving the condition of Lake Hannusjärvi, surveying the vegetation of Lake Kalajärvi and investigating the water quality of the catchment area of Lake Sahajärvi. The city grants a maximum of EUR 2,000 annually to one restoration project.

Voluntary work and community effort

Work for the benefit of society, a community or an association. Participation in voluntary work does not require any special skills and is temporary and voluntary in nature. Participation in the workshops is free of charge and no financial compensation will be paid to the participants. In Finland, things such as harvesting and the simpler stages of construction work have traditionally been carried out as voluntary work by local communities.

We offer Espoo residents opportunities to participate in the planning of land use, green areas and nature management

Participatory planning is part of Espoo's urban planning, green area planning and nature management planning. The Land Use and Building Act obliges plan projects to include participatory elements. In planning, interested parties include those whose circumstances or interests may be affected by the plan. These include, for example, the landowners, residents and other users of a particular area. In addition to residents' events, some planning projects include electronic interaction surveys through which interested parties can express their opinions on the proposed planning solutions.

Residents can influence the planning of parks and green areas when a draft of the park plan is completed. In this case, residents and other participants may submit wishes or comments related to the plan via the national otakantaa.fi service or the city's website.

Nature and landscape management plans describe by region how the forests and meadows of the area in question are managed. When preparing the plan, the city often organises residents' events, electronic surveys and forest walks for the residents and other stakeholders of the area. At the events and through the surveys, participants can give feedback and comments on the draft plan.



Espoo cooperates a lot with local residents, residents' associations and nature organisations. During forest walks, experts tell participants how the city's forests are managed and answer residents' questions. Image: Tiina Peippo

Residents and participants can influence urban planning at the following stages of the planning process:

BEGINNING

Residents and other participants may contact the planners if they have information or questions about the planning area. During the starting stage of the planning process, urban planners collect a wide range of preliminary information to support their planning.

PREPARATION

The designers prepare a participation and assessment scheme and the preparation material for the plan. Interested parties can express their opinion on it.

PROPOSAL

The designers draw up a plan proposal in which they take into account the feedback received during the preparation stage. Interested parties can activate a reminder for the plan proposal.

ACCEPTANCE

The designers prepare the plan for approval, after which the elected officials decide on approving the plan.

ENTRY INTO FORCE

The approved plan is declared valid if no appeal against it is lodged with an administrative court or if the court does not accept the appeal.

We survey Espoo residents' opinions on the development

In recent years, Espoo has carried out a significant number of surveys, discussion events and studies aimed at residents through which Espoo residents have had the opportunity to share their views on their city and its development. These materials provide a comprehensive overview of the opinions and wishes of Espoo residents. In addition to local values and targets for development, surveys (often conducted based on geographic data) provide information about what residents value and how they use green areas. The city utilises the materials in many different ways, including in the planning of land use and recreational services

In 2022, Espoo residents shared their thoughts on the future development of Espoo in Our Espoo 20X0 events the results of which the city utilises in the preparation of a master plan concerning the whole city. Based on the discussion events and workshops of this series of events, Espoo residents recognise the importance of local nature and green areas in terms of climate change and biodiversity. Based on the discussion events, the residents want the nature in Espoo to remain as untouched and diverse as possible.

The following surveys provide information on the values and development targets of the blue-green structure in Espoo:

With the My Espoo on the Map survey (2020), Espoo collected a wide range of experiences, views and development ideas from Espoo residents concerning their local environments. Espoo carried out the survey as part of the NORDGREEN research project in cooperation with researchers from Aalto University, and more than 6,600 Espoo residents responded to the survey.

The User experiences from green areas and their significance in Espoo's urban centres survey (2019) Espoo carried out separately for each of the city's five urban centres. Espoo surveyed aspects such as the green areas used by residents, the importance of the blue-green structure for residents, and residents' satisfaction with their local green areas.

With the My Nature Benefits survey (2019), Espoo assessed residents' experiences of the benefits provided by nature.

With the My Seaside Espoo survey (2018), Espoo collected ideas and wishes concerning the development of maritime Espoo.

Green roofs and street trees could enhance nature's presence.

We need human-sized city districts that combine natural areas, local services and effective mobility.

Local nature areas should be cherished as sources of well-being and elements of attraction for the area.

In honour of Espoo's 50th anniversary as a city, a completely new nature reserve highlighting biodiversity could be established!

After the construction boom, could there be a greening boom that would increase the number of urban green elements?

The starting point for future planning should be nature and the diversity of its species.

All construction should strive to preserve trees in the affected area. Nature areas must be logically reconciled with developing urban areas.



Highlights from comments made by Espoo residents at Our Espoo 20X0 discussion evenings and workshops in spring 2022.

4 Nature-wise Espoo of tomorrow

This publication contains practices through which Espoo promotes biodiversity and the recreational use of nature. However, these actions will not stop the loss of biodiversity in Espoo – we also need more effective implementation and more effective actions.



Biodiversity is vital for humans. Image: Janne Ketola

The Espoo Story, i.e. the strategy of the City of Espoo, sets the city the ambitious goal of achieving no net loss of biodiversity. In our growing city this means that by 2035, we will have in place such measures that prevent loss of biodiversity.

In order to achieve no net loss of biodiversity, Espoo has launched the project Nature-wise Espoo. The work will result in a roadmap that defines Espoo's objectives, operating principles and development solutions to secure biodiversity and ecosystem services. The first part of the Nature-wise Espoo roadmap will be completed in 2024. The work will continue until 2035.



The cityscape of Espoo alternates between dense urban centres, spacious residential areas and green areas. The Espoon keskus area is a good example of this. Image: Tage Strandström

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