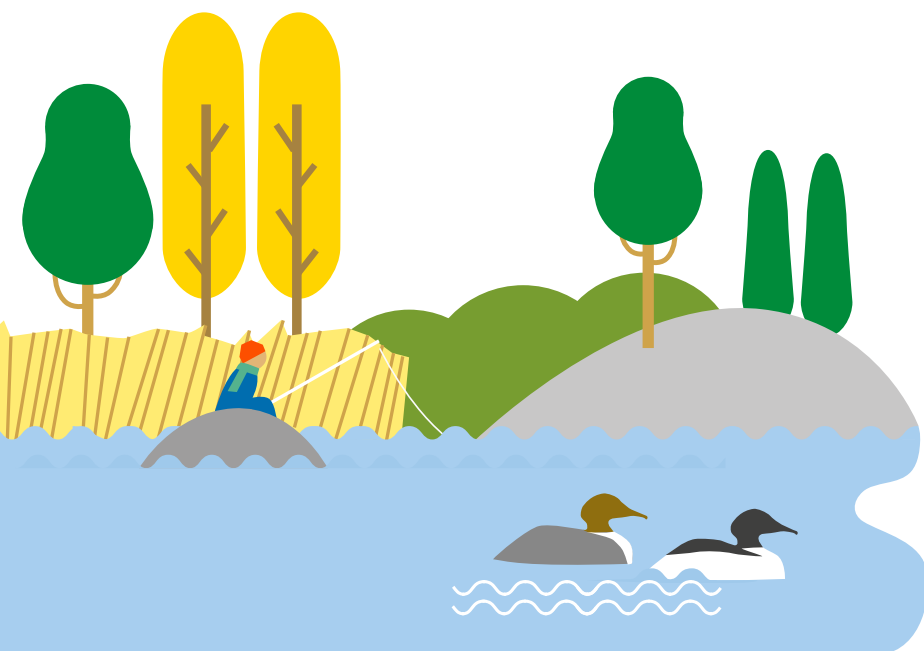
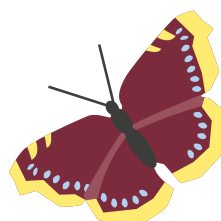




Helsinki

Urban Environment publications 2021:25



LUMO programme

City of Helsinki Biodiversity Action Plan 2021–2028

Abridged version

The action plan was decided on by the Urban Environment Committee
on 20 April 2021



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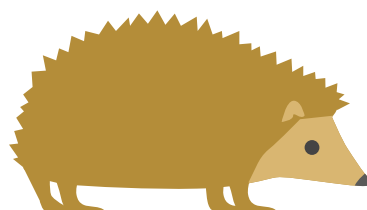
Urban Environment publications 2021:25

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Introduction

The city is changing rapidly. Helsinki's growth and climate change are posing the greatest challenges to biodiversity, and changes are inevitable. However, the impacts of changes can be kept within reasonable boundaries in a systematic manner in order to secure biodiversity and a healthy living environment.

Nature is needed where people are. The City is striving towards planning that saves green areas, but construction is causing green areas to decrease. Because of that, the quality of the remaining nature is important. The goals are ecological integrity and functional ecosystems that reflect the ecological quality of the areas.

Spending time and enjoying activities in fresh air and sunlight are important to people. The elderly stay in better physical condition if they get to engage in outdoor activities. Of course, the same applies to children and people of all ages as well. Nature also contributes to mental well-being. Because urban nature sites have a significant positive effect on health and well-being, special attention must be paid to the landscapes, nature values, sustainability and accessibility of these areas. Developing hiking and recreation services increases people's opportunities to be active in nature and engage in recreational activities.

In order to adapt to climate change, green areas must have the ability to adjust to different situations brought about by the climate. Nature can repair itself, and people can steer these processes with proactive solutions. The goal is to improve the ability to adapt to changes, also known as resilience, through the preservation of biodiversity and nature-based solutions. Multi-purpose green areas are also recommendable – for example, a park can serve in part as a flood water reservoir or an environment for a rare nature type.

Saving Nature for People is Finland's national action plan for mainstreaming the conservation and sustainable use of biodiversity – in other words, taking it into consideration in administration and society at large. For its part, Helsinki must work towards the same goal by taking the securing of biodiversity into consideration in all of its operations.

This is Helsinki's second Biodiversity Action Plan. The measures of the previous action plan were implemented well, as 80% of them were completed or are currently being implemented. First and foremost, this action plan focuses on how things are planned and carried out, and how different perspectives are coordinated. A new approach is needed in order to implement nature-based solutions. The action plan proposes few projects that are large-scale, expensive and deviate from normal operations. Additional resources are needed to develop the monitoring of nature, draw up reports and plans, and strengthen Helsinki residents' relationship with nature. The greatest costs and benefits come from good planning, extensive nature mapping, the development of the blue and green network and effective prevention of invasive alien species. Furthermore, there is an increasing need for restoration measures and structures that prevent wear in nature areas.

Vision

Biodiversity is cherished in the growing and changing city. Important green areas will be preserved and connections between them will be developed to support the well-being of their inhabitant species, as well as that of people. The preservation of nature types and the range of species will be secured, and their status will be monitored. Increasing efforts will be made to preserve biodiversity in built green areas. Nature is valued, and people's familiarisation with it will be facilitated through environmental education, communication and the provision of outdoor activity and hiking services.

Definition of biodiversity

Biodiversity means the richness and variety of nature types and species, as well as species' internal genetic variance.

Biodiversity indicates natural variance at the levels of areas, nature types and species. The starting point is geological diversity. The area level means examining extensive green areas, ecological connections and the green network. At the type of nature level, the focus is on securing different species' typical living environments, as well as the conditions of the biocoenoses thereof, such as the microclimate, soil and water supply. At the species level, the focus is on examining both the genetic diversity of individual species and the habitat requirements of the range of species, such as feeding, shelter and nesting sites.



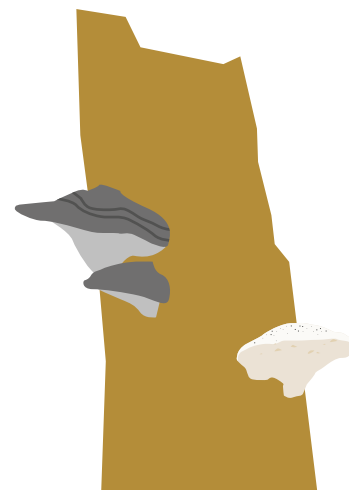
Helsinki residents are concerned about green areas

Of local environmental problems, Helsinki residents are the most concerned about the potential loss of nearby green areas or the diversity thereof. According to a survey, more than one third were 'very concerned', while roughly as many were 'moderately concerned'. These responses comprised approximately 70% of all responses. Respondents were nearly as concerned about the increase of snowless and dark winters and the quality of the water bodies of their home city.

(Environmental Attitudes and Urban Development in Helsinki and Vantaa 2018.)

City of Helsinki Biodiversity Action Plan 2021–2028

The purpose of the City of Helsinki Biodiversity Action Plan (LUMO programme) is to steer the City's operations so that the objectives set in the City Strategy and the environmental policy for preserving biodiversity are realised in Helsinki.



The action plan involves the entire Helsinki region on the mainland, at sea and in the archipelago, and in the recreation and outdoor activity areas located outside the city limits and owned by the City. In order to implement the action plan, it is important that the objectives and measures of the action plan are integrated into all planning processes related to the City's economy and operations. Thus, the conservation of biodiversity becomes visible in the City administration and the entire city.

The LUMO programme is implemented by the City's different services in co-operation with each other and other authorities, organisations and Helsinki residents.

Preparation of the action plan

The process of updating the action plan began with a seminar held in the summer of 2018. Three workshops were also held, as well as a map-based online survey that was open to all. Almost 900 people responded to the online survey. Experts compiled the materials accumulated and utilised them in preparing the action plan.

For the preparation of the action plan, a LUMO working group consisting of City experts was formed, and the group was open to all employees of the City. Around 30 people signed up for the working group.

The preparation work on the action plan was steered by the City's nature conservation working group. Nature organisations attended a meeting of the nature conservation working group on 30 October 2019, whereby a draft of the LUMO programme was presented to them.

On 11 May 2020, resident and nature organisations, as well as all services of the City that were designated as responsible parties, were asked for their opinions on the action plan draft.

Of the City's services, the Land Use and City Structure service entity presented its opinions. Of organisations, comments were given by the Helsinki Neighbourhoods Association, Helsingin luonnonsuojeluyhdistys ry (Helsy) and Helsingin Seudun Lintutieteellinen Yhdistys – Helsingforsstraktens Ornitologiska Förening Tringa ry.

The nature conservation working group approved the action plan draft on 12 November 2020 to be submitted to the Urban Environment Committee for decision-making.

Cost effects of implementing the action plan

The LUMO programme contains a total of 90 measures to be implemented. 14 of the measures are high-cost. They are related to green network development, securing the mobility of animals with verdant over and underpasses, and increasing the number of green roofs. Many measures related to the nature of rivers, creeks and shores, as well as the processing of storm water, are costly. Furthermore, preventing invasive alien species in accordance with current legislation causes plenty of costs and becomes more expensive each year if efficient prevention measures are not launched. These high-cost measures have great direct benefits for biodiversity. Furthermore, good implementation and maintenance resources should be allocated to recreation structures and nature bases that prevent wear on nature and are suitable for all ages, even though they are included in measures that indirectly promote biodiversity.

As the city structure grows denser, more detailed background research and planning require more resources than before. The payoff will be better and more sustainable end results. Measures that are medium-level in terms of resource needs include a model for ecological accounting and compensation, mapping valuable natural landscapes, defining the objectives for the ecological state of the blue network, monitoring the state of nature in forests and the effects of forest management, assessing the diversity potential of parks or other green area sites, recycling of surface soil, an ecological dark network survey, securing the preservation of valuable plant sites and the creation of a nature service policy.

When assessing the benefits, the measures' effects were compared to the current situation. 29 of the measures were deemed to have major benefits for biodiversity, and 54 were deemed to have medium-level benefits. Seven measures have minor benefits. Their nature is such that they indirectly secure biodiversity and related to aspects such as developing environmental awareness, advice, information provision and the recreational use of nature. These measures do not have high costs.

Several of the objectives and measures have to do with developing the current operating methods in areas such as planning and maintenance practices. Naturally, they require official work. However, their benefits for biodiversity can be great, and new operating methods can result in significant direct and indirect savings, even though they are difficult to assess beforehand. Neither the entire planning practice nor maintenance work were not counted as costs arising from the development of new practices.

The objectives and measures related to securing biodiversity have socio-economic effects, as well as effects on aspects such as the city's attractiveness. However, the aforementioned were not assessed in this work. The degree of comfort and stimulation, and thus people's well-being through aspects such as nature activities, were not assessed either. However, current information indicates that nature activities promote both physical and mental health. As such, attractive nature and green areas can yield significant health benefits and savings in terms of health care services. These aspects were not assessed either in this context. Furthermore, the preservation of biodiversity promotes climate change mitigation and adaptation. It increases carbon sinks and environmental resilience, i.e.

the environment's ability to cope with changing conditions, recover from disturbances and restore the balance of ecosystems.

In terms of overall impact, the most important measure is measure 1.1.: We will integrate the biodiversity objectives and measures into all of the City's operations. Responsibility for coordinating the implementation of the measure has been assigned to Environmental Services, but in practice, the responsibility is divided among all of the City's operators. The effects of this measure on Helsinki's urban nature are very significant. The other measures of the action plan are proportioned in accordance with the current situation and the experts' assessment of implementation opportunities in the coming eight-year period. They contribute to stopping the impoverishment of biodiversity. With the LUMO programme, the City implements the Finnish constitution, according to which responsibility for nature and biodiversity falls upon everyone. In Finland's national action plan for the conservation and sustainable use of biodiversity, mainstreaming refers to the same thing.

Impact assessment method

The preliminary direct cost effects and benefits for the diversity of urban nature of the measures were assessed one measure at a time on a three-tier scale of 'minor', 'medium' and 'major', but no cost calculations were carried out. A minor cost was €0–50,000, a medium cost was €50,000–250,000 and a major cost was more than €250,000. The final costs and benefits may change depending on what kind of implementation methods and solutions are utilised as the implementation of the measures progresses.

A cost effect assessment table will be developed in internal use into an economic monitoring model by adding realised costs to it. The goal is to assess the cost development, as well as the functionality of the monitoring model. In the future, the knowledge base obtained regarding the costs will be used in the establishing of objectives and the planning of measures.

The assessment was carried out based on their experience by the Urban Environment Division's Team Manager Katriina Arrakoski (maintenance), Team Manager Susa Eräranta (detailed planning), Team Manager Kaisa Pajanen (environmental protection), Service Manager Jussi Luomanen (urban space and landscape) and City Ecologist Kaarina Heikkonen (environmental protection).

Objectives and measures for 2021–2028

The main parties responsible for implementation are mentioned in connection with each measure. Measures designated to be projects are marked in bold.

1.

The diversity of nature in Helsinki will be increased and utilised better than before in all of the City's operations.

The City of Helsinki must contribute to Finland's objective of stopping the impoverishment of biodiversity. The principles and operating methods for securing biodiversity and sustainable use will therefore be integrated into all of the City's operations. The city's inevitable growth will be realised so that nature is utilised as an attraction factor. At the same time, biodiversity and the health benefits provided by green environments will be preserved and even increased. Various nature-based solutions will be utilised to strengthen the ability to adapt to the city's growth and climate change.



- 1.1.** We will integrate the biodiversity objectives and measures into all of the City's operations.
PALU/YMPA
- 1.2.** We will develop ways to increase biodiversity in detailed planning and other action plans.
MAKA/ASKA
- 1.3.** In connection with plan projects, we will increase nature type and species surveys in plan and project areas to fill gaps in the nature information system.
MAKA/ASKA
- 1.4.** We will develop a model for Helsinki concerning ecological accounting and compensation for diminishing nature.
Project: 2021–2022, PALU/YMPA
- 1.5.** We will complement the nature information system (LTJ) with species information materials that diversify the contents of the information system and help identify sites that are highly important for biodiversity.
PALY/YMPA
- 1.6.** We will develop general instructions for taking nature value sites listed in the nature information system (LTJ) into consideration in the maintenance of areas.
PALU/YMPA
- 1.7.** We will carry out sufficient mappings of areas owned by Helsinki in other municipalities to identify nature values. The process will be carried out as projects and, if necessary, in phases. The phasing will be carried out in accordance with available resources so that the nature mappings in the City's own areas take priority.
PALU/YMPA, MAKA/KAMU
- 1.8.** We will map Helsinki's valuable natural landscapes.
Project: 2022–2023, PALU/YMPA
- 1.9.** We will market Helsinki as a nature and bird capital.
PALU/YMPA
- 1.10.** We will develop a system for monitoring the implementation of nature-related programmes in real time.
Project: 2021, PALU/YMPA

2.

The functionality of blue and green networks will be reinforced

The loss of species and nature types will be prevented by preserving green areas that are as extensive as possible and improving the connections between green areas. The connections will be used to prevent the genetic impoverishment of even small populations.

A survey was carried out regarding the network of forest and wooded areas in connection with the creation of Helsinki's 2016 city plan. The preservation of extensive core forests is important, and gaps in the network must be remedied through means such as planting trees. The meadow network will be improved by maintaining open growth sites for meadow species as stepping stones.

In addition to marine areas, creek beds and their shore zones, spring mires, wetlands and ponds are taken into account as parts of the blue network. In storm water management, the goal is to primarily use natural solutions. New living environments, such as wetlands, can also be created in connection with the aforementioned solutions. Natural shore zones will be maintained, especially in areas connected to creeks and ditches.

Dark and quiet areas will be preserved across the city for the needs of animals and recreational use.



2.1. When preparing plans, we will take the development needs of ecological networks into consideration by utilising new nature information.
MAKA/MYLE, ASKA

2.2. We will preserve the amount of forest and wooded areas in accordance with the regional land cover dataset as roughly one third of the city's land area.
MAKA/MYLE

2.3. We will develop the forest and wooded area network through various means, such as planting new connections.
Project: 2021–2028, MAKA/KAMU

2.4. We will develop a high-quality network of meadows and semi-natural habitats.
Project: 2021–2028, MAKA/KAMU

2.5. We will carry out a survey regarding the history, diversity and connectedness of small water bodies, swamps and wetlands.
PALU/YMPA

2.6. We will prepare objectives for the ecological state of the blue network of the entire city.
MAKA/KAMU



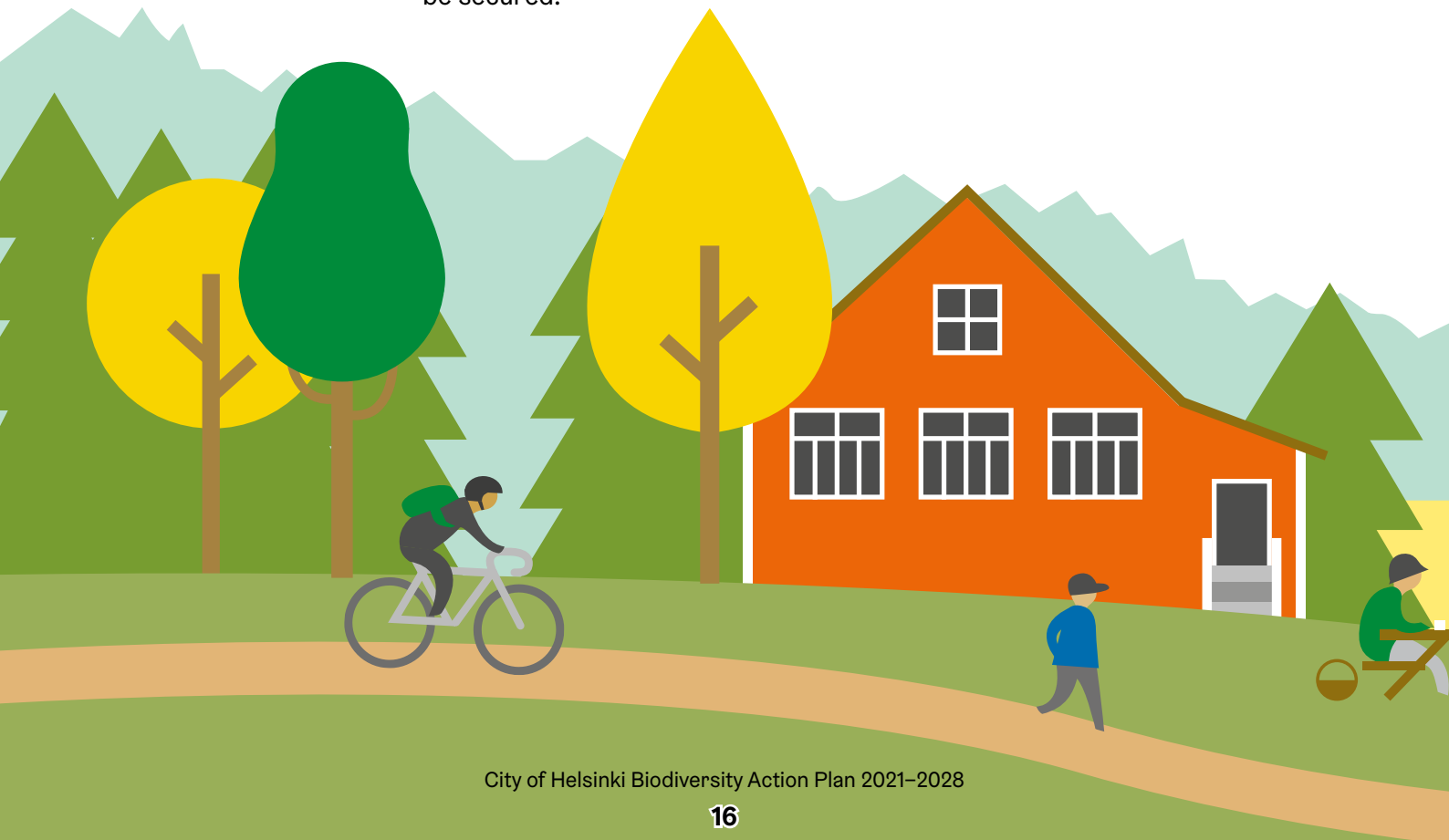
3.

Nature types will be identified as comprehensively as possible and their preservation promoted

Reports were published on Finland's endangered nature types in 2008 and 2018. The reports presented endangerment classes for the nature types of Southern Finland. In Finland, the most endangered types are semi-natural habitats created as a result of mowing and grazing.

Helsinki's endangered nature types were mapped systematically in 2017–2019, excluding heathland forests, rocks and rocky areas. An assessment was also carried out in 2020 to identify more valuable heathland forests. The materials indicate Helsinki's rarest endangered nature types, a favourable level of protection for which must be secured through planning and maintenance measures such as developing the network-like nature of green areas and restoring nature types. The endangerment information provided in the natural report for the nature types of Southern Finland is used as background and comparison information in determining nature values. Complementing Helsinki's biotope mapping will result in a unified and comprehensive dataset that will be used for monitoring purposes and in prioritising sites.

The occurrence of underwater nature types in the marine area will be mapped in connection with the monitoring of the City's marine area and in co-operation with the Finnish Environment Institute and Metsähallitus. Based on the mappings, the state of the underwater nature types will be assessed and the occurrence of vulnerable and endangered nature types will be secured.



3.1. We will identify endangered and other nature types rare in Helsinki as comprehensively as possible and secure their preservation as a sufficient network.
PALU/YMPA

3.2. We will protect endangered and other nature types valuable in Helsinki as part of the green and blue network.
PALU/YMPA

3.3. We will supplement the biotope mapping to cover the entire city area.

Project: 2022–2023, PALU/YMPA

3.4. We will plan the use of the marine area with the new information about the diversity of the underwater nature taken into consideration.
PALU/YMPA



4.

The effects of forest management will be identified and biodiversity will be increased in a systematic manner

In their extensiveness, forests are the most important habitat type from the perspective of cherishing the diversity of nature in Helsinki. As of the beginning of the 2020s, the ecological state of forests in Southern Finland is worrying. According to the latest endangerment assessments, all nature types of groves and heathland forests in Southern Finland are endangered or near-threatened. More than a third of all species on the Red List of Finnish Species live in forests.

In Southern Finland, forest nature is regressing primarily due to the ecological quality of commercial forests lowering. Forest management plays a key role in the securing of biodiversity in Helsinki as well. The forests of Helsinki differ significantly from typical commercial forests in Southern Finland in terms of their structure, intended use and management history. They have been maintained with outdoor activity and nature values in mind since the early 1950s, which is evidenced by aspects such as a relative abundance of several demanding forest types in the city area.

Key characteristics that have a positive effect on the diversity of forest nature will be increased in a systematic manner. Such characteristics are a semi-natural tree stock structure, old forests and individual trees, the amount of decaying wood and the natural disturbance dynamics of the forest.



4.1.

We will monitor the state of nature in the forests and assess the effects of maintenance on biodiversity.

Project: 2021–2024, PALU/YMPA, MAKA/KAMU

4.2.

We will plan the maintenance of natural value sites in more detail in connection with the planning of nature and green areas.

MAKA/KAMU

4.3.

We will develop methods for assessing the amount of decaying wood in the forests for Helsinki.

Project: 2021–2025, MAKA/KAMU

4.4.

We will survey the amounts of decaying wood in Helsinki's forest-covered green areas and, based on that, determine a target level for the amount of decaying wood in different forest areas in the future (cubic metres per hectare).

MAKA/KAMU

4.5.

In the planning, we will seek more ageing, semi-natural forest parts or forest stands, or forest areas that are otherwise diverse in terms of their tree stock, that are excluded from management procedures.

MAKA/KAMU

4.6.

Helsinki will increase the amount of decaying wood in forests in a safe manner by leaving different tree species as decaying wood in the management procedures and by allowing decaying wood to form in a natural yet controlled manner.

MAKA/KAMU, RYA/KUPI

4.7.

We will increase the layered nature of the tree stock and other vegetation at the edges of forests.

MAKA/KAMU, RYA/KUPI

4.8.

We will monitor the changes caused by storms, insects and diseases in forests.

MAKA/KAMU, RYA/KUPI

5.

Biodiversity in the built environment will be enriched in anticipation of the future

Semi-natural, diverse sites must be cherished in the built environment, and the use of nature-based solutions must be increased. Biodiversity can be increased through means such as replacing lawns with meadow or grassland vegetation and leaving decaying wood in the area. Green roofs and walls, as well as yard decks and roadsides, present good opportunities for creating habitats.

Semi-natural habitats created as a result of mowing and grazing are the most endangered nature types in Finland. Their range of species includes a wide variety of beetles, butterflies, wasps and other insects. Many semi-natural habitat sites are valuable in terms of their range of plant species as well.

The selection of plants to be planted in the built environment will be expanded with the needs of animals also taken into consideration in the selection of species. Developing mowing procedures will secure plants' seed production and the thriving of insects.

The ruderal generated on bare soil – a special characteristic of Helsinki – will be cherished as its own meadow type, the winter seeders of which produce seeds that attract birds.



5.1.

We will assess and utilise the diversity potential of parks and other green area sites in connection with the planning of maintenance, development and renovation procedures.

Project: 2021–2028, MAKA/KAMU

5.2.

We will increase the use of natural soil materials of areas or recycled soil in green area construction.

MAKA/KAMU

5.3.

We will turn lawns into meadows.

MAKA/KAMU, RYA/KUPI

5.4.

We will develop meadow management methods to increase biodiversity.

RYA/KUPI

5.5.

We will place decaying wood in green and recreation areas in accordance with park and maintenance plans and utilise the natural decaying process in areas such as creek sides also as an aesthetic opportunity (e.g. old hollow trees, decaying wood fences, insect hotels).

RYA/KUPI

5.6.

We will favour pollinator insects by increasing the amount of trees and bushes suitable for their nourishment, as well as other plant species that bloom for a long time and at different times.

Project: 2021–2028, MAKA/KAMU, RYA/KUPI

5.7.

We will increase the amount of trees, bushes and perennials (incl. winter seeders) that provide birds and other animals with nourishment.

Project: 2021–2028, MAKA/KAMU

5.8.

We will preserve natural shores and allow natural vegetation to develop in built shore areas as well.

MAKA/ASKA, KAMU

5.9.

We will increase the diversity of roadside greenery with layered plant communities.

MAKA/KAMU, LIKE

5.10.

We will increase the number of green roofs and use domestic plant species that promote biodiversity on them.

MAKA/ASKA, RYA/ROHA

5.11.

We will survey the range of species and nature types of fortification devices and secure their preservation.

PALU/YMPA

6.

The underwater nature values of islands, shores and the marine area will be identified and the most valuable ones will be secured

The underwater and above-surface habitats of the coast and islands provide protection against shoreline erosion and filter nutrient loads coming from the land. They are also important breeding areas for many species of fish, for example. However, the majority of the coastline of the Helsinki metropolitan area is built or under pressure from human activities. The operation of the ecosystems has weakened, and biodiversity is under threat.

The goal is to achieve clean coastal waters, functional ecosystem services and a diverse coastal and archipelago nature. Recreational use of the archipelago must be increased in a sustainable manner and without weakening biodiversity.



6.1.

We will create detailed plans for the parts of the archipelago in accordance with sustainable development, as well as maintenance and development plans that take into consideration the local nature types, ecosystemic carrying capacity and special characteristics, such as the range of species.

Project: 2021–2028, MAKA/ASKA, KAMU

6.2.

We will primarily leave the forests of the archipelago in their natural state to develop, but we will maintain the surroundings of recreation routes and service areas.

MAKA/KAMU

6.3.

We will develop conservation of the underwater nature of the marine area by compiling a maritime nature map that combines different ecosystems and valuable nature sites (fish spawning sites; bird nesting, rest and overwintering areas; grass-wrack meadows, etc.).

PALU/YMPA

6.4.

We will improve the connections between the marine area and flowing waters by removing obstacles.

MAKA/KAMU

6.5.

We will map and secure the spawning sites of fish.

KUVA/LIIKU

6.6.

If necessary, we will propose fishing prohibitions and restrictions.

KUVA/LIIKU

6.7.

If necessary, we will propose restrictions regarding the hunting of waterfowl.

PALU/YMPA

6.8.

We will strive to reduce the effects of water traffic on the range of species, such as the effects of ballast water and underwater noise.

PALU/YMPA

6.9.

We will direct boating and other water transport away from bird nesting areas and fish spawning areas and, if necessary, submit proposals for restricting water traffic.

PALU/YMPA

6.10.

We will favour quiet watercraft in archipelago traffic.

KUVA/HATU

6.11.

We will strive to preserve shoreline reed beds where creeks and ditches flow into the sea.

MAKA/KAMU

7.

The nature values of rivers, small water bodies, swamps and wetlands will be identified and improved

The small water bodies of the city form important habitats, breeding and feeding areas, as well as passageways for different organisms, such as fish, invertebrates and plant seeds. Some of the creeks of Helsinki are home to the extremely endangered trout, whose populations have diminished due to poor water quality and emissions.

In order to secure biodiversity, species occurring in Helsinki's small water bodies must be charted in greater detail in order to be able to establish appropriate conservation and restoration measures. Because the majority of Helsinki's shore areas are already built, the remaining natural shore zones must be preserved as much as possible.

Small water ecosystems are sensitive to the effects of human activities. Because of this, it is important to take the protection of small water bodies into consideration in city planning, preserve and restore small water bodies, reserve sufficient buffer zones and manage storm waters with natural solutions.



- 7.1.** We will strive to preserve the current semi-natural small water bodies, open swamps and wetlands.
MAKA/ASKA, KAMU
- 7.2.** We will develop the shores of rivers and creeks as green connections that also serve as ecological connections and buffer zones for water bodies.
MAKA/KAMU
- 7.3.** We will take care of the water supply and nature values of preserved wetland areas in connection with detailed planning.
MAKA/ASKA, KAMU
- 7.4.** We will build new, semi-natural storm water solutions in already built areas as well.
MAKA/KAMU
- 7.5.** We will create varied areas of light and shade along creeks and ditches by utilising trees and other vegetation.
RYA/KUPI
- 7.6.** We will plan diverse growth sites for wetland plants and animals in storm water wetlands.
MAKA/KAMU
- 7.7.** We will create ditch maintenance instructions that take biodiversity into consideration.
PALU/YMPA, RYA/KUPI

8.

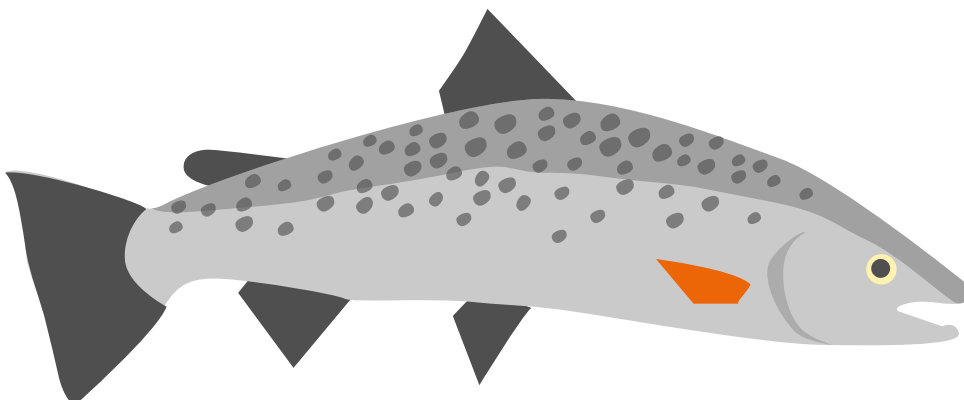
Species' living conditions will be improved

The adverse effects of urban settlements on animals can be mitigated by securing appropriate habitats for various species groups. Even easy measures often result in considerable improvements. Weak spots of ecological corridors must be strengthened with structures and plantings.

From the perspective of the operation of ecosystems, pollinator insects form a key animal group. They must be provided with suitable soil, artificial nests if necessary and a diverse range of blooming plants. Another key group are migratory fish, whose passage through flowing waters will be made easier.

Steering recreational use through various means will prevent wear on the terrain and disturbances caused to birds nesting on the ground and other animals.

- 8.1.** We will create plans for improving the habitats of species such as the common pochard, the black-headed gull, frogs, butterflies, bumblebees, wasps and ground beetles.
PALU/YMPA
- 8.2.** We will increase living and mobility opportunities for animals by planning verdant underpasses and overpasses.
MAKA/ASKA
- 8.3.** We will carry out a dark network survey, which will be used for improving the living conditions of various species groups by securing a light rhythm for them that is as natural as possible.
PALU/YMPA
- 8.4.** We will increase and maintain landscape fields that provide birds and other animals with nourishment.
RYA/KUPI



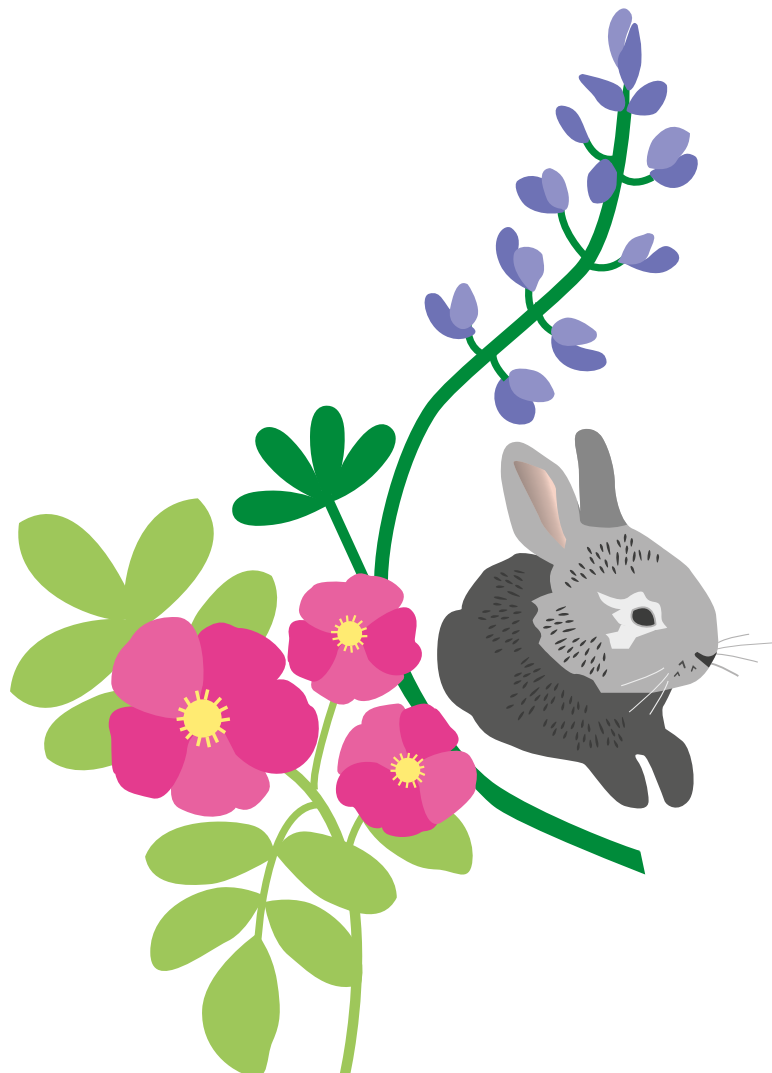
- 8.5.** We will favour the occurrence of goat willows and other willows that are important to pollinators in the City's green areas.
MAKA/KAMU, RYA/KUPI
- 8.6.** We will survey the possibility of timing tree removals in areas to be built so that they take place outside the nesting period of birds (1 April–31 July).
PALU/YMPA
- 8.7.** We will help ground nesting birds survive in their summertime habitats by providing advice and steering operations.
PALU/YMPA
- 8.8.** We will build nesting floats for birds.
PALU/YMPA
- 8.9.** We will reduce the risk of birds colliding with structures through advisory services, guidance and examples.
PALU/YMPA
- 8.10.** We will create instructions for preserving and building rocky areas for bats, lizards and other reptiles to overwinter in.
PALU/YMPA
- 8.11.** We will not bring soil to sandy roadsides. Instead, we will leave the soil to serve as habitats suitable for meadow plants and pollinators.
RYA/KUPI
- 8.12.** We will renovate and restore creeks and ditches and their pipe sections to serve as habitats for species such as the trout.
MAKA/KAMU, RYA/KUPI
- 8.13.** We will improve the opportunities for migratory fish to swim up Vanhankaupunginkoski and back.
MAKA/KAMU
- 8.14.** We will secure the preservation of endangered plant species on the Red List of Finnish Species and valuable plant sites belonging to classes I and II in the nature information system, and improve the state of their occurrences in Helsinki. PALU/YMPA, MAKA/KAMU
- 8.15.** We will survey the City's valuable moss and lichen areas.
PALU/YMPA

9.

Prevention of invasive alien species will be intensified

The prevention of invasive alien species must be intensified so that their spread can be stopped as early as possible. That way, the prevention measures will be at their most cost-efficient and there will be fewer adverse effects on biodiversity. Invasive alien species will be prevented primarily in connection with other nature maintenance work. Other measures include providing information and organising voluntary work events and providing residents with advice and help regarding the organisation of voluntary work events.

Finland's legislation on invasive alien species was tightened on 1 June 2019. The growing prohibition prescribed in it pertains to the Nootka lupine; the Aleutian ragwort; the Bohemian, the Japanese and the giant knotweed; the Canadian waterweed; the large-leaved lupine; the rugosa rose and the orange jewelweed (Government Decree on Managing the Risk Caused by Alien Species 704/2019, Annex B). The Persian hogweed and the Himalayan balsam are on the list of invasive alien species of Union concern, and releasing them into nature is prohibited.



9.1. We will update plans and instructions related to preventing invasive alien species as regulations change and make sure that no invasive alien plants are included in plant use instructions or park and street plans.

PALU/YMPA, MAKA/KAMU

9.2. We will map occurrences of invasive alien species in connection with various mappings of ranges of species and nature types.

PALU/YMPA

9.3. We will create plans for preventing invasive alien species in small water bodies and sea shores in co-operation with the neighbouring municipalities.

PALU/YMPA

9.4. We will exterminate the most harmful invasive alien species and species that require the most efficient prevention measures from parks, traffic areas and by water bodies, and we will renovate and restore plant habitats.

Project: 2021–2023, RYA/KUPI

10.

Helsinki residents' relationship with nature will be strengthened and their awareness of biodiversity will be increased

Strengthening people's relationship with nature is important for the quality of life of people of all ages. Nature is known to have a multitude of positive effects on children's development. However, children currently spend more time indoors than before, and their knowledge of and relationship with nature have become narrower. Therefore, more attention must be paid to supporting children's, young people's and special groups' relationship with nature.

Of all EU citizens, Finnish people are the least concerned about the diminishing of biodiversity. Work must be carried out to inspire citizen and professional groups to become interested in biodiversity, understand its significance, be aware of the risks related to its diminishing and develop operating methods for increasing biodiversity.



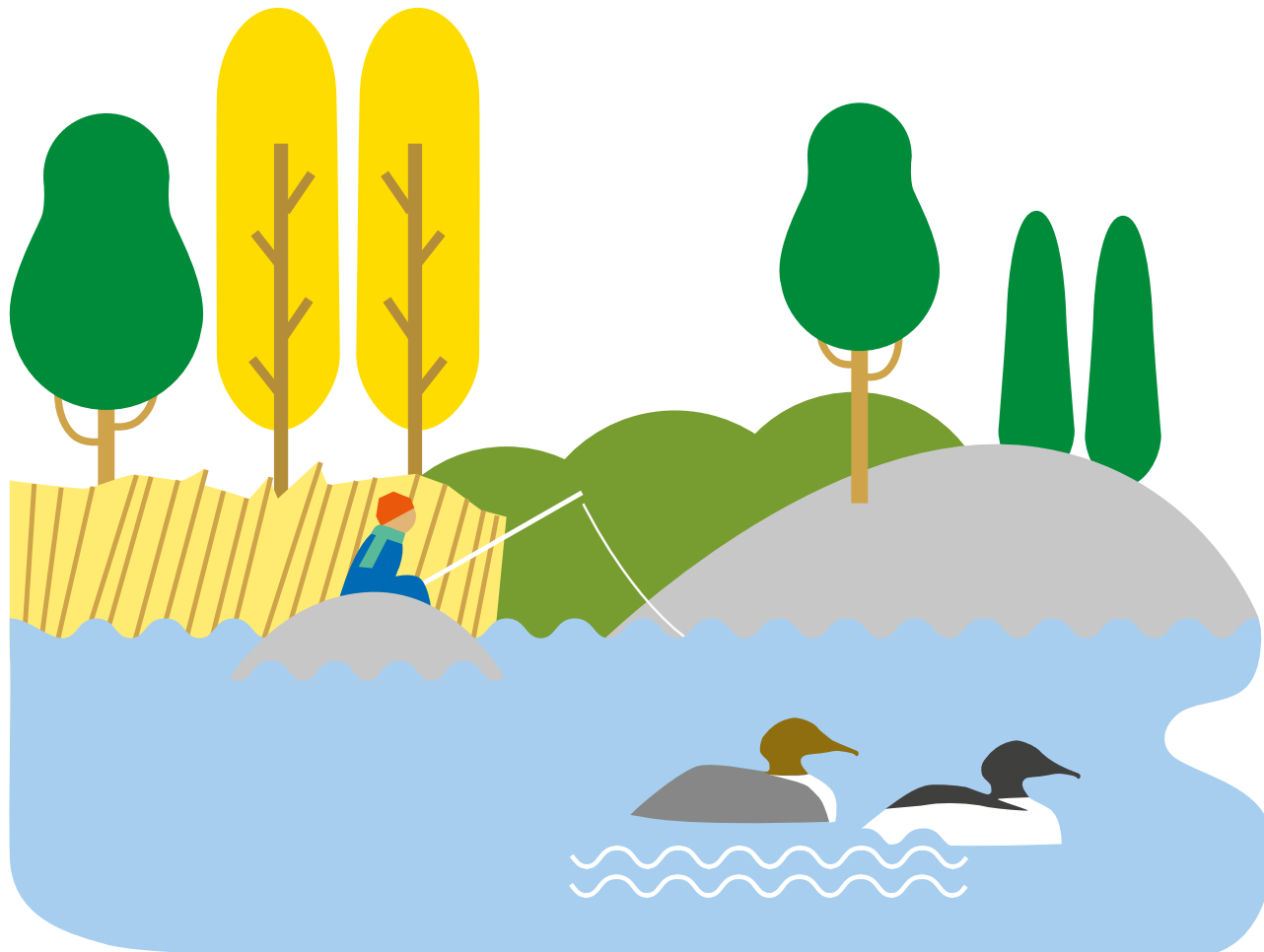
- 10.1.** We will strengthen residents', decision-makers' and the City staff's knowledge of and relationship with nature, so that they understand the significance of biodiversity and take action to secure it.
PALU/YMPA
- 10.2.** We will provide services that support the building of a relationship with nature in early childhood education, at schools and among special groups.
PALU/YMPA
- 10.3.** We will train planning officers and nature caretakers to take biodiversity into consideration in the City.
PALU/YMPA
- 10.4.** We will hold an annual seminar on the diversity of urban nature.
PALU/YMPA
- 10.5.** We will develop new and innovative ways to communicate about nature values and their preservation.
PALU/YMPA
- 10.6.** We will increase awareness of the fact that urban nature can be diverse, and it can be affected through planning and behaviour in nature.
PALU/YMPA
- 10.7.** We will provide information about the significance of biodiversity in connection with providing nature experiences in nature school operations, on park walks, on courses and on nature trips.
PALU/YMPA
- 10.8.** We will open data regarding Helsinki's main forest types for the use of residents and educational institutions.
MAKA/KAMU
- 10.9.** We will inform fishers about the dangers of fishing lines and hooks left on shores and in water and, if necessary, hold voluntary cleaning events at problem sites.
KUVA/LIIKU

11.

Sustainable recreational use of nature will be promoted and residents' activities for the good of biodiversity will be supported

People are well aware of the scientifically studied health benefits of nature, and they value recreation in local nature. However, wear on nature areas is an increasingly clear problem that must be tackled quickly and in a systematic manner. As the city grows, it will be ensured that nature can withstand the increasing recreation pressure and maintain its diversity. At the same time, the health benefits and accessibility of nature must be secured for all residents.

According to surveys, the majority of Helsinki residents are interested in nature and ready to take part in securing biodiversity. It is important to develop new ways to inspire people and involve them in activities that promote biodiversity.



11.1.

We will establish a nature service policy that involves creating a plan for directing and developing the recreational use of nature and securing the health benefits of nature.

Project: 2022–2023, MAKA/KAMU, PALU/YMPA

11.2.

We will establish criteria for developing the nature base network equally (e.g. outhouses, rain shelters, picnic sites).

MAKA/KAMU

11.3.

We will create communal nature bases for the use of schools, daycare centres, organisations and other operators.

PALU/YMPA, KASKO

11.4.

We will conduct a survey and create an action plan to increase health-promoting nature contacts for people.

PALU/YMPA

11.5.

We will add signposts and structures in nature areas to facilitate nature hiking for people of different ages and improve the sustainability of nature areas.

MAKA/KAMU, KUVA/LIIKU

11.6.

We will develop nature advocate activities based on civil observation and volunteerism.

PALU/YMPA, RYA/KUPI

11.7.

We will hold open civil observation events focusing on the monitoring of chosen interesting species.

PALU/YMPA

11.8.

We will increase voluntary work events related to the securing of biodiversity.

RYA/KUPI, PALU/YMPA

Monitoring

Monitoring of the progress of the action plan

The parties responsible for the measures will carry out an annual assessment of the progress, implementation and effectiveness of the measures of the action plan for Helsinki's nature conservation working group. The monitoring information will be submitted to the Urban Environment Committee every two years. Additionally, an external assessment of the implementation and effectiveness of the action plan will be commissioned in 2025 and after the programme period has ended.

Monitoring of the state of urban nature

The objective of monitoring the state of nature as part of the action plan is to produce information about the state of biodiversity and changes therein in a format that is useful to residents, decision-makers and planning officers. The monitoring will focus on three wholes: the amount and quality of nature areas and habitats, the range of species and environmental responsibility. Changes related to the aforementioned will be monitored with simple methods implemented where possible by City operators responsible for the different measures. Environmental Services will also prepare a plan for long-term nature monitoring in Helsinki during 2021. The objective of the plan is to determine the needs and methods of long-term monitoring of different species groups and nature types. The purpose is to also continue previously-started monitoring operations, such as the monitoring of pollinators, birds and vegetation. Monitoring operations will be planned for both nature conservation areas and other green areas. In the most frequently used nature areas, the monitoring will focus on the degree of wear and the recovery of the vegetation. The state of nature will be monitored in co-operation with research institutions and experts. Residents and nature hobby organisations will be involved in civil observation.



Methods to be used in monitoring the state of nature:

Nature areas and their ecological quality

1. Change in the amount of permeable surfaces from the land cover dataset, PALU/YMPA
2. Change in the land area of forests and wooded areas from the land cover dataset, PALU/YMPA
3. Ecological network indicator, PALU/YMPA
4. Proportion of City-controlled green areas of the total area, RYA/ROHA
5. Change in the number of nature areas, PALU/YMPA
6. Change in the number of protected nature areas, PALU/YMPA
7. Accessibility of green areas, MAKAKAMU
8. Monitoring of the number of valuable geological sites in the nature information system, PALU/YMPA
9. Monitoring of the amount of recycled natural land masses, RYA/ROHA
10. Monitoring of valuable plant sites in the nature information system, PALU/YMPA
11. Use of markings in detailed plans that indicate areas and connections that are particularly important in terms of biodiversity, MAKASKA

Habitats

Forests

1. Canopy cover, age and average height of the tree stock from Multi-Source National Forest Inventory (MVMI) material, PALU/YMPA

2. Monitoring of the state of nature in forests and the effects of maintenance with indicator species groups,
PALU/YMPA

Meadows

3. Change in the number of maintained meadows,
RYA/YLPI

The sea and the archipelago

4. Mapping and monitoring of valuable marine and archipelago ecosystems (marine nature map),
PALU/YMPA
5. Monitoring of the effects of archipelago tourism on nature with vegetation as an indicator,
PALU/YMPA

Small water bodies, swamps and wetlands

6. Monitoring of nature in groundwater-affected wetlands and spring mires,
PALU/YMPA
7. Change in the total number of swamps and wetlands,
PALU/YMPA
8. Number of semi-natural small water environments,
PALU/YMPA
9. Mapping of small water biotas,
PALU/YMPA
10. Monitoring of migratory fish in rivers and creeks,
KUVA/HATU

Built environments

11. Monitoring of the usage times of the green factor method,
MAKA/ASKA
12. Number of sites planned and implemented on dynamic principles,
MAKA/KAMU
13. Change in the land area of roadside meadows,
RYA/YLPI

Endangered nature types

14. Monitoring of endangered nature types,
PALU/YMPA

Species

15. Change in the number of bird species,
PALU/YMPA
16. Monitoring of archipelago bird populations,
PALU/YMPA
17. Monitoring of winter bird populations,
PALU/YMPA
18. Change in the number of butterfly species,
PALU/YMPA
19. Change in the number of vascular plant species,
PALU/YMPA
20. Occurrence of endangered vascular plant species,
PALU/YMPA
21. Flying squirrel monitoring,
PALU/YMPA
22. Ecologically harmful alien species,
PALU/YMPA

Environmental responsibility

23. Number of directed nature services,
PALU/YMPA
24. Monitoring of nature area structures and equipment,
RYA/KUPI, KUVA
25. Number of nature trails,
MAKA/KAMU
26. Accounting on the number and nature of measures to replace construction in green areas,
MAKA/ASKA, PALU/YMPA
27. Species to be monitored through civil observation can include but are not limited to the following,
PALU/YMPA
 1. Goat willow
 2. Harebell
 3. Yellow iris
 4. Spongipellis spumea
 5. Fomitopsis rosea
 6. Siberian flying squirrel
 7. Hedgehog
 8. Swift
 9. Lesser black-backed gull
 10. Tree bumblebee
 11. Mourning cloak
 12. Trout

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Abbreviations

Abbreviations for the City's divisions, services and departments used in the action plan:

KASKO – Education Division

KUVA – Culture and Leisure Division

HATU – Management and Support Services

LIIKU – Sports Services

KYMP – Urban Environment Division

MAKA – Land Use and City Structure

ASKA – Detailed Planning

KAMU – Urban Space and Landscape Planning

MYLE – Strategic Urban Planning

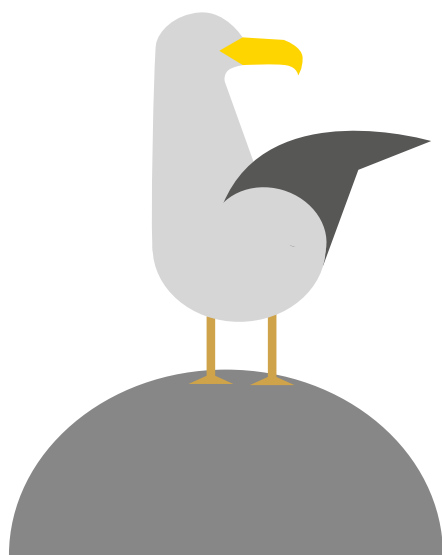
PALU – Services and Permits

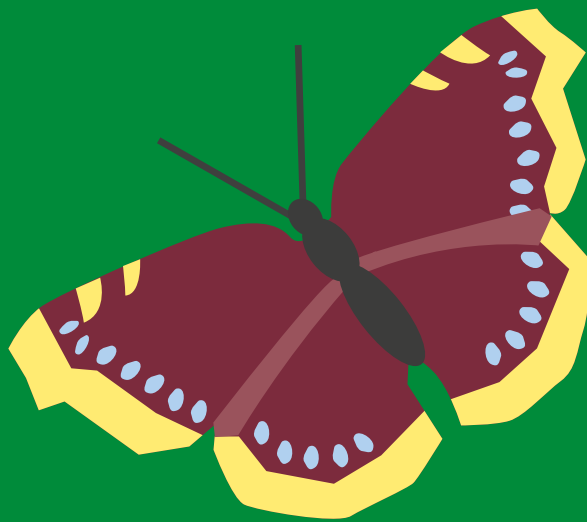
YMPA – Environmental Services

RYA – Buildings and Public Areas

KUPI – Maintenance

ROHA – Built Assets Management





Helsinki

Urban Environment Division takes care of planning, building and maintenance, building control and environmental services in Helsinki.