THE BALTIC SEA CHALLENCE

Joint Baltic Sea Action Plan of the Cities of Helsinki and Turku

2024–2028

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The Baltic Sea Challenge 2024,
The cities of Turku and Helsinki

Cover photo: Katja Holttinen

Content

1. Declaration of the Baltic Sea Challenge

The cities of Turku and Helsinki have committed to tangible and voluntary conservation measures aimed at impacting the state of coastal waters and the entire Baltic Sea beyond what is required by legal obligations alone. In 2007, our cities jointly established the Baltic Sea Challenge network initiative, which aims to serve as an example of protecting the Baltic Sea at the city level while challenging other actors to join the network. From the very beginning, the vision of this challenge has been a clean, productive and shared Baltic Sea.

The Baltic Sea is one of the most polluted seas in the world, although ambitious national and international conservation work has already been carried out for decades. A healthy Baltic Sea is vitally important to both humans and the environment. The economic and social services, goods, and natural and cultural values provided by the sea are important for the well-being and vitality of cities. The sea is also an important resource for coastal livelihoods, transport, fishing and travel. For example, travel services in Turku and Helsinki generate a total of approximately EUR 1.8 billion annually (TAK OY, 2023). Diverse cooperation has been identified as the key to successful Baltic Sea conservation efforts, and we, as cities, want to contribute to this in the coming period as well.

During the last three action plan periods, Turku and Helsinki have taken a number of steps to reduce the cities' water pollution while taking into account other trends and societal priorities affecting the Baltic Sea. For example, phosphorus, one of the most significant nutrients contributing to eutrophication, has been reduced in municipal wastewater in the Turku and Helsinki regions. In the Turku region, the phosphorus load has been reduced by 81% since 2007, and in the Helsinki region, the opening of the new Blominmäki water treatment plant in the summer of 2023 reduced the nitrogen load by nearly a third. In addition, 330 members of our current network have implemented a number of measures through their own action plans and commitments. We thank our current and future network members for their invaluable work!

Cities play a key role in influencing the state of our waters, as cities manage processes like land-use policies from planning to implementation. Achieving the objectives of the action plan requires seamless and functional links between city activities so that the impacts of human activities on the Baltic Sea can be considered in the context of sustainable development at every stage. Taking these links into account in the action plan's future implementation is part of the cities' ambitious water protection efforts. In addition, city lobbying can influence national water protection policies and adequate funding for policy measures, maximising the effective use and adequate budgeting of water protection funding.

In the upcoming fourth action period, the cities of Helsinki and Turku commit to continuing their valuable work on the Baltic Sea in 2024–2028. The upcoming period will focus especially on reducing stormwater pollution and promoting biodiversity, cooperation and participation. At the same time, our cities will challenge new actors to join us in cooperation and our existing partners to renew their action plans.

In January 2024, the Mayors of Helsinki and Turku

Juhana Vartiainen, Helsinki

Minna Arve, Turku

2. Introduction

The state of the Baltic Sea remains poor, which is why the Baltic Sea Challenge network's efforts to improve its condition will continue to be important and relevant in future. The Baltic Sea, a unique environment, will face major cumulative threats in the future, such as climate change and increased pressure from utilisation. These threats are not purely ecological, but they are increasingly intertwined with diverse and major societal issues, such as the economy and culture. We must also consider the protection of the Baltic Sea in the context of this multi-crisis period and think about our measures in a new, more multifaceted way, involving robust interdisciplinary approaches and effective interaction between different actors. We must account for many parameters across all areas of sustainable development when implementing measures and assessing their effectiveness to ensure that they are fully sustainable. Cities have a significant role in protecting the Baltic Sea, as their decisions and actions can influence land use, stormwater quality and management, discharges of harmful substances and waste into the sea, the promotion of biodiversity and the formation of a Baltic Sea identity among city residents.

The vision of the Baltic Sea Challenge is a clean, productive and shared Baltic Sea. Cities strive to lead the way in water protection by ambitiously developing their own operations and cooperation with partners. Collaboration between the city's divisions and stakeholders, such as companies, associations, educational institutions, research institutes and residents, is essential to ensure that actions are cost-effective and have a multi-level impact.

The Baltic Sea Action Plan guides the operations of Helsinki and Turku alongside city strategies and other programmes. We have aimed to build a concise plan that creates a clear frame of reference for the cities' work on the Baltic Sea over the next five years. The plan has been prepared using other documents guiding Baltic Sea policy at national and international levels for reference (Annex 1). This has made it possible for us to focus the plan's measures on the most cost-effective and synergistic areas. The plan supports climate change mitigation, circular economy commitments, and water protection objectives, among other things. At the national level, the plan contributes to implementing the national Archipelago Sea Programme and the Programme of Measures of the Finnish Marine Strategy.

In order to implement the Baltic Sea Action Plan, it is important the plan's objectives and measures are integrated into the city's financial and operational planning. The plan's content has been created jointly with the city's various

The vision for the Baltic Sea Challenge: a clean, productive and shared Baltic Sea

The Turku City Strategy highlights the importance of the Archipelago Sea and the city's responsibility for its protection:

"The Archipelago Sea is doing better, although it still requires protection. As the capital of the archipelago, we have a special responsibility to preserve its unique nature."

According to the Helsinki City Strategy 2021–2025,

"For example, Helsinki has a great responsibility for the state of the Baltic Sea and its protection, and Helsinki can influence the state of its own natural and forest areas in a way that supports biodiversity." In addition, "Helsinki will preserve the Baltic Sea and its shores and reduce emissions into the Baltic Sea."

divisions, residents and the Baltic Sea Challenge network to enhance a sense of ownership. The measures are voluntary and in excess of the legal requirements for water protection.

The new action plan is very different from the previous one. The easier, more general and reproducible measures to protect the Baltic Sea have already been implemented. The measures in the current plan may look very different and be carried out very differently in Turku and Helsinki. One reason for this is the specific characteristics of each city, such as differences in their strategic location, small catchment areas, land use, and soil types.

We selected measures for the fourth action plan based on their novelty, effectiveness, measurability and feasibility. We additionally chose measures that are not already being implemented through governmental or municipal action programmes or normal ongoing activities. The results and experiences gained from the implementation execution of the previous Baltic Sea Action Plan 2019–2023 were used as a basis for new measures. There were many similarities between the content of the previous plan and the new proposed measures. Some of the old measures were also brought into the new programme using a different approach, if significant bottlenecks had been identified during the preceding period. The description of each new measure also lists the city's other strategic and guiding documents that support that measure. The new programme for 2024–2028 also introduces entirely new water protection measures for the Baltic Sea, such as the addition of water sustainability criteria to the cities' procurements and an approach based on water quality measurements for accurate and comprehensive assessments of coastal water pollution across time and space. The final goal of this action plan is that, in five years, we are once again one step closer to achieving the good state of the Baltic Sea.

In the Turku archipelago lies Loistokari island, where the last authentic passenger steamship, s/s Ukkopekka, makes stops during dinner cruises.

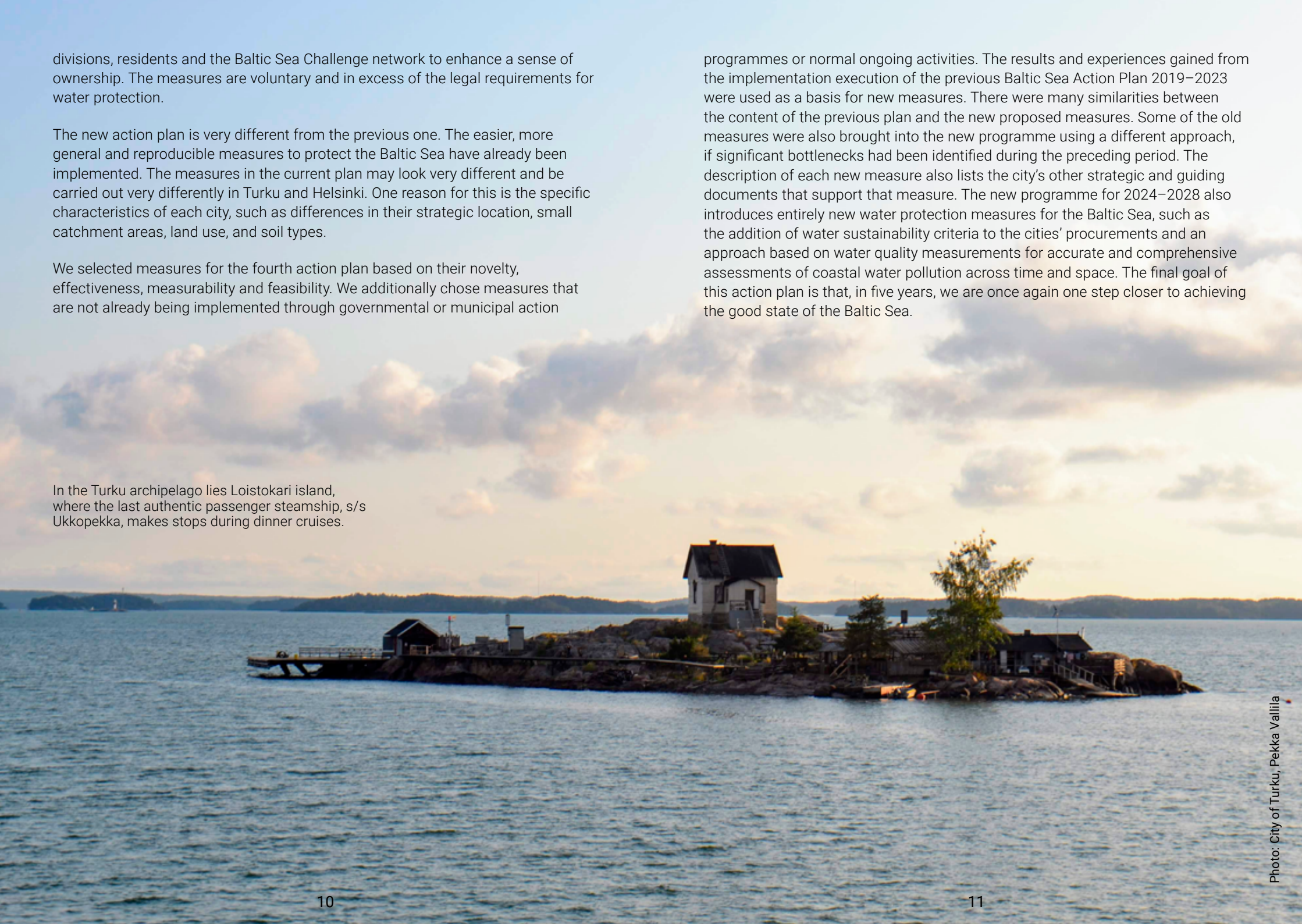
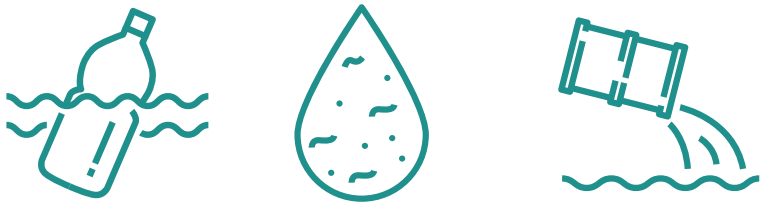


Photo: City of Turku, Pekka Vallila

3. The vulnerable Baltic Sea

The Baltic Sea is a globally unique sea. It is relatively young, shallow and small in volume, and an almost closed-off inland sea. It has an average depth of only about 54 metres. Its only maritime connection to the Atlantic Ocean is through the narrow straits of Denmark. The Baltic Sea is the world's largest brackish water basin, and its salinity ranges from 20 parts per thousand in the south to almost fresh water in the north. The salinity of the sea is influenced not only by its small and restricted connection to the ocean but also by a drainage basin that is four times its size, resulting in a significant amount of freshwater in proportion to saltwater. In addition, precipitation in the Baltic Sea region is twice as high as evaporation. The biota of the Baltic Sea is a unique combination of saltwater and freshwater species. The biota is already at the limits of its resilience, resulting in smaller organisms and reduced species diversity in its communities. In addition, the unique nature of the sea is further influenced by the winter ice cover, which affects water flows, sedimentation and species.

The coastline of the Baltic Sea extends into the territory of nine countries and its drainage basin to that of fourteen. Approximately 90 million people live within the drainage basin. The utilisation pressure on the sea is enormous, which increases the risks of catastrophic environmental disasters, for example. Despite conservation measures, the state of the sea is poor and the substantial pollution from past decades is still evident (Korpinen et al., 2019). The Baltic Sea is particularly threatened by harmful substances, nutrient pollution from human activities, climate change and global biodiversity loss (HELCOM, 2023). The ecosystem is vulnerable to even minor changes. Cooperation is essential for bettering the state of the Baltic Sea, and its coastal states, municipalities, businesses and citizens all need to be involved.



The Baltic Sea drainage basin

4. Objectives of the Action Plan 2024–2028

The Baltic Sea Challenge Action Plan for 2024–2028 consists of 27 actions to be implemented that contribute to one or more of its objectives. There are six objectives, and they cover the most significant threats affecting the state of the Baltic Sea and the key solutions.

The objectives of the Baltic Sea Challenge Action Plan 2024–2028 are:

- **Promoting the sustainable use of the sea**
- **Preventing litter**
- **Reducing harmful substances**
- **Increasing biodiversity**
- **Curbing eutrophication**
- **Increasing cooperation and inclusion**

These objectives were defined on the basis of the most important national and international documents governing the Baltic Sea policies of Turku and Helsinki (Helenius, 2023). The objectives are in line with the Baltic Sea Action Plan of the Baltic Marine Environment Protection Commission (HELCOM, 2021) and in many respects support the implementation of the objectives of the Finnish Marine Strategy's programme of measures (Laamanen et al., 2021). The plan will also contribute to the following Sustainable Development Goals of the UN's 2030 Agenda:

Detailed descriptions of the Agenda and the sub-goals implemented by this program are presented at the end of Appendix 1.

Curbing eutrophication

Eutrophication refers to an excessive increase in the amount of nutrients, such as nitrogen and phosphorus, in bodies of water. Agriculture, forestry, and industrial discharges and wastewater are causing the eutrophication of the Baltic Sea. The abundance of nutrients increases primary production, which can result in huge algae blooms in the summer. Eutrophication reduces the amount of oxygen in the water and can lead to areas with anoxic seabeds and changes in biodiversity.

Reducing harmful substances

Harmful substances end up in the Baltic Sea from sources such as industry, agricultural fields and domestic wastewater. Stormwater carries harmful substances from streets directly into bodies of water, for example. Municipal water that flows into a wastewater treatment plant also releases harmful substances into the sea, as it is not possible to completely remove all substances in wastewater treatment. The Baltic Sea is also polluted by persistent and harmful chemicals that have been deposited in sediments over the seabed over the course of history and other sources, such as sunken ships, which can release hazardous chemicals over time. Little is known about the long-term interactions of the harmful substances found in the Baltic Sea. Mercury, pharmaceuticals, flame retardants and oils are currently the most problematic. Harmful substances and toxins can accumulate in organisms and build up in the food chain, eventually ending up at the top in predators and humans. In addition, they can cause hormonal disruptions throughout the food chain.

Increasing biodiversity

This diversity has been declining for a long time due to human activity, causing species extinctions and the deterioration of ecosystems. Biodiversity is also necessary for humans to secure ecosystem services, such as food production, the use of natural resources and health benefits. Biodiversity can be safeguarded by conserving and restoring natural environments, mitigating climate change and combating invasive alien species.

Promoting sustainable use of the seas

Sustainable use of the seas refers to the sustainability of maritime transport and related activities, as well as other activities in and under water. The aim is to ensure that the use of the sea does not degrade its condition and that all forms of pollution and other negative impacts are kept to a minimum. Activities in the marine area should interfere as little as possible with the functioning of ecosystems and the well-being of organisms. Sustainable use of the sea involves environmentally friendly shipping, recreation, fishing and other economic activities.

Preventing litter

A lot of debris ends up in the Baltic Sea, much of which originates from land. Large amounts of debris cause tangible harm to animals, for example, by clinging to them and entering their bodies with food. A large part of this debris is plastic, which further breaks down into microplastics in the sea. Microplastics have also been found in humans (Leslie et al., 2022). Cigarette butts are the most common litter found on beaches, and they leach harmful substances into the sea. The waste management system in Finland processes waste sorted into rubbish bins and ensures that properly disposed waste does not end up in the sea..

Increasing cooperation and inclusion

Achieving a healthy Baltic Sea requires cooperation between all those operating in its drainage basin. The extent of the drainage basin and its geopolitical situation pose challenges to cooperation, but the impact of individual actions is not enough to solve the serious environmental problems. It is important for city residents to be aware of and involved in protecting the Baltic Sea, as meaningful experiences and a better understanding of cause-and-effect relationships will increase their appreciation of the sea. It also generates political pressure and enables the allocation of resources for water protection in organisational decision-making.

The water bus travels from the Turku city center to the Ruissalo public park. All stops and both vessels are accessible, and the journey is paid for like in Föli bus services.

Photo: City of Turku, Pekka Vallila

5. Actions

The Baltic Sea Action Plan for 2024–2028 includes 27 planned measures, 21 of which will be implemented in both cities. The implementation may vary according to the cities' needs. In addition, Helsinki has two of its own measures, and Turku has four. The measures have been designed considering the specificities of each city, its resources, and the scale of the intended impact. The measures are grouped into nine themes. Each measure contributes to one or more objectives, which are indicated by symbols.

Themes:

Maritime transport and ports,
Land use,
Cooperation and network,
Eutrophication,
Stormwater,
Biodiversity,
Baltic Sea identity,
Littering,
Procurement

The action period lasts five years. The resources for implementing these measures are limited, and their implementation will also be affected by any political and strategic changes in the cities during the action period. The measures are therefore divided into three groups according to the resources they require, the time needed to implement them and the magnitude of their impact (Annex 3). The measures will be implemented in three stages, according to these groupings. In addition, this staging aims to maximise the effective use of external funding opportunities.

The objectives of the Baltic Sea Action Plan are also linked to other cities' programmes and strategies. In addition to its own objectives, the implementation of the action plan also affects the implementation of other programmes and contributes significantly to national water protection programmes (Annex 2). It is cost-effective to consider the interrelationships between different programmes in the cities' chains of operations, such as schedules, budgeting and converging interests. Other urban programmes with similar objectives are listed for each measure.

Stage 1:

The implementation of these measures will begin as soon as possible at the beginning of the action period. These measures have a broad impact, and their implementation is to be prioritised, or they require additional resources, more extensive planning, or are otherwise lengthy.

Stage 2:

These measures will be implemented later when the Stage 1 measures have been implemented, or their implementation has begun. The implementation of Stage 2 may depend on the implementation of measures in Stage 1, external funding or other external factors that are difficult to predict.

Stage 3:

These measures are not heavily dependent on other factors and can be implemented when resources become available.

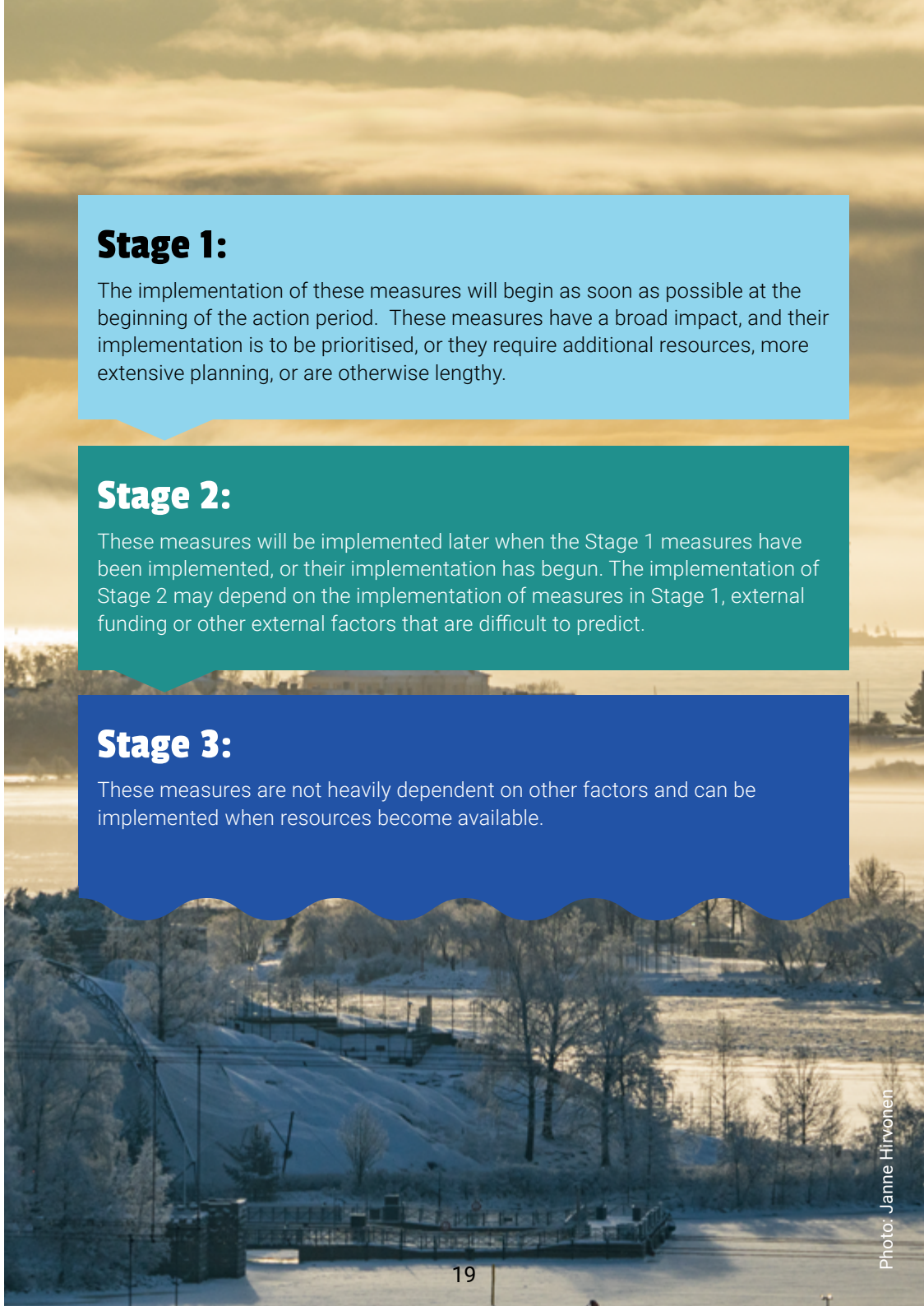


Photo: Janne Hirvonen

Maritime transport and ports

Action 1 Promoting environmental responsibility at small marinas

Description:	The cities will improve the environmental responsibility of their small marinas. Environmental responsibility means that marinas have appropriate waste management, boat maintenance, handling of fuels and greywater, and adequate reception facilities for toilet wastewater and bilge water. Turku: If the reception facilities are emptied into the sewage network, they must be covered by an industrial wastewater contract.	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **KYMP PALU YMPA YSE**, KUVA	**Turku:** **KYPA** environmental protection, urban construction
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding Other notes: The implementation schedule should monitor the implementation of the Finnish Marine Strategy in order to maximise synergies	
Impact	Promoting sustainability in small marinas prevents point source pollution, in particular. Numerous harmful substances are used to maintain boats at small marinas, which can be absorbed into the soil and then further into waterways.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	✓ Preventing litter	✓ Reducing harmful substances	✓ Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO programme 2021–2028, the City of Helsinki's environmental policy 2012–2050, Helsinki Maritime Strategy 2030

Turku: LUMO programme 2023–2029, Towards a circular economy – Southwest Finland's waste management programme 2023–2028, Turku City Strategy: Turku in the 2030s: Protecting the Archipelago Sea and improving its well-being, Circular Turku – A Roadmap Toward Resource Wisdom, City of Turku Mayor's Programme 2021–2025

Action 2 Turku: Developing a compensation model for the hydrological impacts of waterway and port maintenance

Description:	A compensation model will be developed to identify and determine the compensation required for damage to water bodies in situations where such damage cannot be avoided.	
Responsible parties: The main responsible party is in bold text	-	**Turku: KYPA** environmental protection
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☑ Requires external funding Other notes: The scope and schedule of implementation depends on external funding opportunities	
Impact	The ecological condition of a body of water can be maintained as close as possible to its full value despite the mandatory restoration.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	Preventing litter	Reducing harmful substances	✓ Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Action 3 Considering the environmental impacts of maritime operators in planning the city's beaches and archipelago

Description:	The environmental impact of the blue economy will be taken into account in planning the city's beaches and archipelago. Helsinki: Where possible, the city will increase the wastewater and electricity infrastructure available for both permanent and seasonal use, e.g. by restaurant boats and floating saunas, when pier structures are renovated and new coastal structures are built.	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **KYMP MAKA Kamu**, KYMP RYA YLA	**Turku:** **KYPA urban design and land property**, urban construction, building control, Business and Economic Development: The city centre's spearhead project: Maritime Turku
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	The blue economy encompasses industries based on the sea and waterways, such as maritime transport, tourism in maritime areas or the archipelago, fishing, aquaculture and offshore wind power. Planning can be used to promote operators' awareness of their environmental impacts and to ensure that their activities do not harm the Baltic Sea.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	✓ Preventing litter	✓ Reducing harmful substances	Increasing biodiversity	✓ Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), Helsinki City Strategy 2021–2025, Helsinki Maritime Strategy 2030, the City of Helsinki's environmental policy 2012–2050, Helsinki City Plan 2016 and the City Plan Implementation Programme 2017

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan, City of Turku Mayor's programme 2021–2025

Action 4 Helsinki: Encouraging cargo ships to manage their wastewater better

Description:	The city will communicate to cargo ships, e.g. during hygiene inspections, about the option of disposing of black and grey wastewater at the port.	
Responsible parties: The main responsible party is in bold text	**Helsinki: Helsingin Satama,** KYMP PALU YMPA YTY, the Baltic Sea Challenge	-
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	A significant part of the phosphorus and nitrogen emissions from ship traffic comes from discharges of wastewater and greywater into water bodies.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	✓ Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), Carbon-Neutral Port of Helsinki manifesto, Helsinki Maritime Strategy 2030

Land use

Action 5 Updating the lease criteria for areas rented out by the cities to better account for water protection

Description:	a. The cities will investigate the necessary changes to the lease criteria in their areas in order to better account for water protection. b. The cities will introduce the criteria for reducing eutrophication established in part (a) when renewing leases for city-owned fields. A wide range of proven agricultural water protection measures will be required. Biodiversity and nutrient retention in soils will be taken into account.		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP PALU YMPA,** KYMP PALU AKV, KYMP MAKA MAKE	**Turku: KYPA urban construction**	
Resources:	☑ Does not require significant additional resources ☐ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	The lease criteria allow the cities to affect the pollution levels from activities in their area. Through better nutrient retention, properly implemented, the cities can reduce the nutrient pollution of water bodies. At the same time, improved nutrient retention will increase the productivity of arable land.		
Schedule	**Stage 1** ✓	**Stage 2**	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
			✓	✓	

Other programmes related to this measure:

Helsinki: LUMO programme (2021–2028), City of Helsinki's environmental policy 2012–2050

Turku: Stormwater Programme 2016, Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan, Turku City Strategy: Turku in the 2030s, the City of Turku's forest plan 2019–2029, Circular Turku – A Roadmap Toward Resource Wisdom, City of Turku Mayor's programme 2021–2025

Action 6 Increasing attention to the impacts of city planning and other land-use planning on the Baltic Sea

Description:	a. The cities will provide training for their operators on Baltic Sea-friendly land-use practices. b. They will prepare a planning guide that takes into account ecologically significant beaches, small water bodies and PEMMA areas (Marine Areas of Local Ecological Significance), ensuring adequate protection zones and additional nature surveys for new projects. c. The existing guidelines for water management will be disseminated throughout the planning chain. This chain includes city planning, implementation planning, building control and maintenance. The existing guidelines include, e.g. the construction site water guide and the stormwater programme (Turku and Helsinki), the blue network survey's planning guidelines collection (Helsinki), and the planning guidelines that will be implemented in part (b).	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **a. KYMP MAKA** Myle, Kamu, Aska **b. KYMP PALU YMPA** YSE, YSO, YTY **c. KYMP MAKA** Myle, Kamu, Aska, RYA	**Turku:** **a. KYPA urban design and land property,** urban construction **b. KYPA environmental protection,** planning **c. KYPA** urban design and land property, urban construction
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding Other notes: The scope and schedule of implementation depend on the implementation of other measures, as well as external resourcing. For Turku, the schedule for part (b) is dependent on surveys of ecologically significant areas.	
Impact	In cities, land use and city planning can significantly impact what kind of stormwater solutions will be implemented and how the city protects its environment. Stormwater management significantly reduces urban pollution in the Baltic Sea. By protecting ecologically significant areas, the cities can increase and maintain urban biodiversity. Stormwater management and protected areas are intrinsically linked to the cities' ability to adapt to climate change.	
Schedule	**Stage 1** ✓	**Stage 2** **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
	✓	✓	✓	✓	✓

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), City of Helsinki Storm Water Management Program (2018), Helsinki City Strategy 2021–2025, the City of Helsinki's environmental policy 2012–2050

Turku: Turku City Strategy: Turku in the 2030s, Stormwater Programme 2016, LUMO Programme 2023–2029, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan, the City of Turku's forest plan 2019–2029, City of Turku Mayor's programme 2021–2025

Action 7 Creating a "Baltic Sea Street" themed area to strengthen the cities' Baltic Sea identity

Description:	The cities will create a Baltic Sea-themed area with the main objectives of reducing pollution in the sea and communicating about the city's water protection measures. The area will be an inclusive attraction and will raise awareness of the Baltic Sea among city residents. The planning and implementation of this area will bring together various city operators to solve common challenges facing the Baltic Sea in a cross-administrative way.	
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP MAKA ASKA,** KYMP MAKA KAMU, the Baltic Sea Challenge	**Turku: the Baltic Sea Challenge**, KONHA communications, The Baltic Sea Challenge, KONHA communications, facility services, Business and Economic Development: The city centre's spearhead project: Maritime Turku, KYPA urban construction, urban design and land property, KOPA, Forum Marinum
Resources:	☑ Does not require significant additional resources ☐ Requires personnel resources and possibly an additional budget ☑ Requires external funding Other notes: The scope and schedule of implementation depends on external funding opportunities	
Impact	The residents' Baltic Sea identity and maritime literacy will improve. Improving maritime literacy means raising the residents' awareness of the sea: what kind of environment it is, how the seas affect us and how we affect the seas. In addition, the image of the cities as forerunners in protecting the Baltic Sea will grow.	
Schedule	**Stage 1** ✓	**Stage 2** / **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	✓ Preventing litter	✓ Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: City of Helsinki Storm Water Management Program 2018, Helsinki City Strategy 2021–2025, Helsinki Maritime Strategy 2030, the City of Helsinki's environmental policy 2012–2050, Helsinki City Plan 2016 and the City Plan Implementation Programme 2017

Turku: Turku City strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Stormwater Programme 2016, Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan, the City of Turku's forest plan 2019–2029, City of Turku Mayor's programme 2021–2025

Photo: Suomen Ilmakuva Oy

Cooperation and network

Action 8 Developing networking activities for the Baltic Sea Challenge

Description:	a. The cities will increase the number of members in the Baltic Sea Challenge network; b. strengthen links with tourism services (Helsinki Partners, VisitTurku Archipelago); c. strengthen links with representatives of the agriculture, forestry and fisheries sectors; d. increase international cooperation and the number of international projects; e. increase cooperation, e.g. with sister cities in the Baltic Sea Challenge; f. improve the services offered to network members (e.g. city clinics) and survey member needs.		
Responsible parties: The main responsible party is in bold text	**Helsinki: the Baltic Sea Challenge**	**Turku: the Baltic Sea Challenge**	
Resources:	☑ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding Other notes: To be implemented throughout the action plan		
Impact	The impact of networking on improving the state of the Baltic Sea is greater than a single measure. By expanding the network, more actors can be involved in protecting the Baltic Sea. As several countries share the Baltic Sea, cooperation at the international level is particularly significant.		
Schedule	**Stage 1** ✓	**Stage 2**	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: City Strategy 2021–2025, Helsinki Maritime Strategy 2030,

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan, City of Turku Mayor's programme 2021–2025

Action 9 Promoting cooperation with educational institutions and universities

Description:	a. The cities will expand cooperation to new universities and other educational institutions. Maritime educational institutions will also be taken into account. b. The cities will allocate funding for commissioning theses	
Responsible parties: The main responsible party is in bold text	**Helsinki: the Baltic Sea Challenge**	**Turku: the Baltic Sea Challenge**
Resources:	☑ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding Other notes: Cooperation between educational institutions can also be used to promote many other measures proposed in the action plan	
Impact	Through growing cooperation with educational institutions, we will take into account the future workforce and increase Baltic Sea awareness in educational institutions. The commissioned theses will provide personnel resources for the cities' work on the Baltic Sea and bring committed new experts to the staff.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: City Strategy 2021–2025

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Action 10 Collecting and using data

Description:	a. The eDNA method (or other new equivalent method) will be utilised in monitoring species and for nature surveys of ecologically sensitive sites. b. The cities will investigate the level of underwater noise in PEMMA areas or other areas of significant natural value and create a plan to reduce it. c. Turku: Turku will ensure appropriate and regular measurement and monitoring of water quality in its waters, in addition to the statutory measurements. The collected data will be used to target water management measures and monitor impacts.	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **a. KYMP PALU YMPA YSO** **b. KYMP PALU YMPA YSO, YSE** **c. -**	**Turku: KYPA environmental protection**
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☑ Requires external funding Other notes: For Turku, survey of PEMMA sites (MEAS. 18a)	
Impact	By collecting spatially and temporally extensive and diverse data on water quality, pollutant loads and biota, it is possible to monitor the status of waters, identify ecologically sensitive and valuable areas, and target restoration and management activities cost-effectively.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	Preventing litter	Reducing harmful substances	✓ Increasing biodiversity	✓ Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO programme 2021–2028, the City of Helsinki's environmental policy 2012–2050, Helsinki Maritime Strategy 2030

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Nationwide: Archipelago Sea Programme, roadmap for agricultural water protection (Maatalouden vesiensuojelun tiekartta)

Action 11 Turku: Communicating about the synergies between water protection and climate efforts

Description:	a. The cities will investigate the combined effects of their water protection and climate work b. They will communicate about the links between water protection and climate action	
Responsible parties: The main responsible party is in bold text	**-**	**Turku: KONHA vihreä siirtymä,** environmental protection, the Baltic Sea Challenge
Resources:	☑ Does not require significant additional resources ☐ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	The cities' climate and water protection efforts share many of the same objectives. Effective water protection efforts can have a significant impact on mitigating climate change. Similarly, effective climate work can have a significant impact on the state of the seas.	
Schedule	**Stage 1** ✓	**Stage 2** **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan, City of Turku Mayor's programme 2021–2025

Nationwide: Archipelago Sea Programme, roadmap for agricultural water protection (Maatalouden vesiensuojelun tiekartta)

Eutrophication

Action 12 Reducing emissions from septic wastewater

Description:	a. The cities will examine the condition and appropriateness of their septic tank pump-out stations. b. They will communicate about the proper methods for emptying the septic tanks of buses. c. The cities will communicate about their septic tank pump-out stations for small/recreational boats, as well as the harm caused by discharges in waterways.	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **a. KUVA** **b. HSY** **c. KUVA**, the Baltic Sea Challenge	**Turku:** **a. KYPA urban construction** **b. KYPA urban construction,** the Baltic Sea Challenge **c. KYPA urban construction,** the Baltic Sea Challenge
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	Septic tanks continue to be discharged into waters. According to a study, the main reasons are the inadequacy or absence of collection equipment (Pönni & Haaksi, 2017). Faecal bacteria in toilet wastewater degrade water quality, and its nutrients cause eutrophication.	
Schedule	**Stage 1**	**Stage 2** ✓ **Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	Preventing litter	✓ Reducing harmful substances	Increasing biodiversity	✓ Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: Helsinki City Plan 2016 and the City Plan Implementation Programme 2017, City of Helsinki's environmental policy 2012–2050, Helsinki Maritime Strategy 2030,

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Action 13 Utilising municipal sewage sludge and organic matter removed from the sea

Description:	The cities will introduce established methods of using organic matter removed from the sea, such as lake reeds in green areas, as a permanent activity. Turku: The city will develop the use of municipal sewage sludge.	
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP RYA Yleiset alueet**	**Turku: KYPA urban construction,** environmental protection
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	Phosphorus and nitrogen end up in water systems, especially from agriculture. These are essential nutrients for plants that are imported from outside the EU in large quantities. Closing the nutrient cycle promotes the circular economy and mitigates climate change, eutrophication and environmental pollution.	
Schedule	**Stage 1**	**Stage 2** **Stage 3** ✓

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	✓ Increasing biodiversity	✓ Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: The City of Helsinki's Action Plan for the Circular and Sharing Economy, Helsinki City Strategy 2021–2025, City of Helsinki's environmental policy 2012–2050

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Nationwide: Archipelago Sea Programme, roadmap for agricultural water protection (Maatalouden vesiensuojelun tiekartta)

Action 14 Reducing pollution by focusing on drainage basins

Description:	a. The cities will identify the most polluting sites in the drainage basins of small water bodies and/or rivers, based on water quality and flow rate measurements. b. The cities will direct pollution-reducing measures to the selected areas in cooperation with the municipalities that share the minor drainage basin of the selected site.		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP PALU YMPA YSE,** YTY	**Turku: KYPA environmental protection,** urban construction	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☑ Requires external funding		
Impact	Water does not respect municipal or zoning boundaries. An approach based on assessing entire drainage basins and measuring water quality and flow rates can be more cost-effective and allow for better cooperation.		
Schedule	**Stage 1** ✓	**Stage 2**	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	✓ Reducing harmful substances	Increasing biodiversity	✓ Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO Programme 2021–2028, City of Helsinki Storm Water Management Program 2018, City of Helsinki's environmental policy 2012–2050

Turku: Turku: Stormwater Programme (2016), Turku City Strategy: Turku in the 2030s, City of Turku Mayor's programme 2021–2025

Nutrients causing eutrophication flow into the sea abundantly, for example, as surface runoff from fields.

Photo: Liisa Vainio

Stormwater

Action 15 Improving the incorporation of stormwater management in planning, from general land-use planning to implementation and maintenance

Description:	a. The cities will compile land-use regulations related to water protection at different levels of planning into a planning regulation bank. b. A stormwater runoff quantity and quality management plan will be made in connection with the applicable local detailed plans. c. The cities will ensure adequate space for water management.	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **a. KYMP MAKA, Myle, Aska** **b. KYMP MAKA Aska** **c. KYMP MAKA Myle, Aska,** RYA Yla	**Turku:** **KYPA urban design and land property,** environmental protection
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	Effective stormwater management prevents nutrients, pollutants and debris from entering small water bodies, rivers and the sea.	
Schedule	**Stage 1** ✓	**Stage 2** / **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
	✓	✓		✓	

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), City of Helsinki Storm Water Management Program (2018), City of Helsinki's environmental policy 2012–2050

Turku: Stormwater Programme (2016), Turku City Strategy: Turku in the 2030s, Turku Climate Plan 2029, the City of Turku's forest plan 2019–2029, City of Turku Mayor's Programme 2021–2025

Action 16 Introducing new ways to reduce pollution from stormwater

Description:	a. The cities will compile the results of trials and reports on stormwater management and implement the best solutions; b. develop comprehensive stormwater management by implementing a comprehensive water management plan; c. regularly monitor the quantity and quality of stormwater runoff to monitor the effectiveness of the stormwater solutions; d. experiment with new ways to absorb and treat stormwater; consider multiple uses for stormwater retention areas, e.g. as skateboarding spots, wetlands or areas with other recreational value; e. develop the permanent use of stormwater filters in stormwater drains and communicate the importance of reducing stormwater pollution.	
Responsible parties: The main responsible party is in bold text	**Helsinki:** **a. KYMP PALU YMPA** **b. KYMP MAKA Kamu** **c. KYMP PALU YMPA,** MAKA Kamu **d. KYMP MAKA Kamu,** RYA YLA **d. KYMP PALU YMPA,** RYA	**Turku:** **a. KYPA** urban planning and land ownership **b. KYPA** **c. KYPA environmental protection** **d. KYPA** urban construction, environmental protection **e. KYPA** urban construction
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	Stormwater can be treated with different systems, where water is absorbed into the soil, and its flow into surface waters is delayed. The water can also be filtered. Monitoring stormwater quality provides valuable information to planners about the effectiveness of different solutions.	
Schedule	**Stage 1** ✓	**Stage 2** / **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
	✓	✓			✓

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), City of Helsinki Storm Water Management Program (2018), the City of Helsinki's environmental policy 2012–2050, Helsinki City Strategy 2021–2025

Turku: Stormwater Programme (2016), Turku City Strategy: Turku in the 2030s, Turku Climate Plan 2029, the City of Turku's forest plan 2019–2029, City of Turku Mayor's Programme 2021–2025

Nationwide: Programme of Measures of the Finnish Marine Strategy 2022–2027

Biodiversity

Action 17 Stepping up the control of invasive species

Description:	The cities will support their efforts to combat invasive species through communication and organising events, for example.		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP RYA,** KYMP PALU YMPA YSO	**Turku: KONHA** communications, KYPA environmental protection, urban construction, the Baltic Sea Challenge	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	Harmful invasive species threaten biodiversity and the functioning of ecosystems. Cities combat the spread of invasive species in their areas by means of volunteer work, communication and in the context of construction.		
Schedule	**Stage 1**	**Stage 2**	**Stage 3** ✓

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	✓ Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), Helsinki City Strategy 2021–2025, the City of Helsinki's environmental policy 2012–2050

Turku City Strategy: Turku in the 2030s, LUMO Programme 2023-2029, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's programme 2021–2025

Action 18 Mapping and promoting the protection of ecologically valuable areas

Description:	a. Turku: the city will map its PEMMA sites (Marine Areas of Local Ecological Significance) b. Helsinki: the city will map small surface waters and bring them into the map service c. The cities will create guidelines on how to take PEMMA areas into account in land-use planning; d. Protect all PEMMA sites, taking into account the drainage basin; e. Protect natural beaches whenever possible		
Responsible parties: The main responsible party is in bold text	**Helsinki:** **a. KYMP MAKA Kamu,** YMPA YSE, YSO **b. KYMP PALU YMPA YSO,** YSE **c. KYMP PALU YMPA YSO** **d. KYMP MAKA ASKA (LUMO Programme)**	**Turku:** **a. KYPA environmental protection** **b. KYPA** **c. KYPA** **d. KYPA**	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☑ Requires external funding		
Impact	Increasing knowledge about sites of significant natural value helps to plan land use under growing pressures, taking into account valuable natural sites. Conservation measures can be targeted in a resource-wise way, ensuring the preservation of valuable areas and their biodiversity.		
Schedule	**Stage 1** ✓	**Stage 2**	**Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	Preventing litter	Reducing harmful substances	✓ Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), Helsinki City Strategy 2021–2025, Helsinki Maritime Strategy 2030, the City of Helsinki's environmental policy 2012–2050

Turku City Strategy: Turku in the 2030s, LUMO Programme 2023-2029, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's programme 2021–2025

Action 19 Turku: Restoring the flood dynamics of the Aura River in targeted areas

Description:	Unproductive agricultural and forestry areas will be restored to flood meadows, floodplains and other natural areas.		
Responsible parties: The main responsible party is in bold text	-	**Turku: KYPA environmental protection,** urban construction	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☑ Requires external funding		
Impact	The water quality in rivers will improve. This will reduce sedimentation in rivers, ports and shipping lanes, and thus the need for dredging. Biodiversity will increase (both on water and land), also strengthening ecosystem services such as pollination, enjoyment and recreation.		
Schedule	**Stage 1**	**Stage 2** ✓	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
		✓	✓	✓	

Other programmes related to this measure:

Turku: Turku City Strategy: Turku in the 2030s, LUMO Programme 2023–2029, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Stormwater Programme 2016, Turku Climate Plan 2029, the City of Turku's forest plan 2019–2029, City of Turku Mayor's Programme 2021–2025

Nationwide: Archipelago Sea Programme, roadmap for agricultural water protection (Maatalouden vesiensuojelun tiekartta)

Action 20 Restoring natural environments

Description:	The cities will carry out a restoration project or projects on a site that will be selected, for example, based on completed surveys (LUMO, PEMMA) a. Restoration of fish spawning and nursery areas b. Restoration of bird breeding, resting and feeding areas c. Restoration of bladder wrack and eelgrass habitats		
Responsible parties: The main responsible party is in bold text	**Helsinki:** KYMP PALU YMPA YSO, YSE	**Turku: KYPA environmental protection**	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☑ Requires external funding Other notes: In Turku, this requires mapping PEMMA sites (MEAS. 18a)		
Impact	Ennallistamalla pyritään kasvattamaan luonnon monimuotoisuutta ja torjumaan luontokatoa. Itämeressä avainlajien elinympäristöjen ennallistaminen tukee ekosysteemipalveluita ja eri eliöjoukkoja laajasti.		
Schedule	**Stage 1**	**Stage 2** ✓	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
✓			✓		

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), Helsinki City Strategy 2021–2025, Helsinki Maritime Strategy 2030, the City of Helsinki's environmental policy 2012–2050

Turku: Turku City Strategy: Turku in the 2030s, LUMO Programme 2023-2029, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Turku Climate Plan 2029, City of Turku Mayor's programme 2021–2025

Baltic Sea identity

Action 21 Marketing Helsinki and Turku as Baltic Sea Cities

Description:	a. The cities will explore their residents' perceptions of Turku and Helsinki as maritime cities. b. They will promote their maritime nature in communication and branding	
Responsible parties: The main responsible party is in bold text	**Helsinki: Kaupunginkanslia,** the Baltic Sea Challenge, Viepa	**Turku: the Baltic Sea Challenge,** Forum Marinum
Resources:	☑ Does not require significant additional resources ☐ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	Profiling the cities as maritime cities is a pull factor and a distinctive feature that should be highlighted internationally. The identity of the cities as stewards of the Baltic Sea will grow, and resources are available for protecting the Baltic Sea and developing maritime areas.	
Schedule	**Stage 1** ✓	**Stage 2** / **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
✓	✓				✓

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2028), Helsinki City Strategy 2021–2025, Helsinki Maritime Strategy 2030, the City of Helsinki's environmental policy 2012–2050, Helsinki City Plan 2016 and the City Plan Implementation Programme 2017

Turku: Turku City Strategy: Turku in the 2030s, LUMO Programme 2023–2029, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Turku Climate Plan 2029, Towards a Circular Economy – Southwest Finland's Waste Management Programme 2023–2028, City of Turku Mayor's Programme 2021–2025

Action 22 Increasing general maritime literacy and involving residents

Description:	a. The cities will increase residents' maritime literacy by communicating, e.g. about the sources and effects of harmful substances; b. Communicate about the opportunities for residents to experience the maritime city; c. Increase opportunities for residents to influence the state of the Baltic Sea	
Responsible parties: The main responsible party is in bold text	**Helsinki: the Baltic Sea Challenge,** KUVA	**Turku: the Baltic Sea Challenge,** Forum Marinum, KONHA integraatiotoiminto, KOPA
Resources:	☑ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding	
Impact	Maritime literacy means raising the residents' awareness of the sea: what kind of environment it is, how the seas affect us and how we affect the seas. Raising awareness affects people's attitudes and therefore their actions, as well as what they demand of city operations.	
Schedule	**Stage 1**	**Stage 2** ✓ / **Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
	✓				✓

Other programmes related to this measure:

Helsinki: LUMO Programme (2021–2027), Helsinki City Plan 2016 and the City Plan Implementation Programme 2017, Helsinki Maritime Strategy 2030

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, Towards a Circular Economy – Southwest Finland's Waste Management Programme 2023–2028, City of Turku Mayor's Programme 2021–2025

Action 23 Helsinki: Developing the coordination of water management as a whole

Description:	The city will develop an integrated and consistent water management method for the city organisation, ensuring that water protection is taken into account and responsibilities are delegated in different processes. A proposal will be drawn up concerning the resources required for this approach and how it will be implemented on the ground.		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP**	-	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	Managing the responsibilities and the overall state of water management and stormwater issues within the city's organisation requires personnel resources and skills. Prioritising and advocating water protection and management will contribute to the objectives of protecting the Baltic Sea across a wide range of the organisation's functions.		
Schedule	**Stage 1** ✓	**Stage 2** ✓	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	✓ Preventing litter	✓ Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: LUMO Programme (2021-2027), City of Helsinki Storm Water Management Program 2018, Helsinki City Strategy 2021–2025, Helsinki Maritime Strategy 2030, the City of Helsinki's environmental policy 2012–2050, Helsinki City Plan 2016 and the City Plan Implementation Programme 2017

Photo: Paavo Jantunen

Littering

Action 24 Turku: Creating a programme to reduce litter in Turku

Description:	An action plan will be drawn up to curb littering in the Turku/Southwest Finland area, the concrete measures of which will reduce littering. This is based on the previous Marine Litter Action Plan.		
Responsible parties: The main responsible party is in bold text	**Helsinki:** The first action plan to curb littering is under way 2022–2025.	**Turku: KYPA environmental protection,** urban construction	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	The littering problem has increased in Turku, and the city spends almost two million euros annually cleaning its urban area. Marine litter and microplastics are one of the biggest threats to the Baltic Sea. In Turku, litter is easily flushed into the river with wind and rain and from there to the sea.		
Schedule	**Stage 1** ✓	**Stage 2**	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
	✓				

Other programmes related to this measure:

Turku: Turku City Strategy: Turku in the 2030s, Towards a Circular Economy – Southwest Finland's Waste Management Programme 2023–2028, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Action 25 Communicating the significant effects of urban maintenance on surface waters

Description:	The cities will highlight the environmental impact of maintenance. For example, the cities will hold a "no cleaning day" event as a tool for raising awareness among residents. The cities will draw attention to how much they clean their urban areas.		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP RYA YLA,** KYMP PALU YMPA YSE, KYMP Viepa	**Turku: KYPA urban construction,** environmental protection	
Resources:	☑ Does not require significant additional resources ☐ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	The cities spend millions of euros every year cleaning up public areas and collecting litter from the environment. Their communication aims to change people's behaviour and highlight the environmental responsibility of the cities' activities.		
Schedule	**Stage 1**	**Stage 2**	**Stage 3** ✓

This measure contributes to the following objectives:

Sustainable use of the sea	Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion
	✓				

Other programmes related to this measure:

Helsinki: Litter Control Action Plan 2022–2025

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Action 26 Developing environmental guidance for events

Description:	a. The cities will develop environmental guidance for event organisers; b. Hold an event aimed at minimising the use of single-use plastics; c. Introduce best practices for other events and city policies.		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP PALU YMPA YSE**	**Turku: KONHA Event Services**	
Resources:	☑ Does not require significant additional resources ☐ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	As major players, cities influence market demand for responsible products through procurement and promote the sustainable use of natural resources. Large events have a major local impact, for example, on littering.		
Schedule	**Stage 1**	**Stage 2** ✓	**Stage 3**

This measure contributes to the following objectives:

Sustainable use of the sea	✓ Preventing litter	Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	✓ Cooperation and inclusion

Other programmes related to this measure:

Helsinki: Litter Control Action Plan 2022–2025, BaltiPlast project (2023–2025), The City of Helsinki's Action Plan for the Circular and Sharing Economy, Carbon-neutral Helsinki 2035, Helsinki Maritime Strategy 2030

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Debris is transported from the sea to the nesting islets of birds. The picture was taken during authorized counts. Photographing nests is normally prohibited.

Photo: Liisa Vainio

Procurement

Action 27 Improve the integration of water sustainability into city procurements			
Description:	a. The cities will identify the most impactful procurement categories in terms of water sustainability; b. Test and implement criteria that promote water sustainability in these procurement groups; c. Raise awareness to reduce harmful substances in procurements; Utilise existing resources (Green Deal agreement on reducing harmful substances, NonHazCity projects, and the guide to a smart chemical procurement (Kemikaaliviisaan hankkijan opas)) d. Turku: the city will implement water sustainability criteria for the city group's subsidiaries		
Responsible parties: The main responsible party is in bold text	**Helsinki: KYMP PALU YMPA YSO,** Procurement	**Turku: KONHA hankinnat,** KYPA environmental protection, urban construction	
Resources:	☐ Does not require significant additional resources ☑ Requires personnel resources and possibly an additional budget ☐ Requires external funding		
Impact	Reducing the use of chemicals aims to reduce the concentrations of harmful substances in water bodies and stress on wastewater treatment plants. Guidance and steering will facilitate making sustainable choices.		
Schedule	**Stage 1** ✓	**Stage 2**	**Stage 3**

This measure contributes to the following objectives:

✓ Sustainable use of the sea	✓ Preventing litter	✓ Reducing harmful substances	Increasing biodiversity	Curbing eutrophication	Cooperation and inclusion

Other programmes related to this measure:

Helsinki: Action Plan for the Circular and Sharing Economy, the City of Helsinki's Procurement Strategy 2020

Turku: Turku City Strategy: Turku in the 2030s, Circular Turku – A Roadmap Toward Resource Wisdom 2029, City of Turku Mayor's Programme 2021–2025

Photo: Nicole Bittger

6. Preparing the action plan

The Baltic Sea Action Plan for 2024–2028 was prepared during 2022 and 2023. The programme was designed to address the needs and wants of the city organisation, external stakeholders and residents so that it would be as comprehensive as possible and the experience of its ownership would be extensive. New documents have been published during the development of the action plan that need to be taken into account such as the roadmap for agricultural water protection (Southwest Finland's ELY Centre), the draft version of Finland's Coastal Strategy (Ministry of the Environment) and the Government Programme. Their priorities have been addressed in the final stage of preparation, when the proposed measures were selected for implementation.

1. The update of the action plan was initiated by Helsinki and Turku's joint Executive Committee of the Baltic Sea Challenge.

2. The objectives selected for the new action plan are based on a thesis study carried out in 2022 (Helenius, 2023), which examined the current documents guiding the Baltic Sea policy.

3. Both cities conducted a resident survey on the content of the action plan. The survey was open from July to September 2022, and it was available in Finnish, Swedish and English.

4. The measures that would be included in the action plan were conceived and developed in eleven workshops
   - External workshops open to all (three workshops): Turku (FI, SV), Helsinki, virtual. November 2022–January 2023.
   - Internal workshops (eight workshops): Turku (3), Helsinki (5), May–August 2023. The internal workshops were held in cooperation with external consulting services in both cities.

5. A total of 184 proposals for action were received from these workshops. In addition, the resident survey yielded 43 responses, totalling 118 proposals. All the proposed measures were reviewed, prioritised and combined based on their feasibility and effectiveness. The scale of the action plan and the specificities of both cities were also taken into account.

6. Clear topics were identified by sorting the prioritised proposals, resulting in nine themes and 27 tangible measures under those themes.

7. The parties responsible for implementing these measures in Helsinki and Turku commented on the plan.

8. The Executive Committee of the Baltic Sea Challenge approved the draft in September 2023.

9. The draft plan was presented to the city management teams in October–November 2023.

10. The action plan was approved by the city boards in December-January 2023-2024.

7. Implementing the action plan

The coordinators of the Baltic Sea Challenge in Turku and Helsinki are responsible for implementing and monitoring the action plan. There is a designated party responsible for more detailed planning, implementation and reporting for each measure. The impact of individual experiments on the state of the Baltic Sea is limited, which is why the action plan aims to ensure that its measures remain part of the cities' work on the Baltic Sea after the end of the action period. The monitoring and reporting of the Baltic Sea Action Plan will be improved. The reporting will also be made more transparent for city residents. The coordinators will prepare an annual report assessing the effectiveness and progress of the measures, taking into account potential future challenges to their progress.

The timetable for implementing the action plan is influenced by several uncertainties. Some measures are interdependent, i.e. one measure must progress or be completed before the second measure is worth starting. The action plan is also strongly linked to other city programmes, which means that one measure may require the progress of another measure for the action plan to proceed. In addition, several measures require external funding. In addition to the uncertainties, the timetable has been designed to distribute resources as evenly as possible throughout the action period. Factors affecting the timetable are indicated on the action cards.

Developing activities

The activities of the cities' internal Baltic Sea working groups will be developed during the action period. The Baltic Sea working groups in Turku and Helsinki consist of city experts who implement the action plan as part of their work. The groups also include representatives of municipal enterprises and other internal partners. The working groups meet regularly with experts from the Baltic Sea Challenge and discuss current issues. The aim is to make the work of the cities on the Baltic Sea more resource-efficient and broader in scope. A better-functioning, internal Baltic Sea working group in the city will improve the flow of information on the Baltic Sea, water management and nature conservation. At the same time, any bottlenecks associated with a particular measure can be identified at an early stage. The meetings of the Baltic Sea working groups can also be excursions, theme meetings or clinics, depending on the participants' interests.

Photo: Eetu Ahanen

As a test of new operating methods, there will also be annual joint meetings of Helsinki and Turku actors. These meetings aim to increase cooperation between the cities and improve the exchange of information on issues such as progress, challenges and best practices.

8. More information

Terminology

Key species	a species or community of species whose existence is important for other species and ecosystems
E-DNA	DNA, or genetic material, released by organisms into their environment
Ecosystem service	an intangible service provided by nature, such as oxygen production or habitats
Restoration	restoring anthropogenic environments back to their natural state or close to it
Greywater	wastewater such as bathwater, dishwater and washwater that does not contain wastewater from toilets
Stormwater	rain and meltwater in developed areas
Baltic Sea friendly	having minimal negative impact on the Baltic Sea
LUMO	biodiversity. The range of ecosystems, species and genes in the world or in a particular habitat type.
Maritime literacy	general knowledge and understanding of the seas and how they function
Blackwater	wastewater containing toilet water
PEMMA area	marine areas of local ecological significance
Bilgewater	water that accumulates in the lowest part of a ship
Eutrophication	an increase in the primary productivity of aquatic plants due to excessive nutrient loads
Septic wastewater	sewage that is temporarily channelled, for example, into a boat's septic tank
Mixed sewer	a sewer that carries both stormwater and wastewater
Blue economy	economic sectors related to the seas and coastal areas
Blue network	a regional network of surface waters
Drainage basin	the area from which precipitation drains into a particular body of water
Invasive species	species whose movement outside their natural range has been facilitated by humans
Flow rate	the volume of water that passes through a watercourse or d

Abbreviations

A list of abbreviations used in the action plan for organisations and the city's divisions, services, units and departments.

Helsinki:

AKV	Land Use and Monitoring
ASKA	City Planning
HSY	Helsinki Region Environmental Services
KAMU	Urban Space and Landscape Planning
KUVA	Culture and Leisure Division
KYMP	Urban Environment Division
MAKA	Land Use and City Structure
MAKE	Land Property Development and Plots
MYLE	General Land-Use Planning
PALU	Services and Permits
RYA	Buildings and Public Areas
VIEPA	Communications Services
YMPA	Environmental Services
YLA	Public Areas
YSE	Environmental Monitoring and Control
YSO	Ympäristön suojelu ja ohjaus
YTY	Environmental Health

Turku:

KONHA	Central Administration
KOPA	Education Services
KYPA	Urban Environment Division

Lue lisää

Explore the Baltic Sea Challenge at **itamerihaaste.fi/en**

Read more about the Baltic Sea, its nature, environmental status and ongoing research at **marinefinland.fi/en-US**

Search for reliable and up-to-date information on water at **vesi.fi/en/**

Search or share observations of Finnish water bodies or sea areas at **jarviwiki.fi**

Explore Finland's species in the sea and on land at **laji.fi/en**

Learn more about invasive species at **vieraslajit.fi**

Explore wastewater treatment, water and sewers at **turunseudunpuhdistamo.fi/in-english**, **turunvesihuolto.fi/en**, **turunseudunvesi.fi/en** and **hsy.fi/en/**

Read more about biodiversity, climate change and the circular economy at **ymparisto.fi/en**

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10. Appendices

Appendix 1. List of international, national and city-specific documents guiding the Baltic Sea policy on which the Baltic Sea Challenge Action Plan is based

EU Strategy for the Baltic Sea Region EUSBSR 2009

EU Marine Strategy Framework Directive 2008/56/EC

HELCOM Baltic Sea Action Plan, updated 2021.

City of Helsinki Procurement Strategy 2020. Helsinki City Executive Office, Economy and Planning Department. Helsinki 2020.

City of Helsinki Storm Water Management Program 2018. Publications of the City of Helsinki's Urban Environment Division 2018:30

City of Helsinki's environmental policy 2012–2050

Helsinki City Strategy 2021–2025: A Place of Growth

The City of Helsinki's Action Plan for the Circular and Sharing Economy 2020–2025

Helsinki Maritime Strategy 2030. Helsinki City Executive Office, Economic Development Department. Helsinki 2019.

Helsinki City Plan 2016 and the City Plan Implementation Programme 2017

Carbon-neutral Helsinki emissions reduction programme (2022). Publications of the City of Helsinki's central administration 2022:32

Turku Climate Plan 2029 – The Turku Sustainable Energy and Climate Action Plan City Council, 11 JUN 2018, §142

Turku City Strategy: Turku in the 2030s

Towards a Circular Economy – Southwest Finland's waste management programme 2023–2028 (Kohti kiertotaloutta – Lounais-Suomen jätehuolto-ohjelma 2023–2028)

Helsinki's LUMO programme 2021–2028 City of Helsinki Biodiversity Action Plan 2021–2028 Publications of the Urban Environment Division 2021:16

Turku's LUMO programme 2023–2029. City of Turku's Biodiversity Programme. The City of Turku's environmental publications 2023.

Turku of Mayors – Decade of Action City of Turku Mayor's programme 2021–2025

Litter Control Action Plan 2022–2025, Helsinki. Publications of the Urban Environment Division 2021:27

Programme of Measures of the Finnish Marine Strategy 2022–2027. Publications of the Ministry of the Environment 2021:30

The Status of Finland's Marine Environment 2018 report. Samuli Korpinen, Maria Laamanen, Janne Suomela, Pekka Paavilainen, Titta Lahtinen and Jan Ekebom (eds.) SYKE's publications 4.

Finland's Coastal Strategy 2030. YM053:00/2023.

Archipelago Sea Programme – roadmap for agricultural water protection (Maatalouden vesiensuojelun tiekartta). Southwest Finland Centre for Economic Development, Transport and the Environment. Reports 60. 2022.

City of Turku Stormwater Programme 2016. KH/16.5.2016 (City Board, 16 May 2016)

The City of Turku's forest plan 2019–2029

Circular Turku – A Roadmap Toward Resource Wisdom 2029 Turku City Board, 22 NOV 2021, §518

Turku's regional water management development plan 2011–2035 (Turun seudun alueellinen vesihuollon kehittämissuunnitelma 2011–2035) REGIONAL VIABILITY 1 | 2012. Southwest Finland Centre for Economic Development, Transport and the Environment.

A strong and committed Finland – Programme of Prime Minister Petteri Orpo's Government. Publications of the Government 2023:58

Government Resolution on Finland's Strategy for the Baltic Sea Region 15a/2017

UN 2030 Agenda for Sustainable Development

United Nations Convention on the Law of the Sea (UNCLOS) 98/392/EC

The Turku Master Plan 2029

The Sustainable Development Goal program Agenda 2030 objectives that this program implements.

2 Zero hunger

2.4 By 2030, ensure sustainable food production systems and implement adaptive agricultural practices that increase productivity and production, help protect ecosystems, strengthen resilience to climate change, extreme weather events, droughts, floods and other disasters, and progressively improve soil quality.

6 Clean water and sanitation

6.3 By 2030, improve water quality by reducing pollution, eliminating landfills and minimising release of hazardous chemicals and materials, halving the amount of untreated wastewater, and significantly increasing recycling and safe reuse globally.

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

6.6 By 2020, protect and restore water-related ecosystems such as mountains, forests, wetlands, rivers, aquifers and lakes.

6.b Support and strengthen the participation of local communities in improving water and sanitation management.

11 Sustainable cities and communities

11.4 Strengthen projects that protect the world's cultural and natural heritage.

11.6 By 2030, reduce the adverse environmental impact of cities by paying special attention to issues such as air quality and the management of municipal and other waste.

11.a Support positive economic, social and environmental links between urban, suburban and rural areas by supporting national and regional development plans.

11.b By 2020, significantly increase the number of cities and human settlements by developing and implementing integrated policies and plans for inclusion, resource efficiency, climate change mitigation, adaptation, and disaster resilience, as well as by developing and implementing integrated disaster risk management measures at all levels within the framework of the Sendai Framework for Disaster Risk Reduction 2015–2030.

12 Responsible consumption

12.2 By 2030, achieve sustainable and efficient use of natural resources.

12.4 By 2020, ensure the environmentally sustainable management of chemicals and wastes throughout their life cycle in accordance with agreed international frameworks and significantly reduce their release into the air, water or soil in order to minimise their adverse impacts on health and the environment.

12.5 By 2030, significantly reduce waste generation through prevention, recycling and reuse.

13 Climate action

13.1 Improve the ability of all countries to adapt to climate-related risk factors and natural disasters.

13.2 Integrate climate change measures into national policies, strategies and planning.

14 Life below water

14.1 By 2025, significantly prevent and reduce marine pollution, in particular from land-based activities, such as marine debris and nutrient pollution into the oceans.

14.2 By 2020, sustainably protect and manage marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration to ensure healthy and productive marine areas.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and the best available scientific information.

15 Life on land

15.8 By 2020, introduce measures to prevent and significantly reduce the impact of invasive alien species on land and water ecosystems and to control or eradicate priority species.

Appendix 2. Inclusions in other city and national programmes that contribute to the objectives of the action plan

Reducing eutrophication

Helsinki:
Helsinki's LUMO programme (2021–2028) aims to build stormwater solutions that are similar to those that exist in nature and to preserve small surface waters, open marshes and wetlands.

Helsinki also has a stormwater programme (2018), which includes a number of measures for stormwater retention and solutions to reduce nutrient run-off into the sea. The City of Helsinki's environmental policy 2012–2050 reduces nutrient loads on water bodies and aims to achieve a good marine environment. In the Helsinki City Strategy 2021–2025: A Place of Growth, the city commits to safeguarding the Baltic Sea and its shores and reducing emissions into the sea.

Turku:
The major themes in the Turku City Strategy (Turku in the 2030s) are protecting the Archipelago Sea and improving its health. The Circular Turku – A Roadmap Toward Resource Wisdom 2029 programme includes a goal for reducing nutrient loads in the Archipelago Sea. One of the goals of Turku's LUMO programme (2023–2028) is to improve the ecological status of an urban stream that is important for the Baltic Sea. The Turku Climate Plan 2029 supports the healthy state of surface waters and groundwater through stormwater management. The management plan also takes into account the impact of floods and heavy rainfall on eutrophication and nutrient loading in the Archipelago Sea and other surface waters. Turku's Stormwater Programme (2016) includes several measures for stormwater retention and solutions.

Nationwide:
Several measures are mentioned in the Programme of Measures of the Finnish Marine Strategy 2022–2027, such as Theme 5.1, calling for reducing nutrient loading and eutrophication. A large part of these measures consists of carrying out various studies, the results of which can also be used to implement practical measures in cities to manage eutrophication.

Reducing harmful substances

Helsinki:
The City of Helsinki's environmental policy 2012–2050 promotes the reduction of harmful pollutants, especially through oil spill response and reducing overflows in the sewage network. Improved stormwater management also reduces pollution from harmful substances (LUMO programme 2021–2028, City of Helsinki Storm Water Management Program 2018)..

Turku:
Circular Turku – A Roadmap Toward Resource Wisdom 2029 calls for reducing discharges of harmful substances, waste and nutrients into water, as well as improving environmental responsibility. In addition, the city will produce accessible water data in order to understand the impact of daily choices on water pollution, invest in improving environmental responsibility, support sustainable lifestyles and increase water infrastructure that conforms to nature and protects water bodies. The Turku Climate Plan (2029) calls for increasing low-carbon tourism supply chains and services.

Nationwide:
The Programme of Measures of the Finnish Marine Strategy 2022–2027 has a specific theme (5.2) on reducing pollution from hazardous and harmful substances. Its measures include regulating and handling toxic paints from boats, as well as investigating the effects of washwater discharges from sulphur scrubbers and developing international regulation for washwater discharges. Managing risks to the state of the marine environment (5.10) will also reduce pollution from harmful substances, such as oils and chemicals.

Increasing biodiversity

Helsinki ja Turku:
Both Turku and Helsinki have current biodiversity programmes (LUMO), which take measures to safeguard biodiversity. These programmes also include water-related measures that support the objectives and the implementation of the measures in this action plan.

Helsinki:
In the Helsinki City Strategy 2021–2025: A Place of Growth, the city commits to safeguarding and preserving its biodiversity.

Turku:
In accordance with the Turku City Strategy, the city aims to increase biodiversity. The Circular Turku roadmap (2029) calls for preserving biodiversity.

Nationwide:
The Programme of Measures of the Finnish Marine Strategy (2022–2027) has several themes aimed at improving biodiversity. Theme 5.2: Reducing pollution from dangerous and harmful substances, sustainable use and management of renewable natural resources; Theme 5.5: Reducing litter; Theme 5.11: Communicating about marine strategy.

Promoting sustainable use of the seas

Helsinki's LUMO programme (2021–2028) also aims to reduce the impact of waterborne transport on biodiversity. In accordance with the Helsinki City Plan (2016), Helsinki will develop towards the sea, and the operations and land-use in maritime areas will be planned in a controlled way, respecting the natural conditions of the Baltic Sea.

Turku:
Turku's LUMO programme (2023–2029) will survey underwater habitat types and species. These surveys will guide planning and permitting processes to ensure that underwater natural values are preserved. Turku's circular economy roadmap includes several individual actions that will contribute to the sustainable use of the seas. In accordance with the City of Turku's climate plan, the city will increase low-carbon tourism supply chains and services in the archipelago.

Nationwide:
The Programme of Measures of the Finnish Marine Strategy 2022–2027 calls for increasing sustainable fishing and the use of domestic wild fish, studies on the various sources of pollution from ships, and the improving waste management in recreational areas and marinas..

Preventing litter

Helsinki:
Helsinki's LUMO programme (2021–2028) mentions the hook and line waste that fishing generates and commits the city to cleaning up problem areas. Since 2022, Helsinki has had a Litter Control Action Plan in which the city implements practical measures to reduce the amount of litter. Helsinki's roadmap for the circular and sharing economy (2020–2025) includes construction and procurement measures that reduce the use of plastics. The Carbon-neutral Helsinki 2035 emissions reduction programme aims to promote environmentally friendly events, procurements and food.

Turku:
Southwest Finland's waste management programme (2023-2028) particularly takes into account the archipelago's waste management and commits the city to reducing waste and litter and promoting the circular economy and recycling. The Circular Turku roadmap includes measures to prevent waste and nutrients from entering surface waters, invest in improving environmental responsibility and support sustainable lifestyles.

Nationwide:
In the Programme of Measures of the Finnish Marine Strategy 2022–2027), Theme 5.5. aims to reduce litter, for example, in maritime transport, artificial grass fields, road transport, agriculture, snow management and stormwater.

Increasing cooperation and inclusion

Helsinki:
Helsinki's LUMO programme (2021–2028) also mentions increased cooperation as a means to safeguard biodiversity, for example, through citizen observations and increasing volunteer activities. Strengthening the relationship Helsinki residents have with nature is also a common goal for the LUMO programme and the Baltic Sea Challenge. One of the objectives of the City of Helsinki's Procurement Strategy is to support the implementation of the objectives of other programmes through responsible procurement.

Turku:
Major themes in the Turku City Strategy are protecting the Archipelago Sea and improving its health, which are implemented in part by participating in networks and cooperation forums in the Baltic Sea region. The city's circular economy roadmap produces accessible water data in order to understand the impact of daily choices on water pollution, support sustainable lifestyles and introduce environmentally responsible travel and excursion packages to nature sites in the Turku Archipelago. The Energy and Climate Action Plan includes several actions to increase cooperation and inclusion that will bring together archipelago and city residents.

Nationwide:
One of the themes in the Finnish Marine Strategy is communicating about marine management (5.11). One of its goals is to increase the awareness of different industries and ordinary people about the importance of protecting the marine environment, the goals of marine management and how everyone can have an impact on the state of the sea. This theme is central to achieving the other goals.

Appendix 3. Breakdown of the action period's measures into three stages (Stages 1–3)

Stage 1

- **Action 5** Updating the lease criteria for areas rented out by the cities to better account for water protection
- **Action 6** Increasing attention to the impacts of city planning and other land-use planning on the Baltic Sea
- **Action 7** Creating a "Baltic Sea Street" themed area to strengthen the cities' Baltic Sea identity
- **Action 8** Developing networking activities for the Baltic Sea Challenge
- **Action 11** Turku: Communicating about the synergies between water protection and climate efforts
- **Action 14** Reducing pollution by focusing on drainage basins
- **Action 15** Improving the incorporation of stormwater management in planning, from general land-use planning to implementation and maintenance
- **Action 16** Introducing new ways to reduce pollution from storm water
- **Action 18** Mapping and promoting the protection of ecologically valuable areas
- **Action 21** Marketing Helsinki and Turku as Baltic Sea Cities
- **Action 23** Helsinki: Developing the coordination of water management as a whole
- **Action 24** Turku: Creating a programme to reduce litter in Turku
- **Action 27** Improve the integration of water sustainability into city procurements

Total 13

Stage 2

- **Action 1** Promoting environmental responsibility at small marinas
- **Action 2** Turku: Developing a compensation model for the hydrological impacts of waterway and port maintenance
- **Action 3** Considering the environmental impacts of maritime operators in planning the city's beaches and archipelago
- **Action 4** Helsinki: Encouraging cargo ships to manage their wastewater better
- **Action 9** Promoting cooperation with educational institutions and universities
- **Action 10** Collecting and using data
- **Action 12** Reducing emissions from septic wastewater
- **Action 19** Turku: Restoring the flood dynamics of the Aura River in targeted areas
- **Action 20** Restoring natural environments
- **Action 22** Increasing general maritime literacy and involving residents
- **Action 26** Developing environmental guidance for events

Total 11

Stage 3

- **Action 13** Utilising municipal sewage sludge and organic matter removed from the sea
- **Action 17** Stepping up the control of invasive species
- **Action 25** Communicating the importance of urban maintenance for surface waters

Total 3


Helsinki


TURKU