Elinkeino-, liikenne- ja ympäristökeskus

WG 2 Eutrophication Finland

Vincent Westberg, Nordic WFD Conference and Workshop 25-26.9.2024

Elinkeino-, liikenne- ja ympäristökeskus

2022 - 2027

Content

- Overall status of waters (ecol status, human impact)
- Target loads and reductions
- Measures to reach GES, implementation status

2028 - 2033

Maybe later today..

- Significant water management issues for 2028-2033 (key points from consultation process 2024)

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Measures are planned to reduce the significant pressures affecting the status of the waters

Status of the waters

- Status is below good or in risk of deterioration

Significant pressures

- Pressure type
- Impact type

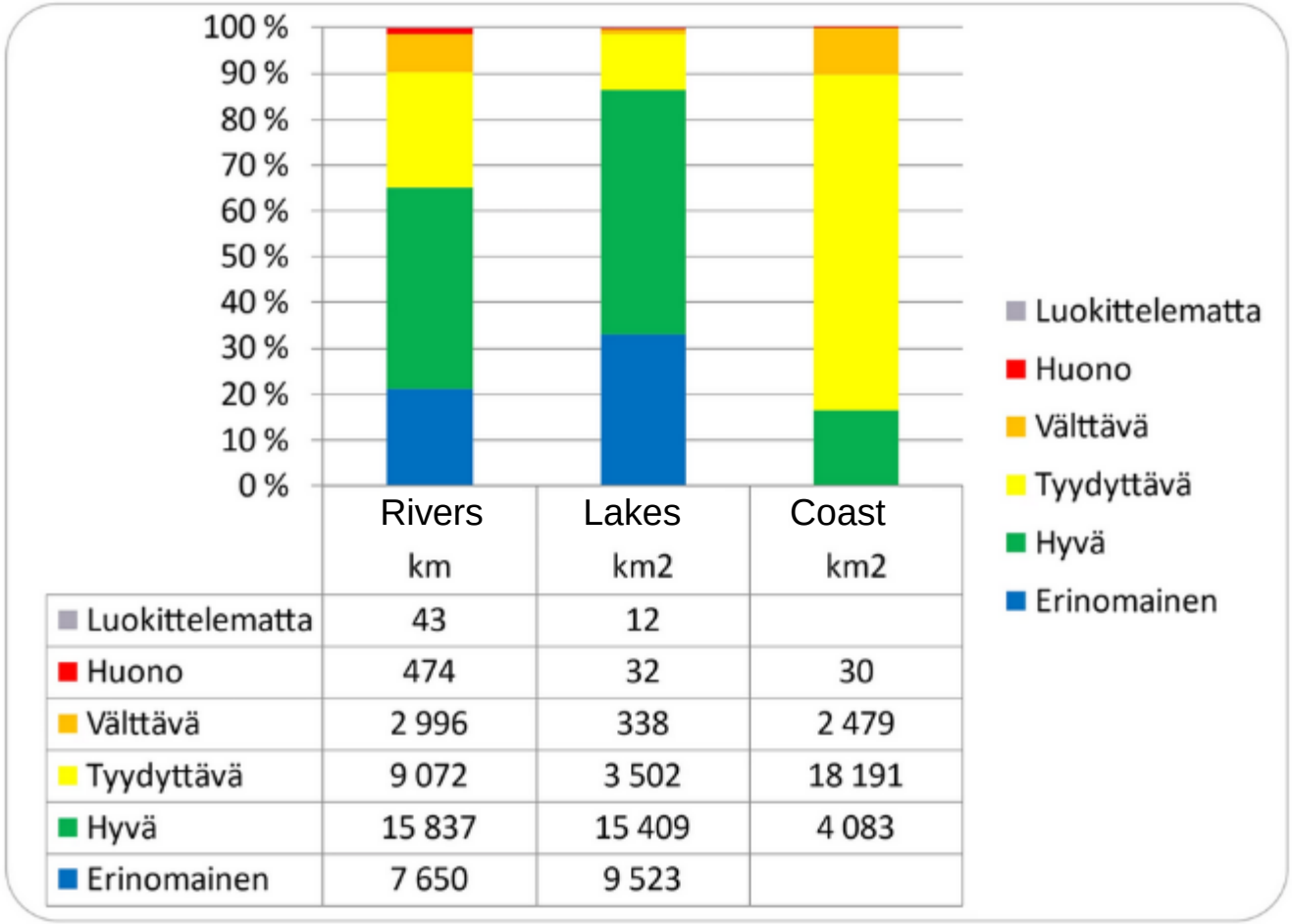
Mitigation measures

- Programmes of measures for 2022-2027

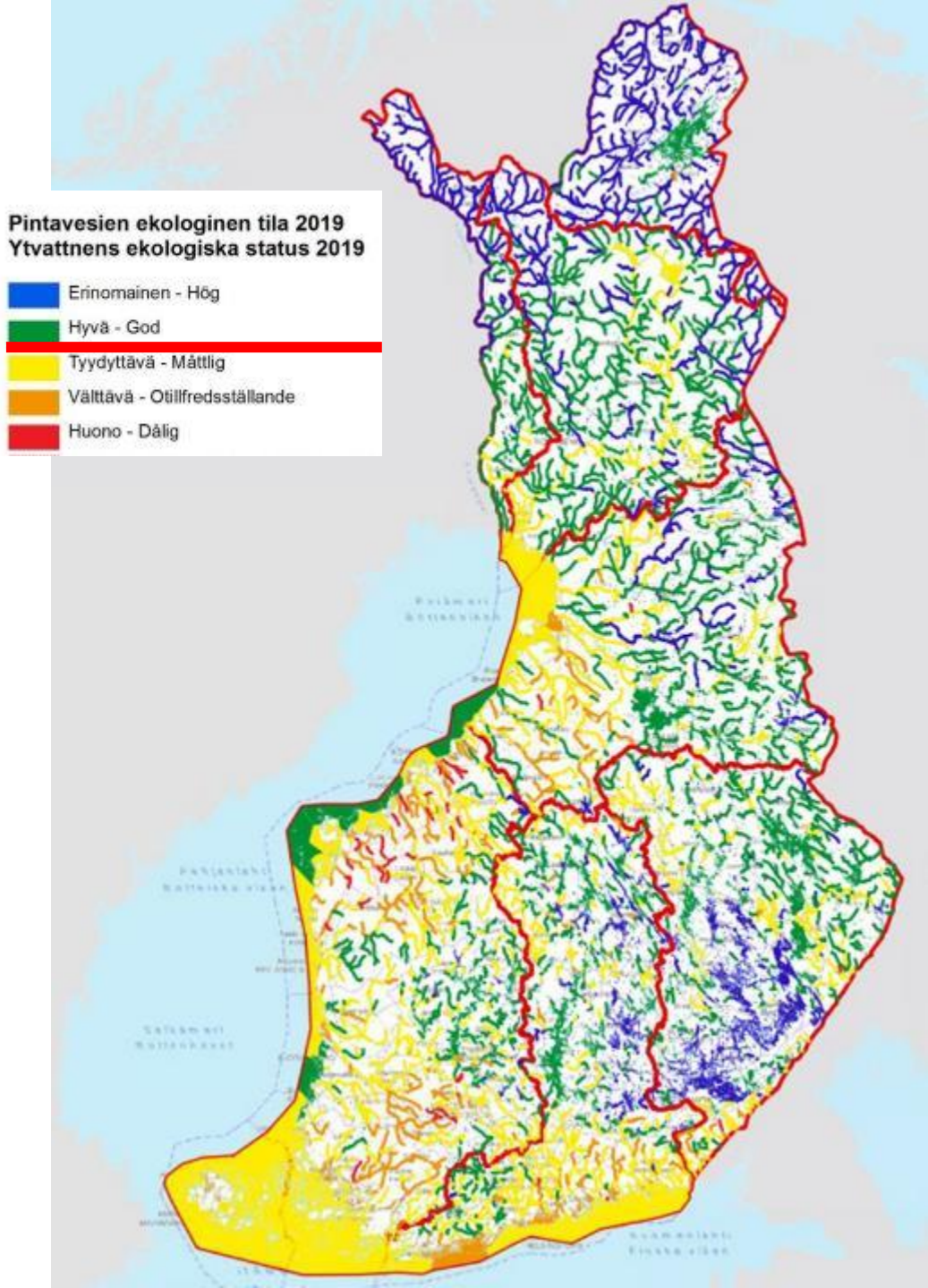
- River basin management is cross-sectoral – measures are needed for all sectors (e.g. agriculture, forestry, industry, municipalities etc.)
- Measures are selected in sectoral expert groups → measure library
- The dimension and amount of the measures is planned so, that GES can be achieved

Status of the waters

- Status is below good or in risk of deterioration

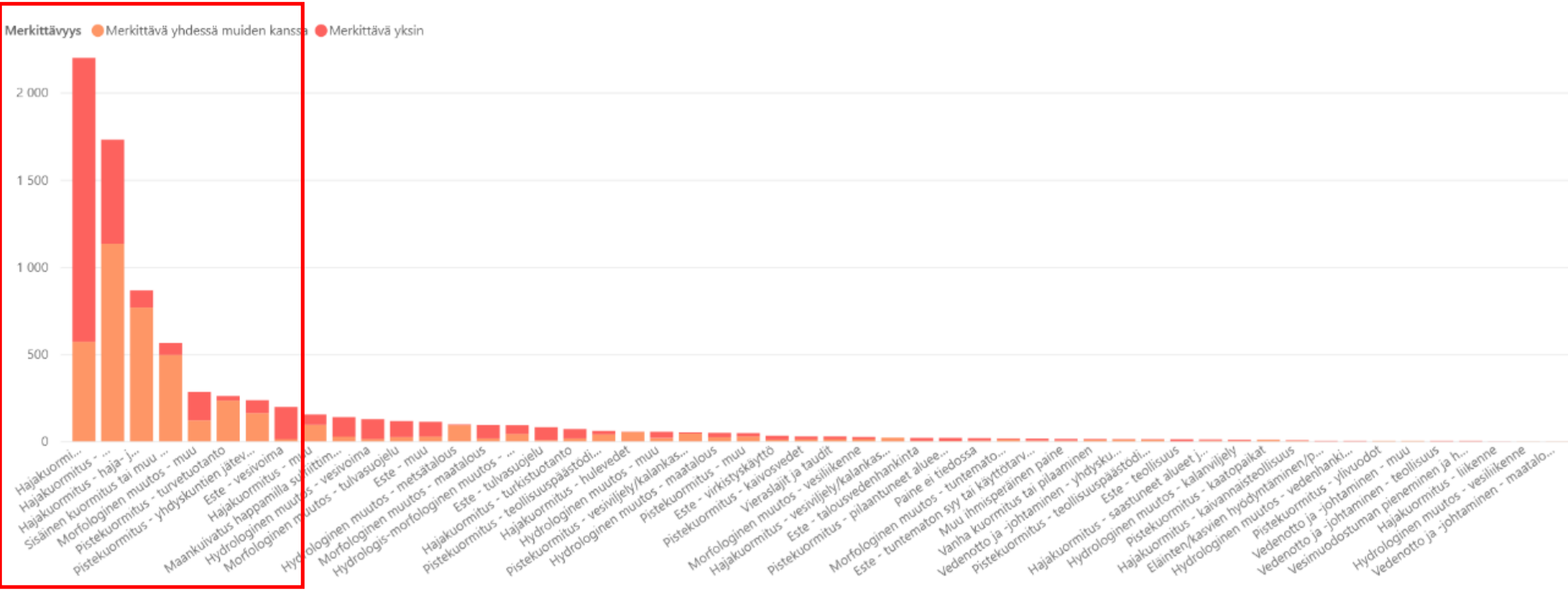


	Rivers km	Lakes km2	Coast km2
Luokittelematta	43	12	
Huono	474	32	30
Välttävä	2 996	338	2 479
Tyydyttävä	9 072	3 502	18 191
Hyvä	15 837	15 409	4 083
Erinomainen	7 650	9 523	



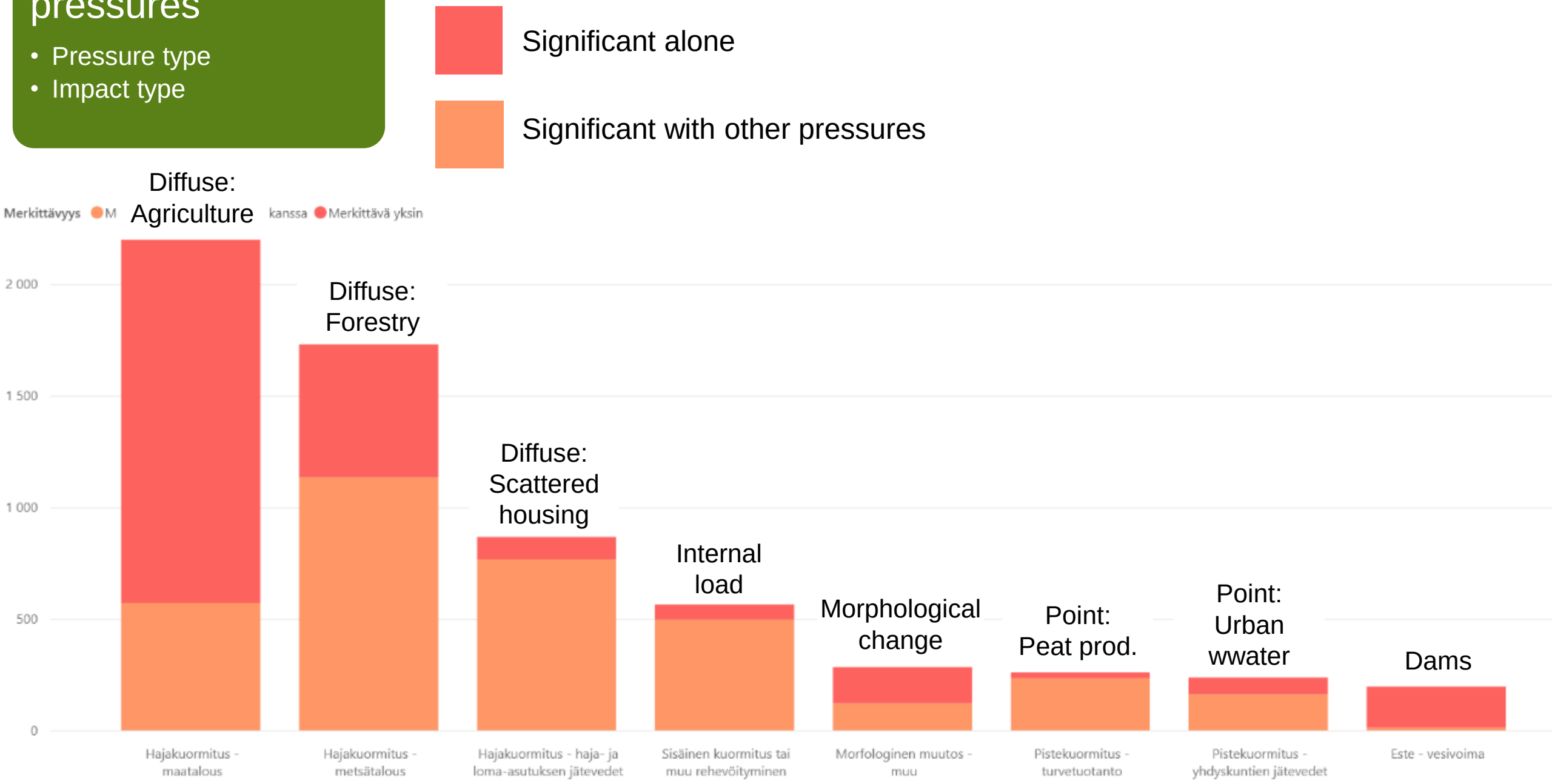
Significant pressures

- Pressure type
- Impact type



Significant pressures

- Pressure type
- Impact type

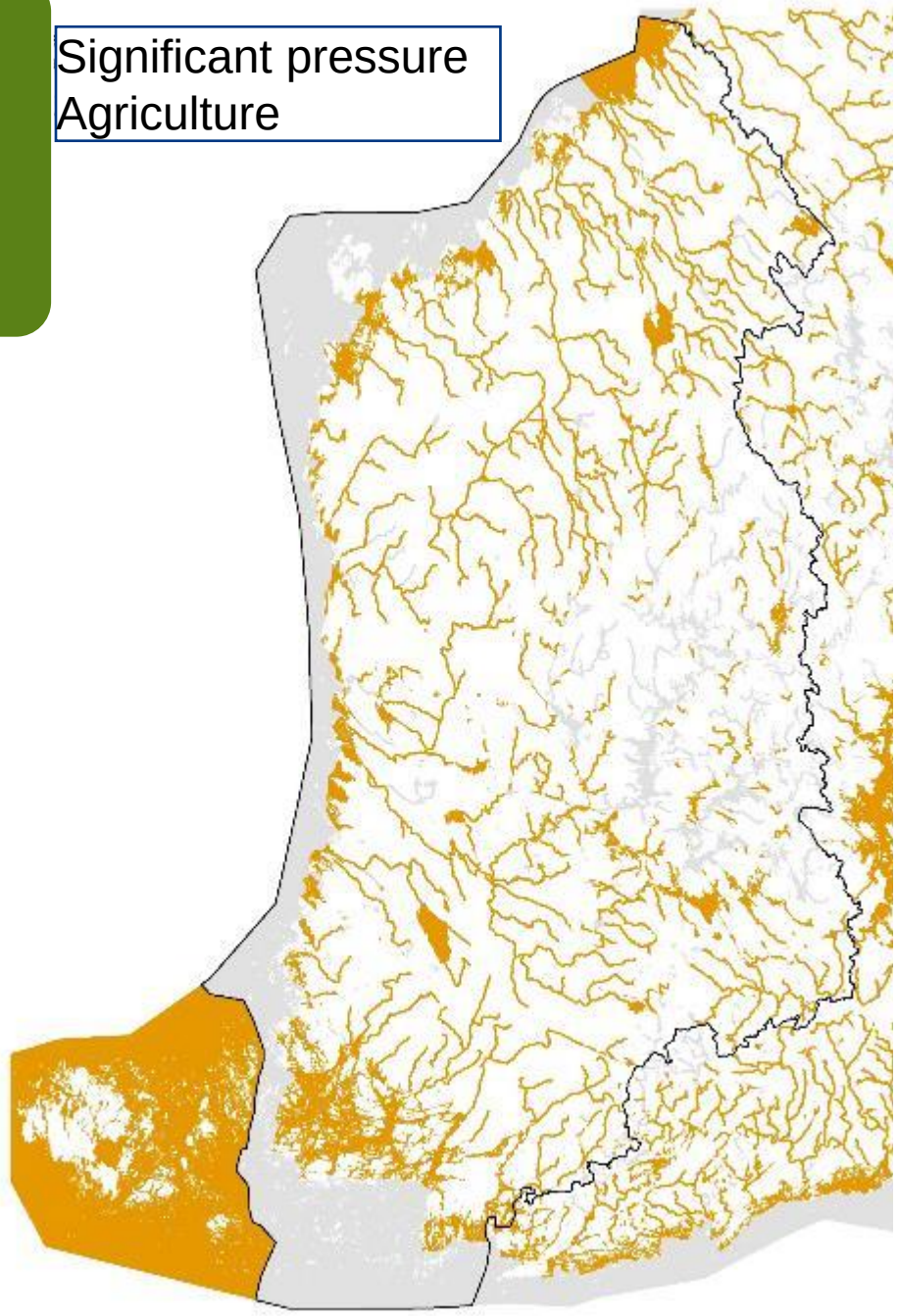


Significant pressures

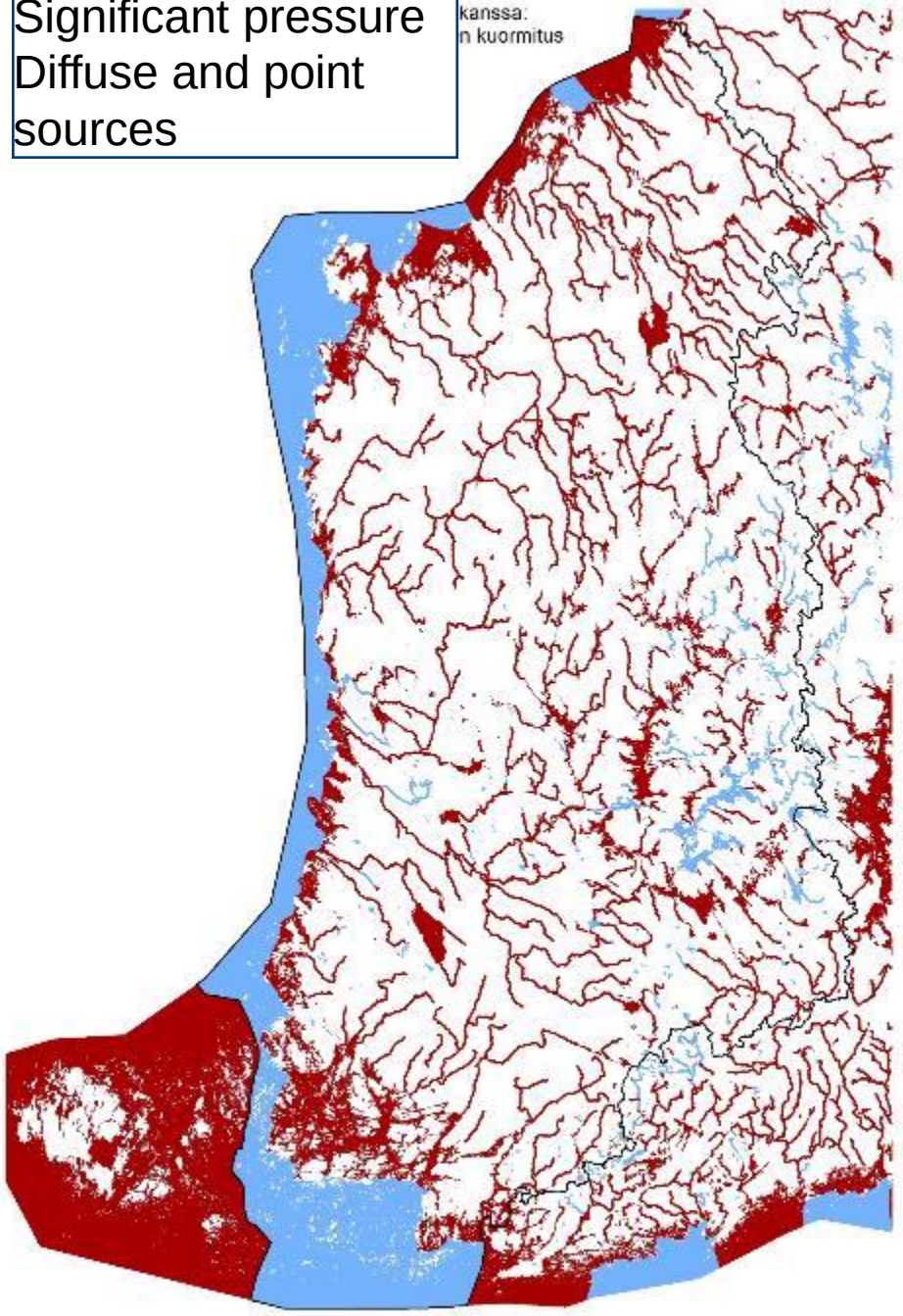
- Pressure type
- Impact type

→ Pressures put in GIS

Significant pressure
Agriculture



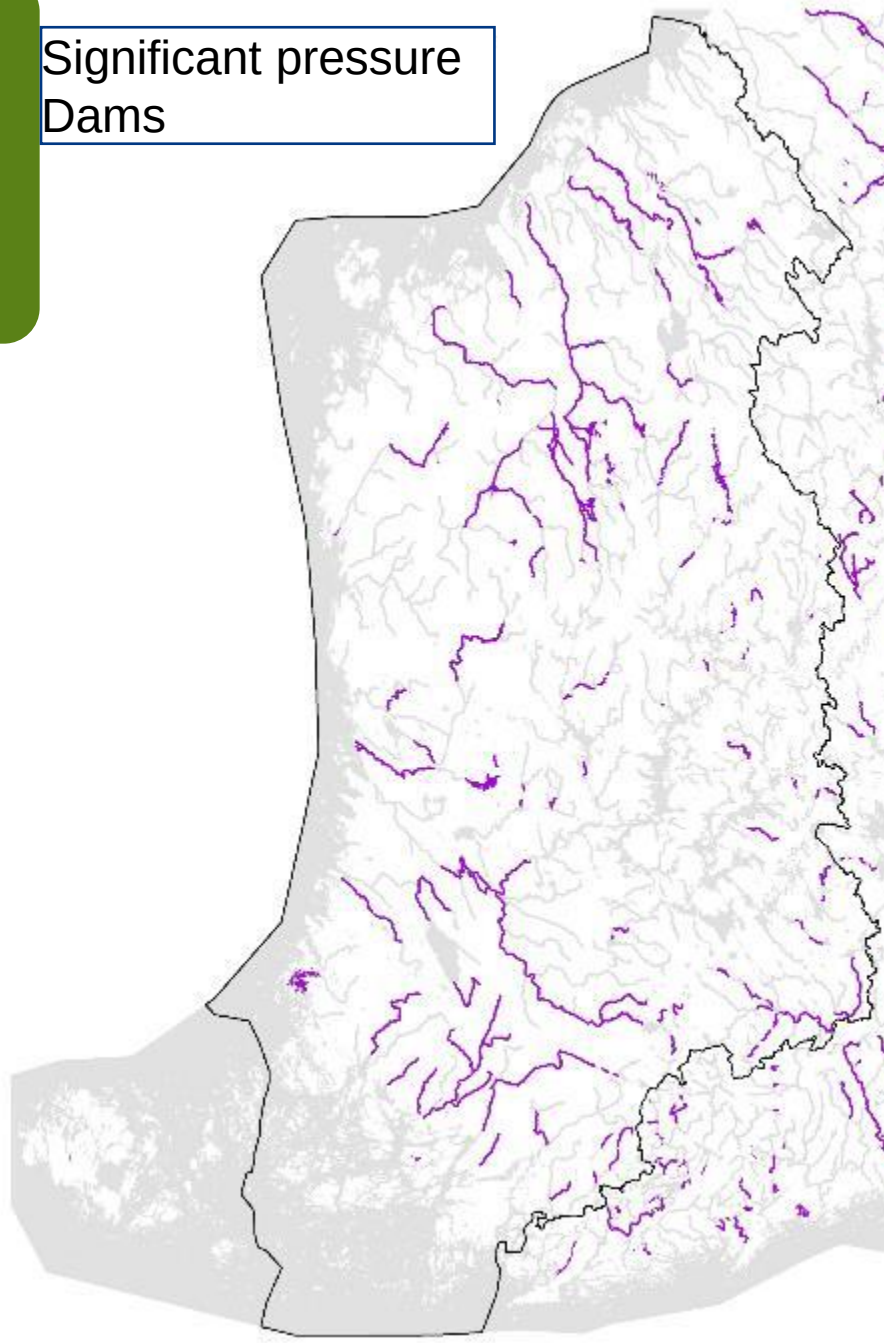
Significant pressure
Diffuse and point sources



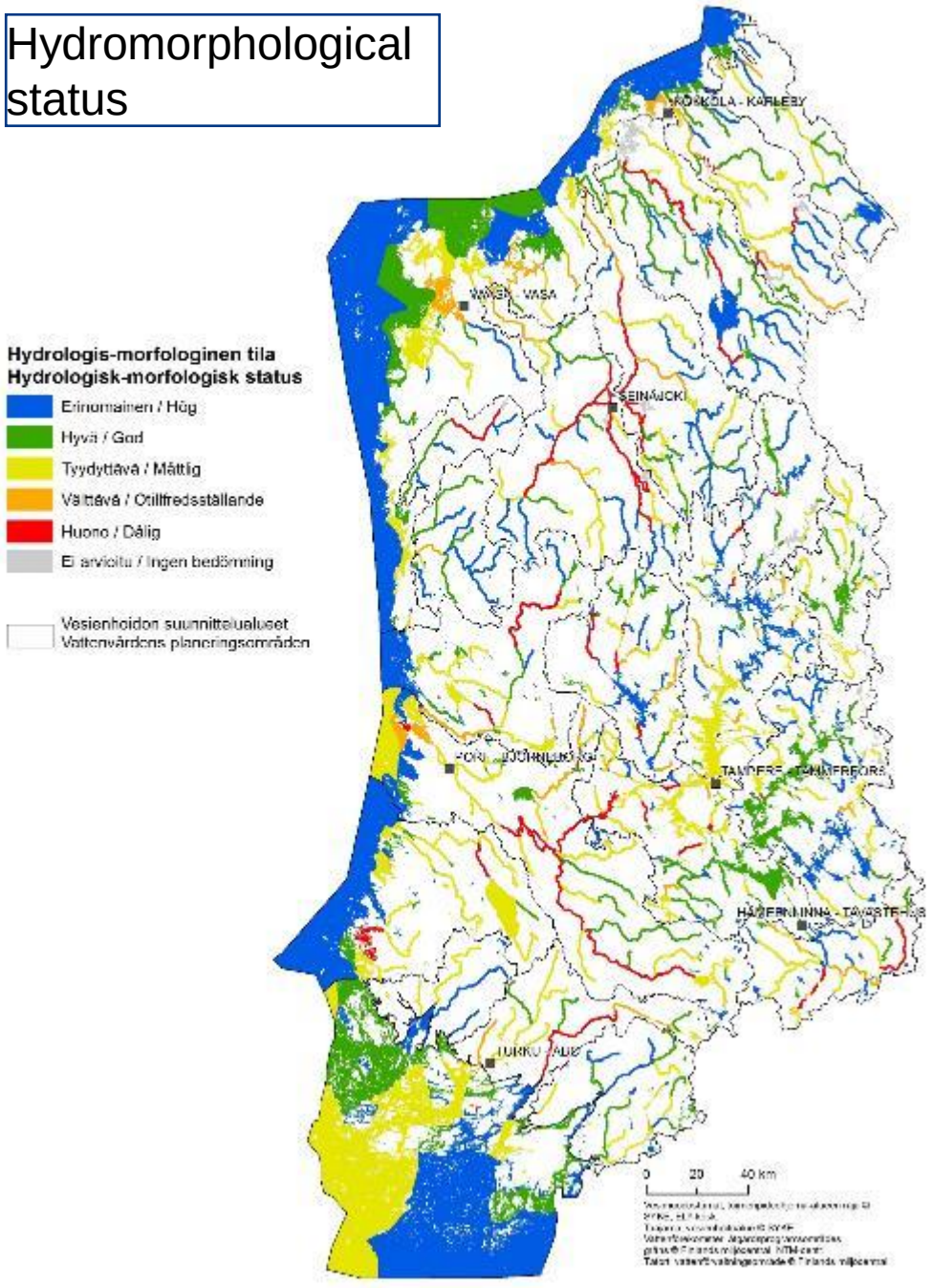
Significant pressures

- Pressure type
- Impact type

Significant pressure Dams



Hydromorphological status

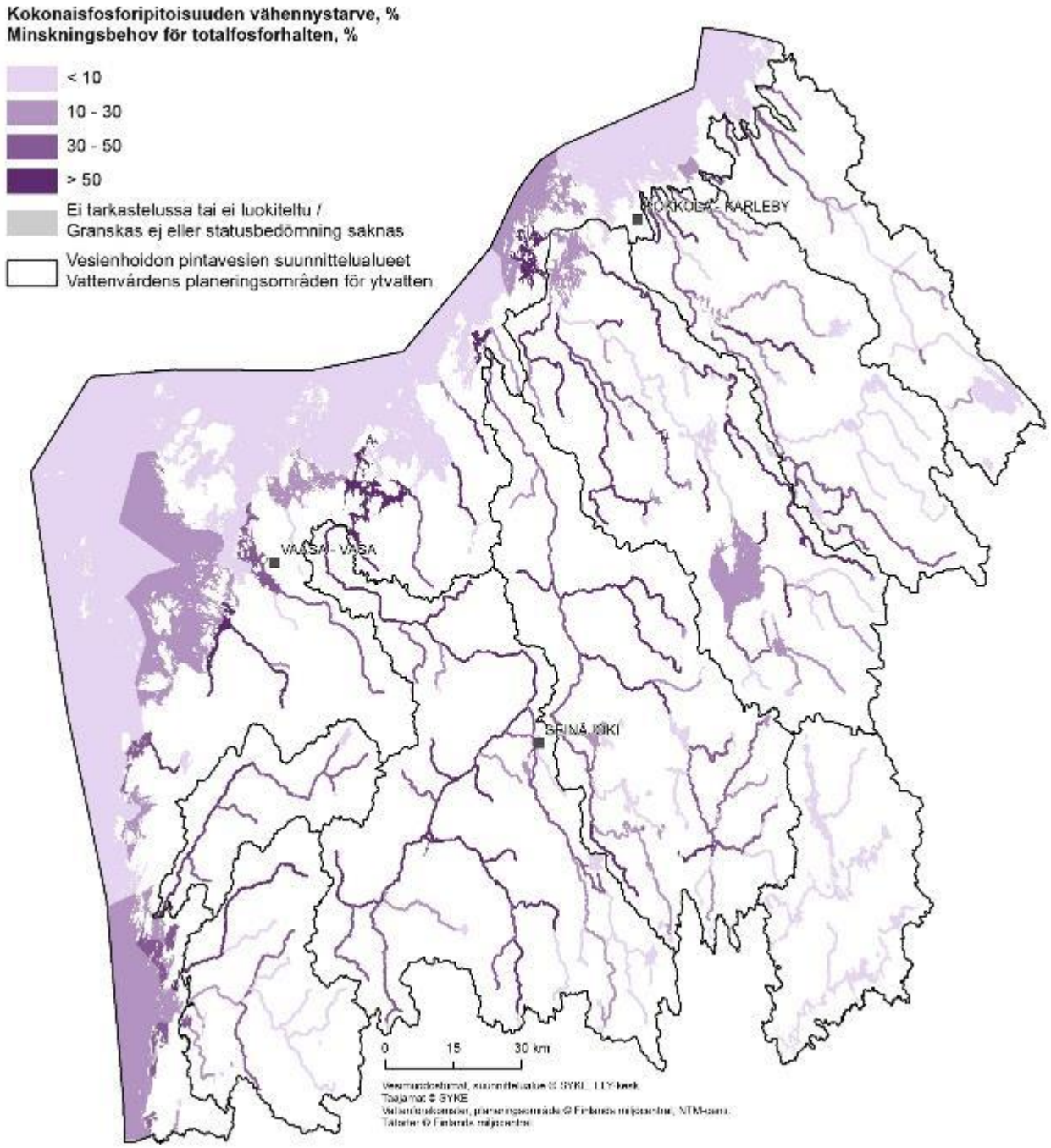


Target load reductions

- Example of P-load reduction need to reach GES
- Rough basis for measure planning concerning eutrophication

- Modelled nationally for alla water bodies for P and N
  - Good/Moderate treshold concentration
  - Reduction concentration need calculated
  - →load reduction estimated

- Only for nutrients (and chl a in lakes)!
- Not ideal for coastal waters!

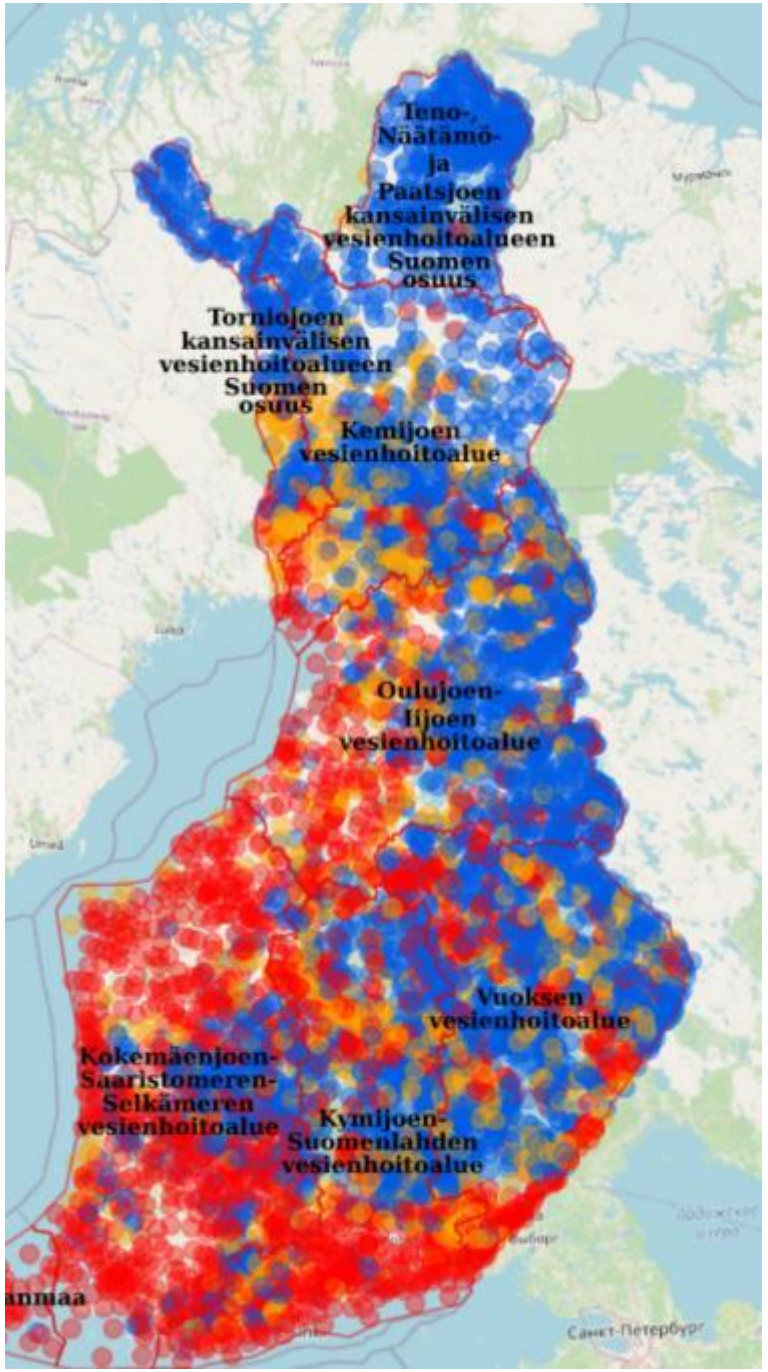


→ → Need for measures

- Need is identified on water body level

but…

- Measures are planned on catchment level!
  (except for restoration measures)



Environmental objectives reached
Environmental objectives reached but need for measures to maintain status
Environmental objectives not reached – need for measures

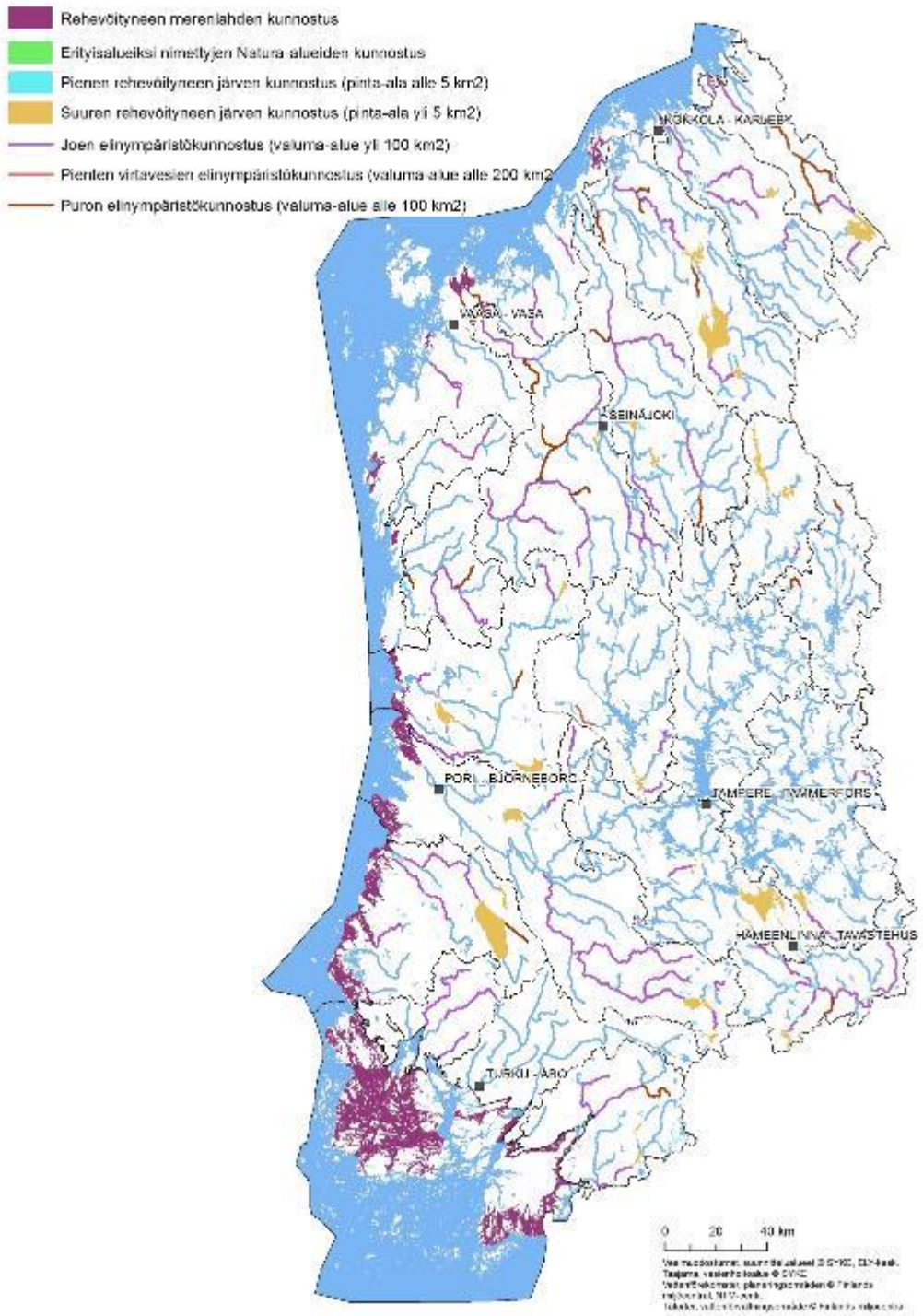
Mitigation measures

- Programmes of measures for 2022-2027

Measures to reach GES, implementation status 8/2024

Measures from measure library:

Sector	Amount	Mean time span	Sum of investi costs
Scattered houses	335187	22,26	773 24(
Acidity of the soil	380544	14,71	246 93
Agriculture	7884742	11,32	315 16(
Forestry	274638	14,68	80 64
Industry	174	6,79	50(
Fur production	1170486	18,33	10 69(
Peat production	189705	20,00	91 46
Restoration of waters, development of regulation	2210	19,45	274 21(
Aquaculture	114	6,75	14 00(
Urban wate water	6197368	21,57	511 87
TOTAL	**16435168**	**18,30**	**2 318 730**



Mitigation measures

- Programmes of measures for 2022-2027

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Cost of measures

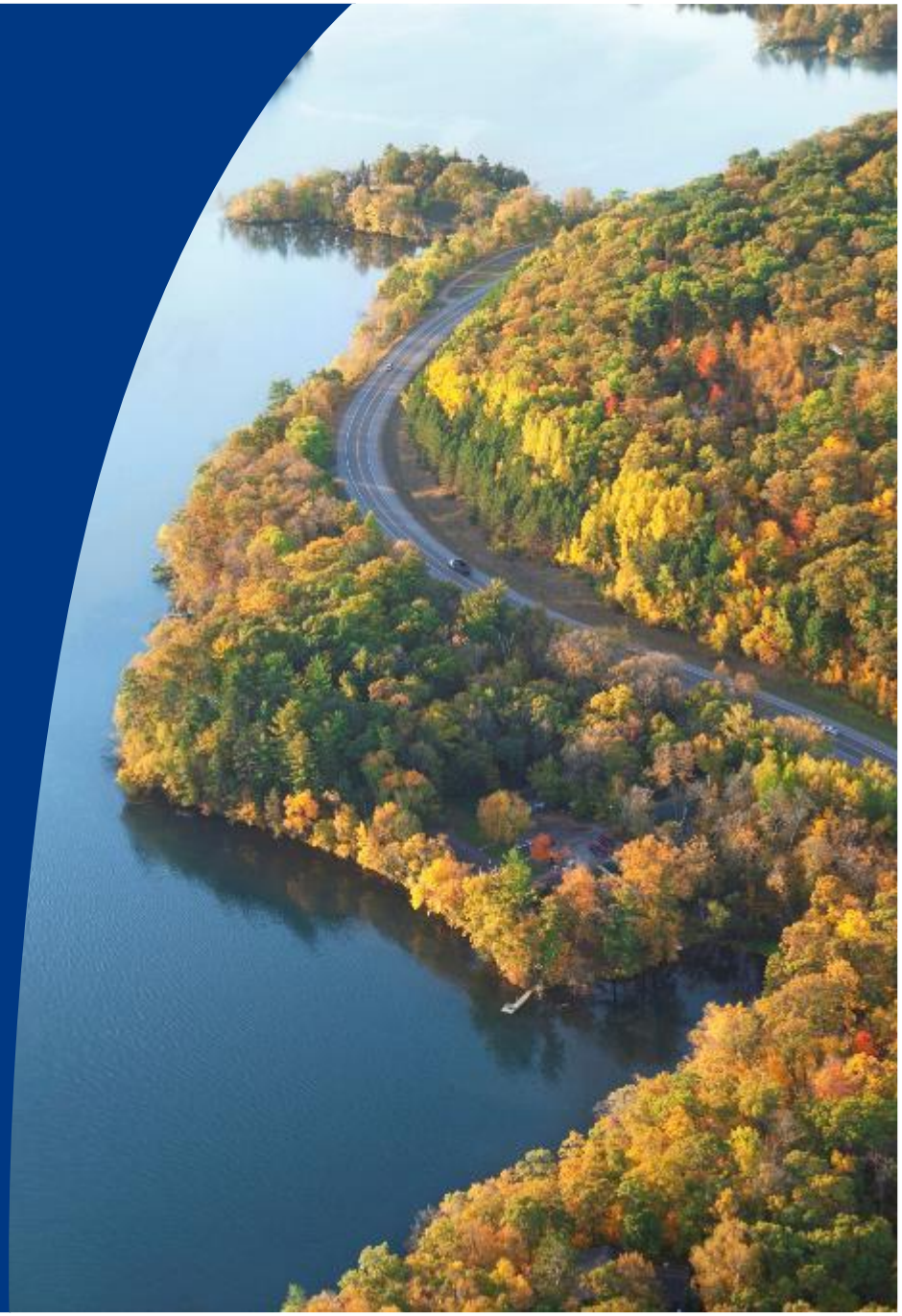
- Total annual costs EUR 1,7 billion, supplementary measures EUR 0,57 billion
  - Most measures to urban waste water treatment, industry and agriculture
  - Basic measures are based on legislation and are mandatory to all
  - Supplementary measures are those needed on top of the basic measres to achieve good status, but are voluntary

	Total cost million €/a		
	Basic measures	**Supplementary measures**	**Total**
Municipalities	772 M€	73 M€	845 M€
Scattered settlements	83 M€	48 M€	131 M€
Industry	198 M€	0,25 M€	198 M€
Agriculture	74 M€	323 M€	398 M€
Acidic soils	- €	67 M€	67 M€
Fur production	5 M€	2 M€	7 M€
Forestry	2 M€	15 M€	17 M€
Peat extraction	12 M€	6 M€	18 M€
Restoration of water bodies	- €	35 M€	35 M€
Aquaculture	1,2 €	1,8 M€	3 M€
Groundwater protection (e.g. transportation, soil extraction etc.)	6,8 M€	2,6 M€	9,4 M€
Total	**1 154 M€**	**574 M€**	**1 728 M€**

Take home messages

- Measures fairly good planned but quite poor ”ownership” of the measures and thus the willingness to implement is not high
- Not easy to connect measures on catchment scale with restoration measures in water bodies

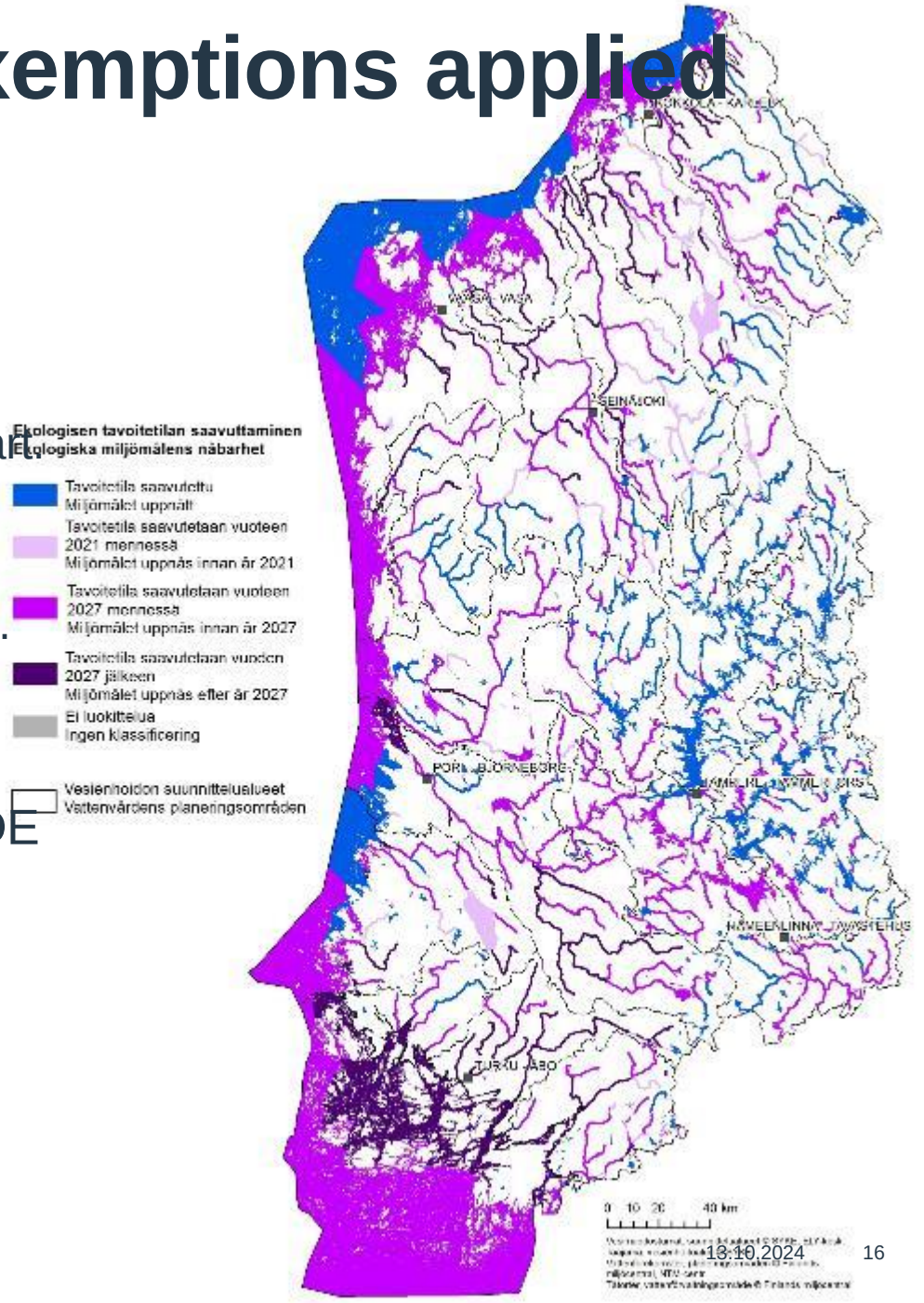
Thank you



Environmental objectives and exemptions applied

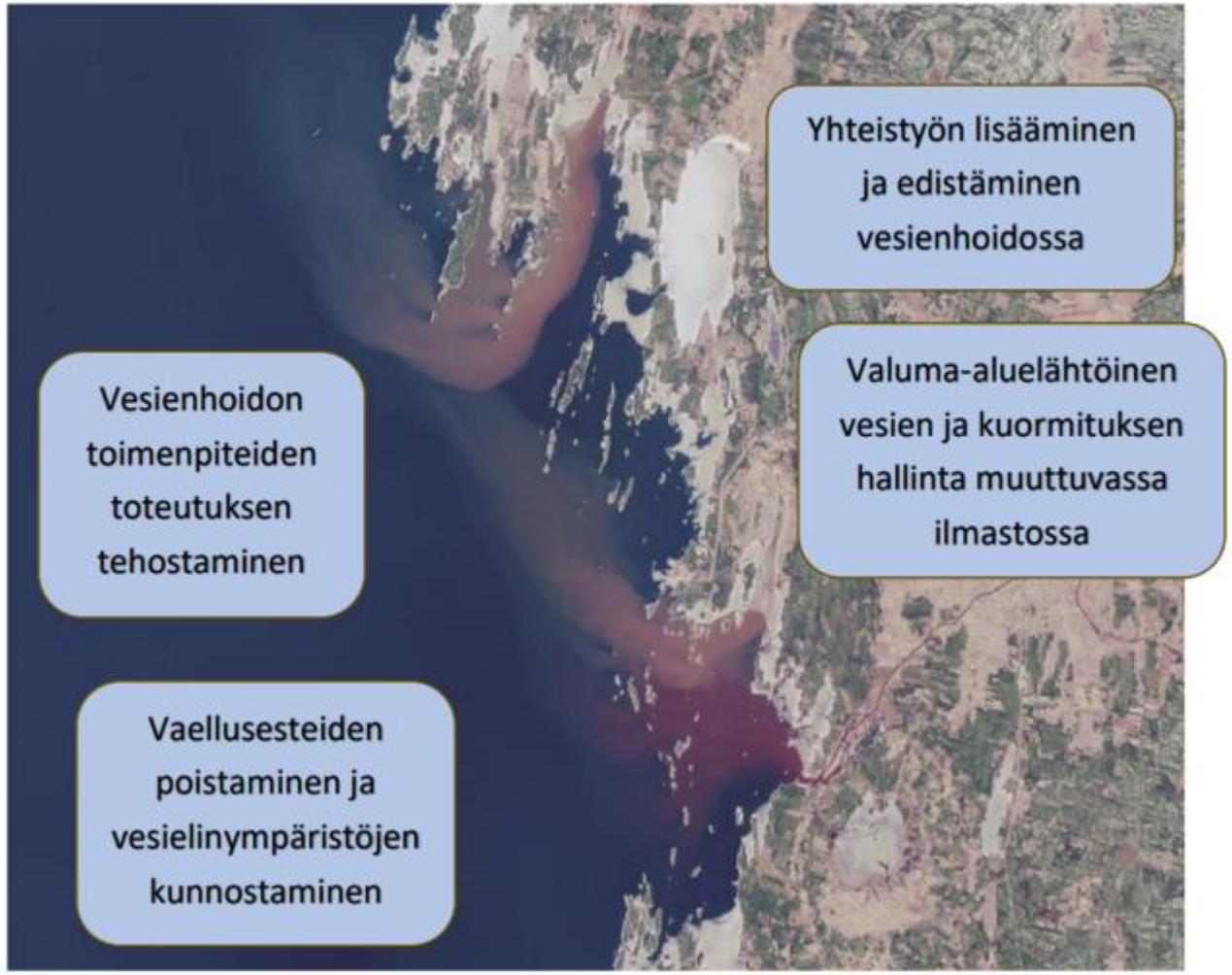
In 3rd river basin management plans exemptions applied:

- For around 1500 surface water bodies for **ecological status** (of total 6800 WBs)
  - **For the first time, 4 water bodies with less stringent objectives** (art. 4(5))
  - 1300 water bodies with deadline extended until 2027 and 250 with deadline extended beyond 2027 based on natural conditions only (art. 4(4))
  - Disproportionate cost justification not used
- For **chemical** status in all 6800 surface water bodies due to PBDE (art. 4(4))
- For **groundwater bodies** 75 out of 3900 GWBs
  - **One water body with less stringent objectives** (art. 4(5))
  - 55 water bodies with deadline extended to 2027 and 18 beyond 2027 (art. 4(4))
- No exemptions based on new projects (art. 4(7))



Significant water management issues

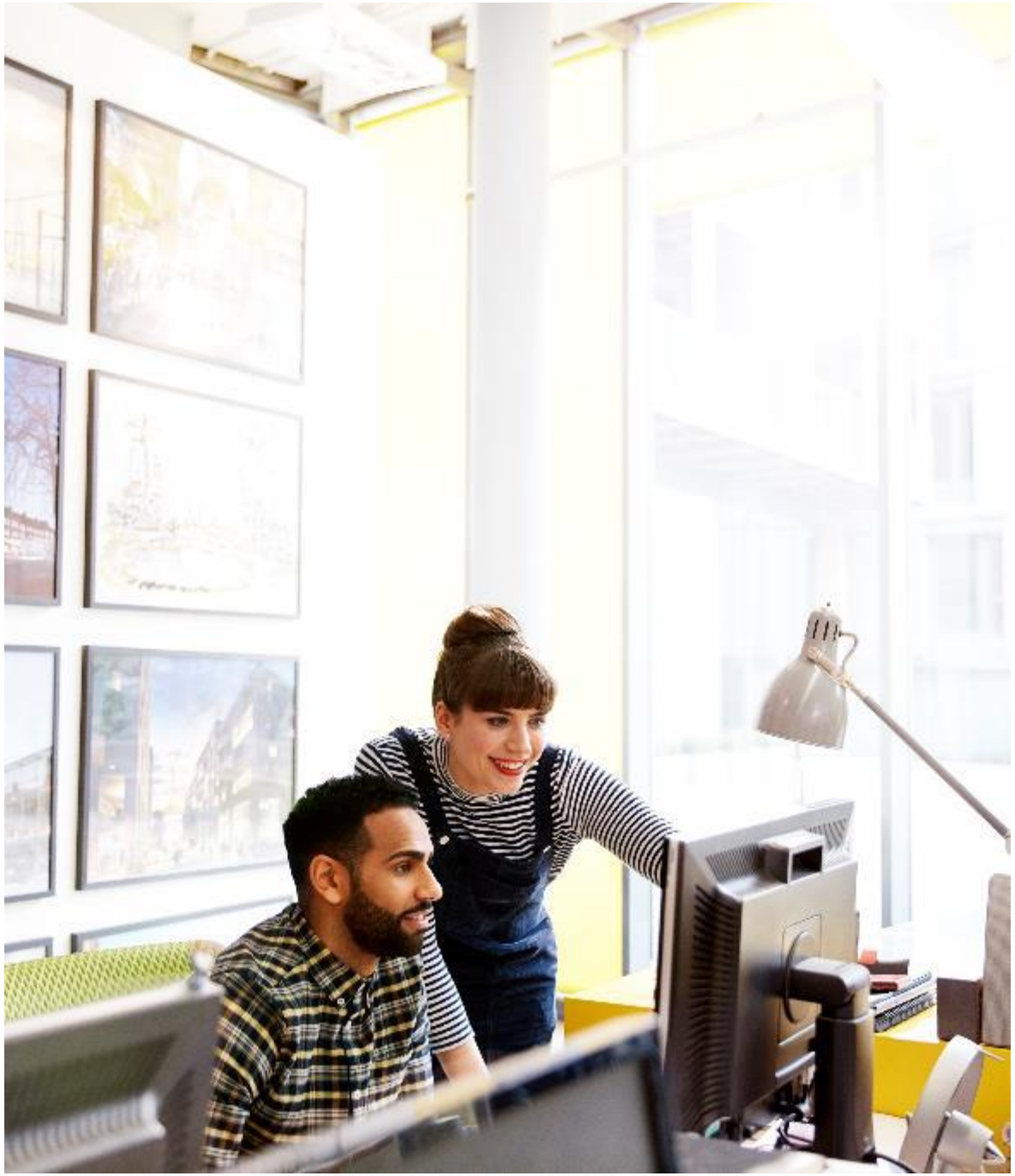
- Consultation for seven RBDs 12/2023-6/2024
- Focus on a few central issues
  - enhancing the implementation of water management measures
  - removing barriers to migration and restoring aquatic habitats
  - increasing cooperation in water management
  - catchment-based water and load management in a changing climate
- Mixed feeback but very constructive



Enhancing the implementation of measures

- Development of policy instruments and planning system

- **Development of legislation**
  - There is both support and opposition to making measures more binding in sectors with diffuse load.
  - Updating the Water Act is essential to mitigate the environmental damage caused by land drainage.
  - The use of compensation is supported, but it should remain voluntary.
- **Use of exceptions**
  - Licensed operators support full use, whereas associations are calling for maintaining ambitious objectives and investing in the implementation of measures over lowering the objectives of statuses.



Enhancing the implementation of measures
- Development of policy instruments and planning system

- **Increasing authority resources**
  - A broad consensus emerged on the need to increase authority's resources. The coordination and implementation of water management is currently under-resourced in the state administration, and further cost-saving measures should not be targeted.
- **Funding for implementation:**
  - The importance of increasing funding for the implementation of the measures was emphasized. Expanding the funding base to include contributions from the state, municipalities, the EU and companies ("sponsor money") was highlighted. However, it was noticed that municipal resources are limited, and their financial situations are worsening.

Enhancing the implementation of measures

-Development of policy instruments and planning system

- The amount of **self-financing of projects** is a problem for small operators. Cooperation possibilities with companies?
- While **more extensive**, longer-lasting **projects** are needed, “human-sized” projects are also important.
- **Funding** must be sufficiently easy to apply for. Currently it is fragmented, and poorly predictable - a funding calendar is proposed.
- The development of agricultural and forestry **subsidy systems** should focus on effective water protection measures.
- With the commitment of environmental goals, **classification** has become more important than before. Correctness and reliability are key.
  - The transparency and predictability of classification should be increased, and the amount of monitoring information should be increased, while reducing reliance on expert assessments. Sufficient resources must be allocated for monitoring and classification.
  - **The darkening of waters** must be considered in the evaluation of the ecological state and measures.
- The planning system’s oversight regarding the state of **small waters** should be corrected, and the impacts on small waters should be prevented, as their state also determines the state of larger waters.

Enhancing the implementation of measures
-Development of policy instruments and planning system

- In the planning of water management, **stormwater from road areas** and their treatment have not been taken into account; nor has the load on surface waters caused by road construction and maintenance.
- **Allocation** of measures and prioritization
  - Improving targeting: relevance, cost-effectiveness, impact, feasibility. However, targeting too tightly can jeopardize the maintenance of a good and high status.
  - "*The amount of money alone does not determine the outcome*." Even the free measures are not always implemented.
- Increased monitoring of the **effects of the measures** is needed. Long-term monitoring, more research funding, a stronger role for the environmental administration
- Water protection structures require proper monitoring, maintenance and repairs. "*Now it's almost make-and-forget reality*"
- New methods are needed, but sufficient monitoring and research data are required before large-scale implementation.

Cooperation and participation

- **Wide-ranging cooperation** throughout water management was considered important in many feedbacks. It is essential to address sufficient resources.
- Bringing different actors together promotes a catchment-specific review. However, coordination is needed.
- **Advice and guidance** are important parts of the implementation of measures, but communication should be interactive and not passive.
- More **training** is needed, as the lack of competent planners and implementers is a significant challenge in the implementation of water protection measures.
- The involvement of land and water area owners was emphasized in all questions. It is hoped that landowners will be seen as participating actors already in the planning phase.

Thank you