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Volvo Cars position on water management

Purpose of this document

This paper describes how Volvo Cars works with water management throughout its own operations and with partners like suppliers and retail network. This work is fully integrated in the company's strategy towards becoming a Circular Business. Water usage and the impact on aquatic systems are closely related to the topic of biodiversity.

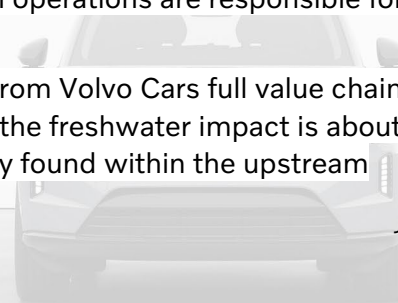
Background and challenge

General

- State of water is among the top five risks in terms of impact globally. 90% of global economy and 75% of jobs are dependent on water.¹
- Water risks could eliminate up to EUR 5.6 trillion from the global GDP and also impact the achievement of all sustainable development goals.²
- Water, climate change and biodiversity are closely inter-linked. Climate change is impacting rainfall patterns, shrinking of ice sheets, floods and droughts. Pollution of waterways and marine ecosystems are damaging species and eco systems with deteriorating capacity for e.g. natural carbon sinks and for supplying freshwater, crucial for all life on the planet.
- About two billion people worldwide do not have access to safe drinking water today³ and roughly half of the world's population is experiencing severe water scarcity for at least part of the year⁴. Only 0.5 per cent of water on earth is useable and available freshwater – and climate change is dangerously affecting that supply.⁴
- There is a growing focus on water from legislators, investors and rating institutes.

Volvo Cars and its partners

- Volvo Cars impact and dependency on water is mainly with freshwater and much less so with marine resources. We are dependent on freshwater as a resource in our full value chain. The use of freshwater in the making of our products is predominantly within the supply chain which uses about 84 percent of the total estimated volumes and approximately 15 percent in the use phase. Our own operations are responsible for about 0,5 percent of the total usage.
- The negative pollution impact on the marine ecosystem from Volvo Cars full value chain is about 1 percent of the total pollution impact, whereas the freshwater impact is about 9 percent. Volvo Cars' pollution impact on water is mainly found within the upstream



value chain where more than 97 percent of the freshwater pollution and more than 99 percent of the marine pollution occur.

- In 2022, 23 percent of water used in Volvo Cars' own operations was drawn from areas with high or very high water stress, by 26 facilities in total across Europe, North America and Asia. In the same year, 19 percent of the occupied area of Volvo Cars' operations was located in or adjacent to biodiversity sensitive areas of which the majority - more than 95 percent - is in Torslanda, Sweden and is related to aquatic ecosystems, although not in a water stressed area.
- In our own operations, we mainly use 3rd party supplied water and water is discharged to a 3rd party quality assured network except for just less than 3% of total volumes withdrawn that is withdrawn from natural water bodies. About 10% of total water discharged is to natural water bodies.
- A mapping of locations of production sites in our supply chain has been initiated and as transparency and knowledge increases, it will guide further target setting and activities.

Volvo Cars position

Reduction and efficiency of usage

- We will continue to ensure that processes within our own operations are continuously increasing in efficiency with regard to water usage. For this purpose we have had for several years an internal target to reduce the per car water usage within our manufacturing operations towards 2025. During 2023 a new ambition was set to reduce our per car usage of water in all of our operations by 50% between 2018 and 2030.
- It is our aim, where possible, to increase the amount of internal recirculation of water and, where appropriate, use non-potable water as an alternative source. Current level of internal recirculation is estimated to be about 20% in our manufacturing plants.
- Since the majority of water usage is occurring in our upstream and downstream value chain, we will continue to make our partners aware of our ambitions on water and to request reports on usage of water. Within the next two years we aim to have further reporting procedures and specific ambitions in place for water usage reduction in the supply chain and with retail partners. In addition to this, ambitions for recycled material content have been set (e.g. with steel) which effectively avoids the large majority of water usage in the value chains of these materials (see Volvo Cars position on sustainable steel).



Water quality

- We know that pollution to freshwater systems is to the largest extent a concern in our upstream supply chain. But nevertheless it is also a concern for our own operations. Therefore, we will continue to report and follow-up on the quality of water as per legal demands, and within the next two years we aim to set global pollution ambitions with specific attention to nutrient load in line with maximum allowable basin-wide levels, as well as remediate where needed.
- As more knowledge is acquired, also concerning supply chain, we will place specific attention on pollution to water in areas of water stress and in sites with direct impact on local aquatic ecosystems. This is part of an action plan being developed to avoid and reduce our biodiversity impacts as well as to make positive contributions through restoration and conservation activities.

Volvo Cars actions

Usage of freshwater

In order to reduce our usage of freshwater, we

- have assessed water usage in the full value chain, including own operations, upstream and downstream. We have set up water usage reporting within our manufacturing as well as non-manufacturing facilities and are following up monthly for our manufacturing operations and quarterly for our non-manufacturing operations. Our retail partners are followed up yearly.
- have a roadmap of activities for own operations, including leakage control, recirculation and asset upgrades, up to 2030.
- are requesting our retail network to report water usage, which more than 70 percent are already doing and along with some that have set individual targets for water usage. We provide guidelines and recommendations to our retailers on water infiltration areas, rainwater harvesting, water recycling and water-saving equipment.
- are requesting our suppliers to set targets and perform actions to reduce water withdrawals and monitor the quality of the wastewater discharges. We will provide adequate guidelines to aid adherence and support mandatory requirements over time.
- will make a specific analysis and activity roadmap in relation to high water stress areas as a part of the work towards the global target and our biodiversity ambitions.
- aim to fulfil 'LEED BD+C'¹⁵, level Gold, on all large construction projects undertaken within our operations. LEED framework supports green building design, which includes mandatory measures within e.g. water efficiency.
- will be putting further emphasis on water management, and our ambitions, towards our employees and customers through internal and external communications.



Quality of water

- Within Volvo Cars operations we are continuously monitoring and managing hazardous substances, primarily nickel and zinc, mainly occurring in the waste water from the paint shops, as well as oil. We have strict procedures in place to ensure that discharges are meeting the quality limits of the existing permits or other applicable regulations.
- Within engineering and testing facilities, activities and facilities with chemicals usage are identified according to corporate procedures for risk analysis and control. Risks are assessed for consequence and probability. If risks of occurrence are moderate/high, or if incidents occur, there are procedures in place for risk mitigation and incident reporting.
- The quality of water to our employees is assured by the procurement of 3rd party sources, or city water, for all our sites.
- All retail partners with a workshop must have or be connected to an appropriate separation system for waste water and comply with all local regulations regarding pollution and water management.
- The pollution of water in our supply chain is a topic that will be further investigated and be part of procedures put in place within our work on a biodiversity strategy and ambition.

General

- We are taking part in ratings on Water, such as CDP Water, for which we received a B-rating in 2022. We are also part of the Responsible Steel initiative, which offers a global standard and certification program for more sustainable steel production, with specific requirements for water stewardship.

References

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4. United Nations, [Water – at the center of the climate crisis | United Nations](#)
5. Leadership in Energy and Environmental Design, Building Design + Construction

