

Implementation of measures to reduce micropollutants in wastewater

Federal Office for the Environment

Key facts

At the beginning of 2016, amendments to the Waters Protection Act¹ came into force, enacting regulations to reduce micropollutants in wastewater. The impurities include a large number of harmful trace substances which come from medicines or anti-corrosives, for example. These could not be sufficiently eliminated with sewage treatment plants' previous purification procedures. A federal levy was introduced to finance the investments of around CHF 1.4 billion required for additional purification. It is levied on all Swiss wastewater treatment plants and refunded as a subsidy to the plants to be upgraded. 75% of the eligible upgrading costs are covered.

The Swiss Federal Audit Office (SFAO) examined whether the organisational measures taken by the Federal Office for the Environment (FOEN) enable the new federal levy and subsidy to be processed efficiently and whether the FOEN is adequately complying with its supreme supervision to monitor the impact of the measures. The SFAO found the implementation to be good on the whole.

Lean administration and appropriate enforcement aids

At the beginning of 2016, the FOEN provided the enforcement aids in good time to collect the levy in accordance with the law, to press ahead with planning measures and to direct the subsidies to the wastewater treatment plants that have completed the upgrading (cantonal approval, final accounts submitted). Execution of the task requires the involvement of the three levels of government. The Swiss Water Association (VSA) plays an important coordination role in this respect. Specialists from the communes, cantons and the Confederation are represented in it. The association operates the joint knowledge platform for the reduction of micropollutants.

Approval of the final accounts by the FOEN leads to exemption from the payment of the federal levy, which is replaced by the actual costs of the new purification stage.

By the time of the audit, the cantonal plans had been completed based on the criteria laid down by the Confederation and were adequately supported and supervised by the Confederation. A total of 134 wastewater treatment plants are included in the upgrading plan, with planned costs of CHF 1.4 billion.

Demanding financial planning and transparency regarding the use of funds

For the processing of receipts and subsidies, the Confederation maintains a special financing account under liabilities and a corresponding guarantee credit. Receipts significantly exceeded expenditure in the first three years, and the balance of the account amounted to CHF 197 million at the time of the audit. The processing of the federal levy

¹ Federal Act of 24 January 1991 on the Protection of Waters (Waters Protection Act, WPA), SR 814.20

and subsidy is cost-neutral for the Confederation. The FOEN's planning must be spot on. The receipts must be sufficient to retrofit all wastewater treatment plants requiring upgrading by 2040 and they may not be higher than necessary for the upgrading.

The planning is demanding and the SFAO recommends periodically publishing updates on the development of upgrading and financial resources in a type of electronic business report for the sake of transparency for wastewater treatment plants and fee payers.

Supreme supervision of the impact of the measures still needs to be systematically organised in the FOEN

In order to measure the impact of the new purification stages, the Confederation, in collaboration with specialists from the cantons and the scientific community, identified twelve key substances. These serve as trace substance representatives for measuring the effective reduction using water samples. In addition, a technical measurement method that can reproduce the degree of purification for the twelve substances "online" based on the permeability of ultraviolet light is available and is used to control the purification processes in the modified wastewater treatment plants.

The cantonal enforcement authorities monitor compliance with the benchmark values. They are responsible for authorising discharges into bodies of water and for any orders that may be issued if the necessary purification effects are not achieved.

Only a manageable number of upgraded wastewater treatment plants had gone into operation by the time of the audit. The FOEN informally made sure that the required purification values had been achieved. The SFAO recommends establishing a systematic controlling process for the future supreme supervision of the effectiveness of the reduction of micropollutants.

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