



Reduction target for Nitrogen load to the project area Hinnerup water work.

Part of task 1.1 in the EU- LIFE project AGWAPLAN

English Summary

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SUMMARY

The groundwater bodies in Denmark are heavily influenced by losses of nitrate and pesticides from the intensive agricultural production. Even though the loss of nitrate from the agricultural areas has been reduced significantly during the last two decades as a result of three national water action plans, there is still a need for further reduction in order to secure the drinking water supply.

Action plan Truelsbjerg – a plan for drinking water protection

The groundwater catchment in Hinnerup is a part of a larger drinking water protection area, the Truelsbjerg area.

The acceptable impact of Nitrate on the waterworks of Hinnerup was determined by the former Århus County in 2006 and documented in the “Action Plan Truelsbjerg, a plan for drinking water protection”. During the preparation of the action plan, the geology of the area as well as the impact of N from farming have been determined on the basis of examinations of the vertical and horizontal extension of the groundwater, the natural vulnerability of the soil towards nitrate and model calculated groundwater producing catchment areas of the waterworks. The reduction target established in the action plan equals the environmental impact that is compatible with the environmental objective.

In the drinking water action plan for the Hinnerup area, the environmental objective for the groundwater is defined as max. 50 mg nitrate/l. In order to meet this objective, the maximum nitrate leaching was estimated to a total of 4.520 kg N/year. The present nitrate leaching in the area was calculated to a total of 7074 kg N/year.

The required reduction in Nitrate leaching from the agricultural areas was estimated to 2.663 kg N/year, which is a reduction of 46%, and equals approx. 20-25 kg N/ha agricultural area.