

Case Utrecht

Introduction to the juridical aspects regarding an area oriented approach



Summary

Many cities in Europe are dealing with large scale VOC contaminations of groundwater. The traditional approach to remediation of those contaminations is often technically possible but prohibitively expensive due to the enormous scale. Yet, something must be done, as contamination can constitute a threat to vulnerable objects (such as drinking water supply) or public health (evaporation). The integrated approach goes beyond technical solutions for the remediation of large scale pollutions. This study shows that an area oriented approach is possible within the main principles of the European legislation.

Besides these reports are also explorations of the Dutch legislation according to soil protection. Many of the basic principles from the Dutch legislation are also valid in the legislation of other European countries. These studies can be an inspiration for other countries to evaluate and deploy similar opportunities.

In the Station Area, the municipality of Utrecht wants to be able to use sustainable energy, promote subterranean construction, reduce stagnation and high costs in project development, while protecting and improving the quality of the groundwater. It is believed to be impossible to fulfil all these wishes by using the traditional case-by-case approach on the basis of the Soil Protection Act. As various mobile groundwater contaminations have become intermingled, demarcation and remediation of individual cases is not always feasible or cost-effective. Moreover, for every action that could cause the contaminated groundwater to move, countermeasures must be taken to prevent the spread of the soil contamination. The complexity and scale are such that the case-by-case approach in accordance with the Soil Protection Act is no longer feasible. To resolve this problem, an area-oriented approach has been selected in which the groundwater is decontaminated area-wide.

One of the main principles is the 'stand still' principle. This means that the groundwater quality for the designated area, must in the long term improve or at least remain at the same quality and of course spreading outside the area should at all time be prevented. At a smaller scale, within the area, it is possible that locally the quality of the groundwater decreases. This is possible as long as this does not negatively influence the groundwater quality of the designated area. Technically, at all time risks for human health and spreading outside the area must be in control. This implies that the area oriented remediation plan describes which measures must be taken in case of human risks and the risk of spreading outside the area.

This report summarises the following juridical studies, which are used to study the legal justification for the area oriented approach:

- [Precautionary principles: Exploration of the meaning of the precautionary principle for an area-oriented remediation of large-scale areas of contaminated groundwater;](#)
- [Area-oriented approach of groundwater contamination: A study of the opportunities within the in Europe and the Netherlands acknowledged environmental juridical principles;](#)
- [Multifaceted causality: Lack of evidence in recovery proceedings in the context of an area-oriented approach.](#)

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- [Precautionary principles: Exploration of the meaning of the precautionary principle for an area-oriented remediation of large-scale areas of contaminated groundwater;](#)
- [Area-oriented approach of groundwater contamination: A study of the opportunities within the in Europe and the Netherlands acknowledged environmental juridical principles;](#)
- [Multifaceted causality: Lack of evidence in recovery proceedings in the context of an area-oriented approach](#)

1 Introduction

In the Station Area, the municipality of Utrecht wants to be able to use sustainable energy, promote subterranean construction, reduce stagnation and high costs in project development, while protecting and improving the quality of the groundwater. It is believed to be impossible to fulfil all these wishes by using the traditional case-by-case approach on the basis of the Soil Protection Act. As various mobile groundwater contaminations have become intermingled, demarcation and remediation of individual cases is not always feasible or cost-effective. Moreover, for every action that could cause the contaminated groundwater to move, countermeasures must be taken to prevent the spread of the soil contamination. The complexity and scale are such that the case-by-case approach in accordance with the Soil Protection Act is no longer feasible. To resolve this problem, an area-oriented approach has been selected in which the groundwater is decontaminated area-wide.

The area-oriented remediation approach proposed for the Station Area involves the polluted groundwater being allowed to freely move around inside the system area, providing that it does not engender risks to people or the ecology. This entails the risk that the parts of the groundwater in the system area that are currently not (yet) or only slightly contaminated will be contaminated in the future or become even more polluted, respectively.

1.1 Preventive principle

The preventive principle is especially important due to the possible dispersion of contamination as a consequence of ATES systems or drainages by well point.

An important argument for permitting extraction and reintroduction of contaminated ground water in combination with soil remediation could be that these activities could make a contribution to achieving a good environmental quality.

The removal of VOCs in the Station Area is a very costly endeavour that is several times more expensive than the area-oriented remediation of VOCs in the groundwater, in which a stable end state is strived for in combination with an improvement of the groundwater quality. In addition, the area-oriented approach ensures that the VOC contamination will not spread beyond the system boundary, creating a controllable contamination situation. Based on these circumstances, the area-oriented remediation of the contaminated groundwater in the Station Area of Utrecht can be assented to without coming into conflict with the European input prohibition.

1.2 Precautionary principle

a. Other contaminations

This objection is addressed by permitting the displacement of other contaminating substances within the system area under certain conditions.

b. Second aquifer

There is uncertainty about the risk that the second aquifer would become contaminated. By prescribing this set of measures, the municipality believes that the interests of the soil protection have sufficiently been safeguarded.

1.3 Standstill principle

The spread of pollution outside the area must be prevented.

Within the system area, dispersion of VOCs in the groundwater is permitted, providing that it does not engender risks to people or the ecology. It is noted in the assent that an improvement in the groundwater quality will ultimately occur at the level of the area. Furthermore, the Municipal Executive of Utrecht points out that the spread of pollution in the first aquifer will not have financial consequences for owners and users of parcels in the area. In addition, the dispersion should not lead to risks to people or the ecology. Based on these circumstances, there should be no problem with the standstill principle in view of the dispersion risk within the system area.

1.4 Polluter-pays principle

Owners of the real rights to the soil will in any case be expected to investigate contaminations in the topsoil and to ensure that contaminations are cleaned up if necessary and in accordance with the rules set out in that regard in the Soil Protection Act. This can also help to prevent that the deeper groundwater becomes re-contaminated due to subsequent delivery from the topsoil.

Relationship with general legal principles

A relationship can be established not just with the environmental law principles, but also with the principle of legal certainty.

1.5 Legal certainty

Due to uncertain factors, legal uncertainty can arise about the remediation objective when this exceedingly affects the credibility of the feasibility of the forecasted remediation result. This manner of putting the remediation objectives into practice is only acceptable when the forecasted decline in load, including the related fallback measures, yields a guaranteed remediation result that fulfils the requirements imposed thereon by or pursuant to Article 38 of Soil Protection Act, with the exception of the dispersion risk of contamination within the system area.

1.6 Multifaceted causality

The causality issue can create considerable evidential issues in civil recovery proceedings. The same applies to an area-oriented remediation of groundwater contamination.

Dutch law offers a number of specific instruments and provisions to meet the evidential need of aggrieved parties. We have reviewed which legal instruments and provisions are involved and which of those qualify most in situations of multifaceted causality in the case of an area-oriented remediation of contaminated groundwater.

We have selected four instruments, namely: contributory negligence, alternative causation, collective action, and judicial presumptions.

Contributory negligence pertains to a more or less coincidental concurrence of dependent causes that are jointly responsible for the overall damage. Such concurrence of causes will rarely be the case in an area-oriented remediation of contaminated groundwater, as the damage could also have occurred without one of the concerned activities taking place.

Liability in the case of collective action requires 'coherent unity' between the various causes of the groundwater contamination 'as far as time and location are concerned'. Collective liability being an option in the case of an area-oriented groundwater remediation is not anticipated to become a policy in Dutch legal practice anytime soon.

The two remaining instruments, alternative causation and judicial presumptions, seem the most qualified to serve as tools for resolving evidential issues in recovery proceedings concerning an area-oriented remediation of contaminated groundwater.

Joint and several liability pursuant to alternative causation can possibly be an option if the separate share in the contamination of each of the parties who caused it can already give rise to initiating an area-oriented remediation, e.g. because individual remediation of cases of contamination is neither advisable nor feasible. An important condition in this regard is that the costs of an area-oriented approach do not exceed those of a case-oriented remediation.

Another option is the judicial presumption, which can give rise to an alternative division of the burden of proof. One of the techniques used in that regard is the rule of reversal of the burden of proof, on the basis of which the causal link can be accepted subject to proof to the contrary. This requires the violation of a standard intended to prevent a specific hazard concerning the inception of damage to another party and this hazard being significantly increased by the violation of the standard. A standard that can qualify in that respect is the standard referred to in Article 13 of the Soil Protection Act, in which legal duty of care for the soil is laid down.

However, this duty-of-care provision only took effect on 1 January 1984. Before that date, the prevention or reduction of soil contamination was provided for, if at all, in other legal frameworks, such as in regulations attached to permits. When such regulation attached to a permit intends to prevent soil degradation due to pollution, there is in principle also a basis for the rule of reversal of the burden of proof in the case of historical contamination and the only question that remains is which contribution ratio is the fairest in the given situation.

2 Conclusions

1 In the case of an area-oriented remediation of contaminated groundwater, the matter of joint and several liability on the basis of contributory negligence, as referred to in Article 6:102, paragraph 1 of the Dutch Civil Code, is not anticipated to arise soon, as the damage would also have arisen in the absence of one of the activities that gave rise to the overall damage.

2 Collective liability, as referred to in Article 6:166 of the Dutch Civil Code, requires 'coherent unity' between the various causes 'as far as time and location are concerned'. We do not anticipate that this will readily be the case in an area-oriented remediation of contaminated groundwater.

3. Joint and several liability pursuant to alternative causation, as referred to in Article 6:99 of the Dutch Civil Code, can possibly be an option if the separate share in the contamination of each of the parties who caused it can already give rise to an area-oriented remediation and the costs of an area-oriented remediation do not exceed those of a case-oriented remediation.

4. Pursuant to Article 150 of the Dutch Code of Civil Procedure (Wetboek van Burgerlijke Rechtsvordering, Rv), the court can deviate from the normal burden of proof on the basis of presumptions, as referred to in Article 150 of the Dutch Code of Civil Procedure, in order to promote recovery of costs in the case of issues of causality.

5. Based on this analysis, the rule of the reversal of the burden of proof is the best method for a divergent burden of proof in the case of an area-oriented remediation of contamination groundwater.

2.1 Recommendations

Based on the results of this analysis, we make the following recommendations:

1. It is recommended to further explore the possibilities of joint and several liability in the case of multifaceted causality in connection with an area-oriented remediation of groundwater contamination, more specifically those of joint and several liability on the basis of alternative causation.
2. In addition, in view of the uncertainties affecting the issue of causality that can arise in an area-oriented remediation of contaminated groundwater, it is appropriate to perform additional research into the possibilities of deviating from the normal burden of proof, specifically focused on the rule of reversal of the burden of proof.



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