Tight restrictions on hydraulic fracturing required

New report: No drilling for natural gas in designated areas tapped for drinking water

Hydraulic fracturing technology, used to extract natural gas from unconventional deposits, can lead to groundwater contamination. There is particular concern and uncertainty regarding the use of chemicals and the disposal of flowback, the wastewater produced by the process. This is the conclusion of a new report for the Federal Environment Ministry and the Federal Environment Agency presented in Berlin today by Federal Environment Minister Peter Altmaier and President of the Federal Environment Agency Jochen Flasbarth. While it does not call for a complete ban on hydraulic fracturing, the report recommends tight restrictions on the use of the technology and a step-by-step approach, citing current gaps in knowledge and environmental risks. Among the moves the authors advocate is a ban on hydraulic fracturing to extract natural gas in designated areas tapped for drinking water and in spa regions. Federal Environment Minister Peter Altmaier welcomed the report: "The findings and recommendations of the report significantly advance our discussion about hydraulic fracturing. The risks to groundwater are clearly identified. All concerns must be addressed before hydraulic fracturing is deployed". Jochen Flasbarth, President of the Federal Environment Agency: "I believe the proposed introduction of a mandatory environmental impact assessment is particularly important. We cannot afford to jeopardise our drinking water supply". Both men are calling for a full public consultation.

Extracting natural gas from unconventional deposits, for instance coal bed methane, can involve the use of several thousand tonnes of chemicals per square kilometre, some of which are hazardous, toxic and harmful to human health and the environment. These chemicals are used in fracturing fluid to break up rocks containing natural gas. The facts currently available do not provide sufficient basis for conclusively assessing potential risks. There is not enough reliable scientific knowledge to identify the specific impact of extracting natural gas from unconventional deposits in Germany, particularly regarding to the potential effects on groundwater. An interdisciplinary group of experts has now examined the risks of hydraulic fracturing with a focus on groundwater.
The experts currently advise against large-scale use of hydraulic fracturing to tap natural gas in unconventional deposits in Germany. In light of the serious lack of data on deposits, the impacts of drilling or on the chemicals used, they instead recommend a step-by-step approach, with individual projects closely overseen by the authorities and specialists.

The experts call for full transparency regarding the use of chemicals, pointing to a need for complete information about their quantity and properties. This is especially important with respect to the potential toxic hazard they pose to humans and the environment. It should also be determined whether it is possible to replace the substances giving cause for concern. In the experts' view, where there is a lack of relevant data on the substances used in hydraulic fracturing, deployment of this technology cannot be authorised.

The report also proposes several changes to mining and administrative legislation. These proposals include the introduction of an environmental impact assessment for every natural gas drilling project using hydraulic fracturing technology. The aim is to strengthen the participation rights of the affected parties and the public. In order to protect water bodies, the experts recommend amending mining legislation to give control of water law assessments to one of the Federal Environment Ministry's subordinate authorities. They also propose assigning powers for authorising and monitoring mining projects from an environmental and safety perspective to the Länder environment ministries. This would ensure efficient environmental protection by separating such powers functionally and organisationally from the ministries for economic affairs. "It is now necessary to examine the proposals in detail and discuss them with the parties involved. I am confident that we will find a solution to the hydraulic fracturing issue that is acceptable to everyone," said Federal Environment Minister Peter Altmaier.

More information and links:
- report „Umweltauswirkungen von Fracking bei der Aufsuchung und Gewinnung von Erdgas aus unkonventionellen Lagerstätten“:
  [http://www.umweltbundesamt.de/uba-info-medien-e/4346.html](http://www.umweltbundesamt.de/uba-info-medien-e/4346.html)
- topic page “Fracking” (in German):
  [http://www.umweltbundesamt.de/wasser/themen/grundwasser/fracking.htm](http://www.umweltbundesamt.de/wasser/themen/grundwasser/fracking.htm)

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