



**Amendment to permitted development rights for drilling boreholes for groundwater monitoring for petroleum exploration**

Department for Communities and Local Government

Water UK response

Date of submission: 24 September 2015

**1. Summary**

1. Water UK welcomes the Government proposals to amend the scope of the permitted development rights for the drilling of boreholes associated with groundwater monitoring needs for petroleum exploration. The amendments will provide additional information that, if shared appropriately, will allow a greater understanding of the risks to groundwater.
2. A significant risk to a drinking water borehole can arise from groundwater pathways within a fractured aquifer if the source is drilled directly into it, even if overlying geology provides protection from pollution arising from surface activities. Incidents have occurred where public drinking water sources have needed to be closed when drilling operations have caused turbidity in the groundwater. Mobilisation of particulates not only causes turbidity it can adversely impact the water treatment process, resulting in increased risks and costs to the water industry and subsequently to its consumers.
3. It is for this reason that it is important that, in addition to the amendments proposed;
  - There should be an exclusion from the exemption for any borehole to be constructed within vulnerable groundwater areas (e.g. SPZ 1 / 1c as defined by the EA - <http://apps.environment-agency.gov.uk/wiyby/37833.aspx>).
  - An additional condition is inserted into the relevant part of the order whereby a developer would, at the same time as notifying the

minerals planning authority of their intentions to undertake monitoring boreholes (for groundwater, seismic, or mining work investigation), also inform the statutory **drinking** water undertaker and the Environment Agency.

- The decision not to implement the Environment Agency's suggestion to amend the condition relating to sealing the borehole after use to ensure developers adhere to EA guidance be reconsidered.

## 2. Responses to consultation questions

Question 1: Do you have views on whether permitted development rights should be amended to extend the period for boreholes for groundwater monitoring for petroleum exploration from six months to twenty four months?

4. It is important to recognise that the drilling of boreholes in water supply catchments can cause significant deterioration in water quality at public and private water supplies, resulting in increased risks and costs to the water industry and subsequently to its consumers. The main period of risk with respect to a borehole is during the drilling process; therefore if one is to be drilled and then monitored for a period of 6 months there is unlikely to be any increased risk to groundwater if it is left *in situ* for twenty four months instead. The increased period of monitoring will allow for a much better understanding of the hydro-geological regime in the area and hence identification of potential risks to groundwater.
5. Whilst Water UK broadly welcomes the extension of the permitted development rights with respect to monitoring boreholes, it is important that adequate control is implemented within vulnerable groundwater areas i.e. those defined as SPZ 1 and 1c.
6. The consultation document defines “protected groundwater source areas” in Note 2 on Page 11. Water UK is concerned that the current definition does not adequately make clear that drilling operations (i.e. monitoring boreholes) in SPZ1c areas will not benefit from permitted development rights. The proposed amendment to the GPDO provides an opportunity to clarify the definition of “protected groundwater source areas”.
7. Water UK requests that the definition, makes explicit that it refers to areas designated (by the EA) as SPZ1 and 1c. The latter (which are particularly of relevance in southern England) denote areas where

drilling into the aquifer, through the overlying surface solid or superficial geology, poses a risk to the public water supply (or other abstraction). It is assumed that the second bullet point on page 11 within the consultation document would be inserted as an additional condition within Class J1 of the Order and/or included within Article 5.

8. It would also be helpful to developers if it is made clear that the 50m / 50 day travel time refers to SPZ1 and SPZ1c. Water UK would also request that further consideration is given to extending the exclusion of permitted development rights around a water supply borehole / source from 50m (as set out in the footnote on page 11) to 500m to provide greater protection to drinking water sources.
9. In addition to the extension of the period from 6 to 24 months we would like Government to consider the following proposals:
  - We would like an additional condition to be inserted into the relevant part of the order whereby a developer would, at the same time as notifying the minerals planning authority of their intentions to undertake monitoring boreholes, also inform the statutory drinking water undertaker and the EA. This would **NOT** constitute a formal consultation process but would allow the statutory drinking water company and the EA to engage with the developer if appropriate e.g. to request a method statement for the borehole construction or to provide supporting advice.
  - The Government's decision not to implement the Environment Agency's suggestion to amend the condition relating to sealing the borehole after use to ensure developers adhere to EA guidance should be reconsidered (para 11 of Government response document). We do not believe that all developers are necessarily aware of the EA's guidance on sealing boreholes. Failing to properly seal a borehole is a residual risk to groundwater.

Question 2: Do you have views on whether permitted development rights should be amended to include boreholes for seismic investigation and monitoring for petroleum exploration?

10. Water UKs view on this question is similar to that for Question 1. Robust information on seismicity would allow the water and sewerage companies (and other utilities with below ground infrastructure) to make informed opinions on any risk to their assets i.e. the public water

supply and sewerage networks that could arise as a result of exploration/exploitation of unconventional petroleum/gas.

11. As per question 1 we reiterate the proposal to include an additional condition whereby a developer would, at the same time as notifying the minerals planning authority of their intentions to undertake monitoring bore-holes, also inform the statutory drinking water undertaker and the Environment Agency.
12. Also as per question 1 we consider the EA's suggestion to include a condition requiring boreholes to be sealed according to EA guidance should be reconsidered.

Question 3: Do you have views on whether permitted development rights should be amended to include boreholes for the location and appraisal of mine workings for petroleum exploration?

13. It would be useful for the permitted development rights to be extended to include for the identification of the location and appraisal of mine workings. As the consultation document notes, the whereabouts of deep mines are generally known. However, in, for example, parts of the north of England and East Midlands there are many areas that have historical shallow coal workings which are not always well documented. Mine water can present a serious risk to the aquatic environment. It would be sensible for any risks associated with previous workings to be identified early on.
14. As will be required for drilling boreholes for petroleum site investigation / monitoring, any borehole installed for investigation of mine workings should be excluded from permitted development rights if it is located within SPZ1 / 1c.
15. As per question 1 we reiterate the proposal to include an additional condition whereby a developer would, at the same time as notifying the minerals planning authority of their intentions to undertake monitoring bore-holes, also inform the statutory drinking water undertaker and the Environment Agency.
16. Also as per question 1 we consider the EA's suggestion to include a condition requiring boreholes to be sealed according to EA guidance should be reconsidered.

Question 4: We consider that, as well as the benefits in providing public confidence that the environmental impacts of potential petroleum exploration schemes are being properly considered, the proposal could save time for such schemes going forward. What potential cost savings might be achieved were these additional permitted development rights to be realised?

17. If robust data are provided and risks are identified early on in the petroleum exploration process time cost savings are likely to be gained by both developers and statutory consultees (which now include the statutory drinking water companies). Neither party will engage in fruitless consultation about unknown environmental conditions. Water UK members will be better able to respond to future planning consultations based on sound data which will also assist the Mineral Planning Authorities and the EA with regards to permitting.

### **About Water UK**

18. Water UK is the industry association that represents UK statutory water supply and wastewater companies at national and European level. We are funded by our members to influence public policy and opinion to ensure a strong water industry in the interests of all stakeholders. The focus on policy means: identifying gaps or inadequacies; working with members and stakeholders to develop alternatives; and helping deliver the benefits as new approaches are implemented. Our core objective is sustainable water policy – actions and solutions that create lasting benefit by integrating economic, environmental and social objectives.

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