19 April 2018

Dear Sir/Madam


Friends of the Lake District is the only charity wholly dedicated to protecting the landscape and natural environment of Cumbria and the Lake District. Friends of the Lake District was involved in the MRWS process in West Cumbria as a stakeholder, and also made representations to DECC’s 2013 consultation on Geological Disposal prior to the publication of the Implementing Geological Disposal White Paper in 2014.

In 1995 we were involved in giving evidence at the Public Inquiry into the NIREX proposals for a UK rock lab facility to investigate the potential to site a radioactive waste repository in West Cumbria. Our evidence along with that of many others demonstrated that the desire to site a repository in West Cumbria thanks to a willing host community seemed to outweigh the obvious unsuitability of the geology of the area¹. It was also very obvious that the location of the Lake District National

Park directly adjacent to the proposed site had no weight whatsoever with the supporters of the project.

Our comments on this consultation are made with the history of NIREX and the later failed MRWS site selection processes in mind.

**Overarching comments applicable to both the Implementing Geological Disposal NPS and the Working with Communities consultations**

**Geological Suitability vs Finding a Host Community**

1. Friends of the Lake District is concerned that BEIS is concentrating on finding a host community for a Geological Disposal Facility (GDF) first rather than undertaking a geological assay to ascertain the most suitable geologies for geological disposal of high level radioactive waste. It is our view that a search for suitable geologies should be undertaken first and only then should communities be invited to volunteer. This is on the basis that GDF can only be safely constructed within a suitable geology which allows long term containment of radioactivity. Internationally, these suitable geologies have been defined as impermeable lithologies such as clay or salt (Smythe 2013\textsuperscript{2}). Therefore communities in areas where the geology is unsuitable should be excluded from this process and prevented from volunteering.

2. If a host community puts itself forward in an area where the geology is unsuitable or barely suitable for siting a GDF, we are concerned that the geology will be made to “fit” when actually it is not capable of containment of radioactivity for the lengths of time necessary (30,000 - 100,000 years). Human-engineered containment solutions cannot be considered to be fail-safe over the time period that is necessary for geological disposal of radioactive waste. The NPS process is not applying the precautionary principle by starting with the most suitable geology.

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\textsuperscript{2} Professor D K Smythe

[https://cumbriatrust.files.wordpress.com/2013/12/prof-smythe.pdf](https://cumbriatrust.files.wordpress.com/2013/12/prof-smythe.pdf)
3. Our concern is underlined by work carried out in Sweden on corrosion-resistant canisters to be used in the Swedish geological disposal process. This research has found that canisters which were supposed to contain waste safely for a 100,000+ years have been demonstrated to be subject to a leaching mechanism which would remove the copper casing within 1000 years. In January 2018 the Swedish Land and Environmental Court ruled against a license application for a final repository in Sweden on the basis of uncertainties around the ability of the containment canisters to provide the necessary containment over the required timescales. This demonstrates that the geological barrier is the most important aspect of a GDF, and that human engineering is no substitute for the right lithology (Smythe 2013).

4. It must therefore be acknowledged that the role of geology is vital because all engineered solutions will fail on the required geological timescales. It is hubris to assert otherwise. It inevitably follows that a national search for the optimum GDF location should be undertaken first.

5. To do otherwise runs the risk of causing harm to future generations who have no say in this matter, but who will be the ones that have to deal with any failure of containment that occurs. We have a moral responsibility as a society to ensure that the lives of future generations are not compromised by politically expedient decisions which lead to the inadequate disposal of radioactive waste.

Nationally protected sites and landscapes have a national community and should be excluded from consideration

6. The Appraisal of Sustainability for the NPS sets out an alternative non-site specific NPS that includes exclusionary criteria. This option would exclude protected landscapes, cultural

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5 Why the current MRWS process should not proceed to Stage 4 by David K. Smythe https://cumbriatrust.files.wordpress.com/2013/11/summary-evidence-for-the-cumbrian-mps-ad-hoc-committee1.pdf
heritage and protected wildlife sites from being considered for a GDF. However, this option was not taken forward.

7. We believe that not taking forward the exclusionary criteria put forward in the AoS is an unreasonable decision. We are very concerned that sites and areas with the very highest legal and policy protection such as National Parks and World Heritage Sites are going to be considered as potential locations for nuclear waste disposal.

8. Nationally and internationally protected landscapes, cultural heritage and wildlife sites belong to the nation as national assets, and as such have national communities of people who care about them. Leaving a small local community to make a decision which affects a nationally designated landscape or site is likely to bring large and vocal protests from people throughout the country who consider themselves to be part of a community belonging to that protected landscape, and as such, would be well within their rights to demand a say on the decision. Unless people nationally can have a say, it may very well bring legal challenge too.

9. Therefore unless the Government intends to carry out a national referendum on locating a GDF within or next to a protected landscape or site, we consider that it would be most sensible to exclude these sites from the process.

A GDF will change peoples’ perceptions of protected landscapes

10. People’s perceptions of protected landscapes are of significant importance. The inspirational nature of scenic beauty, expressed through art, poetry, photography, philosophy, is an integral part of why some places are designated and protected.

11. We consider that if a GDF is located inside, under or adjacent to a National Park, World Heritage Site or other protected landscape, that perceptions of that landscape would be adversely affected by the presence of a radioactive waste disposal site, even buried 1km below the surface. This would inevitably lead to a devaluation of landscape and cultural value,
reducing the status of the landscape so that it would no longer be held in such high esteem as it was before the facility was constructed. This devaluation of landscape could lead to loss of designation status.

12. Therefore, any assessment of the impact of a GDF should include the impact on people’s perceptions of the landscape that will contain it, and how this would change if a GDF was sited there. We consider that if a GDF was sited under or close to a protected landscape, public perceptions of the designated landscape would become spoiled or tainted by the presence of the facility. Landscape perceptions will need to be evaluated on a national scale as these landscapes are, by their designation, of national value to the population of the UK.

13. It is yet another reason why National Parks, AONBs and other nationally and internationally protected areas and their settings should be excluded from consideration for the siting of a GDF as described in the Appraisal of Sustainability’s alternative non-site specific NPS that includes exclusionary criteria which was not brought forward.

**Geological Disposal National Policy Statement: responses to relevant questions**

**Question 2** Do the assessment criteria adequately address the principles that the developer, the Planning Inspectorate and the Secretary of State should take into account in an application for development consent? If not, what further information on the assessment criteria is required?

14. No, we consider that the assessment criteria **must** include exclusionary criteria for areas which are designated as National Parks, AONBs, World Heritage and Natura 2000 Sites. Exclusionary criteria based on these designations would demonstrate the Government’s commitment to its own policies and legislation with regard to the most important nationally and internationally protected sites, and would therefore ensure that the development of the NPS takes full account of the additional planning protection that applies in National Parks, AONBs, World Heritage and Natura 2000 sites.
15. Publishing a final NPS which fails to exclude National Parks and other protected sites as possible locations for the proposed GDF would be contrary to long-established Government policy. It would also send out a dangerous message about the value of the additional planning protection for designated landscapes and could lead to increased pressure for inappropriate development in these areas which would be extremely damaging to the environment, undermine the special qualities of National Parks and other protected areas and put at risk the significant economic benefits they provide.

16. With regard to World Heritage Sites, we would also point out that these are designated to ensure that the values of a World Heritage Site can be transmitted through the generations. Implementation of a GDF in or adjacent to a World Heritage Site would completely undermine UNESCO’s aims and objectives when designating a WHS.

17. The paragraph below is taken from UNESCO’s website:

   a. UNESCO works to protect and safeguard heritage so that future generations can enjoy, benefit and learn from the legacy of the past. For UNESCO, the safeguarding of heritage is a collective responsibility, as well as a powerful means of promoting peace – uniting the world’s peoples around shared values.

18. We do not consider that a Geological Disposal Facility could in any way be accommodated in or within the setting of a World Heritage Site without severely compromising the protection, safeguarding and transmission of those heritage values for which the site was designated.

19. With regard to the English Lake District World Heritage Site (which we reference due to previous attempts to site a GDF within or adjacent to the Lake District National Park), it is our view that ICOMOS would not support surface or subsurface facilities within, under or adjacent to a World Heritage Site due to the potential harm that may occur to the Outstanding Universal

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Values of the site and the prevention of transmission of those values to future generations. This would risk the Lake District losing its World Heritage Site status.

**Question 3** Does the draft NPS appropriately cover the impacts of geological disposal infrastructure and potential options to mitigate those impacts? Please provide reasons to support your answer.

20. No. By not considering the impacts of geological disposal infrastructure in relation to the geology of an area, the Government is failing to apply the precautionary principle in the development of this NPS. The geological suitability of a particular area will need to be considered before a final decision can be made on the GDF, so it would be far more appropriate to rule out areas where the geology is not suitable from the start of the process rather than spending vast amounts of time and money on the Engagement Process with a host community in a geologically unsuitable location.

21. Friends of the Lake District is concerned that BEIS is concentrating on finding a host community for a Geological Disposal Facility (GDF) first rather than undertaking a geological assay to ascertain the most suitable geologies for geological disposal of high level radioactive waste. In our view, this puts the cart before the horse.

22. A GDF can only be safely constructed within a suitable geology which allows long term containment of radioactivity. Internationally, these suitable geologies have been defined as impermeable lithologies such as clay or salt (Smythe 2013\(^7\)). Therefore communities in areas where the geology is unsuitable should be excluded from this process and prevented from volunteering.

23. If a host community puts itself forward in an area where the geology is unsuitable or barely suitable for siting a GDF, we are concerned that the geology will be made to “fit” when actually

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\(^7\) Professor D K Smythe
https://cumbriatrust.files.wordpress.com/2013/12/prof-smythe.pdf
it is not capable of containment of radioactivity for the significant lengths of time necessary (30,000 - 100,000 years).

24. Human-engineered containment solutions cannot be considered to be fail-safe over the time period that is necessary for geological disposal of radioactive waste. The NPS process is not applying the precautionary principle by starting with the most suitable geology.

25. It must be acknowledged in this process that the role of geology is the primary constraint in the search for a GDF location on the basis that all human-engineered solutions will fail on the required geological timescales; it is hubristic to think otherwise. It inevitably follows that a national search for the optimum geological GDF locations should be undertaken first, before engaging communities within these areas in the Community Engagement process. To do otherwise runs the risk of bringing harm to future generations who have no say in this matter, but who will be the ones that have to deal with any failure of containment that occurs.

26. In addition, the draft NPS does not address the options for mitigating the impacts on designated landscapes appropriately as it fails to include criteria which exclude these areas. The best and most appropriate way of mitigating the impact of the GDF on these areas would be to include exclusionary criteria for designated landscapes and their settings.

27. Table 5.16 in the Appraisal of Sustainability (AoS) report identifies that an NPS with exclusionary criteria would deliver significant benefits across a range of AoS objectives including biodiversity, air quality, noise, cultural heritage, landscape and townscape. Having an the NPS with exclusionary criteria would also be consistent with the Government’s stated aims for National Parks as set out in the revised draft of the NPPF and the 25 Year Environment Plan.

**Question 4** Do you agree with the findings (of ‘likely significant effects’) from the appraisal of Sustainability Report and the recommendations for enhancing the positive effects of the draft NPS? Please provide reasons to support your answer
28. We strongly disagree with the findings in the Appraisal of Sustainability report regarding cultural heritage and landscape. We cannot understand how the evaluations were arrived at as the construction and operation of a GDF will in no way be beneficial for places of significant cultural heritage or landscape value if constructed in or near these areas.

29. We do not believe that sufficient justification has been given for choosing the non-site specific draft NPS. Paragraph 5.162 of the AoS report states:

   a. “In addition, the adoption of exclusionary criteria could result in unintended effects arising from increased development pressure on areas that, whilst not designated, may be sensitive to development (for example, areas at risk of flooding) or have value in terms of, for example, the economy or mineral resources.”

30. This is not a good or justifiable reason for failing to exclude areas which have the highest levels of planning protection. If there are other places where it would not be appropriate to locate a GDF, then these should be excluded in addition to National Parks and AONBs.

31. We consider that the findings of the AoS with regard to protected sites are unsound. We recommend that a review of the decisions made within Appraisal of Sustainability is undertaken in association with relevant bodies such as National Park Authorities, Natural England and Environmental NGOs and that exclusionary criteria based on nationally and internationally protected sites and their settings (e.g. National Parks, World Heritage Sites, Natura 2000 sites) should be drawn up.

32. Exclusionary criteria set clear parameters for the siting of a GDF which omits specific sites and landscapes on the basis of their value to the nation. The provision of certainty at this stage will mean that 20+ years in time and money will not be wasted on recruiting communities in places where a GDF would do damage to national environmental and cultural assets.
33. If this exclusionary approach is not taken, it leads to a suspicion that the Government will not honour the protection afforded to these nationally and internationally designated sites. This is totally unacceptable.

**Question 5** Do you agree with the conclusions of the Appraisal of Sustainability Report? If not, please explain why.

34. No, we do not agree with the conclusions of the AoS report for the reasons set out in our responses to questions 3 and 4. In particular, we do not support the reasons for rejecting the draft NPS with exclusionary criteria and we do not agree with the statement in paragraph 6.2 that “the draft NPS is likely to have positive effects across all the AoS objectives” due to the adverse impact that a development could have on National Parks, AONBs, World Heritage Sites and Natura 2000 sites.

35. Paragraph 6.15 of the AoS clearly states that the draft NPS including exclusionary criteria for nationally and internationally protected landscapes, cultural and natural sites “would help to establish clearer parameters for decision-making and could have significant positive effects on the environment by introducing heightened protection from the effects of geological disposal infrastructure to them”. We agree with this statement and believe that it provides a **strong justification** for selecting this exclusionary version of the NPS.

36. We are also concerned that the AoS has not taken full account of the wider impacts on National Parks, including the impact on the economy of these areas which could be significant given that many of the businesses in National Parks and AONBs, particularly those in tourism and food production, rely on the high quality environment for their success. The possibility that a GDF could be sited in, under or within the setting of a particular National Park or AONB could have a significant impact on perceptions of the environment of that area and could deter people from visiting or buying products made there.
37. If a GDF is located inside, under or adjacent to a National Park, World Heritage Site or other protected landscape, perceptions of that landscape would become adversely affected and perceptually contaminated by the presence of a radioactive waste disposal site, even sited 1km below the surface. This would inevitably lead to a devaluation of the landscape and cultural value of the site, reducing the status of the landscape so that it would no longer be held in such high esteem as it was before the facility was constructed. This devaluation of landscape could lead to loss of designation status as well as the loss in trade and tourism.

38. Even the community engagement process would have a sustained negative impact on the tourism and land-based economy of protected sites, leading to a blight on the area. 15-20 years of this blighting (which should end up with a “no” decision anyway because of the status of the landscape in Planning Law and Policy) could be avoided by using the exclusionary AoS criteria.

39. The above paragraph links to our concerns about the Working With Communities proposals (raised under Question 7 of that consultation response) and the fact that there is no Test of Support until 20 years into the process; this process including drilling of boreholes and construction of the infrastructure needed for such drilling, which could cause major damage within a protected landscape. We do not think that this is acceptable in areas which rely almost entirely on tourism and landscape based industries. This would blight a National Park, World Heritage Site or AONB for years.

**Question 6** Do you agree with the findings from the Habitats Regulations Assessment Report for the draft NPS? Please provide reasons to support your answer.

40. We support the need to protect Natura 2000 sites

**Question 7** Do you have any other comments on the draft NPS and the accompanying documents (Appraisal of Sustainability, Habitats Regulations Assessment)?

**Conclusions**

41. It is essential to consider the impacts of all the associated infrastructure requirements as well as the GDF itself. For example, it is extremely unlikely that any location within or adjacent to a
National Park or other protected area would already have the appropriate transport infrastructure in place to deal with the additional traffic associated with the GDF.

42. There is a long-established presumption against significant road widening or the building of new roads in National Parks and AONBs which is another reason why it is very inappropriate to consider these areas as possible locations for the GDF. However, if they are not to be excluded then it is essential that the NPS includes reference to all relevant policy and clear details of the protections against inappropriate development in National Parks.

43. Paragraph 5.10.6 needs to be amended to include details of the policy on road-building in designated landscapes and a reference to where this is set out in national planning policy. Paragraph 5.152 of the National Policy Statement for National Networks published in 2014 clearly states that “there is a strong presumption against any significant road widening or the building of new roads and strategic rail freight interchanges in a National Park, the Broads and Areas of Outstanding Natural Beauty, unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs very significantly. Planning of the Strategic Road Network should encourage routes that avoid National Parks, the Broads and Areas of Outstanding Natural Beauty.”

Conclusions

44. We strongly believe that National Parks, AONBs, World Heritage Sites and Natura 2000 sites and their settings or buffer areas should not be sacrificed for a GDF of the scale and nature currently proposed. We have set out above the relevant legal, policy, environmental, social and economic reasons for excluding these areas from consideration.

45. If the proposed GDF process cannot find a geologically suitable location with a willing community host outside of protected areas, it may suggest that the offer from government is inadequate.
Please record these representations as those of the Campaign to Protect Rural England (CPRE-Cumbria Association).

Yours sincerely,

Dr Kate Willshaw
Policy Officer