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Introduction

1. Mineral extraction in National Parks and Areas of Outstanding Natural Beauty (AONBs) is a contentious issue which is a cause of concern amongst regulators, policy makers and the wider community. This paper sets out some facts regarding mineral extraction from our National Parks and AONBs, including the extent and importance of these operations, although a fully comprehensive UK-wide picture across all minerals is not possible because of the unavailability of information. The paper also attempts to explore some key issues related to this topic including future options for aggregate supply - alternatives to extraction from National Parks/ AONBs in England and issues related to ‘national considerations of mineral supply’ in the determination of applications to work minerals other than aggregates in National Parks and AONBs.

Context

2. There are 14 National Parks in England, Scotland and Wales covering over 2 million hectares. There are 41 Areas of Outstanding Natural Beauty (AONBs) in England and Wales covering over 2.1 million hectares. National Parks were established by an Act of Parliament in 1949 as part of a package of post-war measures aimed at the physical and social reconstruction of Britain. Their purpose is to conserve and enhance the Park’s natural beauty, wildlife and cultural heritage and to promote opportunities for the public understanding and enjoyment of the special qualities of the Parks. Millions of people visit these areas because of their beauty and tranquillity. Unlike in many other countries, National Parks and AONBs are not wilderness areas, rather they are lived-in and worked-in landscapes. Although they are primarily a landscape designation, they generally contain designated sites and areas of wildlife or cultural importance (such as Sites of Special Scientific Interest, Scheduled Monuments or Special Areas of Conservation). They receive the highest protection of landscape and scenic beauty in government policy.

Mineral workings in National Parks and AONBs

3. In January 2008, there were 2100 active mineral workings in England, Wales and Scotland. Of these, 97 (4.6%) were located within National Parks and 168 (8.0%) were located within AONBs.

Minerals extracted from these areas include:

- Building stone (most National Parks & AONBs)
- Cement minerals (Peak District National Park)
- Crushed rock aggregate (Lake District National Park, Peak District National Park, Yorkshire Dales National Park, various AONBs, particularly in the north and west)
- Fluorspar (Peak District National Park)
- Industrial limestone (Peak District National Park, Yorkshire Dales National Park, Mendip Hills, North Pennines AONBs)
- Ball clay (Dorset AONB)
- Potash (North York Moors National Park)
- Sand and gravel (numerous AONBs)
- Silica sand (Cornwall, Kent Downs, North Pennines, Surrey Hills AONBs)
- Brick clay (Chilterns, Cotswolds, Dorset, Forest of Bowland, High Weald, South Devon, Suffolk Coast and Sussex Downs AONBs)
- Oil & gas (Dorset, East Hampshire, Surrey Hills, Sussex Downs AONBs)

4. There is no up to date information available on public attitudes to/ perception of mining and quarrying in NPs & AONBs.

**Future options for aggregate supply - alternatives to extraction from National Parks/ AONBs in England**

5. Just under a third (32%) of all the active aggregates quarries in England lie within a National Park or Area of Outstanding Natural Beauty. Between them, these sites extracted 22.6 Mt/y of aggregates in 2005, 16% of the total yearly supply of primary land-won aggregates in England. Sites in NPs and AONBs ‘contain’ 24% (987.6 Mt) of the total permitted reserves in England. Carboniferous Limestone is by far the largest source of crushed rock in England. However, it also forms distinctive high-quality landscapes and as such, 48% of the outcrop area of the resource lies within a National Park or an AONB.

6. As a result of their proximity to markets in the Midlands and the North of England, the Carboniferous Limestone resources of the Peak District National Park (PDNP) are in demand as aggregate. 58% of sales of aggregates from English National Parks in 2005 came from the Peak District. The Peak District contains 61% of the total permitted aggregate reserves within English National Parks.

7. Assuming that sales remain at 2006 levels and no further reserves are permitted within the PDNP, analysis shows that existing quarries will continue to contribute to aggregate supply into the future. It is assumed that as reserves are worked out or planning permissions expire, sales from PDNP will decline. Sales in 2011 are predicted to be at 80% of current levels with further stepwise decline to about 45% of current sales by 2030. As sales from the PDNP decline, any shortfall will need to be met from alternative sources.

8. All permissions for aggregate extraction in English National Parks will expire in 2042 (in line with the 60 year deadline imposed by the 1981 Town and Country Planning (Minerals) Act on all mineral planning permissions with an unspecified end-date). A very small number of aggregate permissions in AONBs will continue beyond 2042.
9. A number of alternative supply options have the ability to supply more aggregates in the future should the market demand it.

- **Existing quarries outside designated areas.** Many of the quarries producing the highest quantities of aggregates have some, albeit limited, capacity to increase their supplies in the short term with only the need for minimal investment. Indications are that on a national basis this potentially could be in the order of 10 to 12 Mt/y. However, increasing the rate of extraction would also increase the depletion rates of the permitted reserves for these quarries.

- **Secondary and recycled aggregates.** These make an important contribution to the supply of aggregates and help reduce the rate at which primary aggregate resources are depleted. Comparing 1990 with 2005, the quantity of recycled and secondary aggregates produced within Great Britain has increased by 107%. Within England, the total for 2005 was 56 Mt. The amount of potentially available secondary and recycled aggregates being utilised is, however, felt to be reaching its maximum. Additional secondary and recycled aggregates that could be supplied in the future is estimated to be around 7 Mt/y (based on 2005 sales rates).

- **Marine dredged sand and gravel.** The marine aggregates industry is currently felt to be working at capacity. They contribute 9% (13.7 Mt) of total primary aggregates supply in England. There is potential to increase this contribution in the short term by diverting current exports. However, this will only occur if the market is likely to be sustained long enough to justify losing (probably permanently) markets in Belgium and the Netherlands. In the longer term, investment in the dredging fleet is needed to sustain higher levels of supply. This would occur if the indications were that the market share for the marine aggregates industry could increase and be sustained.

- **Importing aggregates.** England currently imports 7% of its primary aggregates needs (10.7 Mt). The principal source of these imports is Wales with more modest amounts coming from Scotland and Norway. There is no presumption against increasing imports of aggregates from Wales or Scotland should the market demand it. It is, however, constrained by the capacity to supply within limits stated in policy. However, applications for extensions and new permissions primarily aimed at meeting the English market where home demand is already being met may lead to sensitivities. Possibilities for increasing imports that are delivered by ship from other countries are currently limited. This is primarily due to limitations on ability (capacity) to stockpile and subsequently distribute material through the existing wharves. However, in response to declining supply from NPs and AONBs, development of new import capacity may become economic.

- **Underground mining of aggregates.** Currently not utilised as a source for aggregates in England, the underground mining of aggregates need not be discounted as a potential supply option. Given the restricted outcrop extent for certain strategically located quarries in England (if both economic and geological conditions were favourable) their extension / conversion to underground methods of extraction may become a realistic supply option in order to meet a proportion of future demand requirements. This does, however, have implications on the costs of aggregates. Underground mining
will only be realistic if higher costs can be sustained through higher prices in a situation (for example) of increasing scarcity.

10. All the supply options considered provide broad indications of the strategic overarching capacity to supply. The potential from all options to increase their share of the supply of aggregates ultimately relies on market conditions and the certainty of the industry in order that they can justify the long term investments required. All options considered have economic, political, environmental implications, both positive and negative. Policy and regulation at European, national, regional and local levels are likely to have a major influence on the future emphasis on these supply options.

**Planning for minerals in National Parks and AONBs**

11. All major developments (including minerals) within National Parks and AONBs are strictly controlled through what used to be known as the ‘Silkin Test’. This test was first applied by the Labour Government in the late 1940s and sets very strict criteria for development in these designations. Mineral extraction proposals can only be granted in exceptional circumstances where the national interest warrants it.

12. Overarching criteria for mineral development in National Parks and AONBs in England are set out in Paragraph 14, of Mineral Policy Statement 1 (2006) which states:

“do not permit mineral working in National Parks….AONBs….except in exceptional circumstances…. Major mineral development proposals should be demonstrated to be in the public interest before being allowed to proceed. Consideration of such applications should therefore include an assessment of:

(1) the need for the development, including in terms of national considerations of mineral supply;

(2) the cost of, and scope for making available an alternative supply from outside the designated area, or meeting the need for it in some other way;”

13. Because of the existence of alternative supplies, permissions for new aggregate extraction sites in National Parks and AONBs have become almost non-existent, and permissions for extensions are rare. There has been a trend towards consolidation into a few, relatively large aggregate sites with 2042 end dates. A number of dormant sites with planning permissions within National Parks have been given up.

14. As a result, arguments relating to ‘national considerations of mineral supply’ and ‘alternative supplies outside designated area, or meeting need in some other way’ generally apply to minerals other than aggregates. These tend to have a more restricted distribution which may coincide with NPs and/ or AONBs.

15. The planning policy framework which might assist the system in making judgements relating to ‘national considerations of mineral supply’ for minerals other than aggregates lacks clarity. Specific guidance is only available for some minerals (such as cement minerals, silica sand and building stone), and much of this has not been updated for several years. There is also confusion amongst a range of stakeholders in the planning system with regard to the roles and responsibilities of government departments. In particular, there are expectations (which may be unrealistic) that government should assist the decision making
process by making statements about the relative importance of particular minerals
to the national economy and for conservation purposes.

16. The Working Group took the view that a clearer approach the issue of ‘national
considerations of mineral supply’ is needed. In particular, a straightforward
statement from government on how to approach the issue of ‘national
considerations of mineral supply’ would be useful.

17. This could be augmented with an overarching statement on the importance of
natural resources (including minerals) which might assist decision-making.

18. A small number of working group members felt that, given the importance of
resources within NPs and AONBs and the uncertainties over alternatives, current
policy relating to ‘considerations of national supply’ should be reviewed. However, this was a minority view with the majority of the group showing strong
support for the current policy framework on mineral development within NPs and
AONBs.

Conclusions

19. Certain National Parks & AONBs currently make a substantial contribution to the
supply of minerals, although the supply of aggregate minerals from these areas is
likely to decline significantly before 2042.

20. Although variety of future supply options outside National Parks & AONBs exist
for aggregate minerals, these do present some political, environmental and socio-
economic challenges. Further research on the nature of these challenges would
assist in assessing the contribution which these supply options might make.

21. Planning framework for supply of minerals other than aggregates from NPs &
AONBs lacks clarity, particularly with regard to ‘national considerations of
mineral supply.’