COMMENTS FROM
WINCHESTER ACTION ON THE CLIMATE CRISIS (WinACC)
IN RESPONSE TO HCC's MINERALS AND WASTE PLAN
Partial Update – Draft Plan (October 2022)

SUMMARY STATEMENT

- This partial update of the HCC's Mineral and Waste Plan needs to be much more up to date when referring to global heating (aka climate change) and its consequences
- The Plan should acknowledge that the days of extracting fossil fuels are over and that Hampshire's minimal oil and gas resources are best left in the ground
- More attention needs to be paid to the potentially serious negative impact on global heating of methane leaks from active and closed landfill sites and from anaerobic digesters
- Similarly, to an extent not covered by existing legislation, more attention may need to be paid to the potentially very serious negative impacts on global heating of CFCs and HFCs from appliances classed as hazardous waste
- The discussion of flooding in coastal areas needs to draw attention to the most recent estimates of global, and even local, rates of sea-level rise which have increased significantly in recent years
- There should be some recognition that all plastics will eventually break down into microplastics which pose a risk to human health. Consequently, plastics call for special treatment to avoid them getting into the environment.

1. The use of the word 'sustainable'

Sustainable is a vastly overused word – it appears 128 times in this document (and 85 times in the main text) - yet it is not once defined. For clarity, it would be good to start with the Brundtland definition of the word, viz. "meeting the needs of the present without compromising the ability of future generations to meet their own needs".

2. Climate change (Section 4.6)

"There is scientific consensus that human activity is increasing the atmospheric concentration of greenhouse gases **which are expected** to lead to climate change" [WinACC's embolding] This is an out of date statement and presumably is left over from a much earlier version of the HMWP but it gives the impression that HCC is not fully aware of the current impacts of climate change both locally and globally. For example, in 2022 the UK has experienced record high temperatures, excess deaths, and droughts with water

restrictions. "The record-breaking UK heatwave of 18-19 July 2022 was made *"at least 10 times more likely"* by human-caused climate change, ..." according to Carbon Brief. In addition, there has been unusual storminess with three named storms (Dudley, Eunice and Franklin) in one week in February 2022 and already in November record winter rainfalls in some areas have caused flooding. Greenhouse gases are no longer "expected to lead to climate change", it is already happening.

3. Oil and gas

a. **Section 6.112**. When discussing sources of energy in the UK it would be more balanced to mention renewable sources too. For example, renewables share of electricity generation is around 40% and installed capacity grew by 3.7 per cent in 2021.[1] This implies that the need for fossil fuels is declining.

b. **Section 6.113.** Is the February 2016 'Hampshire Oil & Gas Development in Hampshire' Supplementary Planning Document still valid? The evidence for urgent action to mitigate global warming is becoming stronger every day. We note that the SPD section 6.64 states [WinACC embolding] 'The main driver for the HMWP in relation to oil and gas developments is to ensure that **site based greenhouse gas emissions are adequately controlled and mitigated**.' This appears to completely ignore the eventual downstream combustion of oil and gas which leads not only to damaging global heating but also to the emissions of very fine PM2.5 particulates that find their way into our lungs and brains and can even cause stillbirths.[2]

c. Only in **Section 6.117** is it acknowledged that oil and natural gas are fossil fuels and as such, after their combustion (which involves the production of carbon dioxide) are the biggest contributors to greenhouse gas emissions that are driving dangerous global heating (aka climate change). The comment in this section that "It is expected that these potential downstream environmental impacts of the development are fully assessed, either separately or as part of a wider environmental assessment (such as an Environmental Impact Assessment)" significantly understates the importance of this issue.

d. **Section 6.118.** A series of recent academic publications have shown that to have any chance of keeping rising global temperatures below 1.5°C most fossil fuels must be kept in the ground. One of the latest is by Welsby et al., 2021.[3] They recognise that there needs to be a sharp decline in the use of fossil fuels to keep below 1.5°C. The authors calculated how much

---

1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1094488/DUKES_2022_Chapter_6.pdf

2 https://www.nature.com/articles/s41467-022-34250-4?utm_medium=affiliate&utm_source=commission_junction&utm_campaign=CONR_PF018_ECOM_GL_PHSS_ALWYS_DEEPLINK&utm_content=textlink&utm_term=PID100085446&CJEVENT=6edb968f70dc11ed82dc00a50a180511

3 Welsby, Dan, James Price, Steve Pye, and Paul Ekins. "Unextractable Fossil Fuels in a 1.5 °C World." *Nature* 597, no. 7875 (September 9, 2021): 230–34. https://doi.org/10.1038/s41586-021-03821-8.

oil, gas and coal must be left in the ground to have only a 50:50 chance of limiting warming to 1.5°C. **They find that nearly 60 per cent of currently known reserves of oil and fossil methane gas must be left in the ground** and that oil and gas production must decline globally by 3 per cent each year until 2050.

e. Given the above, it is clear that an appropriate course of action would be to disallow any future extraction of oil and gas from Hampshire, whether under new or existing licences. After all, Hampshire is not known to be sitting on a large oil or gas field – it is not the North Sea nor is it Qatar.

f. **Section 6.119**. "Proposals for exploration and appraisal will be favourably considered where suitable safeguards are put in place to protect the environment and local amenity". A more appropriate policy would be to disallow all future exploration and appraisal activities simply because of their potential impacts on global heating (see remarks on section 6.118).

g. **Section 6.120** states "Production will only be acceptable where any adverse impacts can be sufficiently mitigated." Adverse impacts of combustion of oil and gas simply cannot be mitigated (see above) and therefore any proposed new production of oil or gas should be disallowed absolutely.

h. **Policy 24: Oil and gas development**
It is quite clear from our earlier remarks that oil and gas development in Hampshire, whether in the form of exploration, appraisal or production, should **NOT** be supported under any circumstances. To do so would implicate the Hampshire Authorities in actively condoning avoidable emissions of greenhouse gases that are driving global heating.

4. Waste

Section 2.43. We applaud the fact that there is now only one landfill site in operation in Hampshire and that there are no allocated non-hazardous landfill sites.

5. Non-hazardous waste sent to landfill

a. **Section 6.146 et seq.** We applaud Hampshire's record of about 95% of municipal, mostly household, waste being currently diverted (recycled) from landfill even though household waste accounts for only around 13% of the total. Similarly, it is good to read that "virtually no biodegradable municipal waste is sent for landfill ensuring that waste from Hampshire households does not contribute significantly to global warming through methane gas emissions." This statement appears to recognise, without being explicit, the danger of methane, a strong greenhouse gas, escaping from a landfill site contributing to global heating. It is important to control and reduce, if possible, methane emissions from **all existing active or closed** landfill sites.

b. **Section 6.182.** "The Hampshire Authorities support the national aim of delivering a substantial increase in energy from waste through AD in the UK" Although this is superficially laudable it would be far better if the amount of waste overall is greatly reduced. There is also the danger, not mentioned, of methane escaping from AD facilities and thereby contributing to global heating. So, it is somewhat reassuring to also read, as in section 2.14, that the Hampshire Authorities are already working together in managing household and business waste in Hampshire and are looking to improve recycling rates. But we are

concerned to note in addition, and counter to this approach, that "the level of commercial waste diverted from landfill is not as high as that compared to WfH" (section 2.39).

c. **Chlorofluorocarbons (CFCs) and hydrofluorocarbon (HFCs)**
CFCs and HFCs are widely used in refrigerators, air conditioners and heat pumps. These chemicals have huge global warming potentials and are therefore presumably classified as hazardous waste. We also note with concern the 1.9% growth in hazardous waste. We suggest that these sources of very powerful greenhouse gases are recognised in the Plan. We assume that the end-of-life treatment of appliances containing CFCs and HFCs is already covered by legislation.

d. **Existing landfill sites**.
We are concerned that existing (open or closed) landfill sites are likely to be sources of methane, a relatively powerful greenhouse gas, generated from anaerobic digestion of organic waste. However, the policies map, which purports to show these locations, is not available at the present time nor is any mention made of measurements at such sites which might indicate the emissions involved. We seek reassurance that such sites no longer emit methane.

6. Flooding – risk and prevention

a. This section does not refer to the latest estimates of sea-level rise caused by global heating and the two Shoreline Management Plans which are referred to are too old (2010 and 2011) to account for more recent research. For example, it is now recognised that the Greenland ice sheet is melting faster than previously thought. It is also said that current model forecasts of global sea level rise relied on by the Intergovernmental Panel on Climate Change (IPCC) underestimate the actual threat over the 21st century. One recent estimate quantifies global-mean relative sea-level rise to have been 2.5 mm yr−1 over the past two decades (equal to 5cm over 20 years).[4] But the authors also emphasise that locally, because of sinking caused by groundwater water extraction, some coastal areas can experience an average relative sea-level rise of up to four times faster at 7.8 to 9.9 mm yr−1. Climate Central, a US-based organisation that "communicates climate change science, effects, and solutions to the public and decision-makers", has produced a tentative map showing parts of Hampshire that could be inundated by the sea in 2050 if there are no cuts to emissions before then.[5]

b. Although sea-level rise is not strictly germane to a minerals and waste plan for Hampshire its potentially impact on coastal areas cannot be dismissed either.

7. Microplastics

It is now recognised that dry microplastics can settle as dust that can be inhaled and it is thought that toxins from the fibres can be absorbed through the lungs. In water,

[4] Nicholls, Robert J., Daniel Lincke, Jochen Hinkel, Sally Brown, Athanasios T. Vafeidis, Benoit Meyssignac, Susan E. Hanson, Jan-Ludolf Merkens, and Jiayi Fang. "A Global Analysis of Subsidence, Relative Sea-Level Change and Coastal Flood Exposure." *Nature Climate Change* 11, no. 4 (April 2021): 338–42. https://doi.org/10.1038/s41558-021-00993-z.
[5] https://www.hampshirelive.news/news/rising-sea-levels-could-see-5526885

microplastics are likely to be eaten by filter feeders such as mussels, thereby entering the human food chain.[6] But in addition it must be recognised that any plastic can, in time, become a source of microplastics. We have not found any mention in the Plan of this relatively new danger to human health. The treatment and possible separation of plastics from all waste clearly deserves closer investigation and should be mentioned in the Plan.

6 December 2022

[6] George, Sharon and McKay, Deidre. "Ten 'Stealth Microplastics' to Avoid If You Want to Save the Oceans." *The Conversation* (blog), January 17, 2018. http://theconversation.com/ten-stealth-microplastics-to-avoid-if-you-want-to-save-the-oceans-90063?utm_medium=email&utm_campaign=Latest%20from%20The%20Conversation%20for%20January%2018%202018%20-%2092587868&utm_content=Latest%20from%20The%20Conversation%20for%20January%2018%202018%20-%2092587868+CID_a51b09669489539d84a50df24984bf2e&utm_source=campaign_monitor_uk&utm_term=Ten%20stealth%20microplastics%20to%20avoid%20if%20you%20want%20to%20save%20the%20oceans.