

**Leckhampton with Warden Hill Parish Council**  
**Cheltenham Local Plan Examination:**  
**Submission in response to the Inspector's Questions**

**Matter 5: Impact on air pollution**

The Parish Council monitors NO<sub>2</sub> pollution across the local area through a network of sensors, with professional support. The Council also uses a portable monitoring device to measure transient levels of particulates and NO<sub>2</sub>. The measurements confirm that the main areas of concern are where there is high traffic density and congestion, particularly at the A46 junction with Moorend Park Road (MPR), and also in Church Road. A spot measurement by GCC outside Leckhampton Primary School in 2017 showed a NO<sub>2</sub> exposure level of 100-120 micrograms/cu.m over the hours whilst children were travelling to school. This level is sufficiently close to the EU limit for short term NO<sub>2</sub> exposure that it would be reason for serious concern if it occurred frequently. At the A46/MPR junction the long term NO<sub>2</sub> levels are close to the EU limit. Pollution levels therefore require monitoring and could exceed permitted limits. But it is the traffic congestion and gridlocking rather than pollution levels that are the biggest concerns, although the two are linked.

**Matter 5: Flood risk**

Very serious deep contaminated flooding of many properties occurred in Warden Hill in the 30-year storm of 20 July 2007 and serious flash flooding occurred in a newly built development on the Cotswold scarp in Leckhampton on 12 June 2016. Both events were subject to statutory inquiries. For Warden Hill this led to the installation of major flood defences along the A46 in a stretch north of the Up Hatherley Way roundabout. These flood defences hold water back on the land of Brizen Farm preventing it from flowing into Warden Hill and also deal with any flood water that crosses the A46. The defences are designed to protect against a 100 year storm including the allowance for climate change. The drainage system is also being improved in Warden Hill to reduce the risk of sewage being swept out.

Leckhampton Hill experiences intense rainfall because of its height and position. On 12 June 2016, 30mm of rain fell in 45 minutes above Leckhampton Village compared with only 12mm in Cheltenham. On 27 June 2007, 50mm fell in Leckhampton Village in 75 minutes. On 20 July 2007, 135mm fell with a peak intensity of 23 mm/hour. The Leckhampton Fields and the adjacent land at Brizen Farm both play a role in holding floodwater and protecting the downstream areas of Cheltenham.

Some homes west of the A46 experience flooding of gardens (and internal flooding in one reported case) from water flowing off the Northern Fields. Some residents in Park Ward and Warden Hill have their gardens flooded by the streams overflowing and are concerned that their houses could also be flooded. These are matters that need addressing carefully at the survey and application stage with mitigation as necessary. It is also essential to ensure that the flood defences and balancing ponds are sustainably maintained and that conduits are kept free from blockage.

The intense rainfall on Leckhampton Hill needs to be taken properly into account in designing developments and flood mitigation. This includes the nature and size of the catchment, how the water flows, how it is diverted by the development, and how it is captured by drainage schemes that may be designed only to deal with the extra runoff caused by the development itself. New houses vulnerable to flash flow need to have ground floor levels well above the surrounding land with sufficient gap between buildings so water does not build up behind buildings. All of these issues were involved in the flooding of 12 June 2016.

## **REFERENCE LIST**

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REF [2] River Habitat Survey of Hatherley Brook and Moorend Stream, LEPUS Consulting Ltd. October 2017 [46 pp]. Available at:  
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[REF 5] CBC Engaging Communities Project Report, Part 2, Chapter 4 – Leckhampton, GRCC. January 2017. Available at:  
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[REF 6] Report to the Secretary of State for Communities and Local Government by P W Clark MA MRTPI MCMI. Inquiry held on 22 – 25 September and 29 September – 2 October 2015. Land at Kidnappers Lane Leckhampton, Cheltenham. File Ref: APP/B1605/W/14/3001717 11 January 2016 AND Secretary of State covering letter, Julian Pitt, APP/B1605/W/14/3001717, 5 May 2016.  
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[http://www.leglag.org.uk/LEGLAG/News/Entries/2016/5/6\\_Good\\_News\\_\\_Outline\\_Planning\\_Application\\_for\\_650\\_Houses\\_in\\_Leckhampton\\_REJECTED.html](http://www.leglag.org.uk/LEGLAG/News/Entries/2016/5/6_Good_News__Outline_Planning_Application_for_650_Houses_in_Leckhampton_REJECTED.html)

[REF 7] Inspector's Preliminary Findings on Green Belt Release Spatial Strategy and Strategic Allocations - EXAM 146, 18th Dec. 2015. Available at: <http://www.gct-jcs.org/PublicConsultation/Gloucester,-Cheltenham-and-Tewkesbury-Joint-Core-Strategy-Examination-Document-Library.aspx>

[REF 8] Inspector's Interim Report – EXAM 232, 31st May 2016. Available at: <http://www.gct-jcs.org/PublicConsultation/Gloucester,-Cheltenham-and-Tewkesbury-Joint-Core-Strategy-Examination-Document-Library.aspx>

[REF 9] Leckhampton with Warden Hill Parish Council Neighbourhood Planning Revised Local Green Space Application - Dec 2015, EXAM 121A. Available at: <http://www.gct-jcs.org/PublicConsultation/Gloucester,-Cheltenham-and-Tewkesbury-Joint-Core-Strategy-Examination-Document-Library.aspx>

[REF 10] EBLO 106 JCS Landscape and Visual Sensitivity (Oct 2012), South Cheltenham is section 6, p14-17, extract [E1]. Available at: <http://www.gct-jcs.org/PublicConsultation/Gloucester,-Cheltenham-and-Tewkesbury-Joint-Core-Strategy-Examination-Document-Library.aspx>

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#### JOINT CORE STRATEGY CORE REFERENCE DOCUMENTS

EXAM 121 LHWHPC Priorities for the Leckhampton fields green space  
EXAM 121A Community LGS common ground requested by the Inspector  
ENAT 101 Habitats regulations assessment – screenings report (Dec 2011)  
ENAT 106 Ecological Survey Work (Cheltenham 2010, 2011, 2012, Gloucester 2006, 2010: Tewkesbury 2009, 2010, 2011)  
ENAT 107 Joint Core Strategy Historic Environment Assessment (Mar 2014)  
ENAT 108 Green Infrastructure Strategy (2014)  
EXAM 108A Natural England greenspace guidance June 2010