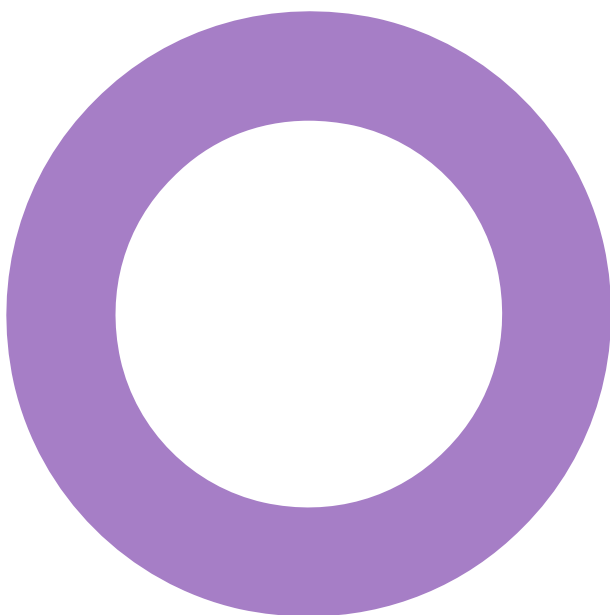# HOARE LEA H.

Proposed Great Wolf Lodge.
Chesterton, Bicester.
Great Lakes UK Limited.

UTILITIES STATEMENT

NOVEMBER 2019

Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
00	10/10/2019	First Draft for comments	CP	LGJ	LGJ
01	24/10/2019	Second Draft	CP	LGJ	LGJ
02	07/11/2019	Final issue	CP	LGJ	LGJ

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Project number: 2929044
Document reference: REP-2929044-5A-HL-20191107-Utilities Statement-Rev02

HOARE LEA (H.)

Contents.

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1. Executive summary.

This report is submitted in relation to the utility infrastructure at the Proposed Great Wolf Lodge. It forms part of a suite of documents accompanying the planning application, providing a summary of current and ongoing negotiations with incumbent utility providers.

It demonstrates that a robust utility infrastructure strategy has formed to support the application, ensuring the Proposed Development can be accommodated by the surrounding utility infrastructure, following appropriate reinforcements.

There are two key elements to the utility services infrastructure considered to date:

– Diversions, disconnections and accommodation strategy: The impact on existing infrastructure

– New connections and reinforcement strategy: The impact on existing infrastructure locally and upstream in accommodating the increased infrastructure demand, including meeting build out trajectory

Engagement with the utility providers has commenced to verify the information provided by the initial desktop assessment to better understand the impact increased development may pose on the existing utility networks,

1.1 The Site
The Site is located to the east of M40 and south of A4095, Chesterton, Bicester, approximately, 500m to the west of the centre of Chesterton village. The brown shaded area represents the Proposed Development.

Figure 1. Site Location

1.2 Proposed Development

The Proposed Development consist of the redevelopment of part of golf course to provide new leisure resort (sui generis) incorporating waterpark, family entertainment centre, hotel, conferencing facilities and restaurants with associated access, parking and landscaping.

2. Electricity

2.1 Potential solutions to constraints.

No constraints have been identified within the site boundaries. A ground penetrating radar survey has identified that the electricity network, which is in a close vicinity to the development area, is unlikely to trigger diversions.

2.2 Load Assessment

A maximum peak simultaneous demand assessment has been made based on the proposed areas for the scheme and several assumptions. The estimated site load capacity ADMDs (After Diversity Maximum Demand) is about 6MVA.

2.3 Availability of capacity

A Point of Connection application was lodged and consultation with the Distribution Network Operator, Scottish & Southern Electricity Networks has identified the reinforcement works required to supply the development. The Point of Connection offer was accepted by the client and a capacity of 6MVA is secured for the development. A study has now been completed on the proposed route from the Point of Connection on Middleton Stoney Road to site and the route appears viable.

3. Gas

3.1 Potential solutions to constraints.

No constraints have been identified within the site boundaries. A ground penetrating radar survey has identified that there is not an existing gas network infrastructure in the surrounding areas.

3.2 Load Assessment

The estimated site load capacity is 12MW supply (based on initial load capacity). A new supply application was lodged to Scotia Gas Networks.

3.3 Availability of capacity

Budgetary estimate has been received, confirming that there is sufficient capacity in its medium-pressure network to accommodate the development, however, a firm quotation will evaluate the actual reinforcement work required. Reinforcement will be required from the point of connection on the junction between Middleton Stoney Road and Vendeer Drive to the road A4095.

4. Water

4.1 Potential solutions to constraints.

No constraints have been identified within the site boundaries. A ground penetrating radar survey has identified that the site is unrestricted of potable water mains, however, an irrigation main has located along the borders with A4095.

4.2 Load Assessment

The incoming mains cold water supply to the site will serve several stored cold-water storage tanks (including a sprinkler system storage tank) which will serve all areas of the development including Hotel, Conference Centre, Family Entertainment Centre, Laundry and Waterpark.

Prior to carrying out any design works, a 'pre-planning capacity check enquiry' application was submitted to Thames Water for a new incoming mains cold water supply to serve the development, with an estimated annual consumption of 192,600m3 per annum (i.e. circa 527m3 per day) and an estimated peak flow rate of 11 litres per second. This application was based estimated water consumption data provided by Great Wolf Resorts, derived from operational consumption data for existing Great Wolf Lodge developments across the US. This application was submitted as part of the pre-planning enquiry to understand the impact to the existing mains cold water network.

Through the adoption of numerous water consumption mitigation measures, the estimated annual water consumption for the Proposed Development has been reduced to 141,512 m3 per annum, equivalent to circa 395.3 m3 per day.

4.3 Availability of capacity

A pre-planning enquiry has been submitted to Thames Water with reference number DS6052519.

Thames Water are in process of commissioning a clean water hydraulic modelling study to further assess the impact of the development on the existing network, and to identify whether any offsite reinforcement is required in order to maintain similar levels of service with the local Flow Management Zone (FMZ). The report that will be produced by this modelling will demonstrate the reinforcements required to facilitate the scheme whilst maintaining a similar level of service. The developer will commit to the necessary reinforcement required to supply the site.

5. Telecommunications

5.1 Potential solutions to constraints.

No constraints have been identified within the site boundaries. A ground penetrating radar survey has identified that there is no telecommunication apparatus within the proposed development area, however, BT Openreach apparatus has identified in the surrounding areas.

5.2 Broadband Assessment

The local telephone exchanges close to the site are 'Bicester' (Exchange code SMBI), located on Queens Ave, Bicester and 'Middleton Stoney' ((Exchange code SMMSY), located on Heyford Road, Middleton Stoney. The exchange appears fibre enabled, with FTTC available in the area. The presence of extensive local networks lends the site to having a good level telecom connectivity.

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