**THE DRAFT LONDON PLAN**

**Examination in Public (EiP) - Matter M72-73**

EVAC and JETS Vacuum AS joint response

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**Summary**: To complement the discussion on the sustainable drainage [M72-M73] please consider the following:
Water conservation and sewer capacity could be greatly improved by utilisation of new technologies like vacuum drainage systems. Vacuum drainage systems in buildings will generate 70%-80% water savings compared to traditional toilets, reducing the building's and metropolitan total water and energy consumption. In addition, a vacuum drainage system can operate using recycled water collected from roofs, showers or washbasins, eliminating the use of fresh water for toilet flushing[1].

Details and other benefits of the vacuum drainage system:

- Vacuum drainage is a tested and established technology and it has been in use for over 50 years with over 1,000,000 vacuum toilets installed globally.
- Vacuum drainage saves water - typically 70%-80% per toilet flush compared to traditional WC, as vacuum toilets use just around **1 litre of water per flush**.
- Energy Saving – as less water is being used in the building, significant **energy savings** are generated on the infrastructure water distribution side and for individual buildings. Reduced waste water discharges mean the city sewer capacity is preserved, and smaller volumes are being treated at the sewage treatment plants. This in turn also reduces energy consumption and operating costs for utility companies.
- Flexible ability of vacuum drainage allows inner city redevelopment, keeps brownfield sites free, and helps to preserve historical & architectural features

**EiP subject**

MATTER M72-M73 – Flood risk and sustainable drainage

**New London Plan:**
Policy SI5 Water infrastructure
9.5.9 The Urban Wastewater Treatment Directive drives improvements in wastewater treatment infrastructure. Figure 9.4 provides a spatial illustration of the wastewater drainage capacity across London. Additional land may be required for upgrades or improvements at some wastewater treatment plants during the Plan period. Different wastewater treatment options may vary significantly in terms of their energy requirements, and there are significant opportunities for energy generation from wastewater treatment (sewage sludge).

Our thoughts

Integrated Water Management Strategy with range of options at both metropolitan and site level are required for managing surface and storm water run-off, and for disposing of waste water.
Recommendations to include the need for rainwater harvesting and/or greywater re-use combined with water efficient fittings to achieve as close as possible to neutrality of water use and reduction on waste water generation.

[1] https://www.bloomberg.com/company/announcements/bloomberg-most-sustainable-office-building/