## //CASE STUDY

## **Euro Tunnel & WhiffAway Group**

Retro-fit Behaviour Achieves Sustainable Commercial, Environmental and Operational Savings Across Eurotunnel's UK Campus

## The Brief



Due to high traffic experienced, it was indentified that the urinals were the single largest user of water in the public and staff washrooms, moreover, were a common problem in terms of regularly blocking up, causing flooding, bad odours, leading to washroom downtime and complaints as a result.



#### The Problem

Urinals that experience heavy usage tend to suffer from intermittent odours, regular blockages, flooding, vandalism and high water consumption. Over a number of years Euro Tunnel had tried a whole host of other products, including enzymes, chemical dosing systems, reduced flushing, biological sleeves and other waterless urinals, but none had worked satisfactory. Based on these negative historic experiences, this meant the proposed 'Water Warrior' solution and accompanying end to end service delivery had to undergo a prolonged trialling period of over four years to satisfy all key stakeholders.

#### **The Solution**

WhiffAway Groups 'Water-Warrior' System is the market leading retro-fit solution and is completely waterless, dual patented and cost effective. The unique non-return valve ensures that odours are not emitted from within the pipe work through intermittent back pressure. Furthermore, the patented cartridge contains a proprietary malodour counteractant to tackle surface odours and a 'friendly' biological consortia, engineered to produce enzymes amongst other functions that help break down the formation uric salts, so they cannot solidify and cause frequent blockages.

Where applicable and to minimise fabric changes, bespoke waterless troughs have been introduced in various staff areas and waterless bowls in the few washrooms where retro-fit behaviour was not achievable.

The 'Water-Warrior' technology is also complimented with a turn-key initial installation, planned preventative maintenance and a reactive support package, carried out by WhiffAway Groups in-house trained technicians. Delivering an ongoing duty of care to customers and staff was essential given the high profile nature of the campus.









#### The Result



Euro Tunnel agreed to trial WhiffAway's 'Water-Warrior' System in the busiest and most problematic gentleman's washroom on the campus. As above, the trial was monitored over a four year period.



## Elimination of Smells:

There were no bad odours reported by passengers or staff, as previously experienced.



#### **Blockages:**

There have been no blockages due to build up in the urinals common pipe work. There has been no urinal flooding and this in turn has increased capacity, radically reduced washroom downtime and led to other hidden operational savings.



# Eradicating Urinal Water Usage:

the urinal water usage was completely eradicated whilst improving urinal hygiene and overall cleanliness.

"The Water-Warrior System has enabled Euro Tunnel to cure an age old problem of urinal odours, blockages and flooding in conjunction with achieving exceptional monetary, water and energy savings". Whilst we were initially cautious, we are now very satisfied with the results and would not hesitate in recommending WhiffAway Group to other interested parties" (Kenny Marshall, M&E and Building Services Leader, Euro Tunnel).

"WhiffAway Group is delighted to be working as Euro Tunnels delivery partner for this specialist area and this is an excellent example of how being environmental through retro-fit behaviour can achieve significant returns" (James McLean, CEO, WhiffAway Group).

#### The Conclusion

The installation of WhiffAway's 'Water Warrior' System across the UK's Euro Tunnel campus (95 urinals) has resulted in a significant reduction in urinal maintenance, an elimination of urinal odours and estimated annual savings of:

Net Cost Saving: **£36,361.52** 

per annum and incrementally rising

Annual Water Saving: 22,248.37M<sup>3</sup>

(22248370 litres)

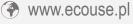
Annual Carbon Footprint Reduction:

4,338.43 kg

Payback Period: Less than 6 months

There is potential for Euro Tunnel to achieve even greater commercial, environmental and operational savings through implementation of the 'Water-Warrior System on the French side of the campus.

**3** 604 052 882







# Heathrow goes waterless with WhiffAway Group

Largest international airport cutting the cost of 'spending a penny' for passengers

## The Brief

Carillion working in conjunction with Heathrow Airport tasked WhiffAway with reducing water consumption and improving washroom odours. It was identified that the urinals were a significant cause of problems in the washroom due to clogs.







#### **The Problem**

Urinals that experience heavy usage tend to suffer from flooding, odours, regular blockages and high water consumption. Carillion who were responsible for cleaning at Terminal 3, had tried a host of other products, including enzymes, chemical dosing systems and reduced flushing, but none had worked satisfactorily.

#### **The Solution**

The WhiffAway 'Water-Warrior' is the market leading system and is completely waterless, dual patented, and cost effective. The unique non-return valve ensures that odours were not emitted from within the pipework. The patented cartridge contains bespoke 'friendly' bacterial cultures. These produce enzymes that help break down the uric salts so they cannot solidify and cause blockages.















#### The Result

Carillion agreed to trial WhiffAway's 'Water-Warrior' System in a problematic washroom.



#### **Elimination** of Urinal Odours:

No malodours reported.



#### **Blockages:**

due to build up in the pipework.



## **Eradicating urinal** water usage:

The urinal water usage was completely eradicated whilst improving urinal hygiene and cleanliness.

#### The Conclusion

The installation of the WhiffAway 'Water-Warrior' system across Terminal 3 (99 urinals) has resulted in a significant reduction in urinal maintenance, an elimination of urinal odours and an estimated saving of:

Net Cost saving: per annum in water alone

**Annual Water Saving:** 

**Annual Carbon** Footprint Reduction: **5,712** KG's

The commercial, environmental and operational successes achieved at Terminal 3 resulted in Heathrow rolling out the 'Water-Warrior' System across Terminal 1. WhiffAway's Waterless Technology is now being recommended as optional best practice for all remaining Heathrow Terminals.

#### **WhiffAway Group**

WhiffAway Group's complete urinal solution and associated service includes replacement cartridges, replacement valves (Hygiene Seals), WhiffAway MPC and XL dosing fluid, forming the Water-Warrior System.

**3** 604 052 882

www.ecouse.pl





## **CBRE & WhiffAway Group**

Leading Waterless Technology
Cutting The Cost of 'Spending A Penny' Across Bank Of America's UK Premises

## The Brief

Following an introduction by the CBRE team based at Morgan Stanley in 2011, Bank of America wanted to reduce their urinal water and embedded energy consumption in a sustainable way, without compromising operational performance. After applying smart metering techniques at its two largest U.K properties (St. Paul's and Chester), it was identified that the urinals were the single largest user of water at both sites.

The CBRE team wanted a urinal product that would allow the site to radically reduce consumption, without having a detrimental effect on both hygiene and general washroom cleanliness. In summary, CBRE's remit was to reduce urinal maintenance problems, without having to make major fabric changes to the washroom: noting the urinal waste pipes blocked at least every 2-3 months, consequently causing urinal flooding, a major ongoing reactive problem for CBRE Engineers and resulting in a high level of complaints from staff and visitors alike due to washroom downtime.







#### The Problem

Flushing Urinals experiencing very heavy usage tend to suffer from the same problems experienced at Bank of America. Flooding, bad odours, regular blockages and high water and energy consumption, all of which are costly in nature.

CBRE had previously tried a whole host of products; Water Misers, Chemical Dosing Systems, Cubes, Urinal Mats, Enzyme Sleeves and other Waterless Urinals. All these products were tried in the attempt to reduce water consumption, but all variants previously introduced had only increased blockages and masked underlying odour problems, leading to a costly return back to conventional water flushing.

CBRE made contact with WhiffAway Group to arrange a free consultation and to trial the 'Water-Warrior' System.

#### **The Solution**

WhiffAway Groups 'Water-Warrior' System is unique. It's a completely waterless solution that is proven, dual patented, market leading and offers an effective and environmentally sound means of dealing with urinal odours, blockages and flooding at source, without the need for unsafe chemicals or constant flushing.

The Water-Warrior System is also supported by fit-for-purpose installation, tailored planned preventive maintenance and reactive support when required.

Based on historic experiences at Bank of America, CBRE agreed to a trial of the Water-Warrior System in a heavy usage washroom at their St. Paul's Campus.

**3** 604 052 882









#### **Client Feedback**

The implementation of the Water-Warrior System has helped the bank in achieving its ambitious water efficiency targets and enhance general washroom perception in the process. I would have no hesitation in recommending WhiffAway Group's waterless technology and turn-key solution to other CBRE clients.

Joe Sharp, Engineering Manager at CBRE UK.



#### **Elimination of Smells:**

There were no bad odours reported, as previously experienced with flushing and other alternatives.



#### **Blockages:**

There were no blockages reported during the trial. All other washrooms continued to be problematic.



#### **Eradicating Urinal Water Usage:**

The urinal water usage was completely eradicated, without any detrimental effect to washrooms urinal hygiene and cleanliness. The sites water savings were exceptional. Results showing a reduction of over 40% of the buildings total water consumption.

#### **The Conclusion**

CBRE are renowned for being at the forefront of implementing environmental best practices in their clients premises and have an ongoing duty of care to deliver cost efficiencies, including introducing value added innovation and support services. During the trialling period hundreds of staff members utilised the trial washroom. Over a 5 year period and without considering the Cheshire Campus, WhiffAway's Water-Warrior System across the St. Paul's Campus (113 urinals) has resulted in a significant reduction in urinal maintenance, an elimination of urinal odours and:

Monetary Savings:
A net cost saving in excess of £35,743.07

Water Conserved: **79,786.08m**<sup>3</sup>

(79,786,080L)

Carbon Footprint Reduction:

15,588.29kg

**Access Provision:** 

3 points of access created for maintenance purposes

#### **WhiffAway Group**

WhiffAway Group's complete urinal solution and associated service includes replacement cartridges, replacement valves (Hygiene Seals), WhiffAway MPC and XL dosing fluid, forming the Water-Warrior System.

The above package provides clients such as Bank of America with low cost consumables that are replaced by a nationwide network of trained service technicians at periodic intervals. Thus ensuring a high standard of hygiene and cleanliness in your washroom is maintained.

**3** 604 052 882







## **London Stadium & WhiffAway Group**

London Calling -West Ham FC Club Score With Premier Waterless Urinals

## Background

The Queen Elizabeth Olympic Park was built by Sir Robert McAlpine to host the 2012 Olympic Games and its world class facilities included waterless urinals, delivering exceptional savings on new build costs by removing the need for cisterns, sparges and spreaders. WhiffAway Group was chosen to provide the waterless urinal technology throughout the Olympic Park and it was a great success for Team GB and WhiffAway Group. When the stadium was converted to become the London Stadium, West Ham United FC, the new tenant moved in. There was only one specialist company able to install and maintain the many hundreds of urinal bowls (177) and troughs (187) across the stadium. The installation by WhiffAway of its latest waterless urinal technology took place in Autumn 2016.





#### The Problem

WhiffAway Group's waterless urinal solution offers an event based stadium a cost effective means to maintain its washroom urinals without the logistical problem of maintaining a large number of dispersed washrooms with working cisterns, flushing apparatus and electronic sensors. Not to mention the cost and time that is traditionally spent on clearing conventional waste traps and common waste pipes of debris and scale.

#### **The Solution**

WhiffAway's 'Water Warrior' System is a complete and purpose designed solution for the common problems associated with urinals. Its patented hygiene seal offers a one-way valve solution to control back odours, whilst enabling free flowing waste to drain away by removing the conventional trap. A propriety replacement cartridge and integrated debris collector within the urinal, in conjunction with biological activity and environmentally friendly cleaning technology helps break down the formation of uric salts, delivering a first class solution for users. WhiffAway ensures best performance through its dedicated urinal technicians, providing both a bespoke planned preventative and reactive maintenance regime suitable for a stadiums requirements.

WhiffAway's waterless technology eliminates the problem of blocked and overflowing flushing urinals during event days and enables a stadium to promote its sustainability credentials. Critically, it allows the stadium's central holding tank capacity to cope with high levels of water consumption experienced at half time intervals.







#### **Conclusions**



The Water-Warrior System is a tried and tested solution to overcome problems of traditional flushing urinals. It satisfies both the stadium operators and users, enabling them to benefit from clean, green and trouble free waterless urinals during event days.





Reduced Blockages



Eradicating Urinal Water Usage









## The Leadenhall Building & WhiffAway Group

Leading Waterless Technology Flying High At London's Iconic Cheesegrater

## The Brief



Designed by Richard Rogers. The Leadenhall Building is in the heart of the City of London, standing at 225 metres in height and is nicknamed the 'Cheesegrater' due to its iconic shape.

The Broadgate Estates team wanted to reduce their urinal water and embedded energy consumption in a sustainable way, without compromising operational performance. After further investigation, it was identified that the urinals were a large user of water onsite.

Broadgate Estates wanted a urinal product that would allow the building to radically reduce consumption, without having a detrimental effect on both hygiene and general washroom cleanliness. In summary, the remit was to reduce urinal maintenance problems, without having to make major fabric changes to the washroom.



THE LEADENHALL BUILDING

#### **The Problem**

Flushing Urinals experiencing very heavy usage tend to suffer from the same problems experienced at The Leadenhall Building. Flooding, bad odours, regular blockages and high water and energy consumption, all of which are costly in nature.

Broadgate had previously tried a whole host of products; Chemical Dosing Systems, Urinal Mats and other Waterless Urinals. All these products were tried in the attempt to reduce water consumption, but all variants previously introduced had only increased blockages and masked underlying odour problems.

Angelo Christou, Property Director at The Leadenhall Building, had previously used WhiffAway Groups waterless urinal technology and support services in other Broadgate sites.

#### The Solution

WhiffAway Groups 'Water-Warrior' System is unique. It's a completely waterless solution that is proven, dual patented, market leading and offers an effective and environmentally sound means of dealing with urinal odours, blockages and flooding at source, without the need for unsafe chemicals or constant flushing.

In the case of The Leadenhall Building, the Water-Warrior System is supported by fit-for-purpose installation (including removal of dead-legs), tailored planned preventive maintenance and reactive support when required.

















### **Blockages:**

There were no blockages reported during the trial.



## **Eradicating Urinal Water Usage:**

The urinal water usage was completely eradicated, without any detrimental effect to washrooms urinal hygiene and cleanliness. The sites water savings were exceptional.

#### **The Conclusion**

Broadgate Estates are renowned for being at the forefront of implementing environmental best practices and have an ongoing duty of care to tenants to deliver cost efficiencies, including introducing value added innovation and support services. During the trialling period hundreds of staff members utilised the trial washroom. WhiffAway's Water-Warrior System rolled out throughout the building (160 urinals) has resulted in a significant reduction in urinal maintenance, an elimination of urinal odours and:

**Monetary Savings:** 

**Water Conserved: 24.440.4**0M³

4,765.88 kg

Payback Period: Carbon Footprint Reduction: Less than 10 months **Access Provision:** 

3 points of access created for maintenance

#### **Client Feedback**

"The implementation of WhiffAway's Water-Warrior System has helped The Leadenhall Building in achieving its ambitious water efficiency targets and enhance general washroom perception in the process. I would have no hesitation in recommending WhiffAway Group's waterless technology and turn-key solution to other British Land/Broadgate Buildings"

Angelo Christou, Property Director, The Leadenhall Building

#### WhiffAway Group

WhiffAway Group's complete urinal solution and associated service includes replacement cartridges, replacement valves (Hygiene Seals), WhiffAway MPC and XL dosing fluid, forming the Water-Warrior System.

The above package provides clients such as The Leadenhall Building with low cost consumables that are replaced by a nationwide network of trained service technicians at periodic intervals. Thus ensuring a high standard of hygiene and cleanliness in your washroom is maintained.

**3** 604 052 882





