



AQUATRINE

news

WINTER 2014/15

Aquatrine continuing to provide exceptional water and wastewater services

In its tenth year Aquatrine continues to ensure the water and wastewater services provided to the MOD are maintained to a high standard and continue to meet environmental and sustainability objectives.

Aquatrine provides water and wastewater services across the Defence Estate, this covers operation and maintenance of treatment works for clean and dirty water, all pipework associated with this, and a programme of asset upgrades. For MOD sites this means:

- An uninterrupted supply of potable water to all sites
- Water for fire-fighting, this is in accordance with the Crown Fire Standards
- Collection and disposal of sewage and surface water safely and hygienically from all points of sewage and surface water receipt
- Assurance there is no flooding from surface water or combined surface water and sewage systems caused by a failure to provide the service
- Water pipe leakage detection and repair

Further details on Aquatrine are available on the Aquatrine website www.aquatrine.co.uk or from your local service provider.

- Upgrades to water and wastewater treatment works and water pipe networks to ensure security of water supply
- A 24 hour helpline available for MOD staff.

Aquatrine is a contract managed by the Defence Infrastructure Organisation (DIO) and work is delivered by three specialist water and wastewater companies Severn Trent Services, Kelda Water Services and Veolia Water Nevis.

MOD sites across Great Britain fall into one of three areas, referred to as packages, with a different water and wastewater service provider for each area:

If you have any questions or issues with your water or wastewater, such as loss of water supply or discoloured water, please contact your local service provider on their 24 hour helpline:

Package A – Kelda Water Services

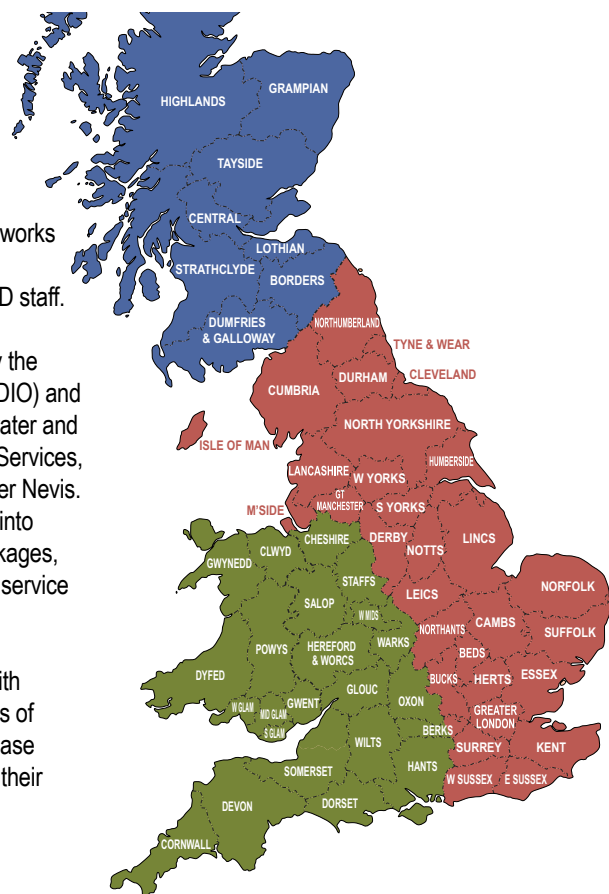
24 hour helpline: 0845 129 2293

Package B – Veolia Water Nevis

24 hour helpline: 0845 607 8855

Package C – Severn Trent Services

24 hour helpline: 0845 850 0249



Aquatrine service providers

Package A:
Kelda Water Services



Package B:
Veolia Water Nevis



Package C:
Severn Trent Services



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If you have a story to include, please email: DIOSDTFM-AquatrinePMO@mod.uk



Behavioural safety

In the 2013/14 financial year there were five RIDDOR (Reportable Injuries Diseases and Dangerous Occurrences Regulations) incidents that occurred across the Aquatrine Service Providers' work within Project Aquatrine. These were reportable to the Health & Safety Executive either through direct employees or the contractors used.

As part of the Aquatrine Supplier Association (ASA) health and safety working group, an evaluation was undertaken of the root cause of these accidents and it was identified that behaviours played a part.

A number of initiatives have been shared across the Aquatrine Service Providers (ASP) which cover tasks, people and the supply chain, these initiatives include:

- Reviewing the risk assessments and documentation
- Improved health and safety induction with more of a site focus for employees and contractors

- Employee health and safety roadshows and training events
- Established health and safety working groups
- Contractor seminars

Updates on these initiatives are given at the quarterly meetings held between the ASPs and Defence Infrastructure Organisation.

The benefits of sharing these initiatives has resulted in a more engaged workforce, including Contractors and zero RIDDOR reportable incidents in 2014/15 year to date,



and an increase of 200 per cent of near misses reported.

Nevis gear up for winter



October and November saw a flurry of activity in the Veolia Water Nevis (VWN) Office as they gear up for the approaching winter to ensure they continue to deliver the service during potentially challenging weather conditions even to the most remote sites on the Scottish Highlands and Islands.

The VWN team got out their winter clothing, snow socks, snow shovels and ice grippers for shoes and make sure that, along with some food and a flask, these are kept in their vehicles. VWN also hires a 4x4 pickup truck to be used when there is a risk of bad weather developing.

These precautions are not designed to facilitate travel in poor conditions. Rather, they are to mitigate the eventuality that one of the team is caught in unexpected poor weather conditions. All of the team know and are reminded through training to consult the weather forecast and not to travel if poor weather is forecast.

Although VWN has a duty manager and network engineer on call 24/7 over the festive period, supported by a country wide network of operational Scottish Water staff, they would rather staff had the opportunity to enjoy the holiday period rather than dealing with emergencies.

For the key site of Faslane, VWN puts in place a programme of automated winter flushing for the jetties with activation based on temperature conditions. VWN also recognises the importance of working with the sites, so encourages sites to consider isolating and draining down buildings not in use, particularly over the Christmas and New Year period.

Leaving buildings empty in the winter

Cold weather can trigger waters systems to freeze and lead to burst pipes causing significant damage and water ingress, resulting in expensive clean-up operations. Here's some top tips to help you prepare:

- Turn off the water at the main supply point and drain all water that can be drained by running the taps until they run dry.
- Turn down the heat, but don't turn it off. If you are not draining the water pipes, set your thermostat about 13-14°C.
- Drain toilets, water heaters (turn off gas or electric supply first) and if on a pump system, the expansion tank.
- Close sink drains and prevent water in a toilet's trap from evaporating (and thereby permitting sewer gases to enter the home) by raising the toilet's lid and seat and covering the bowl with cling film.
- Make sure that your insurance is adequate for being absent during winter.
- Have someone make regular checks for any issues.

Always consider the safest option for your specific building and circumstances. If you have an oil fired central heating system or use electric heaters, you may consider the risk of fire to be higher than draining your tank and water pipes.





Credenhill emergency water storage upgrades and Great Crested Newts

Kelda Water Services (Defence) (KWS(D)) undertook a project to address operational defects with an emergency water storage (EWS) tank at Credenhill.

If the EWS had been left unrepaired, fire fighting capability could have become compromised. The EWS was inhabited by Great Crested Newts (GCN), therefore various aspects had to be addressed before the remedial work could start. GCNs are strictly protected under UK and European legislation (The Wildlife and Countryside Act (1981) and The Conservation of Habitats and Species Regulations (2010)). It is an offence to deliberately kill, injure or capture a GCN and/or damage or destroy their breeding site or resting place. Survey work undertaken by an ecologist confirmed presence of a medium sized population of GCNs. On consultation with Natural England and subsequently applying to them for a licence to undertake the remedial work it was agreed that the construction of a habitat pile no more than 200 metres away from the EWS would be created (pictured). Credenhill is a site often visited by royals and high dignitaries, therefore the design and visual aspect of the habitat pile was also important to the MOD. In October 2014 the improvement works to the EWS were undertaken, including relining, structural repairs and removing sludge. The Great Crested Newts were successfully moved to their new home.



Major Richard Heys – Estates:

“I am extremely pleased with the way the project has been delivered from start to finish.

Communication has been detailed and regular from the start of the project both from the project manager and operatives on site.

Every time I have visited site and spoken to your contractors, I have been made welcome and received a detailed brief both on progress and any problems encountered.

The quality of the work appears first rate and in line with scope of work and what was discussed at the pre-start meeting.”

RAF Cosford tree planting day

Kelda Water Services (Defence) (KWS(D)) held a conservation and community engagement event at RAF Cosford during October. KWS(D) staff, joined by the Environmental Protection Officer at RAF Cosford, planted over 250 trees at the sewage treatment works.

Community wildlife packs were purchased from the Woodland Trust, in order to support this conservation charity. The packs contained a variety of tree species, including Oak, Silver Birch, Hawthorn, Wild Cherry and Rowan. Planting of native trees is best for wildlife, as they provided food, shelter and protection when mature. Annually 250 mature trees will offset carbon emissions from nearly 100,000 miles from an average sized car!





Aldershot children have fun learning about the water cycle

A group of school children from Connaught School in Aldershot had a fun first-hand lesson in the water cycle in October when they visited the MOD's wastewater treatment works in Aldershot.

The children, aged 11 and 12, learned what happens to wastewater after it leaves their school by touring the works and taking part in an exercise that looked at the amount of water used by local people and the quantity of wastewater that the treatment works processes.

The group visited most part of the works, which Severn Trent Services runs on behalf of the MOD and which serves the Aldershot site, learning about all the stages of the process that the wastewater goes through to ensure it is clean enough to be returned to the river.

The tour also helped the children to understand where wastewater comes from, and provided simple tips on reducing water use as well as what should and should not be put down toilets, sinks and drains.

Sophie Carruthers, teacher from Connaught School, said 'The tour of the sewage treatment works provided a great example of something the children have learnt in the classroom. The tour and exercise were very interactive and it really helped the children to see



what actually happens to water once it's been used. Thanks so much to Severn Trent Services and the MOD for the visit.'

Colonel Lambert, Senior Commanding Officer for Aldershot Garrison, said: 'It was great to meet teachers and children from the local area and to support them in their education programme. It was a great day, the children really enjoyed it and I also learnt something too! It has really helped the MOD and our supplier Severn Trent Services to build links with the school and our local community, which is really important to us.'

Darren Clapson, Severn Trent Services' Operations Manager, added: 'As the children saw more of the works and the different processes on site, they started to ask lots of questions, it was really good to see their interest and enthusiasm for the work we do. The children said they really enjoyed it and some even asked if they could have a job with us!'

'Water is often taken for granted, so including a visit like this in an education programme gives us the chance to highlight ways of saving water which encourages water conservation from a young age. We were also able to tell the children what happens when the wrong things, such as fats and oils, are put down toilets and sinks. It was a great day all round.'





Dundonnell WTW upgrade

Dundonnell training hut is currently supplied with water via a small water treatment works (WTW) treating water supplemented by bottled water. It was identified in Aquatrine B's capital delivery program for upgrade to a facility producing potable water removing the requirement to provide bottled water for drinking.

During initial design an off site fabrication and commissioning strategy was developed with Ross-shire Engineering utilising their experience working with Scottish Water in remote locations to deliver similar projects. The extensive use of video conferencing and telephone conferencing enabled a geographically diverse project team and stakeholders to minimise time and resources utilised for travel while ensuring high levels of collaboration. Ross-shire's 3D CAD modelling expertise allowed this remote approach to continue into Hazard and Operability Study, and Operating and Maintaining review stages.



Fabrication and commissioning were completed at Ross-shire's Inverness base allowing regular progress visits to be completed while the team were in the area, making best use of time and resources.

Other challenges that the team overcame included:

- Lack of available power on the site which was solved by working with Defence Infrastructure Organisation (DIO) to install energy efficiency measures within the training hut to release capacity for the WTW.
- Negotiations with planning officers regarding location of the WTW on the site resolving a conflict between final aesthetics and safe construction.
- Developing a safe lifting strategy and construction of a new access bridge on to the site and crane pad that is now a new car park for the site.



The new WTW is on site and undergoing performance testing before going into service early in 2015.

Through close working and collaboration with DIO the project has delivered a new WTW to supply the training establishment with wholesome potable water removing the requirement to supply bottled water with the added benefits to site of new energy efficient equipment and improved insulation at the training hut and a new access bridge and car park.

As an added benefit for the local community, a new supply to the Dundonnell Mountain rescue team facility adjacent to the training hut has been provided.

Skye's the Limit for Veolia Water Nevis

On 20 September 2014 a strong team of four from Aquatrine Package B took part in a challenge for Highland Hospice.

They ran 11 miles and cycled 28 miles taking in the breath taking scenery of Skye and the Cuillin Hills.

They raised £300 for the worthy charity - Highland Hospice which provides specialist care and support to terminally ill patients and their families in the Highlands.



Left to right Gordon Clark, Malcolm MacFie, Mark Sheach, Ian Waugh.





Severn Trent Services reduces leakage rates on MOD sites

Severn Trent Services (STS) has reduced water leakage rates on MOD sites through improvements in turnaround times for paperwork and response times to undertake pipe repairs. This has reduced the overall time taken to repair leaks and has resulted in a reduction in overall water usage which has a positive impact on environmental and sustainability performance for both STS and the MOD.

In order to ensure it is safe to undertake leakage repairs, STS requires Statement of Known Hazard (SoKH) forms for each site that needs excavation. Following STS monitoring the time taken to obtain SoKH forms, it was identified as an area that could be improved.

In response to this, STS has increased the number of customer care staff that deal with SoKH forms and they now have responsibility to ensure they are received in a timely manner. They schedule regular calls to ascertain the status of the forms using a regularly updated contact list.

Before a technician is assigned to deal with the job, a health and safety (IOSH) qualified STS manager ensures the form is correctly completed and assesses the risk. The MOD has worked closely with STS to speed up this process by sending the forms by fax or email rather than the forms being collected from site by field staff. These positive actions have considerably reduced the turnaround times of the forms.

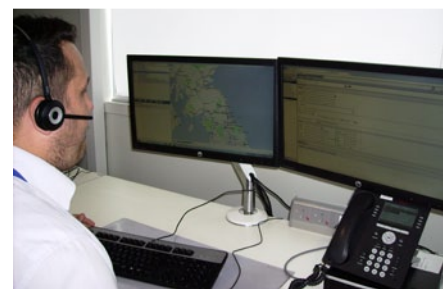
STS is also introducing new contracts for sub-contractors which, in order to minimise the impact on MOD personnel, encourages repair work to be done during the night and at weekends, and the use of under pressure techniques to deal with leak repairs. They



have also reduced time limits to respond to leaks, and introduced service level agreements and key performance indicators to improve this further.

This work has reduced the overall time to repair leaks, and coupled with a proactive leakage reduction strategy has resulted in significant reduction in the amount of water being lost through leakage. This reduction in water loss is positive in terms of environmental and sustainability performance for both STS and the MOD whilst also improving the water supply service for customers in terms of quality, pressure and colour, whilst ensuring continued compliance with Crown Fire Standards.

Further work is planned with the MOD Partnering Management Organisation (PMO)



to reduce SoKH turnaround times and to improve the timescales to obtain approvals for shut off of water supply to undertake pipe repairs. Combined, all these improvements demonstrate how working collaboratively, STS, MOD and the Defence Infrastructure Organisation are striving to improve the customers' water and wastewater experience.

