

# United Utilities Central Area Framework

## AMP 3 year 5 UID programme

by Ian Rigby

**Y**ear 5 of United Utilities AMP3 period saw a substantial number of Urban Pollution Management (UPM) projects to deal with unsatisfactory intermittent discharges across the whole of the north west to help the Environment Agency address regulations for River Water Quality. In UU's Central Area Framework, covering West Lancashire, Manchester and Merseyside, the projects consisted mainly of small sites with a small number of large construction sites that, because of the location of the existing sewer network, would be situated in densely populated, urban and rural locales. Consideration thus needed to be given to restricted space, proximity to UU customers, local residents, impact on the environment, ecology, statutory undertakers plant. Working in private land and third party considerations/constraints were a priority for successful delivery.

The Central Area Framework, consisting of *United Utilities, MWH and KMI Water*, were tasked with finding a solution to 94 sites of which 51 were due to unacceptable sewer overflow discharges. The overall project value of the works is circa £27 million, split into cluster groups dependent on the watercourse to be improved.

Solutions agreed with the Environment Agency with Aesthetic or River Impact drivers requires the construction of a screening solution using either *COPA Static* or *Longwood Powered Screens* to screen flows to 6mm, installed in new chambers, both were procured under UU's Kit Framework agreements. (See pic below)

Where screening solutions were required to be retro fit into existing chambers, these were installed as modular units in order to reduce delay and disruption associated with installation. Solutions that are required to be retro fit into existing chambers or constructed on line, the construction teams developed very effective flow management options by either flume or as a last resort, temporary pumping.

**Warwick Avenue** in Newton required the construction of a 400m<sup>3</sup> detention tank complete with steep benching including a pumped

**Strangeways** in Hindley required the construction of a 1,400m<sup>3</sup> detention tank with steep benching, screening chamber including diversion pipework and associated manholes. Electrical and instrumentation is located in a brick building to match existing new build houses to satisfy planning restrictions. The site is located in an existing residential estate undergoing further development. The site incorporated solid panel fencing to minimise the visual impact of construction and techniques were adapted to minimise the impact of noise in addition to traffic calming installations due to constraints on road width and the safe ingress and egress from the site of construction vehicles.

**Bury New Road** in Salford required the construction of a large powered screen chamber with diversionary 600mm – 1650 mm diameter pipework and associated manholes. The site is located in a dense urban location and the main outlet required being constructed using 'no-dig' pipe jack techniques across a busy dual carriageway that could not accommodate closure or lengthy lane



Powered screen - screening flows to 6mm *courtesy: The team & United Utilities*

return to store screened spill flows. A chamber was to be built on line to replace the existing combined sewer overflow chamber with a *Longwood Stormguard Powered Screen* installed and included 1050mm diameter diversionary pipework and associated man holes.

The rural location of this site was of interest to walkers and ramblers and temporary diversion footpaths were constructed and separated from the site and access routes to ensure safety of the public. An area of the site needed to be cleared, tree removal was carried out in advance of construction to accommodate the bird nesting season.



Static Screen

*courtesy: The team & United Utilities*



1,400m<sup>3</sup> Detention tank

*courtesy: The team & United Utilities*



UIDs: On line CSO working

courtesy: The team & United Utilities

closures along the frontages of industrial units. The installation of two pipe jacks that were driven from the same drive pit with two reception pits across the road and adjacent to industrial units. As the second pipe jack crossed a number of properties with separate owners, the identification of owners was a challenge and work was required to ensure that section 159 notices were served on appropriate owners.

A solution was identified for construction in the car park of the “Wagon and Horses” public house that would have affected the available parking space for use by customers and a business compensation value had been agreed. The design and construction teams redesigned the solution to an online screening chamber and enabled the solution to be constructed totally in *United Utilities* land, thus not affecting the customer with the restraint and saving business compensation monies.

**These are just four examples of the type of success the year team has delivered and there are many other examples of team integration demonstrating the benefits of both a fully integrated management team and co-location to identify and resolve issues quickly and effectively.**

**Central Area Framework**

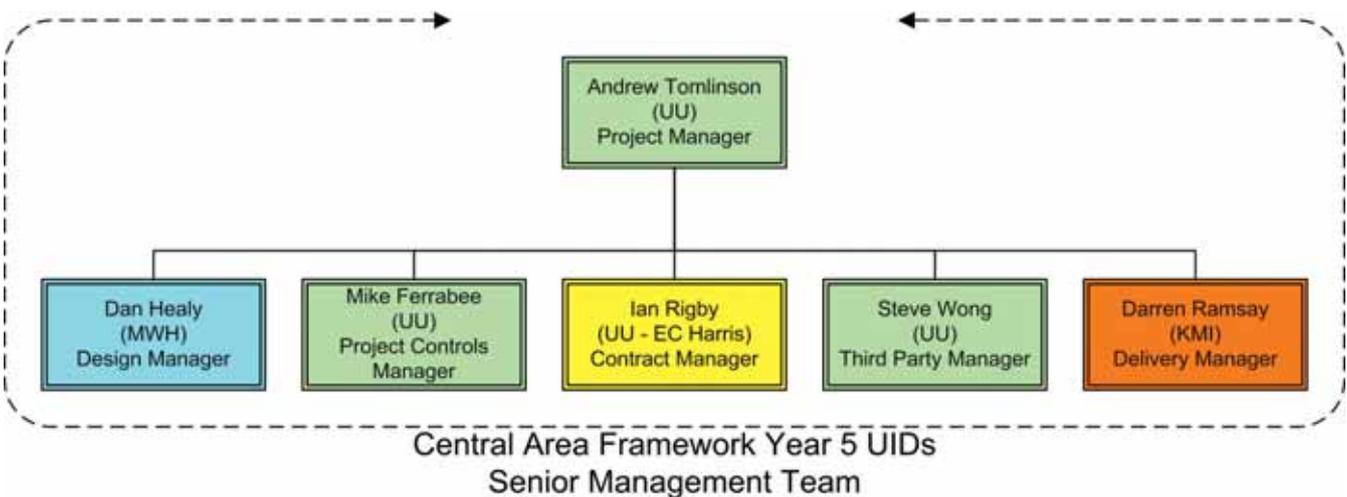
The Central Area Framework UID Year 5 contact was awarded in June 2004 delivery by date for the complete programme of 31st March 2005 aligned with United Utilities regulatory compliance dates.

In order to embody the spirit of an integrated seamless team, the following changes were made to the AMP3 framework ECC Option ‘C’ Contract (incorporating United Utilities modifications) by mutual agreement):

- \* revised share to 50/50 and share cap to 110/90;
- \* single contract completion date;
- \* no delay damages;
- \* use of retention clause associated with contract completion only;
- \* de-minimus compensation events of ± £25,000.

**Note:** The author of this article, Ian Rigby, is Senior Consultant, EC Harris 2005.

**The team structure comprised a balance between *United Utilities*, *MWH* and *KMI Water*, the senior management team (see below) is:**



Photos courtesy The team & United Utilities