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GROUND WATER TREATMENT PLANTS

Ground Water Treatment Plant document prepared by: Mellissa Davies - Head of Projects

WHAT ARE GROUND WATER TREATMENT PLANTS AND WHAT DO THEY DO?

Ground Water Treatment Plants provides an environmental solution to flood control by removal of water / effluent from the flood zone, then subsequent screening, filtering and treatment of the liquid before pumped discharge into adjacent water courses.

They work by ensuring that emergency flood pumps supply water/effluent feeds through to the rhames mechanical screen, where debris are removed and separated from the liquid. The screened water then enters the Mita Filter comprising rotating cloth discs to remove smaller contamination particles. The Mita Filter will initiate an automatic backwash when the filter discs become contaminated to keep the filtration effective. The screened and filtered flood water then passes through a flow meter before entering the Ultra Violet Disinfection Unit. Optimum flow rate is controlled at 20 litres / second by inverter controlled active and stand-by on-board pumps.

Each flood defence station comprises 2 mobile units. The Filter Screen and UV Disinfection Unit are housed in a customised 20-foot shipping container, and the Pump Sets, Flow Meter and Mita Filter are mounted on a steel Skid with full canopy roof and sides. The skid also houses the Master Control Panel which provides full system control and is compliant with Southern Water electrical standards. Each unit has full anti-slip flooring and IP rated internal and external task lighting. Frost protection is provided with Bar Heaters (container) and Blown Air Heater (skid).

WHY MAY YOU NEED A GROUND WATER TREATMENT PLANT FROM RHAMES?

- To provide flood defences for villages susceptible to seasonal flooding, rhames offers
 a one stop shop solution. rhames can design, project manage, manufacture, assemble,
 deliver, install, test and commission (all in house), with optional training and
 maintenance provisions.
- Personalisation on branding for containers, allowing more flexibility in terms of placement considerations and environmental requirements.
- For time critical flood defence, express delivery timeline of 7-10 weeks from placement of order is achievable at rhames, which is unprecedented in comparison to competitors.
- Designed by rhames as a mobile solution deployable at short notice by lorry mounted crane.
- Flood water/effluent is screened, filtered and disinfected for environmentally compliant return to water course, with fully automated pump control.
- Remote start capability for additional customer lift pumps when required can be factored into the design by rhames design team and tailored for site specific requirements.



EXAMPLE OF 2X UNITS DELIVERED FOR A RECENT CUSTOMER PROJECT

















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FOR FURTHER INFORMATION

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