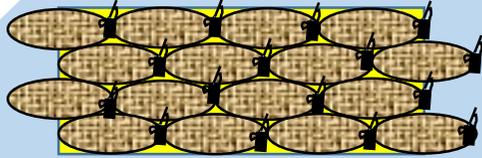
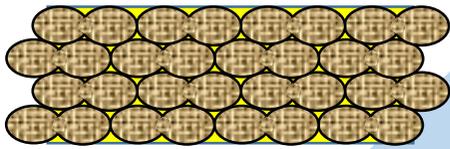


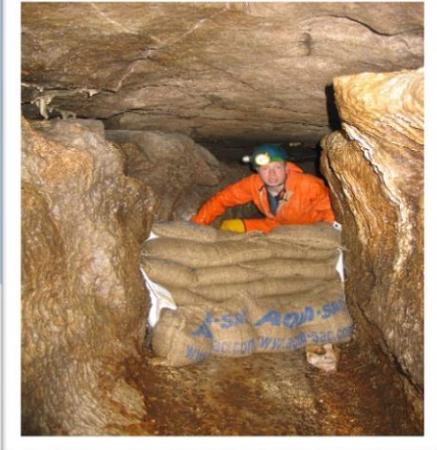
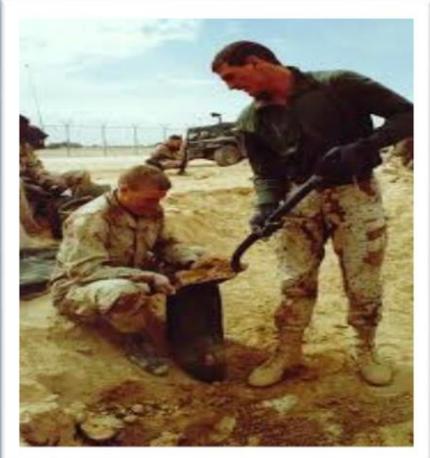
# THE WAY FORWARD

# INEFFICIENT



### How does Aqua-Sac® compare to traditional sandbags?

	Aqua-Sac®	Traditional Sandbag
<b>Size</b>	<b>370 x 600mm</b>	280 x 600mm
<b>Weight</b>	<b>13kg (*Within the 15kg HSE Guidelines for both men &amp; women)</b>	30kg
<b>Dry Weight</b>	<b>440g</b>	25kg
<b>Storage</b>	<b>1000/pallet</b>	25/pallet
<b>Composition</b>	<b>Jute, Cotton, and super absorbent polymer</b>	Woven Polypropylene and sand
<b>Shelf Life</b>	<b>5 years plus</b>	1 year
<b>Environmental</b>	<b>Bio-degradable Jute, and Cotton. The SAP is not bio-degradable but it is benign</b>	Polypropylene not bio-degradable





Aqua-Sac® is a revolutionary alternate to the traditional sandbag. Comprising a heavy duty Jute sack and a cotton liner containing a Super-Absorbent Polymer the Aqua-Sac® is simply submerged in water. After five minutes 13 litres of water will have been absorbed creating an inflated "sandbag".

**Features and Benefits**

**Size:** Inflated Aqua-Sac® S.O.S. bags are 54cm long and 10cm high. Each Aqua-Sac is of a consistent size enabling a barrier to protect against flooding or diverting water to be built easily.

**Weight:** At under 13kg an Aqua-Sac® is significantly lighter than a traditional sandbag and so reducing manual handling risks.

**Un-inflated weight:** At 440g Aqua-Sac® can be transported in higher volume to where they are required in smaller, more efficient vehicles.

**Storage:** Aqua-Sac® are compact, 1000 can be stored on one standard pallet saving valuable storage space compared to only 25 traditional sand filled sandbags. If the sand bags are not filled then 25000kg (1m x 5m x 5m) of sand would need to be stored, which is approximately 32 pallets worth of sand.

**Shelf Life:** Aqua-Sac® are contained in sealed packs giving a shelf life in excess of five years and so reducing waste.

**Environmental Impact:** The Jute sack and cotton liner are biodegradable. The super absorbent polymer is benign with no toxic effects. Aqua-Sac® can be disposed of safely in landfill or by incineration. Alternatively, the super absorbent polymer may be added directly to soil as a hydrating medium.

**Aqua-sac® is the market leader:** The aqua-sac® was the first in the marketplace and is considered to be the superior product due to our patented stitch which provides the stability needed for the bags to be fit for purpose. Due Diligence re Product Liability Insurance needs to be

signed off being mindful of any potential litigation should the inferior product not be fit for purpose.

**Aqua-sac® v Traditional Sandbag comparison**

Cost per aqua-sac®	£ 3.50	Cost per sandbag	£ 0.38
	1000		1000
1000 aqua-sac®	£ 3,500.00	1000 sandbag	£ 380.00
		Sand cost at £60 per 1000kg.	£ 1,500.00
Pump and pool cost Three pools will inflate 15 bags per pool per 5 mins	£ 150.00	Sand transportation cost: 3 x specialist trucks at £200 per load. Total required 25,000kg 5x5x1 metre of sand.	£ 600.00
Labour Cost Inflating and filling pools with water 1 Hour; Each pool inflates 15 bags simultaneously in 5 mins. Assume 30 mins to lift out the bags and refresh with new bags. 45 bags per 35 mins. Total time to inflate 1000 is less than 14 Hours. Only one person required at £9 per hour	£ 126.00	Labour cost: It will take 5 mins to fill and tie off a bag; two people, one holding the sand bag and one filling; Emergency out of hours rate for workers time and half at £9 per hour per person	£ 1,494.00
Total man hours to inflate 1000 bags	14 Hours	Total man hours to inflate 1000 bags	83 Hours
Total costs for 1000 filled aqua-sac®	£ 3,776.00	Total costs for 1000 filled sand bags	£ 3,974.00
Storage			
Storage cost: for one pallet for one year @ £1.80 per week	£ 93.60	Storage cost: for one pallet for one year @ £1.80 per week	£ 93.60
NO SAND NEEDED	NIL	32 x 800kg bags of sand. Storage cost: for one pallet for one year @ £1.80 per week	£ 2,901.60
Storage total	£ 93.60		£ 2,995.20
Final total 1000 aqua-sac®	£ 3,869.60	Final total 1000 sandbags	£ 6,969.20
Total saving by using aqua-sac®	£ 3,099.60	80%	