

Resource Pack Two: How can we increase the supply of water?

Task

Add brief notes to the pictures from the information on each strategy.



Dams and Reservoirs



Desalination



Groundwater Pumps



Water Tanks



Grey Water Recycling



Irrigation



Repair Leaks



Water Transfer

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Colour code each statement according to the key

	Dams and reservoirs
	Water transfer
	Desalination
	Delivered water (water tanks)
	Groundwater abstraction
	Irrigation
	Mend leakages
	Grey water

- In the UK there are over 25 water transfer schemes that store water using dams and reservoirs and then pipe water from areas with a surplus to areas with not enough. New schemes are proposed e.g. Kielder on the Scottish/English border to London by pipe (530 km) and from mid-Wales to London (160km).
- Flood protection dams in Oman - there are over 14 dams to hold back storm water. Cyclones can bring sudden heavy rainfall and bare steep mountains and this causes high flood risk
- 25% of the UK's water supply is lost through leaking pipes. By 2030 it is hoped that this leakage will be reduced to 19%.
- The first major storage dam in Oman is called the Wadi Dayqah Dam. It is the largest concrete storage dam in the Arabian Peninsula. Oman also has over ninety small scale storage dams in the mountains.
- The UK has over two thousand dams and reservoirs to store surface water. They act as flood prevention and to supply water to the population. The largest reservoir in Europe, Kielder Water, is on the English/Scottish border and holds 200 million m³.
- Farmers in Oman are trialling a small scale desalination scheme. Pools of salty water are allowed to evaporate over a transparent cover and a salty residue is left while fresh water is collected.
- 10% of Oman's water supply is currently from Desalination plants (salt removed from water to make it drinkable). Most of Oman's groundwater is salty (brackish), so this has to be treated.

- Irrigation systems - pumps bring water to the surface from groundwater. This is mainly used in the South and South East of England. Many UK farmers, especially in the west of England, Wales and Western Scotland are concerned about too much water on the land and use systems to drain water off the land and into the rivers.
- Much of Oman's water supply is delivered in tanks, on trucks and stored on the roof to supply water to homes. People buy the water by the tank.
- Recharge dams - Oman has more than 45 dams designed to hold surface water to allow it to recharge the groundwater and raise the water table.
- The UK opened its first large-scale desalination plant in 2010 on the River Thames estuary. There could be 4 more large plants built by 2050.
- Grey water is used water from sinks, baths, showers, dishwashers and washing machines. Oman's water company collect grey water from homes to treat it and then irrigate plants.