FEDERATION OF BRITISH AQUATIC SOCIETIES

POND CARE SHEET No: 2 PUMPS 09/12/2004

If you move water with pumps for waterfalls, fountains or filters you will lose some water through evaporation. The amount lost will depend on how much water you are moving, the ambient temperature and the pond's position.

Continuous topping up from any source can increase the concentration of the any pollutants that are within the pond.

Domestic tap water contains chemicals that enable it to be fit for human consumption; these frequently have an adverse effect on fish and other pondlife. There are water conditioners available to treat tap water to prevent this.

ELECTRIC SUPPLY

Never use internal quality cable, plugs or fittings.

It is most vital that only the correct type of cable is used when extending an electric supply to a pond. It must be, *at a minimum*, of external quality (sub-soil quality if buried) and capable of carrying the load (amps) to be placed on it.

ONLY USE EXTERNAL QUALITY WATERPROOF CONNECTIONS, PLUGS AND FITTINGS

PROTECT THE SUPPLY WITH A GOOD QUALITY CIRCUIT BREAKER

Electricity and Water is a poor mixture but installed correctly there is no problem.
DO NOT TAKE CHANCES.
If in doubt either have a professional electrician install the supply or have it checked by one.
Better to be safe than sorry.

PUMPS

If you have more than one feature i.e. a filter system and a fountain then use more than one pump.

Pumps normally have a simple sponge filter protecting the intake. Whilst this is satisfactory for a pump operating a fountain or water feature, it is quite useless when used in conjunction with an external filtration system. For this situation, the pump should be of the 'solid handling' variety so that all the dirt will be delivered to the filter rather than clog up, or severely damage, the pump.

Stand pumps clear of the bottom of the pond so that they do not clog with bottom mulm.

Filter systems relying on bacterial action to remove the pollutants from the pond water must be kept running 24 hours a day or the bacteria will die, and they will fail to work; worse than that, they can go 'anaerobic' and be the cause of serious problems.

Fountains and waterfalls on the other hand can be turned off at night if you wish to reduce water loss - and complaints from the neighbours!

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CONNECTING HOSES

The size of the pipe connected to the pump is important, it must be large enough to accommodate the flow of water required - one cannot expect to produce a reasonable waterfall using a ½ " garden hose! Hose sizes of 25mm/1" or even 35mm/1¼" pipe maybe required.

However, the larger the supply pipe the more weight of water contained within it to be pumped along resulting in a reduction of flow at the outlet.

You may be offered a black plastic pump hose that is made in a multi-rib form, the ribbing is there to give strength to the hose, but it causes considerable turbulence within the hose and a subsequent loss of flow through resistance. So make sure any ribbed hose has a smooth *inside* bore before purchase.

It is best not to use clear plastic hose unless it is covered or buried as, if exposed to light, it will become lined with algae and Blanketweed reducing the flow and eventually block.
There is available from Plumbing Merchants various sizes of plastic push-fit plumbing pipes and fittings which make things easier when laying pipework.

UNDER NO CIRCUMSTANCES USE COPPER TUBE

The copper salts resulting from its use with kill fish, plants and biological filters.