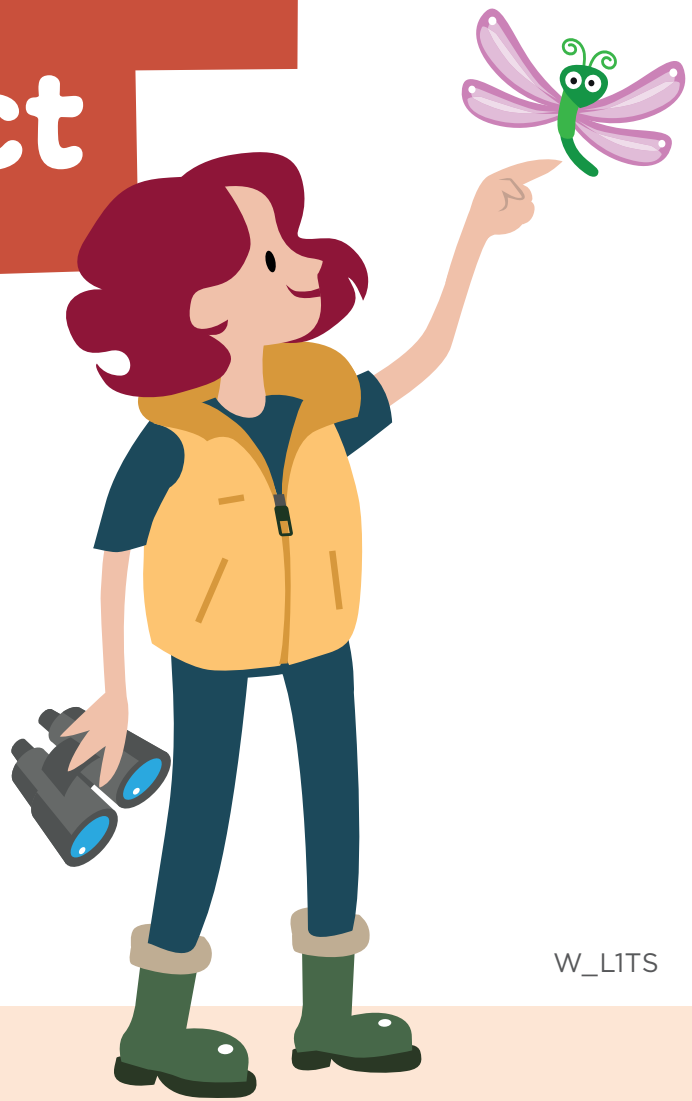
Managing King's Mill Reservoir to protect the wildlife



Mill Waters
Parks and Reservoir

well read
informed communications

This education Pack developed by Kate Dawson at Well Read in consultation with local heritage groups and schools. Particular thanks to Denis Hill, Heritage Consultant for his help providing historic background.

W_L1TS

at Mill Waters heritage site

What is a reservoir?

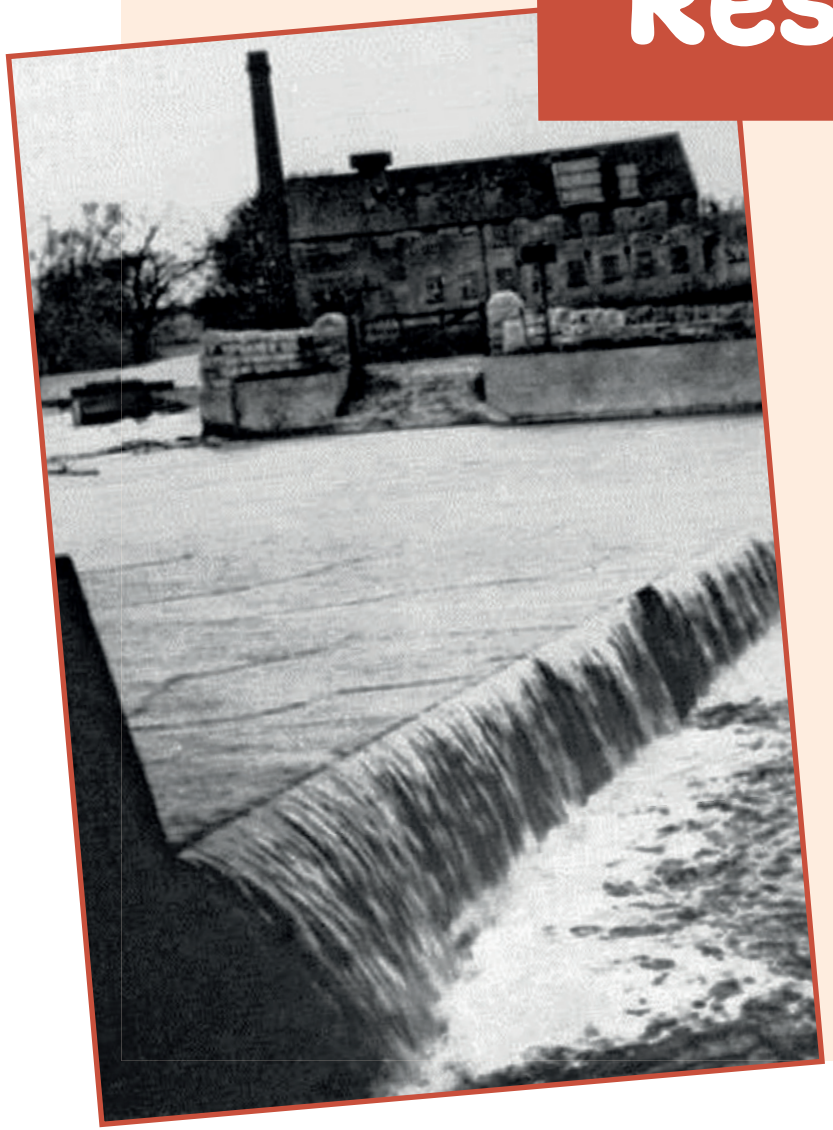
Reservoirs are man-made bodies of water.

They supply water to people's homes, industries and to irrigate land.

Hundreds of reservoirs around the country are no longer used for their original purpose, although they still help prevent floods.

Many reservoirs, like King's Mill Reservoir, are now places of beauty where people can enjoy seeing wildlife and taking part in water sports.

Why was King's Mill Reservoir created?



The Reservoir was created to help power the water-powered cotton mills along the River Maun.

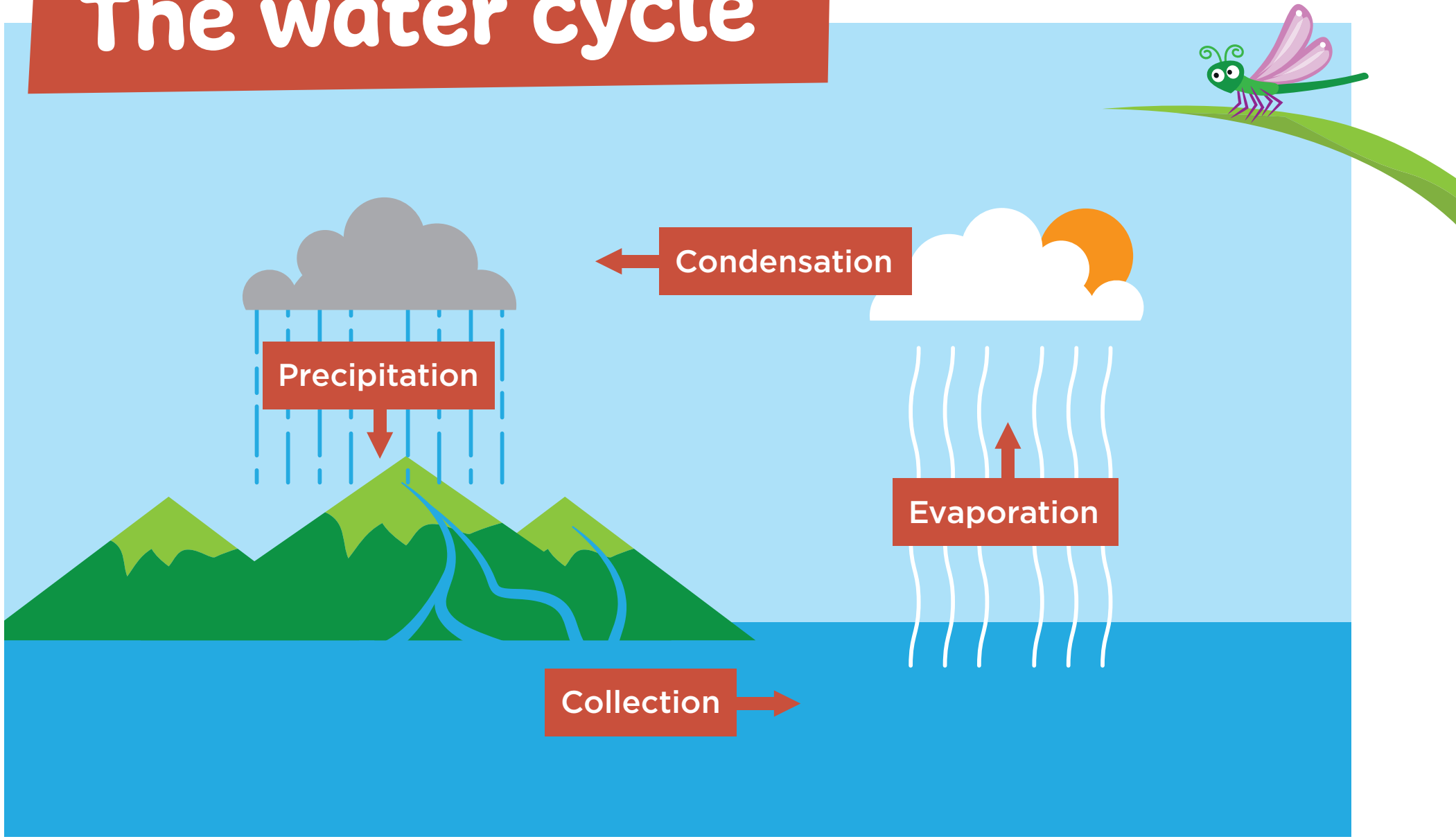
The mill in this photograph is the new King's Mill that was built in about 1840 to replace the one that was submerged when the Reservoir was created.

How does the water get in and out of the reservoir?

The dam at the north of the reservoir builds up the head (or supply) of water.

When the reservoir gets very full it overflows down a waterfall which leads into Hermitage Ponds at the mouth of the River Maun.

The water cycle



The food chain

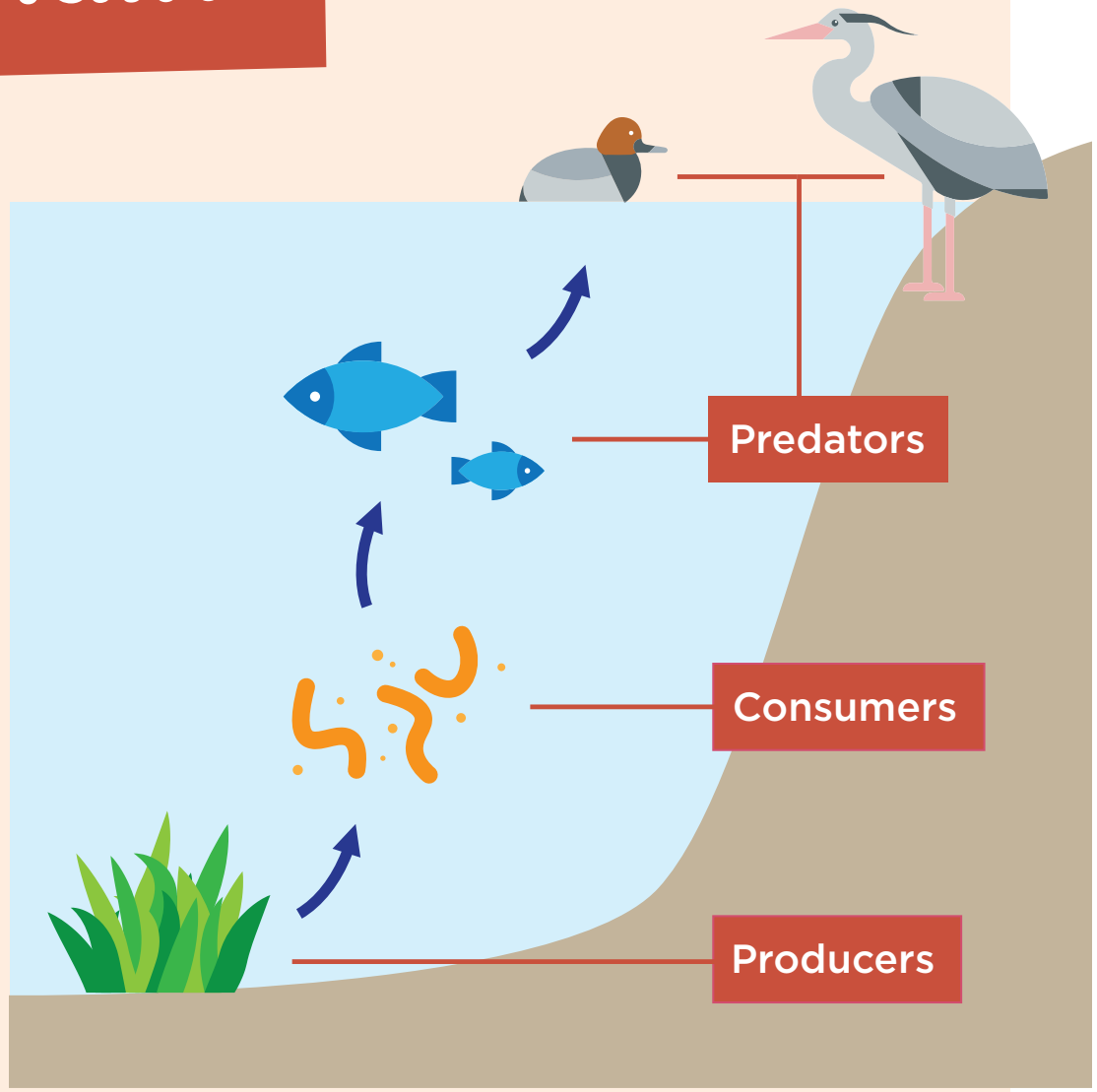
Food chains always start with plants - called **producers.**

Plants are eaten by creatures called **consumers.**

Creatures that eat other animals are called **predators.**

At Mill Waters the worms and algae in the reservoir eat the underwater plants. In turn, the fish and smaller ducks eat the worms. Next the swans and ducks eat the fish; and finally, the heron feed on small mammals, ducks and frogs.

The heron is an indicator species, which means that if he gets sick it indicates (shows) that there is contamination in the food chain.



What is a eutrophic water body?

A eutrophic water body is already rich in nutrients. Phosphates found in fertiliser can get into water and encourage a lot of algae to grow.

Eutrophication can be detrimental to the wildlife in the reservoir as it can suffocate some of the plants and small animals they feed on.

Other risks to the ecology of King's Mill Reservoir

Grit, gravel and heavy metals from the roads

Overgrowing reeds

Unnecessary feeding

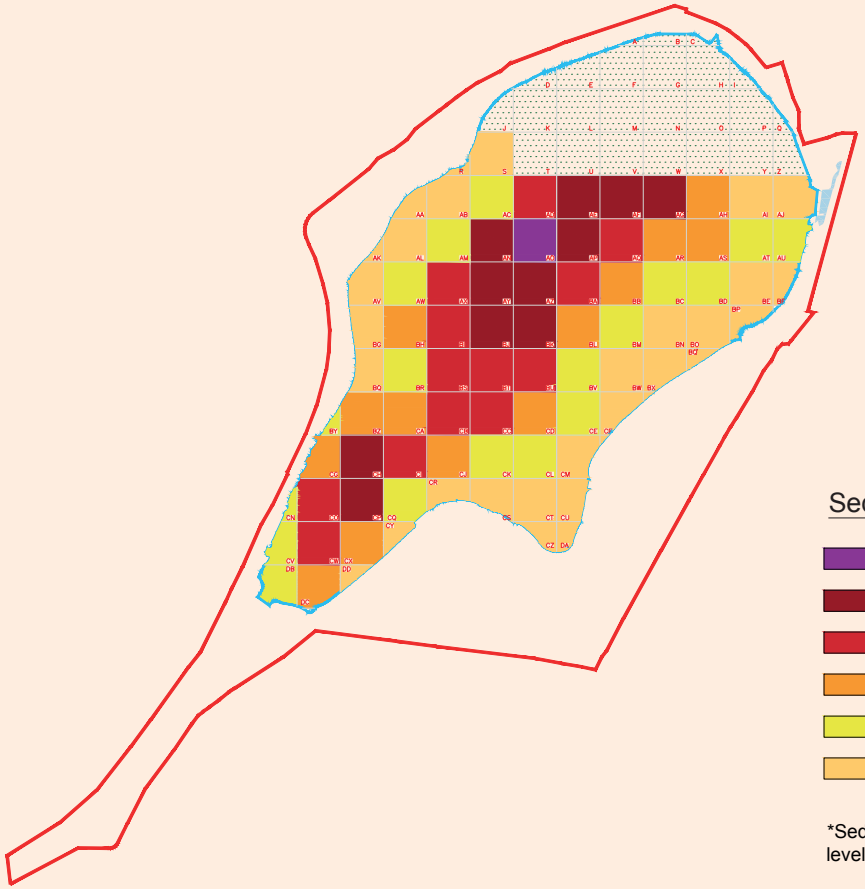
Discarded rubbish

Silt build up

Silt travels into the reservoir from the River Maun and from the banks of the reservoir itself. Over time the silt builds up at the bottom of the reservoir. Combined with eutrophication the silt build up results in:

- Algae blooms.
- Toxic water.
- A bad smell and appearance.
- An increased risk of flooding.
- Boats can’t sail in the water if it’s less than 2 metres deep.

What would happen if the Council didn't manage the silt?



Sediment Depth*

- +1.25m
- 1.0m - 1.25m
- 0.75m - 0.99m
- 0.5m - 0.74m
- 0.25m - 0.5m
- 0.0m - 0.24m

*Sediment depth from top level of sediment to bed level.

Works to manage silt in the reservoir