

MAIN MILLPOND



The Middle Millpond LNR originally formed an estuary around Pembroke and was completely tidal. Over a long period of time it has been obstructed by: a tidal mill in 1200-1300s; the railway embankment in the mid 19th century (which separates it from the Upper Millpond) and a barrage in the 1970s.

It is now freshwater lake. Currently the water level in Castle Pond is managed in order to maintain the middle millpond as a freshwater system controlling salt water incursions via a tidal sluice located at the Mill Bridge and thereby regulating the water level within the middle pond itself. There has been no salt water influx for the some years although previously the pond was regularly flushed in an effort to remove the mud, weed and odour problems and reduce the midge population. As a result the eco-system of the pond has adjusted.

Wildlife is abundant and here you can enjoy a variety of birds and wildfowl dominated by a large population of swans (see our newsletters). Although an amazing sight, swan numbers are presenting a problem and causing pressure on other species.

The Millponds are a great educational resource – pictured here is a pond dipping session. These events are held regularly.



We are now awaiting grant funding for a programme of improvements to the pond environment. These are listed below

Proposals for main Millpond

Create reed embankment

The plan is to drain the millpond level slightly to be able to access the top section of the pond where the smelly corner is and move some of the silt out into the edge of the main stream to create an embankment which can be planted with reeds.

The aim is to create a second smaller pond which is free from the rubbish and weed which is blown up into the corner because there is no flow from the main stream. This area of the pond is fed by a stream so it can be separated from the main pond. We will create a

walkway along the edge of the reed and bog vegetation on the south side and provide a pond dipping area. This pond should provide a safer environment for small fish and insects because the larger fish and cormorants will not come into it.

Create reed fringe on the south side

The concrete wall on the south side makes a good walkway but it is a sterile feature with only a few plants in it. The plan is to use a machine to dig out some of the silt and impound it behind a gabion type basket or brush wood edge. This will create some deeper areas of the pond and create a reed/marsh vegetation which will encourage birds and insects on the south side. We will need to fence it off to prevent swans from damaging the plants in the early stages. We could raise the height to create a bank which would be attractive to kingfishers, sandmartins and water voles. Several of these areas would also aid rubbish removal because the wind would trap debris on either side of the banks depending on direction of the wind. The fence would be sheep fencing so that moorhens and coots can still get through it.

Floating island

These would be constructed of mats of coir with seed already in them. They would provide shelter for fish and birds.

Floating fountains

These would be a feature and they would improve the water quality by aeration. Positioned on the west end of the pond they should reduce the number of accidents of swans hitting the bridge by creating a water blanket which would make the swans take a longer run to get airborne.

Fish pass

The south bridge tunnel could have a fish pass made from infill of concrete split into three sections all with different levels, the centre one being the highest. This would allow the swans to pass between the ponds without flying over the road bridge, they would walk down or up. Otters would use it as a runway. The other two levels would act as overflows for different pond levels which would create two fish passes.

Waterfall

The north tunnel could have a structure in position with troughs to carry water over the drain valve without affecting its operation and re-joining to create a waterfall. This would create a nice water feature and it would aerate the castle pond.

Swan feeding area on the castle pond

If we create a swan feeding area on the castle pond it would take pressure off the vegetation on the bottom of the main pond and the breeding pairs. There are too many swans for this size of water, their droppings will be affecting the water quality and their breeding success is poor because of interference from each other. The duck population has been suffering since the increase and the coots numbers breeding on the pond has dropped, this is due to a lack of vegetation in the summer months because the swans eat it. Swans also trample coot nesting sites and will even kill young coots and ducklings.