

Abbey Rd pond project. Update for Amenities 26th May 2020.

Item 7.2

The Abbey Rd Open Space Working Group has not been able to meet since our site visit with Craig Dater (SDNPA) on March 13th. This was primarily to look at the winter pond area and see if we might formulate a plan to keep some water in the pond all year round. At present this drains away very quickly in the Spring.

In the last 2 months I have visited the area when able, taken pictures and made progress through email with members of the Group.

This is a summary of where we are now.

1. Pond depth

I have a specific place where I measure the water depth. This is at the eastern area of the pond area that we hope to clear, where the water is at its deepest.

On the 14 March the water at this point was 12”.

This reduced in stages to just 1” by April 10th.

After rain in late April it refilled to 4”.

By the 13th May there was no open water at all.

This has shown that we are looking at clearing the right area, as this is the last to remain in dry spells, and the first to refill in wet periods.

I have managed to find a few people that worked at Abbey Road with Marlene Carman as part of her Conservation Volunteers group. I think this group disbanded around 2012. Marlene died in 2017. One person told me that they only worked in this area occasionally mainly trimming willow and picking litter. But he does remember Marlene discussing puddling the pond with clay. (to help retain the water). But He's pretty sure neither liner or clay were used, as the pond always dried out in summer.

I've found no liner or obvious clay layer in my investigations, so I doubt either are present. But I will keep researching into this. The Museum may be able to help with news items etc, once it reopens.

2. Plant species in the pond area

(thanks to Bob Platt for help in identification - by photos as he's self-isolating)

- the most common 'invader' is the **Goat Willow** (*Salix caprea* aka Pussy Willow). There are approximately 20-25 clumps of this small multi-stem tree in the area to be cleared.

- there are also a few small clumps of **Common Willow** in the area to be cleared.

- around the margin of the pond area, particularly on the western side, there are multiple clumps of **Greater Pond Sedge** (*Carex riparia*). This is a native plant so can be retained.

- A few **Yellow Iris** are growing in the wetter parts of the pond

- **Water Mint** (*Mentha aquatica*) is widespread across all of the pond area.

- **Soft Rush** (*Juncus effusus*) grows abundantly at the margins of the winter pond.

- many other plants such as Dock, Nettle and Willow-herb grow across the pond area where it dries out. These will naturally die out when flooded with water all year round.

There are some lovely trees in this northern part of the Abbey Rd site. I asked Bob to take a look at some leaves to try and id some of them.

Among them are 5 **Oak** (*Quercus* sp), 6 **Italian Alder** [*Alnus cordata*), many **Golden Weeping Willow** (*Salix X chrysocoma*), **White willow** (*Salix alba*) and **Silver Birch** (*Betula pendula*).

The Oak and Alder are obvious deliberate tree plantings from about 10-15 years ago. Some still have their tree stakes.

We must try and record and map all these trees over the summer.

The many fallen trees are a good habitat so we wouldn't want to remove them all, but there are some obvious for removal around the site next winter.

Not really part of this project, but outside the pond area in the SE corner of the meadow area there are about 6 spreading clumps of **Meadowsweet** (*Filipendula ulmaria*). This was cut once in March by the contractors.

With help from Hazel, we managed to prevent 3 of these clumps being cut on the second cut in early May. They are now growing away well.

Meadowsweet is a perennial herb that grows in damp meadows/ditches/riverbanks. It grows over 1m tall and has large frothy cream flowers. It is lovely to find it here.

(Meadowsweet has been used as a source of Salicylic acid (aspirin), as a flavouring of Mead, and smells variously of new mown hay, honey, dill, musk, marzipan and carbolic !)

The cuttings 'or risings' from this second cut have been placed in a pile out of sight, in a slightly lower area just off the main path in the middle of the site. This will reduce the fertility of the soil very gradually, and not taking them off site saves the Council considerable cost. They could well attract Grass snakes and Slow worms to nest because of the warmth they give off as they decompose. So a win/win/win!

3. Animal species in the pond water

I took several water samples from different parts of the pond when it was reasonably full, and again when it had very little water in it. Species found include:

Frogs (*Rana temporaria*) Frogspawn and small tadpoles seen in March. But they may not have survived the pond drying out in April. Mosquito larvae. Midge larvae. (red bloodworms)

Flatworms Leeches. (very small - not human bloodsuckers!) Many small/microscopic organisms including, Daphnia (water flea), Copepods (e.g. Cyclops), and other Protozoa.

So there is quite a range of life in these very small samples over just a month. If we can keep water in at least some of the pond all year round there is a food supply here for larger aquatic life, such as dragonfly larvae.

4. Council Approval for work

On 28th April. SPC Amenities Committee gave the go ahead for the first phase of the work at the winter pond. Including:

1. to cut down the self-seeded trees from half the area of the pond, treat the stumps with glyphosate and stash the brash at the back of the site because of its tendency to re-generate if left in situ.

2. to take out the large willow at the water's edge.

Re point 1. The proposed pond area to be cleared comprises about 20% of the maximum area of the winter pond. ie 20m x 14m. I have put a row of canes across the pond to show the limit of the clearing. We will be clearing to the east of the markers.(ie towards the houses)

Re point 2. I'm not sure which tree is referred to here. There are no large willows in the area to be cleared. There are several at the north western end of the pond. I think we need to look at this again to be sure that we are referring to the same thing.

5. Proposed Work to schedule in the next few months.

- cutting the 20-25 clumps of Goat Willow. This can be done now, as the area has dried out sufficiently to work on it.

Most of the clumps are multi-stemmed, with individual stems up to 3" thick. Stems need to be cut about 12" above ground level (check this with Craig)

- the cut stems then need to be treated with glyphosate (as recommended by Craig. Need advice about how/who does this.) If this is not done, the stumps will re-grow.

- cut material to be stacked at the rear of the site on the by-pass bank. But some of the stem cuttings could be pushed into some of the ground along the stream side, to create clumps of willows here. Goat willow would be ideal as it doesn't grow too tall. max 10m.

- possibly create some deeper 'scrapes' in the pond area to be cleared. These need only be 12" deep and dish shaped. This will help us assess how successful the removal of the willows has been in retaining water into the summer.

My suggestion is that volunteers could do most of this work, under guidance from Craig.

I have identified two volunteers who have offered to help with the work. (one of whom previously worked with Marlene Carmen at Abbey Rd)

So as soon as the current restrictions are lifted to allow 3 people to work on site at the same time, we could start work on cutting the willow clumps.

The main issue is the application of glyphosate. This needs to be done as soon as the willows are cut but needs expert advice before we embark on this.

Roger Brown

18th May 2020.