The Paddock: Japanese Knotweed treatment approach

1. Japanese Knotweed Treatment & Replacement with Meadows

The ecology of the Paddock is threatened by several infestations of Japanese Knotweed, an invasive plant that can dominate habitats and is difficult to control. It affects ecosystems by crowding out native vegetation and limiting plant and animal species diversity as illustrated by the lack of any other flora on the ground in the photo of the Paddock below.

2. The Impact of Japanese Knotweed on The Paddock

As landowner, Haringey Council has a legal duty to control Japanese Knotweed spread.

Habitat threatened by Japanese Knotweed

We have commissioned specialist site investigations to assess the impact of the Japanese Knotweed and have found that:

- The raised ground within the Paddock is contaminated with asbestos fibres that are cost-prohibitive to remove. This poses no current risks, but could present a hazard to human health if disturbed.
- A large volume of the Japanese Knotweed has established root rhizomes within the asbestos fibres, which means that disturbing the underground Japanese Knotweed rhizomes is not safe and these areas must be treated in situ.
- **The recommended action, in line with industry standard practice, is to cap the contaminated ground with membranes and imported soil once the above-ground Japanese Knotweed is cut back.**

While capping provides an effective solution, there are limitations and long-term management considerations:

- The capping process needs to encapsulate the entire root rhizome underground and provide a buffer. This means clearing a 7-metre perimeter from the centre of the infestation which will initially leave a large bare area.
- In order to restrain the Japanese Knotweed, the membrane surrounding the rhizome must be protected from damage. Therefore, any vegetation with extensive and deep root systems must be removed to the furthest perimeter and no deep rooting species to be planted in the future.

3. Alternative Treatment Options

There is only one other possible option, chemical spraying with a glyphosate-based treatment.

This option was rejected for the following reasons:

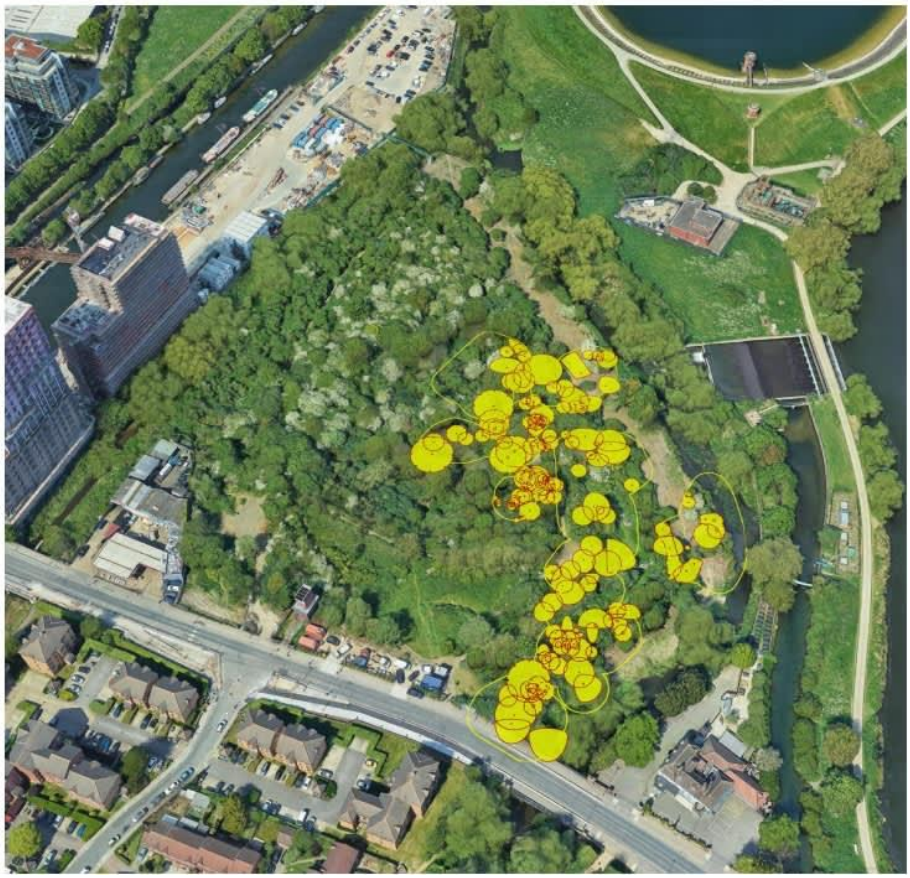
- The required treatment programme would last between three to five years, during which time.
- No site improvement works can take place within these areas. This would delay any significant enhancement of the Paddock and cause prolonged disruption.
- Attempts have previously been made to chemically treat Japanese Knotweed in some areas of the site, but these were not successful.
- Spraying chemicals in a busy public area and next to a water course would bring risks to other plant and animal life.

Capping is a more permanent and predictable solution. By using this method in The Paddock, the Japanese Knotweed issues will be largely dealt with in one project phase, reducing the likelihood of any future issues or recurrence.

4. Tree Loss Mitigation and Wildflower Meadow Replacement

The capping treatment will result in the loss of a considerable number of trees in The Paddock. However, only six of these trees are of high-quality. Please see our Tree Loss Table (attached) for detail. Haringey Council will plant more than 80 trees to mitigate the loss of these trees. This will be undertaken as part of our overall tree-planting programme, which covers c.800 trees across the borough. This will include planting replacement trees within the Paddock where possible.

Impacted trees



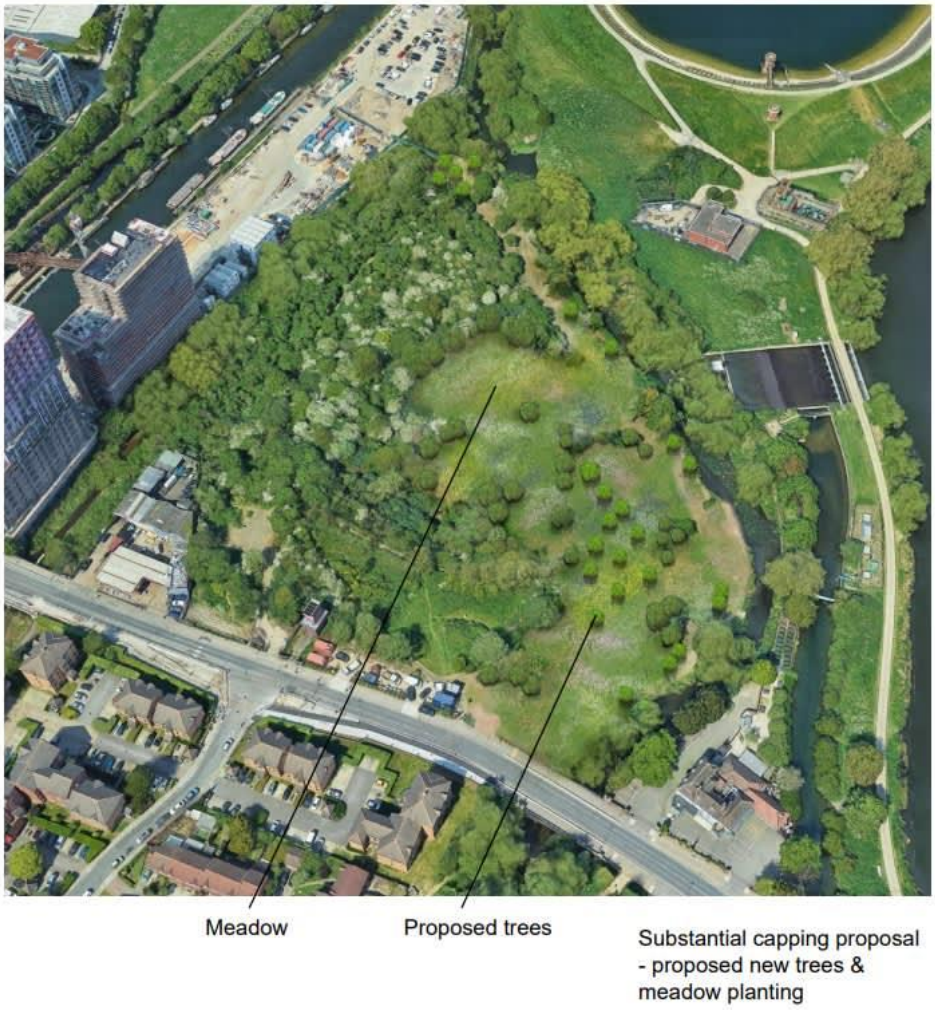
While we cannot plant new trees directly on the areas of treated Japanese Knotweed, we will transform these capped areas into new wildlife meadows. The soil for the capping will be carefully selected and imported from local sites to ensure it will support the wider ecology of the Paddock.

During the design process we will look to plant selected replacement trees where appropriate. We are considering opportunities to incorporate species that are nationally in decline. While we cannot plant new trees directly on the areas of treated Japanese Knotweed, we will transform these capped areas into new wildlife meadows. The soil for the capping will be carefully selected and imported from local sites to ensure it will support the wider ecology of the Paddock.

Meadow habitats support a vast number of flower and grass species, which in turn support a myriad of insects including bees, butterflies, beetles and grasshoppers. A healthy insect population also supports species higher up the food chain such as birds and mammals.

By developing this area into a wildflower meadow, we are not only creating an ecologically rich habitat but contributing to the recovery of habitats in decline, with studies showing that over 97% of the UK's wildflower meadows have been lost since the 1930s.

Habitat created

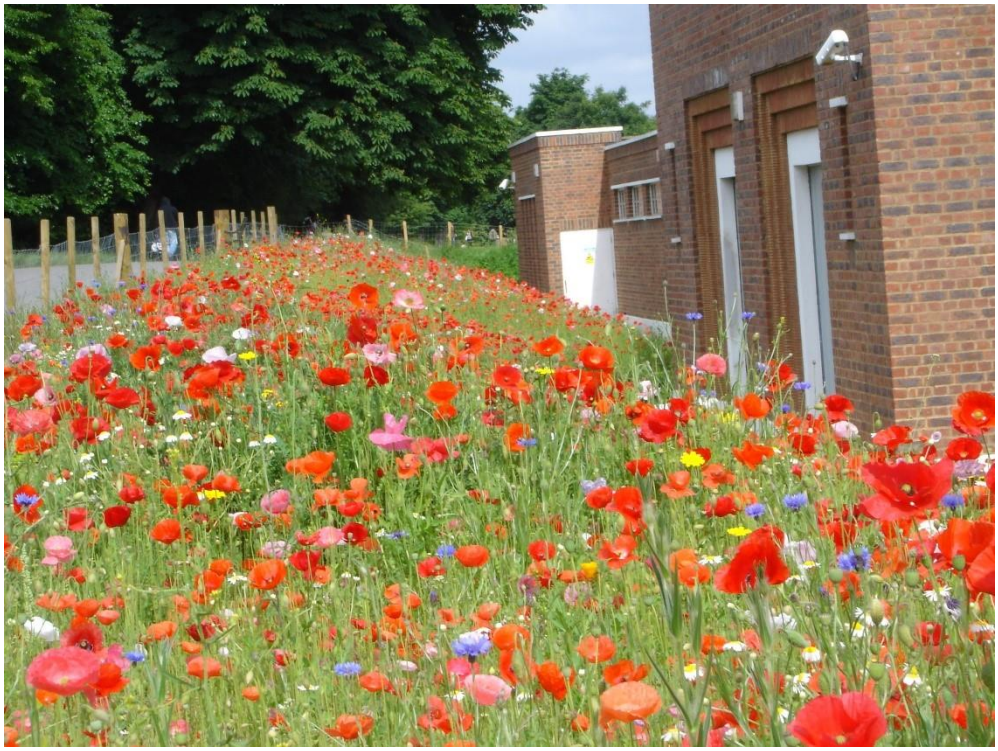


5. Meadow Species diversity

Aesthetic value

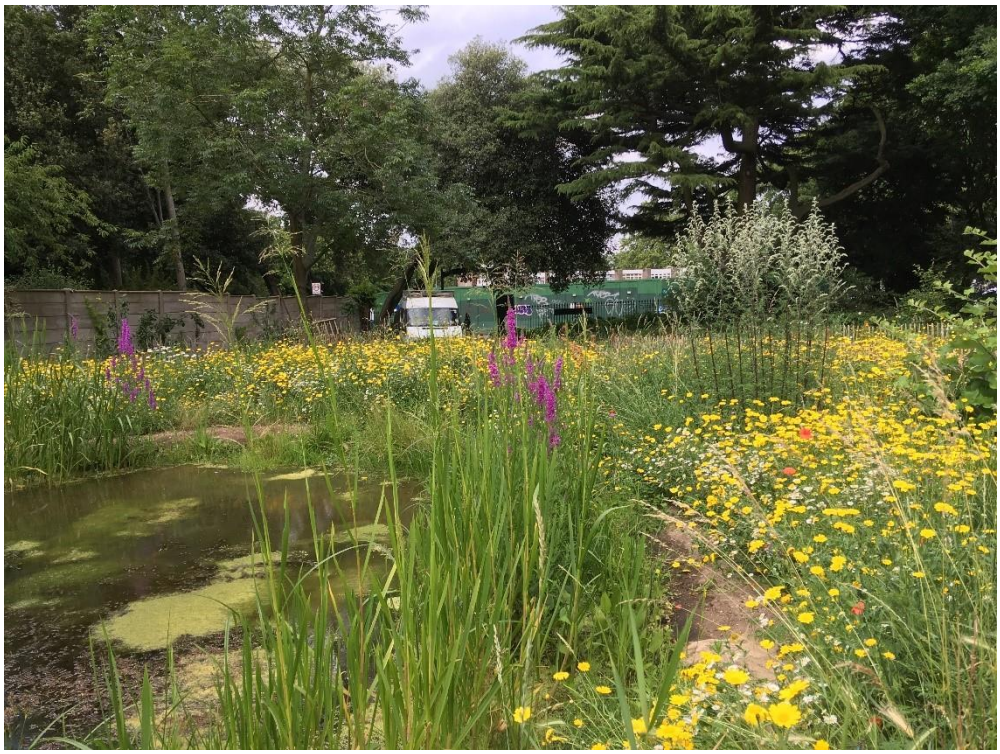
As well as the considerable ecological value, there is a notable aesthetic value of these spaces. Bright colours, the humming sounds of insects and the gentle movement of grasses throughout the Spring and Summer can be an attractive and popular addition to community greenspaces like The Paddock.

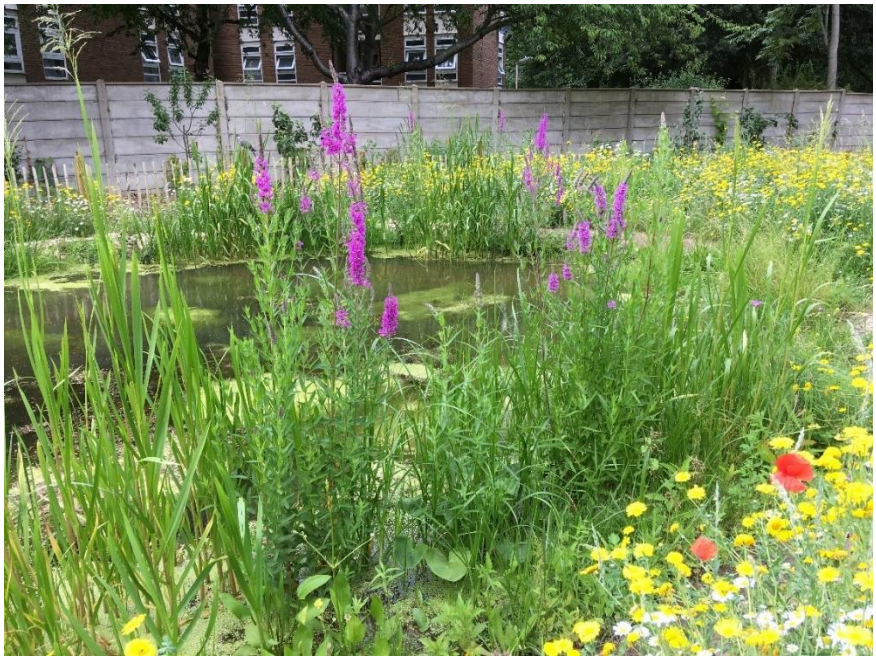
Above: wildflower meadows established by TCV at Russia Dock Woodland in 2018.



Slope at Brockwell Park SE24 in 2013.

Football pitch to meadow conversion in Brockwell Park in 2018.





Comparisons with woodland

Research from Plantlife indicates that wildflower meadows are botanically richer than any other habitat in this country. They are home to nearly half our flora but occupy less than 1% of the UK's land cover.

'Early succession' habitats require sufficient levels of management to keep them viable. The research reveals that 611 plant species of 1,543 analysed (40%) will decline within a decade if the land is entirely abandoned, with 127 of these (16.4%) declining within three years. Three quarters of our most threatened species - including burnt-tip orchid, pasqueflower and crested cow-wheat - decline or disappear within three years if all management is removed.

Left entirely to their own devices most open landscapes in the UK will change from grassland to scrub and, ultimately, to woodland as large plants reach for the light and out-compete smaller, more delicate species.

6. References

Fuller (1978): The extent and conservation interest of lowland grasslands in England and Wales: a review of grassland surveys 1930-1984. Biological conservation. 40, 281-300.

Gary D. Powney et al (2019): Widespread losses of pollinating insects in Britain. Nature Communications.

Plantlife: Plantlife research shows the value – and vulnerability – of Britain's last remaining meadows https://www.plantlife.org.uk/uk/about-us/news/plantlife-research-shows-the-value-and-vulnerability-of-britains-last-remaining-meadows

Smith R (2010): Understanding grassland systems. In Gamble D, St. Pierre T (eds) Hay Time in the Yorkshire Dales: the natural, cultural and land management history of hay meadows Scotforth Books, Lancaster, pp 145–177.