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RE: Survey for Otters, Water Voles and invasive plant species and PMoW for Hedgehogs
SITE: Whitworth Community High School, Rochdale

Dear Anne,

On 22nd March 2021, Matt Liston from Indigo Surveys, carried out a full ecological walkover of the Whitworth Community High School site.

The focus of the survey was on the potential for the presence of Otters *Lutra lutra* and/or Water Voles *Arvicola amphibius* in the small watercourses running along the northern (Tong End Brook), eastern (River Spodden), and southwestern (un-named) boundaries of the site, as well as for evidence of invasive plant species, in particular Himalayan Balsam *Impatiens glandulifera*, Japanese Knotweed *Fallopia japonica* and Cotoneaster *Cotoneaster sp.* The results of the surveys are contained in this report.

In addition, a Precautionary Method of Working (PMoW) for Hedgehogs *Erinaceus europaeus* is also provided.

Background

Both of the above listed invasive plant species were identified by an ecologist (Jenny Gibson) from The Environment Partnership (TEP) during a survey of the site on 26th August 2020.

The balsam and cotoneaster was noted along the northern and eastern boundaries adjacent to the existing woodland corridor, whilst the knotweed was in a stand at the southern end of the site, close to the school entrance, but outside the perimeter fence (Fig. 1 overleaf).

It was recommended by TEP, that if the proposed re-development of the school impacted on the stands of invasive plants, a method statement for the control of said plants should be produced.

In addition, if the drainage proposals interfered with the watercourse, then a further survey for Otters and Water voles should be carried out, whilst site clearance, specifically clearance of hibernacula and allotment areas, should be undertaken using Reasonable Avoidance Measures (RAMS), to ensure no harm to Hedgehogs which maybe present on site.

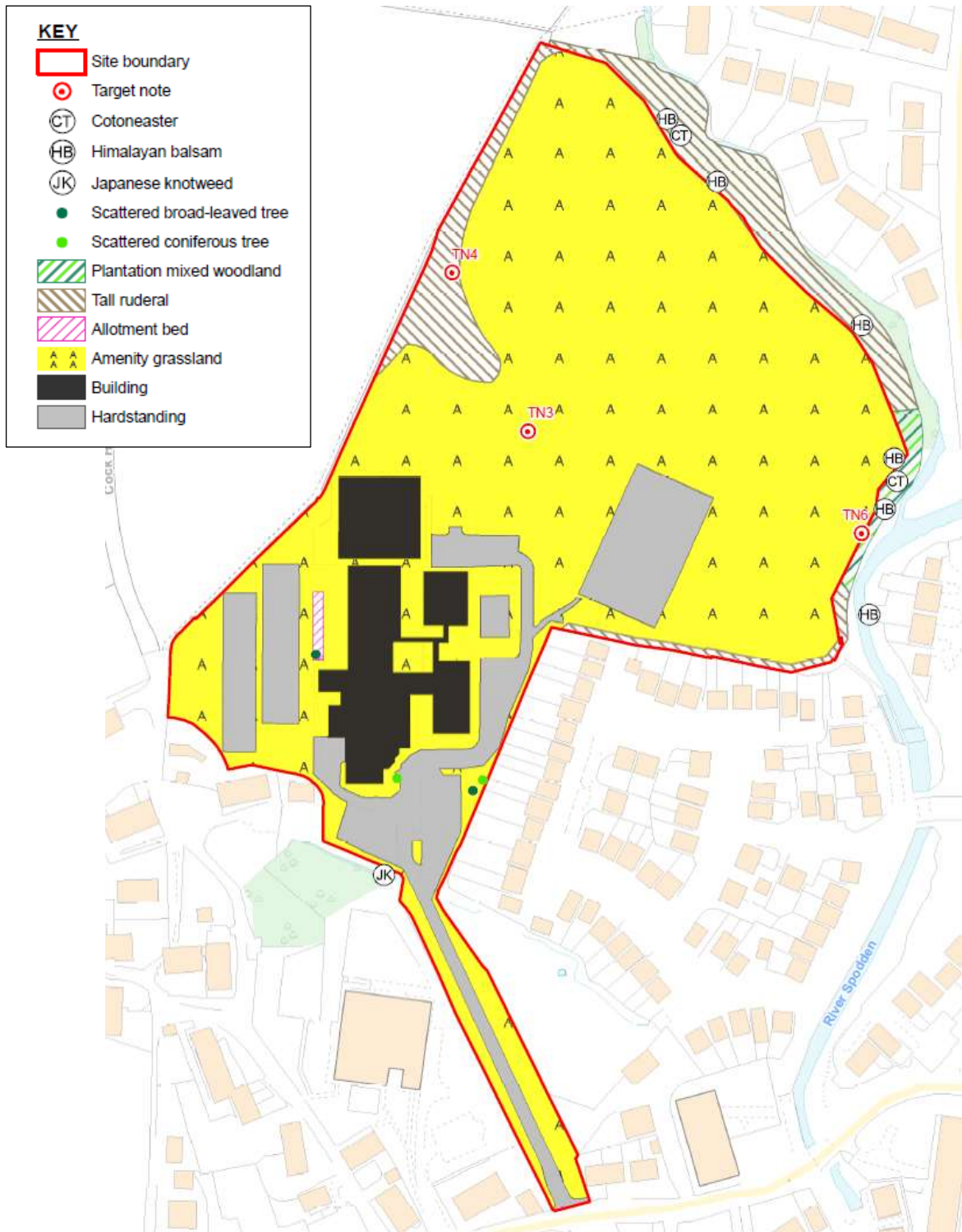


Fig. 1 Phase 1 Habitat Map (TEP)

Methodology

Otters

Otters are nocturnal and are active all year round. They are large with an adult male reaching up to 1.2 m from nose to tail, and weighing about 10 kg.

Feeding mainly on fish and amphibians, Otters live by undisturbed waters where there is plenty of cover, mostly by freshwater lakes, rivers and quiet small streams as well as some coasts.

An Otter may use over 40 km of river and needs many resting places throughout this range. A female otter will give birth to 1 to 3 cubs in a natal holt, which is often away from the main river and must be completely undisturbed.

Field signs include:

- Prints in soft mud;
- Spraints (faeces);
- Holts.

A search for evidence of Otter presence along the River Spodden and on the site was undertaken as part of the walkover on 22nd April 2021.

Water Voles

The Water Vole is the largest of the British voles. It lives in a series of holes or burrows at the water's edge and can be found along the banks of ditches, streams, rivers, lakes and canals.

Although Water Voles live in colonies, the breeding females are territorial, each defining their contiguous territory with latrines during the breeding season. This lasts from March to October.

The Water Vole is herbivorous, feeding primarily on the lush aerial stems and leaves of waterside plants. Its activity is normally confined to the area within two metres of the watercourse, the bankside vegetation in this area not only essential for food, but also for cover from predators.

Water Vole activity can be assessed by looking for the following signs:

- Burrows;
- Faeces and latrines;
- Feeding stations;
- Runs;
- Paw prints in areas of soft mud;
- Feeding 'lawns';
- Predator field signs.

A search for evidence of Water Vole presence along the River Spodden and on the site was undertaken as part of the walkover on 22nd April 2021.

Invasive plants

Japanese Knotweed is a robust, herbaceous non-native perennial plant with hollow, bamboo-like stems. It forms yellow cream flowers in late June or August and its leaves are approximately the size of a human hand.

Its hollow bamboo-like stems are green with red spots during summer, which turn brown during winter. It forms red side shoots off the main stem and its leaves are arranged in a zig-zag pattern. The plant is frost-sensitive and dies back in winter though the stems remain standing.

It grows from 120–300cm in height with leaves 7–12cm long with a square-cut base. The root system is extremely extensive (extending 15 to 20 m in length) and acts as a storage organ allowing for rapid growth in spring. The plant requires high light levels and the burst of growth in spring prevents other plants from out-shading it.

Himalayan Balsam is also a non-native invasive terrestrial plant species. Since it was introduced, it has spread to many parts of the UK.

The species is particularly frequent along the banks of watercourses, where it often forms continuous stands. It can also establish in damp woodland, flushes and mires. It is the tallest annual (species of plant that completes its life cycle in one year), and due to its rapid growth, it shades out most of our native species.

Individual plants reach 2 m in height, have translucent fleshy stems, pink-purple slipper-shaped flowers and large oval pointed leaves with obvious teeth around their edges. Each tooth carries a small globular 'gland' and produces large numbers of flowers which are followed by 'seed pods' about 25 mm long.

When mature and dry, the fruits split open explosively if touched, flinging the seeds a considerable distance from the parent plant. Each plant produces about 2,500 seeds which fall to the ground, and with several parent plants close together, seeds can occur at a density of between 5000-6000 seeds per square metre. The seeds float, making watercourses a prime route for dispersal of the species. Seeds can also begin to germinate in water on their way to new sites.

There are over 100 species of cotoneaster cultivated in the UK. However, there are a much smaller number which are considered to be invasive to the UK. These include Hollyberry Cotoneaster (*Cotoneaster bullatus*), Entire-leaved Cotoneaster (*Cotoneaster integrifolius*), Small-leaved Cotoneaster (*Cotoneaster microphyllus*), Himalayan Cotoneaster (*Cotoneaster simonsii*) and Wall-spray Cotoneaster (*Cotoneaster horizontalis*).

Cotoneaster species are native to Eastern Asia and were first introduced to the UK in 1824 as ornamental plants. The seeds are spread by birds, therefore, the plants can easily spread to a wide area.

Identification features of cotoneaster include:

- ❑ Green shrubs and small trees, some deciduous and some evergreen;
- ❑ All cotoneaster species are without thorns and have shiny leaves;
- ❑ Leaves are hairless on the upper surface and slightly hairy on the underneath of the leaf;
- ❑ The flowers are small – white or pink in the spring, followed by clusters of red/orange berries in the autumn;
- ❑ Wall cotoneaster has branches in a 'herringbone' shape;
- ❑ Himalayan cotoneaster is an erect deciduous shrub, with leaves of 1.5-2.5 cm long;
- ❑ Small-leaved cotoneaster is evergreen with very small leaves at 0.5-0.8cm long;

A search for evidence of Himalayan Balsam, Japanese Knotweed and Cotoneaster species was undertaken as part of the ecological walkover on 22nd April 2021.

Results

No evidence of Otter or Water Vole presence was found during the survey, and both species are considered to be absent.

Stands of Japanese Knotweed (Figs. 2 and 3) were recorded just outside the southwest perimeter fence, along the opposite side of the steep bank of a small un-named watercourse which presumably ultimately runs into the River Spodden south of the site.



Fig. 2 Stand of Japanese Knotweed

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Date: 28 April 2021



Fig. 3 Stand of Japanese Knotweed

Although still too early in the growing season for new plants to be visible, the previous year's Himalayan Balsam was noted along the northeastern boundary, along Tong End Brook, again outside the perimeter fence.

Cotoneaster (wall spray) was also observed in two locations just outside perimeter fence along the western boundary (Fig. 4).



Fig. 4 Spray of Cotoneaster

The locations of the stands of invasive species are shown in Fig. 5 overleaf.



Fig. 5 Locations of invasive plant species

Conclusions

Given the lack of evidence of Otters and Water Voles, and their presumed absence, there will be no impact of any drainage works which require an outfall into any of the watercourses.

Similarly, all the stands of invasive plant species lie outside the site perimeter fence, and in the case of the Japanese Knotweed, on the opposite bank of a small watercourse well above the level of the access road into the school grounds.

As such, there will be no impact on invasive plants arising from the proposed re-development, including any drainage works affecting the watercourses, and a method statement for the control of invasive species is not required.

Precautionary Method of Working for Hedgehogs

Although no Hedgehogs, or evidence of Hedgehog activity, e.g. faeces, has been found within the site, it is possible for animals to access the land at any time. As such, the following Reasonable Avoidance Measures will be adopted to ensure that no Hedgehogs are harmed by the re-development.

- ❑ Prior to the commencement of ground clearance works, a check will be made by an experienced ecologist to ensure that no Hedgehogs have taken up residence since the last visit was made.
- ❑ This will not be possible in the denser scrub areas without the removal of some vegetation. The ecologist will therefore supervise strimming/scrub cutting to open up the vegetation if these areas are to be disturbed during construction.
- ❑ The scrub will not be cut lower than 250 mm to ensure that no small mammals and/or other wildlife is harmed.
- ❑ When sufficient vegetation has been removed, a thorough search will be carried out to confirm the presence or absence of Hedgehogs across the site.
- ❑ Any Hedgehogs encountered will be caught carefully by hand and relocated into the broadleaved woodland adjoining the northeastern boundary.
- ❑ As soon as the land has been declared free of Hedgehogs, ground works can commence. These will be supervised by an ecologist.
- ❑ All ground works will take place during daylight hours when Hedgehogs are least active in the environment, preferably outside the hibernation period (November to March inclusive).
- ❑ All remaining vegetation will be removed, followed by topsoil scraping and re-profiling as required.

- ❑ Deep holes and open trenches could potentially trap Hedgehogs, Badgers and other wildlife, especially if these fill up with water. Escape routes will therefore be provided if holes and/or trenches cannot be infilled immediately. These will be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.
- ❑ At all times care will be taken as small mammals and common amphibians could also be present. Any small mammals or common amphibians disturbed or uncovered will be caught by hand and relocated to the safe area in the adjacent woodland.

I am contactable with any queries.

Yours sincerely,

Andy



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