



Bromsgrove District Council Watercourse Maintenance Schedule

O&S Committee 28/03/2022



Callow Brook, Callowbrook Park, Rubery

BDC Owned Watercourses

- BDC own just under 8km of watercourses, primarily through recreation grounds, such as Sanders Park (0.91km), Callowbrook Park (0.82km) and Lickey End Recreation Ground (0.23km).
- As riparian owner, BDC are required to maintain watercourses to ensure the flow of water is not impeded by debris or excess silt & vegetation.
- Maintaining the flow of water in a channel is a legal responsibility, and is covered by S.25 of the Land Drainage Act 1991.
- Maintenance work needs to balance the aesthetics of the area with managing flood risk and maintaining habitats.
- Until now, watercourses owned by BDC are maintained on an ad-hoc basis by the Place & Parks teams to the best of their abilities, when resources allow.



Unregistered Watercourses

- BDC & NWWM currently maintain around 1.4km of watercourses through unregistered land, where investigations have not located a responsible owner.
- This is only carried out where a lack of maintenance would lead to increased flood risk, and doesn't tend to be on a frequent basis.
- The Hollywood Brook is an example of an un-owned watercourse; at present we do not have resources to undertake maintenance here but often receive complaints about the state of the watercourse.



Spadesbourne Brook, Bromsgrove

Maintenance Best Practice

- Vegetation is a natural part of river ecosystems, and provides shade, bank stability, a source of food and filters sediment.
- Management of vegetation in and alongside watercourses is carried out for a variety of reasons; the purpose should be clearly reviewed to identify if intervention is actually needed.
- Best practice refers to maintenance in a manner that reduces the impacts of the activity upon ecology and hydromorphology.
- Where vegetation clearance is required, only $\frac{1}{3}$ of the vegetation should be cleared each year, ensuring alternate lengths of watercourse are left untouched.
- Vegetation should ideally be cleared during September & October, and silt between September & February.



Water vole (stock photo)

Ecology Considerations

- Watercourses are home to a huge variety of insects, fish and mammals; many of which are protected by law.
- Bromsgrove is one of the only places in the County where Water Voles – listed as Critically Endangered in England - are still present. These animals and their habitats are protected by law.
- Water Voles, like most other species, need a variety of vegetation for food and shelter.
- We also have recent records of Otters on watercourses in Bromsgrove; these animals are also protected by law and are listed as Near Threatened on the ICUN Red List.
- Before major maintenance is carried out where water voles may be present, an ecologist must undertake a survey and will provide guidance on the timing of work and any mitigation required.



Himalayan Balsam

- Himalayan Balsam is an invasive non-native plant, which was bought to the UK in the 1800's and now occupies most riverbanks in the UK.
- It grows rapidly and out-competes other native plant species, with each plant producing around 800 seeds.
- The plants have very shallow root systems, so are easily uprooted risking blockages downstream and leaving bare riverbanks which are prone to erosion.
- It is an offence to plant Himalayan Balsam. There is no obligation to report its presence or to eradicate it, but landowners may be liable if it is allowed to spread.
- The best way to tackle Himalayan Balsam is to actively pull the plants while they are young, before the seed pods form. This is a labour-intensive job and needs to be done consistently throughout the catchment, usually between March & June.



Case Study: Lickey End Recreation Ground

- In January 2019 NWWM became aware that excess silt & vegetation in the Spadesbourne Brook was impeding the flow of water, leading to flooding of the adjacent highway.
- This was reported to various teams at BDC, but due to existing workloads & adverse weather followed by a pandemic the work kept being delayed and flooding continued to affect the road.
- In August 2020 NWWM organised for an ecologist to survey the brook for water voles and found they were present on site and a contractor was appointed to undertake the necessary maintenance work in accordance with the ecologist's recommendations.
- In October 2020, before the ecologist's formal report had been received, an operative in the parks team carried out clearance work along the brook, and while it was done with good intentions it did not follow the best-practice guidelines.
- A follow up visit from the ecologist was required, and an external contractor was then appointed to undertake sympathetic maintenance work to restore the flow of water and mitigate the earlier damage done, in December 2020.
- The work here cost £445 & £330 for the ecology surveys, £1,380 for stream maintenance (via an external contractor).

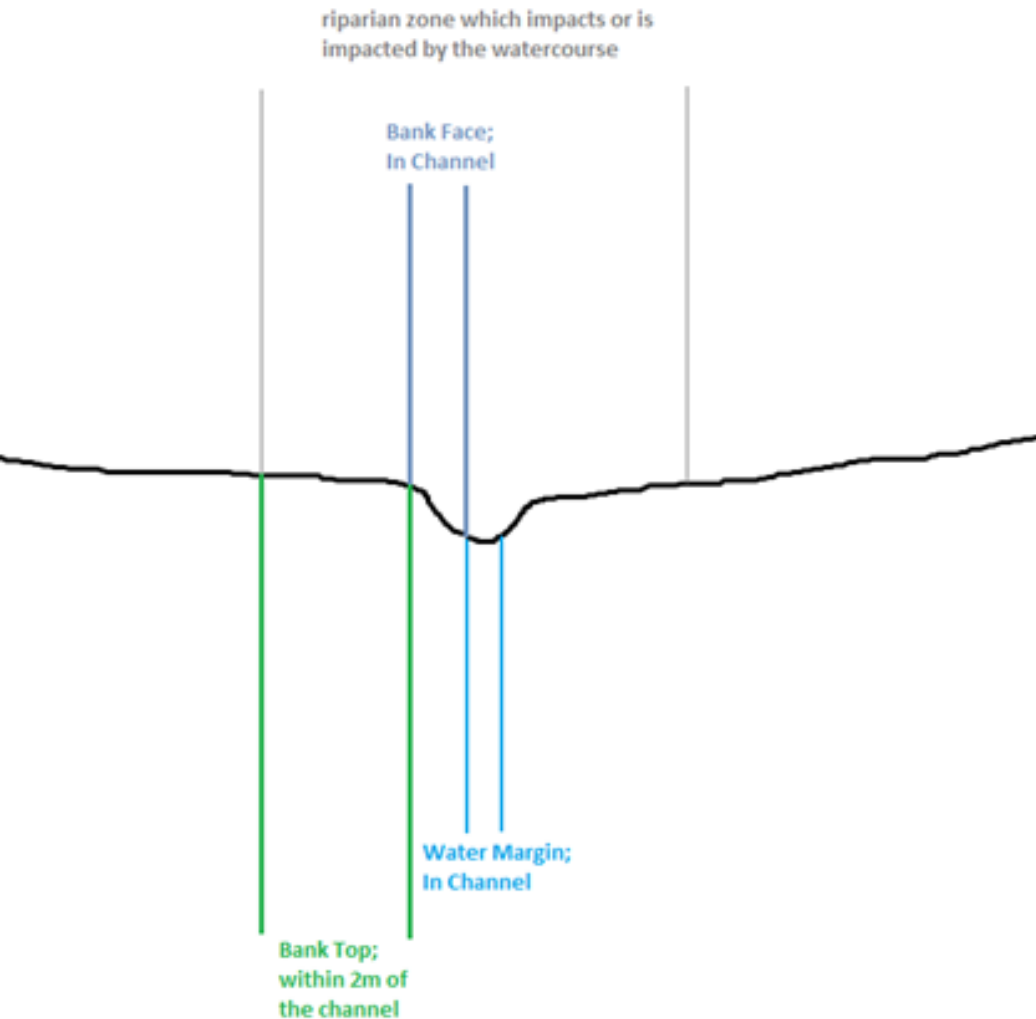


Battlefield Brook, Sanders Park, Bromsgrove

Proposed Maintenance Schedule

- We propose to appoint a contractor who will carry out watercourse maintenance activities.
- During the Himalayan Balsam growing periods, they will work 4-5 days per week focusing on pulling these plants to reduce future growth.
- The remaining months of the year they will work one day per week, inspecting sites on a rotational basis, to clear trash screens and help manage vegetation where required. Maintenance will focus on flood risk and ecology primarily.
- The contractor will not replace the Parks & Place teams, who will still be responsible for wider landscaping maintenance and litter picking. In addition, NWWM will continue to routinely inspect sites on a frequency determined by flood risk.
- By undertaking routine inspections & maintenance with a “little & often” approach, it should avoid the need for more costly major maintenance works.
- Some sites will require major work periodically (every 5-10 years); this generally relates to de-silting of flood storage ponds. This will be considered as Capital works.
- Having a contractor undertake maintenance of un-registered watercourses enables this work to be carried out more effectively, reducing flood risk to nearby properties.
- The estimated cost to the Council will be in the region of £45,000/yr.
- In the future, there is scope to offer the service to partner agencies, such as Worcestershire County Council & Bromsgrove District Housing Trust, to generate a modest income to BDC

Typical Maintenance Activities



Activity / Month	Place	Parks	Framework Contractor	NWWM	Specialist Contractor
Litter picking	✓	✓			
Trash Screen clearance [#]	✓	✓	✓		
Himalayan Balsam pulling *			✓		
Japanese Knotweed Treatment	✓	✓			
Planting wetland species (if required)				✓	
Mowing / flailing more than 2m from bank top	✓	✓			
Bank top vegetation strimming **	✓	✓			
Bank face vegetation strimming ***	✓	✓	✓		
In-channel vegetation removal ***			✓		
Silt removal (Watercourse) ****			✓		
Silt removal (Ponds) ****					✓
Culvert Inspection (CCTV)					✓
Culvert Repair / Maintenance					✓

* Himalayan Balsam should be pulled before the plant flowers and seed pods develop; the times above are a general indication.

** Bank top vegetation (within 2m of the top of bank) should be cut once per year to a height of no less than 20cm.

*** Bank face and in channel vegetation should be carried out no more than once per year, and only 1/3 of the vegetation cut in any year.

**** Silt may be removed where it is causing an impediment to flow, but again no more than 1/3 of an area in any year.