

Manage invasive species

Project Summary

Title: Bourn Brook Giant Hogweed Control Pilot Project

Location: Cambridgeshire, England

Technique: Herbicide treatment of invasive species

Cost of technique: ££ (per annum)

Overall cost of scheme: ££

Benefits: ££

Dates: 2010 – on going

Mitigation Measure(s)

Manage invasive species

How it was delivered

Delivered by: Environment Agency

Partners: Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire (WTBCN)

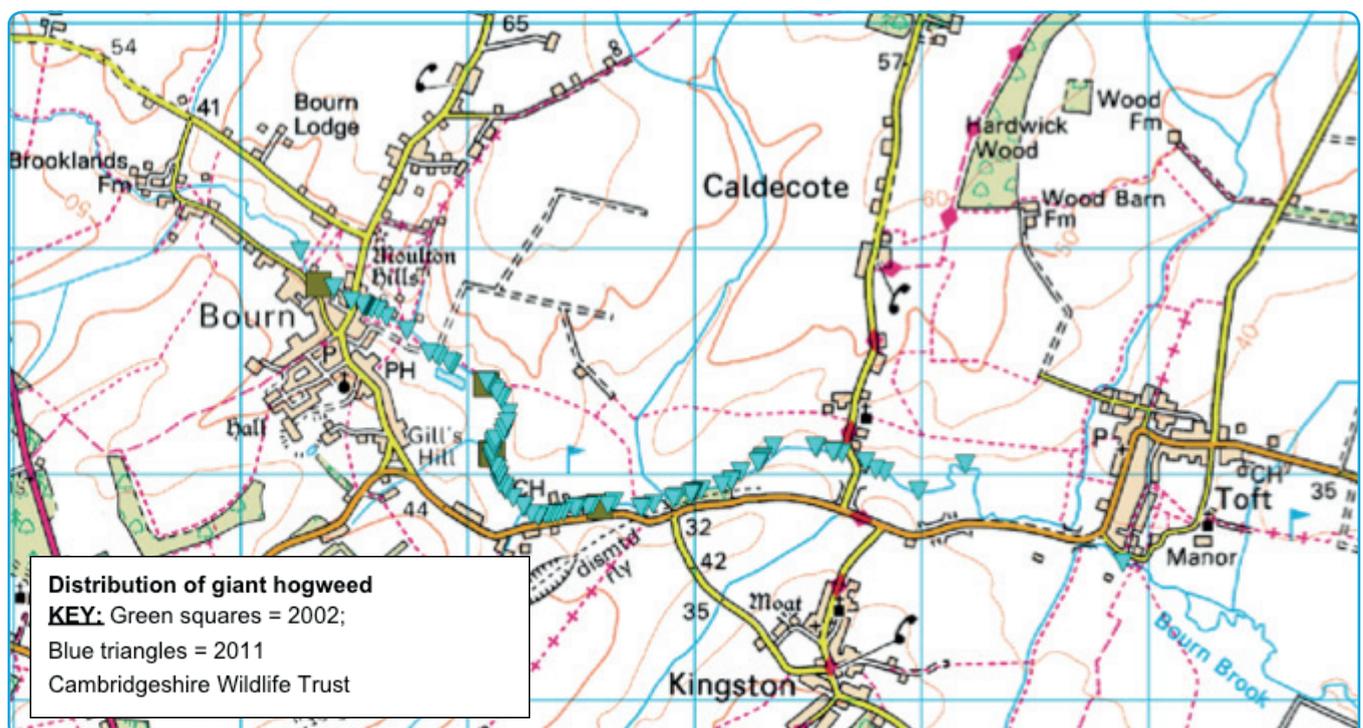


Environment Agency team spraying giant hogweed in one of the most affected areas.

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Background / Issues

An invasive species survey undertaken by the Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire in 2011 identified that this water body contained giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*). These invasive species were shading out native species, and during winter months when they died back left bare banks which increased sediment input to the brook at times of high flow. This survey was a repeat of a 2002 survey and showed a massive increase in the extent of giant hogweed during this time.



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Step-by-step

Pilot scheme

A pilot scheme was devised to establish if it is possible to eliminate giant hogweed from a water body, and how long this will take. In addition the pilot examined how well native species re-establish once invasive species have been removed. Giant hogweed seeds remain viable for up to 10 years in the soil so this is a long term undertaking. Bourn Brook was chosen as a pilot site to control giant hogweed for the following reasons:

- It is a relatively small water body.
- Control can be undertaken throughout the affected area.
- The site is at the upstream end of the catchment so there is no chance of re-colonisation from upstream.
- Detailed information was available on the extent of giant hogweed (WTBCN survey).
- Landowners were willing for the control to take place on their land.
- In-house resources using experienced operations staff were available to undertake the work.
- The Environment Agency was able to work in partnership with the Wildlife Trust, who were the main contact with landowners and undertook surveys.
- There are downstream water bodies that could become colonised if the giant hogweed was not treated.

Method

The most appropriate control method was glyphosate treatment. Spraying occurred early in the year (during April and May, once plants are easily identifiable) to prevent plants maturing and producing seed. A second treatment was applied in late summer to catch any plants which germinated later in the year. Another crucial part of the project was the control of the other Invasive Non-Native Species (INNS). WTBCN raised awareness of the issues caused by all the species and recruited local volunteers to control the Himalayan balsam. Land owners were also advised on the best management of giant hogweed



Extensive giant hogweed cover, 2011

Benefits

- From the first year's spraying the number of plants was greatly reduced from spring to September, indicating the treatment was successful.
- The partnership approach has established a strong relationship between the Environment Agency and the local Wildlife Trust. This is mutually beneficial as there would be much larger resource implications for both organisations if they attempted to address the INNS problem alone.
- Local community and landowners are engaged with the watercourse, and are working to reduce the problems caused by other INNS.
- Access to the brook has become safer as the number of giant hogweed plants is greatly reduced.
- Native species will re-establish, increasing the biodiversity value of the brook and preventing soil erosion during winter high flows – this represents a contribution towards overall improvement in water body status.

Lessons Learnt

- A whole catchment approach with excellent partners and volunteers means that it is possible to tackle a number of INNS successfully at the same time, in a cost effective manner.
 - The exceptionally wet year in 2012 meant it was not possible to spray the giant hogweed twice. This may reduce native plant species and increase time required to manage non-natives.
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