Removal of Himalyan Balsam.

Proposed Camp Site adj Lock 38

Marsden Lane, Marsden.

This information is provided to satisfy condition number 6 within planning approval reference 2019/90988.

Himalayan Balsam is present on the site and it is proposed to remove it by means of chemical control as described in the attached guidance produced by the Centre for Ecology and Hydrology.

It will be carried out during the months of April and May.

There is no Japanese Knotweed present on site.

April 2023.



Centre for Ecology & Hydrology
NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Aquatic Plant Management

Information Sheet 3: Himalayan Balsam

Himalayan Balsam *(Impatiens glandulifera)* is an introduced plant which has escaped from gardens and is rapidly colonising river banks and other areas of damp ground. It is an annual plant which grows to about 2 m with purplish-pink slipper shaped flowers in June - August. When the seed pods are mature, they explode when touched, scattering the seed. It is likely that the seeds are further spread by water movements. Himalayan Balsam forms dense stands which suppress the growth of grasses and native British plants leaving the banks bare of vegetation in autumn and winter and liable to erosion. Because Himalayan Balsam regrows annually from seed, any form of control carried out after the seed pods have formed will have no long-term benefit.

MECHANICAL CONTROL

The plant is easy to cut, either by hand or machine, provided there is adequate access. However, it often grows amongst bushes and brambles and in inaccessible locations on river banks. Unless the plant is cut below the lowest node, it will regrow and flower later in the season. Thus, a single cut is only effective if made very close to the soil level. Regular mowing will also control this plant even if the cutting level is above the lowest node, provided the frequency is sufficient to prevent the formation of flowers and seeds. Mechanical control is likely to be effective only in those locations where good access is available to ground smooth enough for close mowing and free of shrubs or bushes.

Small infestations can be controlled by hand pulling as the plant is shallow rooted. The seedbank lasts for approximately 18 months, so two years control should eradicate the plant if there is no further infestation from upstream

CHEMICAL CONTROL

Himalayan Balsam can be controlled by spraying the foliage with glyphosate. The plants should be sprayed in the spring before flowering but late enough to ensure that germinating seedlings have grown up sufficiently to be adequately covered by the spray. Glyphosate is sold under a number of product names.



Small infestations and individual plants can be controlled by using glyphosate in a weed wiper. This has the advantage of preserving native plants and grasses which would otherwise be killed by the glyphosate.

The herbicide 2,4-D amine controls many broadleaved annual weeds and may also be used to control this species. This selective herbicide

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will not kill grasses which help to stabilise banks and so may be preferable to glyphosate in those situations where the weed has not produced complete cover of the grasses. A long-lance sprayer may assist in the spraying of less accessible areas out of the reach of conventional knapsack sprayers.

BIOLOGICAL CONTROL

Although no specific biological control agents are known to control this species, regular grazing of infested areas by cattle and sheep are likely to prevent the spread of Himalayan Balsam either by grazing on young seedlings or by trampling.

ENVIRONMENTAL CONTROL

The only environmental control likely to suppress the invasion of banks by this weed is the maintenance of a dense grass sward. This helps to prevent the germination of seedlings. However, once established, the shading effect of Himalayan Balsam suppresses grasses, thus encouraging further seed germination.

BEST OPTION

Control existing infestations of Himalayan Balsam by spraying with glyphosate, 2,4-D amine or by regular cutting. Carry out regular inspections of the banks in spring and hand pull or spot treat any germinating seedlings with a weed wiper or knapsack sprayer.:

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