Alternatives to Dredging

The likely cost of dredging should be compared with the value of the crop expected from the affected land. When agricultural returns are low, consider switching to a more flood-tolerant crop, such as grass, instead of dredging to protect a susceptible crop which may not repay the cost.

Where excessive plant growth is a problem, can this be reduced by controlling excess nutrients? Can the weed be cut effectively? If herbicides are to be used in or near water you must consult SEPA.

Flood plain management, wetland creation and management and waterside buffer strips are all eligible for support for up to ten years through the Rural Stewardship Scheme. There are also local initiatives which assist the sensitive management of watercourses. For more details, contact the organisations listed.

There are now grant schemes to support the alternative use of land alongside watercourses. Riparian woodlands attract capital grants for establishment, with annual payments for up to 15 years.

Contacts

For more information and advice, contact:

Scottish Environment Protection Agency (SEPA), Greyhope House, Greyhope Terrace, Torry, Aberdeen AB1 3RD

Scottish Natural Heritage (SNH), 17 Rubislaw Terrace, Aberdeen AB10 1XE

Farming & Wildlife Advisory Group (FWAG), Old Estate Office, Cluny Castle, Sauchen, Inverurie AB51 7RT

NFU Scotland Thainstone Agricultural Centre, Inverurie AB51 5WV

Dee District Salmon Fisheries Board, Mill of Dinnet, Aboyne, Aberdeenshire AB34 5LA

Deveron Bogie Isla Trust, The Stables, Avochie, Huntly, Aberdeenshire AB54 7YY

Ugie Salmon Fisheries Board, Broad House, Broad Street, Peterhead AB42 1HY

Don District Salmon Fisheries Board, 214 Union Street, Aberdeen AB10 1QY

Esk Salmon Fisheries Board, Greywalls, Ecclesgreig Road, St. Cyrus, Montrose DD10 0BH

Ythan Salmon Fisheries Board, Estate Office. Haddo, Tarves, Aberdeenshire AB41 0LD

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Illustration & layout by Morag Lawrence

Dredging, Ditching & Drainage

Minimising the risks to wildlife

Did you know?

- Salmon and trout fishing in Scotland brings in £400 million per year
- The freshwater pearl mussel can live for 100 years. Its stronghold is in N. E. Scotland
- The watervole is in dramatic decline, but still survives in N. E. Scotland

You risk destroying these by dredging and ditch cleaning.

Dredging to maintain the productivity of land is expensive and disruptive, and no-one does it lightly. This leaflet aims to help you reduce the need to dredge, and to advise on how to reduce the impact if dredging is unavoidable.

North East Scotland is famous for its clean rivers, with their first class salmon fishing and wonderful wildlife. A river is only as good as its tributaries, and the way you manage water on your land could have effects far beyond your own farm boundary. So, when thinking of dredging, it is essential to carry out the work to the highest standard and in a way that reduces the risk to wildlife, both in the water and alongside it.

Why Dredge?

Ditches and watercourses must run freely to remove excess water from the land. They may become blocked by:

- silt from erosion, either within the stream itself or from land draining into it. Soil erosion and consequent siltation may come from livestock trampling, close cultivations, run-off from bare land, especially over winter, or from tracks, forestry operations and moorland drainage.

- bank collapse caused by livestock trampling, cultivations too close to the bank top, or by previous dredging when the banks were cut too steeply.

- excess vegetation, often linked to run-off of fertiliser or manure and occasionally, chronic pollution through seepage from slurry lagoons, stock-yards, septic tanks or silage effluent.

It may be possible to take steps to prevent ditches becoming clogged, so avoiding the expense of dredging, and the damage to the environment it can cause.

Think before you dredge, and always dredge with care.

Reducing the need to Dredge

It is usually cost-effective to deal with sources of sediment rather than to treat the symptoms through dredging or sediment traps. To identify these sources, walk the fields during a rain event and look for brown water run-off in ditches, drains and gateways.

If silt comes from livestock trampling, consider fencing off the watercourse leaving just a watering. Off stream watering facilities such as troughs or pasture pumps are even better, as they remove livestock from banksides completely. Further details on techniques and grants can be obtained from the organisations listed.

Silt from arable land can be filtered out by buffer strips of vegetation between the crop and the watercourse. Ploughing across the natural slope limits erosion and the resulting loss of valuable soil into the watercourse. This applies to the whole of the farm, not just fields next to burns. Leaving stubbles over winter will also reduce soil erosion and nitrogen loss. Under the Local Environment Risk Assessment (LERAP) rules, there are restrictions on the use of many pesticides near watercourses. This may make growing

Reduce the need to Dredge cont..

arable crops next to burns uneconomic, and grants for buffer strips more attractive. Set-aside rules also allow for 10 metre strips alongside watercourses.

Where farm tracks, forestry works or hill drainage are to blame, installing silt traps at the drain outfall can be cheaper, less time-consuming and less disruptive than dredging the whole watercourse. Building headwalls to drain outlets also reduces erosion and downstream siltation. Silt traps need regular cleaning, but this is less expensive than dredging a whole watercourse.

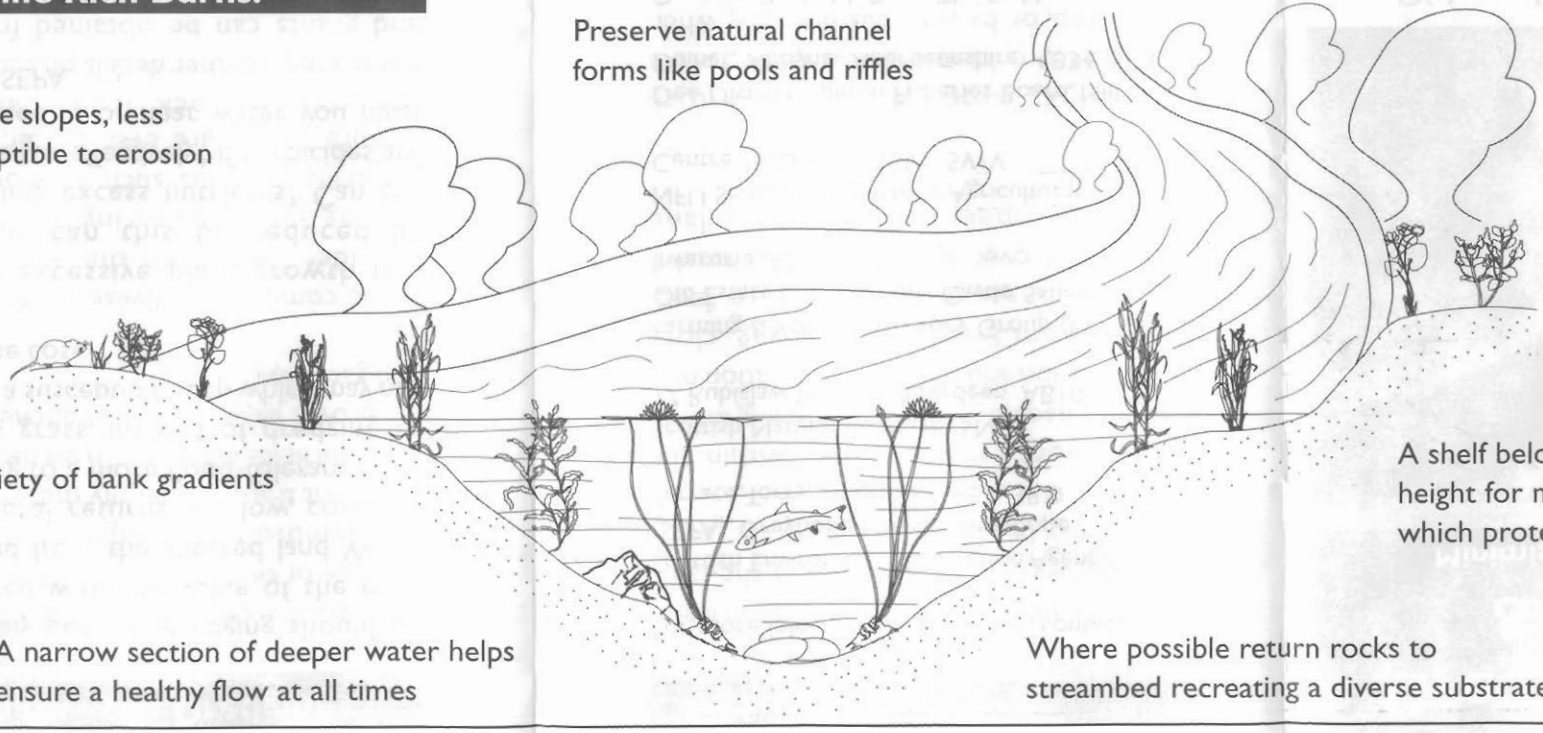
If silt is coming from upstream of your holding, it may be possible to install a silt trap at the upstream boundary, with SEPA's advice. Alternatively, (and more cheaply), an approach to your neighbour may draw attention to an unknown problem.

If the watercourse is clogged by vegetation, a good look at the way fertilisers and manure are spread could reduce the growth rate, save you money and avoid the risk of prosecution for water contamination. Planting native trees and shrubs restricts light to aquatic vegetation, so limiting its growth and reducing the need to dredge.

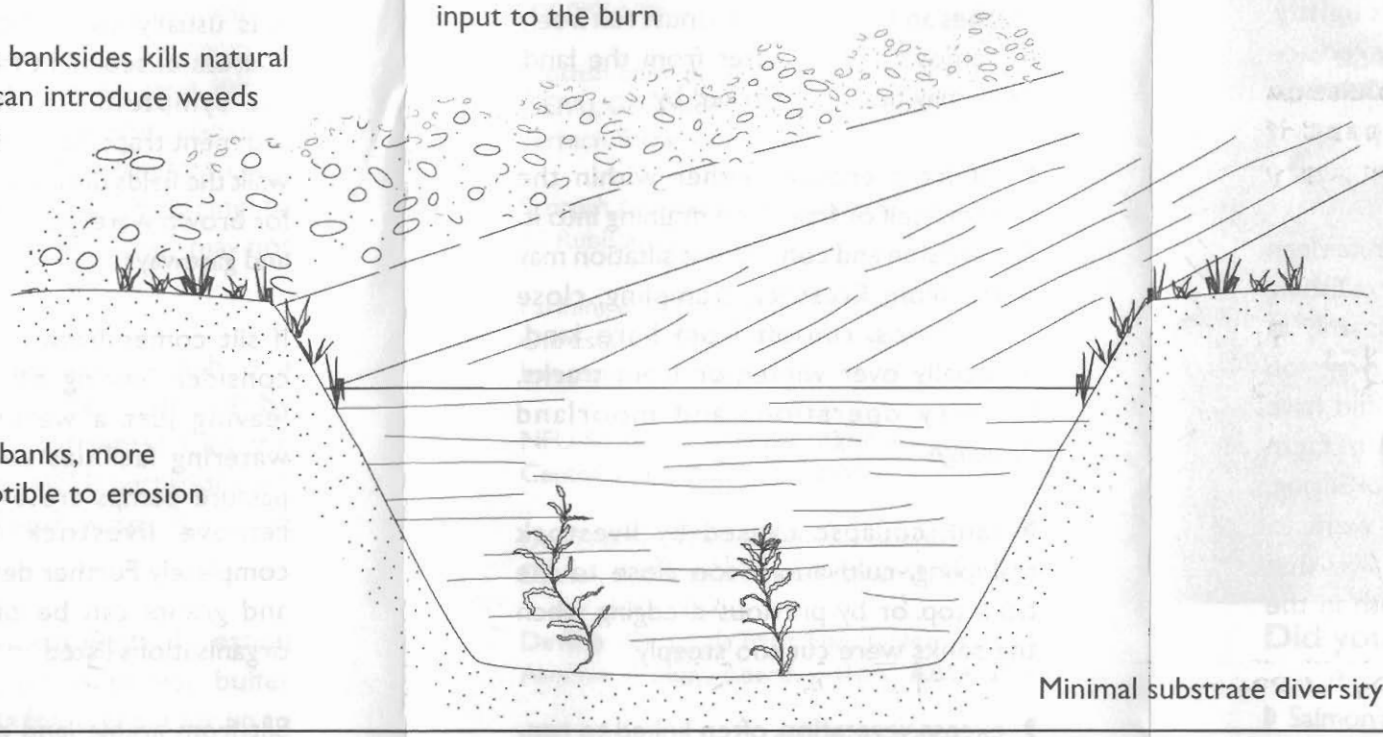
Best practice in techniques such as minimum tillage and undersowing, altering livestock housing, grazing or outdoor feeding regimes will often be the most cost-effective in the long-term.

Remember, when dredging burns on your farm, what you do for your own business can have unexpected implications for somebody else's.

Wildlife Rich Burns:



Degraded Burns:



If you still have to Dredge:-

*** Remember there may be legal implications associated with dredging. Check that your plans avoid disturbing protected species, or breaching local regulations or designations.**

* Install temporary silt traps downstream of the site. These will collect sediment released during the work and while banks are still exposed. Remember to empty them regularly.
* Aim for the least disruptive solution. Never take machinery into the watercourse itself.
* Work at the appropriate time of year ideally in the summer months to reduce the impact on wildlife.
* Never dredge the whole watercourse at once. Try to do only one bank at a time, or short sections where clogging is at its worse. At least one third of the channel width should remain untouched, to provide a refuge for wildlife and plants.
* Work from the lowest point upstream. This helps uprooted vegetation float down and recolonise dredged banks, thus reducing the time they remain prone to erosion.
* Consult other waters users likely to be affected