

Arbour - A project to renew the South Oxford Canal tow path hedge & establish organic bio-diverse refuges on the off side of the canal.

Having lived on or very near the canals for over forty years it is from experience I wish to help renew the canal environment. The biodiversity that the hedge provides can be viewed as the back bone of the countryside. The hedge represents a fabulous resource that must be preserved & renewed for the future.

Taking into account the enormous cost of upkeep ways must be found to provide volunteer "ownership" that leads to constant interest and upkeep in this resource.

Part one-Hedge/tree propagation and planting on the off-side of the canal.

This part of the project should encourage local primary schools to become involved via Forest Schools Activities. Hopefully, colleges of education will find opportunity to involve undergraduate and graduate trainees in experiences to apply in other areas throughout their careers. This project will also rely on volunteers from CRT itself or indeed support via the newly formed Banbury Canal Partnership (BCP).

In essence teachers & children are asked to participate in collection and propagation of hedging and tree seeds. Hawthorn berries, wild rose hips, acorns, ash seeds, hazel nuts, etc can all be collected in the Autumn. These can be propagated in seed trays obtained from local horticultural units. The trays are now of very thin plastic and are often discarded after planting. Compost for planting medium is obtainable from most local councils free of charge. Research as to which seeds will provide the most benefit for insects, birds, and general biodiversity can be done by students in directed research lessons.

Example- Oak will provide habitat for dozens of species as opposed to Horse Chestnut providing for only a few; but Horse Chestnut has been part of the landscape forever. This also introduces the idea of altruism as oak takes so long to mature it is difficult for the planter to realize any "profit"; it is done for the next generation rather than for self.

As planting out is best done in the Autumn it should be encouraged to let the students take the plants home for the summer recess to nurture and look after them. They can be brought back to school in the Autumn and planting out organized. As Canal and River Trust presently has a policy of not allowing trees to be planted along the tow path side of the canal that side will be limited to hedging plants. Permission from local land owners on the off side will need to be obtained for tree planting. This is a great opportunity to accomplish several aspects of canal protection.

In the Upper Cherwell Valley we already have a Nitrate Vulnerable Zone Status (NVS). Use of animal waste and Nitrate fertilizers can often be over applied and inevitably finds its way into ground water and eventually canals and can end up in drinking water supplies. The nitrate is very difficult to remove and does cause health and navigation/amenity problems (eutrophication/microbial matting-research topics). Nitrates are not alone; insecticides(neonicitoids) , moluscides (malathon), herbicides (glycophosphates etc), hormone-type weed killers and even residuals like DDT can end up in the water from agricultural runoff and also from industrial sources sometimes found on large farms or industrial areas near canals or feeder streams that empty into the canals.

By planting hedging on the off side of the canals to act as a biological barrier to the ingress of these substances it would reduce their quantity and impact. The landowner would need to be responsible for protecting the plantings from cattle if the edge of pasture land is involved. This “off side” bank protection would indeed be greatly welcomed as often the animals are breaking down the edge of the canal causing soil and other material to end up in the navigation; this is a huge drain on maintenance cost as this material hinders navigation and inevitably must be dredged out and disposed of. Often due to lack of off-side bank protection animals are also using the canal as a source of drinking water; this is serious as unknown quantities of a variety of possibly harmful substances are entering the food chain. The farmers will be responsible for protecting any planting and in exchange will own the valuable hedging that result from this project. Help from the National Farmers Union, The Country Landowners Association, and the local council would be most helpful (Research Topic). The carbon sequestration capacity (research topic) will be in the ownership of The Canal and River Trust providing them with additional income to add to the resource of the Towpath Hedgerow/Forest’s value.

Thus, by involving students in growing, looking after, and planting out hedging we will encourage “grass roots ownership” in the canal and hopefully the wider environment. If the concept of protecting the canals and other water resources from abuse and their impact in the production of food (canals are often the source of water for irrigation as well as drinking water for animals and people) can be introduced at an early age it will reduce the low value often exhibited towards the canal as being a place to get rid of rubbish.

Part Two

The Carbon Sequestration value of the estimated 2000 acre forest that the canal towpath represents over the entire area of England is estimated to be about half a million pounds per year (£500,000). Although the value of carbon credits fluctuates, sometimes wildly, it must be seen as only being worth more in the future. But the wholesale value can be multiplied by retail sale to the general public.

Everyone pollutes, most folks find it difficult to actively do anything about the pollution they cause. If the carbon sequestration capacity of the tow path hedge could be packaged and offered to the general public it would provide a tangible and effective way for CRT to raise money and moreover give the donating public a form of “ownership”. Again, this idea of ownership would induce a higher respect for the canal. And also provide a higher value in the public consciousness for a resource that is often abused.

Certificates in values of £5 up to say £100 could be issued (maybe electronically) giving the donator “ownership” of the carbon sequestration value of so many metres of the canal hedge for a year. The exact position of their bit of hedge does not matter; nor do they own anything that can be claimed and removed. Everyone feels good about helping the environment and CRT gets a source of income that should be used directly to further improve and maintain the hedge. A forest management plan would be an excellent expenditure.

PART THREE-Ash cut to remove the threat of Chalria Flaxina spreading.

When the Arbourists has identified the trees that need to be cut out due to age or disease boats licensed as Environmental/Agricultural WORK BOATS (hopefully the licence can have a green background) can remove the cut billets to a place where they can be stored to season. The timber can be cut, split, bagged, and sold from boat yards to raise money for CRT or local canal partnerships who can be involved in the project. The bagged firewood can even be sold at festivals where fires are allowed; i.e. Glastonbury Festival of The Performing Arts.

If the wood is not able to be free of the spores that cause the disease then the billets can be turned into charcoal and sold in marinas etc. for bar-b-ques.

At present the billets of cut wood are left on the tow path for all and sundry to take away. This is a practice that by omission is spreading the disease further along the canal. This policy must change as the disease if it is to be managed must not be encouraged to spread.

It is hoped that enough money can be raised to provide for a proper Forest Management Plan to be put into place. Yes, this will require loads of volunteers to maintain the trees/hedging plants. This army of helpers will spring from those children/adults that value the canals more highly as they helped preserve it maybe when they were in school via a project to collect, plant, and help protect the canal hedge.

Suggested requirements

Local school willing to participate with their students who will be in the school again the following Autumn. This would work with Primary or Middle School Students or indeed High School or tertiary level students or trainee teachers.

Volunteers drawn from local area or partnership organizations or indeed from general CRT listings.

Permission for hedging plants in the towpath hedge.

Permission for planting on “off side” land; farmer/land owner must agree to maintain and treat organically....no chemicals may be used/farm animals kept off these patches of land.

Formal written agreement with farmer/landowner that they own the hardware (plants) but CRT will forever own the Carbon Sequestration Value of the plantings.

Pair of working boats licensed as Environmental/Agricultural Work Boats. These boats must be allowed to carry up to 7 tonnes for purposes of this project. For ease of insurance purposes volunteers will not be allowed on any of the boats; they will simply drop the billets into the hold of each boat.

Close liaison with the teams that are contracted to cut out trees each winter.

Wharf/s with sufficient area to season the cut billets and process.

Marinas or other outlets willing to accept sealed bags of wood for stoves or charcoal at acceptable retail price and percentage going to CRT as a funding source.

Close cooperation of the folks with chainsaws cutting out along the canal.

Background information gathered to support this proposal:

- i) Looking forward to the next 10 years-Developing a plan for South East Waterways. Oxford Canal Corridor, Canal & River Trust**
 - a) Develop a stronger sense of community pride, ownership and responsibility and raise awareness of the canals.**
 - b) Cherish, conserve and enhance, key heritage, environmental qualities and landscape character of the waterways which make them special.**
 - c) Work with others to realize the full regeneration potential that waterways can deliver to benefit local communities and the Trust.**

ii) Objectives

- a) Promote vole habitats & soft bank enhancements.**
- b) Mitigate ingress of agro-chemicals.**
- c) Provide encouraging environs for pollinators in an off line environment – Bumble Bees are not best placed in the towpath hedge.**
- d) Make canals more interesting places to visit.**
- e) Enhance environmental qualities & landscape character.**

- f) Provide focused opportunity for volunteers from Banbury Canal Partnership
- g) Provide a source of sustainable income for CRT.

iii) Supporting References

- a) State of Nature Report 2013 A major report from collaboration of 25 UK conservation and research organisations indicating major decline in countryside birds, insects, flowering plants, etc.
- b) Waterways World-Jan 2014, page 25. Trust Vows to tackle offside vegetation.
- c) British Farmer & Grower- Nov 2013, page 48, Farmers urged to consider a Woodland Management Plan. Page 49 UPM advertisement offering help to manage woodland.
Oli Hands Oli.Hands@upm.com
- d) National Farmers Union-Oxfordshire County Adviser-Annie Vernon Annie.vernon@nfu.org.uk Tom Ormesher Regional Environment & Land Use Adviser Tom.Ormesher@nfu.org.uk
- e) Canal and River Trust Lee King- Maintenance Manager South East
Dan Barnett-Hedgerow contract provider, Peter Birch-
Group Environment Manager, Ruth Ruderham-Chief of Fundraising, Jonathan Hart-Woods, etc.
- f) Ken Atack-Cherwell District Councillor & Member CRT
South East Waterway Partnership
- g) Southeast Farmer Nov 2013, page 70-Costing the Earth.

With DEFRA moving from 9% of CAP payment up to 12% into 2nd Pillar (Environmental Schemes) it would be a wise and prudent move to prepare as soon as possible a woodland management scheme to capitalize on grants that may become available in the near future to support maintenance of the canal hedgerow and bio-diverse corridor; it is, in my opinion, the trend for the future.

The area under consideration for this project will fall within the Banbury to Fenny Compton stretch along the South Oxford Canal. This is largely within the area covered by The Banbury Canal Partnership but extends to usable winding holes to facilitate boat movements.

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