

SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL

REPORT TO Conservation Advisory Group 28th May 2003
Leader & Conservation Portfolio Holder
AUTHOR/S: Ecology Officer

HISTON POND – A REVISED ENHANCEMENT PROPOSAL

Purpose

1. To update Members on the revised enhancement scheme for Histon Village Green Pond and to seek authority to progress the scheme in the revised form.

Background

2. A report was presented to Members on the 27th November 2002 detailing extensive ecological enhancement proposals to the pond. The total cost of the works (by using specialist contractors) was estimated at £20,000.
3. The need for the scheme originated from a request by the Parish Council who were concerned at the general appearance of the pond and the level of accumulated silt within it. The previously proposed scheme involved the extensive creation of silt reception bays to allow the central part of the pond to be desilted. The dredged silts would then have been used to create marginal habitats. This would have eliminated the need to take the dredged silts off-site whilst the biodiversity value of the pond would be significantly increased. Originally there was also a proposal to re-profile some of the bank areas.
4. A product called nico-span was considered to be appropriate to use. Nico-span is a finely woven synthetic mesh. The mesh is installed vertically with the use posts to create a “wall”. Behind this wall silts can be deposited. On top of the deposited silts marginal plants can be established to create an ecological diverse habitat.
5. The pond is part of an Award Watercourse, as such Members felt that a significant contribution towards the enhancement of the pond should come from the Council’s own Land Drainage section.
6. Reservations were also expressed regarding the Ecology Officer’s choice of materials and techniques.
7. Members resolved that:
 - i) The Ecology Officer be allowed to develop an enhancement scheme for the pond at Histon Green up to tender stage and report the design options and tender costs back to the Conservation Advisory Group; and
 - ii) That, once the cost implications are clear, additional financial contributions be sought from the Land Drainage section of the Environmental Health Department and other external sources.

Considerations

- 8 A range of different methods to retain the dredged silts have been considered together with the Land Drainage Manager. These methods are presented in table 1 of appendix 1.
- 9 The use of nico-span combined with pre-planted coir rolls to create a silt reception bay is still the favoured option. However, where four work areas had previously been identified now only one area will be worked upon. This significantly reduces the cost and the risk element should the materials not perform as expected.
- 10 The cost of the materials is now expected to be no greater than £2000. The materials will be purchased by the Parish Council and installed by the Land Drainage section's work force. This eliminates the expense of using external contractors. The use of the in-house work force also significantly increases the Land Drainage section's financial input to the scheme.

Table to show project contribution breakdown

Partners	Project contribution (estimated)
Histon Parish Council	£1000
Conservation Section	£1000
Land Drainage Section	6 man days plus use of desilting machine

- 11 The project will progress in three phases:
- i) *The construction phase* - Approx 38.5m of nico-span is installed to create silt reception bays extending out to a depth of 1m. The nico-span is tapered in where it nears the footbridge. Additional lines of posts are driven in over a distance of 15m to receive a pre-planted coir rolls at a later date.
 - ii) *The desilting phase* - An area of the pond is desilted at a date convenient to the Land Drainage section. The silts are placed behind the nico-span wall where they will form a marginal bay.
 - iii) *The "greening" phase* - Pre-planted carpets and pre-planted coir rolls are ordered to be grown especially for the situation. The products are delivered on to site at a pre-arranged date (this will ensure that the desilting phase has been completed). The pallets and rolls can be installed by volunteers from the village or the Green Belt Project assisted by the Ecology Officer.
- 12 It is anticipated that the work will commence in October / November after the main period of maintenance work for the Land Drainage section. However, if an opportunity arose to undertake the work before then it would be fully explored with the Land Drainage Manger.
- 13 Given the relatively limited amount of bank to be enhanced it will be necessary to consider the use of wire to prevent ducks from eating and trampling newly planted vegetation.

Options

- 14 I) To support the revised scheme (as detailed in paragraph 9 above) proposed by

the Ecology Officer and to authorise a presentation and further discussion with the Histon Parish Council.

II) To reject the revised scheme outlining reasons.

Financial Implications

- 15 The revised costs represent a substantial saving on the proposal previously presented to the Advisory Group. However, the quality of the build should be assured through the use of our in-house work force.
- 16 It is proposed that the Parish Council be grant-aided to 50% through the Wildlife Enhancement Scheme from the 2003/04 budget.

Legal Implications

- 17 None specific.

Staffing Implications

- 18 None specific.

Sustainability Implications

- 19 The use of dredged silts to provide aquatic habitats represents a sustainable use of a material that would otherwise have to be removed from the site.

Consultations

- 20 This revised proposal has been developed with the Land Drainage Manager.

Conclusions/Summary

- 21 The revised enhancement scheme represents a significant reduction in expenditure from that previously presented in November.
- 22 The revised scheme is a scaled-down one, thus limiting the possibility for technical difficulties to occur.
- 23 The revised scheme will still deliver biodiversity and land drainage benefits to the pond. Once the success of the scheme has been evaluated it may be appropriate to consider undertaking similar works at the pond or at other sites across the district.

Recommendations

- 24 It is recommended that the Conservation Advisory Group resolve to advise the Conservation Portfolio Holder to accept option I.

Background Papers: the following background papers were used in the preparation of this report:

“Proposed Enhancement of the Pond at Histon Green” a report presented to the Conservation Advisory Group, 27th November 2002

Appended items:

Table 1 – Summary of Techniques

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Appendix 1 - Histon Pond Enhancement – summary of techniques

Method	Benefits	Disadvantages	Estimated cost per metre
Spiling (willow weaving)	<ul style="list-style-type: none"> ·Can be installed to create a living screening, thus lasting longer than “dead” wood. ·Provides good habitat for small fish and invertebrates. ·Looks attractive and traditional. ·The weaving process can closely fit with any undulations in the bed of the pond. 	<ul style="list-style-type: none"> ·The gaps formed between the weave are unlikely to adequately hold the fine silts dredged from the pond. ·A screen of fresh willow may obstruct views and may need management. ·May only last 10-15 if kept wet. Parts exposed to air due to water fluctuation will decay relatively quick compared with other methods. ·The weaving of willow is relatively time consuming and requires a very large amount of suitable material to be brought on to site. ·Vertical posts will need to be put in at approx 0.4m gaps in order to hold the spiling. 	£50
Hurdles (woven wooden fences)	<ul style="list-style-type: none"> ·Can be installed relatively quickly. ·Hurdles can be bought and transported to the site as required. ·Provides good habitat for small fish and invertebrates. ·Looks attractive and traditional. 	<ul style="list-style-type: none"> ·The gaps formed between the weave are unlikely to adequately hold the fine silts dredged from the pond. ·May only last 10-15 if kept wet. Parts exposed to air due to water fluctuation will decay relatively quick compared with other methods. ·Hurdles tend to come in standard sizes that may not “fit” the dimensions of the pond. 	£40
Faggots (bundles of cut hazel)	<ul style="list-style-type: none"> ·Can be installed relatively quickly. ·Provides good habitat for small fish and invertebrates. Looks attractive and traditional. ·The flexible nature of the bundles may allow them to fit with any undulations in the bed of the pond. ·Faggots can be bought and transported to the site as required. 	<ul style="list-style-type: none"> ·The gaps formed between the brushwood may not adequately hold the fine silts dredged from the pond. ·May only last 10-15 if kept wet. ·Parts exposed to air due to water fluctuation will decay relatively quick compared with other methods. 	£20

Concrete or stone edging	<ul style="list-style-type: none"> ·Very strong and robust. Can be installed by non-specialist contractor. ·Would hold dredged silts if an additional frontage were created. 	<ul style="list-style-type: none"> ·Provides a degraded habitat from that which is already present. ·Looks unsightly and urban. 	£60
Wooden revetment	<ul style="list-style-type: none"> ·Relatively strong and robust. ·Can be installed by non-specialist contractor. ·Would hold dredged silts if an additional frontage were created. 	<ul style="list-style-type: none"> ·Provides no-change from that which is already present. 	£60
Nico-span	<ul style="list-style-type: none"> ·Very strong and robust as it is specifically designed for the purpose of silt retention. ·Relatively unobtrusive in appearance being black. ·Become partially vegetated in time. ·Relatively easy to install by specialist contractors. ·The flexible nature of the material enables it to be fitted to the varying nature of the pond's bed. 	<ul style="list-style-type: none"> ·It is a relatively new technique in the area with no suitable examples in the district. 	£12.9