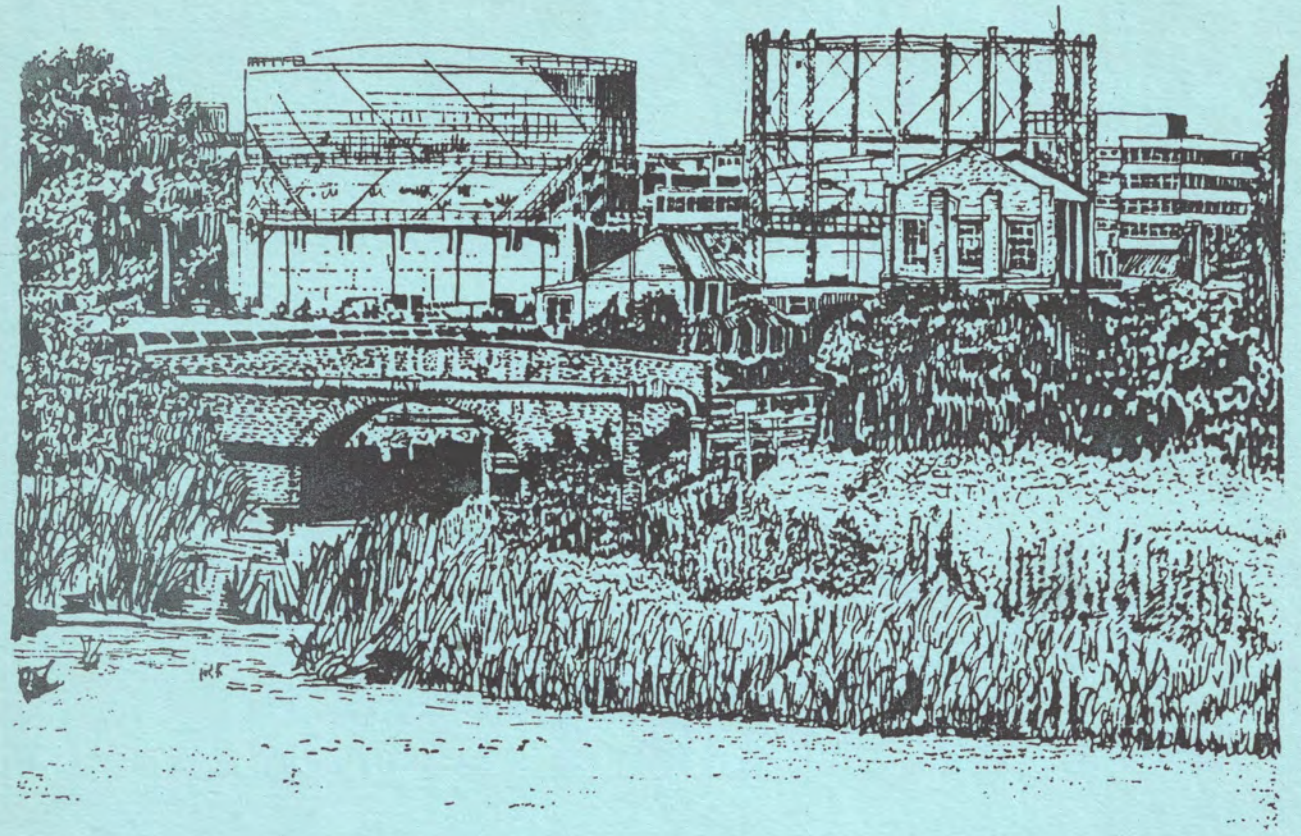

Springfield Basin ... and Beyond

A report on Chelmford's Waterways

Prepared by the Chelmsford Branch
of The Inland Waterways Association

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MAPS AND ILLUSTRATIONS

SECTION 1 - INTRODUCTION

The Inland Waterways Association

1. The Inland Waterways Association (IWA), formed in 1946, is a company limited by guarantee and is registered as a charity. It campaigns for the restoration, retention and development of inland waterways in the British Isles and their fullest commercial and recreational use.

2. It currently has in excess of 20,000 members. In addition, over 50 Canal Societies and Trusts (many formed with IWA assistance) are corporate members.

3. The IWA has over 30 Branches around the country, of which the Chelmsford Branch is one.

4. The IWA has been involved (latterly through the Waterway Recovery Group) in many restoration schemes - re-opening over 150 miles of canal and river navigations, and preventing the closure of very many more miles.

Waterway Recovery Group Ltd.

5. Waterway Recovery Group (WRG) was formed in the 1960s by the Secretary of IWA's (then) London & Home Counties Branch. It initially only produced a duplicated magazine 'Navvies Notebook' (now called 'Navvies') and had a small London-based group of volunteers.

6. Over the years it has grown into "the National co-ordinating body for voluntary labour on the inland waterways of Britain" and has developed much expertise in restoration matters. It is now a fully-owned subsidiary company of IWA.

The Chelmer & Blackwater Navigation

7. The canal is most unusual in still being operated by the original, privately-owned, company - The Company of the Proprietors of the Chelmer & Blackwater Navigation Ltd. ('The Company').
Before starting to plan any works, consultation MUST be held with, and permission obtained from, The Company.

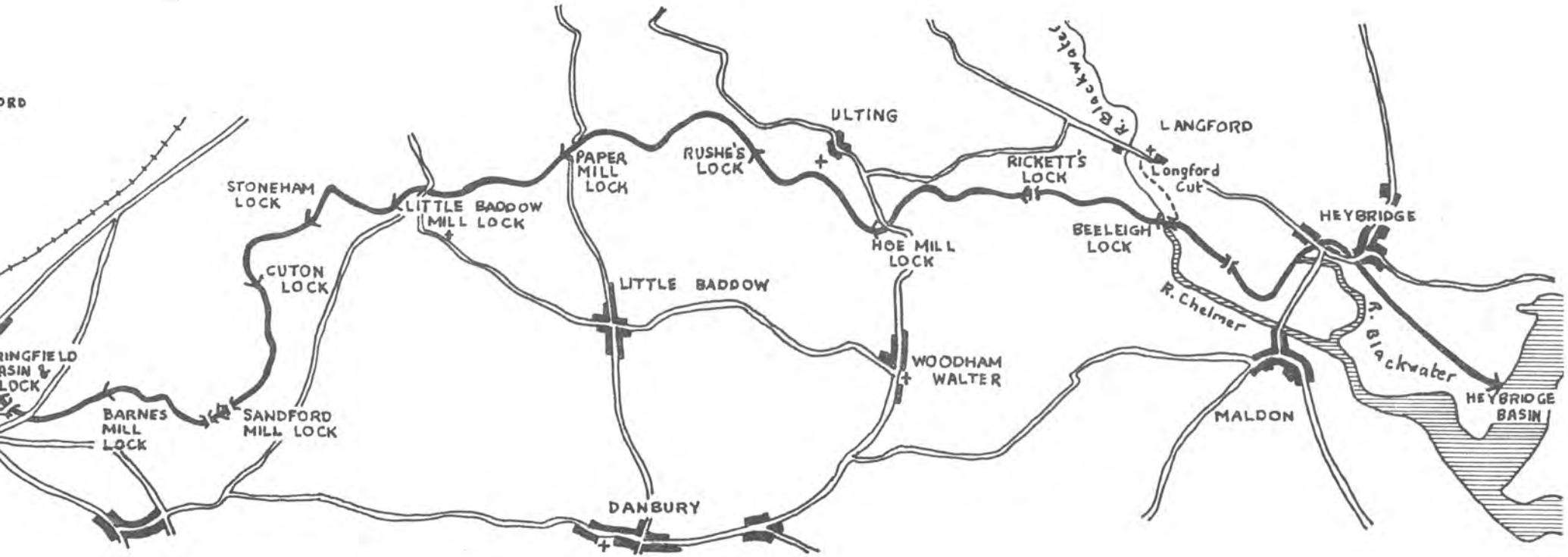
8. In June, 1793, an Act of Parliament was passed authorising the construction of a canal from Heybridge to Springfield. John Rennie was appointed as Principal Engineer and building operations commenced in October of that year. The canal opened in 1797. It consists of 13½ miles with 13 locks.

9. The Navigation allowed barges to travel from Heybridge Basin to Chelmsford bringing cargoes such as coal, timber, lime etc. which had been transported by water from various parts of the country. With the advent in 1843 of the Eastern Counties Railway, trade started to decline.

10. In the late 1960s, all trade on the Navigation ceased, and until 1973, the only traffic (apart from canoes) were the Company's maintenance boats.

11. In 1973, the IWA held a rally of boats at King's Head Meadow, thus introducing the first pleasure craft to use the canal above Heybridge Basin. This paved the way for about 75 craft currently moored at Paper Mill Lock and Hoe Mill Lock.

12. In the late 1970s, vandals damaged the bottom gates of Springfield Lock. These were not repaired and the lock has decayed from then, assisted by more vandalism.



CHELMER AND BLACKWATER NAVIGATION

13. This has meant that Springfield Basin is unusable by boats. The lack of use has resulted in silting up, weed growth and rubbish accumulation.

14. At the present time, Springfield Basin lies neglected in the midst of an industrial area with only limited and obscure pedestrian access. Only the south east end is used by the occasional angler or walker.

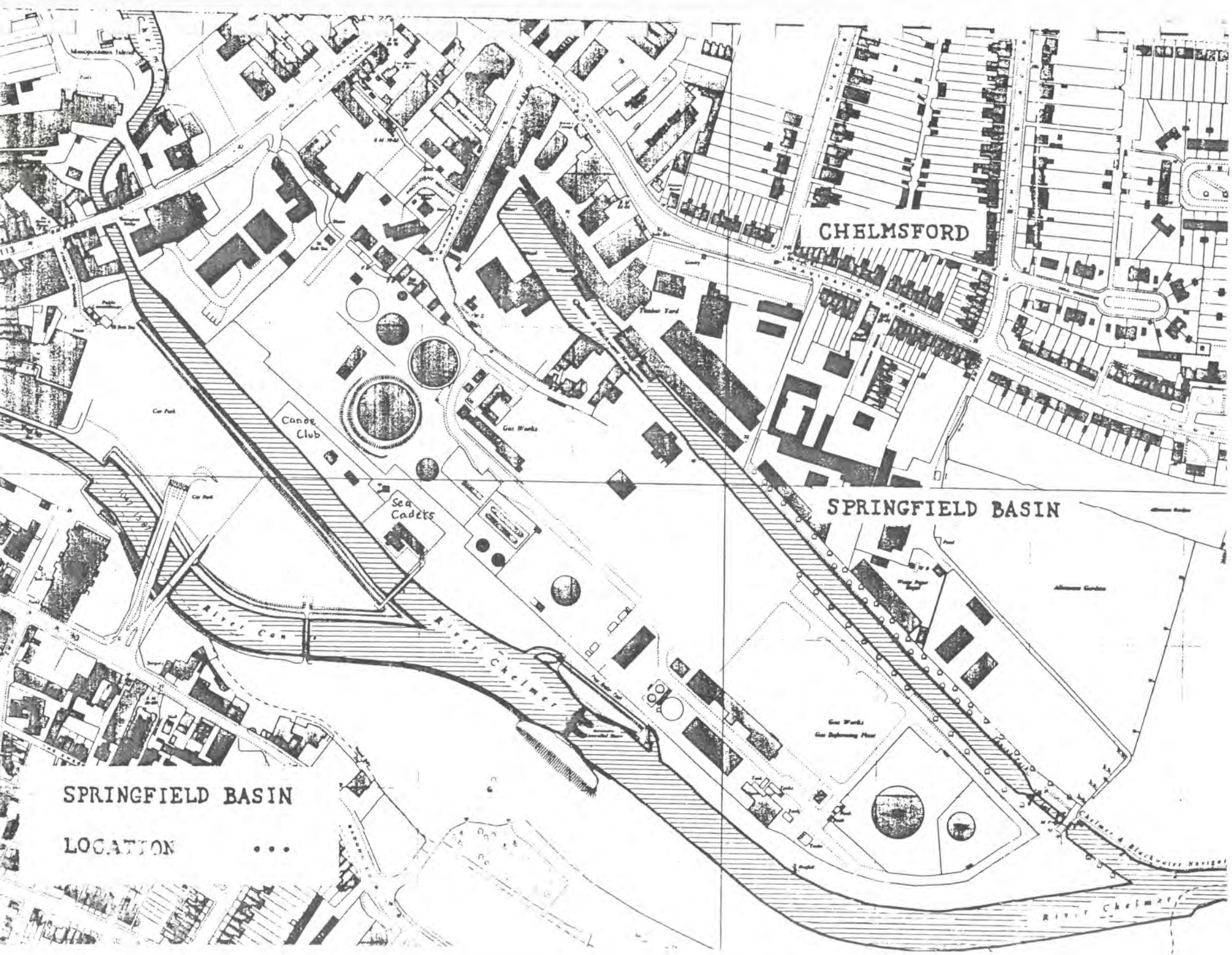
15. The majority of the population of the town is unaware even of its existence, let alone its potential.

16. During the last decade, a great awareness of our architectural and historic heritage has developed. This has been seen nationally in the numerous, and often ambitious, canal restoration projects, such as the Stratford Canal, the (Stratford) River Avon, the River Great Ouse and the Kennet and Avon Canal.

17. The realisation of the potential of Chelmsford's past industrial heritage has also recently been shown nearby with the imaginative re-use of the former Grays Brewery complex for an attractive shopping area.

18. Current proposals for extending the shopping areas of Chelmsford will bring new development alongside both the River Can and River Chelmer and closer to the Springfield Basin.

19. At the same time, with the redundancy of the Gas Works, a large and unused area of town centre land which occupies most of the south western side of Springfield Basin could be available for re-use. With high land values and rural areas being lost to continually spreading towns, it is sound planning sense to re-use redundant town centre land to maximum advantage.


CHELMSFORD
SPRINGFIELD BASIN
Canoe Club
Sea Cadets
River Chelmer
SPRINGFIELD BASIN
LOCATION ...

20. The opportunity must not therefore be lost to provide a well-designed waterside amenity which can breathe life into this old and virtually abandoned area and also open up to the people of Chelmsford the recreational facilities of not only the Springfield Basin, but also the complete fourteen mile canal and towpath system down to the Blackwater Estuary at Heybridge Basin. What other town in East Anglia turns its back upon such an attractive and useful established feature?

21. With Springfield Basin there is the charm of the canalside architecture surviving around the Basin (albeit somewhat run-down), and there is also the added attraction of water and a working lock (in need of attention). Such features always attract people.

22. In addition, within a few minutes of the town centre, there is the tranquillity of a canalside towpath walk through open meadows, for rambling and angling and the canal for canoeing and boating.

SECTION 2 - SPRINGFIELD BASIN REVITALISATION

1. For the purposes of this report, the Basin is divided into two parts: the lower half, to which the public has access, runs from Browns Yard to Springfield Lock; the upper half, which currently has no public access, runs from Browns Yard to the warehouses in Wharf Road.

The Lower Basin

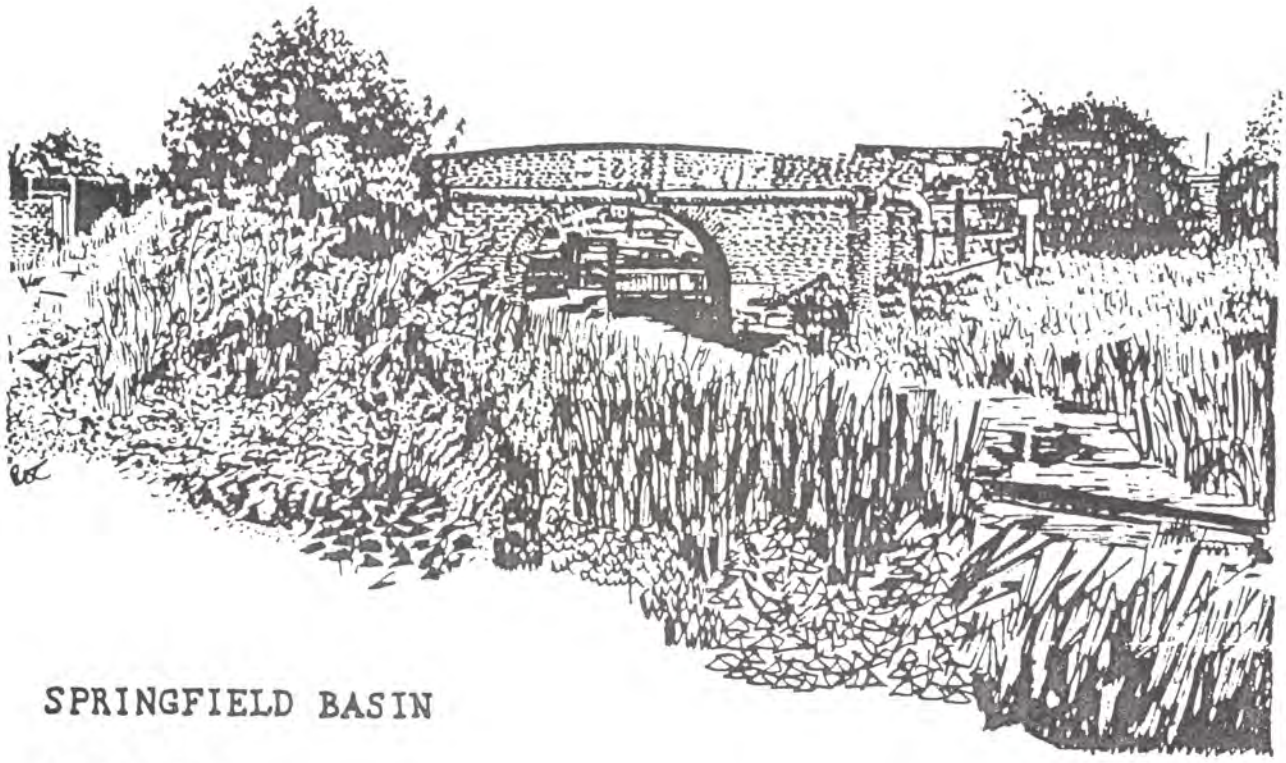
2. The lower basin has an overgrown towpath along one side and a strip of unused land along the other. The land between the towpath and the adjacent factories has in the past been used to dump spoil from dredging operations.

3. Access to the towpath is via a footpath which runs between Browns Yard and the Unigate Dairy from Navigation Road.

4. The first step in opening up the Basin for greater public use is merely for suitable signs to be erected in Navigation Road and at King's Head Meadow to indicate the existence of the towpath.

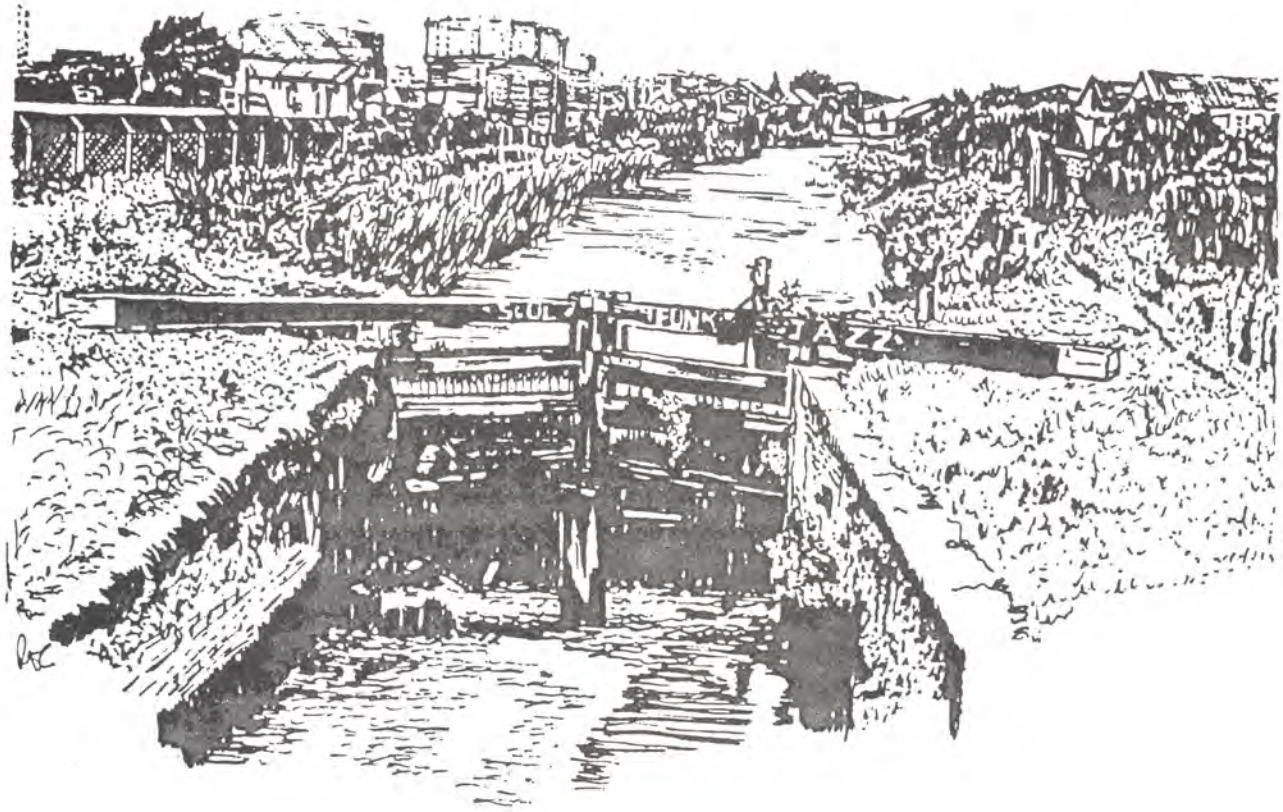
5. The next step would be improvement of the condition of the towpath by clearing undergrowth and rubbish and by removal or spreading the spoil, then re-grassing. To effectively screen the factories on this side, the addition of suitable trees to the existing ones would enhance the visual appearance.

6. The towpath could, if widened, become an addition to the proposed complex of footpaths/cycle ways proposed in the Chelmsford Borough Council's Town Plan. This could be extended to provide a route between Chelmer Village and the Town centre.



SPRINGFIELD BASIN

PRESENT ...



7. The existing earth paths could be built up using asphalt or similar materials, so that they could be used safely in wet weather.

8. The extensive banks opened up by the improvement would be ideal for fishing. The Basin is reputed to offer very good fishing and is already used by the occasional angler. The improvement of the towpath would make access possible for disabled anglers.

The Upper Basin

9. The upper basin bounded by Browns Yard has little possible use for the public on that side, unless there is a change of use from a timber yard. If this should occur, then any re-developments should be sympathetic to the canal.

10. Opposite Browns there are some 100 metres of bank, followed by a number of small buildings and old wharves, used for light industry. There is a turning point for longer craft at the end of the Basin, and a public wharf - to which there is no access!

11. After the restoration of Springfield Lock, part of the length of the upper basin could be turned into secure moorings if suitable access were available.

12. The rest of this bank should be sympathetically re-developed as the opportunity arises - preferably by re-furbishing the original buildings.

13. The development of the old warehouses by Frederick J. French & Sons as a bathroom centre is noted as a good example of the type of development which should be encouraged. The building is of architectural and historic merit and dates back to the development of the canal.

14. It is sad, however, that more public access to the canal was not included in the scheme, but it is hoped that this might happen when the remaining buildings are refurbished.

Planning

15. The recent "Chelmsford Town Centre Local Plan" is the adopted planning policy of Chelmsford Borough Council and the strategy for development of the town centre.

16. The proposals within this show a small part of the north eastern end of the Gas Works site, adjoining the new Springfield Link Road, as zoned for car parking use. The remainder of the vacant site is unzoned, although this is bounded and crossed by proposed riverside walks and cycle ways. New uses for the Gas Works site are therefore open to consideration.

17. The existing industrial development on the north eastern side of the Basin is zoned as such and will no doubt remain. Fortunately, this is reasonably well screened from the canal and the potential exists for further tree screening (see previous paragraph 5 above).

Future Use

18. It will be shown that the restoration of the lock and Springfield Basin is a fairly simple task. However, like any historic building, a viable use needs to be introduced if a future is to be ensured.

19. If the lock is not used or there is no increase in activity around the Basin, vandalism will take over again and any restoration project will be pointless.

20. To ensure the proper use and maintenance of the lock and retention of the Basin, both really need to be used by boats.

Re-introduction of Boating

21. As already mentioned, the Chelmer and Blackwater Navigation is available for amenity use by the public (subject to the Canal Company's Regulations). At the present time, as well as the extensive moorings at Heybridge Basin for estuary going craft, moorings also exist at Paper Mill Lock, Little Baddow and at Hoe Mill Lock, Ulting.

22. Although these available moorings are fully occupied, the canal is never busy, even at holiday weekends. Most noticeable, however, is the fact that virtually all of the trips taken by boats are down-stream, towards Beeleigh or Heybridge Basin. It is rare to see a boat at Barnes Mill and rare indeed to see one any nearer to Chelmsford. There is a need for additional moorings upon the canal at the present time.

23. A logical conclusion, therefore, is that any new moorings upon the canal need to be sited at the Chelmsford end. This will have several advantages:

    a) It will help spread moorings along the canal and avoid overbusy sections.

    b) It will make use of the whole length of the system, the top end being little used at present.

    c) Additional use will encourage maintenance and dredging, helping to prevent silting and vandalism.

    d) Boating at the Chelmsford end of the canal will provide added interest and recreational potential for the town, whilst also promoting the canal itself.

24. Potential permanent mooring sites identified are:

    a) Alongside Browns Yard. An existing gate from the towpath could provide access and very little fencing would be needed to make both the moorings and Browns Yard secure.

b) Alongside Frederick J. French. Either on their property or on floating pontoons. Either way, a fence would be needed to secure both their yard and the moorings, and access would be required.

c) Alongside the Gas Works. This would probably be short-term until the Gas Works site is re-developed. Some fencing and access would be required.

d) The old public wharf at the end of the Basin. This is owned by the Company and is currently leased to Browns. On this site there is both security and car parking and extra water frontage could be created by the use of pontoons.

The permission of both the Canal Company and the landowners would, of course, be required.

25. In addition to the requirement for more permanent moorings, there is also a need for overnight moorings within Chelmsford. If these were to be created in conjunction with an attractive environment and/or a facility such as a public house which encouraged canal users to visit Chelmsford, the potential of this unused asset would be realised, not only for the river users (boaters, anglers, canoeists and walkers), but also for the sightseer. Just think, a waterside tavern or restaurant beside an active canal is a possibility for Chelmsford!

26. What better place for providing these facilities than Springfield Basin, which was after all the original canal termination and historically the most important part of the canal where bulk raw materials such as lime, stone, coal and timber were unloaded after their journey from the sea at Maldon.

27. Possible casual moorings are identified as alongside the towpath. If a specific mooring area were established, with bollards etc., it would have little effect on the present use of the Basin by anglers.

SECTION 3 - SPRINGFIELD BASIN - RESTORATION

1. To complete the full revitalisation of the Basin, it is obviously necessary to restore the derelict lock and clean out the Basin. The IWA has not produced a detailed civil engineering report on the condition of Springfield Basin and its structures. The Waterway Recovery Group Ltd. have, at the request of the IWA, produced an initial report on the work required. This is a brief summary, but the full report is given in Appendix B.

2. The restoration work on the lock and cut should in addition include work on the lock tail bridge which is a listed structure. The banks of the Basin and the towpath will require landscaping to improve the amenity value of the area. Consideration should be given to enhancing the screen of trees between the Basin and adjoining factories.

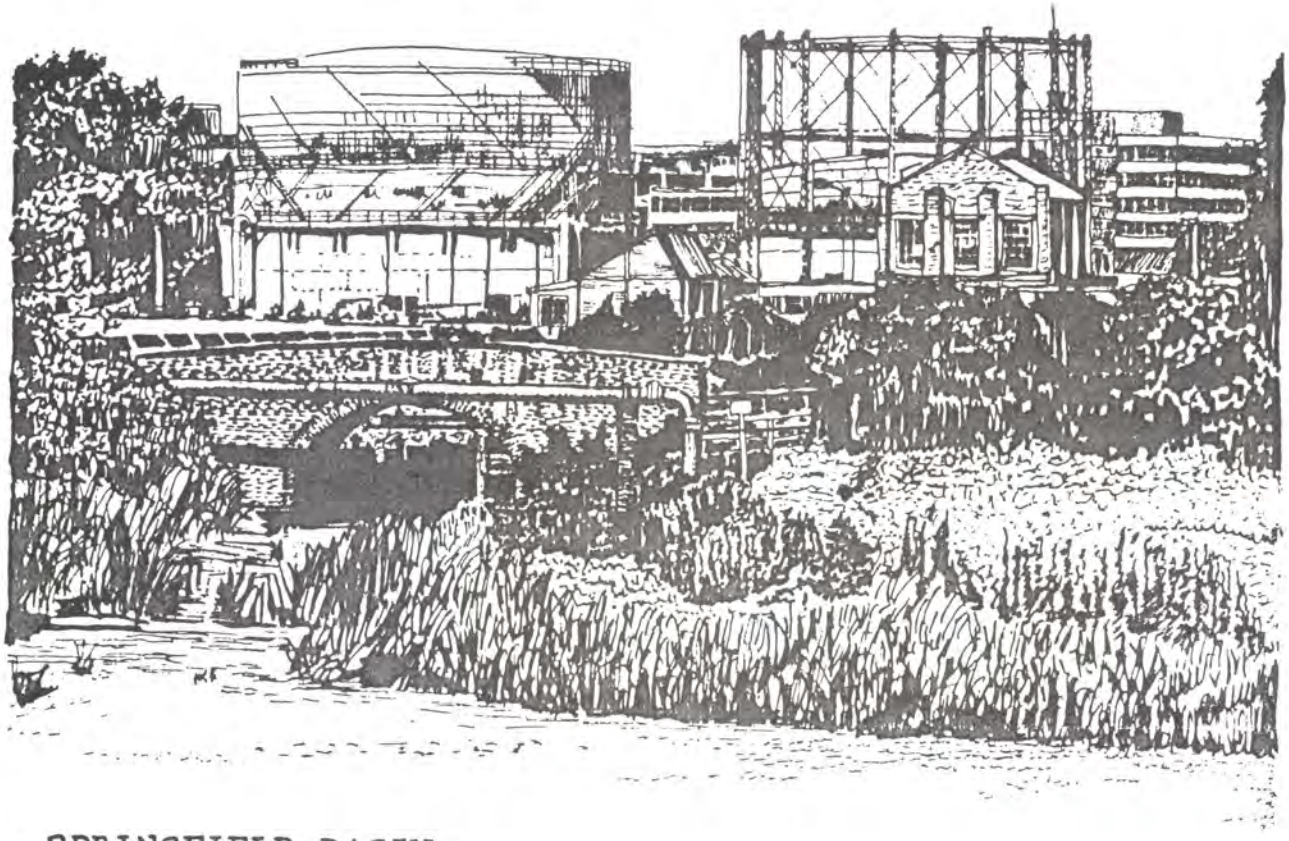
3. The methods available for carrying out the work of restoration can be divided into three main types. These are:-

   i) Using civil engineering contractors or the canal company workforce.

   ii) Using voluntary labour.

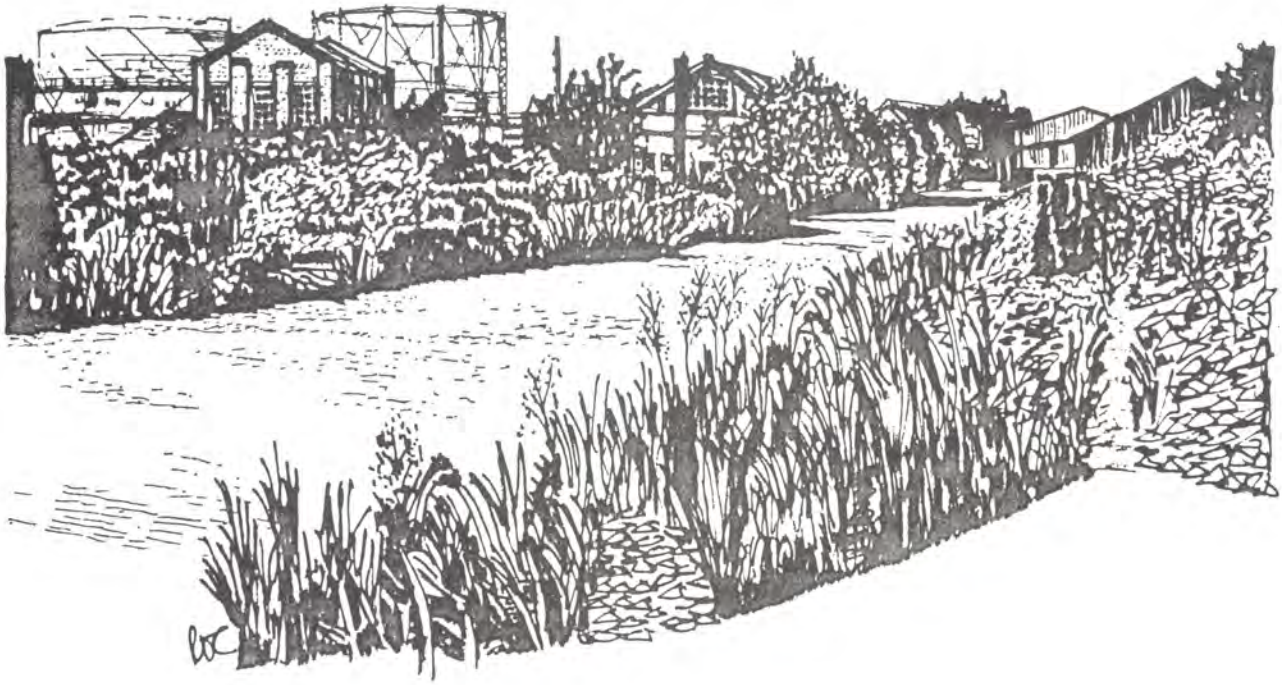
   iii) Using a "job creation" type scheme.

   Obviously a mix of the above could be used; however, this will require careful programming and project control. It is recommended that, if a civil engineering firm is not used, a project co-ordinator should be appointed.



SPRINGFIELD BASIN

PRESENT ...



4. The use of a civil engineering contractor or the canal company for the work will mean that adequate finance should be available before work starts. Detailed specification for the work would have to be written and, ideally, a professional clerk of works should be employed. The major advantage of this type of approach is that the work can be completed quickly and the final cost should be known at the beginning of the work. The project management can be left to the main contractor.

5. Voluntary labour has been used extensively on other canal restoration schemes. However, there is not an established voluntary restoration group in the Chelmsford area and it would take time to establish such a group. The two regional mobile restoration groups are heavily committed to other projects and can only be expected to be able to give token help on the project. If voluntary labour were used, the project would take a long time, with the risk of the work being vandalised.

6. The use of a "job creation" type scheme has been very successful on a large number of major canal restoration projects. It is considered that this project is well within the scope of such a scheme. The costs would be limited to the purchase of materials and the hire of supervisory staff, special plant and equipment. Specialist work, such as the manufacture of lock gates, would have to be contracted out.

7. The costings for the work can not, at this stage, be given. They will depend on:-

   i) The results of the detailed civil engineering survey on the Basin and its associated structures.

   ii) The decision on the method by which the project is to be carried out.

SECTION 4 - REDEVELOPMENT ALONGSIDE SPRINGFIELD BASIN

1. It has previously been indicated that moorings could be provided within the Basin as part of the suggested restoration of the Basin and lock.

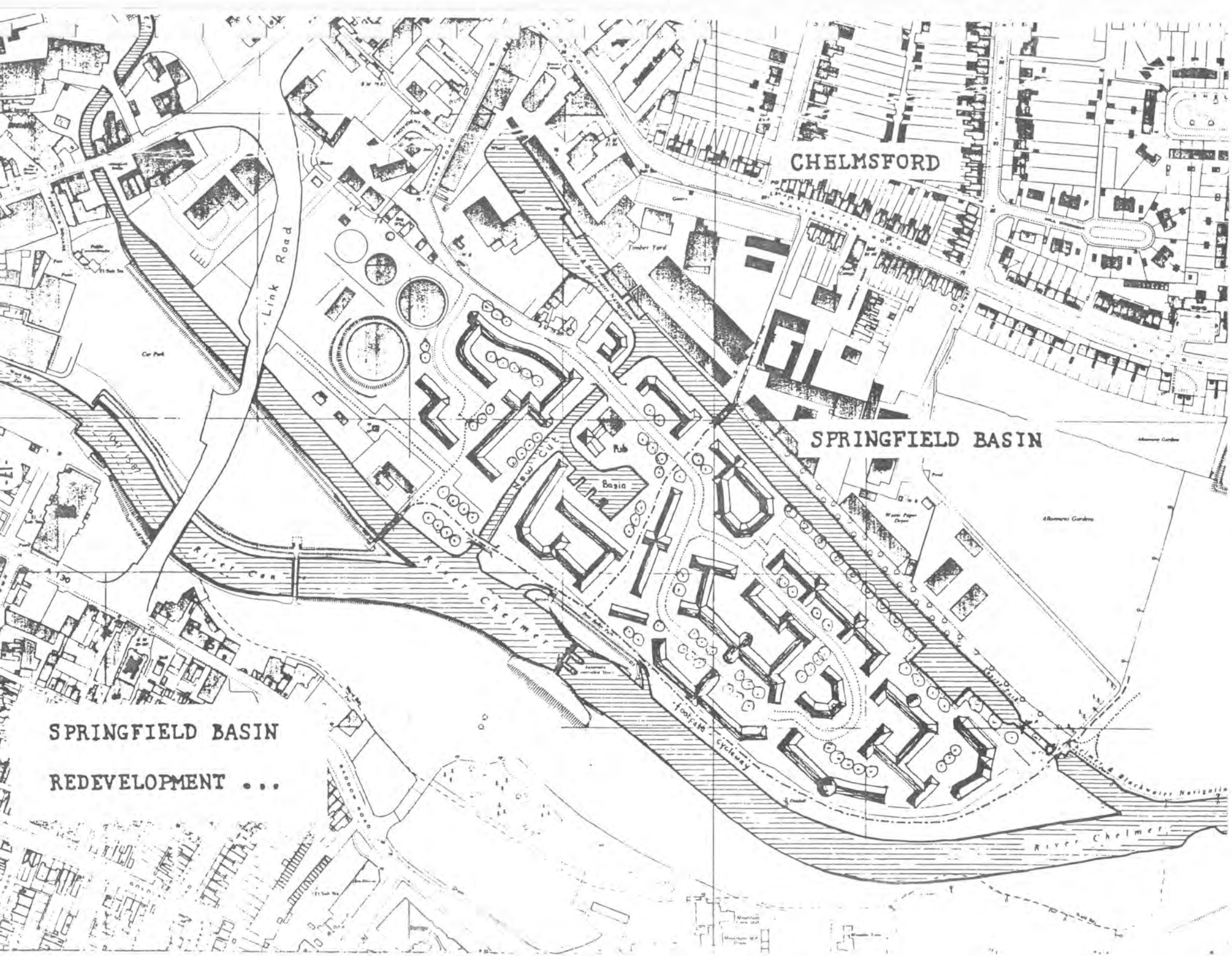
2. A more secure future for this important feature of Chelmsford's historical past would be ensured if the re-development of the vacant Gas Works site were to be related to the canal Basin and lock.

3. The land could be used for car parking, but this would be somewhat difficult to reach and remote from the shopping areas.

4. Further industrial uses could be allowed, but it is not desirable to position these within the central areas of the town where heavy vehicle access is through residential neighbourhoods. Ample land is available upon the perimeter of the town for these needs, where access is direct to the principal roads.

5. Both these uses would totally lack imagination and lose foreyer the visual, recreational and historical value of the Basin for Chelmsford.

6. There is within Chelmsford a constant demand for new housing, especially close to the town centre. This is already noted for its lack of evening and weekend activity and clearly needs inhabitants within its centre. Several new large shopping and commercial developments are proposed close to this part of Chelmsford. However, not one extra dwelling will be provided in these schemes. Thus the historical mixture of uses within the town centre is being lost and the associated problems of disinterest and vandalism are occurring.


CHELMSFORD
SPRINGFIELD BASIN
Link Road
New Cut
Basin
River Chelmer
Footpath
Cycleway
SPRINGFIELD BASIN
REDEVELOPMENT ...

7. Springfield Basin and the old Gas Works site have the potential to help remedy these problems and provide an extremely attractive waterside environment only a few minutes from both the town centre and from the open green Chelmer Valley. At the same time, the Local Plan aims of new cycle ways and riverside walks through and around the area can be achieved as part of the scheme.

8. Housing development could be of a high density but low rise form appropriate to the town centre location but with the added amenity of moorings or berths available to the residents. Thus the development would provide potential river users for the canal and an income for the Canal Proprietors to encourage maintenance. Similar schemes have been very successful at Milton Keynes, Norwich and elsewhere.

9. Immense character can be created within such a development which could also incorporate and finance a new canal cut between the Springfield Basin and the River Chelmer at a point adjoining the Sea Cadets premises. This would effectively use the existing lock to bypass the weir adjoining King's Head Meadow, which at present prevents most boats from using the rivers within the town centre. Future use of the restored lock would be guaranteed. The proposed new pedestrian and cycle way link from Navigation Road would run alongside this cut with new bridges of adequate height and appropriate canal character.

10. New housing, with a mixture of dwelling types and sizes, would be outward looking, facing the canal, rivers and public open space of the river valley.

11. Housing development would upgrade the area considerably and could incorporate the public house or tavern, already suggested, as a waterside amenity.

BASIN

SPRINGFIELD BASIN

REDEVELOPMENT ...

NEW CUT

12. The existing isolated Gas Works building might even be retained as a historic relic of the former use and converted to a "pub with a real theme" alongside a new marina!

13. Such a development would further encourage an upgrading of the area generally and the existing light industrial premises would readily lend themselves to careful enhancement and possibly even revert to uses related to the canal and river system, such as boat building and repairs.

14. It is appreciated that re-developing a gas works site does present some problems because of possible pollution of the ground. However, the South Eastern part of this site is of more recent construction, and is, in the main, concreted, so consequently should be little problem as far as pollution is concerned.

15. The problem of pollution applies to all uses and can easily be overcome, albeit at some cost. It is possible that a derelict land grant could be obtained to offset this cost.

16. High density housing helps to resolve any problem because of greater site coverage.

SECTION 5 - BEYOND THE BASIN

1. A new canal cut between the Springfield Basin and the River Chelmer at a point adjoining the Sea Cadets premises has been suggested as part of the redevelopment of the Gas Works site (see 4.9).

2. The idea of reintroducing boating into Chelmsford's town centre is not new. It has probably been an aim since before the construction of the Automatic Sluice just below the convergence of the Chelmer and Can.

3. In the early 1970s it was suggested that this could be achieved by a new lock constructed alongside the Automatic Sluice where boat rollers already exist. At that time, the adjoining Gas Works were still operational and construction costs were not as off putting as they are today.

4. The current suggestion of providing the new cut from Springfield Basin will ensure the continued use and maintenance of both the existing lock and Basin.

5. At the same time the restoration costs for the existing lock would be a fraction of the cost of a new lock and an additional length of water will be available for recreational use, including boating, walking and angling.

6. The new cut can be fully integrated into the redevelopment and used by the new housing development for waterborne access and moorings, perhaps on a Venetian theme! The footpath and cycle way proposed in the Town Plan can run alongside.

7. The new cut could become an important element in the design of the housing development so that this could provide for its funding.

8. The Chelmsford Canoe Club and the Chelmsford Inland Waterway Advisory Group have actively promoted the idea of such a link between the town's rivers. This would have an added attraction of providing a circuit for canoe racing and training adjoining the Canoe Club's headquarters.

9. It is not fully realised that the Chelmer and Can are probably the most extensively used stretches of water for canoeing in the whole of inland Essex. The Chelmsford Canoe Club alone has in excess of 150 canoes permanently located at its premises in King's Head Meadow and is seeking to expand.

10. The Sea Cadets, also enthusiastic river users, have premises next to the Canoe Club.

11. The regular canoeing competitions and training upon the rivers already attracts many casual spectators in spite of the lack of easy public access to the riverside in many places. This interest is bound to expand.

12. The new cut will also provide access on to the Chelmer and Can for boats already using the Chelmer and Blackwater Navigation. These small cruisers and canal boats will provide an added attraction within the town centre.

13. Both rivers already have some obstacles to the navigation of these craft in the form of low bridges, but these are not generally insurmountable problems, especially if treated as a longer term project. The low bridges also present a hazard to canoes,and small boat users, that could be beneficially removed.

14. It is, however, essential that no further obstructions to the fuller use of the town's rivers are presented. It must be ensured that all new bridges provide at least 2.3 metres headroom above the usual water level.

15. The further use of vertical concrete banks with their associated dangers (and drab appearance) must also be avoided.

16. Such vertical banks allow no escape for the unfortunate pedestrian, boater or animal that may fall into the river. The provision of handholds, chains or even the occasional grab rails would assist with this problem.

17. The River Chelmer probably has the greater number of problem bridges with inadequate headroom above water level. The locations and suggested improvements to these are listed in Appendix A.

18. There is a weir just upstream of the Victoria Road bridge which precludes further navigation without a lock. Springfield Mill might therefore be seen as the navigation head upon the Chelmer for larger craft and it would certainly be nice for this attractive listed building with its future restaurant use to be reached by boat. There is also adequate room to turn boats here.

19. On the River Can there are also low bridges, but a greater length of river would be available for use. The locations and suggested improvements to these are also listed in Appendix A.

20. Because of the reducing depth of water on nearing the railway viaduct and the widening of the river providing a natural turning area, Central Park would make a suitable head of navigation for larger craft. The park setting presents an attractive location for overnight moorings which would relate well to the recreational uses in this area.

21. It is not possible to know what the future will achieve. Hindsight has shown that the growth of enthusiasm over the last decade for reopening canals and rivers for navigation and recreation has ensured the completion of many projects that were previously thought unrealistic.

22. It is conceivable, therefore, that the navigational heads of both the Chelmer and the Can could be extended still further upstream into the pleasant green river wedges, although one might hesitate to suggest an eventual connection to the River Stort and the national canal system!

23. Within this Section, mention is made of proposed 'Heads of Navigation'. It should be emphasised that this refers to craft larger than canoes. For very many years canoes have regularly travelled as far as Little Waltham and Widford.

24. In the long term, once satisfactory solutions to the 'problem' bridges have been found, a passenger trip boat - similar to the Company's "Victoria" - could operate from, say, Central Park. The prospect of trips through the town and the new cut, and (subject to the necessary licence) through Springfield Basin to somewhere like Barnes Mill Lock, would be a very pleasant amenity for the town. It would also ensure that more residents of Chelmsford and of outlying districts benefited from the improvements and the increased recreational amenity.

SECTION 6 - RECOMMENDATIONS

1. The main proposals of this report can be summarised as follows:-

Immediate

2. To draw to the attention of both the public and the planners the existence and potential of this unused historical asset in the centre of Chelmsford.

3. To prevent further deterioration to Springfield Basin and its lock and to promote a continuing enhancement of the area.

4. To illustrate the long term potential of the Basin and ensure that its future is both planned for and also fully realised.

5. To ensure that any new bridges or structures over Chelmsford's Rivers are of adequate (2.3 metres) headroom to allow fuller navigational use (see 5.13).

Stage 1 (as soon as possible)

6. To encourage provision of signs to indicate the existence of the towpath (see 2.4).

7. To improve the condition of the towpath and enable a link between the cycle ways proposed in the Town Plan (see 2.5 and 2.6).

8. To encourage tree planting to screen the adjoining industrial areas (see 2.5).

Stage 2

9. To clean out Springfield Basin (see 3.1).

10. Repair and restore Springfield Lock (see 3.2).

11. Provide overnight or casual mooring facilities (see 2.27).

12. To encourage the provision of permanent moorings within the Basin (see 2.24).

13. To create an area of interest that will attract boaters and visitors to Chelmsford (see 2.25 and 4.7 to 4.12).

14. To encourage a refurbishment of the existing Basin-side buildings which respects their location, and to upgrade the built environment around the Basin (see 4.13).

Stage 3

15. To ensure that the redevelopment of the redundant Gas Works site respects the existence and character of the canal Basin and realises its potential by encouraging fuller use (see 1.19 and 4.2).

16. To promote the linking of Springfield Basin to the Rivers Chelmer and Can by a new cut together with the new footpath and cycle way shown upon the Town Plan (see 4.9 and Section 5).

17. To promote and encourage removal or modification of the low bridges upon the Rivers Chelmer and Can which are an obstacle to the greater use of the town's rivers (see 5.13 and 5.17).

18. To create a canal and riverside environment of which Chelmsford will be proud and need no longer ignore.

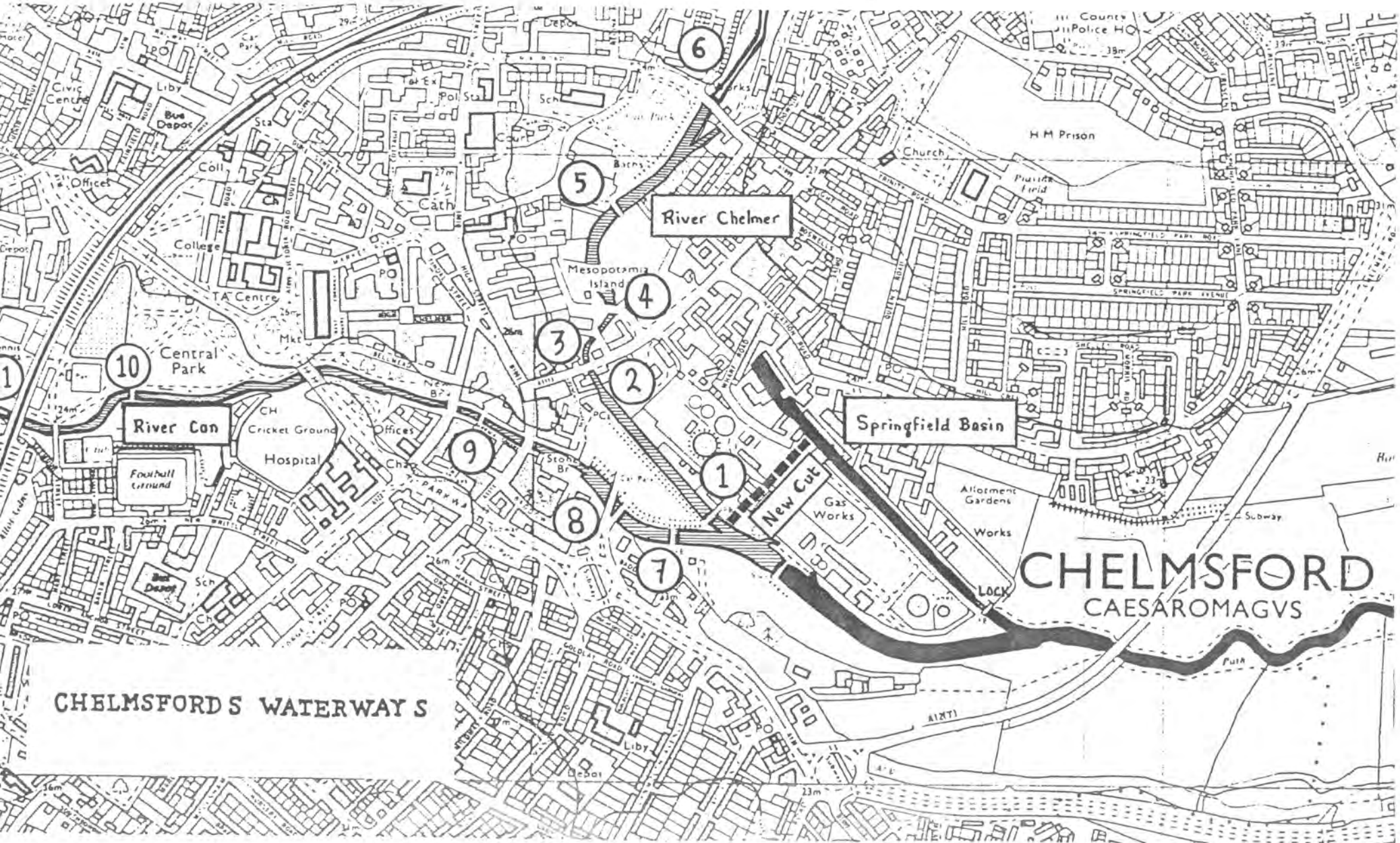
Funding

19. The funding of the projects depends to a certain extent upon the method of carrying out the work. Different parts of such an on-going scheme will have different sources of funding and an overall steering group or project manager would be able to co-ordinate the various stages and ensure the best use of available funds.

20. Other projects of this type have received funding and assistance from various sources such as:

a) Local Government
b) Central Government
c) Urban Aid (Traditional Urban Programme)
d) Derelict Land Grants
e) Voluntary contributions
f) Manpower Services (MSC)
g) Community Work Programmes
h) Canal Companies
i) Developers
j) Tourist Boards
k) The European Economic Community (EEC)
l) Local business promotions

These are listed for information and to indicate some potential sources of help. The list is not exhaustive.



CHELMSFORD S WATERWAY S

Obstacles to fuller navigational use of the River Chelmer and River Can in Chelmsford

The locations of the obstacles are shown on the map using the same numerical identification.

The River Chelmer

1. A footbridge exists over the Chelmer at its convergence with the Can. This is, however, a steel lattice structure which could fairly easily be lifted and repositioned upon heightened supports.

2. The bridge carrying Springfield Road is, however, more of a problem and this is therefore seen as the head of navigation upon the Chelmer for larger boats for some time.
   The Chelmsford Town Centre Local Plan does, however, show Springfield Road being pedestrianised from the High Street to its junction with the new Springfield Link Road. This could eventually mean that a new lighter bridge structure with adequate headroom is possible, although the cost would be a major consideration.

3. A redundant low concrete bridge exists close to the Springfield Road bridge which previously provided service access to Debenhams. Although the Planning Authority have refused a parking use upon this, the unsightly structure remains.
   The proposed Grays Brewery office development and riverside walk alongside this bridge will upgrade the area and hopefully increase pressure for the redundant bridge to be removed. It could be that encouragement to the owners to build some small riverside shops on the edge of the eastern service yard overlooking the river would encourage removal of the bridge and complete the visual enhancement of this central riverside link by concealing the service yard at the same time.

4. The recent service bridge providing access to the rear of the High Street also has an unfortunately low headroom similar to that of the Springfield Road bridge. Although there is adequate room to provide for a steeper gradient to the road over this, the rebuilding of such a recent structure would be a costly exercise, especially as this bridge will have a considerable increase in road use with the proposed redevelopment in the immediate vicinity.

5. The recently erected Tesco footbridge is another example of shortsightedness. This could have so simply been located upon taller supports with little additional expense. Fortunately, this is a precast concrete structure that could still be raised, albeit at unnecessary cost.

6. The weir just upstream of the Victoria Road bridge precludes navigation without a lock or change of water levels. Springfield Mill is therefore seen as the navigation head of the Chelmer.

The River Can

7. A low footbridge also exists at the convergence with the Chelmer. This is of a type which could be raised to gain additional headroom by reusing the spanning beams on heightened pier supports.

8. There is a series of Bailey type bridges which currently provide access to the King's Head Meadow car park. The proposed Cruden's redevelopment of this area and the new Springfield Link Road bridge will result in the removal of these. It is, however, noted with extreme concern that some of the new bridges proposed in this redevelopment do not provide adequate headroom for navigation.

9. The next low bridge, the service access bridge to Marks and Spencer, is again a fairly recent obstacle. It is not an attractive bridge either! To improve this would be major but worthwhile commitment. It might be possible to introduce a hump bridge of the traditional canal type, or even an arched bridge similar to the adjoining Stone Bridge. Alternatively, it might be possible to replace it with a lift-up or swing bridge, especially as most river use would be at weekends when servicing is not required. Such a bridge would provide greater control over unauthorised parking in the service yard and the owners might even be public spirited enough to donate its construction!

10. A redundant footbridge exists connecting the Central Park with the football ground. This may be used again to provide pedestrian access to a proposed new car park off New Writtle Street (see Chelmsford Town Centre Local Plan). The opportunity should be taken, if this is refurbished, to raise the level of the steel girders which support it. If it is replaced with a new bridge, this should provide for at least 2.3 metres headroom above usual water level and the removal of the redundant structure.

11. The reducing depth of water on nearing the railway viaduct in the Central Park has lead to the suggestion that this be the head of navigation for the purpose of this report. Dredging of the river to provide a greater depth would, however, appear to be a minor operation compared with certain of the bridge rebuildings already outlined. It would therefore be quite feasible to extend the navigable Can to the western side of Chelmsford and beyond.

APPENDIX B

waterway recovery group ltd

NATIONAL CO-ORDINATING BODY FOR VOLUNTARY LABOUR ON THE INLAND WATERWAYS OF BRITAIN

date
our ref.
your ref.

PRELIMINARY FEASIBILITY STUDY OF THE PROPOSED RESTORATION OF THE DERELICT SPRINGFIELD LOCK AND CANAL BASIN IN CHELMSFORD ON THE CHELMER AND BLACKWATER NAVIGATION

Initial inspection carried out by Bob Keaveney for the Waterway Recovery Group Ltd. on 27th January 1985.

Extent of Inspection

This report is based only on a visual inspection of the waterway, carried out at a time when the water was frozen

Outline Description

The section of waterway under consideration runs from the navigable River Chelmer for a total length of approx. 700m, terminating in "Brown's" timber yard. It includes one lock and tail bridge. The upper level of the canal is fed with water via a pipe running from above the weir on the river. There is a towpath running along one side of the canal above the lock; however, there is no public access to the section within the timber yard. A public right of way crosses the bridge adjacent to the lock.

Assumptions

A rough description of the type of work which would have to be undertaken to restore the canal to a navigable condition is outlined below. Until a detailed engineering study is carried out, this should only be regarded as a general guideline.

The Lock Cut

The section of waterway between the navigable river and the tail of the lock (the lock cut) is approx. 45m long and 10m wide. Since it is a branch off the main river, it will certainly require some dredging. It is understood that this is in the Canal Company's future maintenance schedule.

There would appear to be no bank protection on the lock cut at present, although this is not unusual on river navigations. However, a landing stage of some description would be required below the lock to allow boats to stop and tie up whilst operating the lock. Possible allowance should be made for: piling with interlocking steel piles; whaling and back ties; for back filling; and construction of a path and steps up to the lock. Mooring bollards should also be provided.

The Tail Bridge

Immediately below the lock there is a red brick built hump-backed bridge (the tail bridge), dating back to the 1790s. Although it still retains much of its original grace, it is in very poor condition, with extensive areas of spoiled bricks, sections of poorly repaired brickwork and unsuitable copings, and the whole bridge is heavily defaced by graffiti. As the bridge is a listed structure, any repairs would have to match the original materials.

Carrying out proper repairs to the areas of defective brickwork could include complete removal of the existing parapets and copings, and their reconstruction, as original, in matching facing bricks, with the remainder of the brickwork repaired as necessary, the soffit of the arch repointed, and all the brickwork cleaned.

The brickwork of the arch is now exposed at the top as a result of the erosion of fill material above, and work will be needed to protect the brickwork of the arch. This perhaps should involve the removal of the remaining fill material, and the construction of a concrete slab immediately over the arch. The final paved finish on top of this concrete could be perhaps brick paviors or gravel depending on what paving material is adopted for the adjacent landscaped areas.

The Lock

The lock is approx. 21.0m long x 5.25m wide with a rise of 1.50m. It was not possible to ascertain the depth of the invert. The lock is of brick construction, with stone copings and timber gates with gate paddles. There are no ground paddles.

In order to carry out work within the lock, it will be necessary to dewater it. There are stop plank grooves beneath the tail bridge.

Stop planks would, however, be prone to leaking, to overtop when the river is in flood and to be susceptible to damage by vandals. In addition, they may not be sufficient to meet the requirements of the Health and Safety at Work Act. In this case, a steel piled dam could be driven across the tail of the lock beyond the tail bridge, for the duration of the work.

The brickwork of the lock chamber appeared to be in need of attention. It is possible that this could be made good by repointing, limited cutting out and repairs; however, it is possible that so many bricks have perished, a complete refacing will be necessary.

The actual extent of work required to be done to the lock can only be ascertained by carrying out a detailed survey with both the lock and the canal above the lock dewatered. The precise construction of the timber sills and either the brick or timber sub-sills, will only become evident after dewatering and after the removal of debris and silt from the vicinity.

The following items of work MAY have to be carried out:-

i) The removal of the existing stone copings to allow refacing of the walls. Perhaps 50% of these copings are badly worn and cracked, since they are only of soft sandstone; subsequent refixing of the coping stones, including either supplying new or salvaged stone to replace those damaged (this could be difficult) or the construction of reconstructed stone or the use of a reinforced concrete capping along the complete lock.

ii) The removal of approx. 300mm of the facing brickwork for the full height of the chamber and top apron walls, and reconstruction using Class B Engineering bricks, tied back at intervals into the existing brickwork, and with the gap between the new and existing brickwork well backfilled with concrete.

iii) The bottom gate quoins (into which the gates hinge) should be recast in concrete if the lock chamber is rebuilt. A timber or high density rubber or neoprene seal should be included in this concrete to provide a good seal when the gates are closed.

iv) It is possible, but thought unlikely, that the invert of the lock chamber (normally brick) may need strengthening with a concrete slab, to ensure that it stands up to the water pressure occurring when the lock is full.

v) The timber sill beams, on to which the bottom gates close, may require replacement. The actual form of construction varies on different waterways; the sill beams are sometimes supported on a brick bed, other times on timber boarding with puddle clay beneath. Whatever the construction, it is imperative that a good seal is provided to prevent leakage. If needed, for estimating purposes it should be assumed that the existing sill structures should be removed in their entirety, the sill areas be excavated and concrete slabs, say 450mm thick, be cast, with bolts set in, on to which the timber sill beams are fixed. Sockets should also be cast into the concrete, in which the gates would pivot.

vi) The existing bottom gates will have to be removed and replaced with new, including new balance beams, gate paddles and paddle gear.

vii) A safety ladder should be incorporated into the brickwork of the lock chamber, if the extent of the works allows for this.

viii) Bollards on which boat lines could be secured would be required and some form of hard-wearing surfaced path be formed along the locksides if heavy use is anticipated.

ix) We understand that the top gates were installed in the 1970s, and we are of the opinion that they only require a minimal amount of work, plus the repair of one set of paddle gear and the replacement of the other set, to be serviceable.

The Canal

The section of canal above the lock is approx. 600m long and 10m wide. At the time of the inspection, the canal was frozen so it was not possible to see into the water, to view the depth, to observe what debris was present, or to ascertain the condition of the banks beneath the water. The towpath is very uneven in level and is somewhat overgrown. The towpath/water interface is not straight, having suffered from erosion in places. It would appear that this bank is not protected by any solid means (i.e. brick or stone); however, it is possible that this may occur beneath the surface. It did, however, appear that sections of the other bank (adjacent to the former Gas Works site) were of brick construction.

The actual scope of the works on the stretch of canal above the lock depends very much on the envisaged use of the restored section and on the amount of finance available for the project.

The required work on this section could well include:-

i) Dredging to provide adequate depth for navigation and mooring. The depth to which it should be dredged depends very much on the draught of boats on the river at present. It is understood that most of the length was dredged in 1974, and therefore only spot dredging may be required, together with rubbish removal.

ii) Some bank protection may be necessary.

iii) Mooring bollards should be provided at the designated mooring areas.

iv) In order to complete the work satisfactorily, some form of landscaping will have to be carried out. This is covered under a separate heading.

Access to Site

It would appear that access for plant to the towpath is available via the Unigate Dairy. (It is understood that the Canal Company have a right of access).

However, the towpath is uneven and narrow in places, so until some work is carried out to the towpath, plant cannot reach the lock by this route.

There are access gates from the former Gas Works site on to land adjacent to the other bank of the canal. This access should be suitable for all the plant necessary to carry out the work to the lock. However, this would be subject to the approval of the owners of this land.

It was evident that there was a certain amount of underground Gas Board pipelines etc. in the vicinity of the lock and adjacent to the tail bridge. Detailed information regarding the position and depth of buried plant should be obtained from the Gas Board before any work is commenced.

Any redundant and visually obtrusive pipework should be removed.

Disposal of Soil

There is land between the lock cut and the river which, although subject to flooding, may be suitable for tipping excavated soil, subject to the usual consent being obtained.

In view of the relatively isolated position of the canal and lock, it is probable that there is not a very high percentage of solid material likely to be removed by dredging. As such, it may be possible to use the dredgings, after allowing time to dry out, for landscaping work in the vicinity, if this is proposed; otherwise, it will have to be carted away and disposed of.

Landscaping

The aim of any scheme to restore this section of canal must be to improve the amenities of the area. As such, the finished appearance of the canal and its banks should be pleasing to the eye.

Ideally, the canal should not be considered in isolation. It should be incorporated into any proposals for re-development of adjacent land, such as the former Gas Works site etc.

The type of landscaping to be provided also depends on what level of maintenance is proposed for future years.

The task of the detailed specification of landscaping work should be carried out by a qualified landscape architect; however, the following items give a brief outline of the type of work that may be considered:-

i) General levelling of areas to form pedestrian routes, with the construction of paths with hardcore and chippings.

ii) Planting of trees along the whole length of the towpath, not on the water's edge but adjacent to the wall of adjoining premises, to provide a screen.

iii) Selected planting elsewhere with trees and shrubs.

iv) Levelling and seeding or turfing areas adjacent to the lock.

v) The installation of tough basic seating at intervals along the towpath and around the lock.

Methods of Restoration

There would appear to be no major engineering obstacles to the restoration of this section of canal. There are many examples elsewhere in Britain where canals and canalised rivers, in much worse condition, have been restored for navigation and amenity use.

There are 3 ways in which a restoration scheme could be carried out:-

i) Using civil engineering contractors

ii) By voluntary labour

iii) By use of "job creation" type schemes, where the labour is funded by the Manpower Services Commission.

In addition to any of these, the Canal Company may wish to be involved - particularly with the replacement of the lock gates.

i) Civil Engineering Contractors

If adequate finance was available, the use of civil engineering contractors, operating on a normal commercial basis, would be possible and could see the work completed in a very short period of time.

ii) Voluntary Labour

Voluntary labour has been extensively used in the past on numerous restoration schemes, such as the Southern Stratford Canal, 1964, (National Trust), the Ashton and Lower Peak Forest Canals in Greater Manchester, 1974, (British Waterways Board), and the Upper Avon in Warwickshire, 1974, (Upper Avon Navigation Trust). Schemes currently under way using voluntary labour include the Wey and Arun Canal, the Basingstoke Canal, and the Droitwich Canal.

However, it is not considered that voluntary work would be an appropriate method to be employed on this particular scheme for the following reasons:-

a) there is no established voluntary canal working group in the Chelmsford area

b) the 2 regional mobile working groups, London WRG and Kent & East Sussex Canal Restoration Group, are already heavily committeed to established restoration projects

c) even if adequate numbers of volunteers could be found, and assuming work was carried out every weekend, the project would still take many months to complete and, due to the isolated nature of the area, would be extremely susceptible to vandalism at times when volunteers were not working.

iii) MSC Labour

There are various waterway restoration projects currently in progress or recently completed, where large amounts of work have been carried out, providing temporary employment for hundreds of young people; for example, at one time, more than 400 people were employed on various MSC projects on the Rochdale Canal in Greater Manchester and West Yorkshire.

Schemes currently in progress, in addition to the Rochdale Canal, include:-

a) the Huddersfield Narrow Canal, where the scheme is being run by West Yorkshire Metropolitan County Council, Kirklees District Council and BWB. 3 miles including 19 locks are being restored, employing about 90 people.

b) the Basingstoke Canal, being run by Surrey and Hampshire County Councils and the Surrey and Hampshire Canal Society, involves 32 miles and 29 locks and during 1984 employed about 15 people.

All wages etc. of operations on such schemes are funded by the MSC. The actual costs to the sponsors of a scheme should be limited to:-

a) plant and equipment purchase, hire and maintenance

b) materials

c) technical staff to design, oversee and manage the project

d) some of the work, e.g. the dredging, may have to be done by equipment which can only be hired "with driver".

The type of work outlined above is quite within the capabilities of a well organised MSC type project, since only straight forward construction work is involved. The lock gates and paddle gear could either be made by the Canal Company or obtained commercially, or possibly from one of the other similar schemes elsewhere in the country. At present, the Basingstoke, Huddersfield and Rochdale Canal restoration projects all have their own lock gate workshops employing MSC labour.

Costings

Detailed costings are outside the scope of this brief report, and to some extent depend on the money available (for example, the entire length of towpath could be piled, to give a firm edge to the canalside walk - although in our opinion this is not essential). It is felt that the Council could do this with more accuracy than we - as a voluntary organisation - could. However, the sum of £5/6,000 should be allowed for new bottom gates.

We anticipate, however, that all the work to the lock and the bridge (including new bottom gates) should not exceed £15,000 to £20,000, and could well be appreciably less.

Conclusions

It is suggested that a detailed feasibility study should be carried out and costings prepared for a scheme to restore the lock and canal to navigation and to carry out associated landscaping work, utilising labour funded by the Manpower Services Commission.

Such a scheme would not only improve the visual and recreational amenities of the area at minimal cost, it would also provide temporary employment.

R. Keaveney
May 1985

Note: The Company has queried the above costings. Although we know of cases where lock gates have been obtained for under £5,000 (mainly through use of MSC schemes), they feel that £11,000 would be more realistic. Similarly, they suggest, based on similar cases that they have carried out themselves, that the figure of £50,000 would be more reasonable than £20,000.

We are sure that, using an MSC scheme, instead of contractors, the work can be done for very much less.