

WASC 1884

Proposals for development
of The Royal Gunpowder
Mills, Waltham Abbey
Essex
Sept. 1992



The Royal Gunpowder Mills

The Opportunity After some 300 years of Government use, the Ministry of Defence has recently vacated the 190 acres of land known as the Royal Gunpowder Mills on the doorstep of Waltham Abbey town.

For about 400 years – and possibly for centuries before this – the use of this piece of land and its waterways has had a vital impact on the fortunes of the town. The future of the site is no less vital – and that future is being decided now.

Plans for the future must recognise the needs and aspirations of local people and must reconcile the many different views and responsibilities involved in transferring land from Government ownership. There is now the opportunity to create a new and attractive piece of Waltham Abbey and its surrounding countryside achieving a balance between the needs of man and nature. This opportunity will not come twice.

The Ministry of Defence has acknowledged the importance of involving the town's people and its councillors in the planning and re-use of the site. The proposals put forward in the Public Exhibition have been greatly influenced by this local input through a process of wide consultation including two Planning Forum days earlier this year.

These proposals restrict re-development to the southern and town side of the site leaving the remaining 80% for nature and recreational uses and fixing the limits of

development for ever. It is vital that the town as a community supports the sensible and sensitive combination of re-development and conservation and, in an effort to secure the future of the site for the benefit of local people, the town council is now in discussion about the prospects of setting up a charitable trust that will take over ownership of key tracts of the site from the Ministry of Defence.

Councillor Don Spinks
Leader, Waltham Abbey Town Council

*Water, trees and buildings
create a unique landscape*



*"... leaving the remaining 80% for
nature and recreational uses..."*

**Proposals for
The Royal
Gunpowder Mills,
Waltham Abbey,
Essex**

**SEPTEMBER
1992**

The Public Exhibition is being held in Waltham Abbey Town Hall on 16-18 September 1992 and will be open each day from 10am-5pm (on Thursday the 17th 10am - 7pm)

The history

The history of the piece of land known locally as the RARDE North Site and its surrounding waterways has been a history of intimate involvement with Waltham Abbey – particularly as a major source of employment. Did you know how many uses and industries have utilised the River Lee?

Research by Ken Bascombe (of Waltham Abbey Historical Society) indicates that the river has been used for navigation probably since prehistoric times. The Royal Gunpowder Factory made use of the river for transport of explosives to the Royal Arsenal on the Thames at Woolwich. Water drawn from the Lee was used to power the various processes of gunpowder manufacture from the early 18th Century until the introduction of steam in the 1850's. The peak consumption of water for this purpose occurred during the Napoleonic Wars of 1793-1814 when very large demands were made on the factory. The expertise gained at the Waltham Mills was sought by both sides during the American Civil War – a Waltham man emigrating to Tennessee advising the South and visits to Waltham being made by the large Northern powder company of Du Pont. Water power



By 1917 the workforce was over 5000, half of whom were women

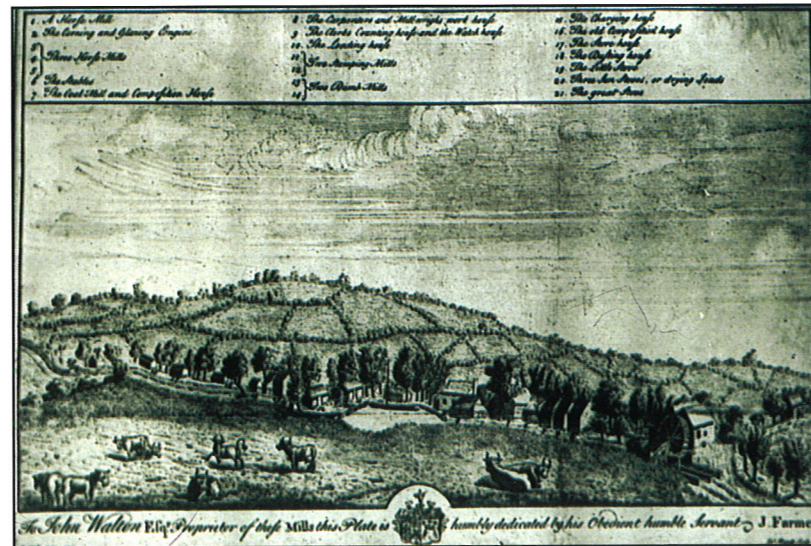
was still in limited use until the destruction of the last pair of gunpowder incorporating mills in 1941. At its peak, some 5,000 people were employed on the site.

Apart from navigation, the oldest use of the river was cornmilling with water mills at Waltham Abbey and Cheshunt. Another use was for fulling – the scouring and beating of woollens to clean and finish them. Both corn and fulling mills date to medieval times and the corn mills at Waltham Abbey are mentioned in the Domesday Book.



Thames Barges moved the gunpowder to the Royal Arsenal, Woolwich

Legend has it ... that Guy Fawkes and his fellow conspirators purchased their gunpowder from the mills at Waltham ...
... that gunpowder from Waltham Abbey was used at the Battle of Crecy in 1346 – the first time gunpowder was used by English soldiers.



John Waltons Powder Mills, 1735

The site today

Since the Second World War, the site has been used entirely for explosives research and testing and, whilst this has left a degree of residual contamination with explosives, metals and chemicals it has also served to protect the site from largescale development. Much of it remains quite isolated and constitutes a most important wildlife area within the Lee Valley.

The northern part of the site is designated a Site of Special Scientific Interest (SSSI) in recognition of the value of the alder wood which contains the largest heronry in Essex and also provides habitat for hobby, siskin, woodcock, three species of woodpecker, deer and smaller mammals. Yet the alder wood itself is a product of man's influence on nature inasmuch as it was planted in the 17th Century to provide the wood for charcoal – an ingredient of gunpowder.

A vital component of the future solution for the site is that the natural environment must be not only preserved but enhanced through proper management. With this in mind, discussions are taking place with Lee Valley Regional Park Authority and other conservation organisations to find a satisfactory management structure. This should ensure

protection of the wildlife whilst allowing a limited degree of public access for educational and recreational use.

Whilst the value of the northern part of the site lies in its natural environment and ecology, the central and southern areas have other strengths. The system of man-made waterways provides the potential for a special recreational resource and an attractive setting for suitable new uses. The historically protected use and management of the site has resulted in a unique man-made landscape of mature trees, walks, ornamental meadows and greens.



Manmade waterways

Not all the objectives for the future of the Royal Gunpowder Mills are complementary. There is a degree of conflict between some of them and this must be faced and dealt with.

Contamination and decontamination

Although not as severe as first anticipated, there is contamination on the site. This varies in nature and extent with the historic uses and intensity of use and much of it is chemical rather than explosive in nature.

In general, there is less contamination towards the south of the site. On the areas proposed for housing, recreational and employment activity there is largely only residual surface contamination, mainly by metals. This is no worse than that found on many housing sites nowadays and can be relatively easily dealt with – albeit at a cost.

Unfortunately – but not surprisingly – it is some of the historically more interesting buildings in the east central part of the site that contain the worst contamination. These are the remains of the steam-driven incorporating mills that had heavy explosives exposure. It may prove impractical to retain these buildings safely but investigations are continuing.

The Long Walk



Pockets of more severe contamination occur towards the north of the site reflecting historic explosives manufacture and testing.

The degree of decontamination works will be matched to that required for the planned future uses. The Ministry of Defence will pay the costs of the necessary work.

The Green Belt

Most of the site lies within the Green Belt but has established uses for the existing and derelict buildings that until recently provided employment for the town. Government guidance allows the replacement of these buildings.

The objective of the Green Belt is to form a firm edge around towns and villages preventing ribbon sprawl along roads and elsewhere and proposals for the Royal Gunpowder Mills site should aim to ensure that these objectives are not violated by the indiscriminate reinstatement of existing buildings. Reinstatement and re-uses should be contained to the southern side of the site creating a defined limit and arrangements should be made for the permanent protection of the remainder of the site.

Creating employment

For the first time in hundreds of years the site currently makes no contribution to local employment possibilities.

New uses and activities on the site should consider the importance of this and should aim to be suitable for creating local employment.

The conflicting considerations

Helping nature

Conserving the natural environment is not always simply a case of leaving it alone – sometimes it needs help. The woodlands of the Royal Gunpowder Mills site have become overgrown and a number of the more interesting flora have succumbed to invasion by more commonplace species such as sycamore; grasslands have become invaded by scrub and have become longer and ranker through lack of grazing, canals and ponds are silting up and water levels have also changed to the detriment of native species.

Knowledgeable management of the natural environment will need to be an essential component of the future of the site. Who will pay for this?

A related issue concerns the permitted degree of public access and enjoyment. There is potentially a conflict between conserving and maintaining for the natural world and allowing access and enjoyment by people – yet the latter may provide a source of income to pay for the former.

The oldest buildings on the site
Gunpowder Mixing House & Salt Petre Store



The Directors House

The former steam-driven
Incorporating Mills



The historic buildings

In spite of the rich history of the site, there are only a few interesting buildings remaining in a reasonable state of repair and many of these are badly contaminated with explosives, chemicals and asbestos. Decontamination of the explosives is demanding and may require the virtual demolition and burning of buildings.

Yet it is these man-made artifacts that could best tell the story of gunpowder. Historic interpretation is likely to require a degree of rebuilding and the collection of gunpowder artifacts from elsewhere if a museum is to be developed.

The Incorporating Mills viewed
across Queen's Mead



The man-made landscape

The heritage of the site's attractive man-made landscape will now rapidly deteriorate without management. There are a number of strong and valuable landscape attributes that must be preserved for the enjoyment of local residents and the users of new activities on the site. These include the Green, the Queen's Mead, the Long Walk and the waterways.

The Proposals

Within the broad framework of conservation and re-use several specific uses are possible and could be accommodated to meet prospective demand – other local suggestions include the development of a National Gunpowder Museum utilising one of the surviving steam powered mills, location of the registry office with related facilities for wedding receptions, and many suggestions for small service businesses including catering and recreational activities.

Site Management
A Town Trust?

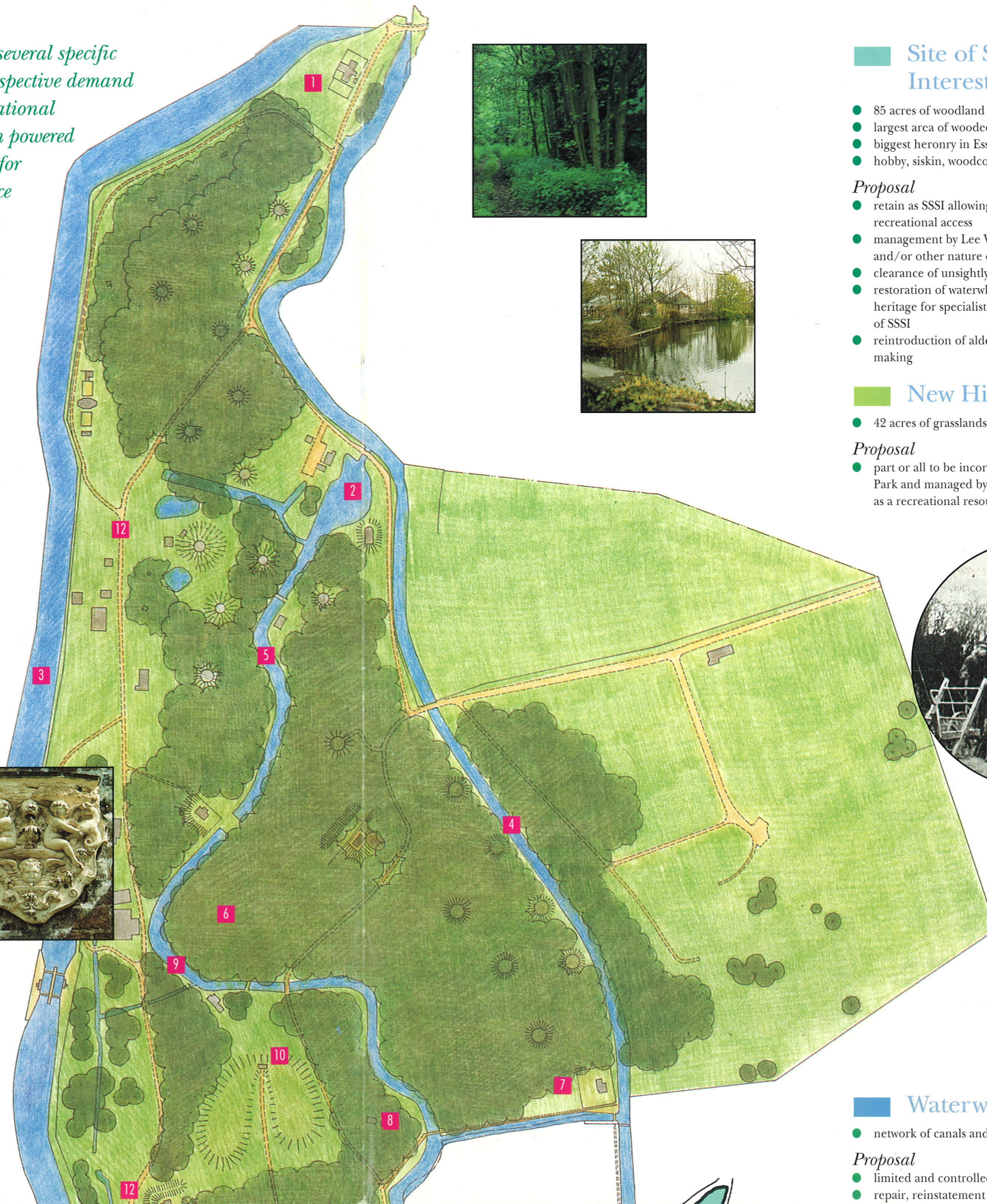
Whatever the precise future uses on the site there will be a need for overall management and this brings into focus the whole issue of future site ownership. Whilst certain parts of the site could be sold to the private sector with planning consent, much of the site will need to be handled in a different way to ensure the permanent protection of the Green Belt and to maximise local benefits.

Discussions are now being held with Waltham Abbey Town Council and with Lee Valley Regional Park Authority to find ways in which parts of the site can be owned and managed in the future. The Authority wishes to own and manage the northern sections of the site and to incorporate these into the existing Lee Valley Regional Park. The Authority is an established organisation set up by act of parliament and is well able to do this.

The Town Council wishes to secure the recreational and educational benefits of the site for the townspeople through appropriate ownership and management of the central areas of the site. A possible vehicle for achieving this is the setting up of a trust – a company limited by guarantee. If this had suitable legal objectives (for example nature conservation, management and education) it could gain charitable status. It could be set up to always have local representation at director level (some members of Waltham Abbey Town Council for example). Within the constraints of planning consent the trust could combine forces with the private sector to develop or run a museum or small hotel. It would employ the income from these transactions to achieve its stated legal objectives of conservation, management and education for local benefit. It would employ a small staff to undertake management or could contract to local firms – for gardening and maintenance for example.

How to make Gunpowder

Gunpowder is prepared by mixing the purified ingredients of saltpetre, sulphur and charcoal in the proportions 75, 10, 15 and incorporating the mixture under massive edge runner millstones. The mill cake is then broken down and pressed before being granulated to the required size.



Site of Special Scientific Interest (SSSI)

- 85 acres of woodland
- largest area of wooded land in the Lee Valley
- biggest heronry in Essex
- hobby, siskin, woodcock, woodpecker and small mammals

Proposal

- retain as SSSI allowing limited and controlled public recreational access
- management by Lee Valley Regional Park Authority and/or other nature organisations
- clearance of unsightly structures
- restoration of waterwheel, disused locks and architectural heritage for specialist recreational access in southern area of SSSI
- reintroduction of alder wood, coppicing and charcoal making

New Hill

- 42 acres of grasslands and agricultural land

Proposal

- part or all to be incorporated into the River Lee Country Park and managed by Lee Valley Regional Park Authority as a recreational resource

Waterways

- network of canals and the River Lee

Proposal

- limited and controlled access within SSSI area
- repair, reinstatement and extension of canal system to

Queen's Mead & Long Walk

- 8 acres of mature man-made landscape

Proposal

- restoration and management as a public open space and used for suitable recreational events

"Stratford-on-Avon/ Little Venice"

- collection of existing buildings, canals and bridges including the "Island Site"

Proposal

- refurbishment for day and night leisure activities
- lecture theatre for educational and commercial uses
- riverside cafes and restaurant
- local history museum
- community meeting facilities
- studios for artists and craftsmen
- creation of characterful recreational area with waterside setting and small boat basin

Research & Business

- western flank of the site with range of Ministry of Defence buildings in various states of repair

Proposal

- new buildings aimed at research and modern business uses replacing lost employment opportunities in the area
- carefully designed to fit into the existing landscape and making use of the man-made landscape features
- paying for new road access for the site's recreational uses

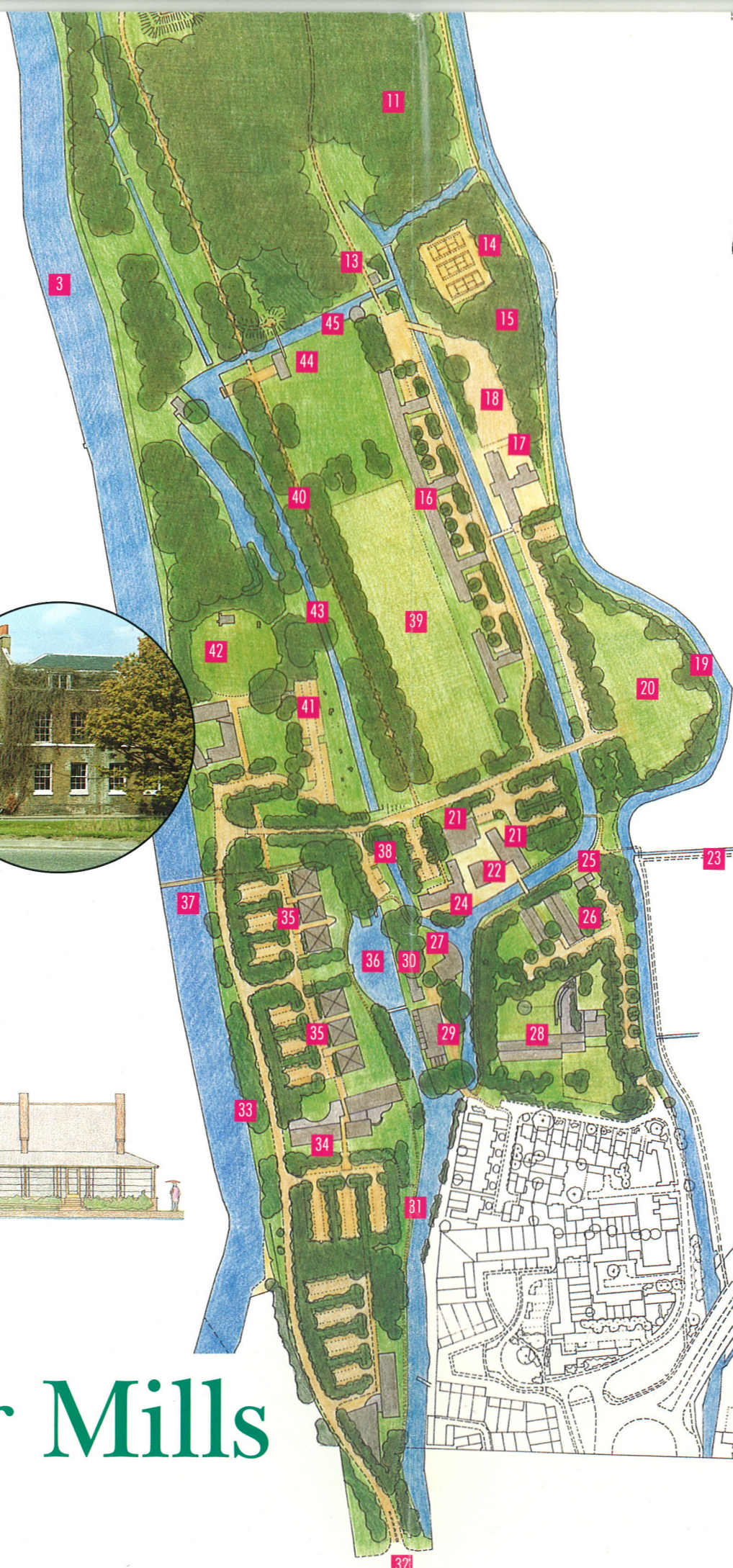
Traffic

The proposals for reuse have been tested for traffic generation to ensure that there are no adverse effects on the local road network and to identify any improvements that are required.



The Royal Gunpowder Mills

Waltham Abbey, Essex



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- form a major recreational resource
- punts and small canal boats

Other Recreational Areas

- several man-made landscape areas each with different character and relationship with waterways

Proposal

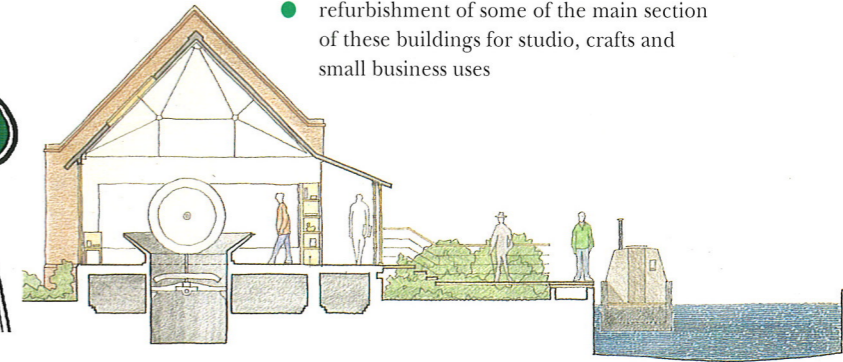
- restoration and management for public recreation and enjoyment including tennis courts

Incorporating Mills/Museum

- 24,000 square feet of old incorporating mill buildings in good location alongside canal

Proposal

- a gunpowder museum in the best remaining building
- refurbishment of some of the main section of these buildings for studio, crafts and small business uses



Hotel/Apartments

- site between Powdermill Lane and the Island site

Proposal

- small hotel and apartments linked to educational, recreational and commercial uses elsewhere on the site

KEY TO PLAN

- | | |
|--|--|
| 1 Grand Magazine | 23 New footpath link to Countryside Centre |
| 2 Newtons Pond | 24 Heritage book and gift shop |
| 3 Horsemill Stream | 25 Water Tower observation platform |
| 4 Cornmill Stream | 26 Apartments in converted building |
| 5 Old River Lea | 27 Possible Registry Office/LVRPA Head Quarters Building |
| 6 Heronry | 28 Hotel using converted house |
| 7 Proposed Warden Accommodation | 29 Lecture Theatre/Education Centre |
| 8 Gunpowder Press House and Water Wheel | 30 Former Salt Petre Store converted to education centre |
| 9 Controlled access by water | 31 Canal footpath from Highbridge Street |
| 10 Bird Hide - "Look Out" | 32 Improved junction - Highbridge Street and Hoppit Road |
| 11 Alder wood / charcoal production | 33 Additional planting to water edge |
| 12 Footpath through SSSI | 34 Proposed Research Centre |
| 13 Proposed Offices/Workshop for Warden | 35 Possible business or education establishment |
| 14 Tennis Courts | 36 Boating area |
| 15 Additional landscaping | 37 New footbridge link to Lee Valley Show ground |
| 16 Mills converted for studio, crafts small business uses | 38 Archaeological remains, subject to investigation |
| 17 Proposed Gunpowder Museum | 39 Queens Mead |
| 18 Expansion area for museum | 40 Long Walk |
| 19 Improved landscaped edge | 41 Visitor parking |
| 20 "Adventure Land" play area | 42 New passive open space picnic area |
| 21 Local history museum and community meeting facilities in converted building | 43 Canal restored and made small boat navigable |
| 22 Cafe and restaurant in converted building | 44 SSSI Interpretation Centre |
| | 45 New canal link creates boating loop |

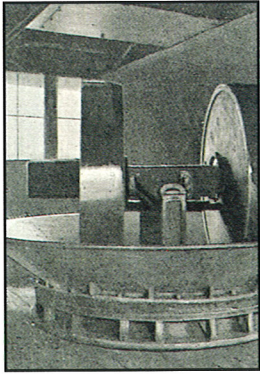
The future

These attributes of the site offer the potential for creating an attractive new environment combining needed new uses with recreational activities and nature conservation.

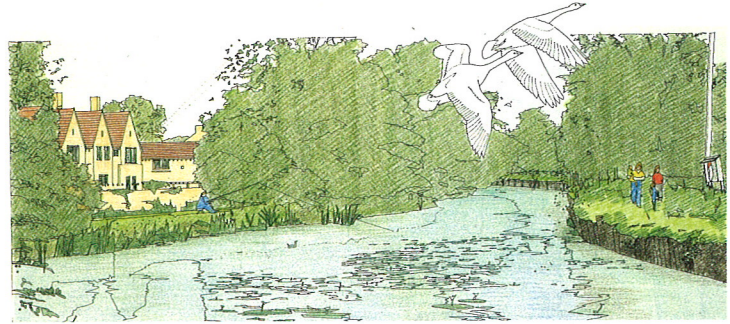
There are proposals for housing in Powdermill Lane retaining existing building forms and maximising enjoyment of the water and meadow views, for a gunpowder museum showing the methods of manufacture, for other recreational uses, for accommodating the administration of Lee Valley Regional Park Authority, for nature interpretation and educational uses including re-use of existing lecture theatre facilities, for a small hotel and for some commercial employment-creating activities combining office, research or service industry uses.

The history of the site has been intimately bound with the economy of the town and surrounding areas and plans for the future must continue this link. One of the objectives is to create opportunities for local employment in modern activities replacing those lost over the years of decline in the defence industry. But this must be done in ways that also strengthen the recreational and natural values of the

site and that generate sufficient income for the proper management and enhancement of these assets not just for today, but for the long term future.



Restored Edge Runner for Gunpowder Museum



A view of the housing seen across water

Paying for it all A museum and historic interpretation, reclamation of waterways for leisure boating use, nature conservation and on-going site management will all cost money and it will be essential that some part of the site re-development generates this. In the current economic climate this will not be easy but, in addition to the modest income that may be generated by leisure and recreational uses, the best prospects for this are for housing and office use – the latter geared to appeal to institutional users valuing small, freestanding buildings within a well landscaped and natural environment located on the southern parts of the site.

It must also be remembered that the site is owned by the Ministry of Defence which is under an obligation to the Public Accounts Committee to achieve a market value for the site. The Ministry of Defence is also obliged to pay for decontamination work.



What does it all add up to?

The process of achieving beneficial re-use is not simple. It must respond to all these ambitions and problems to distill a mix of conservation and financially viable uses.

Consultants CIVIX have been working with the Ministry of Defence for over a year to work out a viable future for the site. Much of this work has involved consultation with a wide range of public and private bodies and with local representatives. These have included Waltham Abbey Town Council, Epping Forest District Council, Essex County Council, Lee Valley Regional Park Authority, English Nature, English Heritage, Essex Wildlife Trust, the regional office of the Department of the Environment, the Gunpowder Mills Study Group, British Waterways, local historical societies and

several organisations interested in locating facilities or activities on the site.

Two all-day Planning Forums have been held in

Members of the Planning Forum visiting the Site



Waltham Abbey involving representatives from these bodies and from local residents.

Inevitably many conflicting views have been expressed and no proposals will satisfy all interested parties. Nevertheless there has been wide appreciation of the needs to balance what social, recreational and conservation benefits can be achieved with what money can be generated to help pay for them. The proposals illustrated at the Public Exhibition represent the results of the consultation process and will constitute the basis of the planning application to be submitted later this year. The proposals have not been formally considered by Epping Forest District Council and do not necessarily have the support of any of the other bodies consulted.

Can we combine nature conservation with recreational opportunities, can we conserve and enhance the industrial heritage whilst introducing some modern uses that will pay for it, can we create new employment to replace that lost over recent years – how can we make the best of it all?



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