

# Planning Committee

11 September 2020

Agenda item number 8.1

## BA/2020/0227/FUL and BA/2020/0228/LBC, Muttons Mill, Stones Road, Halvergate

## BA/2020/0231/FUL and BA/2020/0232/LBC, High's Mill, Stone Road, Halvergate

Report by Heritage Planning Officer

---

### Proposal

**Mutton's Mill:** Comprehensive structural and mechanical repairs to drainage mill, including underpinning and internal and external refurbishment work.

**High's Mill:** Underpinning works to internal machinery, reinstatement of historic features and internal and external repairs.

### Applicant

Water, Mills and Marshes Landscape Partnership Scheme

### Recommendation

All approval subject to conditions

### Reason for referral to committee

Director discretion

### Application target dates

Mutton's Mill - 04/09/2020 (FUL and LBC)

Highs Mill- 14/09/2020 (FUL and LBC)

---

## Contents

1.	Introduction	2
2.	Description of sites and proposals	2
3.	Site history	5
4.	Consultations received	6

5.	Representations	6
6.	Policies	7
7.	Assessment	7
8.	Conclusion	11
9.	Recommendations	11
10.	Reason for recommendations	12
	Appendix 1 – Location map	13

## 1. Introduction

- 1.1. This report covers four planning applications submitted as part of the Water, Mills and Marshes Landscape Partnership scheme (WMM). WMM is a £4.5m programme funded by the Heritage National Lottery Fund and covers a wide range of projects, including the repair and restoration of a number of mills within the Broads.
- 1.2. A number of planning applications will be submitted on behalf of WMM and considered over the coming months. The background to most of the applications is the same, and while the works proposed vary in detail, the objectives and the principles are broadly similar. It therefore proposed to combine a number of applications in a single report where practical.
- 1.3. This report covers two applications at Mutton's Mill in Halvergate and two at High's Mill in Halvergate.
- 1.4. The Heritage Asset Review Group (HARG) receive an update on the progress of the WMM work at their quarterly meetings.

## 2. Description of sites and proposals

### Mutton's Mill

- 2.1. Mutton's Mill sits within an isolated location on Halvergate Marshes to the south of the A47 (Acle Straight). The site is accessed by a minor road and a track which accesses the marshes from the main road into Halvergate village. The mill stands in a gated enclosure that contains a low, open-sided shed in which materials are stored.
- 2.2. Mutton's Mill is a mid-19<sup>th</sup> Century, Grade II\* listed wind pump with much of the internal machinery and gearing remaining, as well as the external boatshaped cap, fanstage and two sails.
- 2.3. The mill has boarded doors at ground level on the north and south sides, a single window on the east side at first floor level and a window to the west at second floor level. A pair of metal bands are fitted at about 2m and 4m above the ground to help counteract the outward spread of the tower. The tower is surmounted by a boatshaped

cap with a gently curving ridge. The cap gallery has a metal handrail and the fantail has six blades. A braced timber guide pole for the striking chain extends downwards from the fan stage. A single pair of 8-bay patent sails without shutters is fitted to the forward box of the poll end. These are left free to rotate when there is sufficient wind.

- 2.4. Internally, unusually the scoop wheel mill drive is located inside the tower rather than outside it. At ground floor level, the internal drainage lane and scoop wheel are closed off behind a timber partition. There are three boarded floors above ground level. These have been carefully repaired and contain much historic material. The cap of the mill has been carefully replicated in new timber to form an authentic copy of the original. The clasp-arm brake wheel (head wheel) inside the cap has been reconstructed. Its wooden cogs have not been refitted so it cannot turn the upright shaft. The central wooden upright shaft remains in position with its cast iron wallower at the top and crown wheel near the bottom. The large cast iron pit wheel, which carried wooden cogs, has been dismantled and rests on blocks on the ground outside the mill.
- 2.5. There are two planning applications – one for the works which require planning permission and one covering the application for works to a listed building; some of the works are included in both applications. The proposal is for comprehensive structural and mechanical repairs to the drainage mill including underpinning and internal and external refurbishment work which aims to return the mill to a sound structural and mechanical condition. This will allow the mill to operate as it was originally designed, using wind power to drive the internal scoop wheel and raise water from the marshes to the river. The works include:
  - a) Groundworks at the tower base to underpin and stabilise the tower brickwork.
  - b) Repair and external redecoration of the tower brickwork.
  - c) Minor repairs to the structural timbers of the internal floors.
  - d) Temporary lowering of the cap roof to ground level for repair.
  - e) Repair of the cap frame, cap roof and gallery and renewal of the fan stage timbers.
  - f) Repair and re-levelling of the curb ring on which the cap roof rotates.
  - g) Mechanical overhaul of the cap winding gear and centring wheels.
  - h) Mechanical overhaul of the windshaft, brake wheel and upper machinery.
  - i) Repair and re-installation of the pit wheel and lower machinery.
  - j) Restoration of the drainage outflow system.
  - k) Extensive repairs to the existing sails, stock and clamps.
  - l) Manufacture of a new pair of sails, stock and clamps.
  - m) Manufacture and installation of front and rear striking gear and a 1/3 set of shutters (vanes) for the sails.

#### List description

- 2.6. All HALVERGATE MARSHES TG 40 NW 4/44 Mutton's Mill. G.V. II\* Windpump, mid C19, restored c.1980. Tarred brick tower and boat shaped weather- boarded cap. Tapering circular tower of 4 storeys. 2 ground floor doors, 1 window at first floor and 1 window at second floor level with segmental brick arches. Complete cap frame, fan and machinery. Cap gallery added c.1980. Wooden clasp arm brakewheel, cast iron windshaft, wallower, and wooden drive shaft. Cast iron crown wheel and pit wheel to internal scoop wheel. Two stocks, four clamps and remains of four 8 bay patent sails lie on ground near mill. The internal scoop wheel is the only surviving example in the Broads area.

#### High's Mill

- 2.7. High's Mill also sits in isolation on Halvergate Marshes to the south of the A47 (Acle Straight). The site is accessed by a minor road and track which accesses the marshes from the main road into Halvergate village. The site sits approximately 2km to the east of Mutton's Mill.
- 2.8. High's Mill is a Grade II listed 18<sup>th</sup> century windpump and represents the earliest form of brick drainage mill. Unlike its neighbours, the mill resisted technological improvements throughout its working life and retains a set of early wooden machinery. High's mill carried four common sails spread with canvas. Its boat-shaped cap was turned to face the wind using a braced tailpole which extended almost to ground level. To haul the cap around to the desired position, a four-armed hand winch was provided. This employed a chain which was looped over heavy wooden stakes driven into the ground surrounding the tower.
- 2.9. Externally, the mill's traditional white-painted boat-shaped cap was never fitted with a fantail to turn it into the wind. Photographs from the 1940s and earlier show a braced tailpole projecting from the rear of the cap with a four-armed winch set close to ground level. The tailpole was braced to a horizontal beam known as a 'cross breast' which protruded from either side of the cap. This remains in position. The sails were of the unimproved 'common' type, extending almost to ground level. By 1974 the sails had long since disappeared and the cap roof was a wreck, allowing rain to pour into the mill and damage the internal machinery. By 1988 a temporary cap roof clad in sheet aluminium had been installed over the original cap frame and this remains in position. The single first floor window was originally provided with a side-hinged shutter. There is a pair of opposing doors on the north and south sides. The sails drove an external scoop wheel in a white-painted hoodway positioned on the east side of the tower. The wooden parts of these features have disappeared.
- 2.10. Internally, there are two wooden boarded floors above the ground. The mill's internal machinery is of a very early design, including a wooden head wheel (brake wheel) with pegs instead of cogs and a 'trundle' wallower. Both of these rare gear wheels have suffered severe damage from exposure to the elements, but remain in position. On the ground floor, the main gearing that drove the external scoop wheel remains in position.

This comprises a wooden 'hurst frame' of posts and beams supporting the lower bearing of the wooden upright shaft. The shaft carries an iron crown wheel that engaged a cast iron pit wheel with wooden cogs morticed through the rim. The pit wheel is fitted to a horizontal timber shaft which protrudes through the tower brickwork to carry the scoop wheel.

- 2.11. There are two planning applications – one for the works which require planning permission and one covering the application for works to a listed building; some of the works are included in both applications. The proposals are for underpinning works to internal machinery, reinstatement of historic features, and internal and external repairs, including:
- a) Minor conservation repairs to the cap following a condition survey of the remains of the original cap frame and roof.
  - b) Tower brickwork repaired where necessary and redecorated externally with a substitute tar finish.
  - c) New boarded doors and boarded window shutter fitted, matching those shown in old photographs.
  - d) Internal floors repaired and new ladders provided, re-using existing timbers where possible.
  - e) Machinery and hurst frame timbers at ground floor level conserved, repaired and reinstated in their original positions.
  - f) Existing ground floor excavated and a steel-reinforced concrete beam inserted underneath the machinery to underpin it.
  - g) Reinstatement of mill operator's stove on ground floor.
  - h) Replacement ground floor finish of rammed earth installed.
  - i) Installation of wheel pit (brick construction or steel-lined) to protect pit wheel.

#### List description

- 2.12. HALVERGATE HALVERGATE MARSHES TG 40 NE 5/43 High's Mill. G.V. II Derelict windpump, early C19, with tarred brick tower, and temporary aluminium cap over remains of weatherboard cap frame. Tapering circular tower of 3 storeys. One window opening at first floor and 2 ground floor door openings with segmental brick arches. Reused C18 cap frame on wooden curb and track. Cast iron windshaft with wooden clasp arm brakewheel. Early clasp arm wooden trundle wheel with dog teeth. 16 sided upright shaft, cast iron crown and pit wheel with wooden teeth. Square timber drive shaft to scoop wheel.

## 3. Site history

- 3.1. None for either site.

## 4. Consultations received

Consultees	Mutton's Mill	High's Mill
Parish Council	No response	Very supportive of the works
District Member	No response	No response
Broads Society	No response	No response
Historic England	We would very much encourage the project in principle although we do have some reservations about the proposed underpinning of the tower. However, if the Council are satisfied of the necessity for this (underpinning proposed) it is not a method we would oppose in principle.	No comments
Amenity Societies	Society for the Protection of Ancient Buildings Mills Section support the application	No response
NCC Historic Environment Services	No objection subject to historic building recording condition  Condition proposed	No response
Norfolk Windmill Trust	No response	No response
Environment Agency	No comments	No objection
Broads Authority Environmental/ Ecology Officer	No objections subject to conditions covering bat mitigation and bat enhancements to be agreed  Conditions proposed	No objections subject to conditions covering bat check, barn owl mitigation, works to take place outside bird breeding season unless first checked by an ecologist, bat enhancements, barn owl enhancements and post works monitoring.  Conditions proposed

## 5. Representations

### 5.1. None received

## 6. Policies

- 6.1. The adopted development plan policies for the area are set out in the [Local Plan for the Broads](#) (adopted 2019).
- 6.2. The following policies were used in the determination of the applications:
  - SP5- Historic Environment
  - DM5- Development and Flood Risk
  - DM11- Heritage Assets
  - DM13- Natural Environment
  - DM21- Amenity
  - DM43- Design
  - SSMILLS- Drainage Mills
- 6.3. The National Planning Policy Framework is a material consideration.

## 7. Assessment

- 7.1. The proposed developments each relate to conservation and maintenance works to the disused listed drainage mills.
- 7.2. The key issues in the determination of the applications are the principle of the development, the impact on the heritage, design, ecology and flood risk.

### Principle of development

- 7.3. These proposals are part of a wider scheme to undertake repair and conservation works to former drainage mills, which contribute to the character of the Broads area generally and Halvergate Conservation Area specifically. The works proposed would help arrest the on-going deterioration of the buildings, secure their future for the longer term and enhance their character and integrity by reinstating traditional features. The proposals are therefore acceptable in principle and, indeed, welcomed.

### Impact upon heritage and design

- 7.4. The National Planning Policy Framework (NPPF) states that the purpose of the planning system is to achieve sustainable development and that protection and enhancement of the historic environment is an overarching objective in this (paragraphs 7 and 8). The significance of listed buildings can be harmed or lost by alteration to them or development in their setting. The NPPF states that clear and convincing justification should be made for any such harm and that 'great weight' should be given to the conservation of listed buildings and conservation areas irrespective of the level of harm caused (paragraphs 193 and 194). This weight and the justification for harm should be especially convincing where harm to buildings of a high grade of listing is concerned (for example Mutton's Mill which is grade II\* listed).

- 7.5. These mills form part of a large group of mills on Halvergate Marshes and Haddiscoe Island. The mills are particularly visible from the vantage point of Burgh Castle Roman fort which is both an important historic and contemporary viewing point. These mills, and the wider group, are also visible from the circular walk around the marshes, from the A47 (Acle Straight) and the road which leads down into Halvergate Village. Given their visibility in the Broads there are clear heritage gains arising from works which arrest their on-going deterioration and, in addition in the case of Mutton's Mill, bring it back into its full working and visual glory.
- 7.6. The extent of works proposed at both mills are fairly significant, especially with regard to the underpinning and stabilisation at Mutton's Mill which is grade II\* listed. It is therefore appropriate to consider whether the level of works proposed are necessary and ensure that these will not result in loss or damage to historic fabric of significance which cannot be fully justified, as highlighted by the NPPF and Historic England within their consultation response.

#### Mutton's Mill

- 7.7. Much of the internal machinery and timbers, boatshaped cap and two sails are in good condition, but are at a point of needing extensive maintenance to ensure their retention, as proposed, which is wholly appropriate to arrest the on-going deterioration.
- 7.8. A crucial element of the proposal is the repair of the existing and the reinstatement of the two missing sails, in a design to match the previous, which would make the mill the feature in the Broads landscape it once was and can be supported.
- 7.9. In terms of the tower, general maintenance of the brickwork, re-pointing and re-treatment, is supported.
- 7.10. With regard to the underpinning and stabilisation of the tower, this is the most significant element of the works and requires the most intervention. As well as the physical intervention into the fabric, one of the concerns arising from underpinning traditional structures is the potential for differential movement between the new, rigid foundations and the more flexible existing ones, leading to further problems in the future. In this case, however, it is proposed to install a series of small concrete rafts on piles around the perimeter of the building, other than where the mill race runs through it. The programme of work does include several areas where masonry would be reinforced and reconstructed, but much of this will be below the ground and out of view and is of later fabric. It is considered that this type of underpinning will give more consistent support and is less intrusive than other methods.
- 7.11. With regard to whether this level of works is necessary, the Design and Access Statement submitted with the application advises that the shrinkage of land around the mill has led to structural problems and there are indeed cracks in the masonry which could be evidence of this. In addition metal bands have been installed around the mill to stop the tower from essentially splitting apart. The tower therefore clearly needs



some form of stabilisation. The level of underpinning has been scaled back from what was discussed at the pre-application stage, where a higher level of intervention was explored (including the bringing up of the entire floor and replacement of the brick raceway). The tower will undoubtedly be required to take more strain when the additional sails are erected resulting from the additional weight, and, as it will be a working mill, when the sails turn to wind. Overall, it is concluded that the level of alteration proposed is required to address the existing movement issues and ensure the mill can take the additional weight and wind strain. Amendments have been made which scale back the level of intervention through underpinning to only that which is necessary to achieve the required structural strength and stability and overall the works are justified in that they will secure the mill's future.

#### High's Mill

- 7.12. The level of works proposed at High's Mill is less than at Mutton's and High's Mill is of a lower category of listing, being at grade II rather than II\*. However, it is still necessary to ensure that the works proposed are appropriate and can be justified. This means taking a proportionate approach taking into account the level of works proposed and the grading of the mill.
- 7.13. Whilst a lower level of intervention is proposed at High's Mill, the level of maintenance and repair is generally greater as the structure is in a later stage of deterioration. The general maintenance and repair of the existing cap, tower and internal machinery, to arrest their on-going deterioration, is supported. Great care will need to be taken to ensure that as much as possible of the historic timbers can be retained and this can be monitored and secured by condition.
- 7.14. The installation of new doors, windows, floors, ladders and framework to replace those that are lost in the mill is supported and the use of a traditional design and joinery methods can be secured via condition.
- 7.15. The proposal includes the reinstatement of mill operator's stove on ground floor which is welcomed, the details of which can be secured via condition.
- 7.16. The proposal also includes the installation of either a brick or steel pit to protect the existing pit wheel. This is welcomed and the details of this can be secured via a planning condition to ensure the materials and design is appropriate.
- 7.17. With regard to the proposed underpinning, the existing machinery has slumped significantly which is immediately visible once within the mill. The underpinning is limited to a steel-reinforced concrete beam inserted underneath the machinery to underpin it and ensure it remains stable within the mill. The floor will need to be excavated to achieve this, but given it is an exposed earth floor minimal historic fabric will require removal or disruption to achieve this. Undertaking these works will allow the machinery to be straightened and stabilised within the centre of the mill, and, subsequently, floors to be installed back into their original position. Given the benefits

of this work and that fact that the underpinning will not be visible, it is considered the intervention is justified.

## **Impact on ecology**

### **Mutton's Mill**

- 7.18. The protected species surveys submitted with the application showed the drainage mill has moderate bat roost potential for summer roosts, and an occasional night/feeding roost for brown long-eared bat. Passive detector surveys showed that the area around the mill is regularly used for foraging by five bat species, but the interior of the mill was visited only very infrequently. The external raceway could provide suitable conditions for bat hibernation, but no crevices were visible in the structure. The proposed restoration works will involve scaffolding and sheeting over the entire mill, which will block access for bats using the mill for night roosting or as a feeding perch. This will extend over the summer active period for bats. However, the survey results indicate that night roosting occurs very infrequently and only by individual brown long-eared bats. Once the mill is reassembled and the scaffolding is removed, the bat roost and access will be reinstated. It is therefore not considered there will be an adverse impact on protected species subject to the conditions regarding mitigation and enhancement proposed.

### **High's Mill**

- 7.19. The protected species surveys submitted with the application showed that bat roost potential was assessed as low for summer and winter roosts due to the level of light incursion into the mill and the lack of double-clad structures and deep crevices and holes. The external brick raceway was assessed as being unsuitable as a bat hibernation roost. However passive detector surveys showed that the area around the mill is regularly used for foraging by six bat species, which are likely to benefit from bat enhancements within the mill. Old barn owl pellets and owl splashes were found on the first floor together with pigeon and stock dove faeces. A kestrel was also seen. Barn owls appear to have used the mill in the past, accessing the first floor by the open hatch, but there was no fresh evidence. It is therefore not considered there will be an adverse impact on protected species subject to the conditions regarding mitigation and enhancement proposed.

## **Impact on amenity**

- 7.20. Given the isolated locations of both of the mills it is not considered that there would be an adverse impact on amenity as a result of the proposals.

## **Impact on flood risk**

- 7.21. Whilst the mills are within the active flood plain, as the works are for renovation and conservation of the mills it is not considered that there would be an adverse impact on flood risk as a result. As, at Mutton's Mill, it is hoped that it will be renovated to full working order there is an argument that there could be a slight benefit to flood risk by being able to manage water levels, although it should be acknowledged that this is not

the formal intention or use of the mill. The Environment Agency did not have any objections or comments to make.

## 8. Conclusion

- 8.1. The works proposed at both sites would help arrest the ongoing deterioration of the listed buildings by ensuring they are physically sound, stable, and weather tight, secure their future for the longer term and enhance their character and integrity by reinstating traditional features of an appropriate design. The proposals are therefore acceptable in principle and, indeed, welcomed.

## 9. Recommendations

- 9.1. It is recommended that planning permission is granted for both applications (full and listed building consent) at both sites, subject to the following conditions:
- 9.2. BA/2020/0227 FUL Mutton's Mill- Comprehensive structural and mechanical repairs to drainage mill including underpinning and internal and external refurbishment work.
1. Time limit
  2. In accordance with plans
  3. Bat mitigation to be agreed
  4. Bat enhancements to be agreed
- 9.3. BA/2020/0228/LBC Mutton's Mill- Comprehensive structural and mechanical repairs to drainage mill including underpinning and internal and external refurbishment work.
1. Time limit
  2. In accordance with plans
  3. All new materials and treatments to be agreed prior to installation
  4. Any damage to be made good
  5. All external and internal joinery details to be agreed prior to installation (including but not exclusively: windows, doors, sails)
  6. Historic building recording survey to be submitted
- 9.4. BA/2020/0231/FUL High's Mill, Stone Road, Halvergate- Underpinning works to internal machinery, reinstatement of historic features, and internal and external repairs.
1. Time limit
  2. In accordance with plans
  3. Bat check to be undertaken prior to works
  4. Barn owl mitigation to be agreed
  5. Works to take place outside bird breeding season unless first checked by an ecologist
  6. Bat enhancements to be agreed
  7. Barn owl enhancements to be agreed

8. Post works monitoring of bats and barn owls to be agreed
- 9.5. BA/2020/0232/LBC High's Mill, Stone Road, Halvergate- Underpinning works to internal machinery, reinstatement of historic features, and internal and external repairs.
  1. Time limit
  2. In accordance with plans
  3. All new materials and treatments to be agreed prior to installation
  4. Any damage to be made good
  5. All external and internal joinery details to be agreed prior to installation/alteration (including but not exclusively: windows, doors, frames, floors, ladders – including details on the level of historic timbers to be retained)
  6. Details of the re-instatement of the mill operator's stove to be agreed
  7. Details of the wheel pit lining (brick or steel) to be agreed

## 10. Reason for recommendations

- 10.1. All of the above development will help secure the longevity of important historic buildings on the Broads for existing and future generations to enjoy which is welcomed. The development will have a positive impact on the integrity, and setting of the listed buildings and will better reveal their significance. The development will not have an adverse impact on ecology, neighbouring amenity or flood risk in accordance with the NPPF and policies SP5, DM5, DM11, DM13, DM21, DM43 and SSMILLS of the Local Plan (2019). They are in accordance with the National Planning Policy Framework (2018) which is a material consideration in the determination of this application. The applications comply with the statutory duty of section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act as having special regard to preserving Listed Buildings and Conservation Areas.

Author: Kayleigh Judson

Date of report: 25 August 2020

Appendix 1 – Location maps

## Appendix 1 – Location map



© Crown copyright and database rights 2020 Ordnance Survey 100021573. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.