

Big Skies, Mills and Marshes.

Ideas for repairs to mills, enhancing their interest, and improving access to them in the area.

The most impressive aspect of the Broadland mills to the lay observer and enthusiast alike, is their large numbers. So far, mostly isolated examples of mills have been preserved, and if the others were allowed to disappear, the effect would be lost.

It is suggested that good, deserving groups of mills be identified and restored before it is too late. Other existing preserved or protected mills in the area should be safeguarded to ensure that they do not deteriorate further. This involves completing the restoration of three mills already preserved, the restoration of two mills now protected, and restoring one now derelict.

Windmills are unique in that they are fascinating structures in their own right, and add movement to the landscape when they are operating. The existing preserved mills are static most of the time, and just three turn their sails on the few days a year when they are open. It is proposed that at least one mill in each group is made capable of having its sails turning, unmanned, on a regular basis when the wind allows.

On open days when wind is sufficient, all of the windmills in the two groups should be capable of displaying their sails turning.

The Dutch have many more windmills than we do, and manage to keep almost all of them in working order. Notable groups of Dutch drainage mills can be seen at Kinderdijk near Rotterdam, and Schermerland near Alkmaar. However, the Dutch mills do not have the diversity of design seen in the English mills. The mills of the Broadlands are uniquely "English", and we should keep them and be proud of them within the different character of windmills throughout the world.

Lower Bure.

The Lower Bure has the highest concentration of mills, and these are very prominent landmarks to boaters, walkers and motorists. At present, only Stracey Arms Mill is accessible for internal viewing on a regular basis, and has been static to date. Parking there is very limited, but boat access is good, however.

The Runham Group.

The three mills close to Runham, about five miles from Great Yarmouth, offer a good chance to restore a group of mills to complete condition.

Runham Commission Mill (Child's Mill)

This medium-sized tarred tower mill is in private ownership, but has a keen farmer owner. It has been restored to some extent by the owner and the Norfolk Mills and Pumps Trust, is in good condition, and has a working fantail, but no sails. Parking is available nearby.

This mill could be restored to working order as the “flagship mill” of the group. It needs a complete set of new shuttered sails and a new wooden brake wheel. A new cast-iron crown wheel, pit wheel and scoop wheel are also needed, due to the originals having been scrapped many years ago.

The mill was built by Smithdales of Norwich, and had a rare internal scoop wheel, the chamber for which is still intact.

Runham, Perry's Mill

Almost opposite Child's Mill, this is a small brick tower mill that has been raised a little, and was tarred. It has a temporary aluminium cap over the original cap frame. The interior machinery is complete, and it drove an external turbine pump which survives.

The mill is in need of complete restoration. The wind-shaft has broken, and a new one is required, but this can be patterned for and cast. Some of the cap frame may be re-usable, and maybe parts of the floors. The machinery can be repaired.

A new cap, sails and fantail will be needed, and the tower will need to be repointed and tarred.

It is suggested that the mill be restored with sail frames and a working fantail, but not equipped with a full set of shutters. However, the sails may be allowed to turn on open days if the wind is sufficient, with the turbine pump disconnected.

Five Mile House Mill.

About ½ mile downstream from Perry's Mill, a large brick tarred tower mill. It has a temporary aluminium cap over the original cap frame. The interior machinery is complete, and it drove an external scoop wheel a little distance from the tower.

The mill is dated 1849 on an external inserted stone plaque, and is believed built by Stolworthy of Yarmouth. It is unusual in having had clockwise sails, and a slightly separated scoop wheel driven via a shaft with couplings.

The machinery is restorable, and some of the internal timberwork can be retained.

A new cap, sails and fantail will be needed, and the tower will need to be repointed and tarred.

It is suggested that the mill be restored with sail frames and a working fantail, but not a full set of shutters. However, the sails may be allowed to turn at all times if the wind

is sufficient. The bearings of the wind-shaft and upright shaft could be fitted with automatic lubricators to keep them running smoothly. The scoop wheel would be kept disconnected using the traditional “draw-screw.”

The bare sails would not over-speed, and are sufficiently high above the ground not to be a hazard to visitors.

Access to the Group.

The group will be seen by holiday boaters approaching and leaving Great Yarmouth, and different views of the mills will be available as the river winds its way through them. Sometimes they will appear in line, other times spread out. If the sails are turning, it will be a stunning spectacle.

Motorists using the A47 will see them individually across the marshes, one by one as they are passed, finally reaching Stracey Arms Mill right by the road.

Child's Mill can be accessed from the road by cars and walkers, but will need to be manned by volunteers. On special open days, a ferry could be provided to take parties over to Perry's and Five Mile House Mills.

On a windy day, all three mills could be set working, providing an impressive sight not seen for 75 years.

A possible access could be established from Stracey Arms Mill. If a connection could be made with the pub/restaurant (currently for sale) perhaps a parking area could be negotiated, and boat trips to the mills arranged from there.

Other Mills in the Area.

Stokesby Old Hall, Dack's Mill.

This is the unroofed tower of a former squat, tarred, cloth-sailed and tailpole winded tower mill. It would benefit from a roof, flat or conical, to protect the interior. The beams of the first floor are old, re-used sheer timbers from a previous cap.

Six Mile House, Lake's Mill.

A medium-sized, tarred tower mill with a temporary low pitched roof. Privately owned, this mill possessed sails into the 1970s, but has since been dismantled. Machinery is present, also floor beams etc. The temporary roof is in poor condition and leaking. The mill formerly contained important trundle gearing in the form of the brake-wheel and wallower. Only parts of these now survive, but measurements and photographs were taken in time to record them, as well as the cap, sails and fantail.

The roof should, at least, be repaired to protect the interior. If boat trips can be organised from Stracey Arms, it would be worthwhile to repair this mill as one of the

group, as it would be passed first, and would represent an early mill modernised, but retaining old features.

Lower Yare.

The Lower Yare has a high concentration of mills, and those on Haddiscoe Island and Halvergate Marshes can also be seen. At present, Reedham Mill (Polkey's Mill) and Cadge's Mill at Seven Mile House are preserved and opened two or three times a year, together with the Steam Mill Building and Diesel Engines. Access is by water or footpath only.

The Seven Mile House Group.

Reedham Mill or Polkey's Mill.

This is a fully restored and workable clockwise-sailed tower mill with a scoop wheel, near the Seven Mile House. The mill was repaired from a derelict state under the "Land of the Windmills" scheme. Demonstrations of pumping can be seen when the mill is open and sufficient wind blows. Frequent maintenance is required preserve this mill in its present condition.

Cadge's Mill.

A large, tarred tower mill with an authentic cap, but no sails or fantail, about ¼ mile downstream from Reedham Mill. All machinery is absent apart from the brake wheel, but the floors are sound. Built by Smithdales of Norwich, the mill had an internal scoop wheel, the chamber for which is still intact. The mill had its cap rebuilt as part of the "Land of the Windmills" scheme.

It is proposed that the mill be equipped with a new set of sails with maybe just a few shutters, and a working fantail. The interior would be left empty, or used as an interpretation area, and the mill would not pump.

The sails could be allowed to turn at all times when the wind is sufficient. Like Five Mile House Mill in the Runham group, Cadge's Mill is sufficiently tall for the revolving sails to be out of the reach of visitors, and offer no hazard.

North Mill.

A small, tarred tower mill, slightly heightened. A damaged, leaning empty shell unroofed, but formerly driving a scoop wheel.

It is proposed to repair the tower, tar it and provide a flat or conical roof. The small size may allow for jacking the tower level at a future date..

The repair of this mill lends itself well to volunteer work, being on a small scale. The addition of an authentic cap could be considered.

Seven Mile House Steam Mill.

The mill building was repaired and conserved under the “Land of the Windmills” scheme, but contains no working parts, these having been scrapped over 50 years ago. Today there is a small interpretation area.

It is proposed that more interpretation material be set up in the building. Also, a dummy boiler front plate with furnace door, and a dummy engine be set up to improve the understanding of the building. Photographs of the original interior exist, and could be used to design the full-sized artwork or models.

Seven Mile House Diesel Engines.

The corrugated steel building houses two large diesel engines with pumps that are in good working order. No further work is required.

Chedgrave Detached, Steven Hewitt’s Mill.

This small, tarred tower mill stands on Haddiscoe Island, $\frac{3}{4}$ mile below Cadge’s Mill on the opposite side of the Yare. It is derelict and unroofed, but still has the windshaft and cap frame in place. The upright shaft and wallower are present, but the crown wheel, pit wheel and scoop wheel are absent. The floors are still present.

This mill had cloth sails and was winded by a tailpole – *a type of Norfolk mill that has not so far been restored*. It is proposed to return the mill to working order to represent how the first tower drainage mills would have looked. No completely restored tailpole-winded tower mills are known to exist in England.

A new wooden brake wheel will be required, and also a cast-iron crown wheel and pit wheel. Photographs of the original components exist to guide the designs.

At present, the mill is surrounded by water, and sometimes becomes flooded as a result of flood prevention work. It is hoped that this situation can be overcome by the co-operation of the bodies involved.

Access to the Seven Mile House Group.

There is no access to the site for cars, but the Wherryman’s Way footpath passes close by, taking walkers to the mills, which will need to be manned by volunteers. Boaters going to and from Reedham will obtain fine views of the mills, and there is a good mooring for boats near Cadge’s Mill for those wishing to stop. On special open days, a ferry could be provided to take parties over to Chedgrave Mill.

As with the Bure group of mills, the sails of all three mills could be set turning on windy open days.

Other Mills in the Area.

Toft Monks, Pettingill’s Mill.

A small tarred tower mill on Haddiscoe Island. This was a cloth-sailed tailpole-winded mill with a scoop wheel. It was dismantled as a windmill and converted to work with a tractor. It is capless, and its temporary roof is in bad condition, although the owner proposes to repair it. The scoop wheel is complete.

The upper floor has the collar of a rare cap centring frame-*the only one known outside the north-west of England*. For this reason, the mill needs to be retained, as centring frames were apparently used here in earlier times, but only scant evidence survives in other mills.

Mills on Halvergate Marshes.

Four mills remain that formerly pumped marsh water into the Fleet Dyke. Of these, three are quite complete and are of considerable merit. Unfortunately, they are remotely sited, and might not lend themselves well to the requirements of the Lottery bid. Although they can be seen from the Acle New Road and the River Yare, access can only be achieved on foot. Nevertheless, they should be preserved at least in the condition that they are in now.

High's Mill.

This is a small tarred tower mill with an aluminium temporary cap in place. It had cloth-spread sails and a tailpole, and is the most complete example of its type. The machinery is intact, and includes a wooden "trundle-gear" wallower with round pegs instead of shaped cogs. This engages a wooden brake wheel, *and is now the only surviving example of this early type of gearing in an English windmill*. Other mills at Tunstall, Stokesby Old Hall and Six Mile House on the Bure all once had similar gearing, but their machinery is now lost.

High's Mill is owned by the Norfolk Mills and Pumps Trust, which spent money a few years ago underpinning and jacking up the tower, when it started to lean. The mill was capped over earlier as part of the Windpump Protection Scheme, and remains preserved, but not restored.

A restoration to full working order may not be appropriate if it means renewing the old wooden gearing. The provision of a more authentic, but long-lasting cap, and a sensitive repair of the interior, plus new doors and hatches may be sufficient

Mutton's Mill.

This is a large tarred tower mill with a proper cap, two sails and a working fantail. The machinery is complete, and includes an internal scoop wheel. The owners often leave the brake off, and the shutterless sails revolve in strong winds.

The mill was bought by two boat-builders, Paul Reynolds and David High and restored privately by them about 35 years ago. They still maintain the mill, but would appreciate help with this considerable task.

The provision of another pair of sails would complete the external appearance, plus the provision of assistance with maintenance and repair.

Stones or Kerry's Mill.

This is a medium sized tarred tower mill in a derelict condition. There is no cap roof, and the broken windshaft has fallen inside. The tower is leaning. The mill would benefit from a flat or conical roof to protect the interior.

Howard's or South Walsham Mill.

A medium sized tarred brick tower mill with a proper cap and fantail, but no sails. The mill has complete cast-iron machinery, and was restored privately by the former owner, Richard Seago, about 30 years ago. It has changed hands twice since, and now belongs to a local farmer.

Steps should be taken to ensure that this mill does not become neglected. Ideally, 4 new sails should be fitted, and assistance provided with maintenance and repair.

Lockgate Mill or Banham's Black Mill.

A medium-sized tarred brick tower mill with a temporary aluminium cap over the original cap frame. Cast-iron wood cogged brake-wheel, iron wallower displaced. Iron upright shaft, top section missing. Iron crown wheel, wood cogged cast-iron pit wheel. Iron shaft with damaged scoop wheel outside. Has cast-iron arch for bottom upright shaft/scoop-wheel shaft bearings. Floors present, but interior damaged by fire 2008. Parts of sails etc still lie outside. Live curb. Had clockwise sails and fantail and worked into 1940s, but the canister broke from the wind-shaft. Left to decay until capped over by NMPT.

An important mill, late built and state-of-the-art. Needs repair and maintenance.

Benefits from the Scheme.

The creation of the vision of groups of revolving windmills unique in England, to attract the attention and wonder of locals and visitors alike.

Providing work for local mill restorers, and the opportunity to train more workers in the craft.

Involving local steel fabricators, normally serving the offshore gas industry, in making the steel components.

Employing local traditional iron founders and pattern makers to create replacement cast-iron components.

Providing local youngsters with an inspiring spectacle to foster interest in their local history and agricultural surroundings.

Attracting local volunteers to open and look after the mills, and explain their workings and significance to visitors.

Enhancing an existing trademark of the Broads – the riverside windmills – for the benefit of boaters and other visitors.

Raising the profile of the area and bringing it into line with other areas in Europe that appreciate, value and maintain their heritage of windmills.