

## Salt Extraction on the North Bank of the Blackwater

For over two thousand years the north bank of the Blackwater Estuary, in Essex has been a centre of sea salt production. Goldhanger and Heybridge were at the centre of this in the past, and Maldon and Goldhanger still are. The various reasons for this are geographic, geological and meteorological, although in the past these reasons would not have been understood:

- o The estuary situated in low lying land which naturally develop large numbers of tidal pools and salt marshes.
- o All estuaries have greater tidal extremes than open coast lines, which results in a large areas of salt marshes.
- o The high concentration of clay ensures that the pools do not drain away at low tide.
- o The lowlands on the UKs east coast have very low rainfall, resulting in little dilution by rainwater.
- o Above average annual sunshine and higher wind speeds in the exposed areas, results in high evaporation from the pools, leaving behind the salt.
- o Each incoming tide progressively transfers the contents of pools further up the estuary, increasing the salt concentration as it goes.
- o Fresh water flowing down the main river bypasses creeks and inlets, resulting in greater salt concentration in those places.
- o Clay was to hand for the man-made evaporation tanks, kilns and pottery vessels used at the sites in the past.



*naturally accumulating salt at the edge of a pool in Goldhanger Creek at the end of a dry the summer*

The large number of "red hills" located all along the north bank of the Blackwater are evidence of the very early salt works, which was caused by the burning activities on the clay soil. These red hills are all located in the vicinity of the seawalls, which were generally built after salt extraction activity, some being just inside and some outside the seawall. It is likely that the building of the seawalls brought about the end of salt extraction activity at a particular location as the salt marshes were destroyed by the new wall. About 330 red hills have been identified in Essex, with most being on the north bank of the Blackwater. This very large number may be I part the result of moving to new sites over the centuries.



*artists impression of an early saltworks*

Many of the red hills were identified and documented in Victorian times, however ploughing has eliminated many of the mounds and all that remains now are the discoloured areas of soil only visible when crops are not present. The red hill sites around Goldhanger and Heybridge have been the subject of most intensive archaeological investigations and reporting in the past, which probably reflects that these were the most recently activate works. Both of these were superseded by the Maldon salt works in the 19th century, which is still operating on the river bank in the town today. However, in the last few years Maldon Crystal Salt Company has returned to the north bank of the estuary by creating a new extraction facility at Longwick Farm near Goldhanger.

### Some reasons why the original Goldhanger works might have disappeared. . .

- o A seawall built at Bounds Farm in 1790
- o The arrival of the Coastguards adjacent to the saltworks in 1820
- o The end of the Salt Taxation in 1825
- o The disappearance of the Goldhanger fishing fleet - date unknown
- o Fire is know to have destroyed the buildings - but date unknown
- o The larger coal ships disembarked at Heybridge & Maldon
- o Competition from the bigger and more efficient Heybridge works

### Some reasons why the Heybridge works might have moved to Maldon. . .

- o the discovery that the deep water in the main river channel was in fact saltier than at Heybridge
- o The estuary in the vicinity of the saltworks began to silt up, restricting access for larger coal ships
- o The availability of coal on the Maldon Hythe
- o to be close to the newly built and fashionable salt baths on the Hythe
- o to be near to the fish pits used by Maldon fishermen on the Hythe
- o The Heybridge site became bankrupt and was sold and developed as a mill and maltings
- o New investment originating within Maldon developed new products

### Before rock salt and electricity became available, sea salt was a vital local commodity with many uses:

- o salt was an essential preservative for fish, meat, cheese & butter
- o it was crucial ingredient in bread making, which controls the effect of yeast
- o as a general food flavouring, which detracted from the taste of decay
- o an antiseptic for disinfecting wounds
- o a water softener, and still used soap, toothpaste, bathsalts, etc.
- o a vital supplement in domestic & farm animal feedstuffs
- o it was mixed with oil to give oil lamps a brighter light
- o the salt glazing of pottery
- o a flux used in glass making
- o it was used in leather tanning

### and although salt would have been used for all of the above, local records show that there were other specific uses:

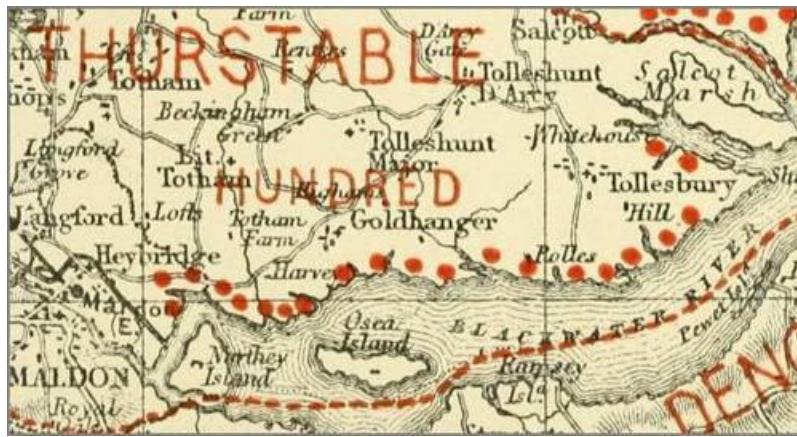
- o The mashes were ideal for rearing sheep, and the salt was used for making ewes cheese.
- o Fish from the estuary were initially kept fresh in the fish pits, but was salted before transportation to market.
- o When rock salt became available, the "salt-on-salt" process was used to increase local output of pure white salt.
- o The Goldhanger works was not licensed for white salt production so this was probably smuggled out via Tiptree Heath.
- o The Johnson family at Heybridge developed many uses for their salt, mainly as an agricultural fertiliser.
- o At Maldon the salt was use for the hot and hot salt baths that were fashionable in the Regency period.
- o When rail links improved the bath salts were packaged and shipped throughout the UK.
- o Only relatively recently have the large pure white crystal flakes been marketed for culinary use. . .



### A summary of the local evolution

*This timeline is based on information extracted from the many documents and newspaper articles  
That have been collected in the local archives over the years.  
There are some contradictions.*

- 2000BC** Salt extraction was taking place in the Bronze age and Iron age on the north bank of the Blackwater
- 100AD** The Romans exploited the sea salt resource on Osea Island and at Maldon
- 200AD** The Goldhanger and Heybridge saltpans where know to be in operation
- 200AD** A Romano-British settlement existed close to the creek at Goldhanger, leaving behind a red hill
- 1085AD** Goldhanger and Heybridge salthouses were listed in the Domesday Book along with eighteen others along the Blackwater

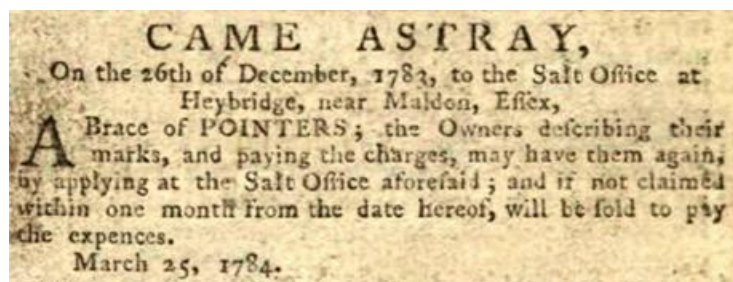


map showing the cluster of Salt Pans on the north bank of the Blackwater referred to in the Domesday Book

- 1086 The Domesday book refers to "Hugh de Montfort holding one and a half salina in Goldhanger"
- 1200s Seawalls were progressively built around the Blackwater over the next 500 years
- 1260s A knight pays rent to the King Henry III for use of the Goldhanger saltworks
- 1340 A Latin Missal in All Saints Maldon has a blessing for the salt
- 1390s The Guild of Saltmakers were thriving throughout Essex
- 1564 Queen Elizabeth 1st planned to monopolise and patent salt production in the UK, but the plan failed
- 1600s Coal progressively replace wood to heat the salt pans, which was delivered in flat bottomed barges
- 1639 Date of the earliest reference to the Johnson family owning a local saltworks
- 1640 The "odious" salt tax was introduced
- 1651 Essex Court Sessions refer to a "Salt House" in Goldhanger (a whole was an arched or covered drain under a path) . .

*Rob. Grant of Goldhanger for not laying "Wholve" in the sea wall leading from the "Salt House" to Goldhanger Church, the path being "flowen" with water for want of the same.*

- 1670 Rock salt was discovered in Cheshire
- 1693 The post of "Salt Officer" was introduced to control smuggling and unlicensed production
- 1702 A "Salt Board" was created by Queen Anne, with Salt Officers to collect duty on removal from the saltworks
- 1734 Date of earliest reference to laws limiting the refining rock salt to only Heybridge on the Blackwater
- 1768 Charles Coe, wealthy Maldon businessman was owner of the the saltworks land and property
- 1777 The earliest reference to "The Maldon Salt Works" (most probably located at Heybridge)
- 1781 Edward Bright the 2nd of Maldon was the proprietor of the Heybridge salt works
- 1784 A local newspaper advertisement referred to the Heybridge Salt Office. . .



- 1785 A bill for abolishing salt duty was presented in parliament (but was not passed)
- 1785 Maldon was recognized as an important salt-making centre with a reference to "the famous Maldon salt"
- 1786 Philip Morant wrote "at Goldhanger there was a considerable saltworks which used rock salt"
- 1790 A seawall was built around Bounds Farm, Goldhanger to convert the saltmashes to fertile land
- 1790 Saline baths near the salt works at Maldon brought new prosperity to the town
- 1795 Justice of the Peace had a duty to licence only one saltworks at Heybridge. . .

*Also the commissioners of salt may license any persons to make use of any building for the refining of rock salt, and making it into white salt, so as the number to be licensed do not exceed one at each of the following places, viz. at Heybridge, Colchester, Manningtree, Ipswich, Woodbridge, Walderswick, and Southwold, upon request from the justices of peace at the quarter sessions nearest to the places aforesaid. 7 Geo. 2. c. 6. s. 17.*

- 1805 The tax on salt rose to £30 a ton, creating much public resentment
- 1805 The seawall was built around the Heybridge saltworks
- 1814 A patent was registered by W Johnson of Heybridge for an improved process for salt making
- 1810 The Goldhanger works were abandoned and a large works was built about this time in Heybridge

1818 The salt-works was still working at Goldhanger in this year, when Thomas Cromwell wrote. . .

**GOLDHANGER.** This parish is situated upon the bay which receives the Maldon stream, opposite to the Isle of Osey. The distance is four miles from Maldon, and seven from Witham ; and the soil is low and light.

The salt-works here are considerable : rock salt from Cheshire was formerly used, but in consequence of the erection of very extensive works by Messrs. Bridges, Johnson, and Co. the manufactory of salt from the sea-water by steam has been practised with considerable success. The salt of this place, and that of Winstree Hundred, are frequently mentioned in the Domesday survey.

*from Excursions in the County of Essex, T K Crowell, 1818*

- 1818 The warm salt water baths at Maldon prove highly useful to the inhabitants
- 1819 Goldhanger and Heybridge using rock salt from Cheshire
- 1820 W. Johnson, Essex salt manufacture was declared bankrupt
- 1820 Heybridge saltworks was up for sale
- 1822 Coastguards built an observation hut right next to the Goldhanger saltworks
- 1823 Quote: "Maldon, famous for its salt, made in reality in the parishes Goldhanger and Heybridge"
- 1822 Essex & Suffolk Insurance Society reported a fire at the Heybridge Salt Works
- 1823 Bridges, Johnson, and Co., of Heybridge, had disappeared by this date
- 1823 Quote: "The present building at Maldon was built when sea water bathing took place alongside at Bath Place Wharf"
- 1825 The domestic salt tax was abolished
- 1825 Heybridge saltworks up for sale (again)
- 1825 The Heybridge works were converted to a mill and maltings



*the former saltworks building at Salcot Mill today*

1831 "Extensive salterns. . .using steam" recorded at Goldhanger. . .

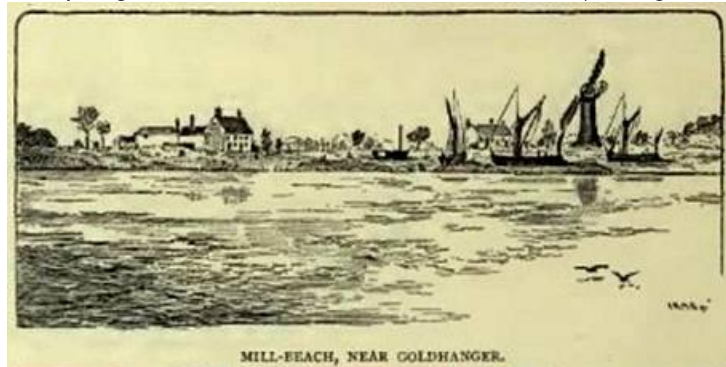
### A Topographical Dictionary of England, Lewis, 1831

**GOLDHANGER**, a parish in the hundred of THURSTABLE, county of ESSEX,  $4\frac{1}{4}$  miles (E.N.E.) from Maldon, containing 459 inhabitants. The living is a rectory, in the archdeaconry of Colchester, and diocese of London, rated in the king's books at £25. 19.  $4\frac{1}{2}$ . N. Westcombe, Esq. was patron in 1798. The church is dedicated to St. Peter. The parish is bounded on the south by the Blackwater river and Osey island. There are very extensive salterns, at which the manufacture of salt from sea-water is carried on with considerable success by the agency of steam: they are recorded in Domesday-book as existing at the time of the Norman survey.

- 1833 The census for this year shows only one salt-maker in all of Essex
- 1834 The Essex Marine Salt Co is created at Heybridge
- 1838 Pigot's pocket atlas refers to a saltworks at Goldhanger. . .

**GOLDHANGER** village is about four miles from **Maldon**, on the Colchester road, and in the hundred of Thurstable. The church, dedicated to St. Peter, is a strongly built edifice, with a tower. The parish, which is bounded on the south by the Blackwater, contains some **salt-works**. A small fair is held on Whit-Monday.

- 1840 "Extensive saltworks" reported at Heybridge
- 1843 "Patent Salt Company" buildings at Heybridge were up for sale
- 1845 Deeds refer to: messuage with Salt office and yards called the Salt Cote and 1 acre at back of Malting
- 1848 White's Directory states: Heybridge, here were formerly extensive salt works, but only a small one remains
- 1855 A patent registered by W Johnson, Hall Farm, Heybridge for improved process for making salt
- 1856 Edward Bright was selling "clean salt and rock salt" from the Coal Wharf, Heybridge
- 1856 Robert Worraker sold the Maldon Sea Salt Company in this year
- 1861 Quote: "The former considerable saltworks at Heybridge is down to one small factory"
- 1860s A drawing of the Heybridge works at Mill Beach from around this time (building on left with wind pumps). . .



MILL-BEACH, NEAR GOLDHANGER.

- 1866 Maldon Salt was recommended as treatment for Typhoid and Cattle Plague
- 1871 The census for this year shows four salt-makers in Essex
- 1874 A reference in this year to "the old saltworks at Heybridge"
- 1883 OS map shows the "Essex Salt Works" at the location today's Blackwater Sailing Club site. . .



- 1889 The Red Hills Exploration Committee excavates the old saltworks at Bounds Farm, Goldhanger. . .

**A HISTORY OF SALT-MAKING IN ESSEX.**

In 1889, our Past-Presidents, Dr. Laver and Mr. E. A. Fitch, excavated the site of some old salt-works on Bound's Farm, Goldhanger (very likely those mentioned by Morant), and found extensive flues of brick, pipes and pans of lead, and some small coal which had been used, no doubt, for boiling the water:—

“ Not far off was a small square building which had evidently contained the furnace ; and, close by it, in another small square building, there remained a hundredweight or two of very good coal.

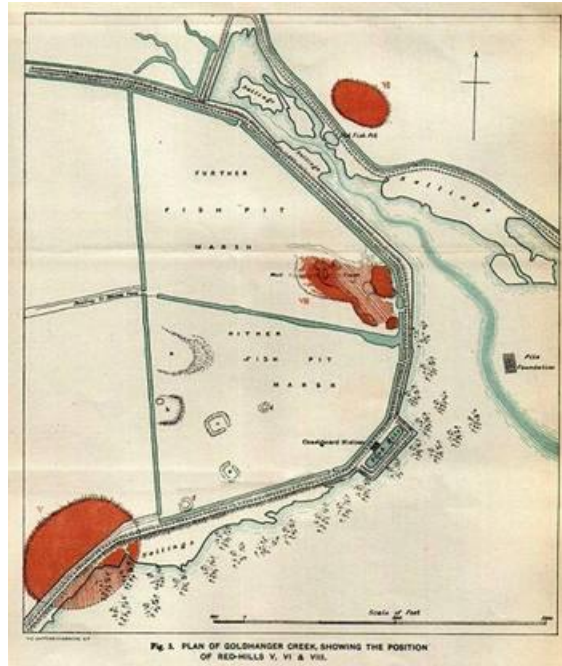
“ All these remains were covered by about three feet of the burnt red and black soil mentioned above. We came to the conclusion that this salt-cote had been destroyed by fire, and that the *debris* had been spread evenly over the whole site, covering the boiling house and everything else.

*From . . . "A History of salt Making", Miller Christy, Journal of The Essex Naturalist, 1906*

- 1890s In the summer months the owners of the marshes and oyster beds at Salcott Virley would lay canvas

sheets on the mud flats, leave them there for several tides and then lift the sheets, scrape of the salt and sell it to Maldon Salt Company at Heybridge.

- 1919 Map of the saltworks and red hills at Bounds Farm, Goldhanger, also showing the Fish Pits and Coastguard hut. . .



- 1922 *The Inventory of the Historical Monuments in Essex, Vol-3: North East*, reported. . .

**Goldhanger** - During the excavation of a Red Hill in 1908 and 1909 near the outlet of the creek, in the northern part of Fish Pit Marsh, evidence of the intrusion of a Romano-British settler was disclosed. Below the extreme eastern edge of the red earth on the old salting surface was found a kitchen midden of considerable size, containing... Roman pottery including "large jars with a heavy roll rim." ...In the red earth and mould of the mound had been built some seven flues, and three or four fire-floors filled with Roman pottery... 'Samian' and other ware, bones of domestic animals and shells were abundant in and about the flues... The Roman occupation of a Red Hill, of which this is the only recorded instance, may possibly have been due to a recrudescence of the industry.

- 1922 The Maldon Crystal Salt Company was taken over by the Osborne family



- 1935 A local newspaper reported that the high level of salt in the air at Goldhanger protected the fruit trees from early frosts  
1935 Goldhanger Creek had so much salt it was ideal for learning to swim. . .

*Essex Review:*  
*An Illustrated Quarterly Record of Everything of Permanent Interest in the County*  
*Volumes 44-46 1935*

...used to bring boys to the Goldhanger and Maldon coast for the purpose of teaching them to swim, as the water on that coast contained such a large amount of salt that it made swimming much easier and safer.

**1940s** Maldon Crystal Salt packaging from this date. . .



**1960s** The Maldon facility at this time. . .



**1995** Colchester Archaeological Group published "Losing Savour: the Decline of Essex Salt" in their Annual Bulletin at: [caguk.net/wp-content/uploads/2013/01/Bulletin-39.pdf](http://caguk.net/wp-content/uploads/2013/01/Bulletin-39.pdf) ...referring to Bounds Farm, Faulty Manor and Heybridge.

**2001** Maldon Crystal Salt Company opened a packaging facility and offices at Wycke Hill, Maldon

**2006** Maldon Crystal Salt Co opened a new processing facility at Longwick Farm near Goldhanger



*the facility at Longwick Farm*

**2013** The Longwick site is expanded to increase production. . .



*the new extension at Longwick Farm*

**2014** Amateur radio enthusiasts *DXing* now use the exceptionally salty water in the estuary to enhance their radio transmissions.

Contemporary newspaper articles, documents held in Essex Records Office(ERO), reference books and our local archives reveal that the Heybridge and Maldon operations had many changes of ownership over the centuries. . .

<b>Dates</b>	<b>Company</b>	<b>Owners</b>	<b>Source of info.</b>
1585	not known	Thomas Burlz, Maldon alderman	ERO
1639	not known	Widow Johnson Adam Johnson	A Prospect of Maldon W J Petchey, 1991
1650	Goldhanger saltworks	Thomas Saffold	Goldhanger - an Estuary Village, Maura Benham, 1977
1738 - 1768	the Salt Works	Charles Coe	J R Smith, ERO
1779	the Salt Works	John Coe	J R Smith, ERO
1777 - 1892	Maldon Salt Works	Robert Worraker 1 <sup>st</sup> Robert Worraker 2 <sup>nd</sup> T Worraker	Essex Countryside Magazine Sept 1975
1780 - 1790	the Salt Works	Edward Bright	J R Smith, ERO
1801	the Salt Works	Mary Bright	J R Smith, ERO
1814 - 1820	Bridges, Johnson, and Co.	William Johnson James Tuck William Bridges	Miller Christy & contemporary newspapers
1822 - 1825	Bridges, Johnson, and Co.	James Tuck William & John Bridges	Miller Christy & the London Gazette
1826 - 1882	Bridges, Johnson, and Co.	J Worraker or R Worraker 2 <sup>nd</sup> , Thomas Worraker	Miller Christy voters register
1834 - 1841	Essex Marine Salt Company	J G Rolfe, Pooley, Blain, White, Dr Epps	contemporary newspapers
1834 - 1850	Salt Works Company	Alfred May	contemporary newspapers
1843	Patent Salt Company		contemporary newspapers
1845-1851	Salt office, & Salt Pond	The Coape family	ERO
1851 - 1856	Salt Warehouse	Edward Bright	contemporary newspapers
1874	Marine Salt Company	William Wakeling	London Gazette
1882	Maldon Crystal Salt Co	T E Bland	MCS Co website & newspaper obituaries
1901 - 1921	Maldon Crystal Salt Co	E E Brown	MCS Co website & newspaper obituaries
1922 - date	Maldon Crystal Salt Co	the Osborne family	MCS Co website

*It is clear that for most of its existence the Heybridge works product was known as the Maldon Salt.*

*It is difficult to determine how many companies there were at any one time, or whether the same operation had more than one name, and if and when they merged.*

*Contemporary newspaper reports of court cases indicate that the Essex Marine Salt Company was a fraudulent operation which today would probably be classed as a Ponzi scheme.*