

How were the fens drained?

Who drained the fens?

A long time ago, the fens were watery marshes. They were wild, dangerous places filled with tall grasses and flat wetlands. There were also areas, or islands, of high land in the fens. Ely is sometimes known as The Isle of Ely because it was built on an island of solid ground surrounded by the marsh.

Around 400 years ago, life changed dramatically when the fens were drained. The Dutch engineer Cornelius Vermuyden was asked by King Charles I to design a plan to turn the wetlands into farmland. In 1630 the Old Bedford River was dug in a straight line from Earith to Denver, channelling the water from the fen towards the sea.

The plans to drain the wetlands were paid for by a group of wealthy men, known as the 'Gentleman Adventurers', who were led by the Earl of Bedford. They were given acres of the new, drained farmland in return for their investment.

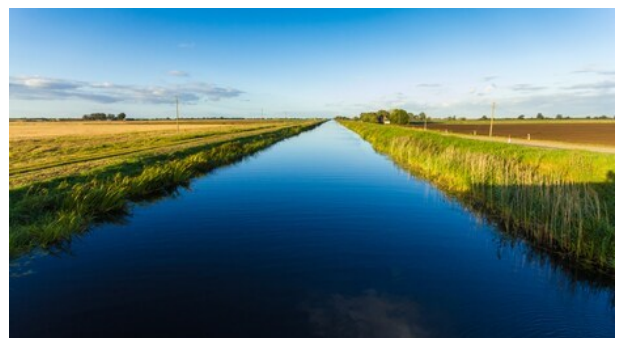
They drained the fens by straightening meandering rivers, building embankments and sluices, a type of channel for water which is controlled by gates, to keep the tides out. They created washes to store the flood waters, such as the Ouse Wash reservoir which is the 3rd largest in England.

Local people, who relied on the wild fen for hunting and fishing, rebelled against the loss of their livelihoods. They smashed dams and destroyed dykes and became known as the 'Fen Tigers'.

The process of draining the fens was very difficult because when the land was drained of water, the peat soil found in the fens shrank. Once the land in the fields were lower than the surrounding rivers, flooding became common for hundreds of years as water overflowed the new earth banks.

By the end of the 17th century, the fenlands looked totally different, with long straight channels and regular angles where wild wetlands and meandering streams had once been.

Draining the fens took hundreds of years, and it is still an ongoing process today. The landscape is managed with drainage channels and pumps, which keep the water under control so that the rich peat soil can be used to grow a wide range of crops.



How were the fens drained?

Who drained the fens?



Cornelius Vermuyden

Born in 1595 on the Isle of Tholen in the southwest of the Netherlands. He trained as a land drainage engineer and learnt the Dutch techniques for controlling water and draining marshlands. He became an English citizen in 1633 and died in 1677.

In the 1650s Vermuyden introduced the innovation of constructing washes, to allow occasional flooding of the area by the excess waters.

Vermuyden's motto was "Niet Zonder Arbyt" which means "Nothing Without Work"!

King Charles I

Was King of England, Scotland, and Ireland from 27 March 1625 until he was beheaded in 1649.

Charles understood that draining the Fens would reveal the super-fertile peat soil just beneath the water, making it ideal for farming. He saw this as a way of making money by collecting taxes from the farmers.



Charles had previously asked Vermuyden to drain his hunting grounds in Lincolnshire, so he was sure he was the man for the job!



Oliver Cromwell

Born in 1599, Cromwell lived in Ely from 1636 to 1646 with his family. He led Parliament's army against King Charles I during the English Civil War and also ruled the British Isles as Lord Protector from 1653 until his death in 1658.

At first, as MP for Cambridge, Cromwell opposed Charles' plans to drain the fens. He supported the fenlanders who protested at the loss of their common land - land which was essential to them for food and resources. Later on, however, Cromwell decided to support the second drainage plans for the region as he would make lots of money from it. This did not make him popular with local people!

Francis Russell, 4th Earl of Bedford

The Great Fen, between the Wash and Cambridge, is more popularly known as the Bedford Level after the 4th Earl of Bedford, who owned a large part of it.

In the 1630s the King asked the Duke to drain this land and the Earl and his 12 associates, known as the Gentleman Adventurers said they would fund the drainage in return for 95,000 acres of the reclaimed land.

They had several problems with their drainage plan, and in 1640 Vermuyden was asked to take on the rest of the project.



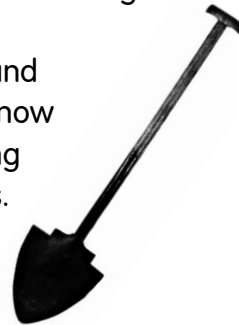
How were the Fens drained?

Who were the Fen Tigers?



Vermuyden's men

Using sharp spades called 'hodding spades' on very long handles, ditches and dykes were dug and rivers were straightened. The digging was done by hand originally but is now maintained using modern diggers.



The Fen Tigers

There was opposition from local people to the drainage of the fens. Fenland people used the marshy land to gather reeds, hunt wildfowl and fish. By losing this common land, they were also losing their livelihoods.

Fenmen known as the Fen Tigers tried to sabotage the drainage efforts by smashing dams, destroyed dykes and breaking sluice gates which allowed parts of the fen to re-flood. A tiger can be seen on the Fenland flag!



Scottish Prisoners of War

In 1650 Cromwell's army won against the Scottish army at the Battle of Dunbar. They killed 4,000 Scottish soldiers, and took another 10,000 prisoner. The prisoners were then marched south.

Some of those prisoners eventually reached the Cambridgeshire fens and were set to work digging drainage ditches and dykes.

Modern Drainage

Today, organisations like the Environment Agency maintain the banks, sluices and pumping stations. Using modern machinery, they help to keep homes and farming land flood free.



Environment
Agency