

Restoration Forth

A community-inspired project to restore seagrass meadows and oysters in the Firth of Forth



This comic....

This comic will take you on a journey through time, where you will be transported to the Firth of Forth during its past, present, and possible future. On your journey you will descend beneath the waves to explore the submarine environment to learn about two of the Forth's key marine species, the European flat oyster and seagrass. Discover the impact these species had on shaping society across the Forth, the benefits they have on the wider ecosystem and what efforts are being made to recover them. We hope you enjoy your journey of discovery.

About the project...

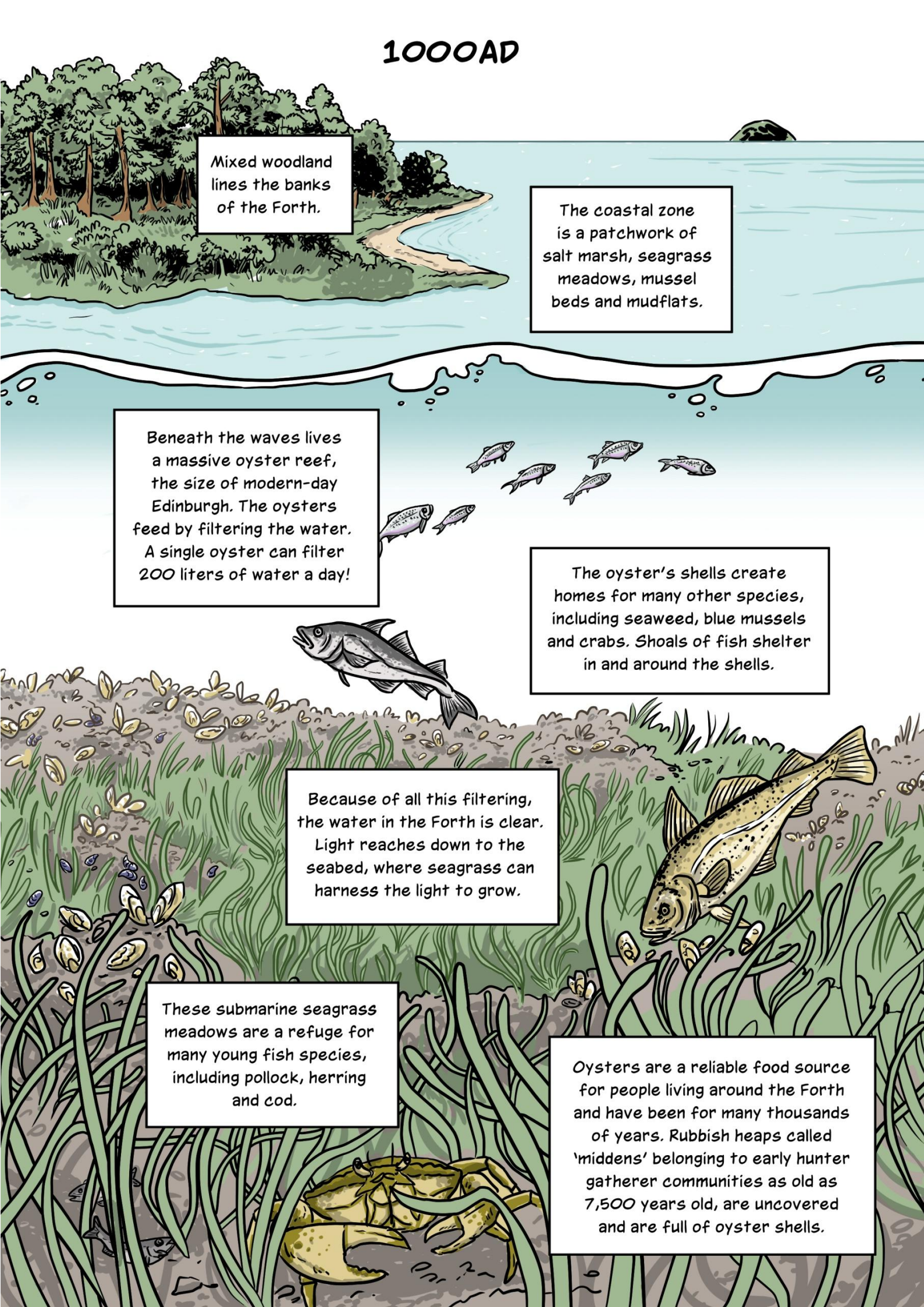
Restoration Forth is a multi-partnership marine restoration project that is working towards reintroducing 30,000 European flat oysters and restoring seagrass populations in the Firth of Forth. The restoration of both oysters and seagrass is facilitated through community participation.

Working with local communities, the Restoration Forth project team have identified restoration sites across the Forth and have trialled different restoration methods to restore both oysters and seagrass. Our aim is to establish populations of both species in the hope they will become self-sustaining over time.

Together, communities around the Firth of Forth and across Scotland can help restore our marine environment and influence Scottish Government policy for stronger marine protection. The Restoration Forth team will be engaging with local communities throughout the project, empowering them to get involved through education, training, and volunteering opportunities.



1000AD



Mixed woodland lines the banks of the Forth.

The coastal zone is a patchwork of salt marsh, seagrass meadows, mussel beds and mudflats.

Beneath the waves lives a massive oyster reef, the size of modern-day Edinburgh. The oysters feed by filtering the water. A single oyster can filter 200 liters of water a day!

The oyster's shells create homes for many other species, including seaweed, blue mussels and crabs. Shoals of fish shelter in and around the shells.

Because of all this filtering, the water in the Forth is clear. Light reaches down to the seabed, where seagrass can harness the light to grow.

These submarine seagrass meadows are a refuge for many young fish species, including pollock, herring and cod.

Oysters are a reliable food source for people living around the Forth and have been for many thousands of years. Rubbish heaps called 'middens' belonging to early hunter gatherer communities as old as 7,500 years old, are uncovered and are full of oyster shells.

19th Century



Oysters are still a big part of people's diets. Oyster fishing is an important part of the local culture and economy. At the height of the fishery 30 million oysters are harvested each year!

As railway lines across the UK were built, Scotland is then connected to markets across the UK.



Demand for the Forth's oysters boom.

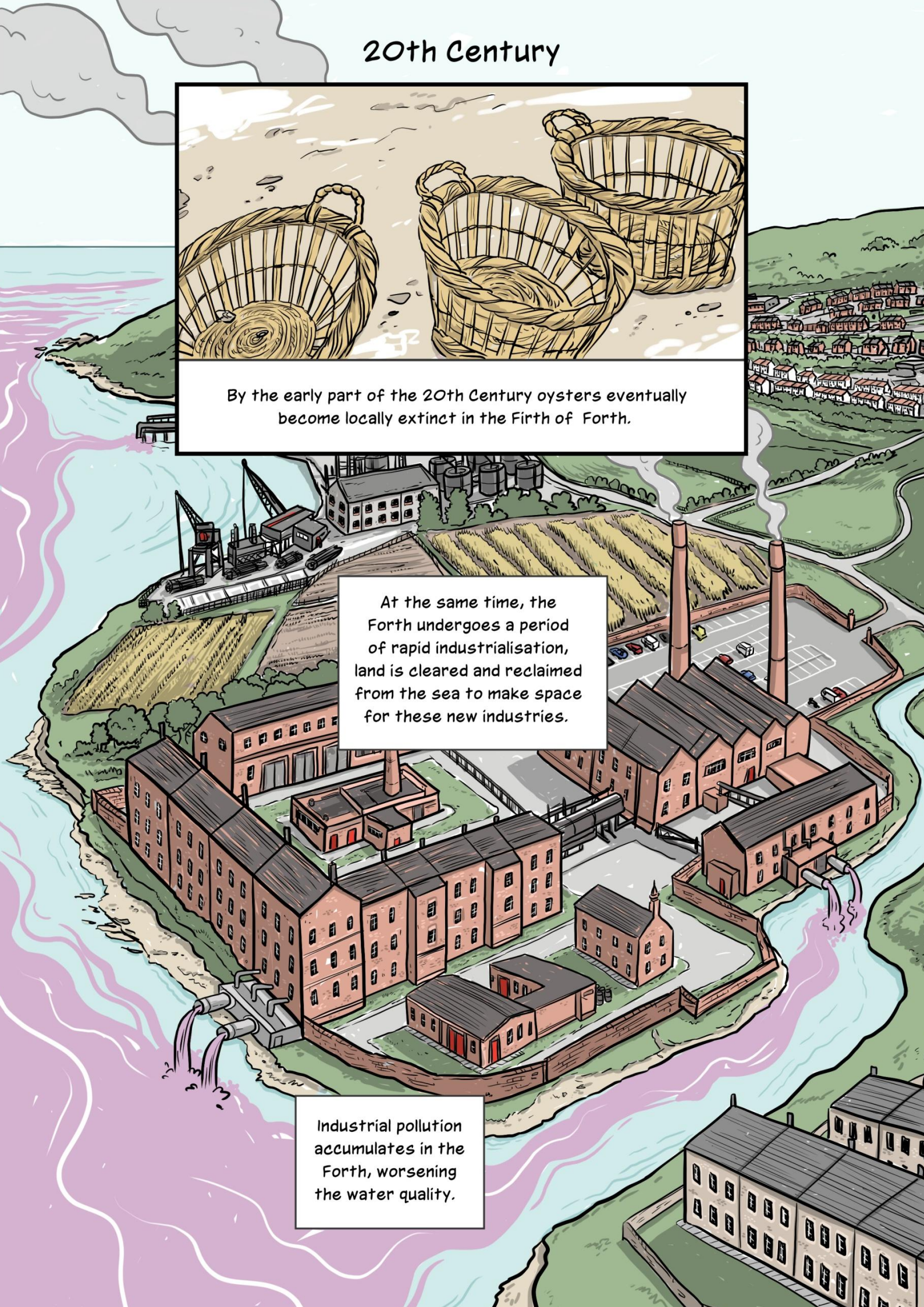


Gradually the reef begins to decline as fishing activity increases to meet the demand for fresh oysters.

20th Century



By the early part of the 20th Century oysters eventually become locally extinct in the Firth of Forth.

An aerial illustration of an industrial complex in the Firth of Forth. The complex consists of several large, multi-story brick buildings with dark roofs. There are several tall chimneys emitting smoke. A river flows through the complex, and there are several pipes discharging water into it. The surrounding area includes fields, a parking lot with several cars, and a small church with a steeple. The water in the Firth is depicted as being polluted with a purple hue.

At the same time, the Forth undergoes a period of rapid industrialisation, land is cleared and reclaimed from the sea to make space for these new industries.

Industrial pollution accumulates in the Forth, worsening the water quality.

2022. A few determined people raise the idea to restore oysters and seagrass meadows to the Firth of Forth. Driven by the vision to take community action, Restoration Forth begins to take shape!

The Seagrass Journey



Seagrass seeds are carefully collected by snorkellers from healthy meadows in the Orkney Isles, local communities have supported this effort to share seeds of hope.



These seeds travel down to the Firth of Forth where they are processed and planted by volunteers.



The seeds are mixed with mud and injected into the exposed seabed at low tide.



Caulking guns are usually used for sealing showers, but they also work well for injecting seeds into the shoreline!

The Oyster Journey



Oysters from oyster farms in Little Loch Broom and Loch Ryan have been brought to help make the restoration of oysters in the Forth a reality.



Before the oysters can make the Forth their new home, they are scrubbed clean by local community members. This process removes any potentially damaging species or diseases from being introduced to the Forth.

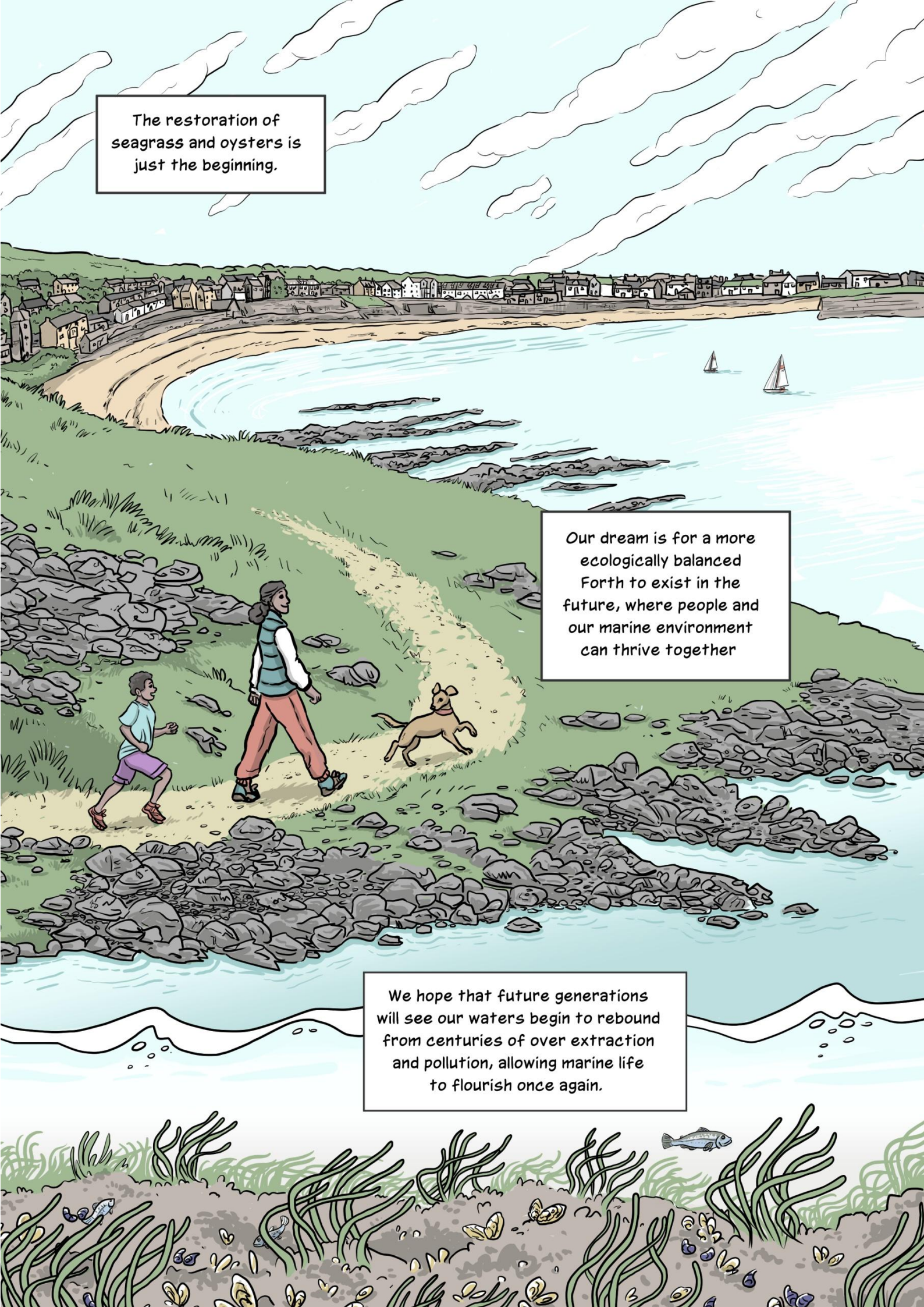


The oysters are then deployed into the Forth! Most of the oysters are released off the side of a boat, floating down to their new home on the sea floor.



A small number of oysters are released at low tide along the coast, so they can be monitored by volunteers.

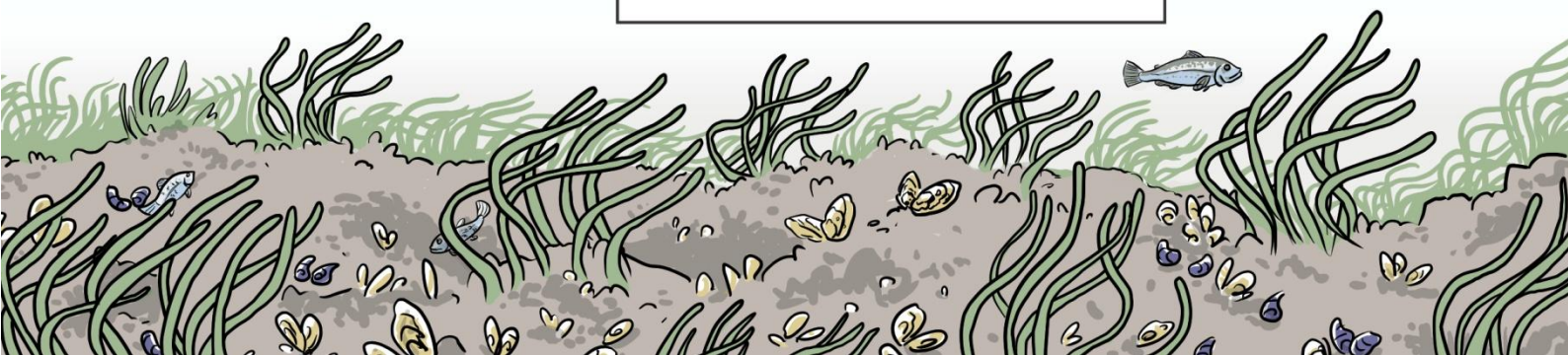
Marine restoration is a rapidly evolving area of science. New methods and techniques are constantly being developed. The way we restore areas needs to adapt to the challenges and changes in the natural environment.



The restoration of
seagrass and oysters is
just the beginning.

Our dream is for a more
ecologically balanced
Forth to exist in the
future, where people and
our marine environment
can thrive together

We hope that future generations
will see our waters begin to rebound
from centuries of over extraction
and pollution, allowing marine life
to flourish once again.



If you have become inspired by what you have read and want to be more involved you can -

Support restoration in your area by volunteering with Restoration Forth or similar projects. Get in touch.

Write to your MSPs to tell them what is important to you. This really does make a difference.

Tell other people about how important oysters and seagrass are!

Awareness raising is important, and can be done in many creative ways.

Look after seagrass meadows and oyster beds in the Firth of Forth by getting involved in monitoring seagrass and oyster populations.





Scottish
**Marine
Environmental
Enhancement
Fund**

