


Lyme Regis

Environmental Improvements Phase 2

Securing the future of Lyme Regis

Wave attack on Marine Parade

The spectacular scenery around Lyme Regis is a result of erosion by the sea and landsliding of local cliffs.

Land stability problems are nothing new as this picture from 1926 shows.

Looking after Lyme Regis

Lyme Regis sits on one of the most unstable and actively eroding stretches of coastline in the country. Over the centuries a long line of structures, such as the famous Cobb and other sea walls, have been built to try to offer some protection against attack by the sea and give increased stability for the town.

Aims

The environmental improvements scheme is phase 2 of a long-term plan to offer security for homes and businesses in the town. Phase 1 (right) was completed in 1995 and were awarded the Secretary of State's Special Commendation for Environmental Excellence at the British Construction Industry awards. The works also won a 1997 Civic Trust Award for Outstanding Contribution to the Quality and Appearance of the Environment and helped the district council gain beacon status in 2004. The council also successfully completed £1.4 million stabilisation works at East Cliff, Church Cliff and land behind the harbour during the winter of 2003 - 2004.

Phase 1 works provided a new promenade for the town.

The council has involved local people throughout the planning, design and construction of the scheme.

Benefits

Although some inconvenience is inevitable while work takes place, the benefits are huge, offering long-term protection against destructive landslides and coastal erosion. The scheme also has additional benefits, including:

- More sand and shingle on the beach
- New promenade
- Increased shelter around the harbour
- Improved ramp access to the gardens and Holmbush Car Park
- Re-landscaped public gardens with more walks
- Improvements to Cobb Road
- Access along the beach - even at high tide

The depleted beach (above) will be replenished to protect the foreshore from attack by sea.

The scheme

The scheme is made up of four main parts:

1. Foreshore works

- Extra sand and shingle will be put on the beach to absorb wave energy - protects sea walls and the foreshore from being eroded by the sea.
- Extension to rock armour (called Beacon Rocks) at the end of the Cobb - shelters the foreshore from powerful waves and helps to stop the new beach from being washed away.
- Realignment of North Wall Rockery, new jetties at Lister Gardens and Cobb Gate plus new seawall and promenade - to protect the foreshore and stop the new beach from being washed away.

2. Land stabilisation work

- Ground behind the foreshore stabilised to help prevent landslides - soil nailing and 1,150 bored piles pin unstable ground to firmer ground below.
- New drainage system including boreholes and trenches to disperse water - a major factor in causing land instability.
- Slope regrading, removal of landslide debris and building of soil buttresses at the back of the gardens to support the hill behind.

3. Cobb Road

- Scheme includes Cobb Road improvements - with Dorset County Council's contribution of approximately £1 million.

4. Landscape design works

- Langmoor and Lister Gardens reinstated after land stabilisation works - includes new ramp access, woodland walk, improved footpath links and new planting scheme

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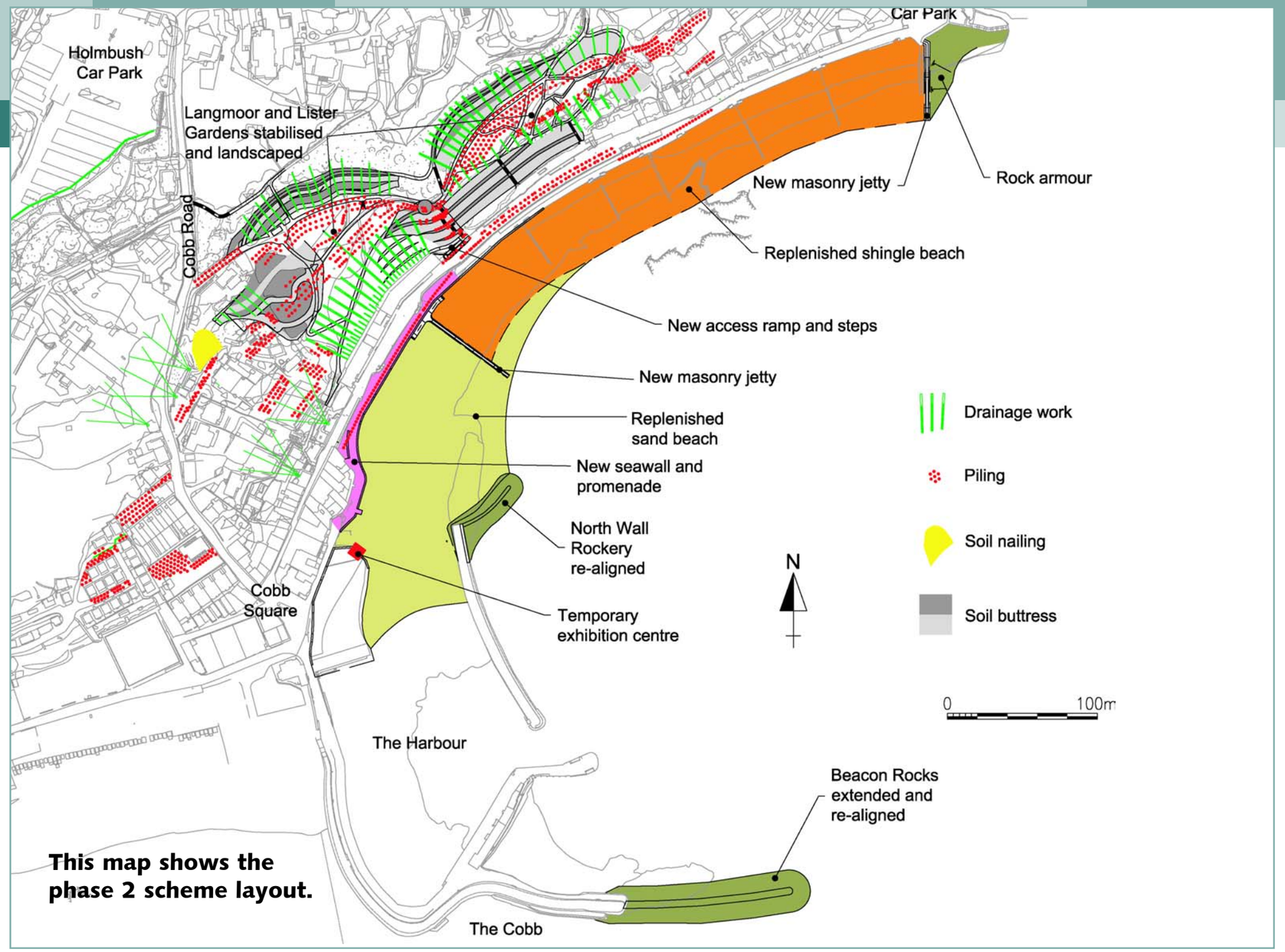


This map shows the phase 2 scheme layout.

Public gardens in Lyme Regis improved and enhanced following engineering work to stabilise the town.

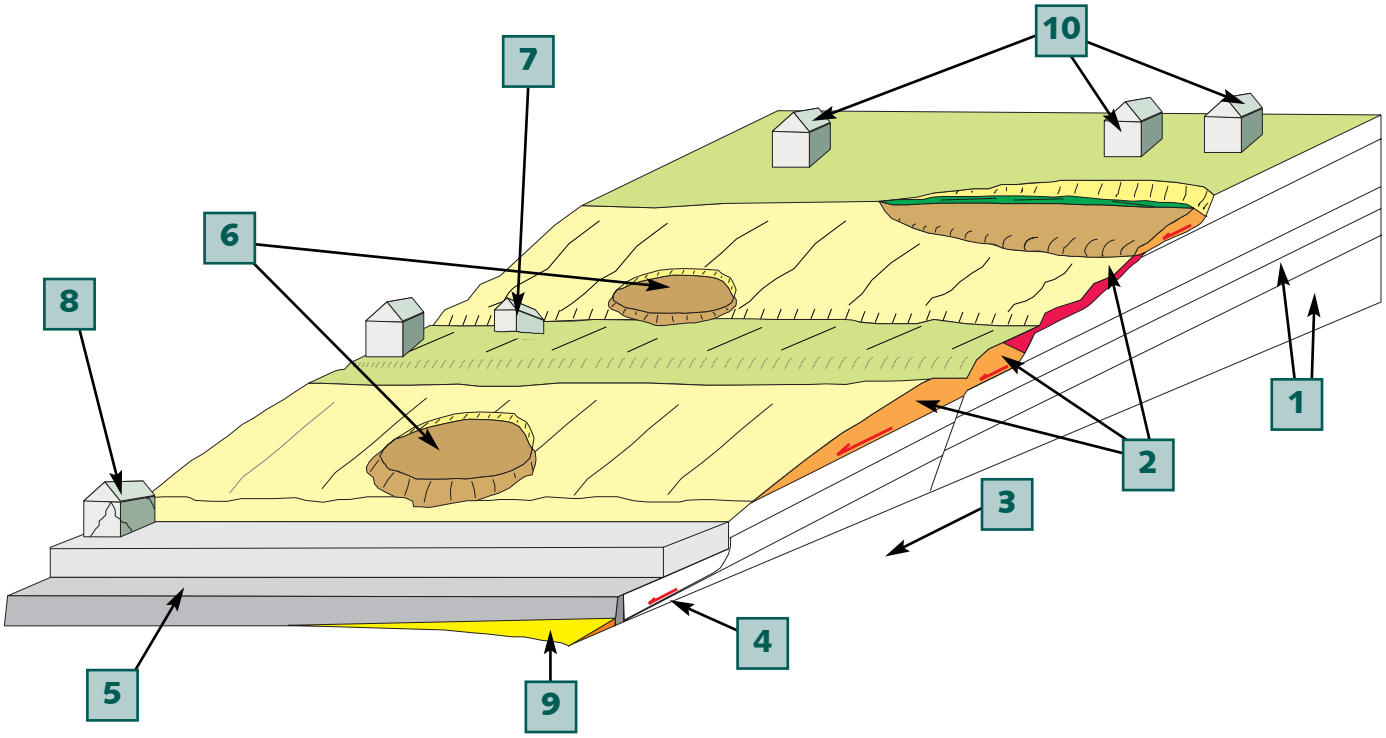
Over 1,000 piles will be inserted into the ground at Lyme Regis as part of the work.

Beacon Rocks at the end of the Cobb will double in length. This artist's impression shows how it looks before (left) and after (right) work.

Why is Lyme under threat?

The highly active nature of the coastline can be seen along local cliffs on either side of the town. Without hard engineering schemes Lyme Regis would gradually be eaten away by the sea and afflicted by destructive landslides - threatening homes, businesses and the lives of local people and visitors alike.

This diagram shows a simplified cross-section of the land at Lyme Regis and the processes that make it unstable.



1. The rock deep below the town is made up of layers of strong limestone with shale in between. This bedrock is stable and solid.
2. On top of the bedrock there are unstable slippery clays, green sand plus other muddy and sandy material. This moves over the strong limestone layers below to form landslides.
3. The layers slope down towards the sea making it easier for the unstable top layer to move over them - particularly during wet weather.
4. The sea eats away at the bottom of landslides and undermines the land. This prevents a toe or plug forming - and means that the unstable material keeps moving.
5. Old coastal defence built to protect the town have been undermined by the sea.
6. Localised shallow landslips take place in areas of weakness - usually in arc shapes.
7. Buildings subside as the land moves.
8. Houses become damaged due to movement of the land behind.
9. The beach is depleted, offering little protection against the sea.
10. Houses under threat as the landslides expand inland.

It's good to talk

The views of the local community have been very important in creating the scheme and extensive public consultation has been carried out, including selection of the final scheme option.

The district council continues to talk, listen and respond to local people during the work programme, which started in spring 2005 and is set to last around two years.

During that time the council aims to minimise disruption wherever possible. That includes keeping the main beach and at least one of the town's two gardens open during the main summer six-week holiday season.

The council meets with town advisory groups on a regular basis to discuss the impact of the works and attends the Lyme Regis Coastal Forum to report on progress. The council also produces an update newsletter, which is delivered to houses in the town.

How to find out more

Local people and visitors can call into a specially built exhibition centre on the foreshore to find out more about the works and any latest news. Concerns or questions can be directed to an Information Officer, by calling 01297 445051 or by emailing engineers@westdorset-dc.gov.uk Latest updates about the engineering works can also be found on the website www.dorsetforyou/lyme

Working together to achieve success

The scheme is promoted and managed by West Dorset District Council working with the following partners and organisations:

Defra*
Lyme Regis Town Council
Dorset County Council
Mowlem Civil Engineering
High Point Rendel
HR Wallingford
Environs Partnership

Funders
Principal landowners
Cobb Road improvements
Main contractors
Designers
Hydraulics consultants
Landscape Designers

* Department for the Environment, Food and Rural Affairs

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Local people watched prospective schemes being put through their paces at the HR Wallingford testing facility in Oxfordshire.

Shopping list

Rock armour	36,000 tonnes
Beach shingle	71,000 tonnes
Beach sand	41,000 tonnes
Drainage material	7,500 tonnes
Masonry	400 tonnes
Piles	1,150
Drainage	2,300 metres
Jetties	110 metres
New seawall	250 metres
Planting	7,500 square metres

The scheme will stop homes from being destroyed.

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