

Scheme to proceed to next stage



Project Update

March 2024

Protecting in the order of
3,200 properties
through a reimagined
urban environment

Bespoke landscape adaptation to provide flood resilience

View the visualisations and learn more about the design techniques proposed to protect the town.

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Managing Coastal Erosion

Learn more about the Scheme's partnership with Dynamic Coast to mitigate the impact of coastal erosion.

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Investing in your town

At a meeting of Full Council in January, your elected representatives agreed to progress the Scheme to the next stage of the project, known as the Statutory Approval stage. This marks a significant milestone in the journey towards achieving flood protection for the town, and the team is now working to present the Scheme to the public for formal consultation.

The Scheme brings together four separate projects and allows East Lothian Council to deliver flood protection and unprecedented levels of investment to the town of Musselburgh. The four projects are:

- Musselburgh Flood Protection Scheme, being advanced under the Scottish Government's Cycle 1 Programme for Flood Protection Schemes. The updated estimate for the Scheme is £53.9 million. The Scottish Government will contribute 80% of the cost

of the Musselburgh Flood Protection Scheme.

- Major repair works required to the existing Scottish Power Ash Lagoons Seawall. The updated estimate for this work is £52.1 million.
- Significant parts of two of the routes of Musselburgh Active Town, which will deliver new active travel infrastructure in partnership with Sustrans. The updated estimate for the parts of the project which can be delivered by the Scheme is £26.5 million.
- A suite of river restoration interventions, through a new multiple-benefits project authorised by East Lothian Council in August 2022, known as Musselburgh River Esk Restoration.

The Scheme will use many techniques working together to achieve a major reduction in the flood risk in the town, and thus stop flood waters spilling onto the natural flood plains on which Musselburgh was built over many centuries. It focuses



Conor Price
Project Manager

on reducing flood risk using established and evidence-based techniques, with maximum deliverable nature-based solutions, while retaining the town's historic character.

The Project Team have spent the last few years working hard, listening to the people of Musselburgh, and we hope this developed Outline Design will reflect many of the requests and aspirations that have come to us through our many consultation forums over the years.

The Scheme will deliver flood protection to approximately 3,200 properties, protecting the community, schools, businesses, and other key infrastructure within the town.

Council take decision on Scheme's next steps

On the 23rd January 2024, the developed Outline Design of the Scheme was presented to a meeting of Full Council.

Elected representatives were provided with a package of documents including the Scheme's latest report to council, the Schedule of Scheme Operations, a suite of the Design Flood Event maps, the non-technical summary of the Environmental

Impact Assessment (EIA), and 70 design drawings. These documents were available to both the public and elected representatives prior to the meeting to allow full consideration of the developed design proposals.

During the longest meeting of council in the history of East Lothian Council, the recommendations presented were carefully considered. A

significant number of questions were put to the Project Team examining aspects of the design and highlighting key concerns from their constituents.

The recommendations were agreed by council and the Scheme is now progressing the next stage where there will be further opportunities for the community to provide feedback and ask questions regarding the proposals.

YOU SAID

WE DID

The Scheme's design has been developed through the consultation process over several years to create a bespoke flood protection scheme. East Lothian Council understand the importance of designing in consultation with the people of Musselburgh and are grateful to those who have been involved in the design journey. Consultations have

been held to explore multiple design options with proposals on level of protection, form of flood defences, community space enhancements, access options, and the key concerns of the community.

The Project Team have also held consultation with environmental specialists such as NatureScot, RSPB, SEPA and

Forth Rivers Trust, regulatory authorities through various design workshops, and key stakeholders locally affected such as the Fisherrow Harbour and Seafront Association and Scottish Water to determine the form and location of the proposed defences ensuring their feasibility and mitigate their impact on the natural environment.

Thank you to all who have contributed to this design process. The Project Team have worked hard to incorporate your feedback into the design throughout each design cycle. We hope that the design reflects the aspirations of the town.

"Glad that the rumours about massive tree removal have not proved true. I fully appreciate that some need to go for construction purposes. Overall, better solutions than anticipated."

"Height of walls, especially on Eskside East which are to be at river's edge between Electric and Shorthope Street bridge. It is effectively cutting off the river with a height of 1.5m which I personally, as well as a high majority of people will not be able to see over, or have difficulty doing so."

Retaining Trees

Amending wall alignments along the length of the Scheme (and implementing a one-way system between the Roman and Rennie Bridge) system to retain as many trees as possible.

Defence Heights

Designing the defences through the town centre to be at a more acceptable height through the adoption of a smaller allowance for climate change, but with foundations designed, where practicable, so that the heights may be raised in future to address increased climate change effects.

"I welcome the inclusion of the proposed debris trap at Cowpits and measures relating to reservoirs in the Esk catchment, which should mitigate the impact of storm events on the river level passing through Musselburgh."

Natural Solutions

Use of natural flood management in the catchment through the modification of the operation of Rosebery and Edgelaw reservoirs, as well as inclusion of a large debris trap upstream of the town.

Adapting to change through a reimagined landscape

Visualisations of key views within the town have been included within the Environmental Impact Assessment (EIA) to show how the design of the Scheme might look and sit in Musselburgh’s existing landscape.



View from New Bridge, facing south-west, along the River Esk



View facing west along Eskside West towards the Roman Bridge, the River Esk and riverside amenity



View of Eskside East



View from Musselburgh Beach, facing east along the coastline (Murdoch Green)



View of landscaping and planting at Fisherrow Promenade



View facing north-east on Mall Avenue, on pavement next to crossing point at Inveresk Road



View from south-east end of New Bridge, facing north-east



View from Millhill Car Park, facing north along the River Esk



View from Fisherrow Harbour, facing west along the coastline



View from Core Path, adjacent to Fisherrow Links, facing west along the coastline



View from Roman Bridge, facing east towards Mall Avenue, the River Esk and amenity spaces



View from Eskside West at Rennie Bridge, facing toward new Shorthope Street Footbridge



View from Goosegreen Crescent facing south-west to the River Esk & Loretto School, Newfield Sports



View from the Promenade, facing east along the coastline



View from open space adjacent to the sewage pumping station, facing west along the coastline



2
reservoirs
modified delivering
sustainable flood
protection



1
debris trap
delivering
sustainable flood
protection



approx. 1,100m
of new / replacement river
/ coastal flood defence
embankment (with river
restoration in several locations)



approx. 600m
of re-engineered
coastal hybrid
flood defence
structures



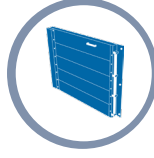
approx. 2,400m
of modified
existing wall /
replacement flood
defence wall



approx. 2,200m
of new flood
defence wall



approx. 15,000m²
of river restoration
with biodiversity
enhancement



21
new flood defence access points
maintaining connectivity to the
river / coast (including flood gates
and demountable defences)



7
new underground pumping
stations connected to a
new surface / ground water
drainage network



approx. 1,600m
of sustainable
blue-green
drainage
infrastructure



approx. 6,000m
of enhanced (active
travel) footpaths
providing greater
connectivity across town



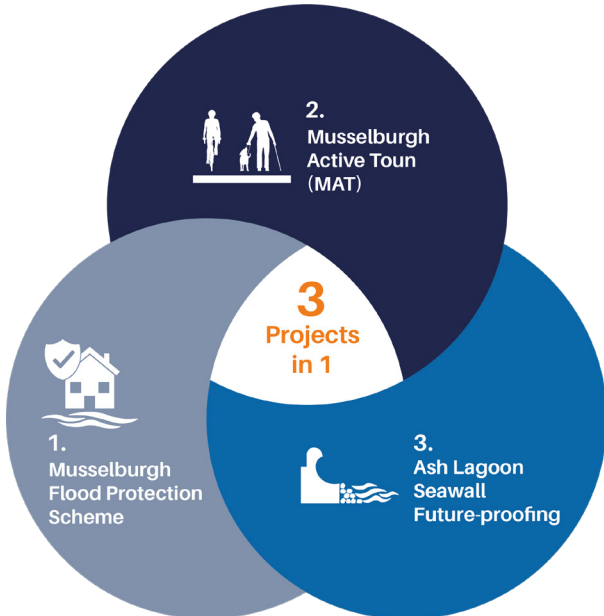
approx. 26,400m²
of upgraded or new
public space



4
replacement footbridges
delivering active travel
and flood protection
benefits



approx. 2,700m
of repairs to existing
Ash Lagoon Seawall



How will I be notified of the Scheme's publication?

What do we mean by 'you will be notified of the Scheme's publication?'

Under the Flood Risk Management Act (Scotland) 2009 (FRM), the local authority must give notice to all relevant parties of a proposed flood protection scheme as part of the formal consultation process. Paragraph One of Schedule Two of the FRM details exactly how this should be done and who must be notified.

- East Lothian Council's legal services will manage the notification and ensure that the Scheme complies with the FRM.
- The Scheme notice will provide all relevant information on how and when you can view the Scheme Documents and, if appropriate, make an objection to the proposed flood protection scheme.
- In accordance with the requirements of the legislation,

notices will be:

- Published in the local newspapers;
- Posted out to those affected by the Scheme;
- Provided to regulatory organisations;
- Displayed locally in key locations in the town; and
- Provided via the Scheme website.



Flood Risk Management (Scotland) Act 2009

Managing the changes to your coastline

There is a growing concern internationally that some of the early signs of climate change will be through increased erosion along the coastline, and its implications on flood risk management.

The Dynamic Coast project is funded by the Scottish Government, Centre of Expertise for Waters, NatureScot, and the St Andrews Links Trust. Its aim is to provide a strategic evidence base on the extent of coastal erosion in Scotland. They were formally commissioned by the East Lothian Council in 2023 to undertake a detailed analysis of the coastal change in Musselburgh, and to consider the risk of future changes in shoreline due to projected sea

- level rise associated with climate change.
- In Musselburgh, the foreshore has generally accumulated a build up of additional sand since the end of the last glacial period c.15,000 years ago. This is due to its location on the Firth of Forth and the mouth of the River Esk. Dynamic Coast's assessment, however, concluded that erosion has dominated much of the upper beach since 2018. Furthermore, it concluded that Storm Babet, in October 2023, caused erosion of beach sediment and vegetation at the upper beach, with sediment being redistributed to the west. This has resulted in little flood resilience along Musselburgh's coast and the

town would begin to feel coastal impacts within the next ten to twenty years should no coastal management take place.

Dynamic Coast have advised that a range of coastal resilience measures be developed under the council's Coastal Change Adaption Plan; providing a risk-based, dynamic adaptive approach which integrates intergenerational community interests to enhance future resilience of the coast and enable the local community to cope with substantial long-term change.

The Scheme are working in partnership with Dynamic Coast to mitigate the risk coastal erosion has on the Scheme and the coastal assets the Scheme will protect.



Enhancing connectivity along the River Esk



The Musselburgh Active Toun (MAT) project aims to create a network of pathways for pedestrians, cyclists, and wheeled users, reducing reliance on motor vehicles as a primary means of transportation; making active travel easier and a more attainable for everyday journeys. Where these routes overlap with the Scheme, the proposal is to combine the two projects to reduce construction costs, deliver added value and improve your experience when using the new network.

As part of this project, four of the town's footbridges are proposed to be replaced: the Ivanhoe, Shorthope Street (Store), Electric and the Goosegreen Footbridge.

Proposals are for two of the town's footbridges to be relocated to create better connectivity across the River Esk and encourage sustainable ways to get around town. The new Ivanhoe Footbridge will be located further upstream to provide a link to Eskview Terrace and the train station. The new Goosegreen Footbridge will be relocated to the mouth of the river connecting the new active travel pathway along the coast from Fisherrow Harbour along the Ash Lagoon Seawall.

The Project Team are partnering with Sustrans, who will fund 100% of the design of these travel routes and associated placemaking.

"The potential to improve active travel routes and enhance biodiversity is very encouraging."

"The new Ivanhoe and Goose Green bridges are in much better locations."



View of new Ivanhoe Footbridge



View of new Shorthope Street (Store) Footbridge



View of new Electric Footbridge



View of new Goosegreen Footbridge

Repair & Development of the Ash Lagoon Seawall

The Scottish Power Ash Lagoon Seawall is now beyond its design life but remains an

essential structure to hold the waste ash from spilling into the sea. As a multiple benefit of the Scheme, it is proposed for major repairs to be undertaken, thus ensuring flood protection across this length of the coast. The design proposes to repair the seawall to a similar height

incorporating a wave-return wall to address wave overtopping during storm conditions. Rock armour along the front of the seawall will provide protection against erosion to the structure. This is also designed to create the added benefit of providing new habitat for marine life.

Scheme to publish design for formal consultation

March 2024

The Scheme is now in the next stage of the project, Project Stage 5 – Statutory Approval, in accordance with the PRINCE 2 Project Management System. Within this stage of the project, the Scheme will be published, and the formal consultation process will commence under

the Flood Risk Management (Scotland) Act 2009.

It is highlighted that a final decision on the design has not been taken. East Lothian Council have agreed that the design is significantly developed and suitable for

your consideration through the formal statutory consultation process.

The design of the Scheme, and its associated documents, will be available to view online and in person. You will be notified of the Scheme's publication.



Contact Us

If you would like to find out more about the Musselburgh Flood Protection, please contact the Project Team:

 musselburghfps@eastlothian.gov.uk

During each stage of the project, the Project Team will provide regular updates to the town. For more information, please visit:

 www.musselburghfloodprotection.com



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