Grangemouth Flood Protection Scheme Newsletter

Issue 2: Spring 2022



To learn more about our STEM education programme, go to:

www.grangemouth floodscheme.com

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Protecting the Heart of our Communities

GFPS STEM Education Programme Aims To Inspire New Generation Of Engineers

Aspiring flooding engineers in local primary schools have started work on our STEM education programme which aims to inspire young people to get involved with STEM learning.

STEM includes subjects related to four disciplines- science, technology, engineering and mathematics. Our programme will teach pupils about the different areas of flooding and the careers in the industry.

Twelve local primary schools have received free learning resources that will teach P6 and P7 pupils the importance of the flood scheme, the different types of defences and their pros and cons.

Knowledge

Their knowledge will then be put to the test, as the pupils will get to create a flood protection scheme from what they've learnt. Designs will then be judged by a panel of industry experts from the GFPS team.

The winning designs will be showcased at Zetland Park's INNOVATE Science Festival taking place on 7 May 2022. The GFPS team will also be on-hand to answer your questions about the Scheme.

The GFPS STEM team will also be offering a STEM flooding activity at the Science Festival, so children and adults can try their hands at being flooding engineers.

Rachael Cassidy, the STEM education programme lead, explains: "The programme gives pupils an inside perspective on the challenges involved in designing a flood protection scheme. By putting pupils in the position of those making decisions, they develop an understanding of large-scale flood risk management projects, and an insight into potential future careers."

The STEM programme aims to reach 100 children in its first year, and it will hopefully be adapted for secondary school students later this year. Local youth organisations have also been invited to take part in the programme.

If your primary school or youth group which caters for 10-to-12-year-olds would like to take part, please contact us at grangemouthfps@falkirk.gov.uk.



Local Groups Get Involved With STEM

Local youth groups are also being encouraged to get involved with our STEM programme. After the successful launch of the STEM programme to primary schools, local youth groups are now being invited to take part and receive a learning resource pack.



The free resource pack includes interactive activities that teach 10-to-12-year-olds about scientific aspects of flooding in an engaging way.

Topics discussed include why flood protection is important, and the different types of flood defence systems that are being used in the Scheme. They will find out about different careers in STEM to hopefully inspire future engineers and flooding experts.

The roll out of the education programme to youth groups will encourage local young people to get involved with STEM both inside and outside of the classroom.

Carol Barclay, Petty Officer from the Grangemouth Sea Cadets, said: "Grangemouth Junior cadets are really enjoying the STEM programme! They've already used some of the flood protection resources to design their own. We can already see some future scientists!".

Meet the GFPS Team

Each issue we plan on introducing you to members of the project, so you can get to know the team behind the flood protection scheme and put a face to the project.

Our first team member is Alistair Dawson, Falkirk Council's Infrastructure Projects Manager, Alistair is one of the people leading the delivery of the Grangemouth Flood Protection Scheme.

We asked Alistair to answer questions about his job and what he's working on at the moment.



What is your role on the project?

I am an Infrastructure Projects Manager at Falkirk Council, and my role on the GFPS project is to coordinate the various parts of the project team. Given the size and complexity of the project there are a wide range of specialist skills employed to undertake various Technical. Commercial. Legal and Communications workstreams. All of these strands report back through myself to a Project Board who are ultimately accountable for delivery of the project.



Who will look after the flood defences after they've been built?

Falkirk Council will operate and maintain the flood defences after the Scheme has finished construction. A maintenance plan will be produced that will identify actions that the Council need to carry out to make sure any temporary gates or barriers are deployed when flood events are forecast and that the defences are looked after so they remain fit for purpose in the future.

The Grangemouth Flood Protection Scheme was identified through the national flood risk management strategies and is considered by SEPA and the Scottish Government to be the top priority flood scheme in Scotland. Although fortunately there haven't been any severe flood events in recent years, Grangemouth and surrounding areas have been identified as at risk of river and coastal flooding. This is why the flood protection scheme is being designed to protect local communities from the devastating impacts of flooding.



Will the flood defences only be above ground?

Only a small part of the flood defences will be visible above ground, most of the major engineering works lie underground. Flood defences need sturdy foundations to deal with the force of flood water and the impact from any floating debris such as trees or even potentially cars!

In many parts of Grangemouth the ground conditions are quite poor which presents a challenge to the engineers designing the defences' foundations. There are also numerous underground service pipes or other constraints which sometimes limit the style and type of flood defence that is chosen.





How important is the Scheme?

What are you working on at the moment?

At the moment, the project team is at an important stage of project development and a large part of our current work involves providing information to the public.

We are trying to engage with as many people as we can from across the whole scheme area to inform them of the Scheme and to get their views on the proposed flood defences. We are doing this through face-to-face meetings with locals, digital media such as our website and social media and through written updates like this newsletter.

Engagement with local communities has been ongoing since 2018 and there will be further public information events throughout 2022. Every property that will be directly affected by the proposed works has already been offered the chance to meet the project team in a one-to-one session, so that residents and businesses can talk to the team directly and address any concerns.

Grangemouth's Flooding History



1926

Grange Burn rose 5ft 5in in an hour flooding Jackson Avenue

1933 Heavy rainfall inundated Abbotsgrange leaving vehicles underwater

1951 Banks of Grange Burn burst near

Beancross onto Abbots Road

1959

Grangemouth Docks flooded with highest tide recorded at 4.47m

21st Century

2006

Widespread flooding throughout Falkirk washed away Anchor Burn footbridge





Heavy thunderstorms caused the highest flow recorded at River Avon, leaving properties and the transport network inundated with water

Why is Grangemouth at risk of flooding?

Whilst Grangemouth has not seen the frequent flooding experienced in other towns and cities across Scotland, its low-lying ground makes it particularly vulnerable to high tides and surges with numerous near misses in the last decade.

Climate change is causing sea level to rise. Levels in the Forth Estuary could rise by almost 500mm in the next 60-80 years. It is not just flooding from the sea that could affect Grangemouth. River flooding from the Rivers Carron, Avon and Grange Burn also pose a significant risk.

The floods the scheme will protect against have a low chance of occurring, but if they did the impacts would be devastating with thousand of homes and businesses affected, road closures and the possibility of lives being lost. Flood risk

20th Century

1920

Grange Burn overflowed onto Union Road

1927 Abbots Road, Kerse Road and Jackson Avenue flooded

1935 Grange Burn overtopped on Jackson Avenue

1954

Flooding on Abbots Road from Grange Burn

1958

Flooding from Grange Burn onto Primrose Avenue



2002 22 properties flooded on Alloa Road in Stenhousemuir

2011

Blocked culvert at the Chapel Burn led to flooding of properties in the vicinity

2014

Tidal surge coupled with high tide affected the Forth Estuary

2022

Storms Dudley & Eunice caused flooding primarily to agricultural land and open green spaces



management in Scotland aims to address these risks in a proactive manner rather than waiting until after the flood event has occurred to take any action.

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Alan McGowan, Senior Associate Director at Jacobs, said: "The impacts of flooding can be devastating with properties ruined, people out their homes for months and impacts on health and wellbeing. As Grangemouth is a low-lying town near multiple water sources, the area has been recognised as a high priority to be protected against flooding which is why this flood protection scheme is essential.'

For a full list of previous floods in the area that we're aware of, please visit our website

The 200-Year Flood Impact

14%	Chance your home floods at least once over a 30-Year Mortgage
33%	Chance your home floods at least once over an Average Lifetime
11%	Chance your home floods at least twice over an Average Lifetime

B **Engagement report available now online!**

The GFPS engagement summary report is now published on our website. Click here to view it!

Seven online engagement sessions were held which allowed residents and business owners to ask the project team questions to the project team about how the proposed scheme might affect them. If you'd like to re-watch the sessions, you can do so on our website.

We intend to have more engagement sessions for each of our communities later this year, so to find out the latest updates, check our social media pages or register for updates on our website at: www.grangemouthfloodscheme.com

Speak directly to our project team

Do you want more information about how the proposed flood defences might impact your home or business?

The GFPS team have been offering one-to-one sessions with directly affected residents and businesses. Tenants and owners of properties that will be affected by the Scheme are invited to take part in a one-to-one session which can either be a face-to-face meeting or a telephone consultation.

Locals will be able to ask about the specifics of how the flood defences might impact their property and can share feedback directly to the project team.

So far, the project team have completed 78 one-to-one sessions, including over 20 face-to-face meetings with local residents and business owners.

Nicole Anderson, Flooding and Communications Graduate from Falkirk Council, who is meeting with locals said: "It's great to go out and talk to people who will be directly affected by the flood defences, we discuss how the Scheme specifically affects them and their property and understand their views on the project. We're gaining some really interesting feedback that we're taking onboard and discussing with the full project team".

If your property is being impacted by the flood defences, and you're interested in arranging a telephone consultation or face-to-face meeting with the team, please email us on grangemouthfps@ falkirk.gov.uk.





GFPS Sleighs Into WinterFest

Just in time for Christmas, the Grangemouth Flood Protection Scheme team took part in the WinterFest event held at Zetland Park in December last year.

The GFPS team were on-hand to listen to feedback about the Scheme and answer any questions about how the flood defences will affect homes and businesses across the local area.



The team had a fun family activity for children and adults to take part. The Welly Boot Challenge asked participants to guess the amount of water it would take to fill up daddy wellies, mummy wellies, child wellies and baby wellies. Over 50 people took part in the competition and the winner Ella, aged 11, took home a £50 gift voucher for the Christmas shopping.

The GFPS team were on hand answering questions and concerns from local residents and business owners. They were also sharing progress updates about how the project is coming along.

Register

Those who stopped by were also invited to register to receive emails about the Scheme. If you'd like to register your interest, head over to our **website** to sign-up.

Sharon Agnew, Senior Flooding Officer at Falkirk Council said: "We were delighted to take part in WinterFest, we had great fun and so did all the children taking part in the competition. It was also great to talk to local people about the Scheme and explain what is involved for communities and residents."

The GFPS team will be back at Zetland Park on Saturday 7 May 2022 for the INNOVATE Science Festival hosted by the Zetland Park Regeneration Project, where the winning flood protection design created by local primary school pupils for the STEM education programme will be showcased! There will also be a fun STEM flooding activity for children and adults to take part in.

What's Happening in Your Community?



Carron/ Carronshore:

Our design team have been looking at replacing or strengthening the New Carron Road Bridge so it could remain open during a flooding event. This may replace the previous proposal of flood gates which would prevent access.

Zetland Park:



The GFPS team attended the WinterFest event in December, and will be back in Zetland Park in May 2022 for the INNOVATE Science Festival where you'll be able to share feedback with the team.

We've also been working with Falkirk Community Trust to develop an audio-trail that you'll be able to listen to around Zetland Park featuring some interesting facts about local flooding.

Following the engagement sessions in June 2021, alternative flood defence wall alignments are being considered for the flood protection in this area.



Rannoch Road:

There will be further engagement events for Rannoch Road, along with the other communities, later this year. For the latest updates register on our **website**.

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Grangeburn Road:

Following the engagement sessions in June 2021, alternative flood defence wall alignments have been considered for the flood protection in this area. A further engagement session will be held later this year along with our other communities to ask the public about their views on the design.



Smiddy Brae/ Reddoch Road:

Ground investigation work will be starting on Reddoch Road and Wholeflats Road for approximately three months commencing in late Spring 2022. The project team have also been considering options for the alignment of flood defences in the area.

Stirling Road:



At the time of writing, the GFPS team plan to hold an engagement session with Stirling Road specifically to update locals about the design. This is expected to take place in Summer 2022. There will also be further ground investigation work in this area starting Spring 2022 for approximately 3 months.

More Engagement Sessions Summer 2022

We intend to hold further engagement sessions in Summer 2022 for all communities after the local Council elections in May. Residents and business owners affected by the flood defences can hear more about the Scheme and provide feedback to the design team about the proposed plans.

For the latest updates about the engagement events, and to be notified when registration will open for the engagement sessions, you can register for updates on our website at **grangemouthfloodscheme.com**.

Protecting communities in Grangemouth, Wholeflats, Glensburgh, Langlees, Carron and Carronshore



Extra News from Falkirk Council

Grangemouth Community Action Plan



Falkirk Council have launched their Community Action Plan for Grangemouth which sets out the future plans for Grangemouth and how to make the area an even better place to be!

The Grangemouth Community Action Plan sets out a clear vision to improve the area detailing opportunities for improvement supported by local people, a timeline for achieving them, and options for how they can be implemented.

The priorities of the Plan include focusing on improving the town centre, job op-

portunities and employment support, housing, and tackling issues such as alcohol and drug use, mental ill health and poverty.

How can you get involved?

The Community Action Plan will be implemented by the following groups working in close cooperation:

- The Community Planning Partnership
- Local community groups
- The local third sector
- Members of the local community

For further information, please contact: communityplanning@falkirk.gov.uk.

If you or someone you know would like a copy of this newsletter in another language or format this can be arranged by contacting our customer services centre on 01324 506070

You can keep up to date with the scheme by visiting our website

grangemouthfloodscheme.com





grangemouthfps









Grangemouth Flood Protection Scheme

