



The Environment and Ecology Forum

Meeting: Wednesday, 13th July 2016 at 6.00 pm in Civic Suite, North Warehouse, The Docks, Gloucester, GL1 2EP

Membership:	Cllrs. Bhaimia, Brazil, D. Brown, Porter and Taylor
Contact:	Meyrick Brentnall, Neighbourhood Services Manager 01452 396829 meyrick.brentnall@gloucester.gov.uk

AGENDA

1.	APOLOGIES
2.	ELECTION OF CHAIR AND VICE-CHAIR
3.	DECLARATIONS OF INTEREST Members and Officers are reminded that at the start of the meeting they should declare any known interest in any matter to be considered, and also during the meeting, if it becomes apparent that they have an interest in the matters being discussed.
4.	PUBLIC QUESTION TIME/PETITIONS AND DEPUTATIONS (MAXIMUM 10 MINUTES)
5.	MINUTES (Pages 7 - 16) Minutes of the meeting held on 3 March 2016
6.	MATTERS ARISING FROM THE MINUTES
7.	AN INTRODUCTION TO STAGECOACH'S NEW GENERATION OF GREEN BUSES Ray Pass Training Co-ordinator Stagecoach West
8.	BUS PROVISION IN GLOUCESTERSHIRE - THE COUNTY COUNCIL'S INVOLVEMENT, PRESENT AND FUTURE

	Alan Bentley Integrated Transport Manager, Gloucestershire County Council
9.	FUTURE OF THE ENVIRONMENT AND ECOLOGY FORUM Meyrick Brentnall, Neighbourhood Services Manager
10.	INFORMATION EXCHANGE Members are invited to share information about forthcoming events and activities with the Forum.
11.	ANY OTHER BUSINESS
12.	DATE OF NEXT MEETING To be confirmed

NOTES

Disclosable Pecuniary Interests

The duties to register, disclose and not to participate in respect of any matter in which a member has a Disclosable Pecuniary Interest are set out in Chapter 7 of the Localism Act 2011.

Disclosable pecuniary interests are defined in the Relevant Authorities (Disclosable Pecuniary Interests) Regulations 2012 as follows –

<u>Interest</u>	<u>Prescribed description</u>
Employment, office, trade, profession or vocation	Any employment, office, trade, profession or vocation carried on for profit or gain.
Sponsorship	Any payment or provision of any other financial benefit (other than from the Council) made or provided within the previous 12 months (up to and including the date of notification of the interest) in respect of any expenses incurred by you carrying out duties as a member, or towards your election expenses. This includes any payment or financial benefit from a trade union within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992.
Contracts	Any contract which is made between you, your spouse or civil partner or person with whom you are living as a spouse or civil partner (or a body in which you or they have a beneficial interest) and the Council (a) under which goods or services are to be provided or works are to be executed; and (b) which has not been fully discharged
Land	Any beneficial interest in land which is within the Council's area. For this purpose "land" includes an easement, servitude, interest or right in or over land which does not carry with it a right for you, your spouse, civil partner or person with whom you are living as a spouse or civil partner (alone or jointly with another) to occupy the land or to receive income.
Licences	Any licence (alone or jointly with others) to occupy land in the Council's area for a month or longer.
Corporate tenancies	Any tenancy where (to your knowledge) – (a) the landlord is the Council; and (b) the tenant is a body in which you, your spouse or civil partner or a person you are living with as a spouse or civil partner has a beneficial interest
Securities	Any beneficial interest in securities of a body where – (a) that body (to your knowledge) has a place of business or land in the Council's area and (b) either –

- i. The total nominal value of the securities exceeds £25,000 or one hundredth of the total issued share capital of that body; or
- ii. If the share capital of that body is of more than one class, the total nominal value of the shares of any one class in which you, your spouse or civil partner or person with whom you are living as a spouse or civil partner has a beneficial interest exceeds one hundredth of the total issued share capital of that class.

For this purpose, “securities” means shares, debentures, debenture stock, loan stock, bonds, units of a collective investment scheme within the meaning of the Financial Services and Markets Act 2000 and other securities of any description, other than money deposited with a building society.

NOTE: the requirements in respect of the registration and disclosure of Disclosable Pecuniary Interests and withdrawing from participating in respect of any matter where you have a Disclosable Pecuniary Interest apply to your interests and those of your spouse or civil partner or person with whom you are living as a spouse or civil partner where you are aware of their interest.

Access to Information

Agendas and reports can be viewed on the Gloucester City Council website: www.gloucester.gov.uk and are available to view five working days prior to the meeting date.

For further details and enquiries about this meeting please contact Meyrick Brentnall, 01452 396829.

For general enquiries about Gloucester City Council’s meetings please contact Democratic Services, 01452 396126, democratic.services@gloucester.gov.uk.

If you, or someone you know cannot understand English and need help with this information, or if you would like a large print, Braille, or audio version of this information please call 01452 396396.

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If the fire alarm sounds continuously, or if you are instructed to do so, you must leave the building by the nearest available exit. You will be directed to the nearest exit by council staff. It is vital that you follow their instructions:

- You should proceed calmly; do not run and do not use the lifts;
- Do not stop to collect personal belongings;
- Once you are outside, please do not wait immediately next to the building; gather at the assembly point in the car park and await further instructions;
- Do not re-enter the building until told by a member of staff or the fire brigade that it is safe to do so.

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GLoucester City Council

MINUTES OF ENVIRONMENT AND ECOLOGY FORUM MEETING HELD ON THURSDAY 3rd March 2016.

<u>Present:</u>	Richard Trelfa (Chair)	- Gloucester Civic Trust
	Stephen McDonnell (Sec)	- Environmental Co-ordinator, Gloucester City Council
	Meyrick Brentnall	- Neighbourhood Manager, Gloucester City Council
	Andrew Harley (Vice Chair)	- Gloucester City Homes Tenants Forum
	Cllr David Brown	- Gloucester City Council
	Ray Pass	- Stagecoach in Gloucester
	Mark Holder	- Stagecoach in Gloucester
	Jo Martin	- Environment Agency
	Pam Daw	- Friends of Alney Island
	Barry Leach	- Gloucester City Centre Community Partnership
	Pam Jones	- Friends of Alney Island
	Alan Lomax	- Hempsted Resident
	Brigit Lomax	- Hempsted Resident
	Claire Mitchell	- Vision 21
	Amanda Stevenson	- City Resident
	Brian Furniss	- Tuffley Resident
	Terry Stevenson	- Hempsted Resident
	Jackie Cave	- Friends of Robinswood Hill
	David Chipperfield	- Gloucester Citizen
	Alan Bently	- Glos County Council
<u>Apologies:</u>	Cllr Jim Porter	- Gloucester City Council
	Cllr Phil McLellan	- Gloucester City Council
	Katherine Cole	- Glos County Council

ACTION

1. Minutes of previous meeting 14th January 2016 were agreed.
2. **Matters Arising**
None
3. **Jo Martin: The Environment Agency – Update on Flood Relief Plans for Gloucester**

Jo gave a resume of the initial assessment being undertaken by the Environment Agency's consultants to highlight any scenarios which may be effective in reducing River Severn flood risk and to show whether these scenarios could potentially attract a funding contribution from government Flood and Coastal Erosion Risk Management Grant in Aid. The work has involved modelling of scenarios to assess their impact on River Severn water levels in Gloucester and the surrounding area (from Longford to Elmore and Minsterworth), and a high level assessment of the potential economic benefits and costs.

Originally, approximately ten scenarios were to be looked at. Working with suggestions from some local residents and testing variations of scenarios has resulted in a total of 44 scenarios being modelled. Due to the complexity of the model, (modelling of each takes a number of days). The assessment therefore has taken longer than first envisaged though provides us all with an increased understanding of what may be effective in reducing flood levels and what may attract public funding.

Jo ran through a few of the scenarios that had been modelled. This included scenarios to improve the conveyance of floodwater through the area – including flood relief channels, setting back or creating gaps in existing agricultural defences, and widening the River Severn channel. Other scenarios focussed on providing a barrier to flood water, and included constructing new or raised embankments or walls in a number of locations.

She mentioned that the situation in Gloucester is complex as Severn floods can be fluvial, tidal or a combination of both – modelling shows that carrying out works which may be beneficial in conveying fluvial flow through the area could result in increased flood risk from tidal waters travelling more easily upstream.

Various bypass channels were looked at. Jo suggested that these would be expensive as they would require significant changes to land use to allow for their construction, and they would need significant ongoing maintenance to keep them at their designed capacity.

Overall it appeared as though the raised defence scenarios would offer the strongest benefit cost ratios and have the strongest potential to attract a contribution from government funding.

Jo made clear that no decisions will be made resulting from the Initial Assessment as to whether there is a scheme to reduce River Severn flood risk at any locations in Gloucester – the assessment will provide information at a level of detail suitable to inform discussion going forward. The consultants' final reports will soon be made available to interested parties and the Environment Agency will be providing a briefing note which explains the work, the conclusions and the next steps, together with a link to the reports. (Post meeting note: the reports are now available, and the briefing note is attached).

A number of points were raised and responded to in particular;

1 in 100 events etc is confusing and confidence in it is wearing thin with so many significant events.

Jo accepted that presenting the results based on theoretical floods could be confusing. Using theoretical floods of different flood frequency (return periods) in the modelling is a standard approach to assessment across the country. This gives a consistent way of assessing risk and economic benefits so that comparisons can be made between schemes and funding focussed on where it will provide the greatest benefit.

Had 'what if' scenarios been run, for example if the football club was built? The modelling takes into account the existing situation as its baseline. Developers would carry out their own modelling if required as part of the planning process.

Were any more early warning gauges proposed – they have been useful.

Yes there is a gauge programme but this does not include any more gauges on the Severn currently. Jo can supply more information on request.

Was using the Sharpness Canal looked into to relieve flood waters?

No –The River Severn floodplain is over a mile wide in its lower reaches and a vast volume of water passes through Gloucester in major floods. It is unlikely using the canal would provide significant benefit as the canal already carries water and there would be little extra capacity available during flooding.

Do we know how much money has been saved by schemes built of late?

Jo did not have a figure for this, but such schemes in Gloucester city have protected properties in 2012, 2014 and again recently, for example the Horsbere flood management scheme protects approximately 350 properties, Daniels Brook approximately 200, and Alney Island 60.

Does farming practice influence levels?

Farming practice and land use can affect levels. Discussions are ongoing across the country to encourage good agricultural practice to reduce run-off, so to reduce both pollution and flood risk.

Jo was thanked for her presentation.

4 **Gloucester Bus and Rail Station – highways update.**

Alan Bently from Gloucestershire County Council talked us through the proposals for the bus and rail station. The former has been split from the overall Kings Quarter development as a Phase 1 and is going ahead with the City Council as lead, with funding from the LEP and Infrastructure Fund borrowing. Planning Permission has been secured and work will start later this year. The Kings Quarter Bus Station work is split into two parts – the actual Bus Station which will be let as a Design and Build contract, and the Highways work which will be undertaken through the county council's term contractor.

Alan showed us extracts from the planning application. He confirmed it would be a high quality building with high levels of energy efficiency. It would host a Stagecoach office, toilets and real time information screen.

A new junction at Station Road/Bruton Way (near Asda) will take bus traffic out of the Station Approach junction. Other junctions would be reconfigured and the existing NCP car park will have its vehicle access and exit reversed. The existing Bus Station will continue to operate until the new bus station is available, though Grosvenor House is due to be demolished to free up land for the new building.

The whole project should be complete by the end of 2017 barring any unexpected problems.

Questions were invited.

The opportunity for a better pedestrian route from Great Western Road should be exploited. Plus a route over from Asda

Alan agreed the subway was substandard and made clear that better access from the hospital was being looked at by Network Rail but would be subject to a funding

bid.

The impact of extra traffic along Station Road was raised and whether or not the residents has been consulted. What was the impact of the new traffic light junction and would the levels at the new junction allow it to work. Would cars coming out of Kings walk car park be allowed to go down Clarence street?

Alan informed the Forum that the junction traffic had been modelled and that they hoped to improve signalling all along Bruton way (Bruton Way, Metz way, Station road would function as one junction). Yes there would be consultation prior to the changes coming in for the TRO required, though Alan pointed out before Bruton Way was built it was a main road). The team are also aware of levels and anticipate that detailed design can get around it, and he did expect that private vehicles would be able to go down Clarence Street.

The need for a proper integrated interchange was raised. It was considered that an opportunity had been missed in creating one. The inner ring road was the problem and some sort of flyover or something had to be looked at.

Alan was sympathetic but at this moment in time the money was just not available. He was confident that there would be improvements.

Was there provision for a drop off facility? For example the railway station has short term parking for this as well as taxi provision?

Yes Alan said there was provision for this in the design

Again it was pointed out the junction between the Rail and Bus Stations was the main issue, what had not been raised was how dangerous it was. Are there any figures as to accident rate.

It was re-iterated that there would be improvements for pedestrians though not as radical as many would have liked, but there may be further changes as part of the wider Kings Quarter development.

Will the new Bus Station be open and clean or will it be like some bus stations choked with Diesel fumes. Will bus routes change, will other bus drop off/pick up points change?

It was suggested that the detail could be brought forward for the next meeting. But generally it is the longer distance less frequent services that had more down time use the existing and future bus station. Other services would remain generally as before. The waiting area would be indoors and therefore not affected to any degree by diesel fumes.

5 **Future of the Forum**

Meyrick reminded the Forum that Stephen McDonnell was no longer at the authority and that he had not been replaced. As such in future it would become increasingly difficult to provide executive support. A number of options were put forward from closing it down to carrying on with community rather than Council support. It was made clear that the City Council would be able to supply accommodation etc and that Meyrick would for now be able to supply knowledge

**MB to
set up**

ACTION

meeting

and understanding as to what was happening at the City and could still liaise with the Chair. It was pointed out that for a number of years it had been an 'outside body' and not a formal forum.

Members of the Forum generally supported the continuation. Stagecoach kindly offered to provide the secretariat for the meeting. Meyrick suggested that he called a small informal meeting to talk through any proposals.

6. **Information Exchange**

Meyrick briefly talked through the Gloucester Air Quality Report.

It was pointed out by Members of the Forum that they believed air quality Gloucester was failing national standards especially in the vicinity of St Oswald's. There was a general discussion about what this meant and how it impacted upon the lives of those living there and what could be done about it.

Meyrick pointed out that the author of the report had now left the authority. Her replacement had only recently started and was not yet qualified. Meyrick made clear it was not within his normal competences but did point out that the report did conclude that there was no need to proceed to a more detailed assessment and the NO2 in particular was a national problems and not one restricted to Gloucester. As he was not competent on these matters he suggested a further discussion with Chair/Vice Chair when more about the issue could be understood.

**MB to
talk to
chair**

7. **Dates of Next Meetings**

7th July 2016 at 18.00hrs

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Reducing flood risk from the River Severn in Gloucester and the surrounding area – Initial Assessment

Background

Flooding from the River Severn occurs regularly in Gloucester and the surrounding area. The River Severn has floodplains of over one mile wide in its lower reaches. Parts of Gloucester also experience tidal flooding. Historically, properties and infrastructure including some of the transport links connecting our communities exist within the floodplain.

A small number of properties are frequently affected by flooding and these are predominantly in rural areas. Large scale property flooding is generally not seen until more significant flood events occur on the River Severn. Flooding in 2014 affected around 150 homes and businesses along the River Severn between Gloucester and Tewkesbury (source: Tewkesbury Borough Council).

Flooding in the area also causes access issues and travel disruption. Water can take many weeks to drain from the floodplain, which can delay community recovery. Some structures built historically in the floodplain are themselves obstructions to flood flow.



Alney Island flooding

The primary responsibility for safeguarding land and property sits with the owner. There is no legal right to be provided with protection from flooding or the effects of flooding. However, the wider economic and social need to reduce effects of flooding is recognised, and publically-funded works have been carried out across the county to reduce flood risk.

A number of organisations have a role in managing flood risk. These risk management authorities include the Environment Agency, local authorities, internal drainage boards and water companies. Local authorities also have a role in highways, planning for and leading on recovery and managing aftercare. These organisations work with each other and with communities, businesses, infrastructure operators and other organisations that also have an important role in managing their risk, resilience and recovery.

2005
River Severn at Gloucester
Flood Risk Management
Study (Gloucester Study).



Work carried out to
reduce flood risk in
Gloucester - floodplain
obstructions removed on
Alney Island; flood
alleviation scheme
constructed at Alney
Island.



Widespread flooding in
2007 from River Severn,
smaller rivers and surface
water.



Extensive engagement
with local communities,
risk management
authorities and other
interested parties.



Work carried out to
reduce flood risk to
properties in Gloucester
and surrounding area -
including schemes on
Horsbere Brook and
Daniels Brook; works on
River Twyver and the
Saintbridge flood storage
areas; maintenance of
watercourses and
defences; provision of
flood warning service and
management of flood
incidents.

The Environment Agency has permissive powers which enable us to carry out work to manage flood risk from watercourses designated as 'Main River', including the River Severn and Severn Estuary.

In the Gloucester area, we have implemented a number of measures to reduce the risk of flooding from the River Severn and Severn Estuary. We continue to carry out works to reduce the probability and impact of this flooding. Where possible this includes maintaining flood defences, providing a flood warning service and contributing to the effective management of flood incidents. In addition we are assessing a scheme to improve the standard of protection of the flood defences at Alney Island.

We have recently completed an initial assessment of scenarios which may be effective in further reducing flood risk from the River Seven. The study area extends from Longford to Elmore and Minsterworth.

A strategic approach where flood risk management, resilience and recovery are considered together with other plans for the area could be of benefit. This would include identifying funding sources which can be used. A strategic approach would also include understanding the potential for, and timing of, future developments in the area to help plan for and maximise the opportunities available.



Funding to manage flood risk

Funding for the Environment Agency and other risk management authorities to manage flood risk is mainly provided by Defra as **Flood and Coastal Erosion Risk Management Grant in Aid (FCERM GiA)**.

Assessments are carried out in a consistent way across the country using Government policy and Environment Agency guidance. This ensures public money is spent on the works that provide the greatest benefits to society in the most efficient and effective way. Risk management authorities, including the Environment Agency, are able to bid for FCERM GiA funding for projects which meet the following three 'tests'.

Projects have to be:

- technically feasible and adaptable to change;
- socially and environmentally acceptable, and
- the economic benefits to the country must outweigh the costs.

Under Defra's partnership funding approach (please go to Gov.uk and search 'Flood and coastal resilience partnership funding'), the maximum amount of government funding which can be contributed to a scheme is based on the numbers of households better protected, the level of deprivation of the area, the damages being prevented and other possible benefits which would be gained as a result of the scheme.

Where government funding would not fully cover the costs of a scheme, the costs would either need to be reduced or the remainder of the funding would need to be provided through local contributions. These local contributions need to have been identified prior to the allocation of funding and secured before works can be designed in detail and started on the ground. Each scheme is given a partnership funding score based on the outcomes delivered, costs, benefits and local contributions. This score is used to prioritise and allocate FCERM GiA funding.

Those schemes indicatively allocated FCERM GiA funding are then entered onto the government's national six year programme of investment for flood and coastal erosion risk management 2015-2021.



What we've done so far

An initial assessment has been carried out to highlight any scenarios which may be effective in further reducing River Severn flood risk and to show whether these scenarios could potentially attract a funding contribution from FCERM GiA. We have also looked to understand potential gaps in funding.

The Environment Agency's consultants undertook computational hydraulic modelling of 44 scenarios to assess their impact on River Severn water levels in Gloucester and the surrounding area. The modelling looked at how flood water may spread over the area, taking into account the height of the terrain and obstacles the water may encounter. This indicated how water levels may change in the varying scenarios in comparison to the existing situation. The modelling took into account the potential for a high tide to occur at the same time as high river levels.

Some scenarios focussed on improving the conveyance of floodwater through the area. These included constructing flood relief channels, setting back or creating gaps in existing agricultural defences, and widening the River Severn channel. Other scenarios focussed on providing a barrier to flood water, and included constructing new or raised embankments or walls in a number of locations. Some scenarios considered measures on their own, others in combination. We re-visited some scenarios which have been considered previously but which could not be taken forward at the time, as well as new scenarios, including those suggested by some local residents.

In order to understand the boundaries of how theoretically possible it may be to reduce water levels, some scenarios were explored even though they may not be practical in reality, for example, removing all roads and railways from across Alney Island.

Where modelling shows scenarios may provide a significant variation in water levels, our consultants considered what effect this would have on flood risk to homes and businesses, agricultural land and infrastructure.

They then carried out a high level assessment of the economic benefits and costs of 25 scenarios which have the potential to affect flood risk. They carried out the assessment in accordance with current government policy and Environment Agency guidance, in a way that is consistent with assessments carried out for other projects across the country. Any burden for future generations has been considered by taking into account the ongoing costs to the taxpayer; for example, maintenance and refurbishment.

Our consultants have used this information to work out which scenarios may have benefits that outweigh costs, and therefore meet the economic 'test' required to bid for FCERM GiA funding. An early assessment has been made of how much FCERM GiA funding each scenario has the potential to attract.

What is the outcome of the work?

The results of the modelling indicate that approximately 850 homes and businesses in Gloucester are at risk from a River Severn flood with a 0.5% chance of a flood occurring in any one year (1 in 200 year flood) in the current situation.

The assessment has indicated the following:

- Raised defences would reduce flood risk to the largest number of properties and to the agricultural land and infrastructure behind them. Raised defences provide a level of protection against both fluvial and tidal flooding.

Modelling of scenarios to assess their impact on River Severn flood levels in Gloucester and the surrounding area.

High level assessment of economic benefits.

High level assessment of costs.

Early assessment of whether there are scenarios which may attract a contribution from FCERM GiA.

- Large scale works to improve flood flow through the area, such as introducing several new sections of flood relief channel working in combination with widening of the existing River Severn, would reduce water levels. Localised works, for example involving short lengths of flood relief channel, are less effective. Large scale flow improvements do not reduce flood risk to as many properties as raised defences, but could generally reduce flood risk to larger areas of agricultural land.
- Carrying out works to improve river flow through the area could result in increased flood risk from tidal waters travelling more easily upstream.
- New flood relief channels would require significant changes to land use to allow for their construction. They would also need regular maintenance due to the ongoing need to clear them of silt and vegetation. This would increase costs substantially.
- Generally the raised defence scenarios offer the strongest benefit cost ratios and the strongest partnership funding scores.
- The value of economic benefits would be less than the investment needed for the majority of scenarios that focus on improving the conveyance of floodwater and for a few of the local raised defence scenarios. The economic test required to attract FCERM GiA would not be met.
- Following the Government's partnership funding rules, none of the scenarios could be funded fully by FCERM GiA. Third party funding would be needed.

If you would like to see the detail behind the assessment, please refer to our consultants' reports which can be found at <https://ea.sharefile.com/d-s8701b646dc94b7bb>.

What happens next?

The work carried out is an initial assessment. This looked at which scenarios may be effective in reducing flood risk, the scale of the economic benefits and costs of these scenarios and the level of FCERM GiA funding that each has the potential to attract. It also looked at the scale of any funding gaps. The assessment provides information at a level of detail suitable to inform discussion. No decision has been made on whether there is a scheme to reduce River Severn flood risk at any locations in Gloucester and the surrounding area.

Discussions are currently ongoing with local authorities in the area to understand how scenarios may fit in with wider strategic objectives.

More detailed assessment would be needed if any of the scenarios are taken forward. This includes a more detailed consideration of the technical feasibility, and social and environmental acceptability of scenarios. A Flood Risk Assessment would be needed to assess any potential impacts to third parties. The costs and benefits would be refined and, if seeking FCERM GiA, the partnership funding calculation would be revised to see what could actually be contributed towards a scheme. An option could only be taken forward once all funding is in place.

In addition, funding has been indicatively allocated in the national six year programme of investment for flood and coastal erosion risk management 2015-2021 to carry out surveys of properties along the stretch of the River Severn from Gloucester to Tewkesbury. This is to assess whether property level protection measures may be an appropriate alternative option to reduce flood risk in this area. Such measures may include flood resistance measures, for example flood gates, removable doors and airbrick barriers designed to fit across openings. Measures may also include flood resilience measures, for example raised electrical sockets and appliances, hard flooring and pumps. We are currently carrying out a survey of property thresholds. This survey will help inform any future options for reducing flood risk for communities.

Contact details:

If you have any questions with regard to the above please contact SHWGenquiries@environment-agency.gov.uk or 0203 025 1678.