ABERDEEN CITY COUNCIL

COMMITTEE	Communities Housing and Infrastructure
DATE	29th August 2017
REPORT TITLE	SCORE Project
REPORT NUMBER	CHI/17/166
INTERIM DIRECTOR	Bernadette Marjoram
REPORT AUTHOR	Will Burnish

1.   PURPOSE OF REPORT

The purpose of this report is to seek approval for ACC's involvement with the SCORE project.

2.   RECOMMENDATION(S)

The Committee are asked to approve the following recommendations:

a) Approve the Council's participation in the Interreg VM SCORE project
b) European travel for up to two officers to participate in project meetings and share knowledge
c) Appoint the City Flooding Representative – Elected Member (CHI-17-165) to the project steering group and approve any associated European travel
d) Approve the tender and acceptance of contracts to allow delivery of the scheme, up to a maximum contract value of £160,000
e) Approve the use of data gathered as open data
f) Approve the use of Council owned land to install the flood warning signage
g) Note match funding from other project partners may be available and instruct officers to report any funding updates to a future meeting of this committee

3.   BACKGROUND/MAIN ISSUES

The aim of the SCORE Project is create open access to key River/Burn and Rainfall data across a number of sites in the city. The data will be presented to the public both in the form of an App and a web based display. This will also be available as open data for re-use by citizens,

academics and SMEs. The project will also provide data to all Aberdeen City Council staff to undertake informed and proactive decisions about flood risk management.

With the increase in high intensity rainfall events, the creation of the North East Local Flood Risk Management Plans as required by the Flood Risk Management Act 2009 and the introduction of the Property Level Protection Flood Grant, it has become more important that we gather and share as much data with the local community as possible so that they can manage their own response to flood risk.

The key elements of the project are as follows:

- Open Data. All data arising from sensors/gauges will be made available as Open Data via the city Open Data Portal
- The data will be available in near real time and for historic timespans, selectable by location(s)
- Website/App. This will be the key end product of the project, allowing citizens to interact with the data. It will deliver the following key functionalities:

  o The ability to visualise the data in a number of ways (e.g. a display showing the last 5 day trend)
  o Current depth of water at any location
  o Lines showing normal conditions
  o Max level recorded line
  o Links to download data for a period of time
  o The option to register to receive data from specific locations sent by SMS
  o Ability to automate signs within the city
  o Water level monitoring sites. There will be at least 15 installed across the city. The monitoring sites will as a minimum provide the following information:
    ▪ Level data returned as a minimum every hour back to the database
    ▪ Ability to ask for live data to be displayed
    ▪ Data recorded at intervals no greater than every 10 mins
    ▪ Outstation to use 4G or City Wi-Fi
  o Rain gauges. There will be 4 rain gauges installed. These will be installed in the following areas: Marischal College, Cove Hydrogen Facility, Buncksburn Depot, Kingswells Park and Ride. The gauges will act as follows:
  o Level data returned as a minimum every hour back to the database
  o Will be powered via solar power
  o Integrated traffic sign. This will be the installation of a traffic sign which will be automatically updated and activated via the data gathered from the local level sensors. This provision is likely to be used to provide warnings in the Inchgarth area of the city

4. FINANCIAL IMPLICATIONS

The scheme is to be jointly funded by Interreg VB project SCORE Project under the North Sea Region programme and Aberdeen City Council. The Cost Breakdown for the scheme can be found in Appendix C:-

The scheme will require a total of £87,750 of match funding across 3 years from Aberdeen City Council. Funding for this scheme has been identified from the existing Flooding and Coastal Capital Budget and has been approved in the current Road Capital Programme. The works identified are in the North East Flood Risk Management Plan as part of community engagement and flood warning. The works may require re-scoping if there is significant change in the current exchange rate. The rate used for the budget plan is 1.14 Euros = 1 £.

There is potential additional funding from other key project partners. These may include:-

- Scottish Water
- SEPA

Initial discussions have been had with them and funding may become available towards the completion of the design stage of the project to help deliver the outputs of the flooding master plans.

5. LEGAL IMPLICATIONS

The recommendations, if not approved, may affect the way in which the City meets its obligations under the Flood Risk Management Act.

6. MANAGEMENT OF RISK

6.1 Financial
The Project is being funded out of existing identified Flooding Capital spend. If this spend is to be reduced then the scope may be reduced, but discussion would be required with funders as to project implications

6.2 Employee
Current plans have been resourced to deliver the SCORE project from both the ICT team and Flooding team. Where other resources are identified during the project, these will be funded as part of the project

6.3 Customer / Citizen
There is not a risk to the Customer on this project, but their experience of the open data will be greatly increased. There is a risk of poor

uptake in by the SME and Public. Good communication strategies will be in place to reduce this risk

6.4 Environmental
When works are prosed to mitigate environmental risk and scoping, environmental appraisals will be undertaken at the locations with installation work

6.5 Technological
There is a risk of technological failure during the scheme's development. By working closely with ICT we will ensure that there are levels of redundancy in the process as well as ensuring that access to the database system to allow open source data to work is secure

6.6 Legal.
There are no legal risks which are currently affecting the delivery of the SCORE project, however if there are changes to budgets or resource then this may affect our delivery of the scheme and therefore our the statutory duty within the FRM 2009 act

6.7 Reputational
Reputational issues to ACC with regard to flood risk will be managed by increased community engagement and information as part of the NELFRMP

7. IMPACT

Economy –
The data will help the flood and roads teams to manage the response to flood incidents and see where risks are and may be coming from. The data can also be used to help predict what may happen if levels rise in the future. It will also be helpful during flood events that the data can be accessed at any time and anywhere, giving people who are working on the ground real time data and giving them the opportunity to make informed decisions
.
People –
The project will greatly improve citizen's ability to make their own decisions on when they need to install their property level protection. It will also give free access to the rainfall and water level data instantly, meaning that they are able to monitor it and make informed decisions about travel and other tasks, therefore creating a more resilient community.

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can be accessed at anytime and anywhere, giving people who are working on the ground real time data and giving them the opportunity to make informed decisions.

The data will also help SME to create applications which use the data and share this with the community

Technology
This project is a key technology project and will be helping ACC to open up its data for the public to use. The key risk here is cyber security and the project team will be working with ICT to ensure that ACC data is kept safe and that the system is not vulnerable to attack

Place-
This project will be of interest to the public. It is providing the public with an opportunity to see near real time data about local burns/sewers which provide significant risk of flooding. This will give them the opportunity to make decisions on how best to protect their property and arrange their travel plans.
This project is a key link to smarter cities as it is allowing us to use raw data and transform it into smart data that people can use to make smart and active decisions. This links in to our city wide Wi-Fi network, our transport system as well as flood response

8.   **BACKGROUND PAPERS**

North East Local Flood Risk Management Plan
https://www.aberdeenshire.gov.uk/media/17174/north-east-local-flood-risk-management-plan-2016-2022-web-version.pdf

9.   **APPENDICES**

Appendix A: -   Signed letter of intent to undertake the project
Appendix B:-   Risk Register
Appendix C: -   Finance and Programme

10.   **REPORT AUTHOR DETAILS**

Will Burnish
Team Leader, Flooding and Coastal
wburnish@aberdeencity.gov.uk
01224 522387

HEAD OF SERVICE DETAILS

Mark Reilly
Head of Public Infrastructure & Environment

mareilly@aberdeencity.gov.uk
01224 52309

	Project Name:				SCORE.							
	Project Manager:			Will Burnish								

ID	Description	Type	Date Identified	Original Risk			Proximity	Mitigation (Counter Measures)	Residual Risk (after Mitigation)			Owner
				Impact	Likelihood	Score			Impact	Likelihood	Score	
1	Fluctuations in exchange rate	Project	23/06/2017	2	6	12	Whole Project	Reduce the number of Stations installed	2	3	6	ACC PM
2	Unable to use sustainable power and require electrical connection	Project	23/06/2017	3	2	6	Whole Project	Reduce the number of Stations installed	3	1	3	ACC PM
3	ICT unable to meet requirements of Outstation Protocol	Project	23/06/2017	4	4	16	Whole Project	Use the standard protocol for open source data. ICT are involved on the scheme	4	2	8	ACC PM
4	No SME want to create APP	Project	23/06/2017	4	4	16	Whole Project	Promote the scheme at local colleges and universities to gauge the scheme	4	2	8	ACC PM
5	Cuts made to existing Budgets	Project	23/06/2017	3	3	9	Whole Project	Liaise with other funders and beneficiaries to scope cost reductions	4	2	8	ACC PM
6	Staffing Availability	Project	23/06/2017	4	3	12	Whole Project	Work with line managers to ensure adequate resource is available	4	2	8	ACC PM
7	Weather delaying installation	Project	23/06/2017	4	4	16	Phase 1	Allow adequate programme time	4	2	8	ACC PM
8	Unable to find sufficient storage space for data	Project	23/06/2017	4	4	16	Phase 2	Work with ICT to confirm data requirements and reduce data inputs. Agree protocol for historical data	4	2	8	ACC PM

Appendix B

KEY

Impact		
Catastrophic	4	Not a priority
Serious	3	Quick wins now plus medium term plan to address
Material	2	Address immediately
Negligible	1	

Score			
Between 1-7	**Green**	Low Risk	Not a priority
Between 8-14	**Amber**	Medium Risk	Quick wins now plus medium term plan to address
Between 15-24	**Red**	High Risk	Address immediately

Likelihood	
Very High	6
High	5
Significant	4
Low	3
Almost Impossible	1

Type
Project
Operational
Strategic

Status
Open

Proximity	Timescales or specific date when risk may occur.

Closed