

## ABERDEEN CITY COUNCIL

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COMMITTEE	Community, Housing and Infrastructure
DATE	27 <sup>th</sup> August 2015
DIRECTOR	Pete Leonard
TITLE OF REPORT	BEGIN Project (Sustainable Urban Drainage)
REPORT NUMBER	CHI/15/207
CHECKLIST COMPLETED	Yes

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### 1. PURPOSE OF REPORT

The Purpose of this report is to seek approval to continue with the BEGIN Project. The development of the BEGIN Project and its emphasis on blue/green infrastructure aligns with strategic objectives for climate change; open space and nature conservation; and flooding and coastal management in Aberdeen.

### 2. RECOMMENDATION(S)

This report seeks Committee to approve the following:-

1. Expenditure of £300,000 of existing flood management budgets (revenue and capital) as match funding.
2. The use of Council owned land to install schemes
3. The participation of Aberdeen City in the BEGIN Project
4. Approves overseas travel for partner meetings and annual conferences connected with this project

### 3. FINANCIAL IMPLICATIONS

The scheme is to be jointly funded by Interreg VB project Blue Green Infrastructure through Social Innovation under the North Sea Region programme, and Aberdeen City Council. Below is the cost breakdown for the scheme

<b>BEGIN Draft Budget</b>					
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Total</b>
ACC Project Manager time	€ 4,698.53	€ 4,698.53	€ 4,698.53	€ 4,698.53	<b>€ 18,794.10</b>
Senior Engineer time	€ 18,794.10	€ 18,794.10	€ 18,794.10	€ 18,794.10	<b>€ 75,176.40</b>
Engineer time	€ 14,886.30	€ 14,886.30	€ 14,886.30	€ 14,886.30	<b>€ 59,545.20</b>
Environmental Planners time	€ 7,443.15	€ 7,443.15	€ 7,443.15	€ 7,443.15	<b>€ 29,772.60</b>
Other staff time	€ 5,475.00	€ 5,475.00	€ 5,475.00	€ 5,475.00	<b>€ 21,900.00</b>
Social inclusion staff time	€ 7,443.15	€ 7,443.15	€ 7,443.15	€ 7,443.15	<b>€ 29,772.60</b>
Office and Admin	€ 5,000.00	€ 5,000.00	€ 5,000.00	€ 5,000.00	<b>€ 20,000.00</b>
<b>Internal Spend (Staff) Total</b>	<b>€ 63,740.23</b>	<b>€ 63,740.23</b>	<b>€ 63,740.23</b>	<b>€ 63,740.23</b>	<b>€ 254,960.90</b>
ICS Modelling Work	€ 25,000.00	€ 20,000.00	€ 25,000.00		<b>€ 70,000.00</b>
Travel and ACC	€ 5,000.00	€ 15,000.00	€ 15,000.00	€ 15,000.00	<b>€ 50,000.00</b>
External Expertise	€ 25,000.00	€ 50,000.00	€ 50,000.00	€ 5,000.00	<b>€ 130,000.00</b>
Infrastructure			€ 50,000.00	€ 50,000.00	<b>€ 100,000.00</b>
<b>External Spend</b>	<b>€ 55,000.00</b>	<b>€ 85,000.00</b>	<b>€ 140,000.00</b>	<b>€ 70,000.00</b>	<b>€ 350,000.00</b>
<b>Total</b>	<b>€ 118,740.23</b>	<b>€ 148,740.23</b>	<b>€ 203,740.23</b>	<b>€ 133,740.23</b>	<b>€ 604,960.90</b>
Management Fee (15%)	€ 17,811.03	€ 22,311.03	€ 30,561.03	€ 20,061.03	€ 90,744.14
<b>ACC Contribution</b>	<b>€ 77,181.15</b>	<b>€ 96,681.15</b>	<b>€ 132,431.15</b>	<b>€ 86,931.15</b>	<b>€ 393,224.59</b>
<b>ACC Contribution £</b>	<b>£59,370.11</b>	<b>£74,370.11</b>	<b>£101,870.11</b>	<b>£66,870.11</b>	<b>£302,480.45</b>

The scheme will require a total of £302,000 match funding across 4 years from Aberdeen City Council. Funding for this scheme has been identified from the existing Flooding and Coastal budgets (revenue and capital). The works identified are already works which were within the current flood risk plans. The works may require de-scoping if there is significant change in the current exchange rate. The rate used for the budget plan is 1.3 Euros = 1 £.

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

- Scottish water
- SEPA
- Developer Contribution

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 master plans.

#### 4. OTHER IMPLICATIONS

By approving this project the following implications are included within the scheme:-

- External and internal resource to undertake the scheme
- Entering in to legal agreement with funding partners
- Use of existing revenue and capital budgets to undertake the project
- Works to increase biodiversity in the city

## 5. BACKGROUND/MAIN ISSUES

Aberdeen City has statutory obligations to manage and to reduce the flood risk under the Climate Change (Scotland) Act 2009 and the Flood Risk Management (Scotland) Act 2009.

The development of blue/green infrastructure aligns with strategic objectives for climate change; open space and nature conservation; and flooding and coastal management in Aberdeen

With the driver in mind the following two projects were chosen

### **Kincorth Sustainable Drainage Project**

Kincorth is a 1970 housing estate which was built using the older system of drainage where surface water and foul water are combined into a single drainage system. When these systems fail the flooding caused is significantly worse due to the high percentage of sewage within the system. These systems also have a number of capacity discharge points which will operate in periods of high flow and discharge this effluent into water course within the city. This project is to look at how we can separate out the surface water and foul water from the system or reduce the rate of input into the system so that the number of times that the capacity discharge points fail and cause flooding is reduced. The foul water will remain in the current combined system and treated at Nigg Treatment works

This site had been highlighted not only from actual incidences but also from results of the Integrated Catchment Study (ICS) and the constructed flooding model. The ICS highlights approximately 50 properties at risk within this region.

The project will use the green infrastructure within the development to provide the holding areas. Green infrastructure is the use of the natural environment to reduce the speed of water and also store water. In simple terms it is taking the water out of pipes and placing it in to open channels. At this stage we do not have clear design solutions and we would be looking to implement a number of small test projects to understand how each would work, the effect on the drainage system along with the difficulties of installing any retro fit solutions. We would need to consider how we can engage with the community, how to undertake works within their properties as well as managing the longer term larger schemes.

As part of the solution we would be looking to use native species to assist in the green infrastructure and enhance the local diversity as well as encourage the original flora and fauna back into the area.

Key outputs from this project that we would like to see from the Begin project is:-

- Understanding how social inclusion can be introduced in an area of low wealth.
- Tested schemes with full design that can be implemented trans-nationally
- Improved Biodiversity in the area
- Reduced flooding

### **Maidencraig Natural Flood Management Master plan**

The purpose of this project is to create a master plan for the Maidencraig area of the city. This is an area on the outskirts of the city that currently lies on the development edge of the city. The site is also in a position where it can act as a means of controlling water flows into the city. It is an area of low biodiversity. The watercourse that runs through the site is one of the main water courses that run through the city; it is prone to flood within the City. Upstream there are a number of long term developments planned which could increase flood risk. The watercourse also suffers from diffuse pollution from upstream. Diffuse pollution is the release of potential pollutants from a range of activities that, individually, may have no effect on the water course, but, at the catchment level could.

The plan is to create an all-inclusive biodiversity rich scheme that delivers flood risk management and community engagement .The plan will have the following objectives;-

- New flood storage area
- Increased biodiversity
- Access for all to a wetland habitat
- Improved water quality
- Reduce down stream flows so that project development can be undertaken and surface water can be directly discharge

From the master plan will include the key outputs will be:-

- Drawings with proposed design solutions
- Engaged community
- Youth engagement
- Funding strategy

## **6. IMPACT**

The project will have the following benefits for the city:-

- Reduce the flood risk within the Kincorth area and remove sewer flooding from Leggart terrace
- Help meet our climate change adaption needs
- Working with both European and Home partners
- Increased social awareness of the risk of flooding and what the community can do to prevent it
- Increase Bio Diversity within the Kincorth area.

The Project will have the following public impacts:-

- Increased awareness of flood risk
- Greater integration with the water environment
- Changes to their local environment
- Increased awareness of Biodiversity

## 7. MANAGEMENT OF RISK

Below is an extract highlighting the key issues which effect the scheme. The full details can be found in the risks and issues log.

If the recommendation are not approved the risk of flooding will continue and increase with climate change. The type of flooding will remain a combination of Foul and surface water.

ID	Description	Type	Date Identified	Original Risk			Proximity
				Impact	Likelihood	Score	
1	Lack of Community engagement, causing the social inclusion element of the project not to be realised	Project	25/06/2015	4	3	12	Whole
2	Council budgets are significantly reduced effecting current 3 year revenue budget for Flooding	Strategic	25/06/2015	4	2	8	Whole
3	Unable to reach internal design agreement	Project	25/06/2015	4	3	12	Whole
4	ICS Model highlights unforeseen risk	Project	25/06/2015	4	2	8	Whole
5	Community react adversely to plan	Strategic	25/06/2015	4	4	16	Whole
6	Negative publicity during the scheme	Project	25/06/2015	2	5	10	Whole
7	ICS Model unable to deal with Blue infrastructure blue green infrastructure	Project	25/06/2015	4	3	12	Whole

## 8. BACKGROUND PAPERS

Appendix A. BEGIN Project Briefing Note

Appendix B. BEGIN Project Risk/Issues Log

## 9. REPORT AUTHOR DETAILS

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