
Report To:	Environment & Regeneration Committee	Date:	18 January 2024
Report By:	Director Environment & Regeneration	Report No:	ENV009/24/EM
Contact Officer:	Eddie Montgomery	Contact No:	01475 712472
Subject:	Surface Water Management and Coastal Change Adaptation		

1.0 PURPOSE AND SUMMARY

1.1 For Decision For Information/Noting

1.2 The purpose of this report is to update the Committee on the progress of the Council's flood risk management programme in Cycle 1 and identify the resources and action required to address progression of Cycle 2 improvements.

2.0 RECOMMENDATIONS

- 2.1 That the Committee notes the current progress on the Central Greenock and other Flood Prevention Schemes.
- 2.2 That Committee notes the limited remaining funding from the original approved Flood Action Plan.
- 2.3 That committee approves the use of a proportion of the remaining Flood Action Plan and/or the Coastal Change Adaptation allocation to address the appointment of a temporary dedicated Flooding Engineer as outlined in section 4.2.
- 2.4 That the Committee notes that additional resources will be required to address the progression of high priority projects that will be identified as part of Cycle 2 Flood Risk Management activity.

Eddie Montgomery
Head of Physical Assets

3.0 BACKGROUND AND CONTEXT

Flood Risk Management Update

- 3.1 The Council has in place a significant programme for the investigation, design, and construction of various flood prevention schemes within Inverclyde, both as part of the Central Greenock Flood Prevention Project, and through a number of schemes out with the Central Greenock area. A summary of these schemes and their current stage of progression is included as Appendix 1.
- 3.2 In 2014, the Scottish Government awarded grant funding to Inverclyde amounting to £1,743,466 for the Central Greenock Flood Prevention Project (comprising a number of discrete schemes) – this represented 79% of the original estimated total cost for the Project at £2,216,000. The balance of the funding (£472,534) to be made available from the previously approved Flood Action Plan. The next phase of the Flood Prevention Project Out with Greenock is funded by the Scottish Government, amounting to £932,000; the balance of the funding (£494,000) comes from the previously approved Flood Action Plan, giving a total funding of £1,426,000.
- 3.3 The Council is a Member Authority of the Clyde and Loch Lomond (CaLL) Local Plan District (LPD). The CaLL LPD is a partnership of ten Local Authorities, with Glasgow City Council as lead. The CaLL Group published its “Local Flood Risk Management Plan” in June 2016; the publication of the Plan is an important milestone in implementing the Flood Risk Management (Scotland) Act 2009 and improving how we cope with and manage flood events in the CaLL District. The Plan translates this legislation into actions to reduce the damage and distress caused by flooding over the first planning cycle from 2016 to 2022. There are a number of schemes arising from the Plan, which are out with the Central Greenock Flood Prevention Plan.
- 3.4 All identified Cycle 1 Local Flood Risk Management schemes have been completed by the end of 2023. However, it should be noted that the flood events have changed over the 5 year period with shorter duration extreme events more frequent and with changes to flooding areas. Over the first Cycle period the Council employed dedicated Flooding Officers, however there has been no dedicated Officer since 2017 with the duties having been undertaken as far as possible via existing internal Roads Technical officer resources.
- 3.5 Cycle 2 of Local Flood Risk Management Plan 2022-2028 was published in December 2022 and this details the flood priorities for the next 5 years. The priorities across Inverclyde for the next 5 years will be identified through the development of Surface Water Management Plans. From these plans it will be possible to identify priority areas and develop a list of schemes and estimated costs. This is required to be in a position to submit bids for any future rounds of Scottish Government funding and identify pressures for existing limited capital budgets.

Coastal Change Adaptation

- 3.6 The Council received confirmation of the distribution of the coastal change adaptation component of the general capital grant in August 2023. The allocation is not ring fenced however it is anticipated that the funding will be utilised to enable councils to undertake coastal change adaptation planning ensuring that future works and developments in coastal areas are planned and are adaptive to the uncertainty of future climate change. As outlined in 3.4 above, there is no internal capacity in this area and a suitably qualified internal or external resource will be required to identify and address priority risk areas.

4.0 PROPOSALS

- 4.1 The Cycle 1 projects and works completed to date have reduced flooding incidences in the areas targeted, however, it has been clear from the previous three rainfall events that new areas of priority have been highlighted. Officers have identified a list of potential projects (refer to Appendix 2) with resource now required to investigate potential solutions for these areas.
- 4.2 In order to develop the necessary Surface Water Management Plans and manage, monitor and improve existing infrastructure to address flooding concerns additional resource in the area of flood management is required. It is proposed that a proportion of the current unallocated balance of the Flood Action Plan and/or the Coastal Change Adaptation allocation be utilised to appoint a temporary dedicated Flooding Engineer. This Officer would also address the requirement to develop schemes for future funding bids, manage flooding responses for planning applications, and potentially address / co-ordinate the area of coastal change adaptation outlined in 3.6 above. This has to be couched with the significant over subscription on Scottish Government flooding resources. The Committee is also requested to note that in addition to the resource requirement identified above, funding will be required to progress the highest priority areas from the list of potential projects developed and included at Appendix 2.
- 4.3 Inverclyde Council and Transport Scotland will continue to discuss all flooding locations across Inverclyde at the quarterly roads infrastructure liaison meetings. The Flood Risk Management quarterly meetings are also on-going with Inverclyde Council, Transport Scotland and Scottish Water to discuss areas of flooding. Officers and elected members will also continue to participate in the Clyde and Loch Lomond (CaLL) Local Plan District (LPD) group meetings.

5.0 IMPLICATIONS

- 5.1 The table below shows whether risks and implications apply if the recommendation(s) is(are) agreed:

SUBJECT	YES	NO
Financial	x	
Legal/Risk	x	
Human Resources	x	
Strategic (Partnership Plan/Council Plan)	x	
Equalities, Fairer Scotland Duty & Children/Young People's Rights & Wellbeing		x
Environmental & Sustainability		x
Data Protection		x

5.2 Finance

One off Costs

Cost Centre	Budget Heading	Budget Years	Proposed Spend this Report £000	Virement From	Other Comments
Flooding Strategy	E&R Capital	2024/27	201		Temporary (3 years) Flooding Engineer to continue Surface Water Management Plans, Integrated Catchment and design schemes etc.. Funded from combination of unallocated balance of Flood Action Plan £247k and/or Coastal Change Adaptation allocation £150k

Annually Recurring Costs/ (Savings)

Cost Centre	Budget Heading	With Effect from	Annual Net Impact	Virement From (If Applicable)	Other Comments
N/A					

5.3 Legal/Risk

The Council is a Member Authority of the Clyde and Loch Lomond (CaLL) Local Plan District (LPD). The CaLL LPD is a partnership of ten Local Authorities, with Glasgow City Council (GCC) as lead. GCC published the Local Flood Risk Management Plan (The Plan) in June 2016 which was an important milestone in implementing the Flood Risk Management (Scotland) Act 2009. The Plan translates this legislation into actions and improvements as to how we cope with and manage flood events to reduce the damage and distress caused by flooding.

5.4 Human Resources

Appointment of temporary Flooding Engineer as outlined in sections 4.2 and 5.2 above.

5.5 Strategic

The management of flood risk aligns with the Council Plan and Partnership Plan by making Inverclyde a safe place to work and live.

5.6 Equalities, Fairer Scotland Duty & Children/Young People

(a) Equalities

This report has been considered under the Corporate Equalities Impact Assessment (EqIA) process with the following outcome:

	YES – Assessed as relevant and an EqIA is required.
X	NO – This report does not introduce a new policy, function or strategy or recommend a substantive change to an existing policy, function or strategy. Therefore, assessed as not relevant and no EqIA is required.

(b) Fairer Scotland Duty

If this report affects or proposes any major strategic decision:-

Has there been active consideration of how this report's recommendations reduce inequalities of outcome?

	YES – A written statement showing how this report's recommendations reduce inequalities of outcome caused by socio-economic disadvantage has been completed.
X	NO – Assessed as not relevant under the Fairer Scotland Duty for the following reasons: Provide reasons why the report has been assessed as not relevant.

(c) Children and Young People

Has a Children's Rights and Wellbeing Impact Assessment been carried out

	YES – Assessed as relevant and a CRWIA is required.
X	NO – Assessed as not relevant as this report does not involve a new policy, function or strategy or recommends a substantive change to an existing policy, function or strategy which will have an impact on children's rights.

5.7 Environmental/Sustainability

Has a Strategic Environmental Assessment been carried out?

	YES – assessed as relevant and a Strategic Environmental Assessment is required.
X	NO – This report does not propose or seek approval for a plan, policy, programme, strategy or document which is like to have significant environmental effects, if implemented.

5.8 Data Protection

Has a Data Protection Impact Assessment been carried out?

	YES – This report involves data processing which may result in a high risk to the rights and freedoms of individuals.
X	NO – Assessed as not relevant as this report does not involve data processing which may result in a high risk to the rights and freedoms of individuals.

6.0 CONSULTATION

6.1 The report has been prepared in consultation with the Corporate Management Team.

7.0 BACKGROUND PAPERS

7.1 None.

Central Greenock Flood Prevention Plan		
Scheme	Stage	Description
Crescent Street	Complete	Automatic Trash Screen (including maintenance)
Crescent Street	Complete	Additional Capacity
Drumfrochar Road	Complete	Replacement Culvert
Aberfoyle Road	Complete	Flow Control
Kings Glen	Complete	Attenuation
Mearns Street	Complete	Flow Control
Brougham Street	Complete	Additional Capacity
West Station	Complete	Additional Capacity
Lady Alice Pond	Complete	Automatic Trash Screen
Craigknowe Burn	Complete	Automatic Trash Screen
Bouverie Burn, Port Glasgow	Complete	Automatic Trash Screen
Devol Burn, Port Glasgow	Complete	Automatic Trash Screen
Oak Mall, Greenock	Complete	Scottish Water
Kilblane Street	Complete	Oak Mall flood prevention (Scottish Water) Phase 1
Eastern Line of Falls	Planning	Cleaning out to improve capacity. Discussion ongoing with Scottish Water and Inverclyde Council regarding responsibility.
Eastern Line of Falls	Design	Improve access for maintenance purposes. Land ownership and agreements to undertake works are on-going. Officers are in collaboration with Scottish Water compiling an asset management plan of the Eastern Line of Falls.
Oak Mall Phase 3	Design	Scottish Water undertaking optioneering study and cost benefit analysis to further increase the flood resilience at the Oak Mall. Project has been delayed due to requirement to understand the impact / interface with the Greenock Town Centre Levelling Up project.

Flood Prevention Plan Out with Greenock		
Scheme	Stage	Description
Glasgow Road, Port Glasgow	Complete	Minor Improvement
Glen Moss, Kilmacolm	Complete	Natural Flood Management Study
Bouverie Burn, Port Glasgow	Complete	Works completed to upsize existing pipe from 450 to 900 diameter to increase capacity to by-pass the system at Bouverie Motors. Scheme designed to cope with 1 in 75 year event. A second phase is required however no design or works committed due to funding position.
Inverclyde	Complete	Scottish Water have completed the Integrated catchment based study examining flooding hotspots in Inverclyde. The study provided detailed information regarding flooding mechanisms from overland flow, sewers and watercourses for the 1 in 200 year event. The study has highlighted 27 flooding clusters, 20 of which are sewer surcharges (Scottish Water) and 6 are overland flows (Inverclyde Council) and 1 is joint. Officers will investigate the overland flow and Scottish Water are investigating the sewer surcharges.
Glenmosston Burn, Kilmacolm	Complete	Construction of reservoir bund to attenuate flows in Glenmosston is complete.
Erskine	Complete	Integrated Catchment Study. Scottish Water Lead.
Gotter Water, Quarriers	Complete	External consultant detailed hydrological studies undertaken to assess fluvial (river) flooding from the Gotter Water. Studies concluded that fluvial flooding is not considered to be the main concern at this location, and that pluvial (overland) flooding is the primary mechanism for flooding. Council Officers designed a by-pass piped system to remove the excess pluvial flooding via a pipe along Torr Avenue and back into the burn after Craigbet Road. Works complete.
A8 East Hamilton Street, Greenock	Construction	Officers from Inverclyde Council, Scottish Water and Transport Scotland continue to liaise. Trunk Road status means that Transport Scotland are lead. Operation of the existing surface water drainage system to the A8 has been assessed and found that after remedial repairs and cleaning of the carrier pipe to gullies, system has been damaged by the foul connection from the construction of the Ladyburn Industrial units. Transport Scotland are currently working on a solution to this problem. Scottish Water have optioneered a solution to the sewer surcharging at the Lady Burn and are currently on site.
Port Glasgow, Greenock, Gourrock and Inverkip.	Design	Surface Water Management Plans. Officers will prepare plans for consultation to include, areas of flood risk, objectives, option appraisals, preferred options, and estimated funding requirements.

<i>Flood Prevention Plan 2024/27 Indicative Priority Areas</i>
Location
Auchmountain Glen – Cartsburn Flooding
Eldon Street – Battery Park
Shore Street, Gourrock
Bouverie Phase 2
Reservoir Attenuation – Whinhill, Knocknairs and Harelaw
Coastal Flooding
Cloch Road – Roads Drainage