

Report To: Environment & Regeneration
Committee

Date: 31 August 2017

Report By: Corporate Director Environment,
Regeneration & Resources

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**Contact
Officer:** Steven Walker

**Contact
No:** 714828

Subject: Flood Risk Management – Update Report 10

1.0 PURPOSE

1.1 The purpose of this report is to update the Committee of the progress on the Council's flood risk management programme.

2.0 SUMMARY

2.1 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 a number of schemes outwith the central Greenock area.

2.2 The progress of the Central Greenock Flood Prevention Project is detailed in paragraph 4.4.

2.3 The progress of the flood prevention schemes outwith central Greenock is detailed in paragraph 4.5.

3.0 RECOMMENDATIONS

3.1 That the Committee note the progress to date on the Central Greenock Flood Prevention Project.

3.2 That the Committee note the progress to date on the flood prevention schemes outwith central Greenock.

3.3 That a report be brought the next meeting of this Committee in respect of detailed recommendations as to the scope of works required for the Coves Burn, Cove Road and Steel Street.

Willie Rennie
Acting Head of Environmental and Commercial Services

4.0 BACKGROUND

- 4.1 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 a number of schemes outwith the central Greenock area.
- 4.2 In 2014, the Scottish Government awarded grant funding to Inverclyde for two major flood prevention projects, the Central Greenock Flood Prevention Project and the Flood Prevention Project for areas outwith Central Greenock, both projects are comprised of a number of discrete schemes.
- 4.3 The Council is a Member Authority of the Clyde & Lomond Local Plan District (CaLL Group). The CaLL Local Plan District 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.
- 4.4 The Central Greenock Flood Prevention Project is summarised in the table below:

Scheme
<p>Completed:</p> <p>Crescent Street – Automatic Trash Screen (including maintenance) Crescent Street – Additional Capacity (discontinued scheme) Drumfrochar Road – Replacement Culvert Aberfoyle Road – Flow Control Kings Glen – Attenuation Mearns Street – Flow Control Brougham Street – Additional Capacity West Station – Additional Capacity Lady Alice Pond – Automatic Trash Screen Craigknowe Burn – Automatic Trash Screen</p>
<p>At Design Stage:</p> <p>Crescent Street – Additional Capacity (revised scheme) Eastern Line of Falls – Capacity Improvements</p>

Notes:

- *Aberfoyle Road:* This scheme, whilst complete on site, will not be operational until such time as the additional capacity associated with the Carts Burn at Crescent Street, and the Eastern Line of Falls is constructed and operational; anticipated 2017/19.
- *West Station:* Works started on site March 2016 and Phase 1 (Newton Street) and Phase 2 (South Street Roundabout & Nelson Street), were completed. Phase 3 (Inverkip Road) started on site early July 2016, but due to technical issues arising following ground excavations, this phase was put on hold. A design review and revised proposals were developed and agreed with Transport Scotland – site works are now completed. Transport Scotland contributed £237k towards the overall West Station scheme.
- *Crescent Street:* This scheme is proposed to provide additional culvert capacity on the Carts Burn. Following the termination of the contract to provide an additional culvert at Crescent Street (via Stanners Lane), as the Council’s Contractor could not achieve agreement with Network Rail in terms of the construction methodology, Officers investigated the feasibility of alternative design proposals for on the Carts Burn and the Eastern Line of Falls, to provide the necessary additional capacity. Revised schemes comprising a combined overland route and piped culvert downstream of the railway at Crescent Street, and capacity improvements

to the (Old) Eastern Line of Falls have been identified as the most suitable way forward. Design is well advanced on the scheme at Crescent Street, and construction is anticipated to commence on site later in the financial year.

4.5 The Flood Prevention Project outwith Central Greenock is summarised in the table below:

Scheme
<p>Completed: Bouverie Burn, Port Glasgow – Automatic Trash Screen Devol Burn, Port Glasgow – Automatic Trash Screen Glasgow Road, Port Glasgow – Drainage Improvements</p>
<p>At Design Stage: Coves Burn, Gourock Bouverie Burn, Port Glasgow Gotter Water, Quarriers Glenmosstan Burn, Kilmacolm Surface Water Management Plans, Greenock & Port Glasgow Integrated Catchment Study (Inverclyde) (Scottish Water Lead) Integrated Catchment Study (Erskine) (Scottish Water Lead)</p>
<p>Future Schemes: Various Locations – Removal of Road Drainage from Combined Sewer Network, Culvert Cleaning, Stilling Ponds, Flap Valves Procurement of Additional Plant & Equipment to Assist Drainage Operations</p>
<p>Other Schemes: A8 East Hamilton Street, Greenock (Transport Scotland) Oak Mall, Greenock (Scottish Water)</p>

- Coves Burn, Gourock:* The Council's external consultant has carried out detailed hydrological studies in respect of the original proposal to upsize the culvert at Steel Street, as well as further subsequent analysis on the possibility of attenuation of water upstream of Steel Street. Taking into account the capacity enhancement provided by Scottish Water's completed works to Steel Street, and potential tidal flooding from the River Clyde, it is now considered that the need for the upsizing of the existing surface water culvert to Steel Street has diminished, and property level protection is currently being considered. It is proposed to bring a separate report to the next Committee with detailed recommendations as to the scope of works required for the Coves Burn, Cove Road and Steel Street.
- Bouverie Burn, Port Glasgow:* The Council's external consultant has carried out detailed hydrological studies in respect of the original proposal to deal with the flooding from the Bouverie Burn on Bouverie Street at Bouverie Motors, and have designed a scheme to upsize the existing culvert in Bouverie Street. It is anticipated that this scheme will commence on site later this financial year. This is now considered to be Phase 1 of the flood prevention works for Bouverie Burn, as the hydrological studies noted that there is a potential restriction to the flow further downstream in the existing culvert where it passes beneath the railway adjacent to the A8 Trunk Road. Further investigations are being undertaken and it is likely that a Phase 2 scheme for the Bouverie Burn will be required to deal with this downstream restriction. Funding arrangements for a Phase 2 scheme may form part of the submission to Cycle 2 of Flood Risk Management Plan.
- Gotter Water, Quarriers:* The Council's external consultant has carried out detailed hydrological studies in respect of the original proposals to deal with fluvial (river) flooding from the Gotter Water. The studies have concluded and the outcome is that fluvial flooding is not considered to be the main concern at this location as pluvial (overland) flooding is the

primary cause of flooding. The external consultant is finalising the design of a culvert to cater for these pluvial flows, which collect in the field west of Craigbet Avenue and results in flooding to property. The proposal is to divert flow back into the Gotter Water at a suitable location. It is anticipated that site works will commence during 2018/19.

- *Glenmosston Burn, Kilmacolm*: The Council's external consultant has carried out detailed hydrological studies in respect of the original proposals to deal with fluvial (river) flooding from the Glenmosston Burn at Gowkhouse Road, which flows down Gilburn Road to Market Place. A design has been prepared for upgrading the existing culvert at Market Place to Smithy Brae and work is progressing regarding the detailed drawings and documents of this scheme. An outline scheme has also been prepared for an additional culvert at Gowkhouse Road to provide additional capacity and to ensure that flows discharge into the Glenmosston Burn immediately to the north side of Gilburn Road/Barclaven Road, rather than spilling on to Gilburn Road itself. However, construction of this culvert in Gowkhouse Road is severely constrained by the presence of underground utility apparatus. In addition, the Council's consultant has expressed concern with regard to the flow velocities that may result in the Glenmosston Burn to the rear of properties on Gilburn Road, and potential adverse effects to rear gardens. As such, it is not proposed to take forward this aspect of the scheme until further investigation work is undertaken to ensure that these matters can be mitigated. Consideration was given to the attenuation of flows in Glen Moss upstream of Gowkhouse Road, but the option was rejected because it would have an adverse impact on the amenity of the Moss, adversely impact on the Glen Moss SSSI, and it would create a reservoir in periods of high rainfall.
- *Integrated Catchment Study (Inverclyde)*: Scottish Water is leading the ongoing catchment based study examining flooding hotspots in Inverclyde, including the A8 East Hamilton Street, and Oak Mall. The study will provide detailed information regarding flooding mechanisms from overland flow, sewers and watercourses. The Council is contributing £140k towards the study; study completion is anticipated early in financial year 2018/19.
- *Integrated Catchment Study (Erskine)*: The eastern areas of Inverclyde are in the River Gryfe and Gotter Water catchments which themselves affect the Erskine Integrated Catchment Study. However, it is likely that the outcomes of this study will have a limited impact on Inverclyde, as the bulk of the output affects neighbouring Renfrewshire Council. As such, officers are negotiating with Scottish Water as to the scope of the financial contribution to this study, it is anticipated that costs will be limited to around £20k.
- *A8 East Hamilton Street, Greenock*: Officers from Inverclyde Council, Scottish Water and Transport Scotland are continuing to hold meetings to discuss the way forward to bring a resolution to the problems at this location. The A8 is a trunk road, so Transport Scotland will lead on this issue and are assessing the operation of the existing surface water drainage system to the A8 trunk road. Officers from Inverclyde Council have provided information to Transport Scotland on locations of known flooding points along the A8 and A78 roads network.
- *Oak Mall, Greenock*: Officers from Inverclyde Council, Scottish Water, Transport Scotland, and the Oak Mall Management regularly meet to discuss the way forward to bring a resolution to the flooding problems at this location. Scottish Water has designed an interim scheme intended to reduce the incidence of flooding to the Oak Mall, it is anticipated that the construction of this scheme will start later in this financial year.

5.0 IMPLICATIONS

5.1 Finance:

One-off costs:

Cost Centre	Budget Heading	Budget Years	Proposed spend this report (£000s)	Virement from	Other comments
Flooding Strategy	Central Greenock Flood Prevention Project	2013/18	2,216		Approximately 80% funded by Scottish Government
	Outwith Central Greenock Flood Prevention Project	2013/19	1,760		

Annually recurring costs:

Cost Centre	Budget Heading	Budget Years	Proposed spend this report (£000s)	Virement from	Other comments
N/A					

Legal

5.2 There are no legal implications arising from this report.

Human Resources

5.3 There are no specific HR implications arising from this report.

Equalities

5.4 As this report does not involve a new policy or a new strategy, there are no equalities issues arising.

Repopulation

5.5 The delivery of the projects identified in this report will assist in making Inverclyde a more attractive place to live and hence contribute to the Council's repopulation agenda.

6.0 CONSULTATIONS

6.1 The Chief Financial Officer, Head of Legal & Property Services, and the Corporate Procurement Manager have been consulted on the contents of this report.

7.0 LIST OF BACKGROUND PAPERS

7.1 None.