ARGYLL AND BUTE COUNCIL | **ENVIRONMENT, DEVELOPMENT AND INFRASTRUCTURE COMMITTEE**

ROAD AND INFRASTRUCTURE SERVICES | **20 MARCH 2025**

STORM EOWYN WEATHER EVENT JANUARY 2025 INFRASTRUCTURE DAMAGE AND RECOVERY

1.0 INTRODUCTION

1.1 This report provides an overview of the damage caused to the Council's infrastructure assets by Storm Eowyn.

1.2 This report provides a summary of the clear up and infrastructure recovery works undertaken to date and provides an estimated cost for the repair of all known damage to Council infrastructure assets while also setting out a method of prioritisation being applied to the recovery works.

2.0 RECOMMENDATIONS

2.1 It is recommended that the Environment, Development and Infrastructure Committee:-

a. Notes the updates on the current position of the projects.
b. Agrees that repair works to road and coastal assets that fall outwith the funding that may be provided by the Belwin Scheme will be considered for delivery on a prioritised basis alongside other works as part of the development and approval of the roads and infrastructure capital programme for 2025/26.
c. Agrees that repair works to marine assets that fall outwith the funding that may be provided by the Bellwin Scheme be funded through increases in fees and charges in future years where possible (in line with the Marine Asset Management Plan).
d. Agrees that the Council should write to the Scottish Government seeking dialogue in relation to future funding models to support recovery of infrastructure and wider capital assets following major storm events.

3.0 DETAIL

3.1 Over the course of Friday 24th January 2025 Storm Eowyn hit Scotland with windspeeds of up to 100 mph damaging buildings, critical infrastructure and

natural landscapes. Communities right across Argyll and Bute were affected by power cuts, cancelled ferry services, damage to property, blocked roads and localised tidal flooding.

3.2 Of the assets managed on behalf of the Council by the Roads and Infrastructure Service, the most significant effects were in relation to roads, sea walls and harbour infrastructure with damage also impacting burial sites, parks, recycling centres and operational depots.

3.3 Once windspeeds had dropped sufficiently to enable safe operations the initial clear up and assessment works began with initial activity commencing overnight on Friday 24th January and increasing significantly in scale at first light on Saturday 25th January. As an example of scale well over 130 locations were identified where roads were blocked by debris with the majority of these and other priority clearance works being completed by the close of Monday 27th January.

3.4 Working alongside the initial clear up a process of assessing the damage to infrastructure assets took place. Where repairs were minor in nature and necessary as part of restoring normal function these were undertaken as part of the clear up operations and the costs of these have been captured alongside those of the initial clear up operations and will be submitted as part of the Councils claim against the Bellwin Scheme. Where damage has been more extensive a process of inspection and initial design has been required in order to determine the severity of the damage and the works required to repair these. The process of inspection and design has enabled a draft programme of works and estimated costs to be produced.

3.5 The national Bellwin Scheme of Emergency Financial Assistance to Local Authorities is designed to assist with the additional exceptional costs associated with the immediate response to a large-scale emergency, such as a severe weather event. The Bellwin Scheme is limited to revenue costs incurred in responding during a large-scale emergency or in the immediate period after the emergency. The scheme does not cover capital expenditure. The majority of the costs associated with the permanent repair works identified in this report would be categorised as capital and therefore are not eligible to be claimed through the Bellwin Scheme.

3.6 While the majority of repair works undertaken to date have been simple and low cost in nature three locations were identified that required more extensive works to be commenced immediately over the weekend of 25th and 26th January in order to prevent further extensive damage or in order to protect the public and the environment. Works at these three locations are either complete or ongoing. These three locations and the estimated costs for the works are:

Location	Description	Status
A814 south of Arrochar	Landslip closed the road which required clearance and geotechnical works to stablise the slope prior to re-opening the road	Complete – on budget.
A815 Dunoon - Alexandra Parade Coastal Wall	Coastal wall, footpath and barrier damaged with risk of further damage and undermining of road / footway.	Ongoing
B8024 Ormsary	Significant undermining and erosion noted on roads and verges on multiple location. Damaged or blocked culverts noted along the section of the roads.	Ongoing. Scope review underway.
Total Estimated Cost	£730,000	

3.7 A full schedule of the permanent repair works identified as resulting from Storm Eowyn is shown in the tables below along with the initial cost estimate for these works in total. Given the potentially high cost of these works and likelihood that they would not receive funding through the Bellwin Scheme a process of prioritisation and options appraisal is currently being undertaken. The prioritisation and options appraisal exercise aims to rank the works in order of importance based on both the engineering assessment and the relative significance of each of the assets. The exercise will also provide repair options for each location that range from solutions that are fully engineered to modern standards incorporating a high level of future resilience through to more basic repairs methods that will provide a suitable repair while potentially not having the same level of future resilience. This approach is being taken in recognition that budgets are finite and those solutions that involve a higher degree of engineering may simply be unaffordable. It is also important to note that in some cases delivering a fully engineered solution would increase the specification of a small area of an asset to a standard significantly higher than adjoining areas or to similar assets in other locations across Argyll and Bute and therefore represent an unjustified level of expenditure. This approach to reviewing the affordability of different options is standard practice in the development of any programme of capital maintenance activity.

3.8 Once concluded the prioritisation and options review will allow each of the repairs to be prioritised in comparison the other schemes within the wider roads

and infrastructure capital programme to determine which go forward to receive funding and be implemented. At the present time the cost estimates are believed to represent the higher limits of cost and it is expected that these costs will reduce significantly through the prioritisation and options appraisal process in order that an affordable programme of repairs can be implemented. It is proposed within the "Roads Capital Reconstruction Programme 2025/26" Report on this Committees agenda today that an allowance within this programme of £2m be made to enable the identified repairs to roads and coastal assets. It is further proposed to recover the costs associated with repairs to Marine assets through fees and charges in future years.

3.9 Should the proposed allowance £2m from the "Roads Capital Reconstruction Programme 2025/26" prove insufficient to fund all the priority repair works to road and coastal assets then future consideration could be given to accessing an amount of additional funding from the newly established storm recovery budget while acknowledging the importance of retaining funding within this budget to respond to future severe weather events.

3.10 A full schedule of the damaged infrastructure assets and repair works are shown below along with the initial estimated maximum costs.

Marine Assets:

Location	**Details**
Oban North Pier	Security fencing panels
	Pontoon access platform (7 floats)
	New bridge (BW9 - BW10)
	Ladder damage
	Services (water pipe, pedestals)
	Damage to concrete unit 2-3 (joint with 2-4)
	2no. 80m tensioning cables (2-1 to 2-4)
	Engineer inspection/update report
	Timber cope
Port Appin	Gabion damage
	Lighting column
Easdale	Low water berth - gabions undermined
	Undermining to main slab
	Infill at main slip
Dunoon	Navigation light
	Rock armour
	Electrical work to cabinet
	Block paving
	Brick facing to SSP wall
	Shelter damage

	Lifebuoys
	Linkspan pumpshed water damage
	Dive survey
	Bathy survey
Tighabruaich	Steps
	Handrails
	deck boards
Rothesay	Bike shelter
Tayinloan	Deck boards
	Clear up
	Handrails
	Bin enclosure
	Shelter
West Loch Tarbert	Clear up
Carradale	Shore power box
Helensburgh	Navigation Light
	Deck boards
Kilcreggan	Pile damage
Total Estimated Cost	**£620,000**

Road and Coastal Assets:

Location	**Details**
B8024 - Ormsary	Described at 3.6.
B8024 - Ormsary (other works)	Remaining sections of coastal erosion & encroachment and damage from undesigned drainage outfalls.
B8002 Adfern Coast line	Undermining of roads in several locations, Damaged verges/walls , Damaged/blocked culverts and outlets.
B842 Torrisdale Bay	Wall undermined and washout behind, risk to undermining road.
B842 Grogport wall	Small existing wall - Erosion either side of wall under verge
Keills / Southend	Washout of gabion baskets, beach lowered, no protection to road, washed out and undermined road and foundation
Degnish, Kilmelford	Severe damage to the existing revetment, walls and the road - The overall span of coastline which needs attention is 315m
A815 Alexandra Parade Coastal Wall	Described at 3.6.
A815 Ballaclava garage to Innellan	Coastal revetment damage.
A814 Landslip	Described at 3.6.
Dunoon West Bay	Damage to Coastal wall.

A814 Rhu Rock Armour Revetment CP	Collapsed hand railing on cycle path.
B842 Grogport passing place	Passing place - Washout of soil close to road, water funnelling, no protection
A814 Helensburgh CP Cope	Sections of concrete cope blown off due to wind and wave action
B842 Ugadale	Rock armour moved, verge collapsed, potential for road undermining
U029 - Ellary	Collapsed seawall noted in multiple location, which leave the site in highly unsafe condition. Missing cope, partially collapsed walls, displacement of stones, undermining and vegetation growth noted on several locations.
U029 -Ellary (other works)	Remaining sections of coastal erosion & encroachment
Kirn Coastal Wall Footpath	Coastal footpath damage
A815 Hafton Castle Coastal Parapet	Fallen tree damage from Hafton Castle onto coastal wall parapet
A880 Coastal Wall Shore Road Strone	Copes off wall.
A846 North of Jura Forest Lodge Pier	Displaced masonry wall, scoured verge and displaced armour.
A846 Jura Forest Pier to Manse	Scour under verge - 15m length,
A846 Jura Forest Pier to Manse	Seawall and displaced rip rap
A846 South of Manse	Displaced rip rap requires rock armour - 120m length
A846 North end of Craighouse	Dry masonry culvert headwall and erosion - 20m length
A846 Craighouse hall seawall	Coastal retaining wall - Various collapsed sections approx. 16m2
A846 South of Feolin	Displaced rip rap - scour out of verge, armour washed out and displaced - 110m length
A846 South of Feolin	Coastal retaining wall - loss of masonry at wall head
A846 South of Feolin, McDougall's Bay	Coastal retaining wall - loss of masonry 12m2
A846 650m South of Feolin	Displaced rip rap and Scour of verge - 70m total length
A846 south of Feolin existing with TM	Major scour of road - Carriageway undermined in several locations including behind concrete blocks - total length 70m
A846 300m south of Feolin	Scour of verge adjacent to culvert - 14m length

U057 Inverlussa bay	Coastal erosion - no protection - 1m of carriageway loss 15m length
U059 Tramaig Bay	Damaged masonry seawall
A846 Springbank	Scour of road verge due to rock armour wall below high water.
A846 West of Gartmain	Rock armour with masonry wall, damage.
A847 Gorton, B8018 junction	Rock armour displaced over 15m between, two main areas of masonry wall damage. Total length of existing rock armour for repair 80m
A84 Bruichladdich hall	Scoured verge requiring protection along 15m length, height 1.5m
A847 Bruichladdich Bridge	Scour of road side adjacent to bridge 16m length
A886 near Armaleish	Clean out void, shutter and concrete infill and pointing to wall
A886 near Ettickdale Sea Wall	Repair to concrete cope 92m long
B8000 Otter Ferry	Masonry wall collapsed verge being eroded.
B8000 Coastal Wall erosion	Approximately 40m of concrete toe is required to protect wall foundations and eroded area of verge and wall.
B8000 Kames near Tighnabruaich	Repairs required to sea wall to protect carriageway.
B8025	Damage to masonry wallheads and voiding on wall faces.
C42 Starting at Knapdale House 120m Rip-Rap	Various displaced rip-rap almost exposing road edge in places. There are also exposed services.
C042	There are several areas where the wallhead has suffered a loss of masonry. The verge is also torn away in these areas.
C042-Inverlussa Junction	80m section of shore with road edge/BT cable exposed in isolated areas.
1200m east of A846 Ardbeg	Four collapsed sections of wall to be rebuilt
C14 550m south of Ardtalla	Four sections of localised scour under verge and carriageway
CP-000-CP 70	Various masonry defects, undermining, railing defects, verge scour
U059 Ardlussa Bay	Displaced rock armour
Total Estimated Cost	**£6,700,000**

3.11 The tables above demonstrate a cost of up to £7,320,000 to repair all damage resulting from Strom Eowyn to marine, road and coastal assets to a fully engineered standard. As noted at 3.7 these costs are expected to reduce significantly as a range of repair options are considered for each location in

order to develop a repair programme that is affordable within existing capital budgets. However it is recognised that until the process of option reviews is complete cost certainty will not be possible. There is also a risk that repairing all damaged assets to a desired level may simply not be possible within the finite resources available. While officers believe that the above tables identify all roads and infrastructure assets damaged by Storm Eowyn with such a large number and scale of assets there is a risk that further repair works are identified in the future through routing inspection activities.

3.12 With the potential costs standing at such a high level, Strom Eowyn demonstrates very clearly the increasing financial impact of severe weather events, the increase in prevalence and severity of which, is linked by climate scientists to the affects of climate change and global warming.

3.13 Given the significant scale of damage caused by Storm Eowyn, the fact that this repair programme is being required due a weather event less than 18-months after the floods of October 2023 which also gave rise to a very significant programme of infrastructure repairs and the fact that the majority of the costs are unlikely to be eligible for claim under the Bellwin Scheme it is proposed that the Council write to the Scottish Government seeking dialogue in relation to future funding models in relation to recovery of infrastructure and wider capital assets following major storm events.

3.14 It is noted that a range of other assets not managed by the Roads and Infrastructure Service were also damaged by Storm Eowyn, primarily these are property assets. Therefore officers plan to provide a report on the overall financial impact of Storm Eowyn on capital assets at a future meeting of the Policy and Resources Committee.

4.0 CONCLUSION

4.1 This report summarises the extent of damage to roads and infrastructure assets arising from Storm Eowyn and recommends a prioritised approach to the delivery of repair works.

5.0 IMPLICATIONS

5.1 Policy – policies in place for climate change, coast protection etc where applicable these policies are being worked to.

5.2 Financial – there are potentially significant financial implications in relation to the prioritisation of available capital resources. These implications have been described in the body of this report.

5.3 Legal – various land agreements and works contracts are likely to be necessary to progress these projects.

5.4 HR – none known.

5.5 Fairer Scotland Duty:

5.5.1 Equalities - protected characteristics – none known.

5.5.2 Socio-economic Duty – none known.

5.5.3 Islands – none known.

5.6 Climate Change – the impact of the storm is likely to be linked to climate change and has highlighted the need for further adaptation to be made to infrastructure to increase resilience to future weather events. The level of investment required to improve resilience is expected to be significant.

5.7 Risk – significant risk of similar future events impacting our infrastructure. There is a risk to the affordability of the repair programme – this has ben described in the report.

5.8 Customer Service – none known.

5.9 Rights of the Child (UNCRC) – investment to improve our road network will contribute to a safer environment for young people to thrive in.

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