



SANDYMOUNT FLOOD RISK – SAMRA POSITIONING

1. SUMMARY

Sandymount is at risk from flooding, both now and in future due to sea level rises and changing weather patterns as a result of climate change. While DCC and other competent authorities have proposed flood defence enhancements to protect Sandymount and surrounding areas, **SAMRA requests that more urgent action is taken to address these risks.** This should include an actionable plan with clear timescales reflecting the urgency of the matter, as well as clear accountable ownership.

2. BACKGROUND

There are two main sources of flood risk for the Sandymount area, coastal and pluvial, i.e. rainfall causing drainage systems to be overwhelmed. Fluvial flooding from rivers is also a risk, although extensive works along the River Dodder have already taken place.

Coastal Flood Risk

Dublin City Council are progressing a project to provide enhanced flood defences for Sandymount along Strand Road. The enhancements are designed to provide defences against sea level rise due to climate change over this century to the year 2100.

The Office of Public Works are the National Competent Authority in regard to coastal flood defence design around the country. Their Irish Coastal Protection Strategy Study completed in 2013 considered projected future scenarios including allowances for future sea level rises. Based on the Study, the OPW recommend the use of a so called Medium Range Future Scenario for the design of flood defences which allows for a sea level rise of 0.5m for this century, in effect an average of 5mm per annum.

DCC are using this figure for the purposes of the design of the enhanced flood defences. It is noted that projections for sea level rise and wave action heights are regularly reviewed and, if future scenario projections are worse than this allowance, more substantial measures may be required in the medium future. One such measure could involve laying hemp baskets on the beach which would create sand dunes over time.

The flood defences enhancement project is being carried out in phases. The DCC design basis determines that the area from Merrion Gates to the southern end of the promenade already has sufficient flood defences in place. As such, the scheme consists of two phases which cover the area from that end of the promenade up to Marine Drive/the southern end of Sean Moore Park. Phase 1 of the project covers the length of the promenade, whilst Phase 2 is from the end of the promenade to Marine Drive (see map below).

- **Phase 1** involves raising sections of the existing sea wall inside the footpath by up to 360mm to achieve a consistent design level along the top of the wall of 4.2m Ordnance Datum Malin. Certain sections of the existing wall are currently at this level and do not need to be raised. This phase also includes the provision of new flood gates along openings in the wall and the construction of a 0.8m high new stone wall on the seaside of the Martello Tower, to link back to the sea wall along the footpath.
- For **Phase 2**, DCC have proposed a range of options for consideration including building a new wall with a rock armour on the sea side, raising the existing sea wall to a consistent level with either an 8m or 30m wide promenade and rock armour, and building a new higher sea wall on the sea side of the existing wall.

Flood Risk due to Rainfall

Areas of Sandymount suffer spot flooding when moderate to heavy rainfall gives rise to drainage systems being overwhelmed, or they malfunction for reasons including gully blockages due to leaves. Irish Water are responsible for the drainage systems and generally use Dublin City Council resources to assist them in that role.

Climate change is likely to increase the incidence of heavy rainfall and the need for greater maintenance and enhancement/upgrade of existing systems, as well as controlling future developments in the area to manage capacity.

3. SAMRA POSITION

Flood Defence Project: Phase 1

- **Latest update:** Construction works have been consistently delayed, in part due to COVID, and are now said to be due to commence in January / February 2022 at the earliest, with completion “depending on COVID restrictions, OPW direct labour, and funding”, to quote a recent DCC presentation to local Councillors.
- **SAMRA position:** Whilst projections for sea level rise and wave action may give rise to further enhancements into the future, in order to provide greater defences in the coming decades the current proposals need to be funded and commenced as a matter of urgency.

Flood Defence Project: Phase 2

- **Latest update:** The projected programme as recently presented to the Councillors, suggest that these defences will not be completed until the end of 2028 at the earliest. DCC expect to procure a consultant in December 2021.
- **SAMRA position:** The proposed timing is inadequate given the risks that may arise in the coming years. These works need to be finalised, fully funded and completed as a matter of urgency. SAMRA notes that options which involve building a promenade could also be used to improve cycling infrastructure along Strand Rd. In any event, SAMRA notes that any knock-on impacts in terms of beach erosion and the creation of new flood risks such as tide or beach bound outfalls will need to be carefully considered when finalising plans.

Flooding due to rainfall

- **Latest update:** Recent moderate rainfall has led to spot local flooding and discharges of raw sewage onto Sandymount Strand. Irish Water has promised to undertake work to improve local drainage and pumping stations, although accountability, funding and timescales are unclear.
- **SAMRA position:** Irish Water as the overall competent authority needs urgently to carry out works on affected drains and pumping stations, to alleviate local flooding risk caused by overflowing drainage and to eliminate the need for the current overflows onto Sandymount Strand. DCC should step up its program of drain cleaning to minimize the risk of blockages leading to flooding. DCC also needs to ensure that any current overflows of rainwater and sewage onto Sandymount Strand are minimized and dealt with as a public health matter urgently.

4. NEXT STEPS

- a. Write to key stakeholders setting out SAMRA's position, including DCC, the Office of Public Works (OPW), Irish Water, local councillors and TDs.
- b. Convene a meeting with key stakeholders, including Irish Water and DCC's drainage and flood defence teams, to seek an actionable plan with clear timescales reflecting the urgency of the matter, as well as clear accountable ownership.

**SAMRA Committee
November 2021**

Sandymount Coastal Flood Defence Scheme—Phase 1&2

Location Map Phase 1 - Promenade



Phase 2 – Existing Layout
Promenade to Sean Moore Park

