

**Inspection Report:
IR/HBC/15-16/015**

Maisemore Gardens

Nov/2015



Document title: **Maisemore Gardens**

ESCP QC & Approvals

Status: For Approval

Date: Nov/ 2015

Project name: Maisemore Gardens

Report number: MRR/HBC/15-16/015

Author(s): Peter Scannell

Client: N/A Privately owned

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Date/initials check: AMCP 06/10/15

Approved by:

Name (Print):

Date/initials
approval:

Report Date: Nov/ 2015

Landowner: Maisemeore Gardens Limited

Maintainer: Maisemore Gardens Limited

Report By: Peter Scannell

Structure Ref: A857

Structure Type: Concrete Seawall

Structure Description: Unreinforced Concrete Seawall

NSSMP Policy unit: 5a16

NSSMP(final) Policy: Hold the line in epoch 1,2,3

MWF Lot: NA

Assets at Risk: Residential property

Asset overall condition: 4 Good

Worst element condition: 3 Fair

Worst Maintenance urgency of Defects: C

Location Name & Co-ordinates Maisemore Gardens 473966 105374

Executive Summary:

A routine visual inspection of the coastal defences at Maisemore Gardens was undertaken in August 2015. The condition of the concrete seawall has been examined and topographical survey carried out.

Over approximately 5m length the underside of footing is visible. Elsewhere the footings were found to be very shallow. Repairs to this section should be considered by the Landowner to maintain the defence condition. Also there are some small vertical cracks in the wall, patching these would reduce the ingress of rainwater and maintain the walls longevity.

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Site Location

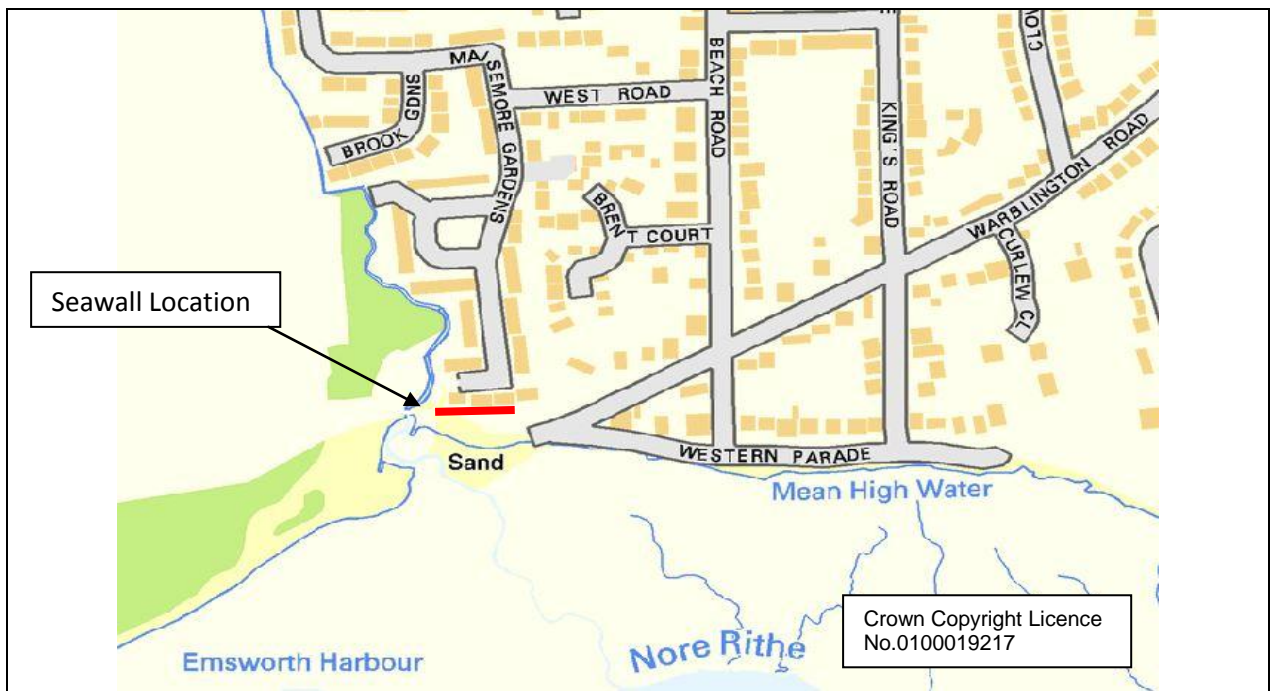


Fig 1: Site Location



Plate 1: Raised footpath looking South East



Plate 2: Seawall at foot of access ramp

Background to the area and structure description

The seawall is made from concrete and is most likely unreinforced. The seawall extends from the existing public slipway at the eastern end, to the existing privately owned slipway to the west of the wall. In front of the seawall, for approximately 60% of its length, is a tarmac footpath 700mm high from the beach with a concrete plank retaining wall facing the beach. It is believed that the recognised public footpath is along the foreshore and not the tarmac footpath.

The seawall is owned and maintained by Maisemore Gardens Ltd and is located at the Southern end of the Maisemore Gardens residential properties that face the shoreline. The ownership and maintenance of the footpath and concrete plank retaining wall is unknown

Description of Asset Defect and Likely Mode of Failure

The seawall was cast without any movement joints and no indication of reinforcement bars within. Vertical cracks can be seen at regular centres which can be attributed to the shrinkage/ contraction associated with concrete structures. There appears to be no movement of the wall in any plane which suggests a stable structure at present. The seawall condition is good to fair.

A substantial concrete fillet has been built at the step in the seawall between the footing and upper wall post initial construction. This has fractured, debonded and been removed by wave action in the past and has been reinstated recently. The fillet does not serve an immediately apparent function, with the protection offered by it minimal.

The concrete planks to the footpath in front of the seawall are not vertical, having been built initially sloping slightly away from the incoming waves for stability. There also appears to be no adverse movement of the wall in any plane. The planks themselves are in good condition generally, however three units are cracked horizontally. Overall the footpath is in good condition and structurally stable.



Plate 3: Seawall undercutting area

Beach Level Comparison

A comparison of surveys from June 1998, Apr 2013 & Aug 2015 has been carried out. In general the foreshore levels are unchanged apart from localised reduction in beach levels.

In the zone from the base of the footpath wall and 3-4m seaward, the beach levels have dropped 170mm in total since the 1998 survey, with 70mm of this erosion occurring since the 2013 survey. In the zone 3-4m from footpath base seawards, foreshore levels are unchanged.

Proposed nearby works

There is a proposal to carry out works nearby at Nore Barn Woods consisting of an approx. 20m sloping concrete revetment to manage erosion to the track/ footpath.

These works are designed as erosion risk management and not designed as a sediment retaining structure. Therefore these relatively minor works are not anticipated to have an effect on the beach levels in front of the concrete seawall.

Current Risk of Failure

The seawall is in good to fair condition with no structural failures.

The only minor concern is at the point where the footpath ends and ramps down to the beach, there is a section of seawall approximately 5m in length where the underside of footing is visible. Repairs to this section should be considered by the Landowner.

It should be noted that the footings here were founded very shallow, as a rule of thumb the underside of a foundation in clay soil (which the soil here appears to be) would be 750mm below the adjacent ground level (GL) (see building regulations 2010 (originally 1992) approved document A pg 35).

The soil at this point is open to incoming waves at MHWS. It is noted that there is no undercutting of the foundation at time of inspection. The risk of sudden failure is low.

Routine repairs and maintenance should be considered by the Landowner.

Estimate of time before major element failure?

Between 10 – 20 years depending on wave climate

Note:

The wall has an anticipated residual life of between 10-20 years depending on wave climate. In order to maintain the walls integrity, the wall should be maintained in as good a condition as possible. The engagement of a structural engineer by MGL is

recommended and maintenance be undertaken to ensure that a structurally sound defence is maintained.

