FLOOD RISK ASSESSMENT

Co-op Food - Single Storey Shop Extension

No. 4 Hugh Street, St Mary's, Isles of Scilly, TR21 OLL

On behalf of Co-operative Group Food Ltd

Date: 19/05/2025 | Pegasus Ref: P20-1954 – Author: Katie Moore

Document Management

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1. Introduction

Background

1.1. Pegasus Group has been appointed by Co-operative Group Food Ltd to undertake a Flood Risk Assessment (FRA) for the "construction of a single storey extension and shopfront alterations" at No. 4 Hugh Street, St Mary's, Isles of Scilly, TR21 OLL.

1.2. This assessment considers the risk of flooding from all sources, including tidal, fluvial, surface water, historic, groundwater, sewer and artificial sources.

National and Local Policies

1.3. The National Planning Policy Framework (NPPF) (December 2024) states that a site-specific FRA will be required for proposals:

a) that are located in Flood Zone 2 or 3 (all development);

b) that are greater than 1 hectare (ha) in area within Flood Zone 1;

c) in an area within Flood Zone 1 which has critical drainage problems;

d) in an area within Flood Zone 1 identified in a Strategic Flood Risk Assessment as being at increased flood risk in the future;

e) in an area in Flood Zone 1 that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

1.4. The site boundary is approximately 0.1ha in area and is located entirely in Flood Zone 3 and therefore a full FRA is required for the proposals.

1.5. Any new planning application that requires an FRA will also require a surface water drainage strategy to be submitted where the proposals increase the area of impermeable hardstanding on site.

1.6. In February 2016, the Environment Agency (EA) introduced new guidance relating to the climate change allowances that must be considered within an FRA. Since 2016, the allowances for sea level rise, peak river flow and peak rainfall have each been updated, with the most recent update occurring in May 2022.

1.7. In March 2025, the EA published new national risk information for flooding and coastal erosion to the Flood Map for Planning. This includes future scenarios accounting for climate change and new Flood Zone data. The Flood Zones are produced as part of the new National Flood Risk Assessment (NaFRA2).

1.8. This assessment has also reviewed the information and requirements included in the following local policy documents:

- Isles of Scilly Local Flood Risk Management Strategy 2017 (LFRMS; 2017);

- Isles of Scilly Local Flood Risk Management Strategy 2025-2031 – consultation draft (Draft LFRMS; 2025-2031); and
- Rame Head to Hartland Point Shoreline Management Plan 17 (SMP17); the Cornwall and Isles of Scilly Shoreline Management Plan (SMP2, 2010) and the Isles of Scilly SMP2 Mid Term Review (SMP2 Review, 2016).

2. Existing Site & Hydrology

Site Location & Existing Conditions

2.1. The site is located at No. 4 Hugh Street, St Mary's, Isles of Scilly.

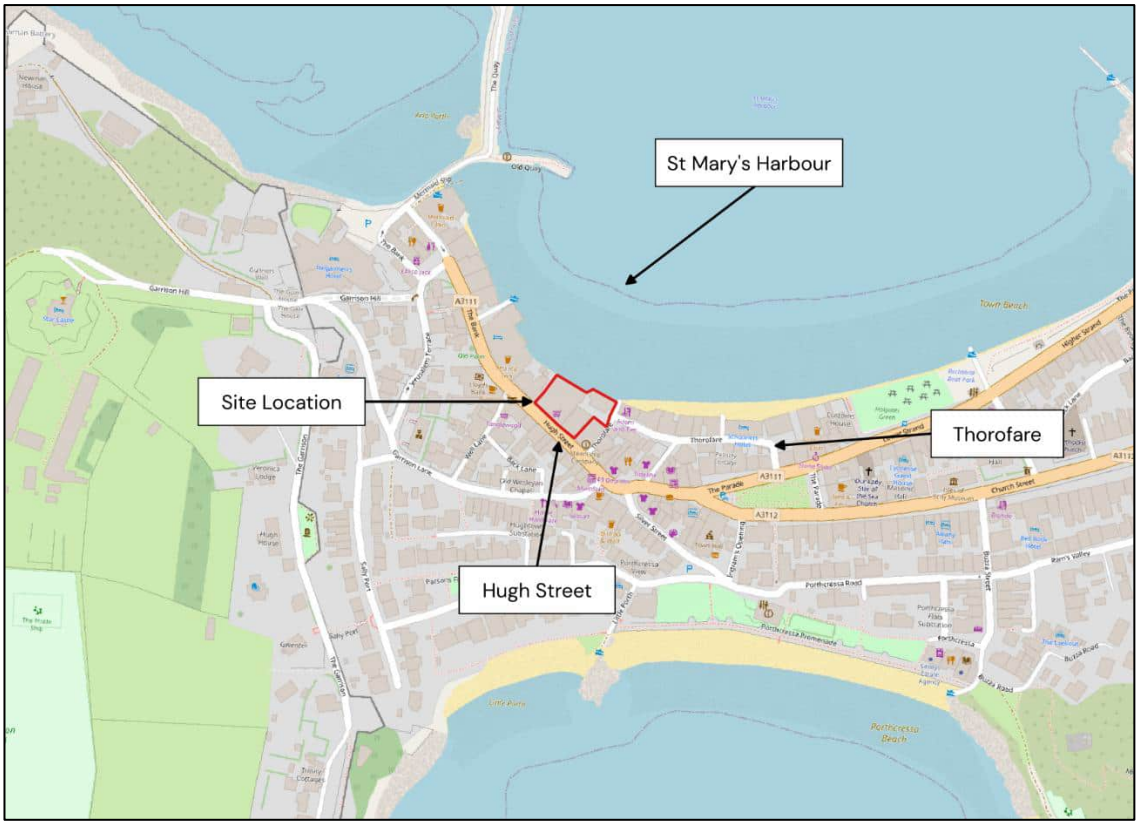
2.2. The site is currently two separate buildings comprising a Co-op shop and associated storerooms, and a former Barclays Bank building.

2.3. The site is located within the defined town centre of Hugh Town on the island of St Mary's. The site is bordered by Hugh Street to the south-west, Thorofare road to the east and St Mary's Harbour and beach to the north.

2.4. The approximate co-ordinates of the centre of the site are E: 090233, N: 010584.

2.5. The site location is shown in Figure 2.1.

Figure 2.1 – Site Location



2.6. Light Detection and Ranging (LiDAR) data shows that the site is relatively flat, with levels ranging between 3.25 - 3.88 metres Above Ordnance Datum (mAOD). The Existing and Proposed Block Plan (shown in **Appendix A**) shows ground levels surrounding the existing buildings on site to be between 3.05 – 3.91mAOD.

Existing Drainage and Hydrology

2.7. According to the Isles of Scilly LFRMS 2017, there are no Main Rivers or Ordinary Watercourses located on the Isles of Scilly. The site is located immediately south of St Mary's Harbour.

2.8. Geological data from the British Geological Survey (BGS) shows the site is underlain by the "Isles of Scilly Intrusion - Granite" bedrock geology. BGS also record superficial deposits on site comprising "Head – Clay, Silt, Sand and Gravel" and "Blown Sand".

2.9. Soilscapes mapping shows that the site consists of "freely draining acid loamy soils over rock".

2.10. The hydrogeology 625k digital hydrogeological map shows that the site is underlain by a "low productivity aquifer".

2.11. The site is not located within a Source Protection Zone.

2.12. The site is not located in a Drinking Water Safeguard Zone for either surface water or groundwater.

3. Proposed Development

3.1. The proposed development will comprise the "construction of a single storey extension and shopfront alterations" at No. 4 High Street, St Mary's, Isles of Scilly, TR21 OLL.

3.2. The existing and proposed site block plan is included in **Appendix A.**

3.3. As the proposals involve the extension of existing buildings on site on current hardstanding, there will be no change in impermeable area.

3.4. The majority of the proposed Finished Floor Levels (FFLs) will remain the same, at a level of 3.91mAOD. Any lower existing FFLs are proposed to also be raised to this level as part of the proposed development. There are proposed re-grading works for the external levels up to the new goods-in door.

4. Development Vulnerability & Flood Zone Classification

National Planning Policy Framework (December 2024)

4.1. The NPPF requires that, as part of the planning process:

- A 'site specific' FRA will be undertaken for any site that has a flood risk potential.
- Flood risk potential is minimised by applying a 'sequential approach' to locating 'vulnerable' development.
- Sustainable drainage systems are used for surface water management where practical.
- Flood risk is managed through the use of flood resilient and resistant techniques.
- Residual risk is identified and safely managed.
- Safe access and escape routes are included where appropriate.

4.2. Table 1 of the 'Flood risk and coastal change' Planning Practice Guidance (PPG) defines each flood zone based on the probability of river and sea flooding in that area, as summarised below:

- Zone 1- Low probability (< 1 in 1000 years).
- Zone 2- Medium probability (1 in 1000 - 1 in 100 years for fluvial events and 1 in 1000 – 1 in 200 years for tidal events).
- Zone 3a- High probability (> 1 in 100 years for fluvial events and > 1 in 200 year for tidal events).
- Zone 3b- The functional floodplain (>1 in 30 years for fluvial events).

4.3. The flood risk and coastal change PPG sets out a matrix indicating the types of development that are acceptable in different Flood Zones (see Table 4.1). The proposal is for the construction of a single storey extension and shopfront alterations which is classified as 'Less Vulnerable' as defined in Annex 3 of the NPPF. This existing use of the site is currently classified as 'Less Vulnerable' so there is no proposed change in flood risk vulnerability to that of the baseline.

4.4. The site is entirely contained within Flood Zone 3. Less Vulnerable development is considered appropriate in Flood Zone 3, as shown in Table 4.1.

Table 4.1 – Flood Risk & Vulnerability Guidance

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test Required	✓	✓	✓
Zone 3a	Exception Test Required	✗	Exception Test Required	✓	✓
Zone 3b	Exception Test Required	✗	✗	✗	✓

Sequential Test

4.5. According to the flood risk and coastal change PPG, "the Sequential Test should be applied to 'Major' and 'Non-major development' proposed in areas at risk of flooding". The PPG states that the Sequential Test is intended to "steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account".

4.6. The proposal involves the construction of a single storey extension and shopfront alterations of an existing Co-op food shop. Paragraph 176 of the NPPF states "Applications for some minor development and changes of use (small non-residential extensions with a footprint of less than 250m^2) should also not be subject to the Sequential Test, nor the Exception test…but should still meet the requirements for site-specific flood risk assessments set out in footnote 63."

4.7. The proposed extension area has a footprint of 244m^2 and therefore as the proposed extension area is less then 250m^2, the Sequential Test does not need to be applied for the proposal.

4.8. It is also noted that the proposed extension is located on currently developed land and as discussed above, the flood risk vulnerability will not change as a result of the proposed development.

4.9. On this basis, a Sequential Test should not be required for the proposed development.

5. Site Specific Flooding Issues and Existing Flood Records

National Planning Policy Framework

5.1. In accordance with the NPPF (December 2024), this FRA considers all sources of flooding including:

a) Tidal Flooding – from the sea;

b) Fluvial Flooding – from rivers and streams;

c) Surface Water Flooding – from overland surface water flow and exceedance;

d) Historic Flooding – known historic flooding issues;

e) Groundwater Flooding – from elevated groundwater levels or springs;

f) Flooding from Sewers – exceedance flows from existing sewer systems; and

g) Artificial Sources – reservoirs, canals etc.

Tidal Flooding

5.2. The Flood Map for Planning (2025) defines that the site falls within Flood Zone 3 associated with tidal flooding from St Mary's Harbour (Atlantic Ocean). The Flood Map for Planning is shown in Figure 5.1. This is further confirmed by the Isles of Scilly Interactive Policies Map, which shows the site is located on 'flood prone land' and states that "this dataset covers Flood Zone 3".

5.3. The Isles of Scilly (Policy Development Zone 18) forms part of the 'Rame Head to Hartland Point' Shoreline Management Plan 17. The site is located within "Unit 42.3 – The Quay to Custom House" where the approach is to 'Hold the Line' and the management plan is to continue to maintain the defences.

5.4. Despite the evident tidal flood risk on site, it is noted that the proposed change of use does not change the flood risk vulnerability classification as defined in the NPPF. Both current and proposed uses are classified as "less vulnerable", each being defined as "Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the 'more vulnerable' class; and assembly and leisure".

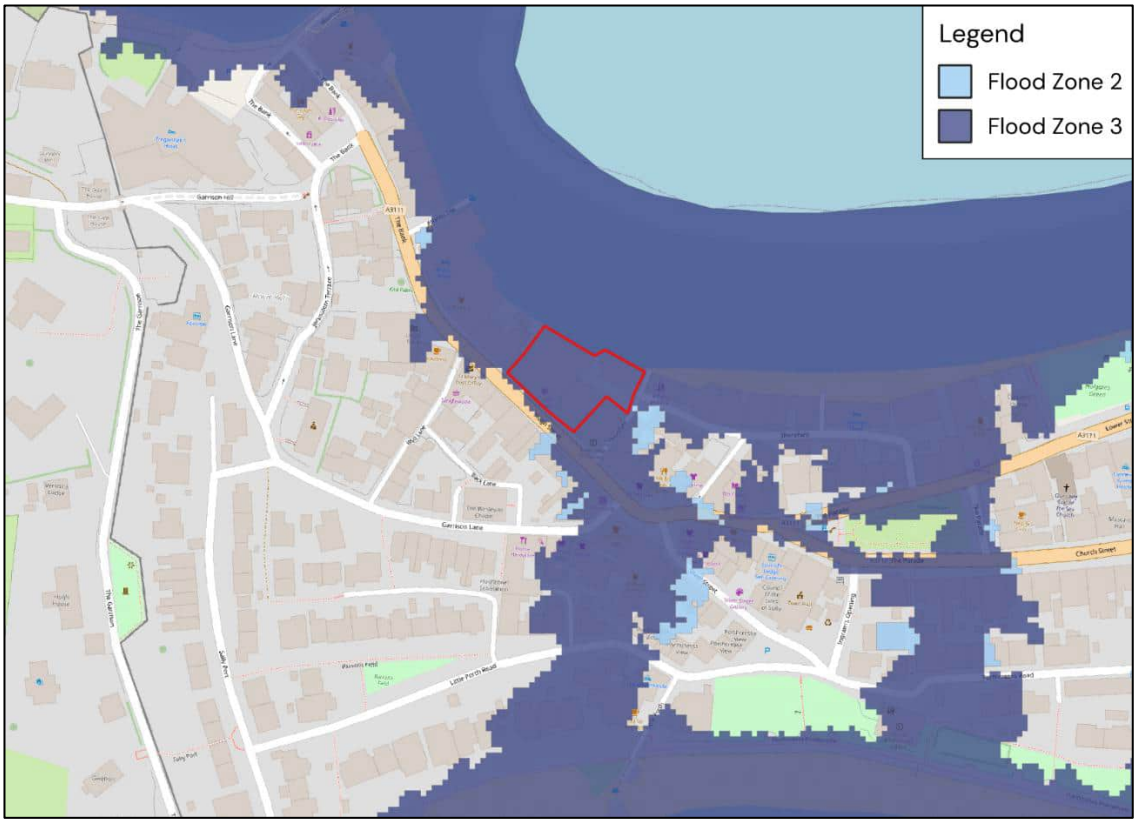
5.5. The LFRMS (2017) states that "the quay and harbour walls provide protection to the north side of Hugh Town and Town Beach", and therefore it is considered that the overall, risk of tidal flooding at the site is considered to be **Low.**

5.6. A Flood Emergency Management Plan (FEMP) has been prepared and is included as **Appendix B** and will be made available to staff who will be responsible for safely evacuating customers.

5.7. According to the Draft LFRMS (2025-2031), the EA works in partnership with the Met Office to provide flood forecasts and warnings. Typically, the EA currently provides advisory flood warning services to the Council and other professional partners, but currently not directly to the public. Based on this, it is recommended that the site manager should contact the Council to establish how Flood Alerts and Flood Warnings will be received and that all staff should sign up to the Met Office Weather Warning email alerts. This will ensure that all occupants are informed of any potentially significant flood events that could affect the site, and staff and customers would have sufficient time to safely leave the site.

5.8. More details on the FEMP are provided in **Appendix B**.

Figure 5.1 – Flood Map for Planning



Fluvial Flooding

5.9. The Flood Map for Planning (2025) defines that the site falls within Flood Zone 3 associated with tidal flooding and is not reflective of fluvial flood risk.

5.10. There are no Main Rivers or Ordinary Watercourses located in the vicinity of the site and therefore no known history of fluvial flooding impacting the site.

5.11. Overall, the proposed development is considered to be a **Very Low** risk of fluvial flooding.

Surface Water Flooding

5.12. Surface water flooding can occur during prolonged or intense storm events when the infiltration potential of soils, or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.

5.13. The new National Flood Risk Assessment (NaFRA2), published in January 2025, has updated the Risk of Flooding from Surface Water (RoFSW) products which show the chance of flooding from surface water to areas of land.

5.14. The RoFSW products are an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead. It includes information about flooding extents and depths including the potential impact of climate change on flood risk, based on the latest UK Climate Projections (UKCP18).

5.15. Risk is displayed as one of three likelihood categories in the RoFSW dataset:

- 'High Risk' (High Likelihood); >3.3% AEP (annual probability greater than 1 in 30).
- 'Medium Risk' (Medium Likelihood); 1.1% to 3.3% AEP (annual probability between 1 in 100 and 1 in 30).
- 'Low Risk' (Low Likelihood); 0.1% to 1% AEP (annual probability between 1 in 1000 and 1 in 100).

5.16. The latest RoFSW depth mapping shows the annual chance of flooding (based on the three likelihood categories listed above) beyond a specific depth, for depths at several intervals from 200 millimetres (mm) to 1200mm (i.e. 0.2m, 0.3m, 0.6m, 0.9m, and 1.20m).

5.17. The RoFSW dataset shows that the site lies within areas at 'Low Likelihood', 'Medium Likelihood' and 'High Likelihood' areas (see Figure 5.2).

5.18. Surface water flood depths on site are not predicted to exceed 0.6m in the Low Likelihood event (see Figure 5.3).

5.19. As a precautionary approach, it is recommended that all new electrical infrastructure for the proposal will be raised 600mm above ground levels.

5.20. A FEMP has been prepared and is included as **Appendix B** and will be made available to staff, who will be responsible for safely evacuating all customers.

5.21. The LFRMS (2017) states that "there have been no significant past local events from local sources of flooding, namely surface water and groundwater" and "the risk from fluvial and pluvial flooding is considered to be very low".

5.22. The flood risk vulnerability of the extension will remain the same as existing, defined as 'less vulnerable' and therefore there is no increased risk resulting from the development.

5.23. As the proposal involves the extension of existing buildings on site on current hardstanding, there will be no change in impermeable area. Therefore, there will be no change in the amount of surface water leaving the site and, as such, there is no requirement (or opportunity) to

alter the site's current drainage arrangement. The proposal will continue to utilise the existing drainage infrastructure associated with the site.

5.24. Given the above, the site is considered to be at **Low** risk of flooding from surface water.

Figure 5.2 – RoFSW Extents

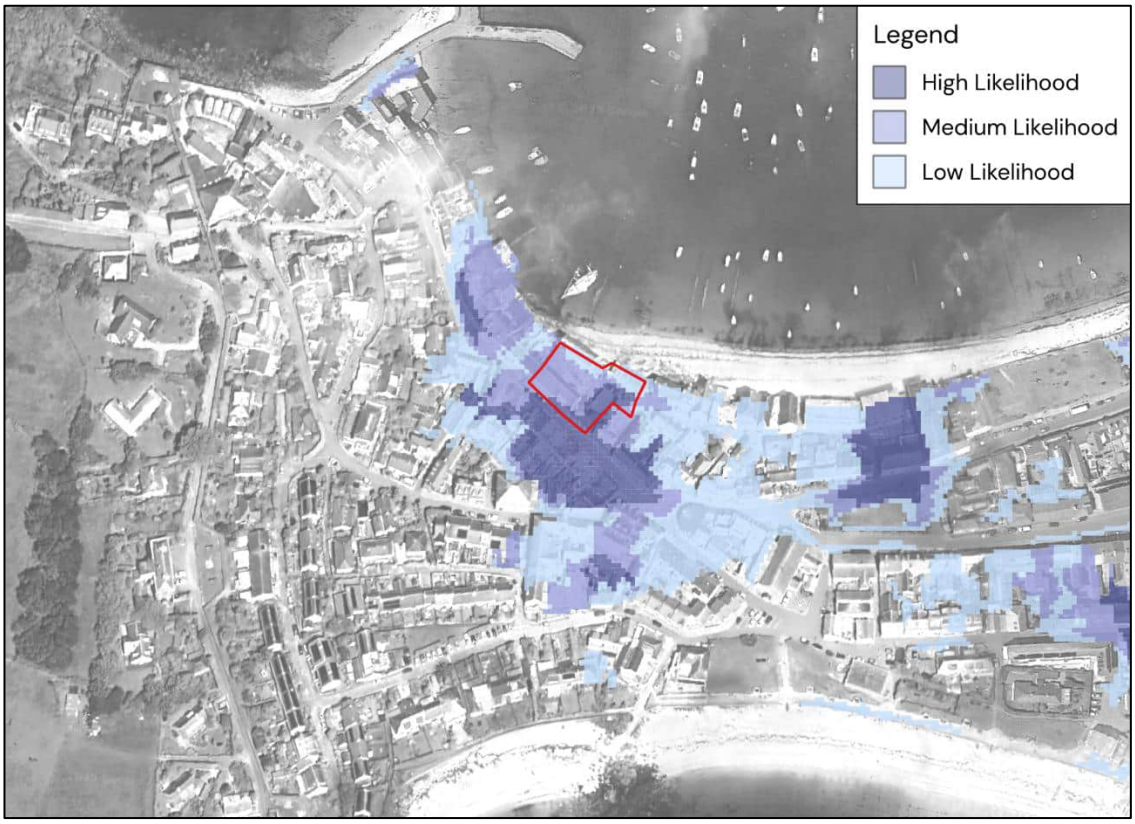
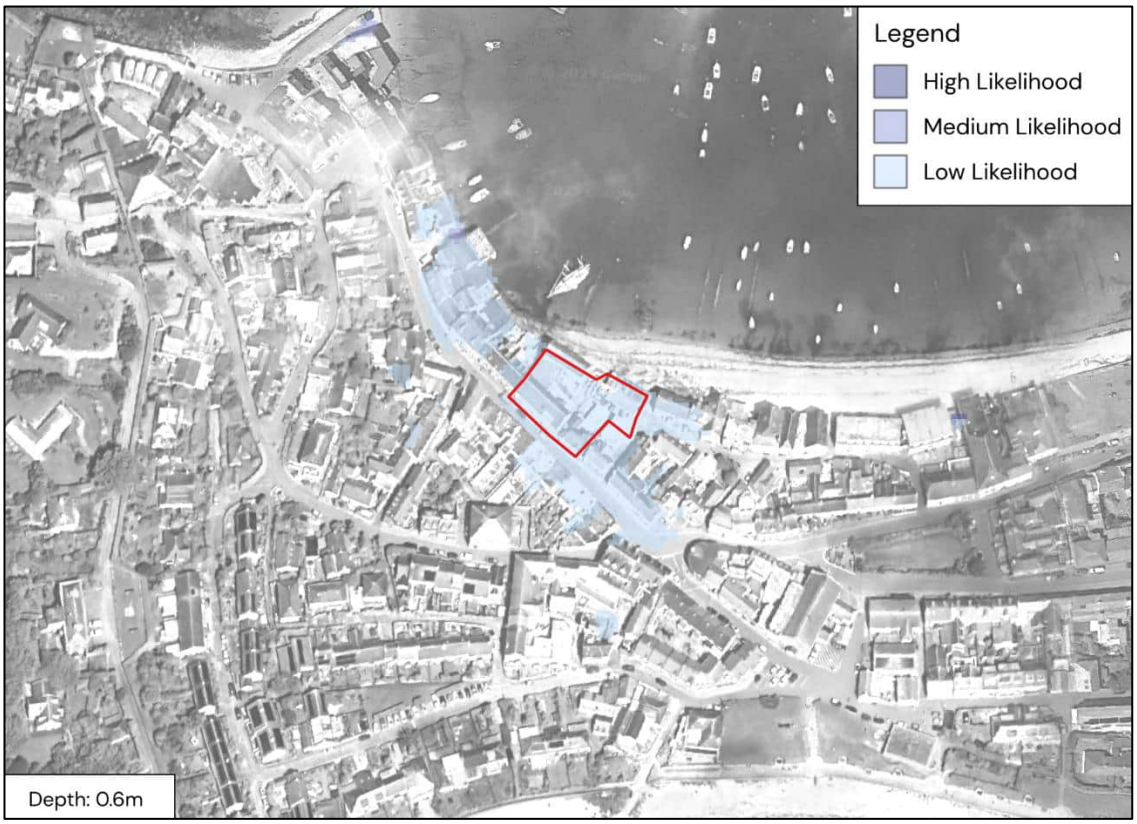


Figure 5.3 – RoFSW Depths – 0.6m



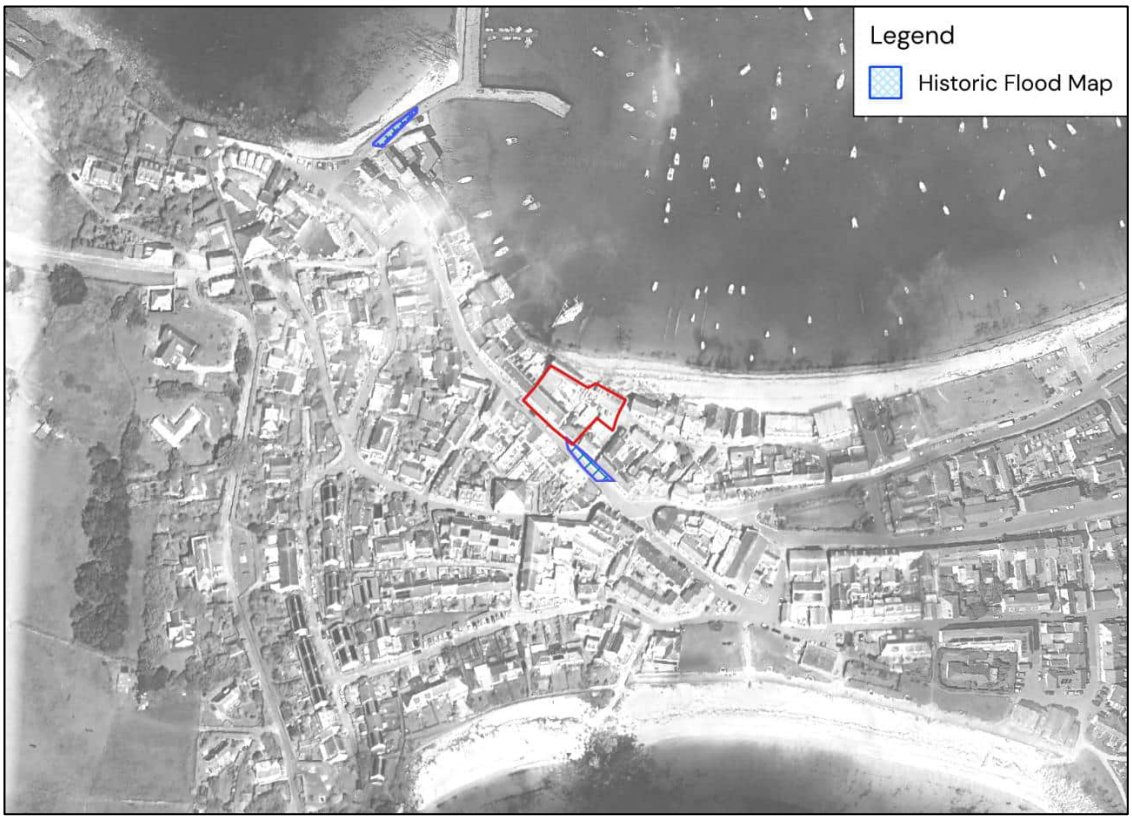
Historic Flooding

5.25. The EA's Recorded Flood Outlines dataset records a historic flood event immediately south of the site, along Hugh Street in 2019 associated with "high tides leading to some minor pooling on the main streets as water came up the drains due to surcharge". The EA's Recorded Flood Outlines is shown in Figure 5.4.

5.26. The LFRMS (2017) indicates that Hugh Street also flooded in 2014 and Thorofare in 2011.

5.27. Considering the proposal will remain classified as a 'less vulnerable' land use, the risk of historic flooding to the site will remain the same and therefore overall, the historic flood risk to the site is considered to be **Low.**

Figure 5.4 – EA's Recorded Flood Outlines



Groundwater Flooding

5.28. As discussed in Section 2, the site is defined by the hydrogeology 625k digital hydrogeological map of the UK to be underlain by a "low productivity aquifer" and the site is underlain by granite bedrock geology, and therefore based on this, there is a low likelihood for groundwater emergence on site.

5.29. The LFRMS (2017) states that "there have been no significant past local events from local sources of flooding, namely surface water and groundwater."

5.30. The topography on site is not conducive to groundwater flooding, as any groundwater to emerge would follow the existing site topography without accumulating to significant depths on site.

5.31. Overall, the risk of groundwater flooding at the site is considered to be **Low.**

Flooding from Sewers

5.32. As stated previously, the Recorded Flood Outlines dataset records a historic flood event immediately south of the site, along Hugh Street associated with "high tides leading to some minor pooling on the main streets as water came up the drains due to surcharge" in 2019.

5.33. Site topography is not conducive to sewer flooding, as any sewer flood waters to reach the site would follow the existing site topography without accumulating to significant depths on site.

5.34. The LFRMS (2017) states that "flooding and sea water ingress into the water supplies and sewerage poses a significant risk to this infrastructure" and that "only Hugh Town and Old Town on St. Mary's have a formal piped foul drainage system."

5.35. As the existing site already comprises built development, there is already likely to be an existing sewer network located at the site and considering the flood risk vulnerability of the proposal is not due to change, then the risk will remain unchanged.

5.36. The risk of flooding from sewers to the site is therefore considered to be **Low.**

Flooding from Artificial Sources

5.37. According to the LFRMS (2017), "there are no water reservoirs on the Isles of Scilly of sufficient size to pose a significant flood risk, all being considerably below the risk threshold of 25,000 cubic metres of water above natural ground level."

5.38. The EA's Reservoir Flood Extents data shows that the site is not predicted to at risk of reservoir flooding should a catastrophic breach occur during a wet day, when local rivers have already overtopped their banks or during a dry day when rivers are flowing under normal conditions.

5.39. All reservoirs which are represented in the reservoir flooding dataset fall under the requirements set out in the Reservoirs Act 1975. This act makes it a legal requirement to appoint a Supervising Engineer to produce an annual report and for the operator to address any issues raised therein. Since the introduction of the Reservoir Act, there have been no catastrophic failures of reservoirs. Consequently, it is considered that the probability of reservoir failure is very low and that the risk of flooding from reservoirs is also very low.

5.40. There are no other artificial sources of flooding identified that may pose a risk to the site.

5.41. Overall, the site is considered to be at **Very Low** risk of flooding from artificial sources.

Access & Egress

5.42. The site will be accessed via Hugh Street for customers and via Thorofare for staff members using the back of house entrance. The proposed access points are located within the redline boundary and as such, have been considered within the above assessment, with the conclusion that the site, including the proposed accesses, is at Very Low to Low risk of flooding from all sources.

5.43. The EA currently provides advisory flood warning services to the Council and other professional partners, but currently not directly to the public. Based on this, it is recommended that the site manager should contact the Council to establish how Flood Alerts and Flood Warnings will be received and that all staff should sign up to the Met Office Weather Warning email alerts. This will ensure that all site users are informed of any potentially significant flood events that could affect the site, and staff and customers would have sufficient time to safely leave the site.

5.44. In addition, a FEMP has been prepared and is included as **Appendix B** and details safe access and egress from the site, and this will be made available to staff.

Post Development Flood Risk Summary

5.45. The risk of flooding to the site from all sources has been assessed above, with the conclusions summarised in Table 5.1.

Table 5.1 – Flood Risk Summary

Flood Source	Flood Risk	Mitigation/Comments
Tidal	Low	• The site is located in Flood Zone 3. • The site forms part of the local Shoreline Management Plan which intends to 'Hold the Line'. • The LFRMS (2017) highlights that the quay and harbour walls protect the north side of Hugh Town. • A FEMP has been prepared and will be made available to staff who will be responsible for safely evacuating all customers.
Fluvial	Very Low	• The site is located in Flood Zone 3 associated with tidal flooding and not reflective of fluvial flooding. • There are no Main Rivers or Ordinary Watercourses located in the vicinity of the site and therefore no known history of fluvial flooding impacting the site.
Surface Water	Low	• The RoFSW dataset shows that the site has a Low to High Likelihood of surface water flooding. • Surface water flood depths on site are not predicted to exceed 0.6m in the Low Likelihood event. • As a precautionary approach, it is recommended that all new electrical infrastructure for the proposal will be raised 600mm above ground levels. • The LFRMS (2017) highlights that there have been no significant past local surface water flood events. • As the proposal involves the extension of existing buildings on site on current hardstanding, there will be no change in impermeable area. Therefore, there will be no change in the amount of surface water leaving the site and the proposal will continue to

		utilise the existing drainage infrastructure associated with the site
Historic	Low	• The EA's recorded flood outline dataset highlights a historic flood event south of the site, in 2019 associated with high tides. • The LFRMS (2017) highlights that Hugh Street flooded in 2014 and Thorofare in 2011. • Considering the proposal will remain classified as 'less vulnerable', the risk of historic flooding to the site will remain the same and therefore overall, the historic flood risk to the site is considered to be Low.
Groundwater	Low	• The site is underlain by a low productivity aquifer and granite bedrock geology which indicate a low likelihood of groundwater emergence on site. • The LFRMS (2017) highlights that there are no significant past local groundwater flood events. • Site topography is not conducive to groundwater flooding. Any groundwater to emerge will follow local topography without accumulating to significant depths on site.
Sewers	Low	• The Recorded Flood Outlines dataset records a historic flood event south of the site associated with high tides and drains due to surcharge. • As the existing site already comprises of built development, there is already likely to be an existing sewer network located at the site and considering the land use vulnerability of the proposal is not due to change then the risk will remain unchanged. • Any sewer flood water on site or in the close vicinity would follow local topography and would not be expected to accumulate to significant depths within the site boundary.
Artificial	Very Low	• The site is not predicted to be at risk during a catastrophic reservoir breach or any other artificial flooding source.

6. Proposed Surface Water Drainage Strategy

6.1. The proposed development will comprise the construction of a single storey extension and shopfront alterations. The proposed extension is proposed on an area of existing hardstanding and therefore, there will be no change in impermeable area compared to the existing arrangement. There will be no change in the amount of surface water leaving the site and, as such, there is no requirement (or opportunity) to alter the site's current drainage arrangement. The proposals will continue to utilise the existing drainage infrastructure associated with the site.

7. Proposed Foul Drainage Strategy

7.1. The proposed development is for a commercial extension to an existing shop. It does not involve any changes or increases to residential use, and therefore there will be no change in foul drainage demand when compared to the existing arrangement. It is proposed that the existing foul water system is maintained for the proposed development. In addition, the sanitary schedule (refer to **Appendix C**) outlines that there will be a reduction in toilets and sinks as part of the proposed development

8. Summary

8.1. The proposal will comprise "construction of a single storey extension and shopfront alterations" at No. 4 Hugh Street, St Mary's, Isles of Scilly, TR21 OLL.

8.1. The site is 0.1ha in area and located in Flood Zone 3. The site is considered to be at Very Low to Low risk of flooding from all sources.

8.2. The proposed extension is proposed on an area of existing hardstanding and therefore, there will be no change in impermeable area compared to the existing arrangement. There will be no change in the amount of surface water leaving the site and, as such, there is no requirement (or opportunity) to alter the site's current drainage arrangement. The proposals will continue to utilise the existing drainage infrastructure associated with the site.

8.3. The proposal is considered to accord with the requirements of the NPPF with residual risk to the site fully mitigated, and as such considered low risk.

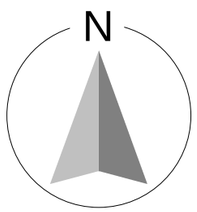
Appendix A – Existing and Proposed Block Plan

EXISTING BLOCK PLAN

1 : 500

PROPOSED BLOCK PLAN

1 : 500



SCALE 1:500

Key

Red Line Boundary

P2	External Plant Updated	09.05.25	SB	CS
P1	First Issue	23.04.25	SB	CS
	Revision	Date	By	Chk

All dimensions to be verified on site, and the Architect informed of any discrepancy. All drawings and specifications should be read in conjunction with the Health and Safety Plan; all conflicts should be reported to the appointed Principal Designer.

CO-OP

4 Hugh Street

St Mary's, Isles of Scilly, TR21 0LL

Sheet Name: Existing and Proposed Block Plan

Purpose of issue: Planning Status:

Date: 23/04/25 Checked by : CS

Drawn by: SB Scale @ A3 : As indicated

Project No: A1100 Revision: P2

Drawing No: A110-BOW-A0-ZZ-DR-A-0017

BOWMANRILEY

ARCHITECTS • BUILDING CONSULTANTS • INTERIORS

P:\Architectural\Retail\A1100 - Co-op Scilly Isles Extension\A1100 - 07 Revit\07 - Planning Drawings & Model\A1100-BOW-A0-ZZ-M3-A-0001-P2_Existing & Proposed Plans & Elevations.rvt

Appendix B – Flood Emergency Management Plan (FEMP)

Project Name: No. 4 Hugh Street, St Mary's, Isles of Scilly

Report Name: Flood Emergency Management Plan

Author: Katie Moore

Date: 16/05/2025

Checked/Approved By: Lucy Ginn/Natalie Morgan

Project number: P20-1954

Introduction

The site is located on the Island of St Mary's, Isles of Scilly and it is proposed to construct a single storey extension and shopfront alterations to an existing Co-op shop at the site. This Flood Emergency Management Plan (FEMP) has been prepared to demonstrate how users would be safe in a flooding event. The plan provides details about safe access and egress, and the flood resilience measures to be implemented on site.

Site Location & Site Specific Flood Risk

Site Location

The site is located at No. 4 Hugh Street, St Mary's, Isles of Scilly, TR21 OLL. The site is currently two separate buildings which comprise a Co-op shop, associated storerooms and a former Barclays Bank building. The proposals are for the "construction of a single storey extension and shopfront alterations". The site is located within the defined town centre of Hugh Town on the island of St Mary's. The site is bordered by Hugh Street to the south-west, Thorofare to the east and St Mary's Harbour and beach to the north. A site location plan is included in **Appendix A**.

Fluvial & Tidal Flood Risk

The site is located entirely within Flood Zone 3 associated with tidal flooding from St Mary's Harbour (Atlantic Ocean). According to the Isles of Scilly Local Flood Risk Management Strategy (LFRMS) (2017), there are no Main Rivers or Ordinary Watercourses located on the Isles of Scilly and therefore the Flood Map for Planning is reflective of Tidal flooding only and is included in **Appendix B**.

Despite the evident tidal flood risk on site, it is noted that the proposed redevelopment does not change the flood risk vulnerability classification as defined in the National Planning Policy Framework (NPPF). Both existing and proposed uses are classified as "Less Vulnerable".

The Isles of Scilly LFRMS (2017) states that "the quay and harbour walls provide protection to the north side of Hugh Town and Town Beach". In addition, the Isles of Scilly (PDZ18) forms part of the 'Rame Head to Hartland Point' Shoreline Management Plan 17. The site is located within an area designated as 'Hold the Line' and the management plan is to continue to maintain the defences and therefore it is considered that the overall, risk of tidal flooding at the site is considered to be Low.

This FEMP has been produced to show how users of the proposed development would be safe in the event of tidal flooding. The plan provides details about safe access and egress as well as appropriate flood resilience measures which will be undertaken as part of the proposed development.

Surface Water Flood Risk

The new National Flood Risk Assessment (NaFRA2), published in January 2025, has updated the Risk of Flooding from Surface Water (RoFSW) products which show the chance of flooding from surface water to areas of land.

The RoFSW dataset shows that the site lies within areas at 'Low Likelihood', 'Medium Likelihood' and 'High Likelihood' areas. Surface water flood depths on site are not predicted to exceed 0.6 metres (m) in the Low Likelihood event. Data from the RoFSW dataset is included in **Appendix B**, this includes surface water extents and depths discussed above.

As a precautionary approach, it is recommended that all new electrical infrastructure for the proposal will be raised 600 millimetres (mm) above ground levels.

The LFRMS (2017) states that "there have been no significant past local events from local sources of flooding, namely surface water and groundwater" and "the risk from fluvial and pluvial flooding is considered to be very low".

Despite the evident surface water flood risk on site, it is noted that the proposed redevelopment does not change the flood risk vulnerability classification as defined in the NPPF. Both the existing and proposed uses are classified as "less vulnerable". The site is considered to be at Low risk of flooding from surface water.

This FEMP has been produced in order to show how users of the proposed development would be safe in the event of surface water flooding. This includes safe access and egress as well as appropriate flood resilience measures which will be undertaken as part of the proposed development.

Other Sources of Flood Risk

The Environment Agency's (EA's) Flood Outlines dataset records a historic flood event immediately south of the site, along Hugh Street in 2019 associated with "high tides leading to some minor pooling on the main streets as water came up the drains due to surcharge". The Historic Flood Map is included in **Appendix B**. The LFRMS (2017) indicates that Hugh Street also flooded in 2014 and Thorofare in 2011. Considering the proposal will remain classified as a 'less vulnerable' land use, the risk of historic flooding to the site will remain the same and therefore overall, the historic flood risk to the site is considered to be Low.

The EA's Reservoir Flood Extents data shows that the site is not predicted to at risk of reservoir flooding should a catastrophic breach occur during a wet day, when local rivers have already overtopped their banks or during a dry day when rivers are flowing under normal conditions. In addition, according to the LFRMS (2017), "there are no water reservoirs on the Isles of Scilly of sufficient size to pose a significant flood risk, all being considerably below the risk threshold of 25,000 cubic metres of water above natural ground level." The site is considered to be at Very Low risk of flooding from artificial sources.

The hydrogeology 625K digital hydrogeological map of the UK defines the site to be underlain by a "low productivity aquifer", and the British Geological Survey highlights that granite bedrock geology across the site. The combination of low productivity and granite bedrock geology would significantly reduce the risk of groundwater emergence, and therefore flooding, and the risk of groundwater flooding is considered to be Low.

As stated above, the Recorded Flood Outlines dataset records a historic flood event immediately south of the site, along Hugh Street associated with "high tides leading to some minor pooling on the main streets as water came up the drains due to surcharge" in 2019, associated with sewer flooding. As the existing site already comprises built development, there is already likely to be an existing sewer network located at the site and considering the flood risk vulnerability of the proposal is not due to change, the risk will remain unchanged. The risk of flooding from sewers to the site is therefore considered to be Low.

Flood Warnings

According to the Isles of Scilly Draft LFRMS (2025-2031), the EA works in partnership with the Met Office to provide flood forecasts and warnings and states "*Flood forecasting is undertaken by the Flood Forecasting Centre, a partnership between the Met Office and the Environment Agency*". The EA provides

advisory flood warning services to the Council and other professional partners, but currently not directly to the public.

At the time of writing this report, it is not clear how the council advise the residents of the Isles of Scilly of issued flood warnings, but it is assumed that alerts are made to local residents. Based on this, it is recommended that the site manager should contact the Council to establish how Flood Alerts and Flood Warnings will be received and that all staff should sign up to the Met Office Weather Warning email alerts.

The Draft LFRMS (2025-2031) further states that the EA's national flood warning service does not currently cover the Isles of Scilly, however, the Council of the Isles of Scilly is working with the EA to extend the national flood warning service to cover the islands.

When this becomes available all staff will sign up to the EA's free flood warning service to receive all levels of possible warnings including: a Flood Alert, Flood Warning and Severe Flood Warning. Warnings can be issued by the EA via text, email, mobile, landline or fax. The EA's website will also be monitored regularly for new warnings and updates when available.

Table 1 below details the actions that will be taken by staff and customers following receipt of one of the various EA Flood Warnings. It is assumed that the Council's current flood warning system would follow a similar approach. This information has been taken from the gov.uk guidance on "flood alerts and warnings: what they are and what to do".

There will be a designated user of the site with the responsibility to ensure other site users sign up for flood warnings and are aware of the protocols detailed in Table 1 below and further below in this document.

Table 1 – Flood Warnings & Associated Information

Type of Flood Warning & Associated Message	Timings of Warning	What is at Risk / What May Happen	Action for Designated Responsible Person	EA Advised Action
Flood Alert Flooding is possible. Prepare now. 	Usually between 2 and 12 hours before flooding.	Fields, recreational land and carparks. Minor roads. Farmland. Coastal areas affected by spray or waves overtopping.	Be aware of water levels. Keep up to date with weather and flood warnings. Ensure all site users are aware of the flood alert. Prepare for possible evacuation.	Be ready to follow your flood plan. Have insurance documents and any medications ready. Avoid walking, cycling or driving through any flood water. Move any livestock and farming equipment away from areas likely to flood.
Flood Warning Flooding is expected. Act now.	Usually between 30 minutes to 2	Homes and businesses.	Recommended to evacuate all site users from the site before safe access	Protect yourselves and your loved ones.

	hours before flooding.	Railway lines and infrastructure. Roads. Coastal areas affected by spray or waves overtopping. Flood plains, including caravan park and campsites. Major tourist and leisure attractions.	and egress is lost. Check water levels before driving. Secure the building following evacuation.	Move your loved ones, pets and valuables to a safe place. Move to higher ground or the upper flood of a building. Turn off the gas, electricity and water in your home if it's safe. Put flood protection equipment in place. Do as the emergency services tell you. Help others if it's safe to do so.
Severe Flood Warning Severe flooding – flooding could cause risk to life and significant disruption to communities. Act now. 	When flooding threatens life and communities.	Deep and fast-flowing water. Dangerous debris in the water. Buildings collapsing or at risk of collapsing. Communities unable to escape. Infrastructure not working, like gas, electricity, and water. The evacuation of lots of people.	Recommended to evacuate all site users from the site before safe access and egress is lost. Check water levels before driving. Secure the building following evacuation.	Stay in a safe place. Be ready to evacuate your home. Do as the emergency services tell you. Call 999 if you are in immediate danger. If you are caught in a flash flood move to higher ground of the upper floor of a building if it's safe.
All Clear Status Flood Alerts/Warnings are no longer in force in the area.			Keep updated on weather reports. Only return to site if informed	

			it is safe to do so. Beware of debris and pollution in flood waters.	

Safe Access & Egress

During a major flood event, a safe and well organised evacuation of site users will take place. The main sources of flood risk to the site are expected to be tidal and surface water as discussed above.

Following receipt of an issued Flood Alert from the Council, the designated person responsible will monitor for any updates. Should a Flood Alert be escalated to a Flood Warning, the designated person responsible will advise all site users of the threat of flooding and evacuation procedures should be actioned (detailed below).

If a Flood Warning or Severe Flood Warning is issued, the designated person responsible will inform site users of the need to evacuate. There is likely to be several hours warning before flood waters would be expected to impact the site. The proposed evacuation route is detailed in **Appendix C**. During an evacuation, site users will be directed off site via Hugh Street and subsequently south via Well Lane towards Garrison Lane. This route directs site users to higher ground and in the direction away from where flood waters are expected to flow. Garrison Lane shows a notable rise in levels compared to the site; surface water is not predicted to accumulate here, and this area is located in Flood Zone 1 (see **Appendix B and C**). Site users will then gather at the defined evacuation point along Garrison Lane; this point is shown on **Appendix C**.

The following evacuation protocols should also be noted:

- The designated person responsible will announce the need for a site evacuation.
- The designated person responsible will reassure site users that they are not in immediate danger and that the evacuation is a precaution.
- If safe to do so, the designated person responsible will turn off key services such as water, gas and electricity.
- The designated person responsible will direct site users to the identified evacuation point.
- Priority for additional help will be given to disabled site users.
- The designated person responsible will ensure the site is clear and securely locked.
- A rollcall of site users will be complete once at the identified evacuation point.
- All staff will be sent home.

Resistance & Resilience

Preventative measures identified which may help the site's resistance and resilience to flooding are listed below:

- Sandbags will be deployed around the perimeter of the site prior to evacuation if safe to do so.
- Local electrical circuits could be isolated if flood waters have entered any buildings.
- Any new electrical sockets installed as part of the extension will be located higher up the wall and above the predicted surface water flood depths.

Responsibilities & Annual Review Requirements

It is important for it to be clearly defined who is responsible for implementing and maintaining the FEMP at the site and for ensuring all site users are aware of the strategy, including new site users. There will be a designated responsible person for this. This person will be confirmed at a later stage but is expected to be whoever is responsible for site operation following the proposed redevelopment.

The FEMP will be reviewed annually at a minimum. The following checks will be complete by the designated person responsible:

- Update contact numbers.
- Contact the EA or Council to understand if predicted flood risk has changed.
- Contact the Council to ensure site users are registered to received Flood Alerts and Flood Warnings.
- Carry out a test of the evacuation plan with site users to ensure they are familiar with the plan and associated procedures.

Flood Evacuation Kits will also be checked at least annually. The following items will be included within Flood Evacuation Kits:

- Torch – in case of loss of power.
- Rechargeable radio - to remain up to date with flood/weather updates.
- High visibility clothing - to be used in times of evacuation during low light.
- Waterproof clothing – to be used in times of evacuation during poor weather.
- First aid kit – to be used in case of emergency.
- Flood evacuation route plan – to ensure the correct route is taken.
- List of important numbers – e.g. Environment Agency Floodline, emergency services, utility providers.
- Bottled water.

Additional Guidance

1. Do not walk through flowing water – currents can be deceptive and knock you off your feet.
2. Do not swim through fast flowing water – you may get swept away or struck by an object in the water.
3. Check the depth of standing water before walking through it.
4. Do not drive through a flooded area – depths of over 0.5m can carry a car away.
5. Avoid contact with flood water – this may be contaminated.

Appendices

A) Site Location

B) Flood Risk Plans

C) Proposed Evacuation Route

Appendix A – Site Location

1 - SITE LOCATION PLAN

1 : 1250

N

Key

Red Line Boundary

25m 125m

SCALE 1:1250

P2	Revised for planning submission	24.04.25	SB	CS
P1	Updated to show spot levels and alterations to plan and elevations	01.04.25	GM	DH
	Revision	Date	By	Chk

Date: 01/23/25 Checked by : CS

Drawn by: SP Scale @ A4 : As indicated

Sheet Name: Site Location Plan

Purpose of issue: Information Status: S2

CO-OP

4 Hugh Street

Project No: A1100 Revision: P2

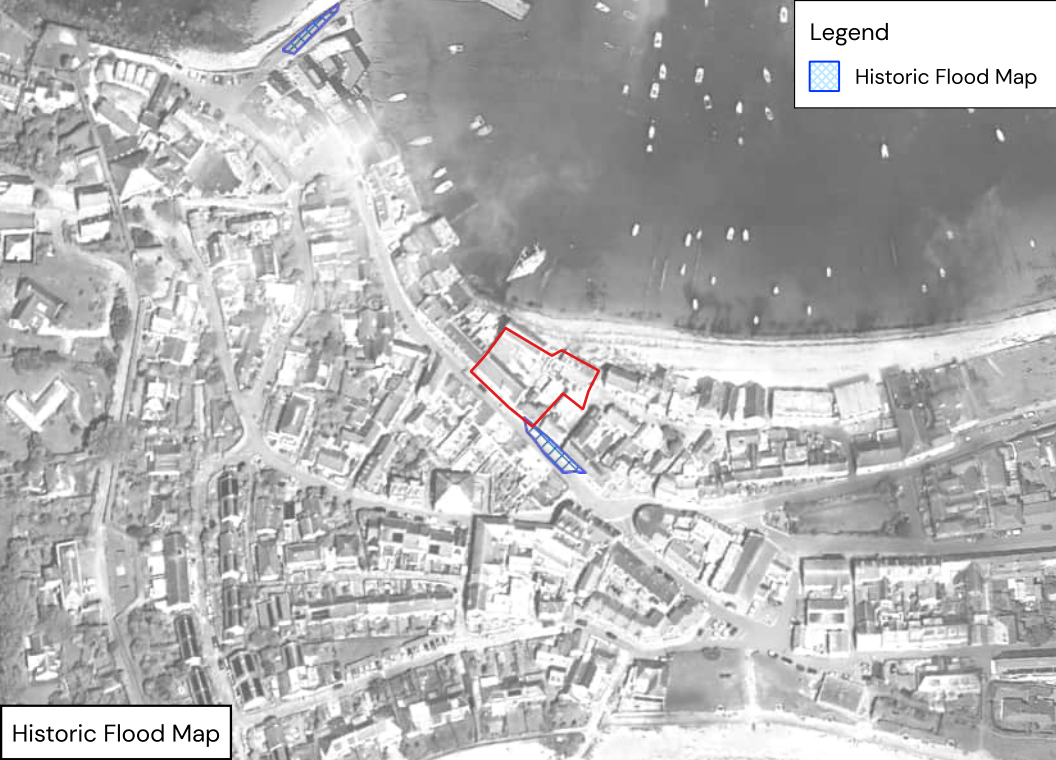
Drawing No: A110-BOW-A0-ZZ-DR-A-0001

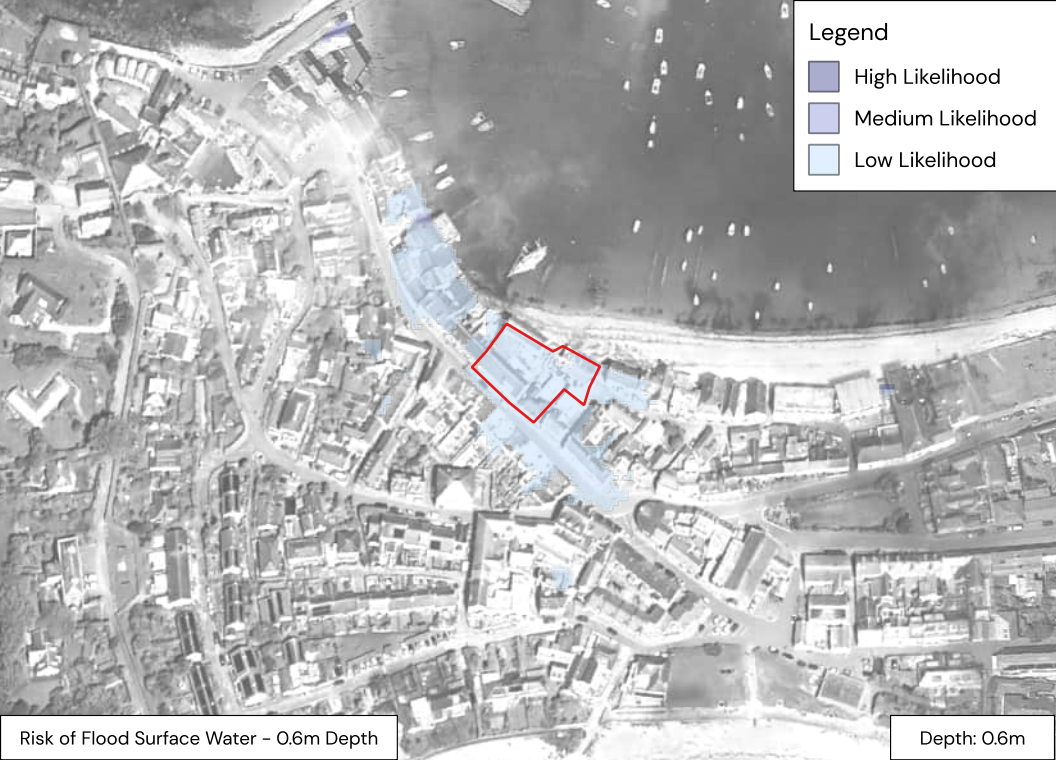
BOWMAN RILEY
ARCHITECTS • BUILDING CONSULTANTS • INTERIORS

P:\Architectural\Retail\A1100 - Co-op Scilly Isles Extension\A1100 - 07 Revit\07 - Planning Drawings & Model\A1100-BOW-A0-ZZ-M3-A-0001-P2_Existing & Proposed Plans & Elevations.rvt

Appendix B – Flood Risk Plans

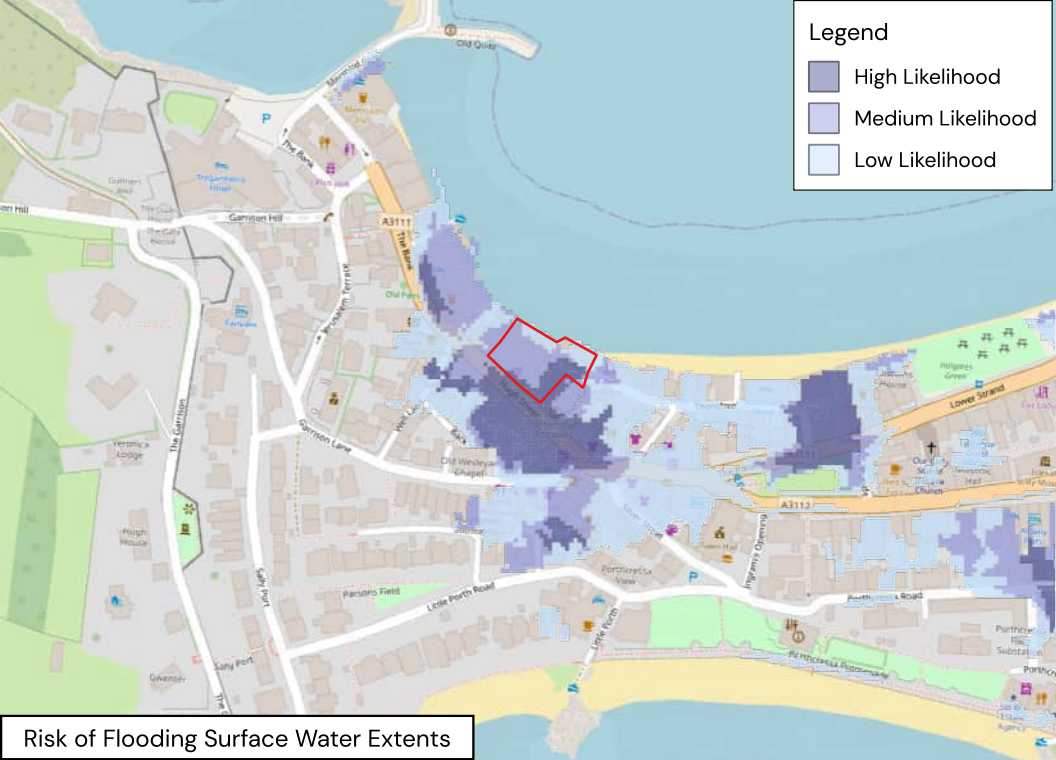

Legend
Flood Zone 2
Flood Zone 3
Flood Map for Planning


Legend
Historic Flood Map
Historic Flood Map



Risk of Flood Surface Water - 0.6m Depth

Depth: 0.6m



Risk of Flooding Surface Water Extents

Appendix C – Proposed Evacuation Route


Site Location
Evacuation Route
Evacuation Point
Proposed Evacuation Route
Hotel
Old Palm
Atlantic Inn
Lloyds Bank
Kavorna
St Mary's Post Office
Tanglewood
Co-op
Hugh Street
Thorofare
Steamship Company
Adam and Eve
Back Lane
Mr B's Steak & Burger
Tideline
49 Degrees
Mumford
Chapel
Garrison Lane
Hugh Street Cafe
Island

Appendix C – Sanitary Schedule

Isles of Scilly – Flat Sanitaryware schedule

Existing

Flat Name	Number of toilets	Number of sinks	Number of showers	Number of baths
Flat 1	1	2	1	0
Flat 2	1	2	0	1
Flat 3	1	2	0	1
Flat 4	1	2	0	1
Bank Flat	2	3	0	1

Proposed

Flat Name	Number of toilets	Number of sinks	Number of showers	Number of baths
Flat 1	1	2	1	0
Flat 2	1	2	0	1
Flat 3	1	2	0	1
Flat 4	1	2	0	1
Bank Flat	2	3	0	1

Isles of Scilly – Coop Sanitaryware schedule

Phase	Sinks	Toilets
Existing	**5**	**2**
Proposed	**4**	**1**

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