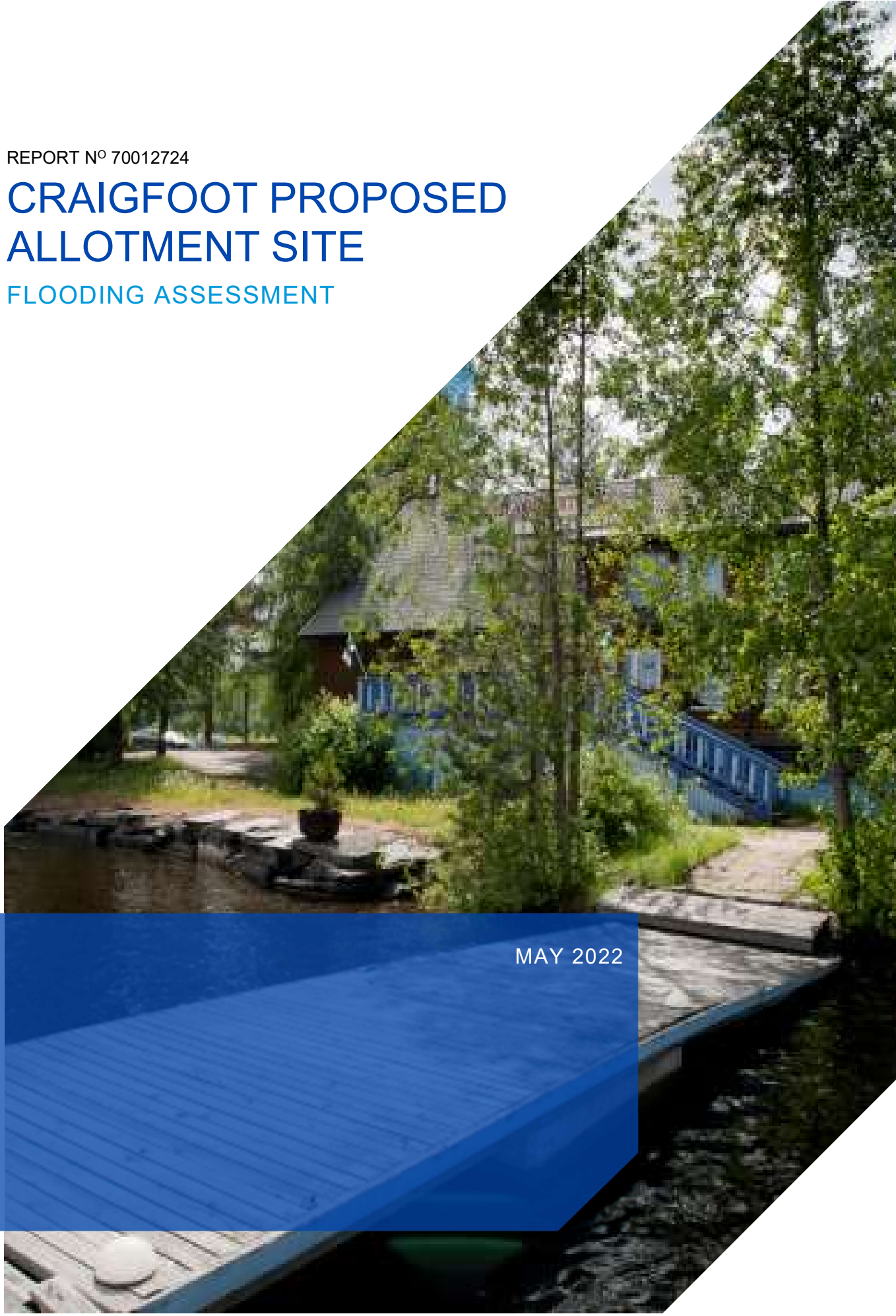
REPORT NO 70012724

CRAIGFOOT PROPOSED ALLOTMENT SITE

FLOODING ASSESSMENT



MAY 2022

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East Dunbartonshire Council

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1 INTRODUCTION

1.1.1 WSP were commissioned by East Dunbartonshire Council (EDC) to prepare a Flooding Statement for the proposed Craigfoot Allotment site, Milton of Campsie, East Dunbartonshire. This report serves as an update to the original report completed on December 2016.

1.1.2 The objective of this report is to identify and quantify any flooding associated with the proposed development site.

1.1.3 This report has been prepared solely in connection with the development described within this report. As such, no responsibility is accepted to any third party for all or part of this report.

1.1.4

1.1.5 This report was authored in December 2016 and has been updated in consideration of new information in respect of ground conditions which is summarised in section 3.5.3 as a result of these ground conditions the proposal of raised planters incorporated into the design and accepted by East Dunbartonshire Council and SEPA.

1.2 PROPOSED DEVELOPMENT

1.2.1 The existing open field space within Milton of Campsie where the development site has been proposed is owned and managed by EDC.

1.2.2 The proposed development will consist mainly of allotment space but will include other amenities, as follows:

- A laydown area;
- Standpipes to water plants;
- Footpaths connecting the allotments with Antermony Road.

1.3 FLOODING STATEMENT REQUIREMENTS

1.3.1 A Flooding Statement will generally comprise of (but not limited to):

- Consultation with Local Authorities and SEPA to obtain relevant information on flood risk and related policies;
- Site visit to aid understanding of existing site conditions and potential flood risk;
- Desk Study of available information on flood risk to the site from all sources;
- Understanding of the risk of flooding to the site and the potential impacts the development could have on flood risk elsewhere;
- Comment upon the feasibility of developing the site with respect to the relevant policies; including Scottish Planning Policy (SPP).

1.3.2 EDC's 'Flooding and Drainage, Guidelines for Developers' requires flood risk to a development to be categorised as per SPP and that SEPA's 'Technical Flood Risk Guidance for Stakeholders' is reviewed for guidance.

1.4 ASSUMPTIONS MADE

1.4.1 It should be noted that the areas stated in this document are indicative only and should not be considered as binding maxima or minima.

1.4.2 This report has been prepared solely in connection with the proposed development. As such, no responsibility is accepted to any third party for all or any part of this report in connection with any other development.

1.4.3 This report does not address in any detail the temporary situation, i.e. during the construction phase of any part of the proposed development, which may have implications on the foul and surface water drainage.

1.5 LIMITATIONS

1.5.1 The general limitations of this assessment are that:

- A number of sources have been used to compile this Flooding Statement. Whilst WSP believe them to be trustworthy; WSP is unable to guarantee the accuracy of the information that has been provided by others.
- This report is based on information available at the time of preparation. Consequently, there is potential for further information to become available. These changes may lead to future alterations to the conclusions drawn in this report for which WSP cannot be held responsible.

1.5.2 SEPA Flood Maps are indicative only, as they have been produced using a consistent, nationally-applied methodology. The flood maps are primarily used to cover coastal, pluvial and fluvial flooding, and they do not take account of overland flow or sewer flooding that may be present on site. Furthermore, at present the catchment areas of watercourses are only those greater than 3 km^2. Flooding from smaller watercourses therefore may not be shown.

2 NATIONAL DEVELOPMENT AND FLOOD RISK POLICY

2.1 RELEVANT LEGISLATION

2.1.1 The Scottish Planning Policy (SPP) was published in June 2014 with the Technical Flood Risk Guidance for Stakeholders document issued by SEPA in February 2014 and most recently updated in May 2019. Both documents set out the government's national policies for flood risk management in a land use planning context within Scotland.

2.1.2 The Flood Risk Management (Scotland) Act 2009 is an important piece of legislation. The primary objective of this document is to provide a sustainable and proactive approach to flood risk that focuses on specific catchment areas. For example, reducing the impact that flood risk can have on the communities at risk, the environment, heritage and economy. It also sets out a framework so organisations such as SEPA, Scottish Ministers and local authorities can work together in order to deliver sustainable flood risk management techniques.

2.1.3 The 'Flood Risk: Planning Advice' was published by the Scottish Government in June 2015. This document provides advice on the main sources of flooding, mitigation measures and development planning.

2.1.4 The SPP sets out conditions on which a development will be assessed upon, to ensure that it is in line with the flood risk framework, it states that a development should:

- Take a precautionary approach to flood risk from all sources, including coastal, water course (fluvial), surface water (pluvial), groundwater, infrastructure failure from reservoirs, drainage systems (sewers and culverts) and canal breach or failure, taking account of the predicted effects of climate change;
- Avoid flood risk by safeguarding flood storage and conveying capacity and locating development away from functional flood plains and medium to high-risk areas. The functional flood plain generally has a medium likelihood or greater than 0.5% (one in 200-year) probability of flooding in any year. Piecemeal reduction of the floodplain should be avoided because of the cumulative effects of reducing storage capacity. The development should be operational at all times during flood events and not impede water flow, or impact on the flood water-storage capacity. Safe egress and ingress is required from the development during times of flood;
- Reduce flood risk by assessing flood risk and, where appropriate, undertaking natural and structural flood-management measures, including flood protection, restoring natural features and characteristics, enhancing flood-storage capacity, avoiding the construction of new culverts and opening existing culverts where possible;
- Avoid increased surface water flooding through requirements for Sustainable Drainage Systems (SuDS) and minimising the area of impermeable surface.

3 EXISTING CONDITIONS

3.1 PROPOSED LOCATION

3.1.1 The site is at National Grid Reference (NGR) NS 652 766 and has a surface area of circa 0.470Ha. The location of the site can be seen below in Figure 3-1, where the site is outlined in red.

Figure 3-1 Site location

3.1.2 The site is currently bounded by:

- The A891, Antermony Road, to the north of the site;
- The Glazert Water running alongside the southern edge of the site;
- The east of the site is bounded by scrub land, which is densely populated with existing trees;
- The west of the site is bounded by a supermarket and a cluster of trees near the Glazert Water.

3.2 SITE TOPOGRAPHY

3.2.1 A site survey was obtained by LOY Surveys that contained x,y and z coordinates and a triangulated surface across the entire site, this survey can be seen in Appendix B, Figure 5-2.

3.2.2 The highest existing level on site is 52.78m AOD in the north west corner, adjacent to the road and the lowest 41.92m AOD in the south east corner, near the watercourse.

3.2.3 The topographical survey was analysed in order to understand the direction of natural flow paths across the site. This was achieved by importing the x, y and z values of the survey in to *Global Mapper v16.1*, creating a topographic surface and generating the natural watershed paths. The result of this can be seen in Appendix B, Figure 5-3.

3.2.4 The watershed path map shows that any surface runoff within the current Site moves in a south easterly direction in to the Glazert Water.

3.3 LAND USE

3.3.1 At the time of writing this report the proposed development site is scrub land.

3.4 GEOLOGY AND HYDROLOGY

3.4.1 Soil-Scotland's "Soil Map"[1] was consulted to determine the soil type(s) and classification(s) that are located in the development catchment. This information was advantageous to further understand the flood extents and better understand the potential sources of flooding and/or other related local issues.

3.5 The proposed development area is comprised fully of *Brown Soils*. These soils are moderately acid soils with brown mineral topsoils and brown or yellowish brown subsoils. They may contain moderate levels of organic matter and a mineral.

3.5.1 The Soil Classification (SOIL) value was checked within the Flood Studies Report (FSR) maps. This value roughly describes the maximum runoff potential and is derived from a combination of soil permeability and topographic slope. The SOIL value of the site, as taken from the FSR maps, was Soil type 4. Soil types are based upon a combination of soil permeability and topographic slope and on a scale of 1-5, meaning that this soil has a high runoff potential. When a soil has a high runoff potential it is often composed of mainly impermeable materials, leaving the soil itself with a low degree of permeability.

3.5.2 Although both the Soil-Scotland' Map and the SOIL number for this indicate that the soil within this site may have a slight level of permeability, it is still a very low level. Therefore, for the purposes of this Flooding Assessment the soil within the proposed development site has been classified as impermeable.

3.5.3 Additional Site Investigation was undertaken by WSP in June 2021, which identified Lead levels in the existing soil exceeded that for planting of fruit and vegetables, which included a revised strategy of raised planters rather than planting beds, which has been agreed with the relevant authorities and discussed in section 5.1.8.

3.6 EXISTING DRAINAGE NETWORK

3.6.1 Scottish Water Asset plans were obtained and analysed in order to further understand the layout of the surrounding drainage and sewer network.

[1] Scotland's Soils, available at: http://www.soils-scotland.gov.uk/data/soil-survey

3.6.2 The site has two parallel combined gravity sewers running below the surface to the north of the site, just south of Antermony Road. Connected to these pipes are 5 combined chambers that are located within the site.

3.7 EXISTING FLOOD DEFENCES

3.7.1 Upon inspection of the proposed development site, it was observed that the northern bank of the Glazert Water rose at a steep incline to a height of around 1.5 - 2m above the water level before bordering the southern edge of the site. After this rise in ground level, the site remains relatively level as it spreads north before rising again to reach Antermony Road.

3.7.2 At the time of writing this report no formal manmade flood defences could be found within the vicinity of the proposed development site.

3.8 SURROUNDING WATER BODIES

3.8.1 The Waltry Burn flows from the north east of the proposed development site and becomes a tributary of the Glazert Water further downstream.

3.8.2 The Glazert Water runs adjacent to the southern edge of the site. 800m upstream of the proposed development site, a number of field drains have outfalls in to the Glazert Water.

3.8.3 620m from the proposed development site is the Mount Dam, retaining a small body of water, with a length of around 1km and a dam towards its downstream end.

3.8.4 The Alloch Dam is located circa 1km upstream of the site.

3.8.5 At the stage of writing this report, only a desk study has been carried out on these surrounding water bodies and their potential flooding threat towards the proposed development site. Without a full site visit and investigation a full comprehensive analysis of flooding threats cannot be carried out.

3.9 HISTORIC FLOODING

3.9.1 SEPA and EDC were contacted with regards to any records of flooding within the proposed development site vicinity, as seen in Appendix C within Figure 5-4, Figure 5-5, Figure 5-6 and Figure 5-7.

3.9.2 EDC replied, stating that they had very little information regarding flooding around this area. However, they confirmed that as the proposed development was set to be Allotments, that planning would be easier to obtain opposed to if the development had been essential infrastructure in the same location.

3.9.3 Further correspondence with EDC in January 2020 confirmed there to be no historic flooding at the site between providing their initial statement in November 2016 and January 2020.

3.9.4 SEPA replied to the enquiry, stating all flood events that had been recorded within a "wider flood area", they were as follows:

- Jan 2008 – Pluvial flooding outside Montgomery Terrace, Milton of Campsie. Garden is flooded due to the extent of this water. Gullies blocked;

- Feb 2009 – Pluvial flooding on Montgomery Terrace, Milton of Campsie;
- Dec 2007 – Pluvial, Campsie Road/ Lochiel Drive - Milton Of Campsie - Heavy Flooding At Junction;
- Dec 2006 - Pluvial, Severe flooding on Redmoss Road/Birdston Road, Milton of Campsie;
- Nov 2005 - Pluvial flooding on Newlands Terrace, off Campsie Road, Milton of Campsie;
- Oct 2002 - Flooding Antermony Road, Milton of Campsie.

3.9.5 Additionally, SEPA stated that "Review of the SEPA Flood Map[2] 200-year flood outline (i.e. the flood with a 0.5% chance of occurring in any single year) indicates that the area proposed for the allotment lies within this envelope and as such is potentially at medium to high risk of fluvial flooding".

3.9.6 However, SEPA's correspondence in Appendix C, states that "we would consider an allotment (with no associated buildings) to be at most a Less Vulnerable Use". The land use vulnerability classification comprises of five broad categories: Most vulnerable, Highly vulnerable, Least vulnerable, Essential infrastructure and Water compatible uses. Additionally, SEPA stated that;

> *"Less Vulnerable Uses may be suitable for development within areas of Medium to High Risk (>0.5% AP) within built up areas, provided flood prevention measures to appropriate standard exist are or planned. Given the nature of the development, and if consulted via the planning process, we would be unlikely to have significant concerns, as long as no buildings or structures or land raising were proposed within the flood plain."*

3.9.7 SEPA's 'Flood Risk and Land Use Vulnerability Guidance'[2] was most recently update in July 2018. This guidance is consistent with the information SEPA have provided WSP with in 2016. The proposed allotments are still suitably categorised as being least vulnerable use and the guidance on development within medium to high risk locations within built up areas, remains a potential if appropriate flood mitigation is in place or planned.

3.9.8 SEPA were contacted to provide an update to their initial correspondence in January 2020. They were able to confirm that the site lies within a medium to high risk of fluvial flooding and that no additional records could be provided for pluvial flooding.

3.9.9 SEPA have a database of flow gauge stations throughout Scotland, along chosen watercourses that record historical flow and level data. The database can be accessed via their website www.sepa.org.uk.

3.9.10 The database holds on data of the maximum flood level recorded at station Glazert Water at Milton of Campsie since the gauge began recording information in June 1970. The maximum level was 2.142m (Gauge Datum 38.650m AOD) and recorded in December 2015.

[2] SEPA land Use Vulnerability Guidance - https://www.sepa.org.uk/media/143416/land-use-vulnerability-guidance.pdf

4 DEFINITION OF THE FLOOD HAZARD

4.1 SEPA FLOOD PLANS

4.1.1 The SEPA flood maps illustrate areas where there could be a high (i.e. 10% chance), medium (i.e. 0.5% chance) or low (i.e. 0.1% chance) likelihood of being flooded in any given year for various types of flooding.

4.1.2 The SEPA flood maps show us the likelihood of fluvial, pluvial and coastal flooding on any site within Scotland.

4.1.3 SEPA's flood maps can be located at: http://map.sepa.org.uk/foodmap/map.htm.

4.2 FLUVIAL FLOODING

4.2.1 Fluvial flooding occurs when a watercourse is overwhelmed or obstructed and bursts its banks.

4.2.2 Review of the SEPA flood extents map available online[3], indicates that the site is within a fluvial flood envelope.

4.2.3 The Glazert Water which runs from the west of the site, along the southern boundary encroaches its floodplain over the proposed development site. The flood map displays a medium to high likelihood of flooding across the watercourses flood plain.

4.2.4 Based on this information the site can be classified as having a medium to high risk of being inundated with fluvial flooding in any given year.

4.2.5 Due to accuracy restrictions, areas of less than 3km^2 aren't shown on the SEPA flood maps and this should be considered when calculating the risk of fluvial flooding within a site.

4.3 PLUVIAL FLOODING

4.3.1 Surface water flooding is often termed pluvial flooding and can be defined as flooding which results from rainfall generated overland flow before the runoff enters any watercourse, drainage system or sewer.

4.3.2 The proposed development layout should ensure that the proposed development site is protected from surface flooding.

4.3.3 The SEPA pluvial flood plans combine information from both rainfall and sewer outputs and incorporates data from a variety of sources.

4.3.4 Based on this information the site can be classified as having a high likelihood of being inundated with pluvial flooding in any given year.

[3] SEPA Flood Extent Maps, Available at: http://map.sepa.org.uk/floodmap/map.htm

4.3.5 Review of the SEPA flood extents map indicate that the extents of pluvial flooding are in the same location as the fluvial flooding, throughout the Glazert Water and over its flood plains. This could be due to the catchment for the Glazert Water being quite large and a lot of rain water, etc contributing to a high water level throughout the watercourse.

4.4 TIDAL FLOOD RISK

4.4.1 Due to the site's inland location, tidal flooding is not considered to be relevant. This has been confirmed through review of SEPA's flood maps which show no coastal flooding within the area.

4.5 GROUNDWATER FLOODING

4.5.1 Groundwater flooding occurs when water rises up from underlying rocks or flowing from springs and is usually classified as a contributing factor to flooding rather than the primary source.

4.5.2 The British Geological Society's database of pre-existing boreholes was checked in case any had been carried out within the proposed development site, however none were found within the proposed site boundary.

4.5.3 The British Geological Survey website was checked[4] in order to further understand the bed rock and ground water conditions under the proposed development site. The site mapping reported that the bedrock was an Upper Limestone Formation (sedimentary).

4.5.4 WSP's 'Ground Investigation Report, Craigfoot Allotments'[5] determined ground water to be ranging of depths between 0.40m to 2.0m bgl. Ground water was also recorded to rise 0.25m in 15minutes within one of the trial pits.

4.5.5 Due to the nature of the proposed development the risk of flooding due to elevated groundwater is considered to be low as there are no proposed structures to be constructed on the site that may require flood proofing.

4.6 SEWER FLOOD RISK

4.6.1 Sewer flooding occurs as a result of a number of influencing factors. It is most likely to occur during storms, when large volumes of rainwater enter the sewers. However, it can also occur when pipes become blocked or damaged.

4.6.2 Water companies are required to maintain their adopted assets to a suitable standard and take appropriate remedial action when flooding occurs. As, such development at this site is unlikely to be adversely affected by sewer flooding.

4.6.3 Existing sewerage systems are present on land surrounding the site and within, by way of existing highway and adopted public sewers serving built development. Two existing combined sewers run parallel along the north of the site. As there will be no additional discharge to these existing sewers from the site, the risk of sewer flooding to the site is considered to be low.

4.6.4 If flooding from these sewers did occur the topography of the site would direct the flooding down towards the allotments before flowing to the south-eastern corner of the site away from the proposed footpaths and allotments.

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[4] BGS, http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=ULGS
[5] WSP, Ground Investigation Report, Craigfoot Allotments, March 2018

4.7 ARTIFICIAL SOURCE FLOOD RISK

RESERVOIRS

4.7.1 The Reservoirs (Scotland) Act 2011 requires SEPA to classify the areas which may be affected in the event of the uncontrolled release of water from controlled reservoirs in Scotland. SEPA's Controlled Reservoirs Register has been reviewed and confirms the site to be within the risk of flooding from the nearest controlled reservoir.

4.7.2 The Alloch Dam is located circa 1 km to the north-west of the site. If the banks of this reservoir were to fail the flooding would be directed along the Glazert Water where the lower levels of the site would be affected. SEPA have classified the breaching of the Alloch Dam as a medium risk to the downstream amenities.

4.7.3 SEPA advise that the reservoir inundation maps should not be used for land planning as quantifying the probability of uncontrolled release of water is not currently possible[6]. It is noted, however, that the area of potential inundation appears less than the fluvial flooding risk.

4.7.4 SEPA's Controlled Reservoirs Register can be located at: http://map.sepa.org.uk/reservoirsfloodmap/Map.htm

CANALS

4.7.5 Canal flooding is generally rare and the canal network is designed in such a way so as to direct all additional water beyond the navigation capacity to impounding areas or surrounding watercourses to be conveyed downstream. The risk from canal flooding becomes more of a concern where the structure is elevated on an earth embankment and if there is a rare instance of a catastrophic breach, leading to a sudden drain-down of the pound and resultant overland flow flood risk to development immediately downstream.

4.7.6 No canals have been identified within an influencing distance of the site, therefore there is no risk of flooding from this source.

[6] SEPA's Assessment of Potential Application of the Reservoir Inundation Maps for Land Use Planning Purposes Position Statement; hht://www.sepa.org.uk

5 CONCLUSIONS

5.1.1 The proposed development site and surrounding land's topographical assessment for surface water flow determined the predicted flow will move in a south eastern fashion across the site and in to the Glazert Water.

5.1.2 The Soil-Scotland map and SOIL values both indicate that the proposed development site lays within soils with some level of permeability. However, the level is considered low, for the purposes of this Flooding assessment.

5.1.3 Both SEPA and EDC were contacted regarding historic flooding in the Milton of Campsie area and advice upon development and planning permission of building allotments within a floodplain respectively. Both bodies gave similar advice with regards to seeking planning permission for a development such as this, reflecting the low vulnerability of the prosed usage.

5.1.4 After assessing the SEPA flood maps, it was observed that the main threat of flooding from coastal, fluvial, pluvial and groundwater was the threat of fluvial flooding coming from the Glazert Water and the proposed development site being located within its floodplain. However, the above paragraphs address this issue. In addition to the risk of fluvial flooding the Alloch Dam located to the north-west of the site will spill into the Glazert Water if it was to breach adding additional flood risk to the site. Pluvial flooding was also identified as being a high risk in the bottom south-eastern corner of the site.

5.1.5 It is confirmed that risk of fluvial flooding within this proposed development site currently exists, at return periods less than 30 years. No flood defences, either formal or informal are proposed at this location.

5.1.6 The usage is determined as "less vulnerable" as there are no occupied buildings and the site will be intermittently visited by allotment holders. No impermeable areas, structures or land raising are proposed within the flood plain and so there will be no adverse impacts on downstream users.

5.1.7 It is therefore concluded that allotment gardens are an acceptable development type in this location, provided that it is accepted by the developer that occasional flooding may occur to crops.

5.1.8 As discussed in section 3.5.3 the existing ground conditions were found to contain levels of Lead in the existing soil that were not suitable for planting beds. As a result the design proposals were amended to raised planters for which East Dunbartonshire Council undertook consultation with SEPA. SEPA advised that the raised planters would be in an area of Medium to High rish of River flooding, however as the project is a water compatible use, they would have no objection on the basis that EDC accepted the risk of damage to the allotments in a flood event, for which EDC have accepted.

Appendix A

SITE LOCATION PLAN

Figure 6-5-1 Site Location Plan

Appendix B

TOPOGRAPHIC DATA

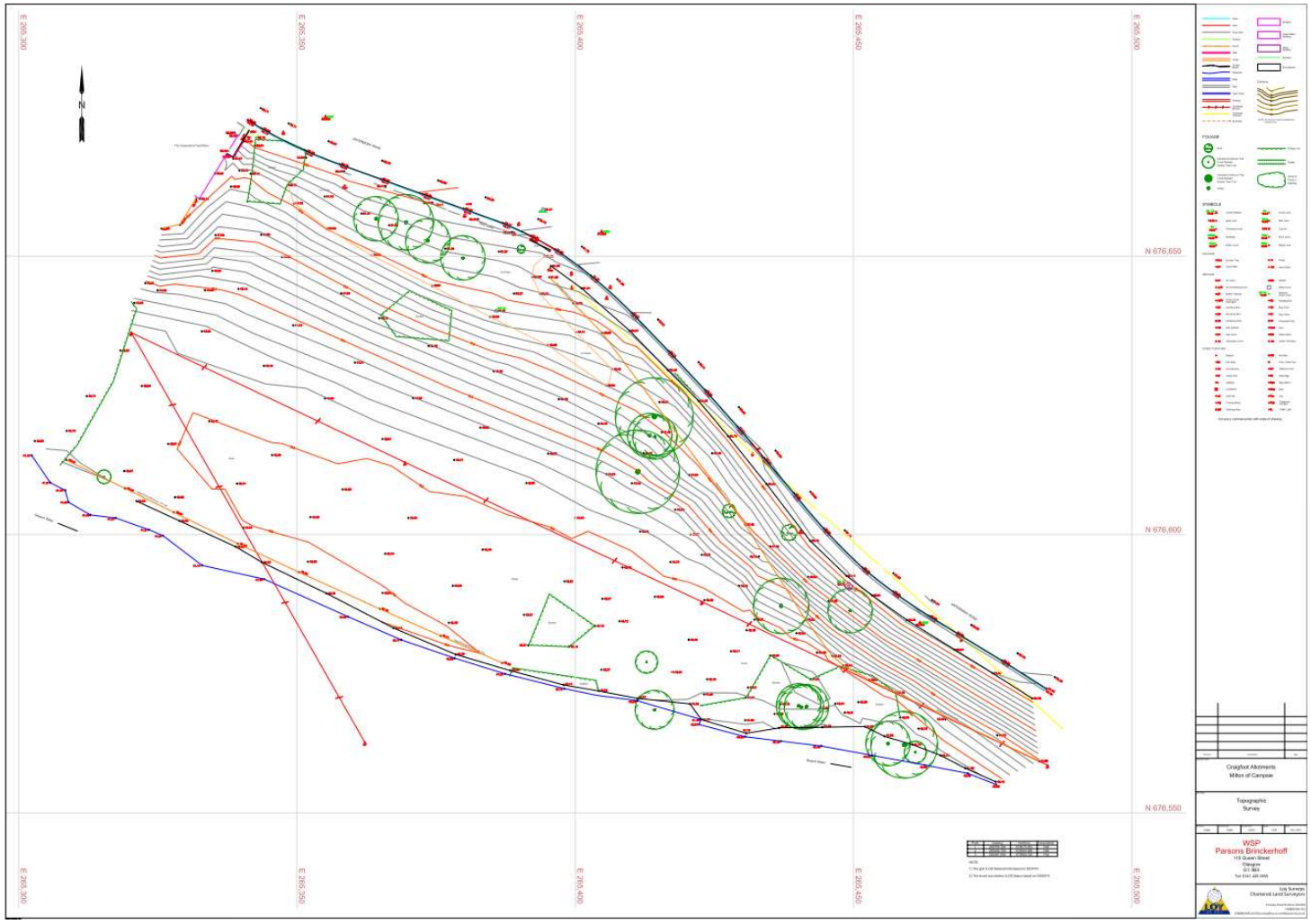

Figure 5-2 Topographic information obtained by LOY Surveys

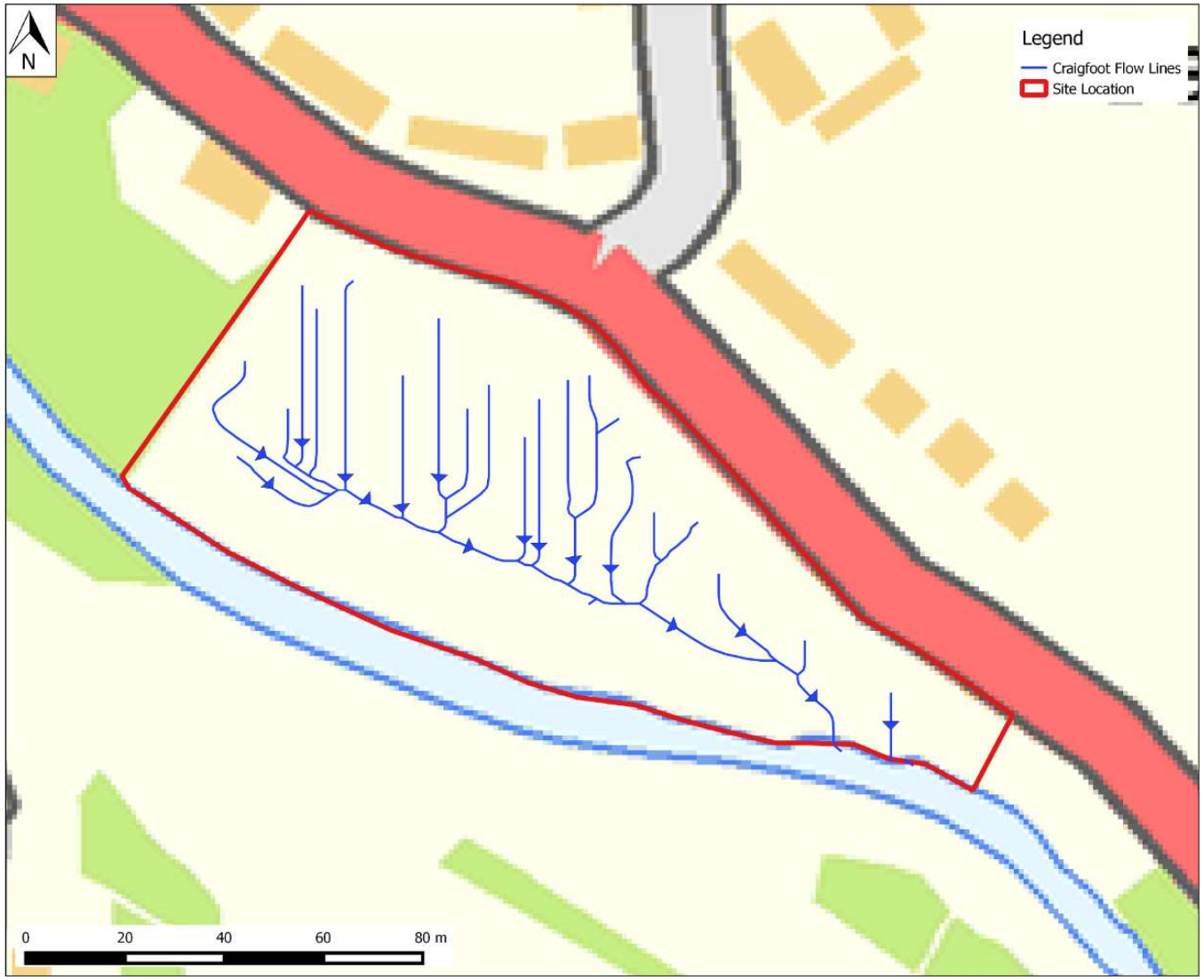

Figure 5-3 Natural flow lines within the proposed development site

Appendix C

CORRESPONDENCE WITH GOVERNING BODIES

Dear James

This confirms your enquiry **0023553** - **Milton of Campsie proposed allotment FRA** has now been closed.

The final note added to the call was:

Dear Mr Hodgson,

Flood Risk Information for Milton Of Campsie

Further to your enquiry, we currently have records of the wider area being subject to flooding, these are as follows:

- Jan 2008 – Pluvial flooding outside Montgomery Terrace, Milton of Campsie. Garden is flooded due to the extent of this water. Gullies blocked
- Feb 2009 – Pluvial flooding on Montgomery Terrace, Milton of Campsie
- Dec 2007 – Pluvial, Campsie Road/Lochiel Drive - Milton Of Campsie - Heavy Flooding At Junction
- Dec 2006 - Pluvial, Severe flooding on Redmoss Road/Birdston Road, Milton of Campsie
- Nov 2005 - Pluvial flooding on Newlands Terrace, off Campsie Road, Milton of Campsie
- Oct 2002 - Flooding Antermony Road, Milton of Campsie

Review of the SEPA Flood Map 200-year flood outline (i.e. the flood with a 0.5% chance of occurring in any single year) indicates that the area proposed for the allotment lies within this envelope and as such is potentially at medium to high risk of fluvial flooding.

With regards to guidance, whilst I am not aware of any specific guidance that refers to construction of allotments within the floodplain, I would highlight SEPA's Land Use Vulnerability Guidance. Under this guidance we would consider an allotment (with no associated buildings) to be at most a Less Vulnerable Use. Less Vulnerable Uses may be suitable for development within areas of Medium to High Risk (>0.5% AP) within built up areas, provided flood prevention measures to appropriate standard exist are or planned. Given the nature of the development, and if consulted via the planning process, we would be unlikely to have significant concerns, as long as no buildings or structures or land raising were proposed within the flood plain. We would however highlight the risk of flooding and potential risk of damage to the allotments. If any structures or land raising were proposed we would likely ask for further information in the form of a flood risk assessment. I would also highlight our technical guidance, which provides generic requirements for undertaking Flood Risk Assessments.

What also may be of use to note is the presence of a SEPA river Gauging Station approximately 400m downstream of the site, Milton of Campsie on the Glazert Water. River flow and level data can be requested from SEPA for this gauging station.

I would also recommend that you contact the Roads Department of East Dunbartonshire Council who, as Flood Prevention Authority, should be able to provide further information regarding flooding and flood alleviation in the area.

The SEPA Flood Maps have been produced following a consistent, nationally-applied methodology for catchment areas equal to or greater than 3km² using a Digital Terrain Model (DTM) to define river corridors and low-lying coastal land. The maps are indicative and designed to be used as a strategic tool to assess flood risk at the community level and to support planning policy and flood risk management in Scotland. For further information please visit http://www.sepa.org.uk/flooding/flood_maps.aspx.

I hope this is of use.

Yours sincerely

Siobhan

Figure 5-4 Correspondence with SEPA

Dear Mr Kerr

Flood Risk Information for Craigfoot Allotment

Further to your request for information on the flood risk to the above area can I apologise for the delay in responding to your request.

There is no additional information recorded in the area since the report was generated. The risk to the area from pluvial flooding remains the same, the SEPA Flood Map 200-year flood outline (i.e. the flood with a 0.5% chance of occurring in any single year) indicates that this area lies within this envelope and as such is potentially at medium to high risk of fluvial flooding.

I would also recommend that you contact the Roads Department of East Dunbartonshire Council who, as Flood Risk Management Authority, should be able to provide further information regarding flooding and flood alleviation in the area.

The SEPA Flood Maps have been produced following a consistent, nationally-applied methodology for catchment areas equal to or greater than 3km^2 using a Digital Terrain Model (DTM) to define river corridors and low-lying coastal land. The maps are indicative and designed to be used as a strategic tool to assess flood risk at the community level and to support planning policy and flood risk management in Scotland. For further information please visit http://www.sepa.org.uk/flooding/flood_maps.aspx.

I hope this is of use.

Yours sincerely

Nyree Mackay
Hydrologist (Flood Risk)

Figure 5-5 Correspondence with SEPA in January 2020

Hi Jamie

We have no information in relation to the site as is Greenfield. SEPA had commissioned at FRA for the River Glazert under the Glazert Pilot Scheme and can be provided by them.

I have attached the FRA for the River Kelvin Flood Prevention Scheme which includes paty of the Glazert however this information is dated and guidance and modelling has moved on since.

I would also check SEPA's flood map on their website as give you an idea of the potential flood risk.

Hope the above is satisfactory.

Kind Regards

Raj Kumar BSc Hons
Flood Risk Engineer
Place, Neighbourhood & Corporate Assets - Technical & Engineering Services
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From: "Hodgson, Jamie" <Jamie.Hodgson@wspgroup.com>
To: Raj Kumar <Raj.Kumar@eastdunbarton.gov.uk>
Date: 30/11/2016 16:01
Subject: Milton of Campsie FRA

Figure 5-6 Correspondence with East Dunbartonshire Council representative

Sent: 16 January 2020 11:11
To: Kerr, Graham

Subject: Re: Craigfoot Allotments - Update to Flooding Statement

Hi G

Since the last report there have been no historical incidents at this location therefore not much to update you on. Just ensure it is re-submitted with current guidance and any new policy that has come into play since the last report.

I would assume you will be revising the report and re-submitting to support the application.

Kind Regards

Raj Kumar BSc Hons
Flood Risk Engineer
Place, Neighbourhood & Corporate Assets - Technical & Engineering Services

GDPR notice - Please refer to the EDC weblink https://www.eastdunbarton.gov.uk/council/privacy-notices/privacy-notices-q-z/roads-general-enquiries
for information on how the Council uses your personal information.

Figure 5-7 Correspondence with East Dunbartonshire Council in January 2020

Hi Gillian,

Had a look at the planning drawing you sent.

Based on review of the SEPA Flood Maps the plots are located within the floodplain of the Glazert Water. So this would be viewed as an area at medium-high risk of river flooding. As such the allotments could be damaged during flood events.

However, as I mentioned we would view this as a water compatible use. So as long as the risk to the allotments is accepted and the raised beds or other allotment infrastructure do not significantly impede flood flows then we would be supportive of this proposal. Indeed through the current land use planning triage framework we currently use it is unlikely we would be consulted on this at the planning stage given the water compatible nature.

Given that raised beds are proposed rather than land raising and any storage containers will be located outwith the floodplain it is thought that the proposal is unlikely to significantly impede flood flows. However, it is recommended that this is taken into consideration when designing the allotments to help ensure this.

Hope this is of use. But any queries please feel free to contact me.

Regards

Nicholas Gair
Senior Flood Risk Specialist (West Region) Hydrology Flood Partnerships & Engagement Unit Scottish Environment Protection Agency | Angus Smith Building Maxim 6 Parklands Avenue?| Eurocentral?| North Lanarkshire?ML1 4WQ

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Figure 5-8 Correspondence with SEPA in October 2021