

From: Andy Clay
Sent: 23 July 2008 18:38:00
To: Clive Inwards
CC: sarah.green@environment-agency.gov.uk; nick.read@environment-agency.gov.uk; John.Steele@awe.co.uk; michael.nisbet@awe.co.uk; Christopher Simkins
Subject: JER3634_L_080723_AC Response to WBDC concerning the FRA for AWE CMR
Importance: High
Attachments: JER3634_L_080723_AC Response to WBDC.pdf; Figure_2.pdf; Figure_6.pdf

Clive...

Please find attached our response to the Environment Agency letter, dated 21st July, concerning the objection to the FRA for the AWE Burghfield CMR site.

If you have any need for clarification or additional information on this, could you please contact me as a matter of urgency.

Kind regards...

Andy

Dr Andrew Clay
Senior Hydrologist



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Date: 23 July 2008

Clive Inwards
West Berkshire District Council
Development Control
Council Office Market Street
Newbury
Berkshire
RG14 5LD

Dear Clive

Response to Environment Agency Letter concerning the FRA for AWE CMR

I write in response to the Environment Agency letter, dated 21st July 2008, outlining the objection to the proposed application for a new CMR facility at AWE Burghfield (WA/2008/104581/01-L01).

Background to Response

The Environment Agency letter outlines that there is not currently sufficient information to be able to fully assess the risks posed to the environment as a result of the proposal. This relates to parts of the application site being within Flood Zones 2 and 3, as shown on the Environment Agency Flood Map. The objection is due to the absence of an acceptable Flood Risk Assessment (FRA).

The Environment Agency letter provides further detail, outlining that the submitted FRA does not demonstrate effectively how flood risk will be safely managed. In particular, the FRA does not clearly identify risks associated with a preferential flow route through the contractors compound.

Environment Agency Correspondence

We have had recent correspondence with Nick Read of the Environment Agency concerning the FRA, and we include the queries that were raised and the responses that we then made in this letter. There was a slight delay in our response to the queries being received by the Environment Agency, and subsequently therefore for this comment being received by West Berkshire DC.

Dry Pedestrian Access

The Environment Agency made comment on Section 3.14 of the FRA, which suggests that dry pedestrian access will be available, and questioned whether there are any residential components to this development which may require dry access.

We responded by email on 18th July stating that there are no residential components in this development, with dry access having been provided to ensure the safety of occupants (workers) of the completed development.

Preferential Flow Route

The Environment Agency made comment on Section 3.17 of the FRA, which considers a preferential flow route through the contractors compound. The Environment Agency ask whether this is based on observed or anecdotal flooding, and comment on the suggestion that bunds or ditches be used to control what, on face value, appears to be a localised drainage problem – going on to ask for clarification on the preferred mitigation technique. The Environment Agency advise that whatever the solution, it must be acceptable to the LPA if it forms part of this application.

We responded by email on 18th July 2008 outlining the following understanding on flooding and on the classification of flood risk at AWE Burghfield. The Environment Agency Flood Map (included as Figure 2 in the FRA, and attached in this response) indicates a preferential flow path with the 1 in

1000-year flood event through the contractors compound. However, we used recent and more accurate LiDAR data available for AWE Burghfield to revise the extents of the Flood Map, as Section 3 of the FRA explains, with this leading to our re-run of the flood mapping and revision of flood extents (included as Figure 6 in the FRA, and attached in this response). The Flood Map from this exercise removes the CMR site from Flood Zone 3, with the Flood Zone 2 preferential flow path associated with the 1 in 1000-year flood event also removed from the contractors compound.

Surface water flows that occurred through the AWE Burghfield facility during the extreme flood event on 20th July 2007 were also observed. This further indicated that no overland flow occurred through the constructors compound of the CMR site. Consequently we believe that no overland flow of surface waters would occur through the construction compound, therefore negating the need for any mitigation work. The bunds and ditches that had been included in the FRA were suggested as measures in response to the previous extent of the 1 in 1000-year flood event.

Surface Water Runoff

There was comment by the Environment Agency on the runoff rates that were used in designing the surface water management strategy for the site, and comment that the West Berkshire SFRA document requires that all development sites control runoff to greenfield rates. We can confirm that the main application site was designed to greenfield runoff rates. We can also confirm that the construction compound was modelled as porous car park connecting to a swale and using a discharge limited to 7 l/sec/ha (the AWE standard brownfield runoff rate). It should be noted that this part of the site was previously developed. It should also be noted that, as this part of the site is approximately 0.56ha in area, that the maximum discharge is limited to less than 3.9 l/sec.

Conclusions of the Environment Agency

The correspondence from Nick Read indicated that the principles submitted in the FRA suggest that the SUDs scheme will be achievable to account for any minor amendments to the drainage design which might be needed at detailed design stage. Furthermore, recent correspondence has indicated that Nick was happy with the material that we supplied in response to his initial queries.

Summary

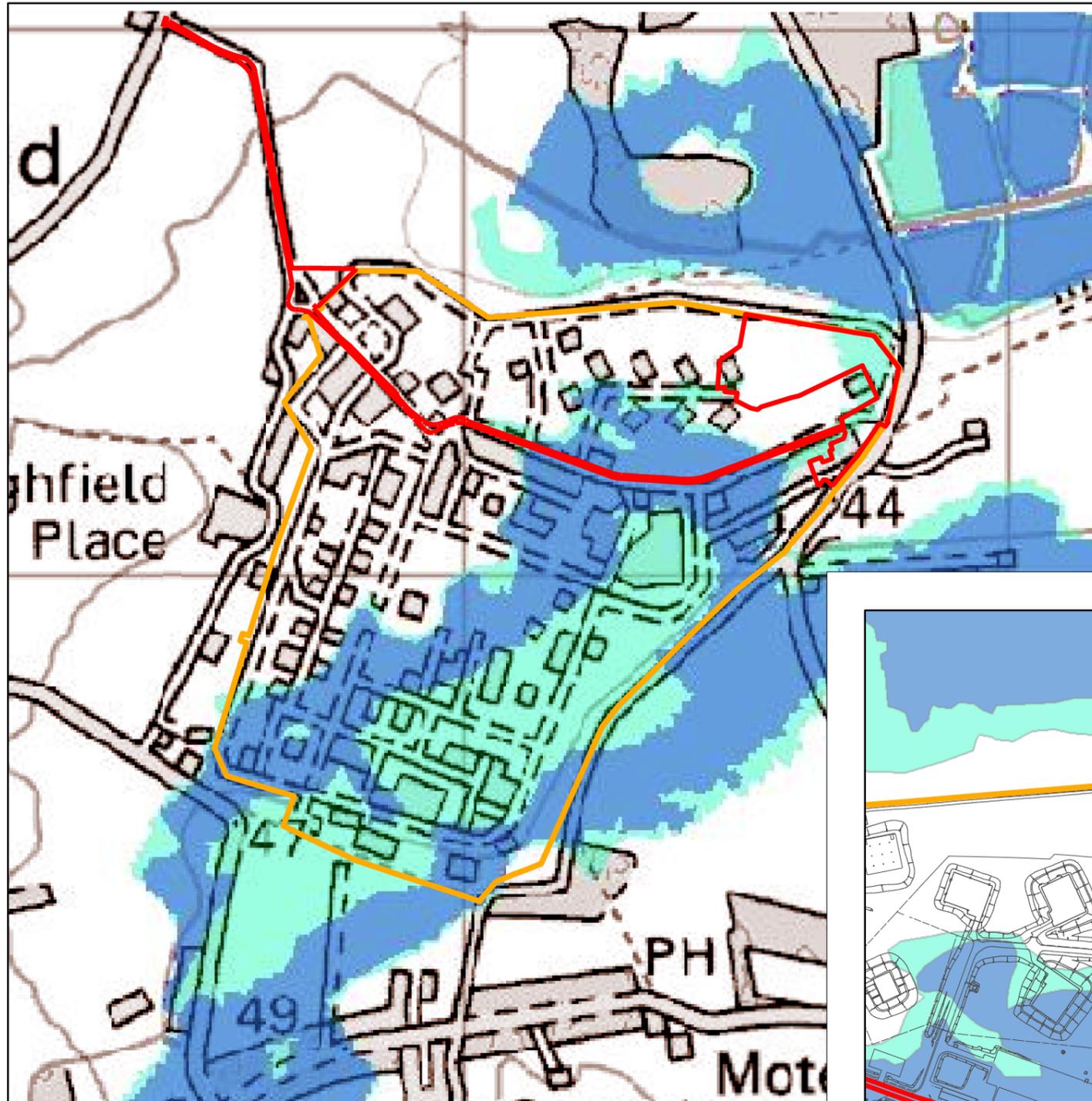
Given the urgent need to address this objection, we understand that the Environment Agency are willing to provide an updated response to the planning application indicating no objection. Could you please contact me without delay for any further clarification or information, as required.

Many thanks,

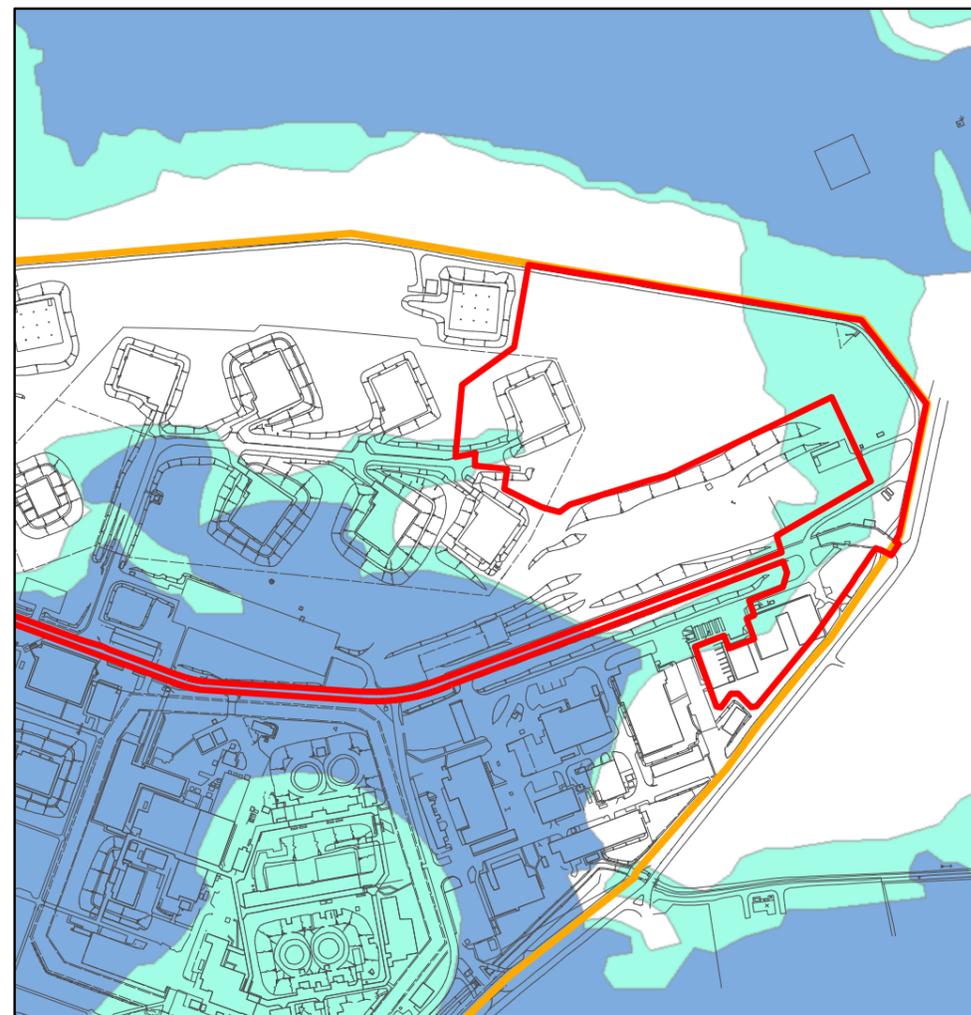
On behalf of RPS Group Plc

Dr Andrew Clay
Senior Hydrologist

Cc. Nick Read (Environment Agency), Sarah Green (Environment Agency), John Steele (AWE), Mike Nesbit (AWE), Chris Simkins (RPS Group)



0 50 100 200 300 400 Meters
Scale 1:5000



0 25 50 100 150 200 Meters
Scale 1:5000

Legend

- AWE Burghfield Site Boundary
- CMR Application Boundary
- Flooding from Rivers or Sea without Defences (1 in 100, 1 in 200 Year)
- Extent of Extreme Flood (1 in 1000 Year)

NOTE: Extent of Flooding is approximate and should be used for indicative purposes only

F2	15/11/07	Application Boundary Amended	RJ	AS
Rev:	Date:	Amendment:	Name:	Checked:

■ Data Source: RPS 2006

Status: PRELIMINARY

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■ Client: AWE Plc
 Project: CMR Facility

Title: Environment Agency Flood Map

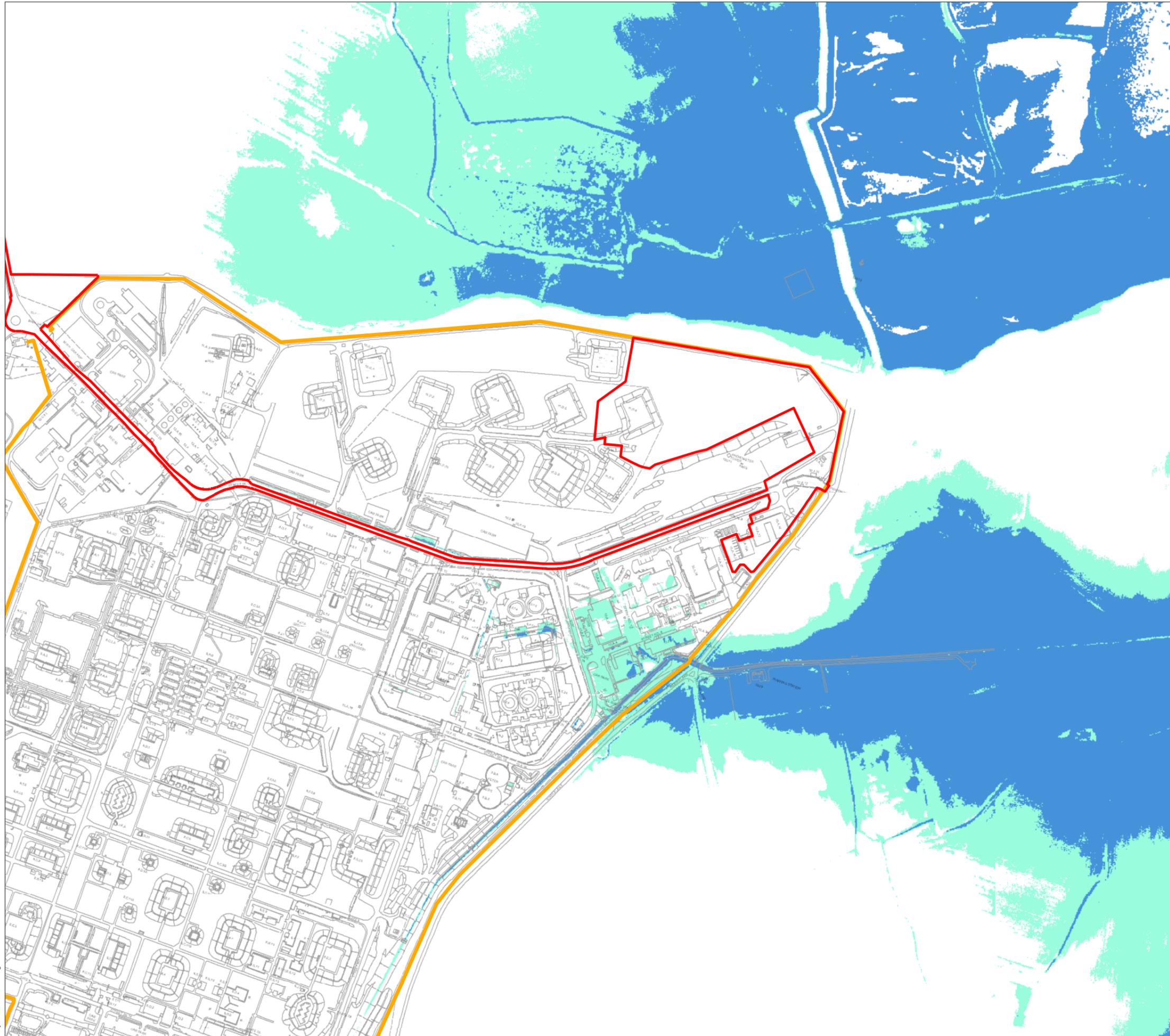
Scale: A3 @ As Shown

Date: 16/01/2007 Datum: OSGB36 Projection: BNG

Drawn: RJ Checked: AS Job Ref: JER3645

■ Drawing No: **Figure 2**

Revision: -



Legend

- AWE Burghfield Site Boundary
- Application Boundary

Flood Extents Based on LiDAR Data

- 1 in 100 Year (Flooding from Rivers)
- 1 in 1000 Year (Extent of Extreme Flooding)

NOTE:

All flood extents are based on LiDAR Ground Level Data.

Flood extents north of the AWE Burghfield site boundary are based on levels less than or equal to 39.5m AOD and 40m AOD for 1 in 100 year and 1 in 1000 year floods respectively.

Flood extents east of the AWE Burghfield site boundary are based on levels less than or equal to 42m AOD and 42.5m AOD for 1 in 100 year and 1 in 1000 year floods respectively.

F6	15/11/07	Application Boundary Amended	RJ	AS
Rev:	Date:	Amendment:	Name:	Checked:

■ Data Source: RPS 2007
 Status: PRELIMINARY



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■ Client: AWE Plc
 Project: CMR Facility

Title: Revised Indicative Flood Map

Scale: A3 @ 1:5,000
 0 0.05 0.1km



Date: 24/05/2007 Datum: OSGB36 Projection: BNG

Drawn: RJ Checked: AS Job Ref: JER3634

■ Drawing No: **Figure 6** Revision: -