

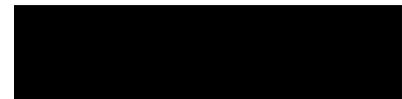
**Consultation and Scoping
Opinion Responses – Flood
Risk and Drainage**

**Proposed Urban Extension
at Grandhome, Aberdeen**

**Document no.:
13-0204/R-03/01**

for

Grandhome Trust



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Project no.	13-0204
Author	AP
Checked	RG
Issue	01
Date	23 September 2013

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Issue History

Issue No.	Current Status	Date	Prepared By	Reviewed By	Approved By
01	Planning	23 September 2013	AP	RG	AP

Schedules of Revisions

Report Issue Number	Revision Date	Paragraphs amended

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1. Introduction

1.1 General

The proposed Grandhome urban extension development located north of the River Don on the outskirts of Aberdeen.

The masterplan for the entire Grandhome site, which extends to 319ha, will eventually extend to over 7,000 dwellings and include 7 neighbourhoods. In line with the housing land requirements of the Aberdeen Local Development Plan (LDP) 4,700 units are allocated in the current plan period (2007 to 2023) with the remaining 2,300 units safeguarded to come forwards in the next plan period (2023 to 2030).

In accordance with this allocation the Grandhome Trust is seeking planning permission in principle for Phases 1 to 5 accommodating 4,700 units on a site which extends to 227ha.

The EIA primarily considers the Application for Planning Permission in Principle (PPiP) for Phases 1 to 5 of the overall masterplan but also includes a separate assessment of the pending Full Application for Phase 1 and also the remainder of the overall masterplan including Phases 6 and 7.

1.2 Purpose of Report

This report has been prepared in order to support the Application for Planning Permission in Principle (PPiP) relating to Phases 1 to 5 of the Grandhome development masterplan. The format of the supporting documentation is an Environmental Impact Assessment (EIA) report which comprises a Main Report consisting of a series of front-end and technical chapters. Further supporting documentation is in the form of a series of Technical Annexes which provide background and a greater depth of technical information. This report is a Technical Annex to Chapter 10 of the Main Report for the EIA which relates to Flood Risk and Drainage. Therefore this report is to be read in conjunction with that Chapter and also the remainder of the EIA documentation.

The report collates the relevant responses from authority bodies that were informally consulted to receive scoping opinion in respect of flood risk and drainage design.

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Appendix A

SEPA and ACC Correspondence

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Our Ref. LCG/P121353 [ZET]
Your Ref.
Contact Lucy Greene
Email pi@aberdeencity.gov.uk
Direct Dial 01224 522378
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ABERDEEN
CITY COUNCIL

5 April 2013

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Planning & Sustainable
Development
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FAO Chris Pattison

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www.aberdeencity.gov.uk

Dear Chris,

Environmental Impact Assessment (Scotland) Regulations 1999 (as amended)
SCOPING OPINION
Grandhome, Bridge of Don
Proposed urban extension at Grandhome (The site is identified as an Opportunity Site (OP12) in the Aberdeen City Local Development Plan
Application Ref P121353

I refer to your request for a scoping opinion in terms of the above regulations which was validly received by the planning authority on 26 September 2012 and I apologise for the delay in my response.

The approach that you outline in sections 3.13 and 3.14 is welcomed. It is understood that the proposed Environmental Statement (ES) would cover both the planning permission in

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principle (PPiP) and full planning permission for phase 1 as well as reporting the effects of the overall masterplan.

In the interests of clarity it is requested that the findings, analysis and mitigation relating to the a) the PIPP application area; and b) phase 1 area, be clearly identified in a separate section within each of the topic areas and non-technical summaries, as well as the overall effect of the entire masterplan.

The ES should include consideration of any work required to be undertaken off site as a result of development, including for example, supplying services.

In terms of the subject areas, this planning authority broadly agrees with the approach proposed and I would comment as follows:

1. Air quality: the detailed scope to be agreed with Aberdeen City Environmental Health (Aileen Brodie). SEPA have also provided comment in the response dated 16 October 2012 (see ACC website). I would further comment that cumulative impacts should be assessed, from other development with planning permission but not yet implemented, including (not an exhaustive list) the Biomass CHP plant at Stoneywood Mill, housing at Stoneywood and at Davidsons Mill. In addition to the receptors identified, any air quality impacts on ecological sites should be assessed, including those protected sites adjacent to the site boundaries.

Advice is provided on behalf of Transport Scotland, by JMP Consultants Limited, in the letter dated 26 October, this is on the Council's website and this approach should be followed with regard to air quality impact of traffic.

2. Climate Change: It is not known what exactly is involved in the carbon footprinting study. However, it is considered that measures to reduce on-going GHG emissions are the important factors, whilst consideration should also be given to alternative methods of construction and materials that would reduce emissions produced in the construction process, transportation and manufacture etc of materials used. Consideration should be given in the ES to the provision of energy via the full range of possible sources, including potential for linking to the biomass CHP plant proposed at Stoneywood Mill.

3. Cultural Heritage: Although the impact on archaeology cannot be fully assessed without some evaluation work, on the basis of advice, it is considered that the approach is acceptable. A dig would be likely to be required as part of a condition on any planning permission. In terms of impact on above ground cultural heritage, a range of mitigation measures should be identified, with reference to the masterplans that will be agreed. In particular, attention needs to be paid to the potential impacts on listed buildings on and adjacent to the site.

Potential for impact on the Foucausie hut circle should be included in the ES in accordance with Historic Scotland's consultation response dated 22 October 2012. It

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is also suggested advice be sought from the documents identified by Historic Scotland.

4. Ecology: the proposals for surveys of European and UK protected species are accepted. These would need to take place at appropriate times of year and in accordance with the Council's [Supplementary Guides and Technical Advice Notes](#) on Bats and Development and Natural Heritage.
Tree surveys would also be required as part of the habitat survey – a general overview of trees and woodland.
In addition to retention and protection of habitats it is suggested that additionally the EIA considers the scope for management to enhance existing features which could be used to offset impacts elsewhere on the site.
There should be identification of appropriate pollution prevention measures during periods of construction, operation, maintenance, demolition and restoration.
Potential for impact on wetlands present, elements retained and associated proposals for mitigation. Appropriate habitat survey works should be carried out to identify and classify wetland areas.
5. Drainage – including details relating to both surface water drainage and waste water drainage. Please note the comments within SEPA's letter of 16 October 2012. The ES should identify where temporary / semi-permanent measures might be required for the early phases of development and the impact of these. Although SUDS features may be incorporated within landscaping, where these consist of areas of ground being unusable, this should be taken into account in the design layout and level of open space provided and its location.
Flood risk assessment – refer to consultation responses from SEPA dated 16 October and 4 February 2013.
6. Geo-Environment: no further comments.
7. Landscape and views: in addition to the viewpoints considered, please also include view points on Whitestripes Road through the site and from the minor road that runs along the west side of the site.
8. Noise and Vibration: The letter referred to above, from JMP Consultants, provides advice in relation to traffic impacts and this should be followed in the EIA. This same approach should be applied to traffic on other roads where traffic flows would be increased by the development. Noise assessments should include potential impact on future residents of development with planning permission but not yet built.
9. Socio-Economics: The effects of the full range of residential accommodation to be provided within the overall masterplan area should be considered within the context of the main areas identified. In terms of social infrastructure, the effect of demand for

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provision of recreational space of all types and recreational routes within and linking to those outside the site should be included. Functional and linking routes both existing and aspirational should be given particular consideration.

10. Transport: The advice provided in the JMP Consultants letter in particular on the assessment of environmental impacts of traffic needs to be considered and this approach adopted.
Key recreational routes, both existing and aspirational, should be identified, as well as functional and linking routes with existing employment / residential areas.
11. Utilities and Waste: comments in relation to energy supply in the Climate Change section above.

Yours faithfully



Dr Margaret Bochel

Head of Planning and Sustainable Development

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Our ref: PCS/122813
Your ref: P121353

Lucy Greene
Aberdeen City Council
Planning and Sustainable Development
Business Hub 4, Marischal College
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AB10 1AB

If telephoning ask for:
Rebecca Raine

16 October 2012

By email only to: lgreene@aberdeencity.gov.uk

Dear Ms Greene

Scoping consultation
EIA Scoping Report RE: Proposed urban extension at Grandhome (The site is identified as an Opportunity Site (OP12) in the Aberdeen City Local Development Plan - Grandhome, Aberdeen

Thank you for consulting SEPA on the scoping opinion for the above development proposal by way of your e-consultation which SEPA received on 9 October 2012. We would welcome meeting with the applicant at an early stage to discuss any of the issues raised in this letter. Please note that all of the issues below should be addressed in the Environmental Statement (ES), but there may be opportunities for several of these to be scoped out of detailed consideration. The justification for this approach in relation to specific issues should be set out within the ES.

Flood risk

The site should be assessed for flood risk from all sources in line with Scottish Planning Policy (Paragraphs 196-211). Our [Indicative River & Coastal Flood Map \(Scotland\)](#) is available to view online and further information and advice can be sought from your local authority technical or engineering services department and from our [website](#).

As outlined in our response letter dated 14 December 2010 (our ref: PCS/110084) to the Aberdeen City Local Plan, the Grandhome site was identified as a site which was at risk of flooding, and that a flood risk assessment will be required to accompany any future development proposals for this site.

SEPA have also provided pre-planning advice on the provisional Flood Risk Assessment in a letter dated 27 March 2012, (our ref: PCS/119324), however advised that at the detailed planning stage, a more detailed Flood Risk Assessment may be required to support the development, outlining the watercourses (Danestone Burn and Woodland Burn) within the site. Section 7.11

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of the Scoping report informs that a Flood Risk Assessment will be carried out but further states that no hydraulic modelling will be carried out. It is agreed that hydraulic modelling may not be required but this should be determined on receipt of a site plan and Flood Risk Assessment.

A full Flood Risk Assessment should be carried out following the guidance set out in the Annex to the [SEPA-Planning Authority flood risk protocol. Our Technical flood risk guidance for stakeholders](#) outlines the information we require to be submitted as part of a Flood Risk Assessment, and methodologies that may be appropriate for hydrological and hydraulic modelling.

Waste water drainage

Details of the waste water provision for your development should be provided in the ES or planning submission, including consideration of options for waste water treatment facilities. Drainage is a material planning consideration and will be assessed as part of your planning application in line with [PAN 79 Water and Drainage](#) and Policy NE6 – Flooding and Drainage in the Aberdeen City Local Plan. Where there is a public sewerage system, waste water drainage from development within and close to the settlement envelope should be directed to that system. If the system has insufficient capacity, then early dialogue with Scottish Water will be required to determine if works are planned to overcome this problem, or what developer pro-rata contributions will be necessary to remove the constraint.

If there is no or limited public sewerage infrastructure, given the scale of development we would still expect the development of strategic infrastructure to adoptable standards. Contact should be made with Scottish Water to determine the standards required to ensure adoption of new infrastructure. Please note that we are not likely to support proposals for private foul drainage systems for significant development (e.g. more than 25 houses) where development of public infrastructure is the sustainable long-term solution. An interim solution may be acceptable provided an appropriate upgrade has been agreed with Scottish Water and there will be no unacceptable impact on the water environment. For further guidance please refer to our [Policy and Supporting Guidance on Provision of Waste Water Drainage in Settlements](#)

Surface water drainage

The treatment of surface water runoff by sustainable drainage systems (SUDS) is a [legal requirement](#) for most forms of development; however the location, design and type of SUDS are largely controlled through planning. We encourage surface water runoff from all developments to be treated by SUDS in line with [Scottish Planning Policy](#) (Paragraph 209), [PAN 61 Planning and Sustainable Urban Drainage Systems](#), [PAN 79 Water and Drainage](#) and [Policy NE6 – Flooding and Drainage in the Aberdeen City Local Plan. SUDS help to protect water quality, reduce potential for flood risk and release capacity in the public sewerage network where the alternative is use of combined systems. Discharges to combined sewers should be avoided to free up capacity for waste water discharges.

It is important to ensure that adequate space to accommodate SUDS is incorporated within the site layout. Consideration should be given to this matter early in the planning process when

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proposals are at their most fluid and modifications to layout can be easily made with less expense to the developer. Each individual type of SUDS facility, such as a filter drain, detention basin, permeable paving or swale, provides one level of surface water treatment. The level of SUDS required is dependant on the nature of the proposed development, for example residential or non residential, the size of development, and the environmental risk posed by the development which is principally determined by the available dilution of the receiving waterbody. Best practice requires the following levels of treatment:

- Residential developments of more than 50 houses and retail/ commercial/ business parks with car parks of more than 50 spaces require two levels of treatment for all hardstanding areas including roads. An exception is run-off from roofs which requires only one level of treatment. We recommend, as best practice, the second level of treatment to be a basin or pond designed in accordance with Sewers for Scotland Second Edition. Please also refer to section 3.3 below;
- All roads schemes typically require two levels of treatment, except for residential developments of 50 houses or less and retail/commercial/business parks with car parks of 50 spaces or less. For technical guidance on SUDS techniques and treatment for roads please refer to the [SUDS for Roads](#) manual.

For all developments, run-off from areas subject to particularly high pollution risk (e.g. yard areas, service bays, fuelling areas, pressure washing areas, oil or chemical storage, handling and delivery areas) should be minimised and directed to the foul sewer. Where run-off from high risk areas cannot be directed to the foul sewer we can, on request, provide further site specific advice on what would be the best environmental solution.

The SUDS [treatment train](#) should be followed which uses a logical sequence of SUDS facilities in series allowing run-off to pass through several different SUDS before reaching the receiving waterbody. Further guidance on the design of SUDS systems and appropriate levels of treatment can be found in the CIRIA C697 manual entitled [The SUDS Manual](#). Advice can also be found in the SEPA Guidance Note [Planning advice on sustainable drainage systems \(SUDS\)](#). Please refer to the [SUDS section](#) of our website for details of regulatory requirements for surface water and SUDS. Comments should be sought from the local authority roads department and the local authority flood prevention unit on the acceptability of post-development runoff rates for flood control.

Comments from Scottish Water should be sought where the SUDS proposals would be adopted by them. We encourage the design of SUDS to Sewers for Scotland Second Edition standards and the adoption of SUDS features by Scottish Water as we are of the view that this leads to best standards and maintenance.

SUDS must be used on all sites, including those with elevated levels of contaminants. SUDS which use infiltration will not be suitable where infiltration is through land containing contaminants which are likely to be mobilised into surface water or groundwater. This can be overcome by restricting infiltration to areas which are not affected by contamination, or constructing SUDS with an impermeable base layer to separate the surface water drainage system from the contaminated area. SUDS which do not use infiltration are still effective at treating and

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attenuating surface water. Please refer to the advice note on [SUDS and brownfield sites](#) for further information.

Pollution prevention and environmental management

One of our key interests in relation to major developments is pollution prevention measures during the periods of construction, operation, maintenance, demolition and restoration. The construction phase includes construction of access roads, borrow pits and any other site infrastructure.

We advise that the applicant should, through the EIA process or planning submission, systematically identify all aspects of site work that might impact upon the environment, potential pollution risks associated with the proposals and identify the principles of preventative measures and mitigation. This will establish a robust environmental management process for the development. A draft Schedule of Mitigation should be produced as part of this process. This should cover all the environmental sensitivities, pollution prevention and mitigation measures identified to avoid or minimise environmental effects. Details of the specific issues that we expect to be addressed are available on the Pollution Prevention and Environmental Management section of our [website](#).

A Construction Environmental Management Document is a key management tool to implement the Schedule of Mitigation. We recommend that the principles of this document are set out in the ES outlining how the draft Schedule of Mitigation will be implemented. This document should form the basis of more detailed site specific Construction Environmental Management Plans which, along with detailed method statements, may be required by planning condition or, in certain cases, through environmental regulation. This approach provides a useful link between the principles of development which need to be outlined at the early stages of the project and the method statements which are usually produced following award of contract (just before development commences).

Best practice advice developed by The Highland Council (in conjunction with industry and other key agencies) on the Construction Environmental Management Process is available in the guidance note [Construction Environmental Management Process for Large Scale Projects](#)

Engineering activities in the water environment

In order to meet the objectives of the [Water Framework Directive](#) of preventing any deterioration and improving the water environment, developments should be designed to avoid engineering activities in the water environment wherever possible. The water environment includes burns, rivers, lochs, wetlands, groundwater and reservoirs. We require it to be demonstrated that every effort has been made to leave the water environment in its natural state. Danestone Burn within site has been realigned and straightened and Woodland Burn also lies within the site. This lies close to the River Don (Dyce to tidal limit) which is currently at moderate status because of alterations to beds and banks.

Engineering activities such as culverts, bridges, watercourse diversions, bank modifications or dams should be avoided unless there is no practicable alternative. Paragraph 211 of SPP deters unnecessary culverting. Where a watercourse crossing cannot be avoided, bridging solutions

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or bottomless or arched culverts which do not affect the bed and banks of the watercourse should be used. Further guidance on the design and implementation of crossings can be found in our [Construction of River Crossings Good Practice Guide](#). Other best practice guidance is also available within the water [engineering](#) section of our website.

If the engineering works proposed are likely to result in increased flood risk to people or property then a flood risk assessment should be submitted in support of the planning application and we should be consulted as detailed below.

A site survey of existing water features and a map of the location of all proposed engineering activities in the water environment should be included in the ES or planning submission. A systematic table detailing the justification for the activity and how any adverse impact will be mitigated should also be included. The table should be accompanied by a photograph of each affected water body along with its dimensions. Justification for the location of any proposed activity is a key issue for us to assess at the planning stage.

Where developments cover a large area, there will usually be opportunities to incorporate improvements in the water environment required by the Water Framework Directive within and/or immediately adjacent to the site either as part of mitigation measures for proposed works or as compensation for environmental impact. We encourage applicants to seek such opportunities to avoid or offset environmental impacts. Improvements which might be considered could include the removal of redundant weirs, the creation of buffer strips and provision of fencing along watercourses. Fencing off watercourses and creating buffer strips both helps reduce the risk of diffuse water pollution and affords protection to the riparian habitat.

Disruption to wetlands including peatlands

If there are wetlands or peatland systems present, the ES or planning submission should demonstrate how the layout and design of the proposal, including any associated borrow pits, hard standing and roads, avoid impact on such areas

A Phase 1 habitat survey should be carried out for the whole site and the guidance [A Functional Wetland Typology for Scotland](#), should be used to help identify all wetland areas. National Vegetation Classification should be completed for any wetlands identified. Results of these findings should be submitted, including a map with all the proposed infrastructure overlain on the vegetation maps to clearly show which areas will be impacted and avoided.

Groundwater dependent terrestrial ecosystems, which are types of wetland, are specifically protected under the Water Framework Directive. The results of the National Vegetation Classification survey and Appendix 2 (which is also applicable to other types of developments) of our [Planning guidance on windfarm developments](#) should be used to identify if wetlands are groundwater dependent terrestrial ecosystems.

The route of roads, tracks or trenches within 100 m of groundwater dependent terrestrial ecosystems (identified in Appendix 2) should be reconsidered. Similarly, the locations of borrow pits or foundations within 250 m of such ecosystems should be reconsidered. If infrastructure cannot

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be relocated outwith the buffer zones of these ecosystems then the likely impact on them will require further assessment. This assessment should be carried out if these ecosystems occur within or outwith the site boundary so that the full impacts on the proposals are assessed. The results of this assessment and necessary mitigation measures should be included in the ES.

For areas where avoidance is impossible, details of how impacts upon wetlands including peatlands are minimised and mitigated should be provided within the ES or planning submission. In particular impacts that should be considered include those from drainage, pollution and waste management. This should include preventative/mitigation measures to avoid significant drying or oxidation of peat through, for example, the construction of access tracks, dewatering, excavations, drainage channels, cable trenches, or the storage and re-use of excavated peat. Detailed information on waste management is required as detailed below. Any mitigation proposals should also be detailed within the Construction Environmental Management Document as detailed below.

Disturbance and re-use of excavated peat

Where the proposed infrastructure will impact upon peatlands, a detailed map of peat depths (this must be to full depth) should be submitted. The peat depth survey should include details of the basic peatland characteristics.

By adopting an approach of minimising disruption to peatland, the volume of excavated peat can be minimised and the commonly experienced difficulties in dealing with surplus peat reduced. The generation of surplus peat is a difficult area which needs to be addressed from the outset given the limited scope for re-use.

The ES or planning submission should detail the likely volumes of surplus peat that will be generated, including quantification of catotelmic and acrotelmic peat, and the principles of how the surplus peat will be reused or disposed of.

There are important waste management implications of measures to deal with surplus peat as set out within our [Regulatory Position Statement - Developments on Peat](#). Landscaping with surplus peat (or soil) may not be of ecological benefit and consequently a waste management exemption may not apply. In addition we consider disposal of significant depth of peat as being landfilled waste, and this again may not be consentable under our regulatory regimes. Experience has shown that peat used as cover can suffer from significant drying and oxidation, and that peat redeposited at depth can lose structure and create a hazard when the stability of the material deteriorates. This creates a risk to people who may enter such areas or through the possibility of peat slide and we are aware that barbed-wire fencing has been erected around some sites in response to such risks.

It is therefore essential that the scope for minimising the extraction of peat is explored and alternative options identified that minimise risk in terms of carbon release, human health and environmental impact. Early discussion of proposals with us is essential, and an overall approach of minimisation of peatland disruption should be adopted. If it is proposed to use some excavated peat within borrow pits or bunding then details of the proposals, including depth of peat and how the hydrology of the peat will be maintained, should be outlined in the

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ES or planning submission.

Our [Planning and Energy webpage](#) provides links to current best practice guidance on peat survey, excavation and management.

Existing groundwater abstractions

Roads, foundations and other construction works associated with large scale developments can disrupt groundwater flow and impact on groundwater abstractions. To address this risk a list of groundwater abstractions both within and outwith the site boundary, within a radius of i)100 m from roads, tracks and trenches and ii) 250 m from borrow pits and foundations) should be provided.

If groundwater abstractions are identified within the 100 m radius of roads, tracks and trenches or 250 m radius from borrow pits and foundations, then either the applicant should ensure that the route or location of engineering operations avoid this buffer area or further information and investigations will be required to show that impacts on abstractions are acceptable. Further details can be found in Appendix 2 (which is also applicable to other types of developments) of our [Planning guidance on windfarm developments](#).

Water abstraction

Where water abstraction is proposed we request that the ES, or planning submission, details if a public or private source will be used. If a private source is to be used the information below should be included. Whilst we regulate water abstractions under The Water Environment (Controlled Activities) (Scotland) Regulations 2011, we require the following information to determine if the abstraction is feasible in this location;

- Source e.g. ground water or surface water;
- Location e.g. grid ref and description of site;
- Volume e.g. quantity of water to be extracted;
- Timing of abstraction e.g. will there be a continuous abstraction;
- Nature of abstraction e.g. sump or impoundment;
- Proposed operating regime e.g. details of abstraction limits and hands off flow;
- Survey of existing water environment including any existing water features;
- Impacts of the proposed abstraction upon the surrounding water environment.

If other development projects are present or proposed within the same water catchment then we advise that the applicant considers whether the cumulative impact upon the water environment needs to be assessed. The ES or planning submission should also contain a justification for the approach taken.

Space for waste management provision within site layout

In accordance with Scottish Planning Policy and Policy R3 – New Waste Management Facilities in the Aberdeen City Local Plan, space for collection, segregation, storage and possibly treatment of waste (e.g. individual and/or communal bin stores, composting facilities, and waste treatment

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facilities) should be allocated within the planning application site layout. Please consult with your local council's waste management team to determine what space requirements are required within the application site layout. Some local authorities have an information sheet setting out space requirements.

Borrow pits

Detailed investigations in relation to the need for and impact of such facilities should be contained in the ES or planning submission. Where borrow pits are proposed, information should be provided regarding their location, size and nature. In particular, details of the proposed depth of the excavation compared to the actual topography and water table should be submitted. In addition details of the proposed restoration profile, proposed drainage and settlement traps, turf and overburden removal and storage for reinstatement should be submitted.

The impact of such facilities (including dust, blasting and impact on water) should be appraised as part of the overall impact of the scheme. Information should cover, in relation to water; at least the information set out in [Planning Advice Note PAN 50 Controlling the Environmental Effects of Surface Mineral Workings](#) (Paragraph 53). In relation to groundwater, information (Paragraph 52 of PAN 50) only needs to be provided where there is an abstraction or groundwater dependent terrestrial ecosystem within 250 m of the borrow pit. Additional information on groundwater is provided above.

Air quality

The local authority is the responsible authority for local air quality management under the Environment Act 1995, and therefore we recommend that Environmental Health within the local authority be consulted.

They can advise on the need for this development proposal to be assessed alongside other developments that could contribute to an increase in road traffic. They can also advise on potential impacts such as exacerbation of local air pollution, noise and nuisance issues and cumulative impacts of all development in the local area. Further guidance regarding these issues is provided in NSCA guidance (2006) entitled [Development Control: Planning for Air Quality](#).

Regulatory advice for the applicant

Details of regulatory requirements and good practice advice for the applicant can be found on our website at www.sepa.org.uk/planning.aspx. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in your local SEPA office at:

Inverdee House, Baxter Street, Torry, Aberdeen, AB11 9QA; tel: 01224 266600

If you have any queries relating to this letter, please contact me by telephone on 01224 266655 or e-mail at planning.aberdeen@sepa.org.uk

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Yours sincerely

Rebecca Raine
Senior Planning Officer
Planning Service

Copy to: Turnberry Planning LTD at info@turnberryuk.com

Disclaimer

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From: Raine, Rebecca on behalf of Planning Aberdeen

Sent: 04 January 2013 09:25

To: 'Janet Benton'

Subject: FW: Informal SEPA response to Grandhome development - Phasing and Flood Risk.

Hi Janet,

I hope you enjoyed Christmas and the New Year. As promised, I have now consulted our flood risk hydrologist with regards to your phased approach to assessing flood risk. In short we would not object to you undertaking the flood risk assessment as part of phase 2, as there are no watercourses within phase 1. Please note the following advice:

There is limited information available for the proposals at this time, but so far as we can determine from the Draft Final Phasing Plan drawing, dated 4th December 2012, we would have **no objection** to an application for the area marked as PH-1 (presumed phase 1) on that drawing.

There is a small watercourse which is straightened channel accommodating field drainage at the western edge of the development area marked PH-1 but from the information available to us it seems that channel flows away from the development area. There are no other watercourses in the area of the development site that we would have any concerns about as a source of flooding.

The other main issue regarding the site would be drainage. There is existing built up areas on 3 sides of the development site, including downstream (or downslope). Inadequate drainage design on the site has the potential to increase flood risk as a result. Water quantity aspects of surface water drainage are generally a matter for the Local Authority to consider and so we would advise that they should be satisfied that the drainage measures proposed are satisfactory to ensure that there will be a neutral or better effect on the risk of flooding both on and off the site.

We would highlight that we have considered Phase 1 independently for the purposes of this advice. It is generally best to carry out any flood risk assessment work required for the wider site at the earliest possible stage to ensure any problems or design requirements can be incorporated from the outset. Changes or alterations part way through the development phasing can be costly, difficult and can jeopardise the viability of parts of the wider plan.

I trust the above information will be of use to you, however if you have any queries with regards to the content of this email, please do not hesitate to contact me on the number below.

Kind regards,
Rebecca Raine

Rebecca Raine BA (Hons) MSc MRTPI

Senior Planning Officer

Planning Service, SEPA, Inverdee House, Baxter Street, Torry, Aberdeen, AB11 9QA

Direct line: 01224 266655 email:rebecca.raine@sepa.org.uk

Please note my usual office hours are Tuesday to Friday.

Disclaimer

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information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. If you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found in [How and when to consult SEPA](#), and on flood risk specifically in the [SEPA-Planning Authority Protocol](#).

From: Raine, Rebecca **On Behalf Of** Planning Aberdeen
Sent: 07 December 2012 12:54
To: 'Janet Benton'
Subject: Informal SEPA response to Grandhome development - Drainage Proposals.

Hi Janet,

Many thanks for sending the photographs and maps through; they were most helpful in my discussion with my operations colleague yesterday. In short, we have no major concerns with the direction you are going in at this time. Obviously, the sooner we can see the draft drainage strategy, the sooner we will be able to make a full assessment of the SUDS proposals.

Drainage Channels:

In terms of the drainage channels, there are no major issues. We would expect historical survey work to be undertaken to ascertain the source of the drainage channels, and to establish it's origin. We support your approach to incorporate the drainage channels into the design of the development ensuring that the ecological contribution is maintained.

Our main concern is pollution and stagnation of the SUDS once in place, therefore the SUDS treatment train should be followed which uses a logical sequence of SUDS facilities in series allowing run-off to pass through several different SUDS before reaching the receiving water body. Well designed this can form part of a wider green network, contribute to the amenity of the site and promote biodiversity. Further guidance on the design of SUDS systems and appropriate levels of treatment can be found in CIRIA's C697 manual entitled The SUDS Manual. Advice can also be found in the SEPA Guidance Note Planning advice on sustainable drainage systems (SUDS). Please refer to the SUDS section of our website for details of regulatory requirements for surface water and SUDS.

Comments from Scottish Water should be sought where the SUDS proposals would be adopted by them. We encourage the design of SUDS to Sewers for Scotland Second Edition standards and the adoption of SUDS features by Scottish Water as we are of the view that this leads to best standards and maintenance.

Quarry:

In terms of the quarry we need to establish the source of the water. It should be noted that it may be used as a natural sink for drainage in the area. The quarry too should ensure that the necessary SUDS levels of treatment are in place (as outlined above).

Burns:

In terms of the burns on site, there appears to be no issues at this time. If you are planning to make changes to the course of the burns, my operations colleague; Willie Moore should be contacted directly. His contact number is 01224 266737 or willie.moore@sepa.org.uk

Other issues:

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I am currently consulting our flood risk hydrologist to ascertain whether your intention to undertake a Flood Risk Assessment (FRA) after the completion of phase 1 is acceptable or not. As today is my last day in the office I will respond on this point in the new year. I hope this is ok.

If there is any information you need before I respond in January on the flood risk issue above, please do not hesitate to email our generic email address: planning.aberdeen@sepa.org.uk and it will be picked up by one of my colleagues. I trust the above information will be of some use to you.

Kind regards,
Rebecca Raine

Rebecca Raine BA (Hons) MSc MRTPI

Senior Planning Officer

Planning Service, SEPA, Inverdee House, Baxter Street, Torry, Aberdeen, AB11 9QA

Direct line: 01224 266655 email: rebecca.raine@sepa.org.uk

Please note my usual office hours are Tuesday to Friday.

From: Janet Benton [mailto:mail@janetbenton.com]
Sent: 06 December 2012 10:33
To: Planning Aberdeen
Subject: Fwrd to log: Link to PCS/122813 Thanks RR. 06/12/12 FAO Rebecca Raine

Rebecca

Please find attached two pdfs that should give you some idea what existing water we have on the Grandhome site and how they are incorporated. The drawings are an analysis sheet showing existing conditions plus the concept plan showing the water courses retained as part of our proposals. I also attach a couple of photos of key features which may help.

Just to reiterate:

Burns

We plan to integrate the 2 burns we have on the west-facing slopes, as they are, within informal public green spaces.

Quarry

The quarry will lie within a major public green space and will need work to make it safe. We are currently having technical work done to assess the options for this. We'd welcome any observations you might have.

Drainage channels

Thirdly, the linear agricultural drainage ditches south of the quarry are also integrated within the development, and are used as features within a residential area. The photo attached shows one of the ditches pretty full of water but we are told they are often dry too. We are totally committed to retaining them, but my question was whether we could potentially *improve* them - by reprofiling the rather rigid cross section say - to increase their ecological contribution, improve safety and/or add to their visual appeal.

Thanks Rebecca. We appreciate your input.

Best regards

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Janet

Janet J Benton
JB_LA+UD

T 0141 959 2599
M 07960 156 353

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Our ref: PCS/124558
Your ref: P121353

Chris Pattison
Turnberry Planning Ltd
41 - 43 Maddox Street
London
W1S 2PD

If telephoning ask for:
Rebecca Raine

4 February 2013

By email only to: info@turnberry.co.uk

Dear Mr Pattison

Town and Country Planning (Scotland) Acts
Planning application: P121353
Proposed urban extension at Grandhome – Draft Development Framework update
Grandhome, Aberdeen

Thank you for your consultation letter of 18 January 2013 which SEPA received on 22 January 2013, specifically providing us with an update of the exhibition and presentation which took place on 29 October 2012, and enclosing a copy of the draft Grandhome Development Framework which was submitted to the City Council on 7 January for comments

We have **no objection** to the proposed development framework on flood risk grounds. Notwithstanding this we would expect Aberdeen City Council to undertake their responsibilities as the Flood Prevention Authority.

Advice for the applicant

Flood risk

We have reviewed the Development Framework and generally welcome the approach taken to watercourses and flooding therein. We note the proposal to avoid development in areas close to the River Don which may be at risk of flooding and the provision of greenspace and bufferzones adjacent to small watercourses.

There is a small watercourse which is straightened channel accommodating field drainage at the western edge of the development area marked PH-1 but from the information available to us it seems that channel flows away from the development area. There are no other watercourses in the area of the development site that we would have any concerns about as a source of flooding. We have no other concerns regarding flood risk for Phase 1 and as such would not

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have any objection if formally consulted on a planning application for that area of development.

The other main issue regarding the site would be drainage. There is existing built up areas on 3 sides of the development site, including downstream (or downslope). Inadequate drainage design on the site has the potential to increase flood risk as a result. Water quantity aspects of surface water drainage are generally a matter for the Local Authority to consider and so we would advise that they should be satisfied that the drainage measures proposed are satisfactory to ensure that there will be a neutral or better effect on the risk of flooding both on and off the site.

It is noted that some areas of poor drainage have been identified, in particular within a low-lying area to the south of Manganese Quarry. We hold indicative pluvial flood mapping which was developed for the purposes of carrying out the National Flood Risk Assessment for Scotland. These maps also highlight that pluvial flooding and drainage issues may be a concern in that area. The area is immediately to the west of Phase 1 in the vicinity of a proposed school, playing fields and village centre development. This is an area where we recommend further consideration of pluvial flooding be made and careful drainage assessment and design would be required to ensure that no new development is at risk of flooding from any source, and that the surface water drainage measures have a neutral or better effect on the risk of flooding both on and off the site.

Other issues

It is advised that the response made by SEPA to the council on 16 October 2012 is reviewed for detailed advice on other issues (our reference: PCS122813). If you require a copy of this response, please contact me on the number below.

Caveats and additional information for the applicant

Flood risk

Please note that we are reliant on the accuracy and completeness of any information supplied by the applicant in undertaking our review, and can take no responsibility for incorrect data or interpretation made by the authors.

The advice contained in this letter is supplied to you by SEPA in terms of Section 72 (1) of the Flood Risk Management (Scotland) Act 2009 on the basis of information held by SEPA as at the date hereof. It is intended as advice solely to Aberdeen City Council as Planning Authority in terms of the said Section 72 (1). Our briefing note entitled: 'Flood Risk Management (Scotland) Act 2009: Flood risk advice to planning authorities' outlines the transitional changes to the basis of our advice inline with the phases of this legislation and can be downloaded from http://www.sepa.org.uk/planning/flood_risk.aspx. Our briefing note entitled: "*Flood Risk Management (Scotland) Act 2009: Flood risk advice to planning authorities*" outlines the transitional changes to the basis of our advice inline with the phases of this legislation and can be downloaded from www.sepa.org.uk/planning/flood_risk.aspx.

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Regulatory advice for the applicant

Regulatory requirements

Details of regulatory requirements and good practice advice for the applicant can be found on our website at www.sepa.org.uk/planning.aspx. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in your local SEPA office at:

Inverdee House, Baxter Street, Torry, Aberdeen, AB11 9QA; tel: 01224 266600

If you have any queries relating to this letter, please contact me by telephone on 01224 266655 or e-mail at planning.aberdeen@sepa.org.uk

Yours sincerely

Rebecca Raine
Senior Planning Officer
Planning Service

Ecopy to: Lucy Greene at Aberdeen City Council: lgreene@aberdeencity.gov.uk

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Our ref: PCS/125706
Your ref: P121353

Laura Robertson
Aberdeen City Council
Planning & Sustainable Development
Business Hub 4, Marischal College
Broad Street
Aberdeen

If telephoning ask for:
Rebecca Raine

By email only to: LaRobertson@aberdeencity.gov.uk

15 April 2013

Dear Ms Robertson

Town and Country Planning (Scotland) Acts

Planning application: P121353

Proposed urban extension at Grandhome (The site is identified as an Opportunity Site (OP12) in the Aberdeen City Local Development Plan - Statutory Consultation from Aberdeen City Grandhome, Aberdeen

Thank you for your consultation email which SEPA received on 22 March 2013, specifically seeking comments on the Grandhome Development Framework.

Please note that at this time we have **no additional comments** to make over and above those already made to date. We have previously sent responses to Lucy Green on 16 October 2012 (our ref: PCS/122813) and 4 February 2013 (our ref: PCS/124558). In addition we have also provided direct advice with regards to drainage and flood risk to the applicant (our ref: PCS/123870 and PCS/123881).

If you require a copy of any of these responses for your records, please do not hesitate to contact me on 01224 266655 or e-mail at planning.aberdeen@sepa.org.uk

Yours sincerely

Rebecca Raine
Senior Planning officer
Planning Service

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