

PLANNING CONSULTATION

Authority: Cairngorms National Park Authority, Albert Memorial Hall, Station Square, Ballater AB35 5QB

Case Officer: Mary Grier **Planning Ref:** 07/144/CP & 07/145/CP
(07/00093/OUTBS & 07/00094/OUTBS)

Proposed Development: Outline application for development of 20 houses on land north west and south of former steadings, Dalfaber Farm, Dalfaber, Aviemore and
Outline application for development of 104 houses on land north west and south of former steadings, Dalfaber Farm, Dalfaber, Aviemore

SEPA Ref: P7/07/144/CP and P7/07145/CP **Date:** 18 September 2008

SEPA Contact: Zoe Griffin (Planning Unit - North Region)
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Copy to: Reidhaven Estates, Seafield Estate Office, Cullen, Buckie, (applicant) Banffshire. AB56 4UW

TOWN & COUNTRY PLANNING (SCOTLAND) ACT 1997
TOWN & COUNTRY PLANNING (GENERAL DEVELOPMENT PROCEDURE)
(SCOTLAND) ORDER 1992
ENVIRONMENT ACT 1995, SECTION 25(2)

Thank you for consulting SEPA on the above planning applications. SEPA comments as follows. Please note that all these comments apply to both applications. These comments are without prejudice to SEPA's consideration of any elements controlled through environmental regulation administered by SEPA.

ADVICE FOR THE PLANNING AUTHORITY

1. **Flood Risk**
Summary
- 2.1 Following the precautionary approach SEPA continues to **object to development on this site** on the grounds of lack of information relative to flood risk.
- 2.2 In the event that the planning authority proposes to grant planning permission contrary to this advice on flood risk the application must be notified to the Scottish Ministers as per the Notification of Applications Direction 2007.
- Technical Report
- 2.3 In response to SEPA's consultation of April 2008 Waterman Civils Ltd has provided a revised Flood Risk Assessment report (dated 7th of July 2008, Ref. 37119 Final Rev. B). At the time of SEPA's previous consultation clarification was requested on:
 - a) The effect of the development on groundwater found within "kettle-hole" depressions across the northern area of the site.
 - b) Concern that the cross sections had been based solely on LiDAR.
 - c) Detail in terms of Manning's 'n' used, in addition to model assumptions and parameters.

- d) Audit trail in terms of peak flow estimation and clarification of the location of this flow estimation.
 - e) Details of the hydrograph derivation.
 - f) A plan showing legible site levels, proposed layout and flood extent.
 - g) Historical flooding – no attempt to calibrate the model to historical levels in the area.
- 3.4 In terms of the groundwater found in the kettle hole, the revised FRA states that *“there is a low risk of groundwater flooding for the majority of the site. However, for the Northern part of the site there is considered to be a medium risk of flooding in the development unless land drainage is installed or ground levels are raised appropriately to cater for seasonal fluctuations in groundwater levels.”*
- 3.5 The report states that the cross sections are based on LIDAR of 5m resolution. For a study of this nature SEPA would question the reliance solely on a grid of this accuracy to determine flood risk to a residential development. **Details of a comparison of the topographic survey (of the site) and LIDAR ground levels should be provided.**
- 3.6 The watercourse has not been surveyed (as suspected on review of previous FRA). SEPA would expect that for a development of this size and extent, topographic survey should include the channel itself (these cross sections would be expected to extend across the floodplain). **SEPA therefore request that the channel is surveyed appropriately or clarification provided that the cross sections used are representative of the present channel and floodplain morphology.**
- 3.7 The steady state 200 year plus climate change flood extent shown in Figure 10.5-A is significantly smaller than that of the unsteady state 200 year plus climate change flood extent shown in Figure 10.5-B. The assessment of this is not assisted by the differing scales and dimensional views between each figure. Due to the conservative nature of the steady state hydraulic analysis the resulting outline would be expected to be slightly larger than the unsteady outline. SEPA would also question the need to use an unsteady model; **SEPA would request that both the tabulated steady and unsteady results are provided.**
- 3.8 The final 200 year return period flow plus climate change is 814 m³/s. Details of the complete pooling group have not been given, although the report states that three sites on the Spey have been used, namely Kinrara, Boat of Garten and Invertrium. The essence of developing a pooling group is so that data from hydrological similar catchments is pooled from across the country, therefore it is not recommended to include 3 gauges on the same catchment within a pooling group as these are likely to have been subject to the same flood events. SEPA would like the applicant to note that the FEH suggests that a site which is on the same watercourse as one already in the pooling group and which has an overlapping period of record can be seen as an unprofitable member of the pooling group and could be a candidate for removal from the pooling group.
- 3.9 As mentioned in SEPA previous consultation the model has been run in unsteady state, but there are no details of the derivation of the hydrograph, but it would appear to be based on an FEH rainfall runoff analysis for the catchment and using a storm duration of 11 hours. This is a gauged catchment and therefore SEPA would expect this analysis to be based on hydrograph synthesis from gauged data and analysis documented.

- 3.10 In SEPA's previous consultation concerns were raised with regards to the FRA's lack of consideration of the issues of historical flooding potentially experienced by the site and that there had been no attempt made to calibrate the model to historical levels in the area. SEPA have previously documented the eastern section of the site lies within an area covered by an indicative map of the 1829 flood on the River Spey developed by SEPA (and based on the information within Sir Thomas Dick Lauder's book "*The Great Moray Floods of 1829*" (1998 edition).
- 3.7 Furthermore SEPA would wish to draw attention to information provided to SEPA by the Mr Bill Loban of the Dalfaber Action Group in terms of historic flooding to the site - "*The report of the Great Moray Floods gives details of the then tenant of Dalfaber Farm (at that time called Dalifaber) stating that he had a large copper kettle washed away from the farmhouse. Later on in the 1980's Mr William MacInnes the tenant of Dalfaber Farm is quoted as pointing out the highest water level in his lifetime which was on his doorstep. Mrs Alison Sharkey (nee MacInnes) the farmers daughter who has spent all of her life either in Dalfaber Farmhouse or the adjacent Heather Cottage states the she has seen over half of Zone D under water. Dalfaber Farm lies at the highest point of the application between cross sections 4 and 5 at the extreme eastern edge of Zone C. Zone D for example is considerably lower than the remainder of the surrounding area and Dalfaber farmhouse in particular.*"

Summary

- 3.8 In summary SEPA wish to receive clarification on the following points before it would consider removing its objection to the proposed development:
- Details of a comparison of the topographic survey (of the site) and LiDAR ground levels.
 - The channel is surveyed appropriately or clarification provided that the cross sections used are representative of the present channel and floodplain morphology.
 - That both the tabulated steady and unsteady results are provided.
 - This is a gauged catchment and therefore SEPA would expect this analysis to be based on hydrograph synthesis from gauged data and analysis documented.
 - Consideration of historical flood data.

Additional Information for Applicant & Caveats

- 3.9 The advice contained in this letter is supplied to you by SEPA in terms of Section 25 (2) of the Environment Act 1995 on the basis of information held by SEPA as at the date hereof. It is intended as advice solely to Cairngorm National Park as Planning Authority in terms of the said Section 25 (2).

4.0 SUDS

- 4.1 SEPA has received a DIA from Ramsay & Chalmers dated 4 July 2008. As SEPA has a policy of not accepting SUDS proposals within a flood plain, until the above issues are resolved SEPA shall withhold comment on the SUDS proposals.

PLANNING UNIT (NORTH REGION)

REGULATORY ADVICE FOR THE APPLICANT

Local SEPA Office:
Moray, Badenoch & Strathspey, North West Aberdeenshire - 28 Perimeter Road,
Pinefield, Elgin IV30 6AF Tel:01343 547663

The Water Environment (Controlled Activities) (Scotland) Regulations 2005 (as amended) (CAR)

Surface Water Drainage

As the risk of pollution from surface water drainage from small scale residential developments, or to non-sensitive coastal waters, is lower, SEPA does not itself regulate through CAR such discharges provided a satisfactory scheme is proposed. Therefore, if you ensure compliance with General Binding Rules (GBRs) 10 and 11 of these regulations, for both the construction phase and the final surface water scheme, then you are not required to contact SEPA for authorisation. The GBRs can be found on pages 12 and 13 of the CAR Practical Guide – available at www.sepa.org.uk/pdf/wfd/regimes/car_practical_guide.pdf or in the local SEPA office.

SEPA has produced a leaflet as a useful Dos and Don'ts guide on SuDS (Sustainable urban Drainage Systems), with further explanation on the legal requirements. This is available from SEPA's website at www.sepa.org.uk/pdf/publications/wfd/suds_leaflet.pdf or from your local SEPA office.

Technical guidance on SuDS techniques and good practice is available within The SuDS Manual (C697) published by Construction Industry Research and Information Association (CIRIA). This new publication can be downloaded from CIRIA's website at www.ciria.org/downloads.htm

Flooding

The Indicative River & Coastal Flood Map (Scotland) has 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 cross-sections and low-lying coastal land. The outlines do not account for flooding arising from sources such as surface water runoff, surcharged culverts or drainage systems. The methodology was not designed to quantify the impacts of factors such as flood alleviation measures, buildings and transport infrastructure on flood conveyance & storage. The Indicative River & Coastal Flood Map (Scotland) is designed to be used as a national strategic assessment of flood risk to support planning policy in Scotland. For further information please visit www.sepa.org.uk/flooding/mapping.

Please refer to Annex B of SEPA Policy 41 (a copy can be downloaded from www.sepa.org.uk/pdf/policies/41.pdf) which provides guidance on generic requirements for undertaking a flood risk assessment. In addition, an updated set of guidance (entitled 'Technical Flood Risk Guidance for Stakeholders') has recently been completed and can be downloaded from http://www.sepa.org.uk/pdf/flooding/planning_flooding.pdf Please note that these two documents should be read in conjunction with each other.