Dear Mrs Burkey

MIXED USE URBAN EXTENSION COMPRISING RESIDENTIAL, LOCAL CENTRE, PRIMARY SCHOOL, PUBLIC OPEN SPACE INCLUDING RIVERSDIE PARK & ALLOTMENTS, LANDSCAPING, 4 VEHICULAR ACCESSES, SITE ROADS AND ASSOCIATED INFRASTRUCTURE - ROWDEN PARK, PATTERDOWN, CHIPPENHAM, WILTS

Thank you for consulting the Environment Agency on the above planning application.

We have no objection to the proposed development subject to the following conditions and informatives being included in any planning permission granted.

Flood Risk
We have reviewed the Flood Risk Assessment (Peter Brett Associates LLP dated December 2014, Final) and we consider it generally to be consistent with the principles set out under the current planning guidance.

Set out below are our requirements in terms of planning conditions and our expectations over their discharge, and additional informatives.

Finished Floor Levels

CONDITION
No development shall commence until scheme to demonstrate that all finished floor levels are set at least 300mm above the typical adjacent modelled 1 in 100 annual probability flood level including 30% allowance for climate change has been submitted to and agreed in writing by the local planning authority. Thereafter the development shall be carried out in accordance with the approved scheme and any subsequent amendments shall be agreed in writing with the local planning authority.
REASON
To reduce the impact of flooding on the proposed development and future occupants.

_Floodplain Compensation_

CONDITION
No development shall commence until scheme to ensure adequate floodplain compensation provision has been submitted to and agreed in writing by the local planning authority. The construction of the part of the northern access road which encroaches into Flood Zone 3 must not commence until the floodplain compensation scheme has been completed. The development shall be carried out in accordance with the approved scheme and any subsequent amendments shall be agreed in writing with the local planning authority.

REASON
To minimise the impact of the development on the flood plain.

_Surface Water Management_

It should be noted that we do not technically 'check' surface water drainage calculations, so only an overview/broad review has been carried out. We assume that the results presented within the FRA have been checked using your appropriate quality assurance checks.

CONDITION
No development shall commence until a surface water management scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development, has been submitted to and approved in writing by the local planning authority. The submitted details shall clarify the intended future ownership and maintenance provision for all drainage works serving the site. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed.

REASON
To prevent the increased risk of flooding, and ensure future maintenance of the surface water drainage system.

When discharging the above condition, we would expect to see the following details:

1. Whilst submitting technical details and design calculations may help illustrate that surface water management can be achieved, there also needs to be a supporting formal strategy report which explains the technical information presented and can be readily understood by the non-technical reader. If the development comes forward in discreet phases, each phase will need to be supported by 'phase specific' documents.

2. Adequate attenuation arrangements should be provided from the outset of development ensuring that no uncontrolled surface water is permitted from the site at any stage of development.

3. Any outflow from the site must be limited to existing greenfield run-off rates and volumes and discharged incrementally for all return periods up to and including the critical 1 in 100 year event.

4. Sufficient attenuation volume must be provided within the site to hold the surface water run-off from the developed site up to the critical 1 in a 100 event, including 30% allowance for climate change for the lifetime of the development.
Attenuation areas must not be situated in areas at risk from flooding (i.e. fluvial, surface water, ground water etc.). Drainage calculations must be included to demonstrate this (e.g. Windes or similar sewer modelling package calculations that include the necessary attenuation volume).

5. Exceedence flow occurs during short but very intense rain storms, or if system blockage occurs etc. The large volume of runoff generated from impermeable surfaces during such events may not all be captured by the drainage system and unless otherwise intercepted a proportion could flow uncontrolled onto land under other ownership or into a watercourse/floodplain. CIRIA good practice guide for designing for exceedance in urban drainage (C635) requires that the run-off from the site during the critical 1 in 100 year storm plus climate change allowance must not be permitted to flow uncontrolled from the site (unless alternative arrangements have been made) and must not reach unsafe depths on site. For surcharge / flooding from the system (which is indicated by the preliminary calculations within the FRA), overland flood flow routes and "collection" areas on site (e.g. car parks, landscaping) must be shown on a drawing.

6. Where infiltration forms part of the proposed storm water system such as infiltration trenches and soakaways, soakage test results and test locations are to be submitted in accordance with BRE digest 365.

7. The adoption and maintenance of the drainage system for the lifetime of the system must be addressed and clearly stated.

Additional Informatives

Under the terms of the Water Resources Act 1991 and the Land Drainage Byelaws, the prior written Flood Defence Consent of the Environment Agency is required for any proposed works or structures in, under, over or within 8 metres of the top of the bank of the Pudding Brook, Ladyfield Brook and Avon, all of which are designated as 'main river'. The need for Flood Defence Consent is over and above the need for planning permission. To discuss the scope of our controls and to obtain an application form please contact Daniel Griffin on 01258 483421.

Under the terms of the Land Drainage Act, the prior written consent of the Lead Local Flood Authority (Wilt County Council) is required for works that could affect the flow of ordinary watercourses.

The failure to maintain surface water management schemes could result in increased flood risk to the development and elsewhere. Maintenance of the drainage infrastructure on site must be set out within a comprehensive legal agreement and any commuted sums required agreed within the outline permission. An as-built volume check of the drainage infrastructure must be undertaken once constructed because it is critical that the agreed attenuation volumes are provided for and maintained for the lifetime of the development.

There must be no interruption to the existing surface water and/or land drainage arrangements of the surrounding land as a result of the operations on the site. Provisions must be made to ensure that all existing drainage systems continue to operate effectively. This would apply, for example, to the existing overland flow paths shown on the Flood Map for Surface Water.

Construction Environmental Management Plan (CEMP)
CONDITION
No development approved by this permission shall be commenced until a Construction Environmental Management Plan, incorporating pollution prevention measures, has been submitted to and approved by the Local Planning Authority. The plan shall subsequently be implemented in accordance with the approved details and agreed timetable.

REASON
To prevent pollution of the water environment

INFORMATIVE
Safeguards should be implemented during the construction phase to minimise the risks of pollution from the development. Such safeguards should cover:
- the use of plant and machinery
- oils/chemicals and materials
- wheel washing and waste water disposal
- the use and routing of heavy plant and vehicles
- the location and form of work and storage areas and compounds
- the control and removal of spoil and wastes.
The applicant should refer to the Environment Agency’s Pollution Prevention Guidelines at:

Water Efficiency and Climate Change
The incorporation of water efficiency measures into this scheme will provide resilience to some of the extremes of weather conditions that climate change brings. It benefits future residents by reducing water bills, and also benefits wider society by allowing more water to go round in times of shortage. The following condition has been supported in principle by the Planning Inspectorate.

CONDITION
No development approved by this permission shall commence until a scheme for water efficiency has been submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the agreed details.

REASON
In the interests of sustainable development and climate change adaptation.

INFORMATIVE
The development should include water efficient systems and fittings. These should include dual-flush toilets, water butts, water-saving taps, showers and baths, and appliances with the highest water efficiency rating (as a minimum). Greywater recycling and rainwater harvesting should be considered.
An appropriate submitted scheme to discharge the condition will include a water usage calculator showing how the development will not exceed a total (internal and external) usage level of 105 litres per person per day.

NOTE TO LPA
By ensuring that any scheme submitted meets the standards given above you do not need to consult the Environment Agency on discharging the above condition.

Please send us a copy of the decision notice issued for this application for our records.
Please contact us if you have any queries.

Yours sincerely

Ms Ellie Challans  
Sustainable Places - Planning Advisor

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cc Mr Desmond Dunlop - D2 Planning Limited