

## Emer Bog and Baddesley Common Hydrology Study Guidance Note

August 2017

### *Introduction*

Emer Bog and Baddesley Common are designated as a site of national and international nature conservation importance<sup>1</sup>, in part due to the bog/mire habitat present. The Council has worked with Hampshire & Isle of Wight Wildlife Trust and Natural England on commissioning a hydrological study to help understand what factors could affect the hydrology of this site. These organisations have also collectively prepared this guidance note, which is based on the outcomes of the study. This note only covers hydrology; however, other potential effects on this site may need to be taken into account.

A number of studies<sup>2</sup> have been undertaken regarding the hydrology of Emer Bog and its surrounds. These have clarified the zone in which development can affect the hydrology of the site via changes<sup>3</sup> to the surface water or ground water.

The outcome of the most recent hydrological study (2017) shows the extent of the catchment areas of Emer Bog and Baddesley Common. The Critical Catchment is where changes to both surface and ground water may adversely affect Emer Bog and Baddesley Common. A Wider Catchment is also identified where surface water changes are unlikely to affect the protected sites but there is potential for changes to ground water to affect the sites (see Figure 1 of this note).

### *Relevance to Planning Proposals*

Policy E5 within the adopted [Local Plan](#) provides the starting point for considering biodiversity in relation to planning proposals. Policy E5 sets out that development that is likely to result in a significant effect, either alone or in combination, on an international or European nature conservation designation will need to satisfy the requirements of the Habitats Regulations<sup>4</sup>.

Guided by the study, the Council considers that any future development within the catchments would need to provide the following:

- Critical catchment

Any proposals for development within the critical catchment would need an assessment to demonstrate that any changes to surface and/or groundwater would not adversely affect the site's hydrology. This could be through the detailed assessment of water flows and water chemistry. Any assessment would be proportionate to the scale and nature of the proposal.

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<sup>1</sup> Designated as a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC).

<sup>2</sup> Available: <http://www.testvalley.gov.uk/planning-and-building/planningpolicy/local-development-framework/evidence-base/evidence-base-environment>

<sup>3</sup> Including quality, quantity and flow / discharge rates.

<sup>4</sup> Conservation of Habitats and Species Regulations 2010 (as amended).

- Wider catchment

Depending on the nature and scale of the development this may need to be supported by a detailed assessment to demonstrate that any changes to groundwater would not adversely affect the site's hydrology.

Where a scheme is linked to an existing development (e.g. household extension) and continues to use the existing public drainage network it is unlikely that there would be a requirement for an assessment because this would be unlikely to affect the groundwater.

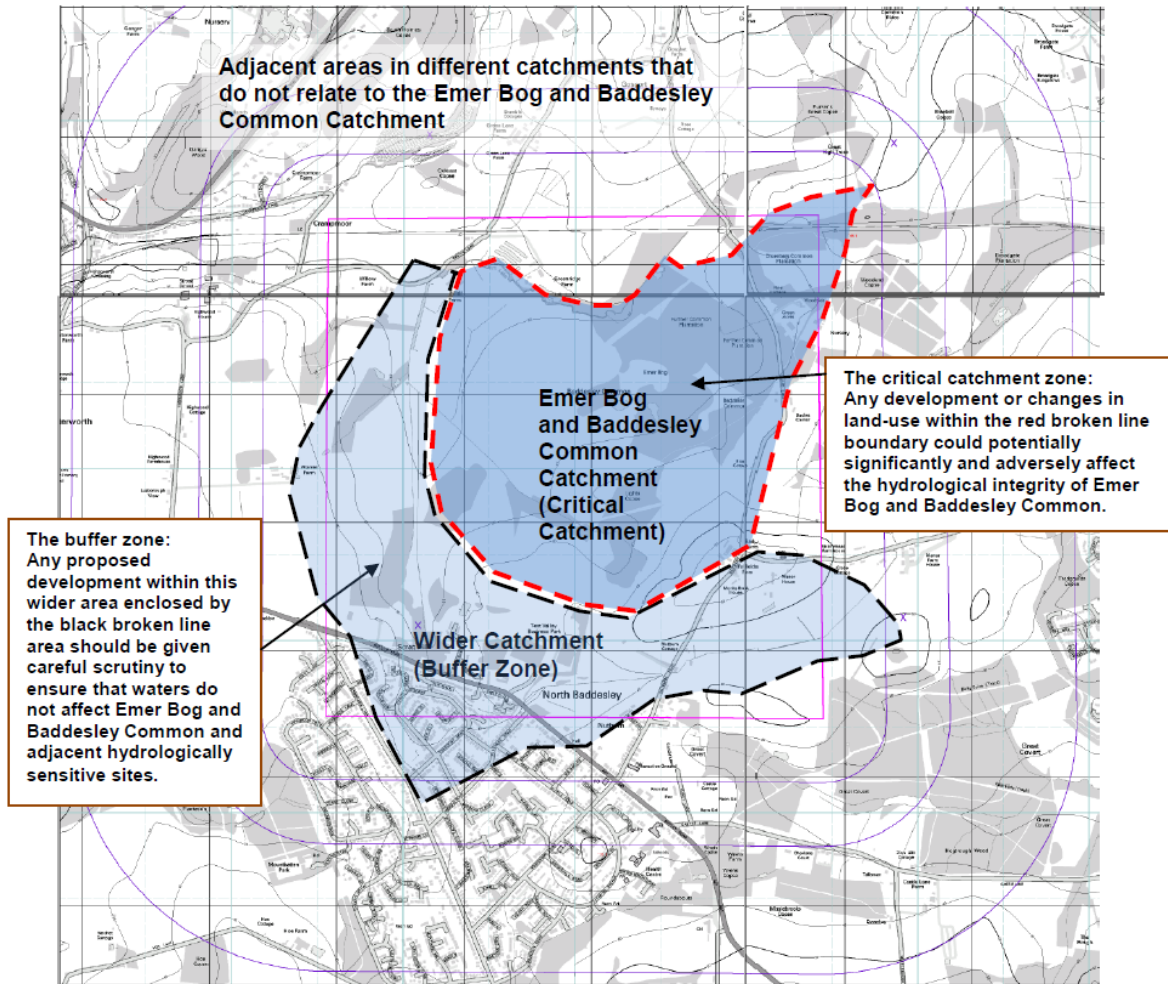
Any development that is in close vicinity to the boundaries of the Critical Catchment or Wider Catchment may still need to undertake an assessment to ensure that any changes would not adversely affect the site's hydrology.

Any development which could affect the site would need to have regard to the detailed conclusions of the Hydrological Desk Study (2017).

#### *Relevance to Other Land Use / Land Management Changes*

Within the Critical and Wider Catchments, other activities may negatively impact the hydrology and nutrient levels of Emer Bog and Baddesley Common. Land management / use that could affect these parameters include agriculture, forestry, drainage schemes and other activities which may not require planning permission. Within the Critical and Wider Catchments, relevant parties / organisations should therefore promote initiatives and schemes to protect and enhance water quality and natural hydrological function. Landowners should deploy sensitive land management practices where feasible.

**Figure 1: Simplified drawing of the relevant hydrological catchments for Emer Bog and Baddesley Common**



Taken from Summary Drawing A of the Emer Bog and Baddesley Common Hydrological Desk Study (Ron Allen, 2017)