

Briefing for Sir Oliver Heald, MP for North East Hertfordshire

River Ivel at Baldock

Purpose of this briefing

We are writing in response to your local constituent concerns regarding river quality and lack of flow in the River Ivel at Baldock.

Background

The River Ivel rises as springs from the Chalk aquifer situated in the Ivel Springs Local Nature Reserve in Baldock. The nature reserve was established in 2007. (See map 1) The springs arise where a hard band layer in the Chalk aquifer called the Melbourn Rock comes to the ground surface. The groundwater table in the Chalk aquifer naturally drains to this layer and the springs occur. The quantity of spring flow is dependent on the groundwater level in the Chalk aquifer which is a consequence of rainfall and general climatic conditions. Abstractions from boreholes into the Chalk aquifer do take water that would otherwise flow as springs. The impact of drought conditions is the most significant consequence, in particular the lack of rainfall during the winters. This causes the groundwater table to be lower and means there is less water draining from the aquifer as springs. Drought conditions were experienced in 1990 to 1992, 1996 to 1997, 2006, and 2011 to early 2012.

Affinity Water operates boreholes drilled into the Chalk aquifer to supply Baldock with drinking water. They carry this out under water abstraction licences issued by the Environment Agency. These licences state the amount of water that Affinity Water is allowed to take and for what purpose. The water comes from the Chalk aquifer and would otherwise flow towards the River Ivel. When these licences were originally issued the impact of the abstractions on the river were appropriately assessed.

Chalk Rivers are rare features and are included in the Hertfordshire Environmental Forum (HEF) Biodiversity Action Plan. This document can be found on their website:

http://www.hef.org.uk/nature/biodiversity_vision/

The river also receives water from rainfall as runoff from adjacent land, local roads and other hard/surfaced areas and discharges via a surface water drain next to the Anglian Water's sewage pumping station. As with all built up areas, this 'urban runoff' can introduce pollutants and silt to the receiving watercourse and are always at risk from receiving accidental or intentional pollutant spills. We encourage members of the public to report any sightings of river pollution to our Incident Hotline 0800 807060 so that we can investigate. We welcome active promotion of this service.

What we are doing

Water Quality

Water quality in the headwaters of the River Ivel is monitored at the A507 road bridge in Stotfold, approximately 1.5 km downstream of Baldock. A map is attached showing the extent of the waterbody (Ivel upstream Henlow – GB105033037720) and the sample point location (referenced on map 14M01). All river chemistry assessments classify the river as being at either Good or High status (see attached classification data for 2009 and 2013). As such, no specific water quality improvement measures are currently proposed.

Our monitoring programme is set up in order to assess and report the overall status of an entire waterbody area under our EU Water Framework Directive obligation. We don't regularly monitor the River Ivel in the Baldock area; any investigations and monitoring would be in response to a specific incident.

There are two permitted discharges in the vicinity of Baldock, and both of these are the responsibility of Anglian Water Services:

- A discharge to the River Ivel from a surface water sewer that “shall consist solely of surface water uncontaminated by domestic sewage or trade waste”; and
- A discharge “onto land” from Baldock Pumping Station that “shall consist solely of screened settled storm sewage and/or screened settled sewage in an emergency”.

We were informed by Anglian Water of two incidents at the sewage pumping station in February and March 2014. They both involved pump failures due to blockage; one was classified as a Category 3 incident (limited and localised impact on water quality) and the other classified Category 4 (no impact). We understand that Anglian Water is considering some upgrade work at the pumping station.

River Flows

As a consequence of the Water Framework Directive, we undertook a review of river flows and whether the quantity of flow was significant for the biology of the river. Some rivers, including the River Ivel, have been identified for additional investigation and options appraisal. Affinity Water has obtained funds to include additional work concerning the River Ivel in its Asset Management Plan Period 6 programme (between 2015 and 2020) and we have already met to discuss the scope of this work.

If we decide to take away the abstraction rights from Affinity Water, in order to improve river flows, the company would need the time and funds to obtain replacement supplies for the local population. The cost is likely to be several million pounds. The Government may allow the solutions to be paid for by the Water Companies in a future period of Asset Management Planning and hence money will be obtained from higher water bills for their customers.

New Development

We are aware that North Hertfordshire District Council’s Housing Local Plan includes a proposed development of 3500 houses on farm land to the north east of Baldock and that a local action group, Save Rural Baldock, is actively lobbying the District Council about its concerns.

We have worked with North Hertfordshire District Council and water companies to develop a Water Cycle Strategy (WCS) for the District. The WCS provides evidence of the potential impact of planned growth and development on all aspects of the water cycle. It also identifies mitigation measures to be taken in order to protect the environment and prevent flooding as a result of future development. The WCS acts as an evidence base to inform policies in the District’s Local Plan. We have been working with the District Council to develop appropriate Local Plan policies, based on evidence, to ensure the local water environment is protected against potential harm from proposed development in the area.

Biodiversity

We are aware that North Hertfordshire District Council and Hertfordshire County Council Countryside Management Service consulted, in December 2014, on the draft Ivel Springs Greenspace Action Plan, 2015 – 2020. The draft plan includes information about, and actions to improve, the river and wetland habitats in the Ivel Springs Local Nature Reserve. Our Fisheries, Biodiversity and Geomorphology team have commented on the draft action plan and agree with the proposed management actions for the river and wetland biodiversity.

Draft Update River Basin Management Plan Consultation

We are currently consulting on the draft updated River Basin Management Plan (RBMP). The consultation opened in October 2014 and closes on 10 April 2015. This consultation gives everyone the chance to comment on shaping the water environment throughout England, to consider the issues, current and possible future action to protect and improve the water environment, and the outcomes that are worth achieving. We encourage people to respond to this consultation which can be accessed from this website: https://consult.environment-agency.gov.uk/portal/ho/wfd/draft_plans/consult?pointId=3034101

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incident hotline
0800 80 70 60

floodline
0345 988 1188
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Working with your constituents

The Upper and Bedford Ouse Catchment Partnership was established in 2013. The partnership is 'hosted' by Bedfordshire Rural Communities Charity (BRCC) which also leads on the catchment based approach in the Ivel Operational Catchment. BRCC have a long association with the Ivel Catchment and work with an extensive network of community groups and partners. During 2014 BRCC held several community and stakeholder engagement events about the catchment based approach in the Ivel catchment; these events were supported by our Environment Programme team. Some Baldock residents attended these and subsequent events, organised by ourselves, to promote the draft updated River Basin Management Plan (see link above). Some people expressed concerns about the potential adverse impact of large developments in North Hertfordshire in terms of drinking water supply, sewerage and sewage treatment infrastructure, increased impact of poor quality urban surface water runoff and less clean rain water infiltration back into the ground. In response we said that these matters would be dealt with through the Planning regime on which we are a statutory consultee (see section on new development above).

If you would like more information

If you would like further information on this matter please contact Caroline Douglass, Area Manager, on 01707 632 387 or Caroline.Douglass@environment-agency.gov.uk

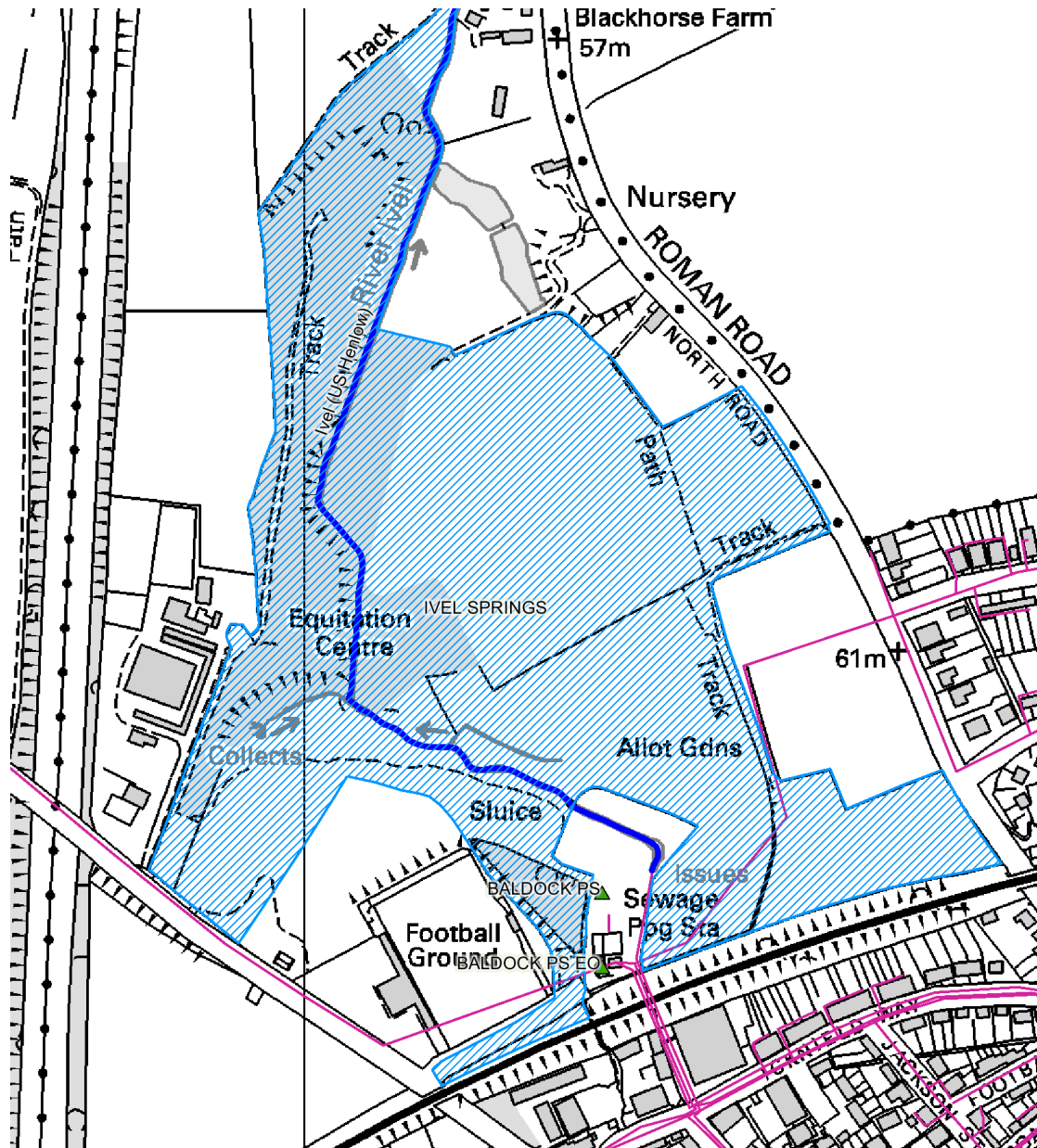
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Map 1 River Ivel at Baldock showing Ivel Spings Nature Reserve



Legend

 WIMS Active Discharge Consents

 Local Nature Reserves England

 Local Nature Reserves Wales

 WFD Cycle 2 River Waterbodies

 Anglian Sewer Network

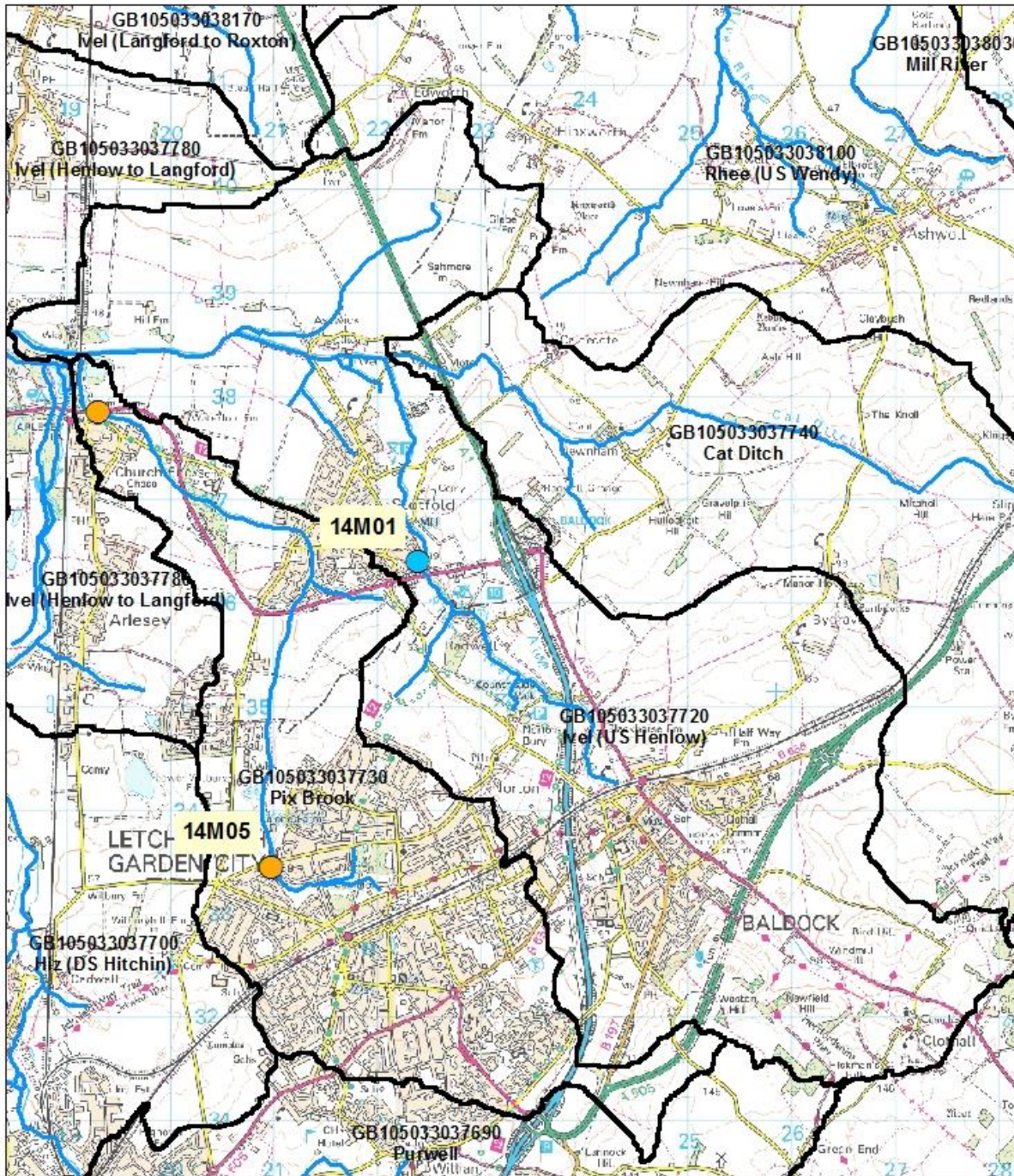
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Waterbody classification is assessed using samples collected at point '14M01' located at the A507 road bridge at Stotfold (see map, above):

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Extract from the [Catchment Data Explorer](#):

Level upstream Henlow – GB105033037720

Water body classification

Select year: 2009 Cycle 1 ▼

Select year: 2013 Cycle 2 ▼

	2009 Cycle 1	2013 Cycle 2	Objectives
Overall Water Body	Good	Good	(Cycle 2) good
▼ Ecological	Good	Good	(Cycle 2) good
▶ Specific pollutants	High	High	(Cycle 2) good
▶ Hydromorphological Supporting Elements	Not high	Not high	(Cycle 2) not high
▼ Physico-chemical quality elements	High	High	(Cycle 2) high
Phosphate	High	High	(Cycle 2) high
Ammonia (Phys-Chem)	High	High	(Cycle 2) high
Ammonium	-	-	-
pH Upper	-	-	-
Dissolved oxygen	High	High	(Cycle 2) high
Total Phosphorus	-	-	-
pH	High	High	(Cycle 2) high
Dissolved Inorganic Nitrogen	-	-	-
Temperature	High	High	(Cycle 2) high
Acid Neutralising Capacity	-	-	-
BOD	-	-	-
pH Lower	-	-	-
▼ Biological quality elements	Not assessed	High	(Cycle 2) high
▶ Fish	-	-	-
▶ Invertebrates	-	High	(Cycle 2) high
Phytobenthos	-	-	-
Phytoplankton blooms	-	-	-
Macrophytes	-	-	-
Chironomids (CPET)	-	-	-
▶ Macroalgae	-	-	-
littoral Invertebrates	-	-	-
▶ Angiosperms	-	-	-
▶ Macrophytes and Phytobenthos Combined	-	Not assessed	-
▶ Supporting elements (Surface Water)	Good	Not assessed	(Cycle 2) not assessed
▼ Chemical	Not assessed	Good	(Cycle 2) good
▶ Priority hazardous substances	Not assessed	Good	(Cycle 2) good
▶ Priority substances	Not assessed	Not assessed	(Cycle 2) not assessed
▶ Chemical (GW)	-	-	-
▶ Quantitative	-	-	-

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