

Colne Estuary Partnership
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Copied to ;
Colchester Borough Council; Tendring District Council; Wivenhoe Town Council;
East Mersea, Rowhedge, Fingringhoe & St Osyth Parish Councils;
Environment Agency; Rt Hon Bernard Jenkin MP; Rt Hon Bob Russell MP

Clive Harward (Head of WQ and EP)
Anglian Water Services Limited
Anglian House,
Ambury Road,
Huntingdon,
Cambridgeshire,
PE29 3NZ

Dear Sir,

We are writing on behalf of the Colne Estuary Partnership, an organisation that represents a diverse range of stakeholder interests related to the Colne estuary. The Partnership includes representatives from local government, parish councils, fishermen, recreation groups and other parties interested in the management of the estuary.

As I am sure you are aware, the Colne estuary is one of the most well protected areas in the UK, with designations as a Site of Special Scientific Interest (SSSI), a National Nature Reserve, a Special Protected Area (under the EU Birds Directive), a Special Area of Conservation (under the EU Habitats Directive), a RAMSAR wetland site, as well as consisting of numerous BAP habitats (including saltmarsh, mudflat, freshwater grazing marsh, sub-littoral gravel and sands). It is with these facts in mind that I write on behalf of all our stakeholders and the wider users of the estuary to make several enquiries related to the water quality of the estuary and the legislation which affects it.

Water Framework Directive

The Water Framework Directive sets a number of different objectives, including; the prevention of deterioration in status of water bodies; to achieve 'good' ecological and chemical status in water bodies by 2015; to comply with objectives and standards for protected areas; and to reduce pollution from priority substances and cease discharges, emissions and losses of priority hazardous substances.

Under the Water Framework Directive assessment undertaken by the Environment Agency (EA) the Colne is not predicted to reach a 'good' status until 2027 and the main reason for this failure is dissolved inorganic nitrogen (DIN) in the water. The EA document states that the justification for not meeting the targets is that action would be 'disproportionately expensive/ low or uncertain benefit'.

Data provided by the EA along with data from the University of Essex suggest that approximately half of this DIN is coming down the River Colne and half is coming from discharges from the Colchester STW. There are plans to increase the capacity of the smaller STW upstream of Colchester, but there is no mention in the WFD documents about any changes to the Colchester

works. With the Local Development Frameworks for Colchester having a target for 19,000 new homes by 2023, with 11,000 of these still to be built, (along with smaller scale development in Brightlingsea of 180 new homes), this suggests a significant increase in sewage treatment capacity will be required.

In light of these proposed developments, and as there is no mention of improvement in waste water treatment capacity in the LDF documents, we would like to enquire about the process of determining new discharge consents (i.e. above the current permitted level of 29,284 m³ d⁻¹ DWF). As future scenarios suggest there will likely be reductions in river flow, along with increased abstraction and a supply/demand deficit in the catchment (EA Anglian Region REPAC, June 2009), we would also like to enquire as to whether these factors are considered in to future management decisions and if there would be any consultation process. We would also like to enquire about the discharge licences granted to Anglian Water in relation to storm waters from the Colchester STW. We are specifically interested in the number of discharges permitted annually, the actual number and the volume of such discharges. We would also like to know the details of any monitoring of the effects of these events on the water quality of the Colne estuary, as well as their timing and frequency in relation to storm event discharges. Is such monitoring now undertaken by Anglian Water under the Operator Self Monitoring (OSM) programme and is the resulting data publicly available?

Faecal contamination

Large numbers of people use the estuary for recreational activity that often involve being in the water, such as boating, sailing, kayaking and even swimming, in fact several of our members have pointed out that children are often seen each day in the summer swimming from the quay at Rowhedge. If tested under the Bathing Water Directive criteria, University of Essex studies (Miller, 2008) indicate that Rowhedge and Wivenhoe would likely fail, but as these were not designated bathing areas, the water was not tested under this legislation. (We do acknowledge that Brightlingsea has a designated bathing beach which demonstrates good water quality). We would therefore like to enquire about whether any monitoring of water quality, particularly in relation to faecal coliform and *E.coli* bacteria is currently undertaken. We would also be interested to know the official EA advice regarding in-water activities in the upper estuary.

Under the Water Framework Directive classification of shellfish waters, the Colne estuary is classified as guideline pass/imperative fail. Bacterial issues with the water in the Colne mean that under the Shellfish Waters Directive CEFAS/FSA/Colchester Borough Council classify the main river channel up to Alresford Creek as Grade 'C'. Brightlingsea and Pyefleet have been Grade 'A' in the past and are currently rated 'B'. A significant number of people are currently employed by Colchester Oyster Fisheries and reliant on the good water quality. There are two significant sewage works discharging into the Colne near the Shellfish Water. These are Colchester STW with a DWF of 29,284 m³d⁻¹ which discharges upstream of the Shellfish water, and Brightlingsea STW with a DWF 2,160 m³ d⁻¹ which discharges directly into the Shellfish water.

A consultation paper published by DETR, suggests the use of 300 faecal coliform per 100 ml in 75% of samples as a guide to avoiding deterioration in water quality of the shellfish water. Results from EA monitoring suggest that although annual mean values are well below this threshold, peaks in excess of this level are occasionally recorded at the Colne monitoring points (NE04, NE07). Monitoring of the treated effluent discharged into the Colne from the Colchester STW showed a minimum value of 2,000 faecal coliform per 100 ml, with peak values at over 47,000 and 36,000 faecal coliform per 100ml for 2008 and 2009 respectively. Values for faecal coliform in discharges from Brightlingsea STW are even higher with a minimum value of 20,800 per 100ml, a 2008 peak value of 1,350,000 per 100ml, and a peak of 760,000 per 100 ml in 2009. While this data does show an improvement, this level of discharge, directly into the Shellfish Water (a mean of over 200,000 faecal coliform per 100 ml) has clearly lead to a reduction in water quality (as revealed by the CEFAS/FSA monitoring of oysters), which in turn could have serious consequences for the oystermen

and the reputation of the Colchester Oyster Fishery. There is also the consideration of the health of the recreational and commercial users of the estuary, should they come into contact with water of this quality. Are there currently any plans to reduce these levels of bacteria entering the shellfish water to allow the reclassification of a large part of the waters to Grade A (or B).

In summary we would like to know the following;

1. Will a new discharge consent be required for any increase in capacity at Colchester STW?
2. Are future changes to water flow/abstraction factors considered in future management planning?
3. How many untreated storm discharges are permitted annually under the current licence?
4. How many untreated storm discharges actually occur?
5. What is the volume of these untreated discharges?
6. How are these untreated storm discharges monitored?
7. How is the timing of monitoring adjusted to effectively monitor these discharges?
8. What monitoring is undertaken by Anglian Water under the OSM programme and where are the results available?
9. What level of bacterial monitoring is undertaken in the upper estuary?
10. What is the Agency advice regarding in-water recreational activities in the upper estuary?
11. What plans are there in place to reduce bacterial inputs and allow the Shellfish Water classification to be upgraded?

We look forward to your reply.

Yours sincerely,

Dr S.McMellor

Professor G.J.C.Underwood

On behalf of the Colne Estuary Partnership