

**WITHAM SEWAGE TREATMENT WORKS**

**Agenda Item 4.2**

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**Background Papers:-** None  
**Financial Implications:-** None  
**Equalities Implications:-** None  
**Legal Implications:-** None  
**Options:** n/a  
**Risks:** n/a

**EXECUTIVE SUMMARY**

Councillors are asked to note this report, which reflects on the status of the sewage treatment works in respect of odour.

Following a peak of complaints during the first half of 2007 which came to the attention of the Councillors at the time of the May local elections, the cause of the odour, namely inefficient primary settlement tanks due to corroded parts, has been rectified. Complaints have dropped off significantly with no complaints in the past three months.

Environmental Protection believes therefore that it is appropriate to continue to monitor odour from the sewage treatment works from time to time and to liaise with Anglian Water so as to promote good practice at the works. To further fulfil Braintree District Council's statutory role in respect of statutory nuisance under Environmental Protection Act 1990, Environmental Protection Officers will continue to fully investigate complaints as and when they arise.

**DECISION**

No decision required. As this is a status report in respect of odour complaints from Witham Sewage Treatment Works, Councillors are asked to note the decline in complaints since Anglian Water carried out work at the site and Environmental Protection's intention to continue to monitor proactively and investigate as necessary.

## WITHAM SEWAGE TREATMENT WORKS

This report details the activity, which has taken place in respect of odour emissions from Witham sewage Treatment Works at Blackwater Lane, Witham.

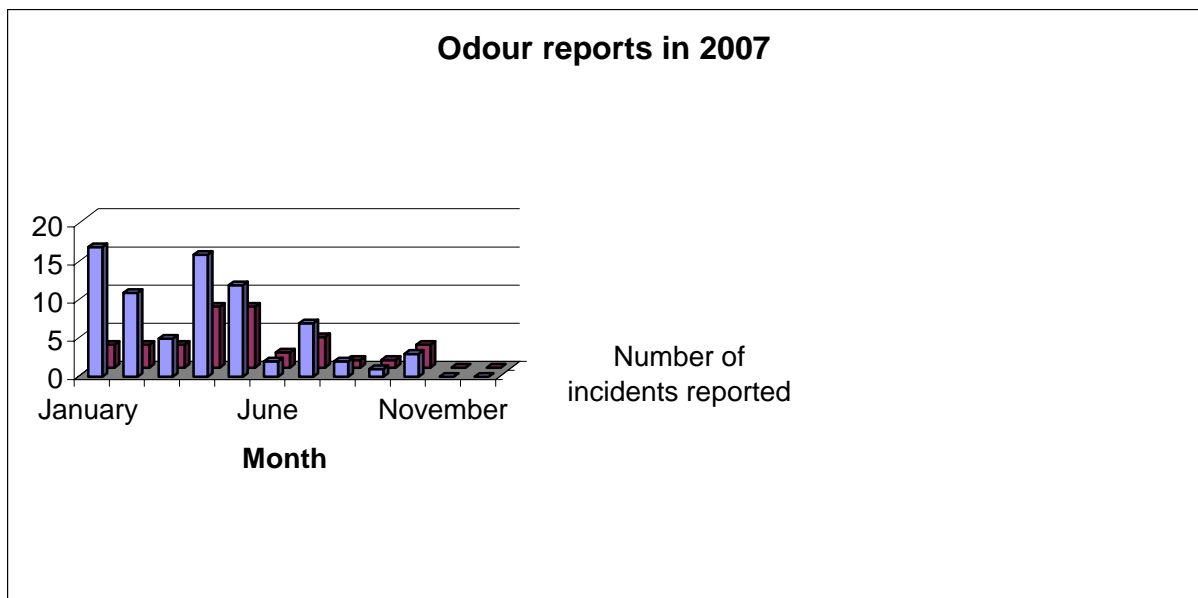
Witham Sewage Treatment Works processes waste water from domestic and industrial processes at Witham, Silver End and Hatfield Peverel. Anglian Water have always maintained that the capacity of the works is sufficient to treat waste water and there is no reason to dispute this as the quality of the out going effluent from the works is regularly sampled and analysed by the Environment Agency to ensure compliance with the conditions of the discharge consent issued by the Environment Agency.

The works is sited off Blackwater Lane in Witham. To the East of the works is A12, to the south of the works is Whetmead nature reserve, and residential properties are 130 m in this direction, namely Clayshott Drive and Saulsbridge Close . To the West of the works is Perry Road Industrial Estate comprising the Civic Recycling Centre and other commercial units, residential property is 150 m in this direction, which is Hanover Court. To the North are the Perry Road and Freebornes Road Industrial Estate. Complaints are not received from this direction. (See figure 2 Map of area where complaints typically received) There is one complainant at an outlier position 525m to the south.

Under Environmental Protection Act 1990 it is the statutory function of Braintree District Council carried out by Environmental Protection officers to investigate complaints of odour nuisance. When complaints of odour about the sewage works are received, officers will visit if the odour is occurring at the time of the complaint. For all complaints the manager of the works will be informed and and it will be ascertained whether there is cause for complaint and where measures could be implemented to prevent a recurrence that such measures are implemented within a reasonable timescale. When waste solids are removed from the site then odour is created as tankers vent to atmosphere. There is no technique currently available to effectively control odours from this source. On occasions farm activities of manure spreading on the other side of the A12 have been responsible for the odour. The objective is to minimise odour as far as is practicable.

On establishing the source of the odour, officers try to determine whether the odour could have been prevented and whether the company, Anglian Water is doing as much as it can to prevent an odour and to put appropriate measures and systems on management in place.

During 2007 the incidents (front column) and number of complainants (rear column) logging those complaints are reported in Figure 1 below. This indicates higher complaints and higher number of complainants than normal in April and May of that year.

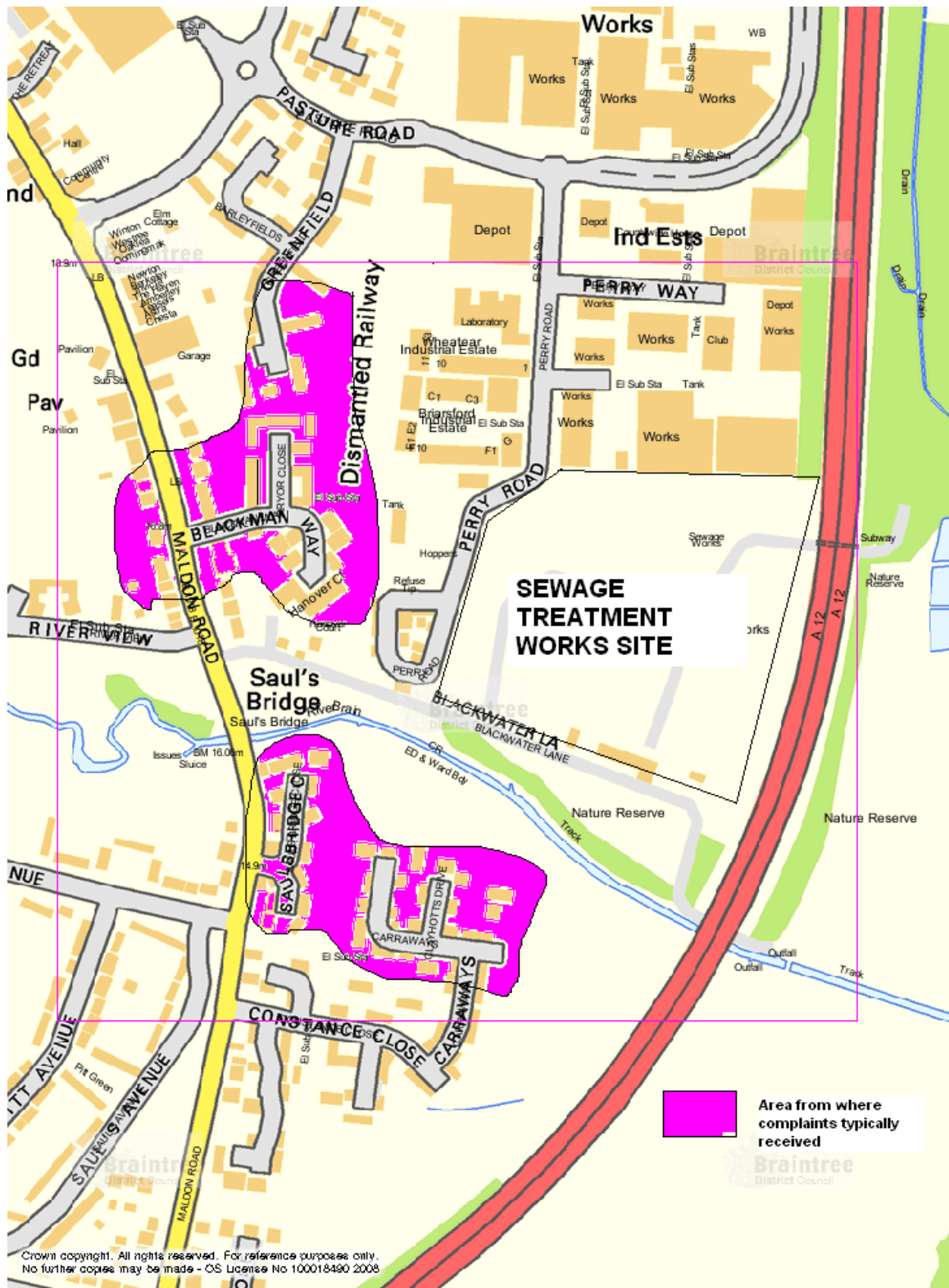


**FIGURE 1. NUMBER OF ODOUR COMPLAINTS ABOUT SEWAGE TREATMENT WORKS FOR 2007**

In the early part of 2007, it was recognized that the source of odour tended to be concentrated around the primary settlement tanks. On further intrusive investigation by Anglian Water, it was discovered that there was corrosion to moving arms serving the two tanks and this affected the efficiency of these units resulting in increased anaerobic bacterial activity, which in turn resulted in the release of odorous gases such as hydrogen sulphide. These gaseous emissions traveled in the direction of the wind to complainants' properties. The works to refurbish these tanks required the provision of customized parts and availability of external contractors. A process of capital expenditure approval was also part of the process. Braintree District Council informed Anglian Water that the works needed to be done as a matter of priority else an abatement notice would be served enforcing abatement of the odour nuisance caused by the defect. Anglian Water continued to cooperate fully with Braintree District Council.

To attempt to minimise the impact of the emissions of odor, Anglian Water employed a new operator on site and introduced a deodorizing system by the settlement tanks. This system is still operational. The works to the tanks finally commenced at the end of July and were completed in six weeks. In October, Anglian Water commenced works to the aeration tanks to improve the aeration to the aeration lanes, which is a secondary treatment. This accounted for the odour complaints in October as tanks were drained down. These works increase the capacity of the secondary treatment and therefore the ability of the works to deal with any additional loading to the works, which could be introduced by further development in the surrounding area.

Since October 2007, there have been no complaints of odour. Monitoring by officers from time to time has not revealed any incidents where odour is causing a statutory nuisance to nearby residential occupiers.



**FIGURE 2 LOCATION MAP SHOWING AREA FROM WHERE COMPLAINTS TYPICALLY RECEIVED.**