

Ty Llwyd Quarry Update

August 2024

Caerphilly county borough council is acutely aware of concerns circulating within the community about the former Ty Llwyd Quarry site. This newsletter has been created to provide residents with useful information relating to the history of the site, works that have been undertaken to date, as well as ongoing plans to make further improvements in the future.

What has happened since our last Newsletter?

The sampling programme at Ty Llwyd to inform the Part 2A contaminated land assessment has been concluded, with the last samples being taken in April. This included quarterly monitoring of groundwater from boreholes on the Ty Llwyd site itself and in the surrounding Pantyffynnon woodland. The programme also involved sampling the Sirhowy River and taking water samples from springs located around the site.

In addition, air quality monitoring is being undertaken on and around the site and we are also gathering occasional soil samples. A monitoring strategy document has been produced setting out this information and a copy of the document has been sent to local councillors.

Water samples were taken in February 2023, June 2023, October 2023, January 2024 and April 2024. The Council's consultants will now summarise all the monitoring data in one report and will conclude whether the site falls under the legal definition of 'contaminated land' under Part 2A of the Environmental Protection Act 1990.

In relation to the water samples taken to date, the results have been as we would expect. There are high levels of contaminants in the groundwater on the Ty Llwyd site itself (within the waste mass), however, concentrations within the groundwater surrounding the landfill and outside the waste mass in general are significantly lower.

In relation to the groundwater monitoring in June 2023, the highest concentrations of contaminants were identified in an on site borehole situated to the north east of the quarry, whereas in October 2023, the highest concentrations were recorded in two on site boreholes on the southern side of the landfill.

In October 2023, there were some contaminants identified in one of the spring water samples (including low levels of chloroform, bromoform and

bromodichloromethane) immediately bordering the site, plus low levels of metals in one other spring sample. Whilst some of these contaminants may be present in low levels, quite often they are below the relevant standards and do not pose a significant risk to public health or the environment.

The highest concentrations of polychlorinated biphenyls (PCBs) were measured in the waste mass on the Ty Llwyd site in October 2023, with lesser concentrations being recorded within two on site boreholes to the south of the waste mass, and lower (but detectable) concentrations within the Aeration Chamber, which is located in Pantyffynnon woodland.

The spring sample results from January and April 2024 were generally below the limit of detection for most contaminants. There were small amounts of metals (zinc, lead, nickel and selenium) and arsenic detectable within a number of spring samples, however the majority of the results are compliant with environmental quality standards for metals and are fully compliant for arsenic. Some metals do not have a single comparable environmental quality standard and are set as an annual average which means that they have to be averaged out over the year, this work is currently being undertaken by the Council's consultants, hence why we have said the majority of results are compliant. Metals can be naturally occurring within soil, so the mere presence of metals within soil and water samples does not always mean they have originated from a contamination source.

In the January 2024 samples there was one location which contained a small amount of hydrocarbons, which was above the Ty Llwyd site and another that contained a very small amount of hexavalent chromium. In April 2024, one sample contained a small amount of Chloroform and another contained a small amount of Xylene, however all samples were within acceptable standards.

Samples from the Sirhowy River were taken in June 2023 and April 2024. These were taken from three different locations (upstream of the quarry, immediately below the quarry and downstream of the quarry). The river

samples did not detect any contaminants above the laboratory limit of detection for the June 2023 sample. The results for April 2024 recorded small amounts of metals (including nickel, selenium, zinc) and very low levels of Arsenic at the 3 sampling locations. All results were compliant with relevant environmental standards.

What has happened since our last Newsletter? Continued...

Since the production of our last newsletter, Natural Resources Wales (NRW) concluded their investigation into contaminated water leaving CCBC land in January 2023. This resulted in NRW issuing a warning letter in June 2023 regarding the incident for knowingly permitting a water discharge activity in contravention of the Environmental Permitting regulations 2016. The council has since entered in to pre application discussions with NRW and have collected sampling and flow data to inform an assessment which will determine

whether a water discharge permit is required for the site.

This year, as a result of significant rainfall, there have been further incidents of contaminated water leaving the land owned by the Council. CCBC reported these incidents to NRW and sampling has been undertaken to assess any potential public health and environmental risk. The sample results demonstrated that the water leaving the site in January of this year contained low levels of metals, a small amount of di-ethyl phthalate and low levels of hydrocarbons. Recorded levels of contaminants at the point where the water left the Council's land were low and did not pose any significant environmental or public health risk.

The council received a notice from NRW in April this year, which reflects the ongoing dialogue between the organisations. This notice required the council to carry out key actions, such as producing an options appraisal report and an action plan for the site. The council produced the required reports and submitted them to NRW at the end of June this year to fully comply with the notice. The Council are awaiting feedback on the reports.

What happens next?

The final round of monitoring took place in April of this year. The Council's consultants are now considering all the results. The results will inform the Part 2A assessment to determine if the site falls under the legal definition of Contaminated Land. The information is also being used to produce other assessments to determine if the site requires a water discharge permit from Natural Resources Wales (NRW).

In parallel with the above assessments, the Council have produced a report which considers options for dealing with the site long term. The next stage will be to undertake a feasibility study for one (or more) of these options. Discussions will take place with key partner agencies before this work is progressed. It is important to emphasise that at this stage this work is to gain a better understanding of the feasibility and costs of potential longer term solutions to assist future decision making. The options that have been considered to date are:

- **Removal of waste to another landfill - This option has been included to understand the likely costs and logistics of removing the waste.**

- **In-situ cement stabilisation / in-situ grouting (this is turning the waste to a solid mass and leaving it in the ground)**
- **Installation of a new engineered cover system and improved drainage; and**
- **Pumping of groundwater to mitigate uncontrolled breakout of leachate from within the landfill, together with treatment of the pumped water, either on or off site.**

We are also currently investigating potential solutions to help slow the flow of surface water in storm periods. In the next few months, you may see some works being undertaken to the surface water channel on the Ty Llwyd site. We may be installing some natural dams which will aim to slow down the flow of the surface water passing through the Ty Llwyd and Pantyffynnon sites (this is water that flows down the side of the site from the farmer's field above and passes through the woodland next to the footpath). This is the torrent of water that you will often see flowing off the site in periods of wet weather.

Environmental Health will continue to closely monitor the site and will visit the site daily in periods of prolonged wet weather and will continue to manage the risk and work with key partners going forward until a decision is reached on the future of the site.

If you have any questions or concerns, please do not hesitate to contact:

Maria Godfrey on 01443 811346 or godfrm@caerphilly.gov.uk

Ceri Davis on 01443 811348 or daviscj@caerphilly.gov.uk (Wed/Thu/Fri only)

Email: ehadmin@caerphilly.gov.uk

A series of frequently asked questions have also been developed to help address any additional queries or concerns you may have - these can be accessed on the CCBC website: www.caerphilly.gov.uk/ty-llwyd

If you don't have access to the internet and would like a copy of the frequently asked questions, please do not hesitate to use the numbers above to request a copy and we will post them out to you.

