

## **DURHAM COUNTY COUNCIL**

At a Special Meeting of **Environment and Sustainable Communities Overview and Scrutiny Committee** held in **Committee Room 2, County Hall, Durham** on **Thursday 1 May 2014** at **9.30 am**

**Present:**

**Councillor D Hall (Vice-Chairman in the Chair)**

**Members of the Committee:**

Councillors J Armstrong, D Bell, E Bell, J Clare, J Clark, J Gray, G Holland, K Hopper, I Jewell, P May, O Milburn, S Morrison, P Stradling and L Taylor

**Co-opted Members:**

Mr D Kinch, Mrs P Spurrell and Mr T Bolton

**1 Apologies**

An apology for absence was received from Councillor B Graham.

**2 Substitute Members**

No notification of Substitute Members had been received.

**3 Declarations of Interest**

There were no Declarations of Interest.

**4 Any items from Co-opted Members or interested parties**

There were no items from Co-opted Members or Interested Parties.

**5 Tyne and Wear Aquifer Protection Scheme**

The Chairman welcomed and thanked Officers from both the Coal Authority and the Environment Agency for their attendance at the meeting of the Committee to speak in relation to the Tyne and Wear Aquifer Protection Scheme. The Chairman welcomed the Corporate Director of Neighbourhood Services, Terry Collins and thanked Members and Co-opted Members for their attendance.

The Overview and Scrutiny Officer, Ann Whitton referred Members to the covering report (for copy see file of minutes) and introduced David Shepherd, Consultant Project Manager from the Coal Authority (CA) and Dominic Shepherd, Environment Planning Manager from the Environment Agency (EA) who would give presentations on progress in relation to the proposed Tyne and Wear Aquifer Protection Scheme.

### The Coal Authority

The Consultant Project Manager, CA thanked the Committee for the opportunity to give an update on the progress being made and introduced Officers from the Coal Authority, their Consultants and Environment Agency who were in attendance to answer Members' questions: Dr Ian Watson, Senior Hydrogeologist, CA; Rowan Byrne, Marine Biologist on behalf of the CA; Kevin Boal, Client Project Manager, CA; Dominic Shepherd, Environment Planning Manager, EA; Maria Fallon, Area Manager – North East, EA; Ian McPherson, Customers and Engagement Advisor, EA; and Roger Inverarity, Principal Water Quality Planner, EA.

The Committee were given background information in respect of 60 mine water schemes that the CA operated in the UK, with Councillors having recently visited local schemes at Dawdon and Horden on the East Durham Coast which protect the East Durham Aquifer. The Consultant Project Manager, CA reminded Members that the identification of a similar risk to the Tyne and Wear Aquifer from mine workings at Westoe, Whitburn and Wearmouth had necessitated work looking at protecting the Aquifer. Councillors were referred to a diagram showing a cross-section of the geology of the mine workings, explaining the rising mine water posed a threat to the drinking water supply. It was added that an initial feasibility study had shown Whitburn was the preferred location for a mine water scheme to be carried out, based upon engineering, environmental and socio-economic criteria.

Members noted that outline designs were presented to South Tyneside Council's (STC) Place Select Committee on 29 October 2013 and the various plans and visualisations were shown to the Committee, noting the location was shielded by existing planting. Councillors noted that the scheme had progressed through various stages including: coastal dispersion modelling; liaison with regulatory authorities and the general public; ground investigations; outfall "buildability"; design; and planning.

The Consultant Project Manager, CA explained that after consultation with STC and the Marine Management Organisation (MMO) it was determined that an Environmental Impact Assessment (EIA) was not required as part of the planning process and that consequently the proposed scheme could be submitted for Prior Approval under the General Permitted Development Order. It was added that this was subject to comments from STC on the siting and design of the development, a response expected within the next 8 weeks. The Committee learned that there were 3 permits and licences that were required, two from the EA, namely: a Full Abstraction Licence and an Environmental Permit; and a MMO Marine Licence. It was noted that as there was already an Environmental Permit in place as regards initial testing and therefore a variation on this Permit was being sought.

The Committee were reminded of several issues of concern that had been raised including who would approve and monitors the proposed discharge. It was explained that the EA would measure the proposed discharge against environmental quality standards.

The Marine Biologist, CA explained to Members that the eastern coastline of the UK, including the area around the proposed discharge had, through a combination of the types of rocks present and the wave actions, created a harsh environment that meant only a limited number of species were able to make use of this environment. It was added that technically the habitat had “very low biodiversity” and that dive surveys in 2006 and 2009 had confirmed the few species that were expected for the conditions. Members noted that a further video survey was attempted, however, it was hampered by poor visibility.

The Marine Biologist, CA explained that the mine water contained dissolved iron, this was also present naturally in run-off from the land, and the action of the sea would work to disperse the iron. It was added that the mine water also contained chlorides in salt form, with the mine water being 1.5 times saltier and therefore a greater density than the sea water. Members noted that further offshore, salinity was fairly constant, and the levels closer to shore, while varying, would not be effected greatly. It was added that the quality of mine water was noted as improving over time, therefore having a lesser effect over time. It was noted that through natural coastal processes, the mine water would quickly mix and disperse within a short distance of the discharge point, and that the species that were located in the area were proven to be tolerant of the varying salinity levels.

The Consultant Project Manager, CA explained that there was no treatment of mine water proposed at Whitburn, in contrast to the operations at Horden and Dawdon. It was added that the method of regulating the iron loading levels at Whitburn would be via the flow rate of the discharge. Members noted the flow rates at Horden and Dawdon were between 120-150 litres per second (l/s) and the proposed rate for Whitburn was 10-20 l/s. Councillors noted that this gave an anticipated iron loading of 200 kilograms per day (kg/day), less than the loading of 216 kg/day at Dawdon. The Consultant Project Manager, CA explained that active treatment schemes were not sustainable in the long term and that dispersion modelling had shown that iron loading of levels up to 2000 kg/day would not lead to orange plumes of suspended ochre near the water surface. Members were reminded that a 90 day testing period had shown that the salinity and iron content were all well below the environmental quality standards required. The Committee learned that the impact and ongoing monitoring of the mine water quality would be assessed by a Marine Monitoring Plan as advised by the EA and MMO. It was added that the iron loading levels by local rivers were at levels higher than proposed for the discharge at Whitburn, with levels from the River Wear being 500 kg/day and River Tyne being 1760 kg/day.

Members noted the various actions taken to engage with stakeholders, with outstanding issues being: finalisation of sub-letting agreement between the CA and the National Trust (NT); agreement as regards the visual treatment of the compound between the CA, NT and STC; the response from STC to the CA as regards the notice of prior approval for permitted development; submission of a Notice of Proposal by the CA to Natural England to carry out works impacting upon the Site of Special Scientific Interest (SSSI) and the Special Area of Conservation (SAC) coastline; and the EA and MMO to consult stakeholders in respect of the CA's permit and licence application prior to decision.

The Consultant Project Manager, CA concluded by explaining that the proposed programme in respect of the Aquifer Protection Scheme was for: permit and licence applications to be submitted April 2014; detailed design to be completed by the end of May 2014; tender preparation/award in June 2014; the start of works on-site late Summer 2014; construction to be completed and commissioned in late Autumn 2014; and for monitoring and testing in the period December 2014 – December 2015 with review of the data and additional design work, if required, in the period July – December 2015.

The Chairman thanked the speakers and asked Members for their questions on the presentation before moving on to a further presentation from the EA.

Councillors asked questions in relation to: the flow rate; potential impact of nearby offshore coal mining; how far the discharge point was out to sea; where mine water had been pumped to during the period the mines were operational; cobalt loading levels; whether there was any commercial opportunity to extract valuable metals from the discharge; any potential effect on species such as sea trout and salmon; whether iron loading was in dissolved form or particular form; potential plankton blooms; the iron loading levels and flow rates being sought via the permit; and how any changes in levels/flow rates would be communicated to Members.

The Consultant Project Manager, CA explained that dispersion modelling had been based upon a flow rate of 30 l/s and this would be likely greater than any flow rate required. It was added that the flow rate would be adjusted within limits agreed by the EA in order to keep the iron loading levels within the permitted range, likely 200 kg/day, albeit any permit would include a contingency, up to 300 kg/day to take into account any issues that may occur.

The Senior Hydrogeologist, CA explained that the licences to work undersea coal seams would be for virgin, unworked seams, not those seams connected to the seams/workings where mine water was being extracted and therefore there should be no issues. It was added that the proposed discharge point was at a distance of 230 metres from the shore and that in the past, while the mines were in operation, the mine water was discharged directly into the sea. The Senior Hydrogeologist, CA added that the cobalt levels, and that of other elements and compounds, were at the “level of detection” and much less than the levels as set out within environmental quality standards, not at amounts warranting any commercial extraction process.

The Marine Biologist, CA explained that sea trout and salmon were migratory species and therefore any effect, reiterated as being low impact and localised to a short distance surrounding the discharge point, would be negligible and certainly less than any bioaccumulation that would occur naturally in those species as “top predators”.

The Senior Hydrogeologist, CA explained that the iron being discharged was in dissolved form when entering the sea, however, it would form particulates a short distance from the discharge point. The Marine Biologist, CA noted that sudden blooms of plankton were usually associated with organic run-off or larger flow rates than being anticipated so it was very unlikely that any such blooms would occur. It was added that the Committee could be informed should any issues occur whereby the flow rate or loadings would vary considerably.

## The Environment Agency

Mr Dominic Shepherd, Environment Planning Manager, EA thanked the Committee for the opportunity to give an update on the Whitburn Aquifer Protection Scheme from the perspective of the EA (for copy see file of minutes).

The Environment Planning Manager, EA explained the role of the EA was in a regulatory capacity, to protect the environment through legal controls such as the issuing of permits to prevent any deterioration of the quality of water in both the North Sea and the drinking water supply aquifer. It was added that the proposals by the CA attempted to mitigate the impact to the North Sea and the aquifer, and that consultation with stakeholders would follow the permit and licence applications. Councillors noted that subsequent to the consultation process and a technical assessment of the proposals, conditions would be set accordingly. Members noted that there was also a need to balance any potential risk to the North Sea against the risk to the drinking water aquifer and if nothing was done, the aquifer would be polluted within 5 years.

Councillors were reminded that there were options of treating the mine water before pumping out to sea or regulating the flow rate such that any impact was minimised. Councillors noted that the preferred option by the CA for this site was for regulation via flow rate. The Committee noted that choosing the flow rate option did not rule out the potential of treatment in the future and there would be a review clause within any permit or licence. Members were reminded of discussions that the EA had with STC, Sunderland City Council (SCC) and Durham County Council (DCC) and questions had come forward from the European Commission (EC) as regards the scheme, with the EA providing information to the EC, albeit they have yet to respond. It was added that information was being gathered to establish a base line as regards iron levels and that in summary there would be: no deterioration of water quality of the North Sea or aquifer; conditions determined by the permitting process; monitoring to ensure compliance; and no impact on the Durham coast.

The Chairman thanked the Environment Planning Manager, EA and asked Members for their questions.

The Committee raised issues including: cost/benefit analysis regarding potential for “waste” products; iron loading up to 300 kg/day; poor bathing water quality at Seaham; how baseline information would be collected; how public consultation would be undertaken; whether video surveys and other data could be shared with the Heritage Coast Team; and whether any water quality samples would be taken along the Durham Coast for comparison to any future samples.

The Environment Planning Manager, EA noted that the EA could not proscribe what measures the CA would take to reach the standards and levels that they would impose. The Senior Hydrogeologist, CA noted that the CA looked to work with partners in connection with the disposal and reuse of waste products such as ochre, however, it was noted this can be challenging given the levels/quality of the products often varied. It was added that the success at Dawdon of diverting 80% of the ochre to reuse by a local brickworks was to be noted.

It was noted that the CA could apply for iron loading of 300 kg/day, in order to provide a contingency above the expected level of 200 kg/day, however current modelling and test data suggested 200 kg/day to ensure the risk to the aquifer was mitigated. The Senior Hydrogeologist, CA explained that dispersion modelling had been based upon flow rates of 30 l/s with iron loading of 300 kg/day to give a “worst case scenario”, however, levels would be monitored as per the conditions of any permits and licences.

The Corporate Director of Neighbourhoods Services asked if the EA could elaborate on the impact of any extreme weather events, such as recent flooding, on the north-south flow within the local coastal waters. The Environment Planning Manager, EA explained that the risk as regards flooding events was principally in connection with sewer and storm overflows and it was noted that over the last 10 years the water quality at Seaham, for example, had been within regulations. It was added that the recent failure of the quality was in connection with more stringent legislation, noting that approximately 40% of areas tested failed the new revised directive. It was added that information had been shared with Officers from Northumbrian Water Limited (NWL) as regards investing in upgrades to storage and “sizing-up” of sewers and the EA was looking at issues such as agricultural land run-off, with a target for these activities to be completed by 2016. The Chairman noted that further information from NWL may be useful for the Committee.

The Environment Planning Manager, EA noted that parameters that would be tested to establish a baseline of information included bacteria levels, albeit the type of discharge should have no effect on bacteria levels, and chemical composition. It was noted that public consultation would be through the usual articles in the local press, including the Northern Echo, The Journal and the Seaham Star, together with specific events such as a drop-in session to be held at South Tyneside, led by the CA. Members asked for the dates of publication within the local press and any events to be forwarded to them for information, and the Corporate Director of Neighbourhood Services added that information regarding the consultation could be brought back to the Committee. The Environment Planning Manager, EA thought there should not be any issues as regards sharing data and added that the monitoring regime would be specified within the requisite permits and licences.

The Chairman of Overview and Scrutiny, Councillor J Armstrong and the Chairman of the Environment and Sustainable Communities Overview and Scrutiny Committee thanked the Officers from the CA and EA for their attendance and information.

#### **Resolved:**

That the report and presentation be noted.

## **6 Climate Change Strategy and Delivery Plan**

The Overview and Scrutiny Officer referred Members to the report detailing the Overview and Scrutiny response to the Climate Change Strategy and Delivery Plan (for copy see file of minutes).

Councillors were reminded that the Committee had received an overview of the draft strategy at the meeting held 25 September 2012, with a further update at the meeting held 21 June 2013. Members recalled that they agreed to a further update to be brought forward in 2014, prior to the draft strategy being subject to public consultation, to allow for a response from Overview and Scrutiny. At a Special Meeting of the Committee held 24 January 2014, Members received a presentation on the draft strategy and delivery plan and the comments were noted.

The Committee were asked for any further comment prior to agreeing the response from Overview and Scrutiny to be forwarded to the Regeneration and Economic Development service grouping as part of the consultation process.

**Resolved:**

- (i) That the Environment and Sustainable Communities Overview and Scrutiny Committee endorse the submission as the formal response of the Overview and Scrutiny to the Climate Change Strategy and Delivery Plan.
- (ii) That, as part of the refresh of the work programme for the Environment and Sustainable Communities Overview and Scrutiny Committee, an update is provided detailing feedback from the consultation and next steps.

Signed.....  
Date.....