Tell us about why you think this application will impact the water environment. - Q5 open comment box

impact the water environment. - Q5 - open text environment. - Q5 habitats and species file upload box two on habitats and species

Tell us about why you think this application will Tell us about why you think this application will impact the water

Tell us about why you think this application will impact on people who use the water environment. - Q6 open comment box one

Tell us about why vou think this application will impact on people who use the water environment. - 06 open comment box two on impact on activities and their locations

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Not Answered

1 A complete letter of justification for a conditional objection to the proposal outlined here is provided in the attached pdf, sections of which have been copied into the relevant sections of this online form, but which are best considered as a whole.

Both the main activities subject to this application have the potential to give rise to pollution of Loch Lochy, namely: the Tunnel WTP Discharge and the Concrete Batching Plant WTP. As an existing user of the Loch Lochy waterbody, with a reliance on high water quality, has a reasonable expectation that these activities are carried out in a manner that avoids significant adverse effect on the water resource.

Whilst the application provides a broad overview of wastewater treatment, there is a lack of detailed information generating associated concerns about water pollution arising from this work relating to the Tunnel WTP discharge. The release of raised concentrations of heavy metals could be of concern for both wildlife and farmed fish, due to their persistency and toxicity.

Compounding the above, the application acknowledges a scenario where the ingress rate of groundwater may overwhelm the tunnel treatment plant and buffer tanks together. We agree that this is a likely scenario especially during and after periods of wet weather. Although there is mention of informing SEPA in this situation, would suggest that a formal emergency contact plan is prepared for all associated stakeholders in Loch Lochy or who may otherwise have potential to be impacted in such a scenario. This would allow maximum time to make appropriate and adaptive operational management decisions, if required.

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The application confirms that emission and water quality monitoring will be carried out by the applicant during construction. This is essential to understanding that WTP design emission criteria are being met and to ensure that environmental quality standards are being maintained. We would request that, in the event a licence is granted, a condition is included requiring such a plan to be agreed in writing with SEPA. The application makes reference to such a plan being agreed in the planning consent, but CAR is a more appropriate regulatory framework for this. The provision of monitoring data to stakeholders via an established communication plan (as above) is also requested.

The application supporting document also states that any discharges to

If wastewater treatment is not correctly designed and managed, this has the potential to cause heavy metal toxicity in the water environment through releases of concentrated levels of metals within groundwater. Impacts of this for fish can include oxidative stress, weakened immune systems, tissue and organ damage, and growth defects, with the ultimate potential to impact survival. Examples of heavy metal pollutants include cadmium, chromium, nickel, arsenic, copper, mercury, lead and zinc, some of which can cause toxicity effects even at low levels. The specific concentration at which toxic effects may be seen is difficult to define as this can be dependent on temperature and pH. We would draw SEPA's attention to a lack of information on any environmental risk assessments relating to releases of metal concentrations, water treatment plant design and design emission limit values, and mitigations specific to preventing heavy metal release.

In conjunction with the above, there has not been an assessment carried out to examine the risk of connectivity of any potential water quality impacts with

. Alongside heavy metals, increased concentrations of suspended solids can also impact farmed salmon behaviour and health through gill irritation and stress responses, including altered swim behaviour and reduced appetite. It is necessary for the application to better define the likely particle sizes that the suspended material will comprise of, in order to then also assess their potential dispersion. Although the salmon farm site is located some distance from the wastewater release point (~10km), small particulates which remain in suspension for a significant time period could have the potential to travel such distances via wind-driven currents, and this warrants further examination by the applicant.

Response: CAR/L/5003855 Strabag UK: Coire Glas Pumped Storage Hydro – Conditional Objection are writing in response to the present consultation on the above application for the proposed tunnel construction at Coire Glas by Strabag UK, with discharge to the water environment in Loch Lochy. As a

would have expected to have received pre application engagement on this application and it is disappointing this has not occurred. Having reviewed the available application and supporting information,

position is one of conditional objection, with further

explanation provided herein. Both the main activities subject to this application have the potential to give rise to pollution of Loch Lochy, namely: the Tunnel WTP Discharge and the Concrete Batching Plant WTP. As an existing user of the Loch Lochy waterbody, with a reliance on high water quality, has a reasonable expectation that these activities are carried out in a manner that avoids significant adverse effect on the water resource. Whilst the application provides a broad overview of wastewater treatment, there is a lack of detailed information generating associated concerns about water pollution arising from this work relating to the Tunnel WTP discharge. The release of raised concentrations of heavy metals could be of concern for both wildlife and farmed fish, due to their persistency and toxicity. If wastewater treatment is not correctly designed and managed, this has the potential to cause heavy metal toxicity in the water environment through releases of concentrated levels of metals within groundwater. Impacts of this for fish can include oxidative stress, weakened immune systems, tissue and organ damage, and growth defects, with the ultimate potential to impact survival. Examples of heavy metal pollutants include cadmium, chromium, nickel, arsenic, copper, mercury, lead and zinc, some of which can cause toxicity effects even at low levels. The specific concentration at which toxic effects may be seen is difficult to define as this can be dependent on temperature and pH. We would draw SEPA's attention to a lack of information on any environmental risk assessments relating to releases of metal concentrations, water treatment plant design and design emission limit values, and mitigations specific to preventing heavy metal release. In conjunction with the above, there has not been an assessment carried out to examine the risk of connectivity of any potential water quality impacts with

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Compounding the above, the application acknowledges a scenario where the ingress rate of

Information is provided in section 5, outlining how the proposal may impact staff and management decisions. Knockon impacts of poor wastewater management have the potential to affect site staff working practices.

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the environment from the portal area will fall under `GBR 10D due to the thresholds for Construction Site Runoff Permit (CSR) not being met`. We are unsure what these thresholds are, but the issue of contaminated surface water run-off from working areas to Loch Lochy is a significant concern for given the constrained working areas, at the base of mountainous terrain, in an area subject to very high rainfall. We consider that the issues of surface water drainage, given the high and likely risk of pollution would be better controlled via escalation to licence level control and we seek further assurances on this.

groundwater may overwhelm the tunnel treatment plant and buffer tanks together. We agree that this is a likely scenario especially during and after periods of wet weather. Although there is mention of informing SEPA in this situation, would suggest that a formal emergency contact plan is prepared for all associated stakeholders in Loch Lochy or who may otherwise have potential to be impacted in such a scenario. This would allow our farm site managers maximum time to make appropriate and adaptive operational management decisions, if required. The application confirms that emission and water quality monitoring will be carried out by the applicant during construction. This is essential to understanding that WTP design emission criteria are being met and to ensure that environmental quality standards are being maintained. We would request that, in the event a licence is granted, a condition is included requiring such a plan to be agreed in writing with SEPA. The application makes reference to such a plan being agreed in the planning consent, but CAR is a more appropriate regulatory framework for this. The provision of monitoring data to stakeholders via an established communication plan (as above) is also requested. The application supporting document also states that any discharges to the environment from the portal area will fall under 'GBR 10D due to the thresholds for Construction Site Runoff Permit (CSR) not being met`. We are unsure what these thresholds are, but the issue of contaminated surface water run-off from working areas to Loch Lochy is a significant concern for given the constrained working areas, at the base of mountainous terrain, in an area subject to very high rainfall. We consider that the issues of surface water drainage, given the high and likely risk of pollution would be better controlled via escalation to licence level control and we seek further assurances on this. In summary we would be prepared to reconsider our objection to this application subject to the following issues being addressed: 1. The application summary of potential impacts on receptors from the release of metals is insufficient and should be re-addressed with a specific assessment on potential impacts on fish health. 2. An assessment of connectivity (by appropriate modelling methodology or otherwise) to should be carried out. 3. Confirmation from the applicant (and SEPA) that following environmental risk assessment, GBR10 is considered to be an appropriate level of regulatory control for any significant sources of contaminated surface water and their resultant discharge to Loch Lochy. 4. An emergency contact and communication plan should be developed for all stakeholders to advise on scheduling of sensitive works and notification of periods of impacted water quality / emergency situations. 5. Confirmation that an emissions / water quality monitoring plan, to SEPA's written agreement, will be conditioned within any CAR licence granted and the results will be shared with stakeholders at regular intervals. Finally we seek SEPA's assurances that in the event that a CAR licence is granted for these activities, appropriate conditions that are protective of water quality are included within the licence framework and regulatory oversight of

the activities is undertaken.