[redacted]
From: SEPA [redacted]
Sent: 08 September 2022 12:15:32
To: [redacted]@nature.scot
Cc: SEPA [redacted] SEPA [redacted]
Subject: 20220908_Whiteshore_SEPA_NatureScot_Para7_Assessment
Importance: Normal
Sensitivity: None
Attachments:
Whiteshore Agricultural Benefit Report.docx; WS Condensate 2020.09.16 (SW Rep. 00991038).PDF; Condensate Nutrient Plan (002).pdf;

OFFICIAL

Hello [redacted]

I have been given your contact details from my colleague [redacted] I understand you were involved in a recent meeting with SEPA and the Local Authority for North Uist, concerning the Whiteshore Cockles fish waste disposal and treatment site.

I am currently dealing with an application to Permit a waste treatment process at the site, under the Pollution Prevention and Control Regulations 2012 (PPC).

Nature Scot were contacted back in April as a statutory consultee for such developments, due to the location being situated with the relevant screening distances for a numer of SPA, SSSI and SAC's. SEPA did not receive a response at the time, within the standard 28 days of contact, or since then.

The reasoning I am contacting you now, is that the applicant (Whiteshore Cockles) has notified SEPA that it would be their intention (pending appropriate approval) to apply some waste from the treatment process to land on North Uist.

The process waste is a liquid 'condensate' and this would require authorisation from SEPA under the Waste Management Licensing Regulations and would typically be considered a Paragraph 7 'Exemption' from the regulations – if the application of the waste is justified and can be demonstrated to provide agricultural or ecological benefit (i.e. not cause any harm) and ensure no other environmental impacts were to occur, such as pollution of the water environment or offensive odour etc.

The applicant has been asked to pull together the necessary information SEPA would require to grant a Paragraph 7 Exemption and our own soil scientists are in the process of assessing the suitability of this information (there will be a requirement for further information as some technical aspects are lacking at this hypothetical stage, see their comments below). As part of their comments they also recommend that we consult with Nature Scot incase of any potential impacts or concerns of the above mentioned SAC's etc.

Would you or a colleague be able to look at the attached documents and provide an assessment on the proposal?

If you think a tele call would be helpful then please let me know.

Regards,

[redacted]
Waste & Industry Unit

[redacted]

Waste Analysis

- *The supplied waste analysis (from September 2020) is not recent enough to support a para 7 application. It's currently just within the allowable timeframe for para 7 waste analysis, by a week or so (waste analysis should be no more than 2 years old – see WMX-TG7 section 2.6), but once they've actually completed and submitted the application, it will almost certainly be more than 2 years old. Furthermore, given that the operator has been developing and expanding their process over the last few years, there's a significant question about how representative a 2 year old waste analysis is likely to be of the material that will be actually spread. If there's a significant change in a process between renewals of a para 7, we normally ask the operator to provide new waste analysis data on renewal.*
- *There's also a further issue potential issue with the September 2020 waste analysis. The applicant will need to confirm this, but I suspect that that the material has been analysed as a liquid, as results are expressed in units of mg/l, not mg/kg, and there's no dry matter content/moisture content result given. Analysis as a liquid means that the lab has filtered the sample, removing the solid fraction, and then analysed the filtrate. That is not best practise for waste spread to land – instead, they should have requested that the lab determine a dry solids content and then dry the sample and analyse the solid faction, because nutrients and contaminants tend to accumulate in the solid phase of these wastes, so results from analysis of the liquid phase are likely to underestimate both the agricultural benefit potential of the material and the risk to the environment from spreading it.*
- *The waste analysis results supplied don't contain a value for total nitrogen, total potassium, total magnesium or dry matter content. These are all vital to determining whether the material is likely to deliver agricultural benefit on spreading, so a new analysis of the waste is required. It's not clear where the total nitrogen addition figure given in the benefit statement supplied (0.62 kg/m3) has been derived from. It doesn't appear to be in the September 2020 analysis results. The applicant should note that the waste should be analysed for all parameters listed in Table 2, Annex 3 of Technical Guidance Note WMX-TG7, except physical contaminants and plastic contaminants, which can be left out as they are unlikely to occur in this waste stream. The applicant should also note that it is not necessary to analyse the waste for organic contaminants (PCBs, pesticides etc) as these contaminants are highly unlikely to be found in their waste stream at levels significant to result in environmental impacts. In their 2020 analysis results, this includes chloromethane and all determinands listed below this on page 1 of the test report they've supplied, plus all determinands listed on pages 2 and 3 of this report. The lack if relevance of these results is supported by the fact that almost of the results for these are reported as below detection limits.*
- *I would also like to see some assessment made of how chemically variable the waste stream is – at least 3 analyses of separate batches of waste with at least a 6 week interval between them (see WMX-TG7 section 2.6), but I appreciate that this might be impractical as it could delay granting of the exemption by around 22-24 weeks (3 * 6 weeks for the sampling, plus time to get the results back, put in the para 7 application and SEPA to check and approve it). So, if the applicant provides a single full waste analysis for now, I'd be prepared to make assessment on the basis of that, as long as 2 further analyses were done before the exemption is renewed 12 months later.*

Soil analysis and planned spread rates

- *It's currently not clear which fields the soil analysis results provided refer to as the map supplied labels these with a grid reference, not a field number.*
- *The soil samples from Vallay Island each cover a larger area than specified in the Paragraph 7 Technical Guidance Note (WMX-TG7 section 2.3), which notes that soil samples should cover an area of 10 hectares maximum – 'where fields are greater than 10 hectares, we require a sample for each 10 hectare or part thereof'. The applicant has provided 6 samples for a total area of 91.51 ha, an average area of 15.25 ha per sample. Consequently, new soil samples that meet the requirement to divide each field into sections less than 10 ha each are needed from Vallay Island if the applicant wishes to spread the waste there, as follows:*
    - *Field NF 77196/76356 (14.37 ha) – 2 samples needed, each covering <10 ha*
    - *Field NF 76454/76223 (29.1 ha) – 3 samples needed, each covering <10 ha*

- *Field NF 77554/76584 (10.62 ha) – 2 samples needed, each covering <10 ha*
- *Field NF 78617/76713 (37.42 ha) – 4 samples needed, each covering <10 ha*

That is a total of 11 samples.

- *The applicant should note that it is NOT acceptable to divide the entire 91.51 ha on the island into a series of 10 ha blocks that cut across the boundaries of the fields, as this leads to unrepresentative sampling because different fields usually have different cropping and management histories and frequently also different soil types. Instead, each individual field should be split into sections of <10 ha for sampling, with no sampling across field boundaries.*
- *After they've been resampled, the soils from Vallay Island should be analysed for cadmium, chromium, copper, mercury, lead, nickel and zinc, as well as pH and extractable phosphorus, potassium and magnesium. These parameters are listed as required soil data in WMX-TG7, Annex 3, Table 1.*
- *Taking both the fields at Kyles Paible and Vallay, there is a total landbank for spreading of 104.7 ha. The applicant's benefit statement notes that they plan to spread the waste at a rate of 28 t/ha per year, which means that they can spread a total of 2,931.88 t of per year. However, the benefit statement also says that estimated waste production is 3,850 tonnes per year. This means that they either need to identify more land to spread the waste upon (and carry out soil analysis for this land to determine its suitability for spreading), or increase the spread rate and provide justification for doing so, in terms of agricultural benefit delivered.*

Additional comments

- *I agree that it is concerning that the benefit statement refers to the spreading of waste on land as 'disposal' and that other potential risks from spreading, particularly odour, have not been considered.*
- *Storage will need consideration. I am not convinced that year round spreading will be viable, due to fields potentially being waterlogged during winter and there being no/limited crop requirement for nutrients during winter. Storage for extended periods could also pose a potential odour risk.*
- *NatureScot will need to be consulted on this, particularly on whether they have any objections to spreading the waste on Vallay Island, as it's part of an SAC designated for various vegetation types – in particular, I suspect that adding more nutrients to soil from the waste spreading could potentially have a negative impact on dune grassland and machair vegetation on the island. However, some expert ecological opinion is going to be needed to check this.*