

# Application to discharge Condition 3 of P/18/014/Au

## Parting Carn On-Farm Composting

P-18-047

### Surface Water Run-Off

This document outlines how the green waste composting activity at Parting Carn Farm will be managed to prevent contamination to ground water sources and the Lower Moors SSSI.

#### Measure 1: Siting of On Farm Composting operation

The area identified for the location of the composting windrows is outside of the Source Protection Zones (as determined by the Environment Agency in 2016 - Isles of Scilly Source Protection Zone Delineation Project NVRESW001361 December 2016). Assuming that the methodology for assessing the SPZ1 and 2 for both Lower and High Moors are accurate, the surface water run-off from the composting operation would not impact on either of these areas. (Described in section 4.2 of the report.)

The natural fall of the field ensures that the 'run' of surface water does not direct towards the SPZ zone 2, which is near the boundary of the composting site and indicated in diagram 1. Additionally, mature vegetation and hedgerows at the boundary of the field deliver a natural and effective barrier.

#### Measure 2: Control of materials composted / Feed Stock

The material accepted for composting is limited to green garden waste. Although composting does produce leachate which has the potential to impact on ground water, it is possible to reduce the risk of this through control of the feedstock accepted to the site. For instance by reducing amount of grass clippings which are 'added' to the compost (these are not high in carbon and are high in nitrogen) and by regularly turning the heaps to ensure aeration and reduce moisture content. During the winter months and periods of heavy rainfall, compost heaps will be covered to maintain better moisture content and reduce leachate. Additionally the shape of the windrows creates a natural 'thatching' property to the materials that encourages run off of rain water and reduces risk of contamination.

The soil on the site is well drained, and located far enough away from a water source or protection zone and with sufficient vegetative barriers that in the event of any heavy rainfall the run off would be diluted and dispersed to safe levels before reaching water.

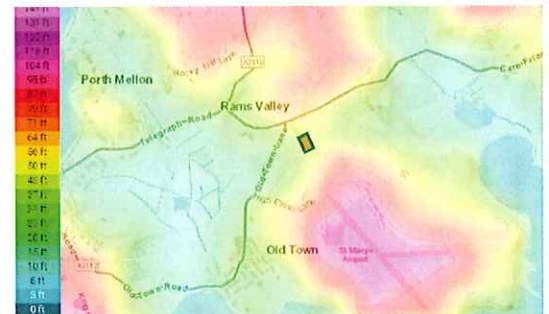
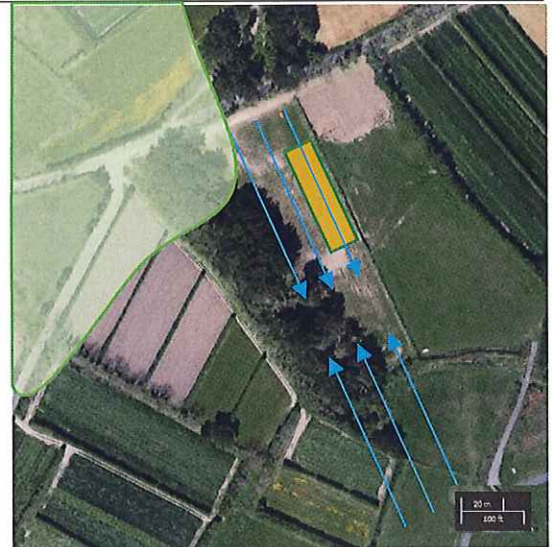
#### Measure 3: Control of volume of Feed Stock

The very small scale of the proposed operation means that the maximum amount of leachate is negligible. On average, the site would expect to accept 5 tonnes of garden waste each month, with a peak of up to 14 tonnes recorded. This represents a very small volume of green waste that would be being composted at one time. No other organic materials would be accepted or processed, therefore reducing the risk of leachates that could have a detrimental impact on the water sources or SSSI.

#### Measure 4: Monitoring & Review

The following monitoring actions will be established:

- Contact with the Water Services team with regards to reviewing Water Quality sampling.
- Feedstock monitoring and acceptance protocols in place with the Waste & recycling team to ensure only low risk feedstocks are accepted.



## RISK ASSESSMENT

It is necessary to identify what hazards

RISK IDENTIFIED	LEVEL OF RISK	CONTROL OF RISK	REVIEW DATE
Potential for contamination of groundwater from leachate through the waste and also through surface run-off.	LOW	Reducing the amount of nitrogen-rich material (i.e grass cuttings) which are added to the mix at any one time.  Turn the compost heaps regularly depending on severity to ensure adequate aeration of soil to reduce moisture content  During the winter months and periods of heavy rainfall, cover the heaps to maintain better moisture content and to reduce leachate.	May 2019
Release of Odour into the Air could cause a nuisance	LOW	Work with waste operatives to ensure that mixes delivered to site are well blended to limit amount of nitrogen.  Add carbon rich materials such as leaves, sawdust and mix frequently every few days.	May 2019
Unwanted materials which could compromise quality of the product	LOW	Acceptance protocols are in place to ensure low risk materials are accepted on site.	May 2019
Temperature of compost could affect productivity and could lead to build up of material	LOW	Ensure that the compost is between 32 and 60 degrees Celsius. Composting will also slow down during the winter months. Covering the material will help reduce the temperature reduction.	May 2019

## REFERENCES:

[www.english-heritage.org.uk/content/learn/conservation/2544404/LAN - Green Waste Management.pdf](http://www.english-heritage.org.uk/content/learn/conservation/2544404/LAN - Green Waste Management.pdf)  
[http://organics-recycling.org.uk/dmdocuments/Composting\\_Industry\\_Code\\_of\\_Practice.pdf](http://organics-recycling.org.uk/dmdocuments/Composting_Industry_Code_of_Practice.pdf)