Environment Marine and Fisheries Group

Resource Efficiency Division

Your reference:

Our reference: DAERA/20-271



Mobuoy Remediation Project
Ballykelly House
111 Ballykelly Road
LIMAVADY
BT49 9HP

Tel:

Email: Mobuoy.Project@daera-ni.gov.uk

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Environmental Information Regulations 2004

I refer to your request for information, received by the Department on 28 September 2020 that sought the following information:

We have a question on the outcomes of the £350,000 Small Business Research Initiative announced by then Environment Minister Michelle McIlveen in 2016. Can we have a brief summary of recipients of the funding or funded projects?

I can advise that the Department has completed its search and can confirm that it holds the information you requested which is below:

There were 5 successful applications from 4 companies for the Small Business Research Initiative, these were:

1. Byrne Looby Partners (UK) Ltd, an international civil and structural engineering consultancy, whose project was the novel combination of two relatively new technologies; Permeable Reactive Barriers and Soil Mix Technology.

The aim of this project was to complete a validation assessment of the use of various binders and add mixtures, in relation to their use in Soil Mix Technology for the successful containment and remediation of groundwater. Specifically, the investigation was designed to assess potential soil-binder mixes to create

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both low-permeable walls (to contain and direct groundwater flow) and install Permeable Reactive Barrier to clean the flow of contaminated groundwater.

2. The Sirius Group, a specialist engineering company, whose project was to develop a combined active hydrological and biological capping system.

The aims of this project were to examine the potential for creating soils which could be used in formation of an active hydrological and biological capping system to manage infiltration of leachate into areas of historic landfilling and to maximise evapotranspiration. Similar techniques have been used successfully in the United States although the technology has not been widely applied in the UK. Specific engineering of soils for their water holding characteristics using organic additives is a novel approach to contaminated land management.

3. Queens University Belfast (QUB), a member of the Russell Group of UK research intensive universities, whose project was using a novel technology called a Bio-Electrochemical System (BES), a form of enhanced monitored natural attenuation.

The aim of this project was a proposal for a new and innovative technology, BES. This technology would enhance and monitor the natural biodegradation process providing an innovative, technically and economically viable sustainable risk management solution. The innovative technology is a form of Enhanced Monitored Natural Attenuation, where the attenuation process is enhanced by the novel and innovative use of an engineered BES that uses upcycled biochar and graphite as a high surface area electrodes.

4. Agri-Food and Biosciences Institute (AFBI), a research and development facility, whose project was the exploration and evaluation of filter material for the treatment of leachate.

The aim of this project was explore the potential for pre-treatment filtration of leachate prior to discharge to the environment or to further phyto-treatment such as willow bio-filtration schemes. This involves searching for and sourcing of materials within reasonable geography that are likely to have some potential filtration efficacy. This was done in consultation with Swedish experts, who have found sustainable natural solutions to identical problems, and in doing so to learn and apply the LAQUA Protocol; the methodology by which the effectiveness of leachate treatment is measured in Sweden, where the implementation of this technology is relatively commonplace.

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5. Agri-Food and Biosciences Institute (AFBI), a research and development facility, whose project was sustainable leachate management solutions using energy crops.

The aim of this project was to try to obtain clarity on a number of aspects related to the efficacy of whether short rotation coppice (SRC) willow could function as an efficient management strategy for dealing with landfill leachates. The proposal was to investigate and evaluate the opportunities to implement SRC willow technologies for both point and diffuse leachate sources incorporating LiDAR for surface modelling of hydrologically connected areas.

If you require any clarification, believe that any part of your request has been overlooked, misunderstood or misinterpreted, please contact me in the first instance to see if it is a matter that can be resolved.

If you are unhappy with the manner in which your request for information has been handled or the decision to release/withhold information, you have the right to request a formal review by the Department. If you wish to do so, please contact The Review Section either by e-mailing daera.informationmanager@daera-ni.gov.uk or by post at The Department of Agriculture, Environment and Rural Affairs, Data Protection & Information Management Branch, Floor 2, Ballykelly House, 111 Ballykelly Road, Ballykelly, Limavady BT49 9HP, within two months from the date of this letter.

If after such an internal review you are still unhappy with the response, you have the right to appeal to the Information Commissioner at Wycliffe House, Water Lane, Wilmslow, CHESHIRE, SK9 5AF, who will undertake an independent review of the Department's decision.

Yours sincerely,



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