

Drumkee, the First 20 Year, Willow Biofiltration Contract with an Irish or UK Water Utility Company, switched on by N. Ireland's Department of Regional Development's Minister, Danny Kennedy, 07/08/13

Background – As 2015 and the imposition of new water quality legislation like the EU Water Frameworks Directive approaches, the Waste Water and Farming and Food Industries are trying to find innovative to deliver compliance while reducing costs. N. Ireland Water is one such company and has recently awarded Resourceful Organics Ltd their first twenty year contract to use short rotation willow coppice trees to clean waste water from Drumkee Waste Water Treatment Works, outside Dungannon, Co. Tyrone.



Bill Goudie, Director, N. Ireland Water; Sean Hogan, Chairman of N. Ireland Water & AFBI NI; Minister for NI Regional Development, Danny Kennedy; John Gilliland, Director, Original Heating Ltd, monitoring the flow of waste water onto the crop of willows at Drumkee, Rural Waste Water Treatment Works, Co. Tyrone.



Minister, Danny Kennedy, switching on the willow waste water irrigation with Dahn Rosenquist, Director, Resourceful Organics Ltd



John Gilliland, Director, Resourceful Organics Ltd, explaining to Minister, Danny Kennedy and Sean Hogan, Chairman, N. Ireland Water, the on going willow site monitoring being provided, to warrant N. Ireland Environment Agency awarding the project, UK's first Variable Discharge Consent. Ground water is measured through regular sampling of a collection of bore holes to below the water table, one of which is under the black vertical pipe in the centre of the picture.



Drumkee Rural Waste Water Treatment works treats waste from 25 people. Its waste water will now be used to fertilise one hectare of land, which grows 15,000, short rotation willow trees, coppiced every three years, before regrowing from the same tree stumps. The resultant wood is used to fuel automated wood fired boilers, which subsequently produces renewable heat.



Blending into the surrounding landscape, the Drumkee willow waste water treatment system will reduce N. Ireland Water's cost by 30%, its greenhouse gas emissions by 1,500%, while delivering compliance with the forthcoming EU Water Frameworks Directive, over its twenty year life.

Resourceful Organics Ltd is a recently formed company, set up to commercialise the innovative use of willow coppice to reduce the environmental footprint of both the Agri Food and Water Industries. Its aim is to capitalise on its two shareholders' extensive knowledge and track records. Dahn Rosenquist, of Laqua Treatment AB, Sweden, is a leading irrigation and controls system specialist, who has been working with the Swedish University of Agriculture Science, developing willow irrigation systems for the last twenty years. John Gilliland is a N. Ireland farmer who has become a leading specialist in the growing of willow coppice and the production of renewable heat, working with the Agrifood and Bioscience Institute for N. Ireland (AFBI) to commercialise the willow crop, here in Europe, North America and the Ukraine.