

SUMMARY OF FINDINGS

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Examining the Use of Food Waste Disposers (2005-WRM-DS-23-M1)

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Food Waste Disposers (FWDs) are units used by householders or commercial food operators to dispose of organic kitchen waste down the sinkhole to the sewer system. The purpose of this report is to examine the potential impacts of domestic and commercial FWD use on the wastewater collection and treatment systems, the environment and stakeholders in Ireland

Background

Food Waste Disposers (FWDs) are units used by householders or commercial food operators to dispose of organic kitchen waste down the sinkhole to the sewer system. Powered electronically, the units contain spinning metal plates to grind the food into particles varying in size from 2 mm to 50 mm on average.

Currently, over one-third of waste generated from households and almost half of waste generated from the commercial sector (in particular, food service establishments) in Ireland is organic. The policy for organic waste management in Ireland is to implement source-separate collection of this waste. FWDs transfer the management and treatment of organic waste from the solid waste stream to the wastewater system. Food wastes disposed of to sewer by FWDs have to be treated at a wastewater treatment plant (WWTP) rather than composted at home or collected separately and treated biologically. The increase in their use commercially and more recently in households is linked to the introduction of use-related waste charges and the high-profile marketing of the products.

Key Points

- Sales of FWDs have increased significantly – particularly since waste charges were applied nationwide
- FWD use in Ireland is not consistent with government policy on waste management or water services
- Use of FWDs inequitably transfers the additional collection and treatment cost burden to other water services consumers who do not have such units installed.
- FWDs have a direct impact on the receiving wastewater treatment networks.
- Regulatory controls should be put in place for the use of FWDs at the household and commercial level.
- National and regional awareness campaigns should be implemented to promote better management of organic waste at home and at work.

Findings/ Recommendations

An estimate of the number of domestic and commercial FWDs currently in use in Ireland is outlined in Table 1. This estimate includes the potential loading of suspended solids at Irish WWTPs because of FWD use.

Ireland could adopt the approach taken by many European countries which regulate FWD use at local or regional levels. The extent of the regulation should reflect the specific local waste and wastewater conditions – for example, waste-collection arrangements and the status of wastewater collection and treatment infrastructure. The production of a national EU waste management policy which prioritises waste prevention, minimisation, reuse and recovery over waste disposal guidance circular on the appropriate actions/steps would be appropriate and useful. A nationwide awareness campaign to discourage both the existing and future use of commercial and domestic FWD units is recommended.

Household

Householders should be encouraged to adopt a more environmentally friendly approach to the management of biodegradable waste arising in the home (particularly kitchen waste).

- Regulating the use of FWDs is recommended at household level, and local authorities need to consider the most appropriate approach and statutory

mechanism. The strategy needs to consider both existing FWDs and the future use of the units.

- The introduction of household waste by-laws or wastewater by-laws to restrict or regulate the use of FWDs is recommended.

Commercial

At commercial level, an effective regulatory system is available to local authorities:

- Some local authorities currently use Trade Effluent Licences to restrict the use of FWDs commercially. Consideration needs to be given to more widespread application of these controls, with support from the Department of Health and Local Government (DEHLG) and the Environmental Protection Agency (EPA).
- An annual charge related to WWTP usage may be applied under the Water Pollution Act. It may be appropriate to implement a trial project to determine the appropriate costs to FWD users.

Where the decision to allow and regulate the use of FWDs commercially is made by local authorities, the local wastewater infrastructure conditions and the sensitivity of receiving water bodies need to be taken into consideration.

Alternative Regulatory Mechanisms for Control of FWDs

The Planning System – For Irish local authorities who roll-out, or arrange for the roll-out, of a separate organic waste collection, the use of FWDs in new residential developments may be prohibited by setting out a condition in the planning permission.

- The implementation and enforcement of such a condition will encourage developers and architects to design new developments with sustainable waste management systems in place. This measure will provide residents with the opportunity to maximize recycling on-site through source separation of waste materials, including organic waste.

Wastewater Discharge Authorisation Regulations - The Wastewater Discharge Authorisation Regulations 2007, Statutory Instrument Number 684 of 2007, requires discharges from local authority wastewater works (sewers or treatment plants) to be licensed by the EPA (the Agency). In accordance with the duties set out in the regulations, the Agency will be responsible for setting necessary emission limits to ensure that discharges are controlled and environmental objectives are achieved. Local authorities will

be required to take all necessary steps to ensure compliance with the limits set down. The implementation of these regulations may have implications for the use of FWDs in a local authority area. Discharges from FWDs units could have a negative effect on the level of organic matter within the water body and cause local authority discharges to exceed the limits set by the Agency.

Awareness Campaigns and Initiatives

It is recommended that national and regional awareness campaigns are implemented to promote better management of organic waste at home and at work and guidance on the use of FWDs provided.

- Revenues from the Environment Fund could be used to support the financing of future awareness campaigns by local authorities on household organic waste management, including the impacts of FWD use.
- Finally, it is recommended that a national awareness brochure on FWD is prepared by the DEHLG and/or the EPA and circulated to all relevant stakeholders, including local authorities, state agencies and to the public in print and online.

Table 1: Key statistics on Food Waste discharged from Domestic and Commercial FWDs

	Quantity
Approximate Number of domestic FWDs in Ireland	26,000 units
Estimate of Food Waste discharged from Domestic FWDs to sewers*	6.8 tonnes/day
Estimate of Food Waste discharged from commercial FWDs to sewers**	35.9 tonnes/day
Estimated combined total solid food waste from domestic and commercial FWDs***	10.7 tonnes/day
% of total SS influent loading at WWTPs discharged through a FWD	2.3–8.2%

* Based on estimated number of FWD units and average estimated food waste generated per household

**Based on estimated % hotels and restaurants with FWDs and estimated food generated from hotels and restaurants

***Solid food waste based on 25% of 42.7 tonnes domestic and commercial food waste

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