


Water Infrastructure – Lagging behind

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Kildare

Kildares population has doubled in the last 15 years



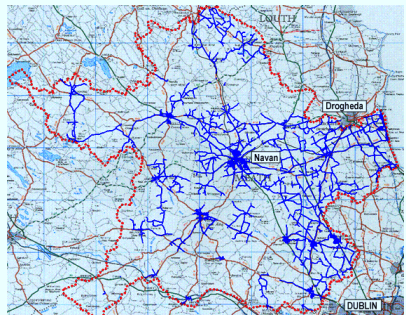
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Increase in Groundwater Abstraction

Water Infrastructure – Lagging Behind

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Meath



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MEATH WATER SUPPLY

Strategic water plan review due in early 2007.

Meath Co. Co. currently distributes 50,000 m3/day.

Pace of development is outstripping savings made in water conservation measures.

Future demand for East Meath, Drogheda and South Louth estimated at 72,300m3/day. Boyne abstraction is 32,000m3/day. Studies being undertaken to identify further availability from the Boyne & groundwater sources.

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Water Costs

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Local Authority:	Cost: €/m ³	Industry Type:	Consumer: (Av)	€/Annum
Roscommon	0.91	Piggery	25,000	22,750
Roscommon	0.91	Pharmaceutical	30,000	27,300
Wexford	1.2	Heavy Industry	200,000	240,000
Wexford	1.2	Creamery	160,000	192,000
South Dublin Coco	1.77	Hospital	170,000	300,900

Typical costs paid by non domestic consumers to selected Local Authorities for water per m³ for 2005


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Water Costs – Non domestic user

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Schering Plough - 950M³/day



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Water Costs – Non domestic user

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Future Charging of Domestic Users??

Charging of domestic consumers for both water and waste waters services for domestic purposes is currently prohibited under the Local Government (Financial Provisions) Act 1997.

To improve conservation of resources, the Chambers of Ireland "strongly urges the department (DoEHLG) to make provision for water meters to become an integral part of the planning permission in all future domestic houses" Chambers of Ireland March 2005, Water Service charges for Business 2005.



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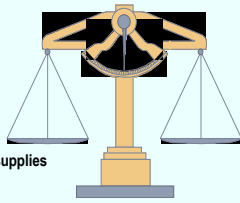
Increase in Groundwater Abstraction

2

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- Is development effecting groundwater quality
- Impact of nitrate directive
- Impact of water framework directive
- Planning requirements for independent water supplies



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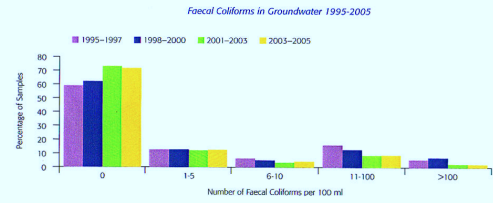
Current Status of Groundwater Quality

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EPA report Water quality in Ireland 2005 – Key indicators of the aquatic environment

- 30% samples had evidence of bacterial contamination

Faecal Coliforms in Groundwater 1995-2005



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Current Status of Groundwater Quality

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	GW	SW
Potable in Raw State (bacteriologically)	81%	2%
Samples with Total Coliforms only	(10%)	(6%)
No Faecal Coliforms	91%	8%
1 – 10 Faecal Coliforms	8%	11%
10 -100 Faecal Coliforms	1%	30%
> 100 Faecal Coliforms	0%	51%
NUMBER OF SOURCES ANALYSED	74	89

Source: White Young Green Database

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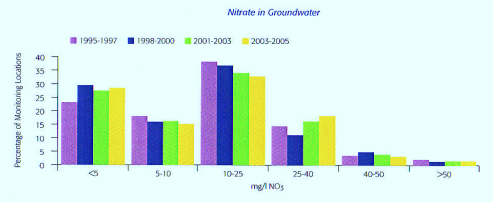
Current Status of Groundwater Quality

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EPA report Water quality in Ireland 2005 – Key indicators of the aquatic environment

- 23% samples exceeded the mean guide nitrate conc. For drinking water and 2% exceeded the Maximum Admissible Concentration

Nitrate in Groundwater



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S.I. No 378 of 2006 New Nitrate Directive

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Impact of Nitrate Directive

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Waste Arisings (Mtonnes)

Publication	Non Agricultural	Agricultural	Total
State of the Environment - 1996	--	--	38
National Waste Database - 1995 Report	11	31	42
National Waste Database - 1998 Report	15	65	80
Ireland's Environment - 2004	18	56	74

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Impact of Nitrate Directive

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Impact of Water Framework Directive

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□ Draft EU Water Framework Directive 2000/60/EC

"Groundwater & surface waters will be differentiated into River Basin Districts and will be managed using River Basin Management Plans.

Aims:

- prevent the deterioration water status
- restore polluted bodies of water
- reverse any upward trend in pollutants
- **ensure a balance between abstraction & recharge of water**



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Impact of Water Framework Directive

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Planning Requirement for Independent Water Supplies

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□ Requirement for Impact Study

S.I. No. 93 of 1999 European Communities (Environmental Impact Assessment) (Amendment) Regulations, 1999

"Groundwater Abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted exceeds 2 million cubic metres"

□ EPA Act 1992

IPC Industries with abstractions can be required to submit details of any impacts

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Planning Requirements

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□ Planning Requirement

Local Government (Planning & development) regulations, 1994, S.I. No. 86 of 1994
Exempted developments include the following

Class 40 boreholes for domestic supplies, group water scheme in accordance with a plan approved by the Minister/Local Authority for the purpose of making a grant towards the cost of such works"

Class 41 "Any drilling or excavation for the purpose of surveying land or examining the Depth & nature of the subsoil, other than drilling or excavation for the purposes of mineral prospecting"

Part 10 required for Boreholes drilled for Local Authority



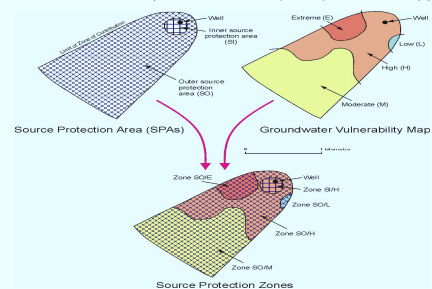
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Planning Requirements

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□ Delineation of source protection zones (SPZs) around a supply well



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Planning Requirements

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Source protection planning

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Planning Requirements

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Groundwater Protection Response Matrices

Outlined in DoELG/EPA/GIS 1999 publication

Provides a means with which to determine the suitability of a given activity to a particular site

Indicates if further site investigation is required to make planning decision

Indicates what planning or licensing conditions may be required for the activity

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Sustainability – getting the balance right

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5