

## Utility Sector Analysis for Trenchless System Application

Gas, Water and Sewerage activity have been separately graphed to offer greater insight into current usage patterns and future potential. There are four sections to this analysis;

- General Introduction / summary Information
- Illustrative Graphs for the Gas Industry
- Illustrative Graphs for Water Supply Mains Rehabilitation Works
- Illustrative Graphs for Waste Water Sewerage Rehabilitation Works

Note - All graphs are based on industry data

### Some summary information (000s)

#### Gas Industry Network Lengths + Replacement Rate

Ranked percentage

Company	km of Pipeline	Replacement 2005	% Gas Mains Replacement
Scottish & Southern	75	0.450	0.60%
Wales and West	30	0.400	1.33%
National Grid	126	1.825	1.45%
Northern Gas Networks	36	0.528	1.47%
<b>SUB TOTAL</b>	<b>267</b>	<b>3.203</b>	<b>1.20%</b>

Ranked Volume

Company	km of Pipeline	Replacement 2005	% Gas Mains Replacement
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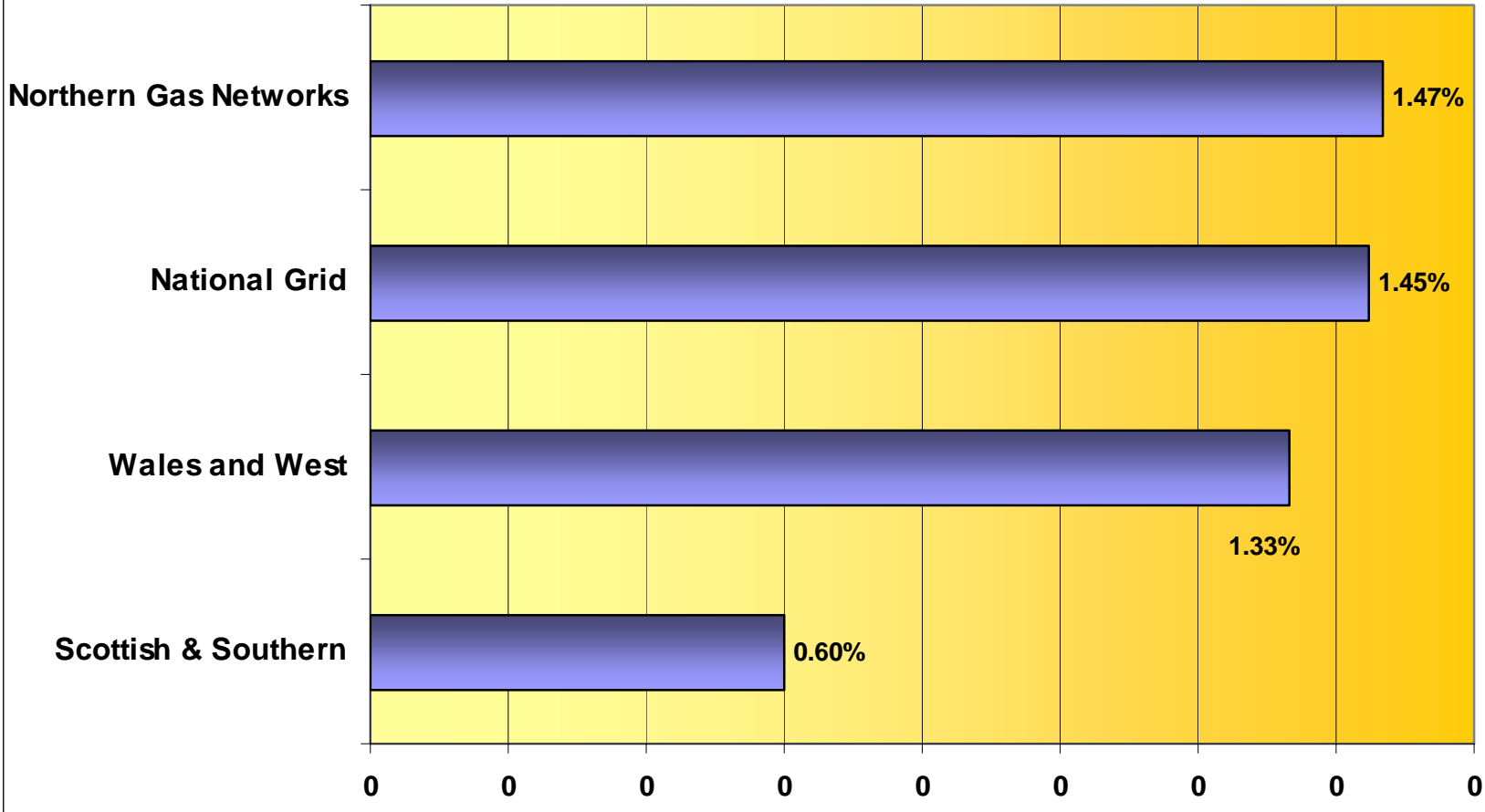
#### Water Industry Customer Connections – (Existing + New Connections/annum)

197	18	157	11	Household		Non-Household		53,429
				Unmeasured	Measured	Unmeasured	Measured	
				39,629	13,256	198	1,361	
Annual New Water Household Connections	Annual New Non-Household Water Connections	Annual New Household Sewer Connections	Annual New Non-Household Sewer Connections	52,885		1,559		Sewerage System Population served
				Water Supply Population served	Water supply connections Non-Household			

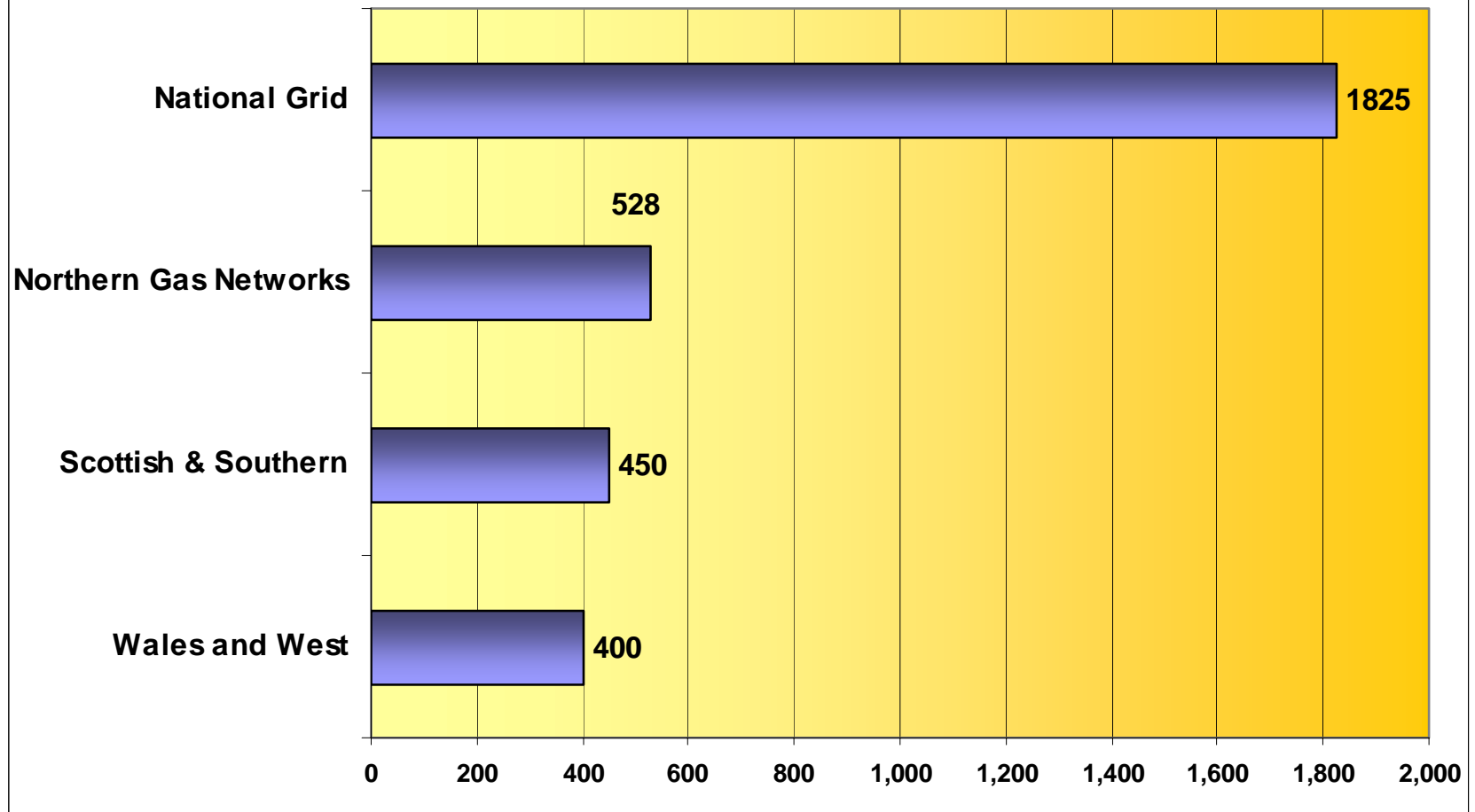
#### Network Magnitudes

km of Pipeline		
Water	Sewers	Critical Sewers
361,402	324,530	88,769

**Gas Mains Replacement 2005  
Percentage of Total Pipeline**

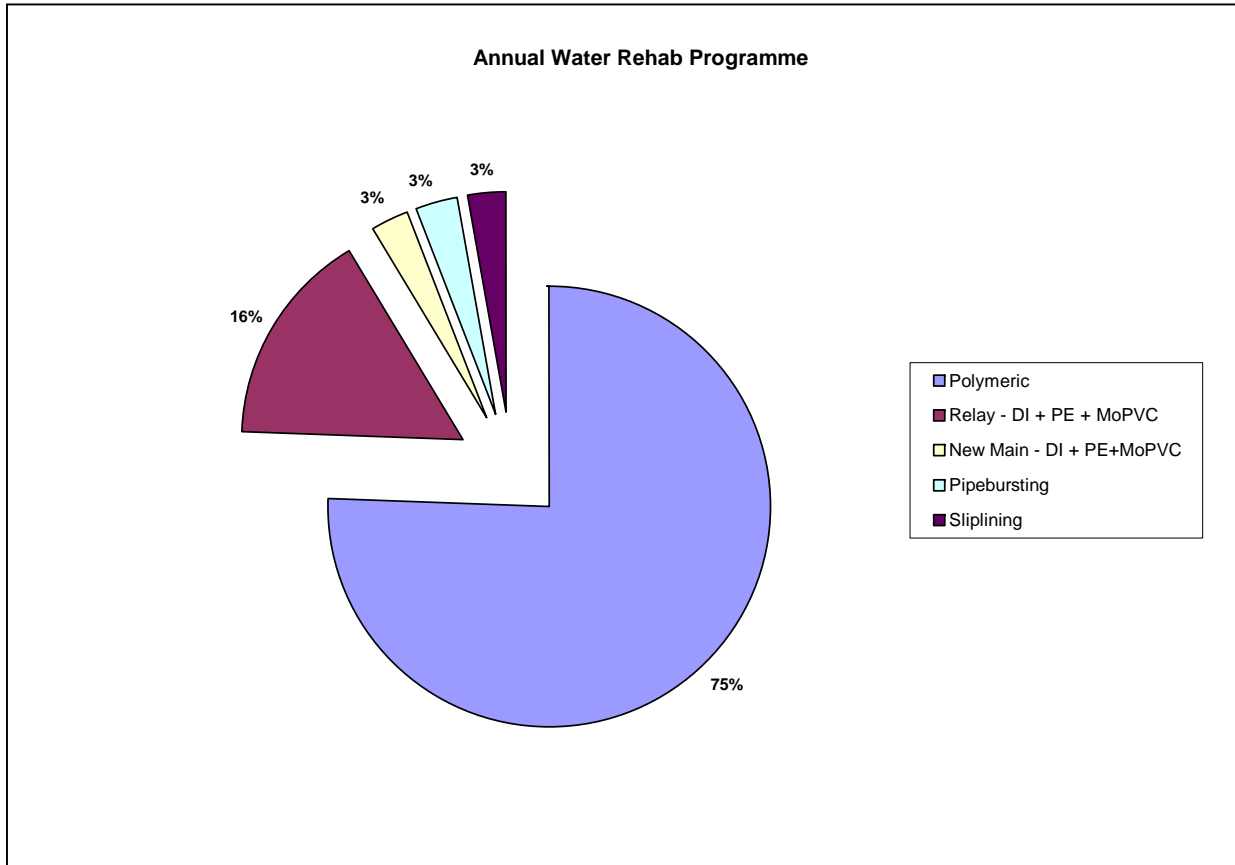


## Gas Mains Replacement 2005 Total Length of Pipeline Replaced (km)



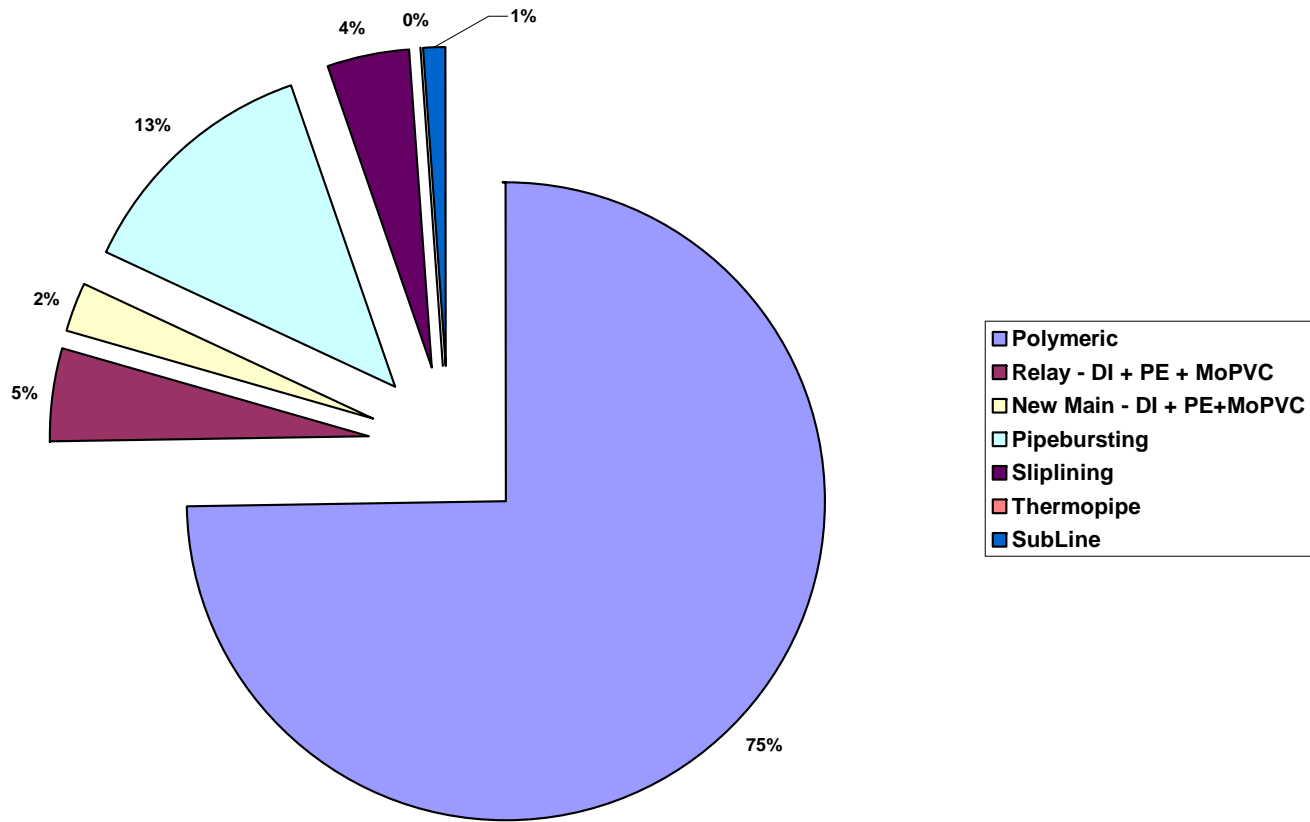
### Water Supply Network Replacement Programme (km / annum)

renew	relined	cleaned	new	Total
3,081	1,812	21,131	1,078	27,102
11.3%	6.7%	78%	4%	100%



**Notes** Polymeric includes epoxy resin and polyurethane coatings  
 This chart is based on limited industry detailed data

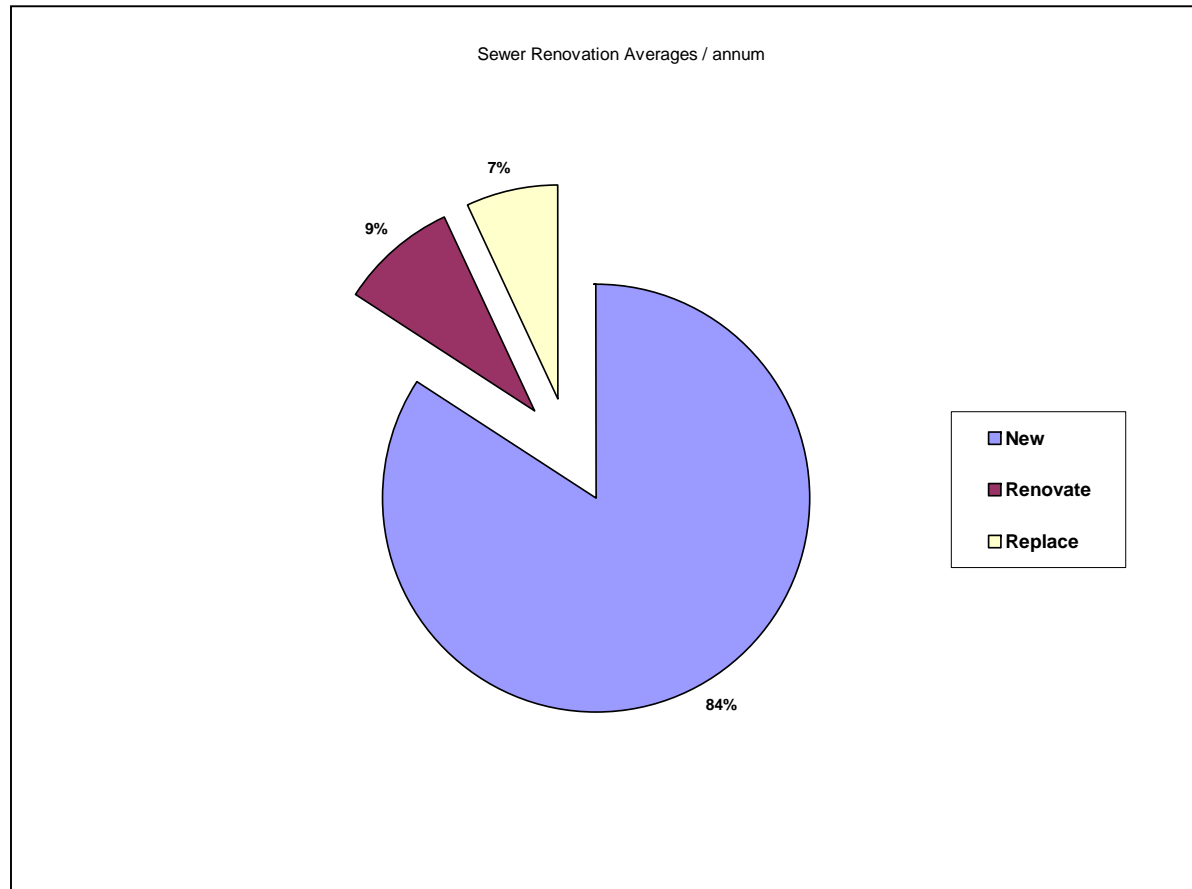
### Annual Water Rehab Programme



**Notes** Polymeric includes epoxy resin and polyurethane coatings  
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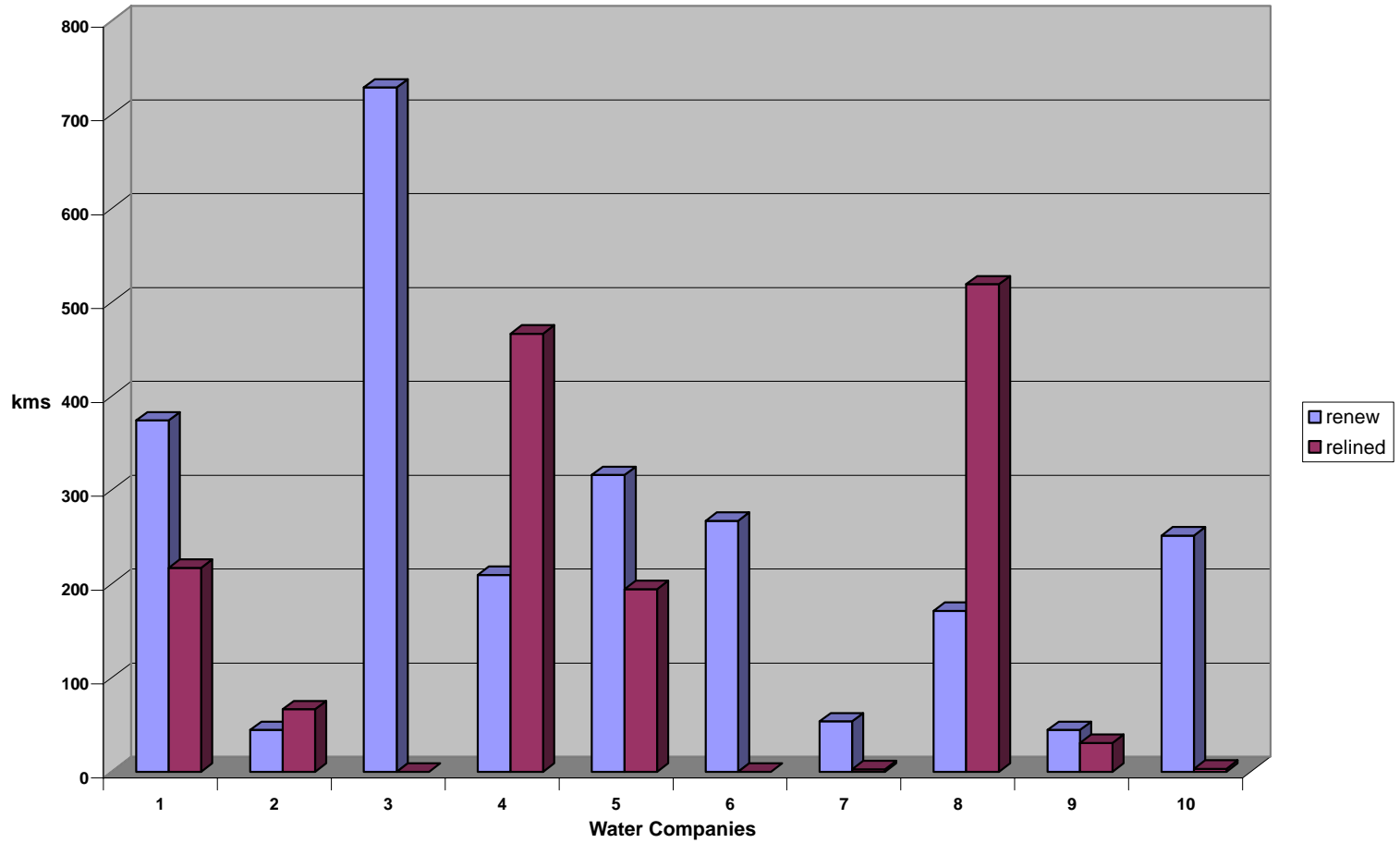
## Sewerage Network Replacement Programme (km / annum)

Sewers				Critical Sewers				
new	renovate	replace	total	new	inspect	renovate	replace	total
842	68	89	999	203	922	88	80	1293
84%	7%	9%	100%	16%	71%	7%	6%	100%

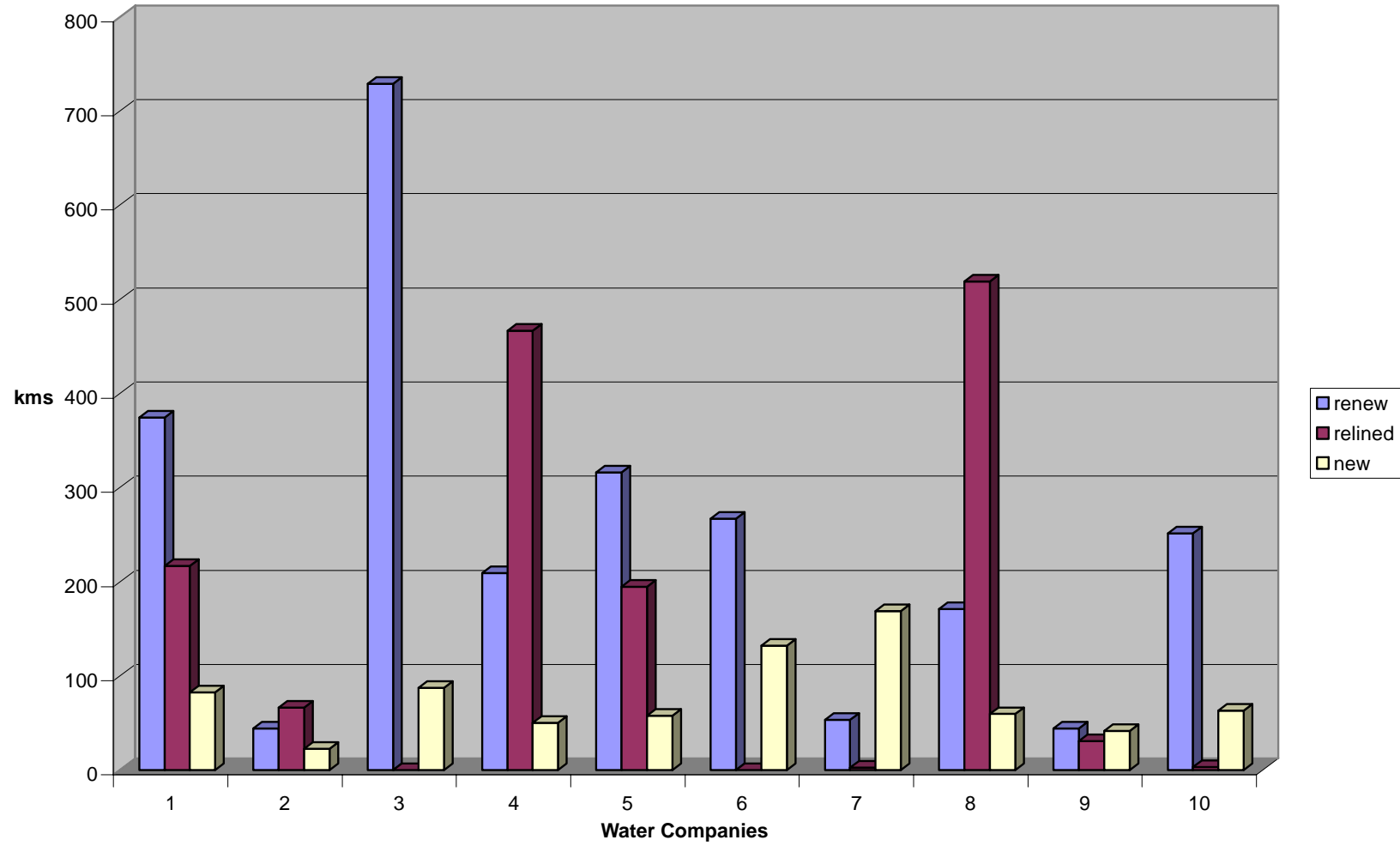


# Illustrative Graphs for Water Supply Mains Rehabilitation Works

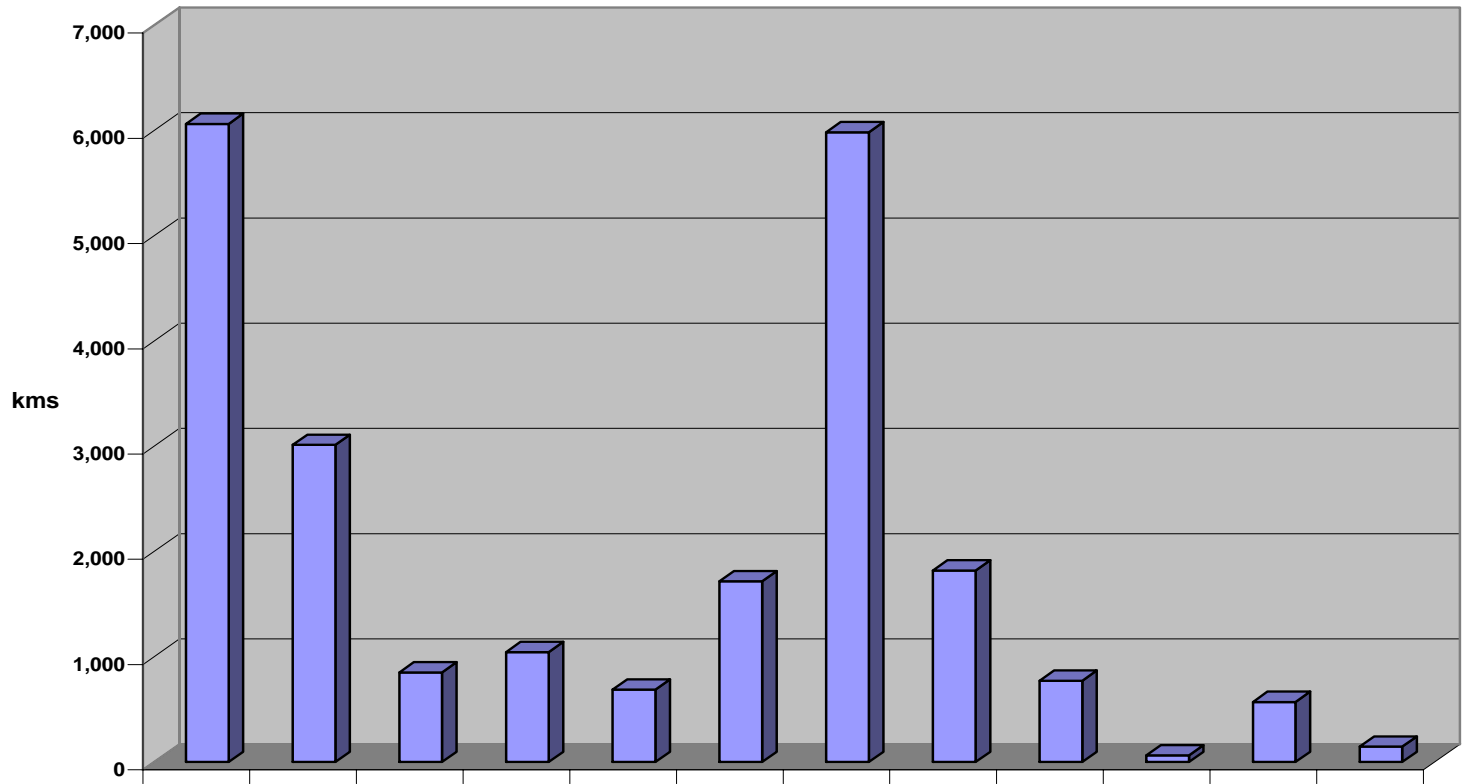
## Principal Water Companies (kms)



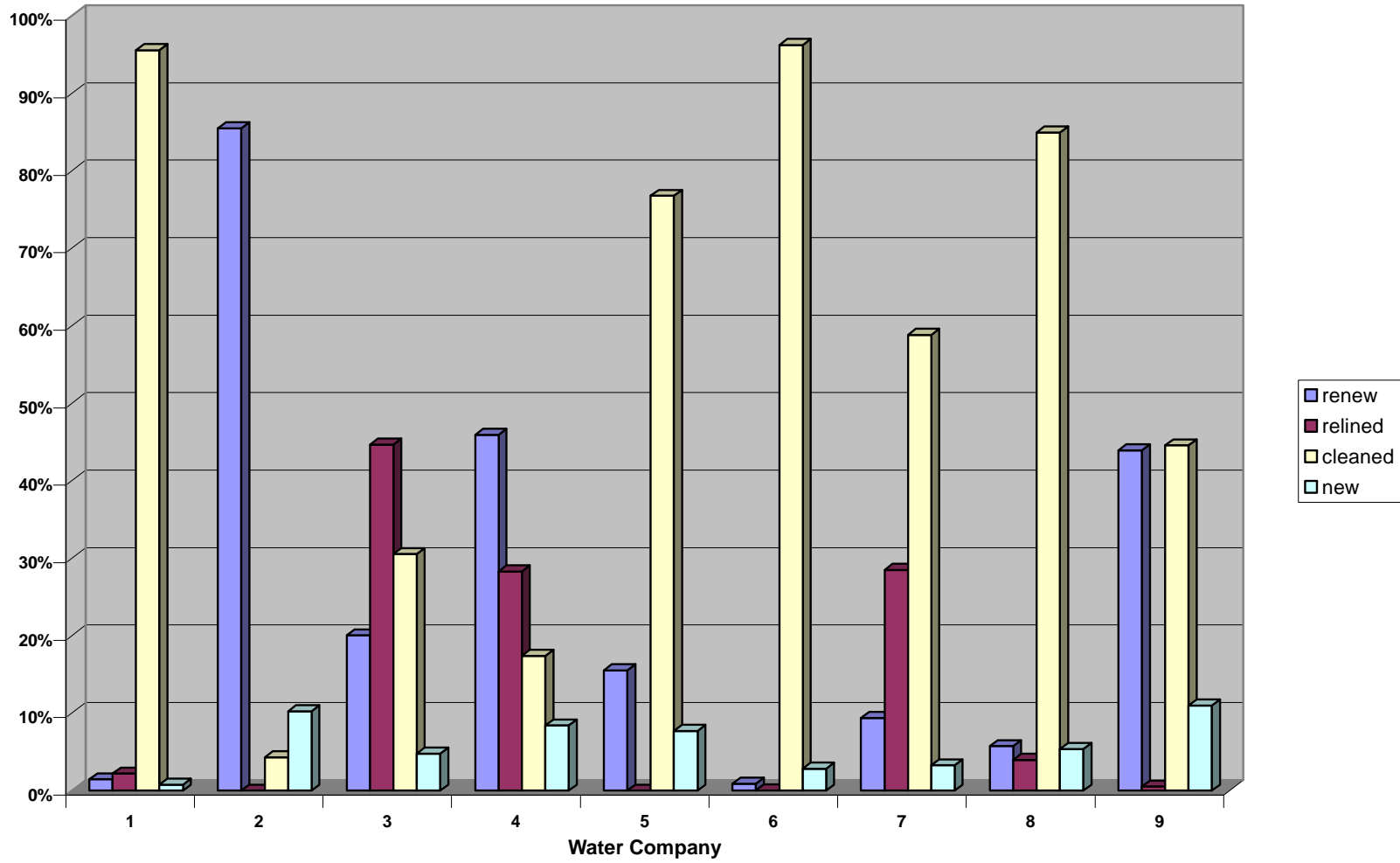
### Principal Company Mains Programme



**KM Replacement Programme by Water Company**

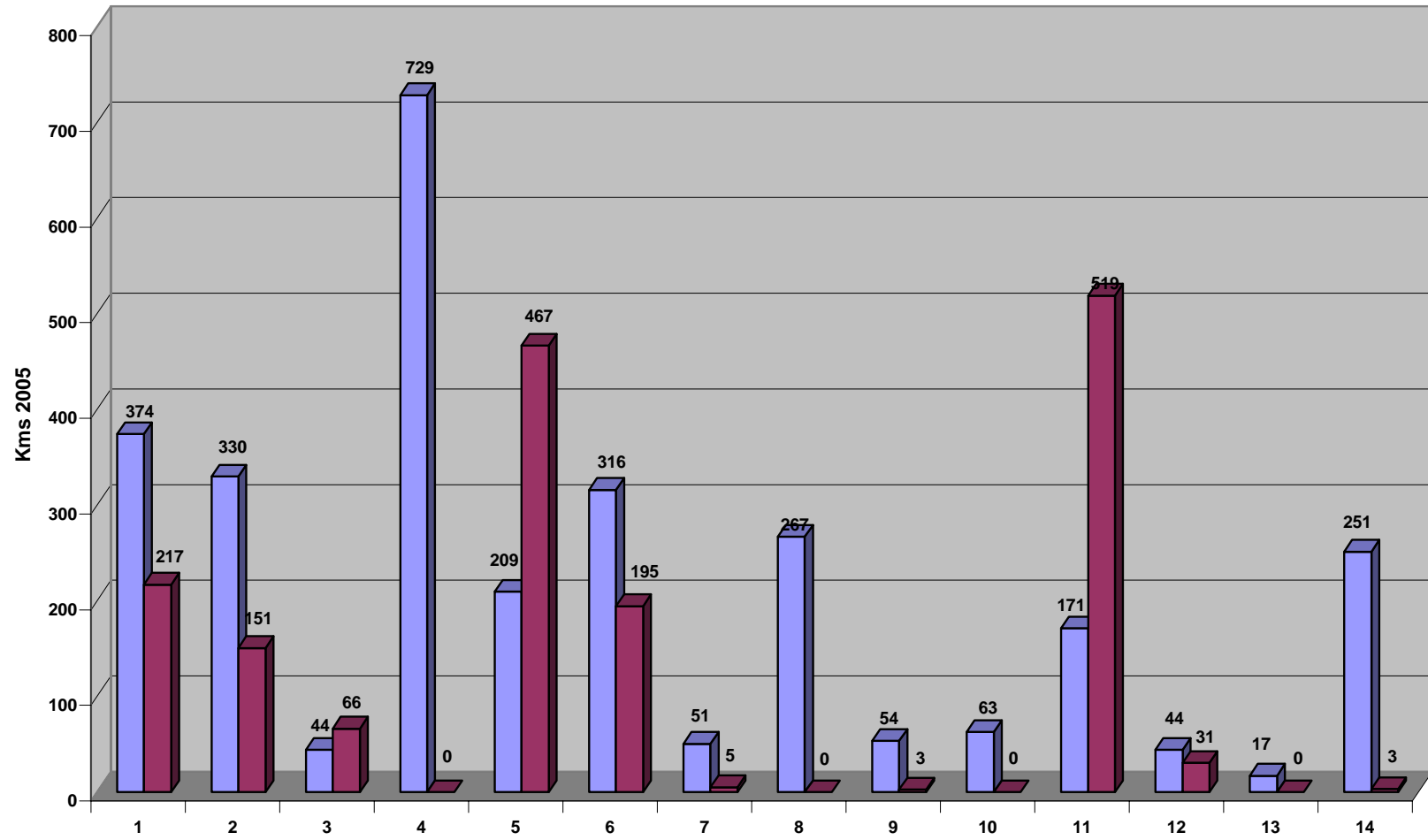


**% Replacement Programme by Water Company**

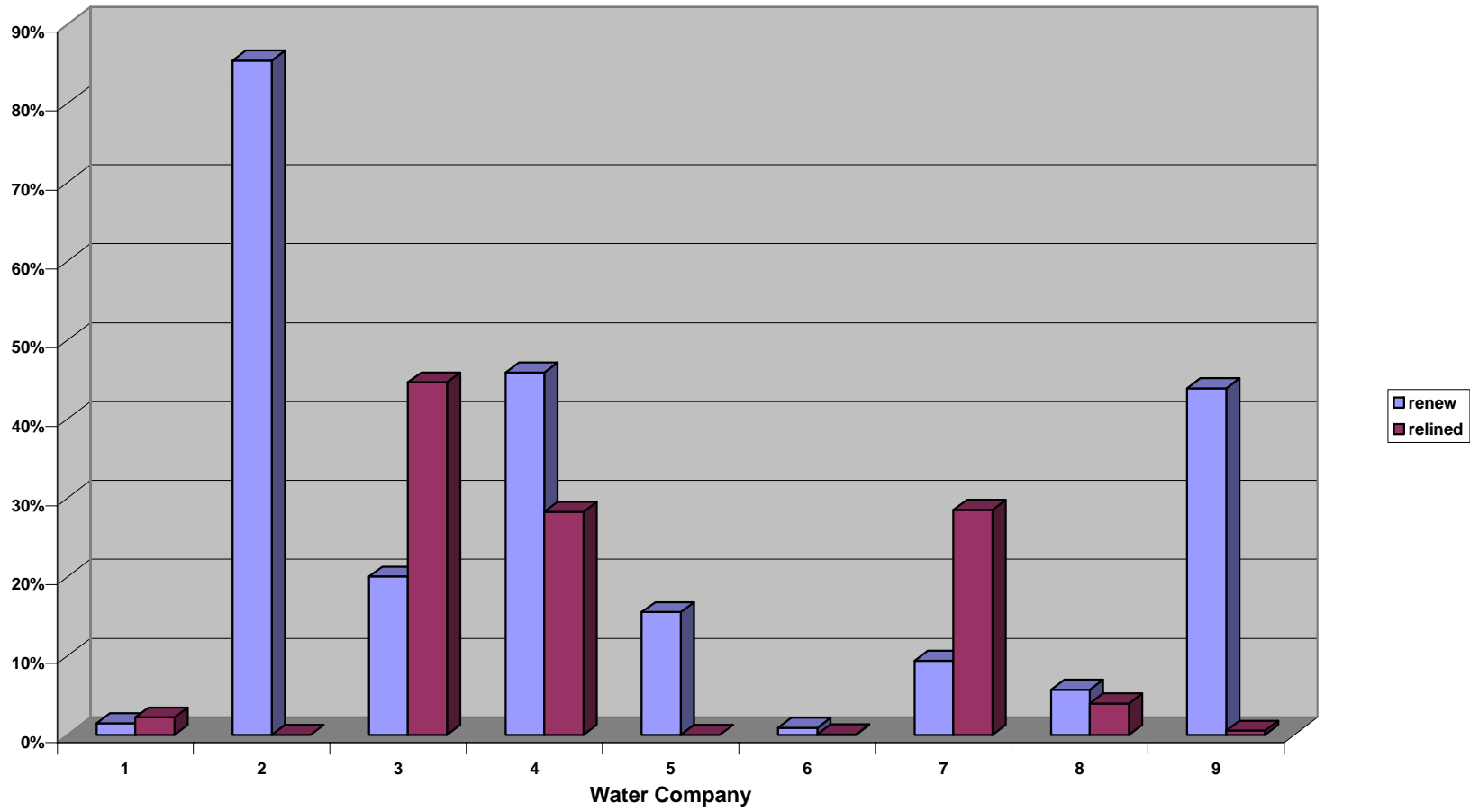


# Water & Sewerage Co.

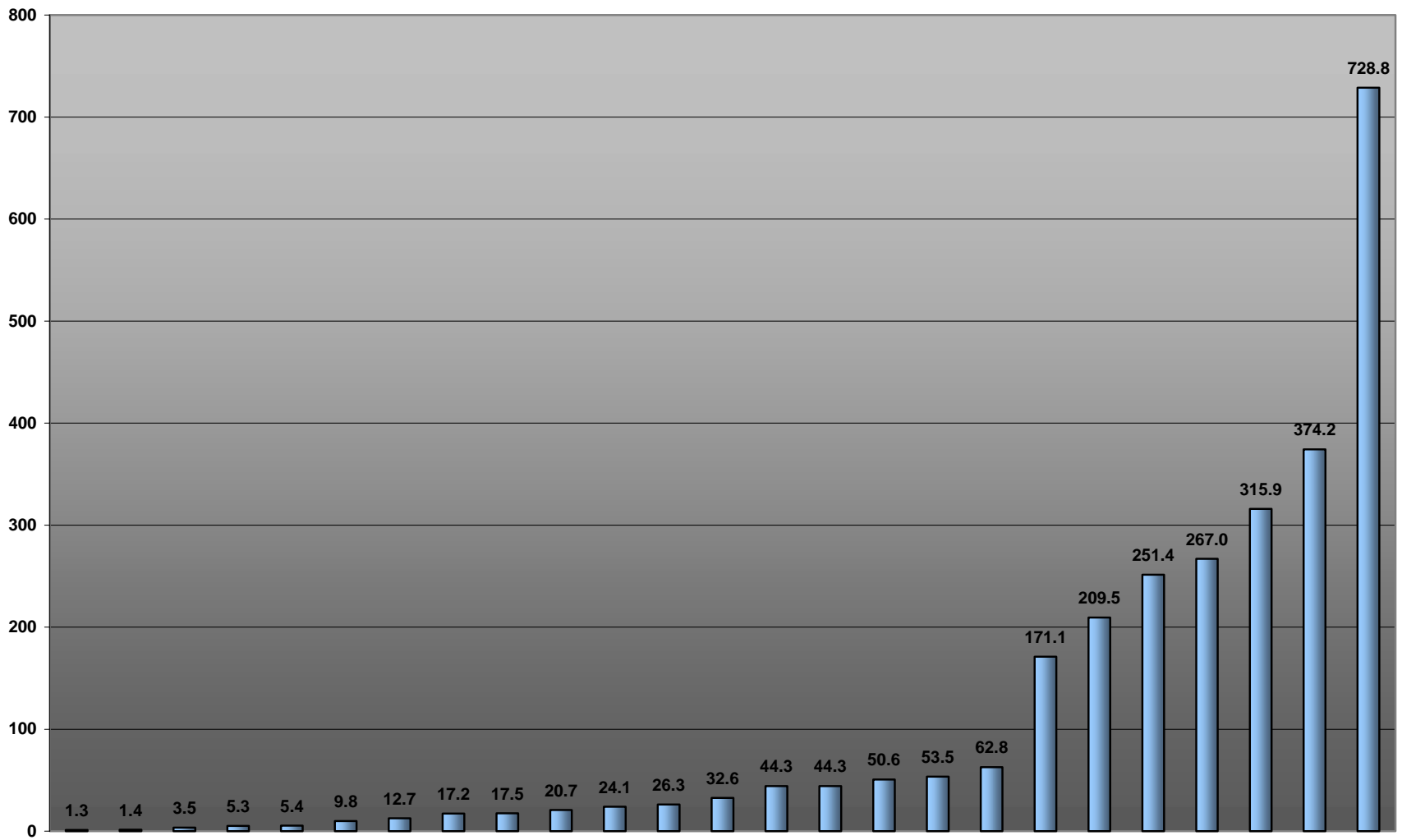
renew relined



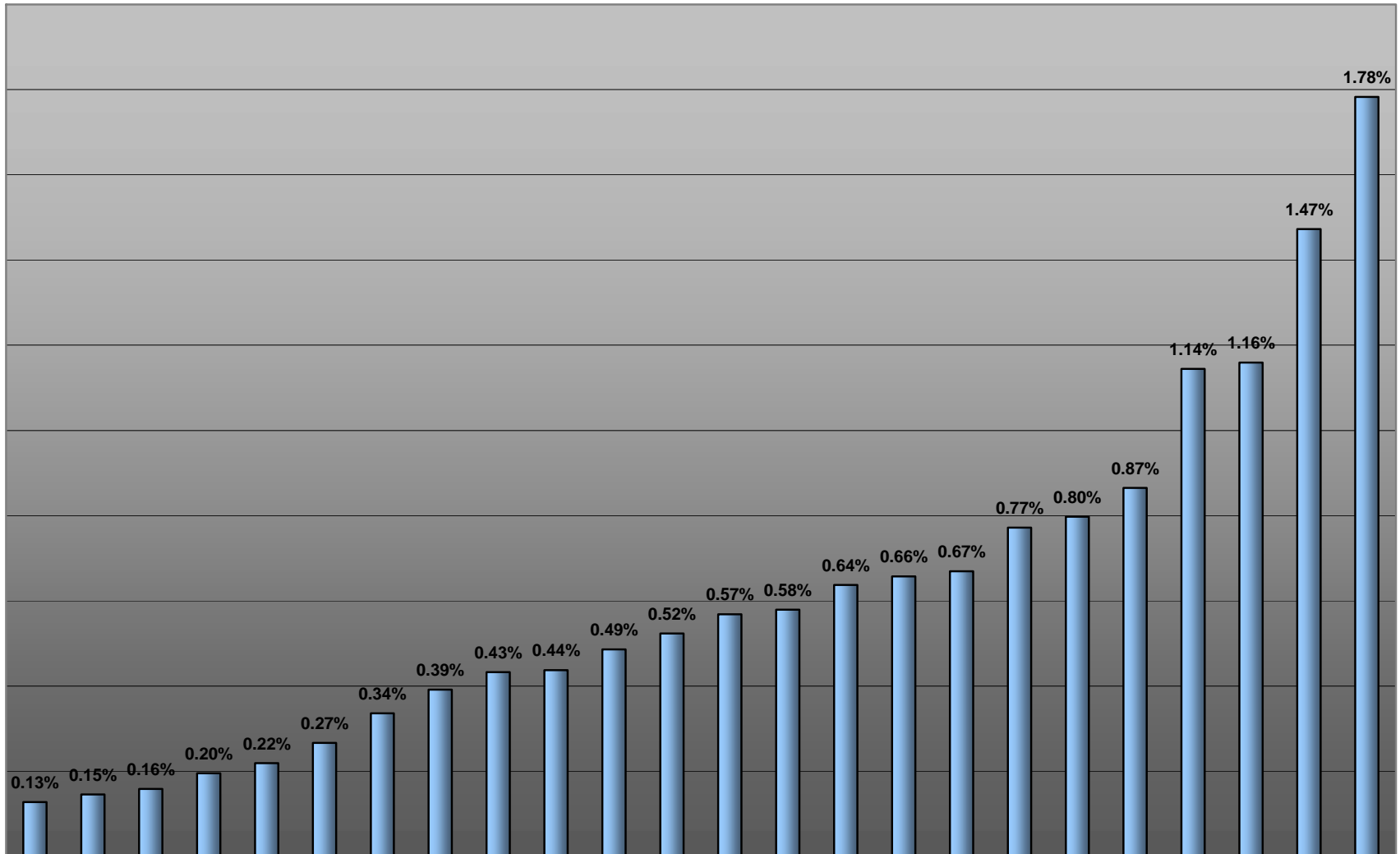
**% of Mains Replacement Programme by Water Company**



Water Mains Rehab 2005 - Total (Km) by Company

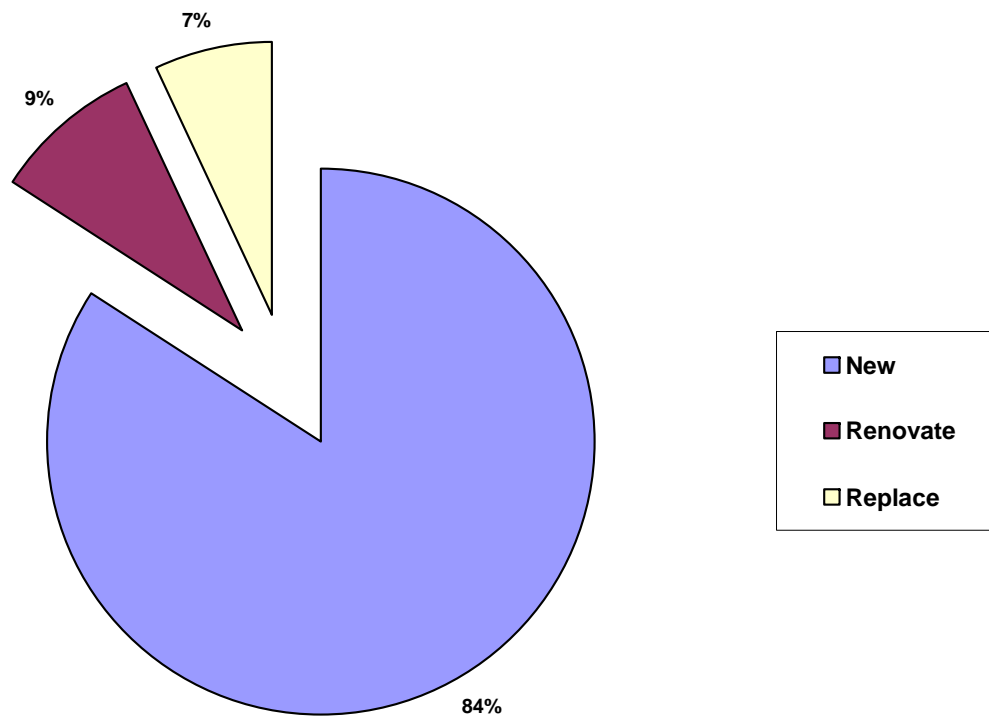


### Water Mains Rehabilitation 2005 - % of network

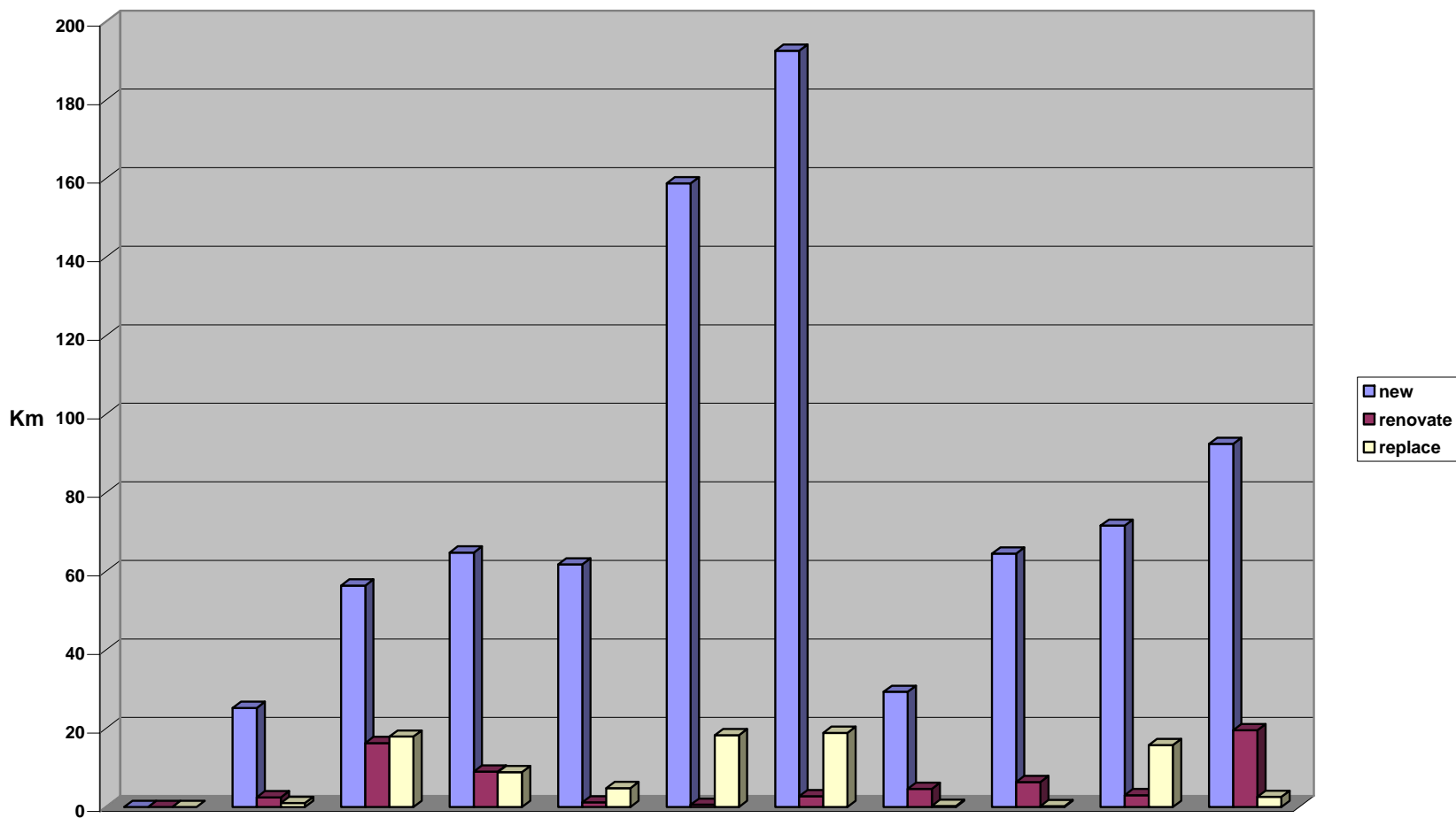


# Illustrative Graphs for Sewerage Replacement and Renewal Programmes

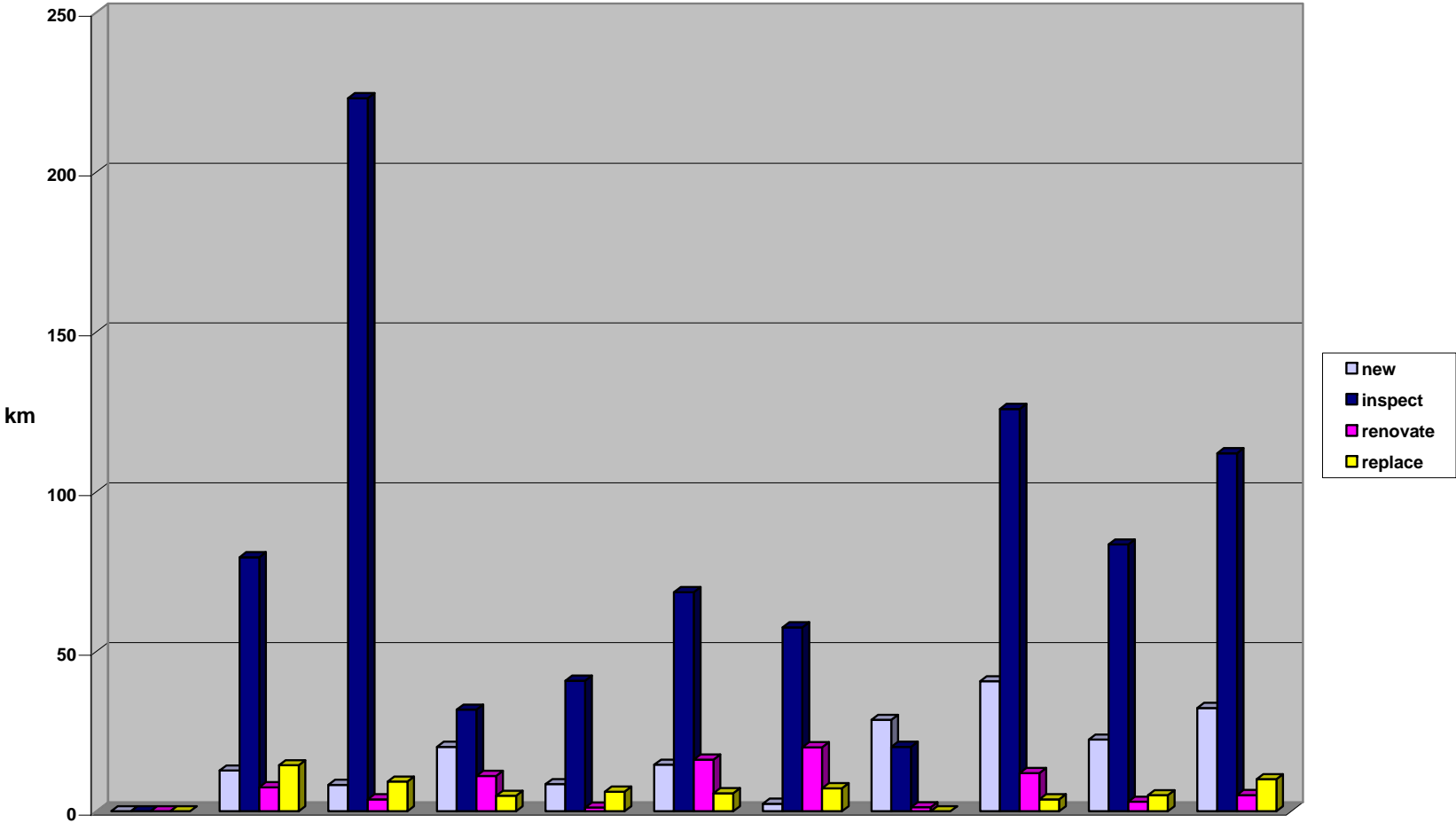
Sewer Renovation Averages / annum



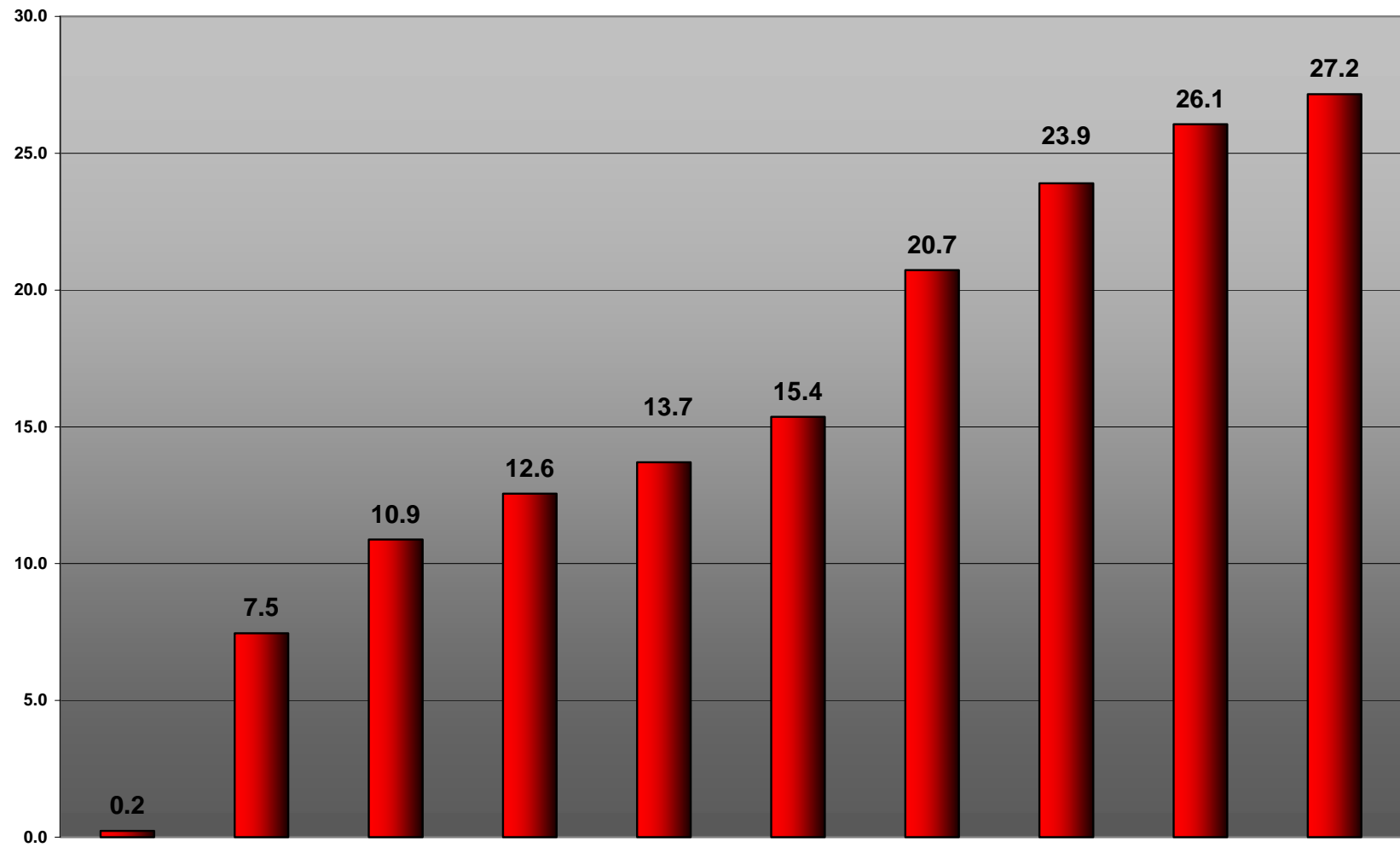
### Waste Water Replacment Programme



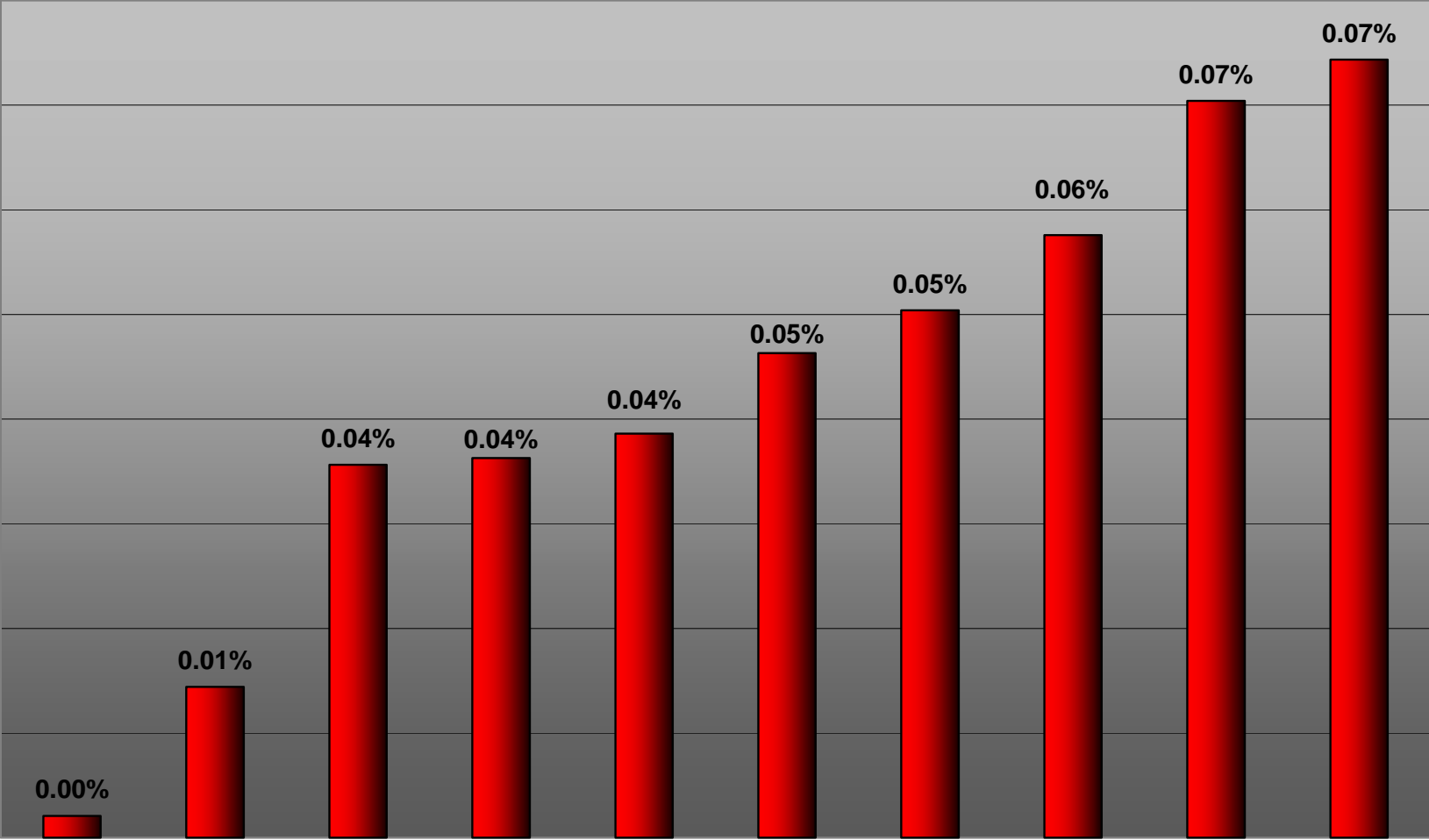
### Waste Water Replacement Programme - Critical Sewers



**Sewer Replacement 2005 - Total Length of Sewer Renovated (km)**



**Sewer Replacement 2005 % of network renovated**



Water & Sewerage Companies

# Historic Data for Comparisons – (1991-94)

## Water Company System Usage - 3 YR Historic (km)

