

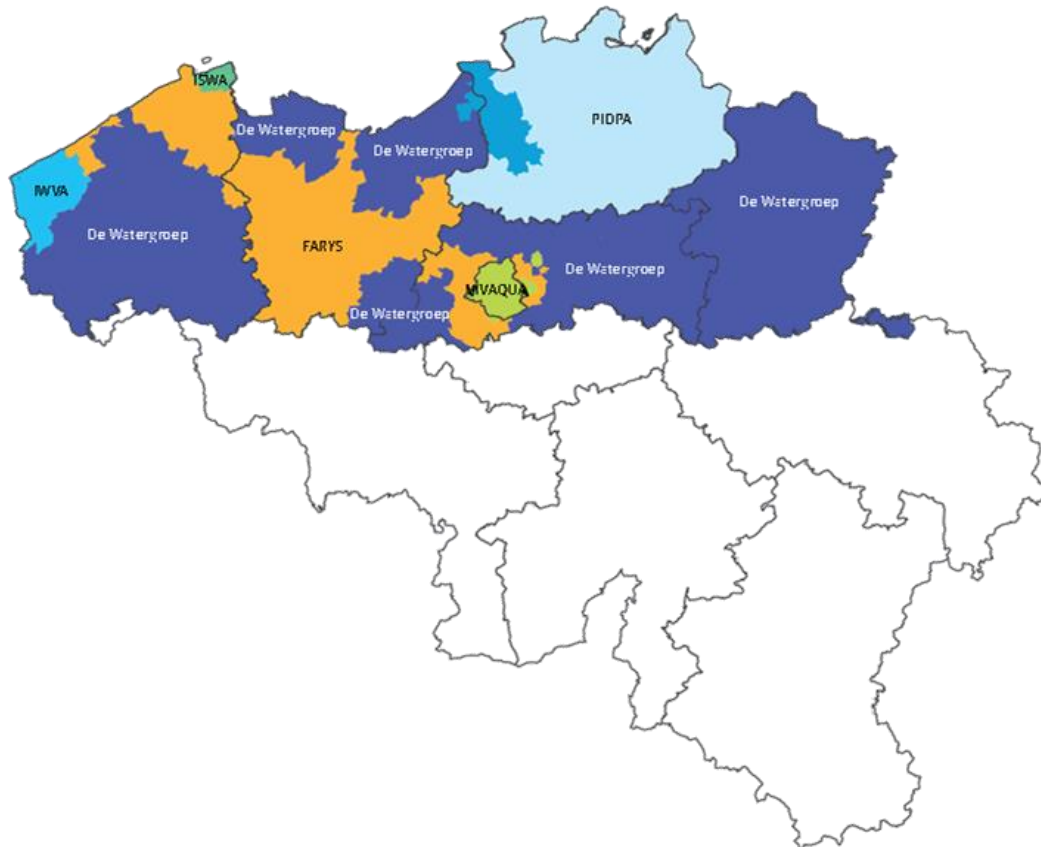
## Key statistics of De Watergroep and the Flanders region (order of magnitude)

### ① Population, coverage, connection ratio, billed water consumption ...

		<b>De Watergroep</b>	<b>Flanders + Brussels</b>
Surface area	km <sup>2</sup>	7.766 km <sup>2</sup>	13.522 + 189 km <sup>2</sup>
Total population	capita	3.000.000	6.000.000 + 1.000.000
Connection ratio		99%	99%
Daily maximum water supply volume	m <sup>3</sup>	Normal day peak +20% approx	
Daily average water supply volume	m <sup>3</sup> /day	424.000	

### ② Water utilities in Flanders and Brussels (northern region of Belgium)

Situation as of 01-01-2015



All water companies in Flanders (Belgium) are all public and “fully integrated” water companies, covering both the water and wastewater business.

Shareholders of the water companies in the Flanders and Brussels region are:

	Type of organisation	2015
<b>Flanders region</b>	Small municipalities - public (ISWA and IWVA)	<b>2</b>
	Large municipalities - public (Pidpa, water-link, Farys - shares: municipalities, cities, provinces, or a mixture but NO state-owned shares)	<b>3</b>
	De Watergroep - public (shares: state 25%, provinces 5% municipalities 70%)	<b>1</b>
<b>Brussels region</b>	Large municipality - public (Vivaqua-Brussels)	<b>1</b>

### ③ Water production data 2014 @ De Watergroep

2014	m <sup>3</sup>
Groundwater production	+87.500.000 m <sup>3</sup>
Surface water production	+35.000.000 m <sup>3</sup>
Imported water	+41.000.000 m <sup>3</sup>
Exported water	-8.700.000 m <sup>3</sup>
<b>Total volume available</b>	<b>160.000.000 m<sup>3</sup></b>
Water made to measure*	6.000.000 m <sup>3</sup>

\* Re-use of wastewater, production of water, with other specifications than drinking water

## ④ Common water purification techniques @ De Watergroep

### Surface water treatment

- **Coarse sieve:** removal of coarse particles, preventing the intake of aquatic animals, e.g. fish (mesh width 5-10 mm)
- **Fine screen:** removal of fine particles (mesh width  $\leq 0,5$  mm)
- **Coagulation and flocculation:** chemical pre-treatment for capturing very small particles into removable flocs, e.g. natural organic matter
- **Flotation or sedimentation:** physical separation and removal of formed flocs and algae
- **Aeration:** oxidation of chemical compounds, mostly iron, manganese and ammonium
- **Rapid submerged sand filtration:** physical removal of iron, biological transformation and removal of manganese and ammonium
- **Activated carbon filtration:** removal through adsorption of odor-, taste and color producing compounds and micropollutants (pesticides)
- **Disinfection by chlorine dosing, sometimes combined with UV disinfection**

### Groundwater treatment

- **Softening:** reduction of the calcium carbonate precipitation potential
- **Aeration:** addition of oxygen for oxidation of chemical compounds (iron, manganese, ammonium) and removal of unwanted gasses (like carbon dioxide and hydrogen sulfide)
- **Rapid submerged sand filtration:** physical removal of iron, biological transformation and removal of manganese and ammonium
- **Activated carbon filtration:** removal through adsorption of odor-, taste and color producing compounds and micropollutants (pesticides)
- **Disinfection by chlorine dosing**

Please note that this is a summary of the most common technologies.

If and how they are implemented is case dependent, based on the raw water quality at hand. Furthermore, due to the increasing pressure on the quality of ground- and surface water, the need for additional and more efficient treatment techniques increases, e.g. membrane filtration and ozone treatment.

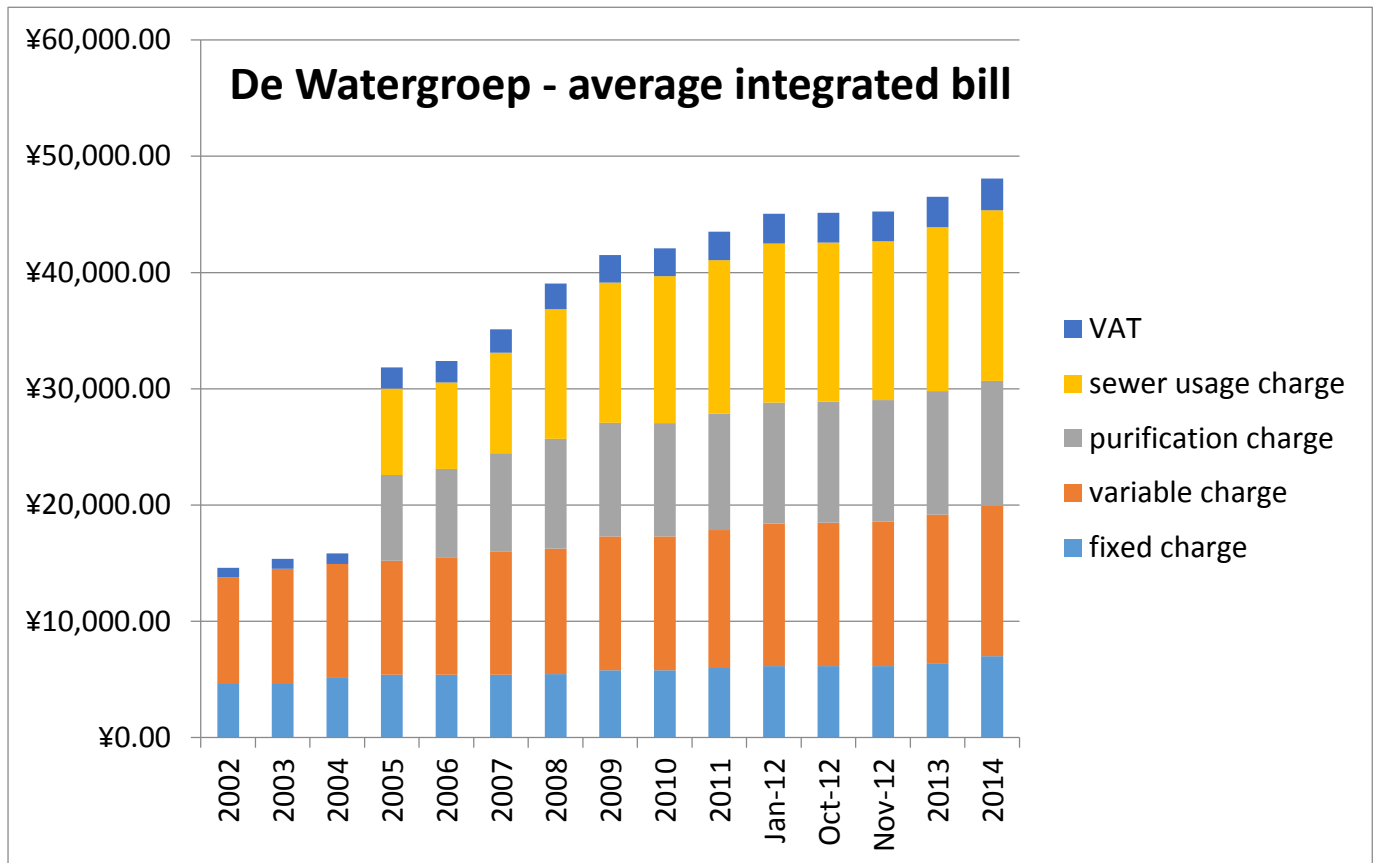
⑤ **Total mains length @ De Watergroep**

Transmission mains (large feeders: diameter > 150mm)	26.218 km
Distribution mains	5.015 km
<b>Total length</b>	<b>31.233 km</b>

⑥ **Water tariffs @ De Watergroep** (6% VAT included)

<b>Household consumption tariffs JPY</b>		
Fixed charge per year		7,411
15 m <sup>3</sup> per person per year		0
Water price (per m <sup>3</sup> )		275
<b>Industrial consumption tariffs JPY</b>		
Fixed charge per year		34,980
Water price per m <sup>3</sup>	0 - 6,000 m <sup>3</sup>	220
	6,001 - 60,000 m <sup>3</sup>	186
	> 60,000 m <sup>3</sup>	176
<b>Sewer and purification charges per m<sup>3</sup> JPY</b>		
Sewer usage charge (varies per municipality)		235
Purification charge		168

In 2005 legislation changed and water companies evolved from potable water companies to fully integrated water companies. From 2005 onwards, the water bill became a fully integrated bill:



In 2014 the average, fully integrated water bill from De Watergroep was 48,000 JPY per year, for an average household consumption.

<b>Self-accounting system based on corporate accounting principles</b>			<b>2013 (JPY)</b>
Financial conditions			
Operating revenue & expenditure			
	Operating income		76,855,435,765
		Revenue on water supply	
		Revenue on trusted construction	
		Others	
	Non-operating income		670,805,256
		Subsidy	
		Others	
	Extraordinary gain		131,185,274
<b>Total income</b>			<b>77,657,426,295</b>
	Operating expenses		- 74,276,232,635
		Personnel expenses	
		Depreciation expenses	
		Others	
	Non-operating expenses		- 868,522,418
		Interest expense	
		Others	
	Extraordinary loss		- 507,446,154
<b>Total expenses</b>			<b>- 75,652,201,207</b>
<b>Balance</b>			<b>2,005,225,088</b>