

# Pražské vodovody a kanalizace, a.s.

## in 2010

### Background

**Name:**

Pražské vodovody a kanalizace, a.s.

**Date of inceptions:**

1 April 1998

**Emergence:**

Pražské vodovody a kanalizace, a public company limited by shares, is the legal successor of the state-owned enterprises Pražské vodárny and Pražská kanalizace a vodní toky, to the extent specified in the privatisation proposal.

**Legal form:**

Public company limited by shares

**Company No.**

25656635

**Share capital:**

CZK 792,276,000

**Shareholder:**

VEOLIA VODA S.A. 100%

**Registered office:**

Praha 1, Pařížská 11

The company has no organisational unit outside the Czech Republic.

# **Bodies of the Company as at 31 December 2010**

## **Board of Directors**

**Mr Philippe Guitard**, Chairman  
**Mr Rostislav Čáp**, Vice-Chairman  
**Mr Etienne Petit**  
**Mrs Eva Kučerová**  
**Mr Milan Kuchař**  
**Mr Petr Mrkos**  
**Mr Martin Bernard**

## **Supervisory Board**

**Mrs Květoslava Kořínková**, Chairperson  
**Mr Ivo Sušický**, Vice-Chairman  
**Mrs Marcela Dvořáková**  
**Mr Josef Šverma**  
**Mrs Marie Abrahámová**  
**Mrs Alena Březinová**

## **Management Board**

**Mr Milan Kuchař**, Chief Executive Officer  
**Mr Petr Mrkos**, Deputy CEO, Chief Financial and Sales Officer  
**Mr Petr Slezák**, Deputy CEO, Chief Personnel Officer  
**Mr Petr Kocourek**, Chief Operating Officer  
**Mrs Radka Hušková**, Chief Technical Officer  
**Mrs Marcela Dvořáková**, Chief Communication and Marketing Officer

## The Chairman's Statement

We carried out a number of challenging tasks in 2010. Although the economy was still going through the crisis, I would like to express gratitude for the stability, credibility and reliability of our company, Pražské vodovody a kanalizace, a.s., a member of the Veolia Voda Group, which continuously supplied drinking water and drained, collected and treated wastewater.

Despite the continuously decreasing water consumption in Prague, we are looking for new ways and means of making our work more efficient, focusing our efforts on improving performance in all respects. Our effort continues to make our company synonymous with progress and sophistication. We are striving for this not only in the areas of innovations and technology improvements, but also in areas such as commitments to customers, environmental protection, and safety at work. The company has set challenging requirements for itself in part by adopting the Environment Code, which sets out the principles of environmentally responsible behaviour within the company. In line with this Code, a new customer service programme, distribution of bills via electronic mail, was introduced.

I would like to mention the renovation of the water ozonation facility at the Želivka water treatment plant, which has improved the quality parameters of drinking water, and a new customer service, called services beyond the water meter, which helps to provide customers with complete services. Thanks to the *Čerstvá kohoutková? Stačí říct!* [*Fresh Tap Water? Just Ask!*] project, drinking water has become a new phenomenon and won great popularity in a number of restaurants in Prague. For the public, we opened the Podolí water treatment plant for incentive tourism; and did much more.

We strive to meet our obligations to customers, but we also create conditions to enable our employees to deliver good and high-quality work. The safety of our employees is of utmost priority. Our approaches are appreciated, as shown by customer satisfaction surveys conducted by an external company: more than 90% of our customers are satisfied with our services.

Aware that this confidence is a commitment for us, our strategy will continue to follow this direction into the future.

Philippe Guitard  
PVK Chairman  
Director of Veolia Eau for Europe

## Facts and Figures

Turnover: CZK **4.8** billion

Number of employees: **1,037**

Water production: a **total of 122,566,000 m<sup>3</sup>** of water, of which **121,525,000 m<sup>3</sup>** of **drinking water** (i.e., 99.2%) and 1,041,000 m<sup>3</sup> of non-potable water (i.e., 0.8%). **74.1%** of drinking water was produced at the **Želivka water treatment plant** and **25.9%** at the **Káraný water treatment plant**

Water losses: **21.62%**

Quantity of treated wastewater: total **135,866,000 m<sup>3</sup>**, of which **92.3%** at the Central Waste Water Treatment Plant and **7.7%** at the Branch Waste Water Treatment Plants

Number of accidents and failures on the water network: **3,960**

Number of accidents and failures on the sewerage network: **2,747**, of which **2,155** clogged pipes

Number of contract customers: **85,234**

Number of water meters for billing: **109,721**

Number of calls handled by the call centre: **79,062**

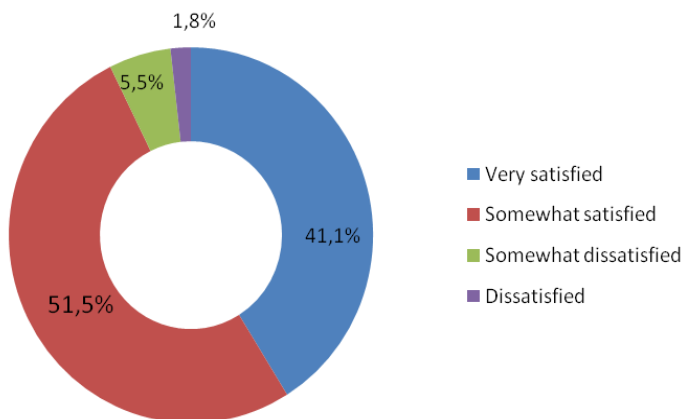
Number of visits to the customer care centre: **26,146**

## CUSTOMER APPROACH

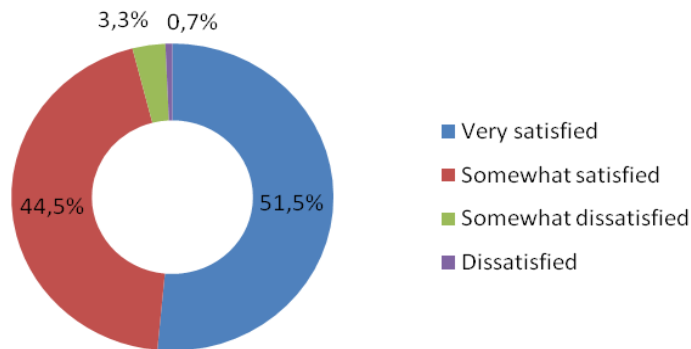
The year 2010 was the first year in which we observed the “**Customer Service Commitments**”, which helped to improve our customer services. Throughout the year, the new customer information system at [technologie.net](http://technologie.net) was operated, thanks to which a new category for an easier identification of payments, the customer account, and more detailed records of executed contracts were put in place, and customer identification was extended.

These commitments resulted in a reduction in the time taken to handle customer’s requests and enquiries. One of the other improvements is that the company itself warns customers of increased water consumption (in the case of an increase in water consumption by more than 50% or by 50 m<sup>3</sup> of water) and helps customers in difficult situations. Observance of the commitments was also reflected in the high level of customer satisfaction in the periodical **satisfaction survey**, conducted in October 2010 by Ipsos Tabor. Of the 1,200 polled respondents in Prague, 92.6% answered that they were generally satisfied with PVK’s services. These high numbers are a commitment for PVK, and the company’s objective is to continue to improve its services. Satisfaction with drinking water quality is also generally high, and even higher than in 2009: 96.0% of the respondents were satisfied with the quality of supplied water. In reply to the question of whether they drink tap water, 85.3% of the respondents answered yes, which was 5.8% more than in 2009. The survey was conducted for the seventh time and the objective was to evaluate the results, collected every year, in terms of how customers’ satisfaction evolved over time. Telephone calls were the polling method. Three target groups were identified for the survey: individual customers, managers of residential buildings, and companies.

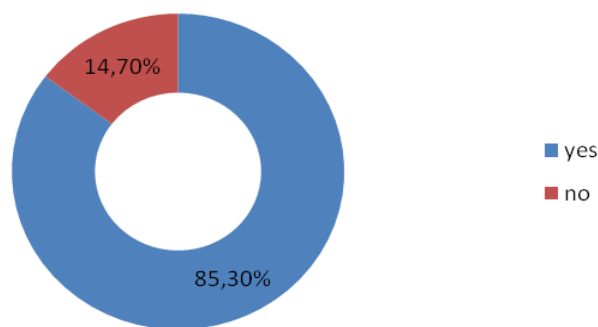
**How satisfied are you in general with the level of the services provided by your drinking water supplier?**



## How satisfied are you with the drinking water quality?



## Do you drink tap water?



### **PVK is perceived as a traditional, trustworthy and reliable company offering good services.**

This is the result of market research via a **quantitative survey** conducted in October by IBRS (International Business and Research Services). The objective was to gauge awareness of the PVK brand and its perception by customers. IBRS polled 500 respondents from the whole Prague over the telephone. Ninety percent of the respondents know the PVK brand. Respondents also perceived PVK as a service company that supplies water, arranges repairs, and tackles emergencies.

### **Contact Centres**

In 2010, PVK's call centre handled **79,062 enquiries, i.e., 6,213 more calls handled than in 2009**. Of these, for example 43,007 enquiries concerned drinking water supplies and quality and sewage draining, 5,790 concerned billing, 3,314 related to service pipes and water meters, and 2,952 questions regarded contractual relationships. The service level was almost 90%. In 2010, the call centre also provided telephone services for customers of 1.SČV, a.s. and for those of Moravská vodárenská, a.s. In 2010, the centre's operators also offered, and registered customers for, the SMS INFO service and offered the distribution of e-bills.

The customer care centre in Dykova Street was visited by **28,269 customers**; of these, 19,786 arrived to discuss contractual relationships and 8,483 called on PVK in technical matters. Customers also had an opportunity to pay their water and sewerage charges directly at the cash counter at the customer centre. Almost CZK 22 million was collected in this way. At the customer centre, the visitors could arrange everything related to contractual relationships, and also deal with all technical requirements, including technical documentation. The customer centre's opening hours were extended with a view to accommodating customers. Contractual and technical matters can be arranged from Monday to Thursday from 8 a.m. to 6 p.m. Friday opening hours are from 8 a.m. to 3 p.m.

<b>Number of contract customers</b>	<b>85,234</b>
<b>Number of water meters for billing</b>	<b>109,721</b>
<b>Number of bills sent out</b>	<b>268,104</b>
<b>Number of complaints and claims</b>	<b>966</b>

## Other Services

PVK offers customer services based on modern technologies. At the time when people are seeking to make their everyday life easier, more and more customers require, for example, options to help them avoid going to a post office or visit a customer centre. The modern services that the company offered in 2010 included the personal customer account on PVK's website at [www.pvk.cz](http://www.pvk.cz). This personal account provided customers with non-stop access to information and control over their expenses. Several thousand customers have set up their personal account. Thanks to the secured personal account, customers had information about their water consumption, bills, and readings of water meters in their properties, and also the opportunity to report changes in contract details, the amount of advances, their own readings of the water meters, etc.

Another service was **bills sent via electronic mail**, both to natural and juristic persons. The bill, in the pdf format, is sent to the specified electronic mail address as an attachment to an e-mail message. It was less expensive to pay water charges via the **terminals of SAZKA** [a lottery company]. In 2010, 12,832 payments of water and sewerage charges were made via SAZKA terminals, and customers paid a total of CZK 32.044 million via the terminals. The year also saw increased demand for the **SMS INFO** service, i.e., text messages with information about water supplies, accidents and failures, and water supply outages, including the date of service resumption. As many as 13,631 Prague residents signed up for this service, which PVK had been offering since late 2007. Registered customers receive, free of charge, important information about water via a text message transmitted to their handset. Last year, 157,406 text messages were distributed and altogether 337,715 text messages have been distributed since the launch of this service. In 2011, the dates of water meter readings and replacements will also be sent via text messages. Customers also used the option of withdrawing cash through their Komerční banka payment cards. The cash back service was set up at the customer centre in December 2009.

One of the new services that PVK started to offer in 2010 is the so-called services beyond the water meter. Here, PVK offers the erection, refurbishment and repair of water service pipes and sewage draining pipes inside house distributions. Please refer to the Innovation chapter for more information.

## Communication with the Public

PVK is building good relationships with the Prague public on a long-term basis. In 2010, the company supported a number of sporting, cultural and charitable events in Prague. These events helped to improve the lives of Prague residents. For example, PVK was a partner of the Farmers' Market in Praha 6, a cultural event called *Celebrations of Prague*, the *Primátorky* [Mayoralty] international rowing races, the children's day organised by the Municipality of Prague, sporting events in Praha 6, for example, those at Ladronka, "the burning of witches", etc. As always, PVK supported "Safely to School", an event for children attending school for the first year, and much more.

The "**Čerstvá kohoutková? Stačí říct!**" ["**Fresh Tap Water? Just Ask!**"] project for restaurants continued in 2010; it was prepared by PVK hand-in-hand with its shareholder, Veolia Voda. An additional 120 restaurants and cafes signed up for the project in 2010. Altogether more than 220

catering businesses have joined the scheme in Prague to date. Particularly restaurants in Praha 1 are greatly interested in the scheme. Restaurants receive free water carafes for tap water, and also water analysis, from PVK. The project is supported by the website at [www.kohoutkova.cz](http://www.kohoutkova.cz), which is visited by 9,000 people per month on average. The project received an award from the Montréal-based International Water Association (IWA) in the customer services category. In addition to the broad reach of the project and its general promotion of tap water, its positive acceptance by the general public, and its unique nature among post-Communist countries were assessed favourably. IWA is a global reference for water management professionals.

The satisfaction surveys indicate that customers still want printed brochures and flyers. During the year, the company therefore produced a lot of information material and many brochures. The new materials included, for example, flyers on the new Services beyond the Water Meter. The **Voda pro Vás [Water for You] customer magazine** was produced and distributed together with all the major daily newspapers. In 2011, an electronic customer newsletter will appear in addition to this. PR campaigns in daily newspapers and periodical communication with the media also helped to promote PVK's services. The company's website, visited by more than 11,000 people per month on average, was also an important tool.

April 2010 saw the launch, together with Hospodářská komora hl. m. Prahy [The Prague Economic Chamber], of a new **project, called Incentive Tourism**. Under this project, the Podolí water treatment plant was opened for the public. Part of the circuit is Muzeum pražského vodárenství [Prague Waterworks Museum] and having toured it, the visitors also see the water pumping station and the hall with clarifier tanks and then climb to the catwalk on the water tower, whence they can enjoy an unrivalled vista of Prague. The tours take place every Thursday and since the beginning of 2011 also on Saturdays. Last year, 415 visitors saw the Podolí water plant under this project.

Tours of the **Prague Waterworks Museum**, operated by PVK, continued in 2010, when 8,951 visitors saw it (of whom some 80% were school children), having arrived to see it both from the Czech Republic and from other countries (for example, France, Germany, Sweden, Russia, Slovakia, Tajikistan, etc.). Open Days were organised in the spring on the occasion of the International Water Day and the *Primátorky* rowing races in Prague, and also in the autumn on the occasion of the European Heritage Days. The Museum also lends **exhibits to major exhibitions**. In 2010, it lent a model of the building, never actually erected, of Pražské vodárny [Prague Waterworks] for the SIAL exhibition to Muzeum moderního umění Olomouc [The Museum of Modern Art in Olomouc]. A set of the painter Lada's drawings was lent to the Galerie Slováckého muzea [The Gallery of the Museum of Moravian Slovakia] in the town of Uherské Hradiště.

PVK also promoted the activities of Ekotechnické muzeum [Environmental Technology Museum], which is housed in an old sewage works in Bubeneč in Prague.

**Educational activities**, which PVK pursues on a long-term basis, mainly focus on primary school pupils. In 2010 two competitions for them took place. One was **Dárek pro Zemi [Gift for the Earth]** (for forms 3 to 5), during which children could actively contribute to environmental protection in their community, and the other, the **SOS Biodiversity** competition, was intended for students in forms 6 to 8; it helped children find answers to many topical questions concerning biodiversity and how to protect it.

**Klub vodních strážců [Water Guard Club]**, which brings together children aged 6 to 16, was running its activities for the 11th year, published a children's magazine, and organised events. Late 2010 saw the launch of the club's new website for children ([www.vodnistrazci.cz](http://www.vodnistrazci.cz)), which constitutes an interactive clubroom in which club members "can meet". The website was updated and extended and also pays attention to environmental protection in addition to water management topics.



# RESPONSIBILITY

## Human Resources

As in 2009, there were no major changes in employment or in the organisational structure; such changes had characterised the years between 2001 and 2008.

A total of 93 employees left the company, while 59 employees joined it; the overall number of employees decreased by 3.2%, i.e., 34 employees. Employee turnover was 9%, of which half was caused by organisational changes. The largest group of employees who left PVK was the 17 call centre employees, who were transferred under a programme of customer service centralisation to Solutions and Services, a.s., at which a contact centre was set up for the Veolia Voda Group in the Czech Republic.

In absolute terms, a smaller number of employees left or joined PVK than in the preceding year, which on the one hand confirms the stability of work teams, while illustrating the situation on the labour market on the other hand.

In 2010, the average employee age was 47 years; going forward, the aging of the workforce will be a major aspect which the company will be compelled to address, in particular with regard to the transfer of operating know-how.

The headcount as at 31 December 2010 was 1,037 employees, of whom 746 were men (72%) and 291 women (28%).

Seven years from the latest satisfaction survey amongst PVK employees, in November 2010 such a survey was conducted again. The questionnaires were completed by 86.6% of the employees.

The results of the survey suggest that PVK employees perceive the prospects for the company favourably, and they feel their superiors are willing to help them with working problems and that they have adequate working conditions and personal protective working gear. They can therefore recommend PVK as a good employer. At the same time, however, they see the greatest potential for improvement in the system of motivation and remuneration and its intelligibility, and wish for improvements in the granting of various social benefits and information flows between various workplaces.

## Education and Training

In 2010, PVK again focused on systematic improvements in the level of professional training. Training costs totalled CZK 4.7 million. Sixty-nine percent of this amount was spent on increasing professional qualifications, 9% was earmarked for mandatory training and special skills training, and 22% was spent on improving the employees' language skills.

The company's main training partner was **Institut environmentálních služeb, a.s.** (Institute of Environmental Services, IES). The most important training projects provided by IES include a bachelor's course in water management at Moravská vysoká škola Olomouc [Moravian College Olomouc]. In 2010, nine PVK employees successfully completed their course in Company Economics and Management, which helped to increase the share of employees with higher education to 14.7%.

## Occupational Health and Safety

Occupational safety and the health of employees continue to be the company's key priority. As in previous years, in 2010 the company focused on a safe working environment in order to reduce, and consistently manage, potential risks. Regular drills are carried out in the disciplines of major accident prevention and fire protection in line with the established in-house system of occupational health and safety. The criteria for the prevention of occupational injuries and for the protection of employees' health are assessed on a regular basis. As a result, the company has maintained a respectable occupational injury rate. In 2010, nine not too serious occupational injuries occurred, resulting in a total of 271 days of incapacity for work. None of these injuries required long-term hospitalisation. Compared with the previous year, this is one fewer occupational injury.

Since January 2007, the company has held an occupational health and safety certificate under the ČSN OHSAS 18001 standard, and in 2009 PVK was successfully recertified under the ČSN OHSAS

18001:2008 standard for the subsequent period. In November 2010, the company successfully defended its integrated management system certificates in a surveillance audit.

PVK also provides for medical examinations of its employees over and above the mandatory checks. In co-operation with a contracting partner, Salubra, admission and preventive checks were arranged for employees, including the vaccinations set out in the Collective Agreement, and other statutory examinations. The sickness rate remained very low, accounting for 2.1% of working time, which is 0.4% less than in 2009.

### Social dialogue

An open social dialogue with the trade union organisation is a tradition at the company. The good co-operation is reflected in collective bargaining, which is based on the so-called Higher-level Collective Agreement, which PVK's shareholder, Veolia Voda, signed with Odborový svaz pracovníků dřevozpracujících odvětví, lesního a vodního hospodářství [Trade Union of Workers in the Woodworking Industry, Forestry and Water Management] for the eighth time. Despite the tight financial results, the wage-related covenants in the Collective Agreement were honoured. For 2010, average wages rose by 3%, while the rate of growth was even faster, 4%, in the operations under the Chief Operating Officer.

PVK contributes to the development of human resources and improvements in their performance and motivation by offering social care to its employees.

CZK 6 million was spent in social expenses, which replaced the former social fund. In relative terms, most of this sum was channelled into subsidies for children's recreation (CZK 1 million), sport, culture and rehabilitation (CZK 1.4 million), and milestones in personal and professional lives (CZK 0.8 million). In addition, CZK 0.23 million was provided as social assistance. Employee loans of CZK 1.7 million absorbed the balance of the social fund from previous years.

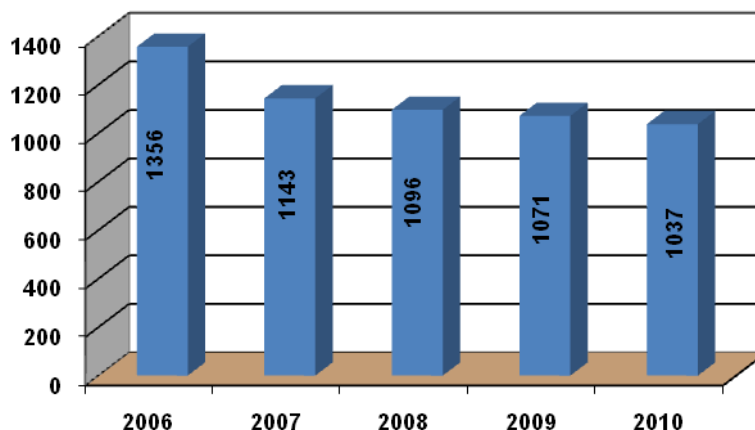
CZK 0.5 million was spent on trade union activities.

Personal pension schemes are a major employee benefit and are used by 85% of employees. With an average monthly contribution of CZK 714 paid by the employer, the company spent CZK 9 million on these schemes.

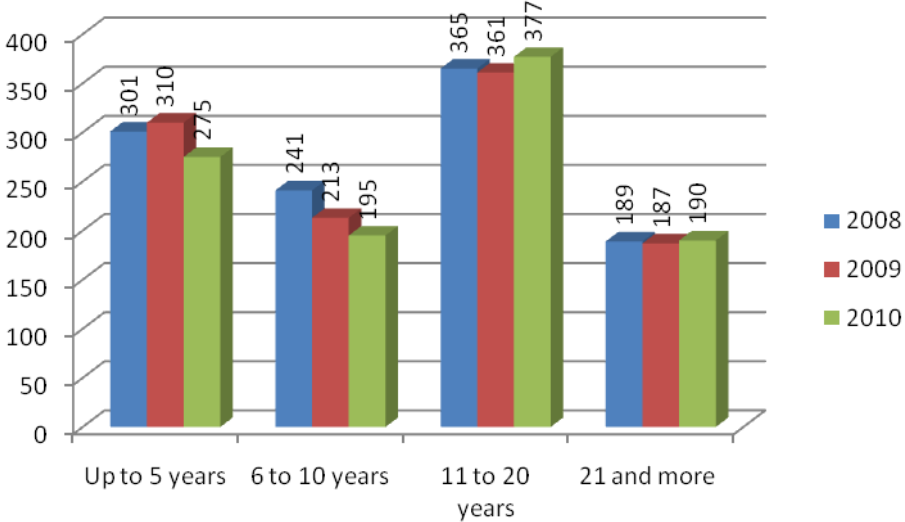
### The Sequoia Programme

In late 2010, employees were approached for the sixth time under the Sequoia scheme of employees' collective savings through Veolia Environment's employee investment funds. PVK employees' participation in this scheme was 80%, which was 40% more than in 2009. Employees invested more in the unsecured Classic fund, and PVK employees' investment in both funds totalled CZK 2,108,904 in 2010.

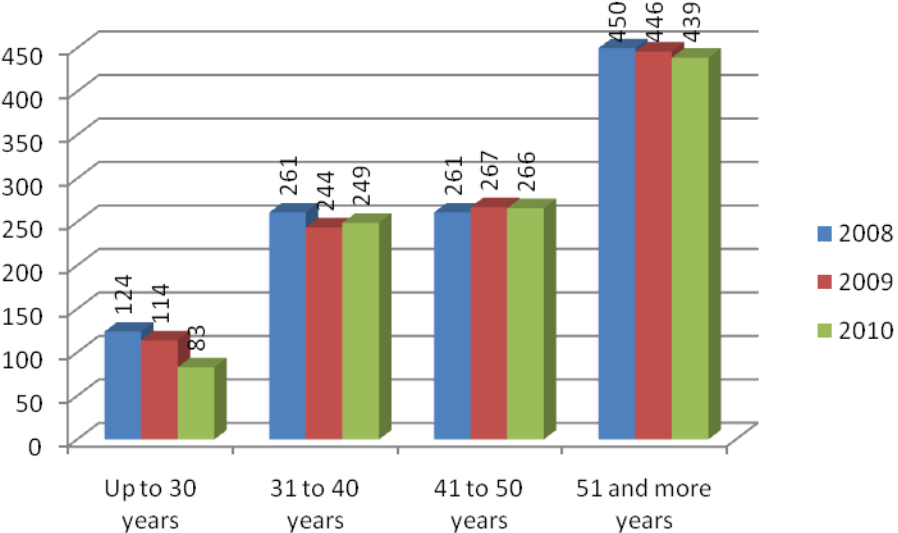
### Number of employees by year



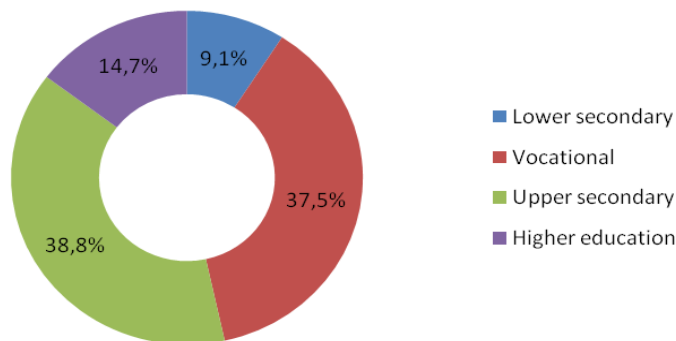
**Employee structure by length of service**



**PVK employee age structure**



## Employment structure by level of education



## Internal Communication

Internal communication within PVK has a profound influence on the company's functioning and positively influences its partnership with employees and the general public. PVK has built a network of communication channels that have proved their worth over the years, and it also used them in 2010. An important tool of communication between the employees was the **intranet**, which was restructured in late 2010. The migration to the new version of Sharepoint 2010 took place in early 2011. The new structure of the intranet will support faster searches and offer better logical links between the various sections.

The company issued five editions of the **Pévékáčko in-house magazine**, which provided periodical information about the developments in the company and described the work of the various departments, operations and employees. Employees also received information from the magazines issued several times a year by PVK's shareholder, Veolia Voda. These were **Voda je život [Water is Life]**, **Planeta Veolia [The Veolia Planet]** and *La Lettre* magazines. An effective means of internal communication was also meetings at all levels, periodical training sessions, and also employees' get-togethers at various social events. The traditional sport games were organised at the Želivka plant in June. Entertainment for the employees' children was organised, and employees attended the **social gatherings** organised by the PVK trade union several times in 2010.

The **MiNiGrant and Biogrant** projects, which PVK organised together with its shareholder, Veolia Voda, have also become an important tool of internal communication. These projects make it possible for the employees who actively help in the community or environmental areas to obtain money for the organisation that they are helping. The mini grants and the bio grants are very important for enhancing the employees' relationship to their company. Corporate volunteering, which PVK's management supports, plays the same role. In 2010, PVK volunteers helped the ACORUS association to paint and clean their rooms. Acorus is a centre that provides assistance to persons at risk of domestic violence.

## SOLIDARITY

Mindful of its corporate social responsibility, Pražské vodovody a kanalizace, a.s. supports a number of social and publicly beneficial projects. In co-operation with the Veolia Foundation, in 2010 the company continued to **build pétanque fields for senior citizens** with a view to promoting their active life. A new field was delivered to the Gerontology Centre in Kobylisy, Praha 8. It was the sixth such field that PVK provided to elderly citizens in Prague.

In 2010, PVK and the Veolia Foundation gave a total of CZK 266,000 to social projects that were recommended by PVK employees under seven projects of the **MiNiGrants** scheme. In this way, employees had an opportunity to recommend for financial support, the publicly beneficial projects in which they themselves participated, usually as volunteers. The third annual edition of the mini grant scheme saw support provided to, for example, Děti patří domů [Children Belong Home], a civic association that focuses on hosting care – frequent stays of children from children’s homes in non-biological families, Centrum handicapovaných lyžařů [Disabled Skiers’ Centre], TyfloCentrum Praha [a charity specialised in services for the blind and visually impaired], and also children suffering from a bodily, sensory or mental handicap or for children suffering from celiac disease.

The year 2010 was the first year in which the so-called **Biogrants** were launched; PVK employees could receive up to CZK 50,000 in these grants for publicly beneficial environmental projects running in their own communities. Two projects were selected. One of the grants will contribute to the reclamation of a creek for the Větrušice Municipal Authority. The other project focused on the revitalisation of a spring well in the village of Tubož. PVK will also support environmental projects in the coming years.

Traditionally, the company supported **Dům na půli cesty „Maják“ [The “Beacon” Halfway House]** in Praha 4, in which 14 young people found shelter after leaving children’s homes. Together with the Veolia Foundation, PVK helps young people who leave children’s homes on a long-term basis.

PVK also lent a helping hand to flood-stricken Northern Bohemia. PVK supplied 14 pallets of drinking water bottles and 6 cisterns with drinking water to the areas hit by the floods. Three cisterns were dispatched to the Liberec area and three to the village of Nová Ves near Chrastava.

The company also contributed to a **welfare automobile** for the Praha 9 Municipal District’s Welfare Services centre.

## INNOVATION

PVK constantly seeks new ways to improve work efficiency and focuses its attention on improving performance in all areas. The company continually strives to be a synonym for progress and advancement, not just in innovation and technology improvement but also in terms of customer commitment, environment, and work safety.

### Services beyond the Water Meter

The new project called Services beyond the Water Meter (*Služby za vodoměrem*) offers the customers refurbishment and repairs of the internal water and wastewater systems, from the water main connection to the tap in the house. The extension of service to emergency situations of internal mains is a major feat. With this service, PVK offers its customers comprehensive services and water supply in a high quality, meeting the demanding requirements for drinking water and prevents potential accidents.

### Information technology (IT)

2010 marked the continuation of cooperation with the subsidiary Veolia Voda Solutions and Services. A common Veolia Voda data network was deployed and it has increased the capacity of the existing communication infrastructure. The implementation of an information system to support the

maintenance of the managed assets and technical records continued. The technical record module linked to the geographic information system was commissioned.

New backup software, the Microsoft Data Protection Manager, which provides backup on both disks and tapes for permanent backup storage, was deployed on all of PVK's servers and information systems. To ensure better processing and documentation of IT users' requests, the project of implementation of a new HelpDesk was launched.

### **Water treatment plants (WTP)**

The refurbishment of the ozonisation process was completed at the **Želivka WTP** in 2010. The modern method consists in the preparation of ozone from oxygen exported to the WTP reservoirs using 2 Wedeco ozone generators. Subsequently, the ozone is highly efficiently mixed with water in three mixing tanks utilising the GDS static mixers supplied by UK-based Statiflo International. The entire system works reliably and contributes to the improved quality of the drinking water supplied by the Želivka WTP.

The **Káraný WTP** also underwent projects aimed at eliminating the risk of deterioration of drinking water quality, including the retrofit of the capacity outlet from force mains 1 and 2 which, once completed in 2011, will enable the cleaning of the mains by backwashing with outlet into the River Labe. As for water sources, the northern part of the Benátky nad Jizerou extraction section was regenerated.

The automated plant control system at the **Podolí WTP** was retrofitted to enable a more modern and reliable control of the water treatment process. The system retrofit will be completed in 2011.

### **Pumping stations (PS) and reservoirs**

**As far as drinking water** is concerned, 2010 marked the commissioning of a low-pressure section of the new Velká Chuchle PS intended to serve the newly built residential complex. The replacement of the outdated process equipment as part of the retrofit of the Malvazinky and Bruska distribution PS will result in increased reliability and efficiency of drinking water pumping. The Ládví PS was equipped with a chlorine neutralisation station, which will improve the safety of the chlorine management operation and the protection of human health and environment in the event of a chlorine escape.

**As far as wastewater** is concerned, the Radotín III, Lesáků, and Zbraslav-Studniční wastewater PS were retrofitted. The retrofits will contribute to improve the wastewater removal service reliability.

Following the completed retrofits of the Lhotka **reservoir** Accumulation Chamber 1 and the Karlov reservoir AC 3, the piping mains and the outdated valves in the adjacent valve chambers underwent overall replacement.

### **Branch wastewater treatment plants (BWWTP)**

2010 marked the start of the overall refurbishment of the Klánovice WWTP and the intensification of the Vnoř WWTP aimed at increasing its capacity. The biological lines of the Kbely BWWTP were refurbished in order to improve the WWTP's performance in terms of ammonia nitrogen elimination.

### **Sewer system**

The upgrade of the flow metering equipment at the continuous metering profile locations was completed in Prague's sewer system in 2010. As a result, 9 continuous metering profile locations were equipped with the modern OCM Pro CF flow meters by NIVUS GmbH featuring telemetric transmission of data to a central location as of 31 December 2010. The flow meter works on the principle of velocity measurement utilising cross correlation, which enables high quality and precision of flow metering.

### **Central Wastewater Treatment Plant (CWWTP)**

The CWWTP also underwent a number of major investment projects in 2010 to improve the technological standard of its operation. The projects included the installation of new piston pumps for transporting digested sludge, which replaced the former equipment with expired service life. Furthermore, a new station was built to filter a portion of the treated wastewater, which is subsequently used as process utility water. The process performance was also improved thanks to the newly installed piping for sludge returning from the new secondary settling tanks.

## PERFORMANCE

### WATER PRODUCTION

Pražské vodovody a kanalizace, a.s. operates 3 water treatment plants (WTP).

The **Želivka** WTP has the highest drinking water capacity. The River Želivka provides a source of raw water, accumulated in the Švihov water reservoir. The **Káraný** WTP uses raw water from the underground gravel/sand substrates and deep wells as well as surface water from the River Jizera treated by artificial infiltration. The WTP in Prague-**Podolí** is only used as a back-up source in the event of reduced water supply from the other sources.

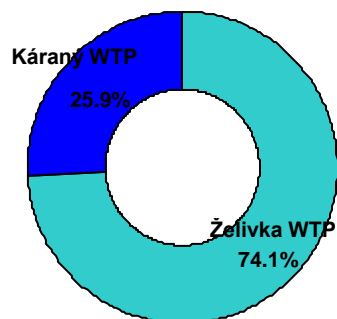
The above water treatment plants provide drinking water for 1.254 million Prague citizens and another approximately 200,000 people of the Central Bohemia and Vysočina regions.

#### Water production in 2010 (in m<sup>3</sup>)

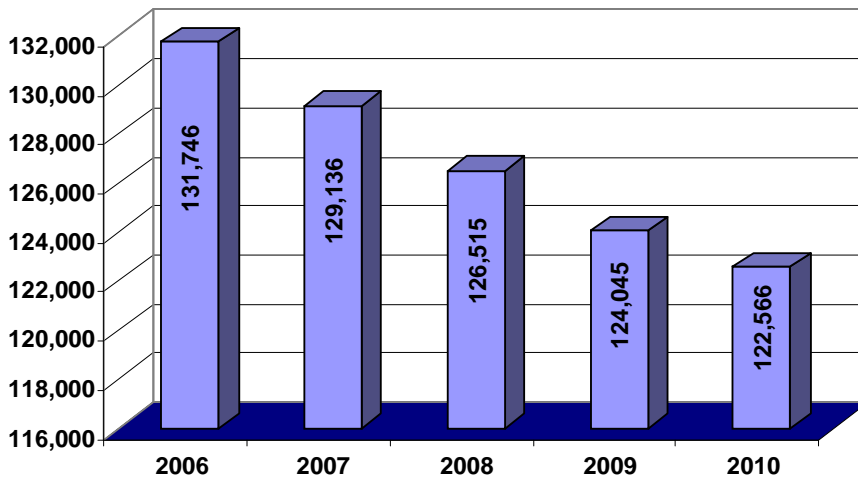
	in m <sup>3</sup>
<b>Želivka WTP</b>	<b>90,060,073</b>
<b>Káraný WTP</b>	<b>31,464,514</b>
<b>Podolí WTP</b>	<b>0</b>
<b>Drinking water TOTAL</b>	<b>121,524,587</b>
<b>Industrial water mains</b>	<b>1,041,285</b>
<b>Total production</b>	<b>122,565,872</b>

The total water production for 2010 is 122,566,000 m<sup>3</sup>. This amount comprises 121,525,000 m<sup>3</sup> of drinking water (99.2%) and 1,041,000 m<sup>3</sup> of non-potable water (0.8%).

#### Percentage of drinking water in the different WTP in 2010



### Total water production between 2006 and 2010 in thousands m<sup>3</sup>



### Water management between 2006 and 2010 (in thousand m<sup>3</sup>), drinking water + industrial water mains

	2006	2007	2008	2009	2010
Total production	131 746	129 136	126 515	124 045	122 566
Water supplied to another operator	15 118	15 716	16 525	16 327	15 827
Water received from another operator	0	0	0	0	0
Water intended for supply	116 630	113 420	109 990	107 719	106 738
Total water billed in Prague	87 865	88 401	85 964	83 845	82 517
Water not billed	28 765	25 019	24 026	23 873	24 221
Percentage loss of water intended for supply	23,79	21,40	20,84	20,99	21,62

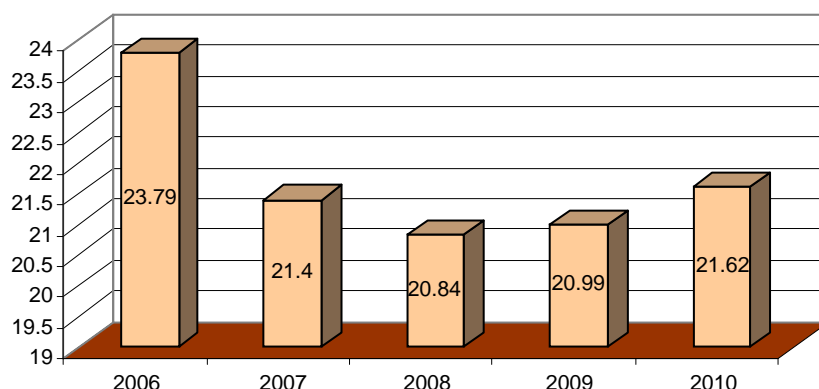
As the above graph of the total water production between 2006 and 2010 indicates, the decline of water production is continuing. Compared with the previous year, water production decreased by 1,474,000 m<sup>3</sup>, or 1.2%. The reason for the decrease is the ongoing upgrades in homes and companies (cost-saving appliances and equipment, flush faucets etc.).

The overall decrease of water consumption also showed in a decrease of the amount of water billed in Prague by 1,328,000 m<sup>3</sup>, or 1.6%. The specific water demand per person per day decreased from 115 litres to 104 litres.

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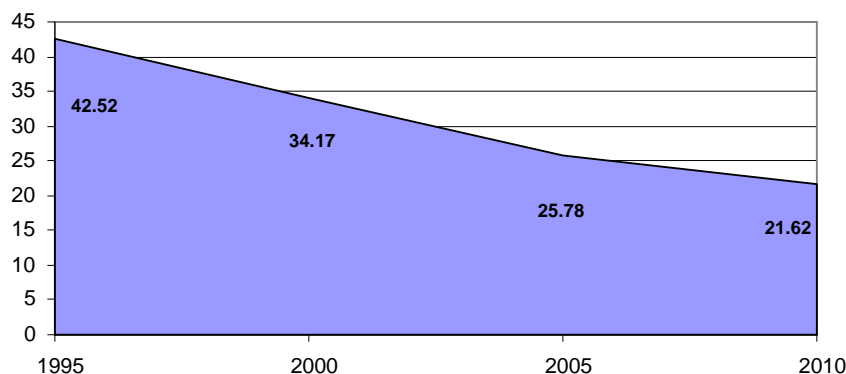


### Water loss percentage between 2006 and 2010



The water loss percentage has been about 21% in the last 4 years. The slight increase of the water loss percentage was caused by the winter and spring conditions where detection was impossible due to snow and by the running water with hidden defects. In the long-term perspective, water loss has been greatly reduced in the last 15 years.

### Water loss percentage between 1995 and - 2010



2,633 km of water systems were preventively checked and a total of 227 hidden water leaks were discovered in 2010.

<b>Water system length</b>	<b>3,698 km</b>
<b>Length of connections</b>	<b>767 km</b>
<b>Number of water connections</b>	<b>108,452</b>
<b>Number of water meters</b>	<b>109,721</b>
<b>Number of reservoirs</b>	<b>68</b>
<b>Volume of reservoirs</b>	<b>949,600 m<sup>3</sup></b>
<b>Number of pumping stations</b>	<b>45</b>

The overall length of the water system including connection amounted to 4,465 km in 2010. Drinking water distribution in Prague is provided through a high number of reserve zones replenished from various reservoirs and pumping stations. Drinking water supply is controlled from the control centre using an information and management system, which also coordinates all accident and repair work on the water system.

### Water meters

The entire amount of water supply is metered using billing meters, and there are 109,721 of them installed throughout Prague. 20,082 water meters were replaced in 2010. Repairs and calibration of 7,000 water meters were commissioned with an external vendor and 790 water meters were officially

tested in 2010. As of 31 December 2010 the company was using 1,271 water meters with remote radio-controlled status reading.

The work on the Smart Metering project whose technology enables automated remote meter reading and automated reading transfer to the end consumer continued. The greater amount of information provided to the consumer will enable reduced energy consumption, thus reducing the threat of global warming.

The metering department presented the Smart Metering project (common remote reading of meters for water, electricity, gas, and heat consumption) at the WATENVI 2010 trade fair in May 2010. The majority of visitors to Veolia Voda's booth were educated on the philosophy behind and the technological design of the Smart Metering technology.

### Water system accidents

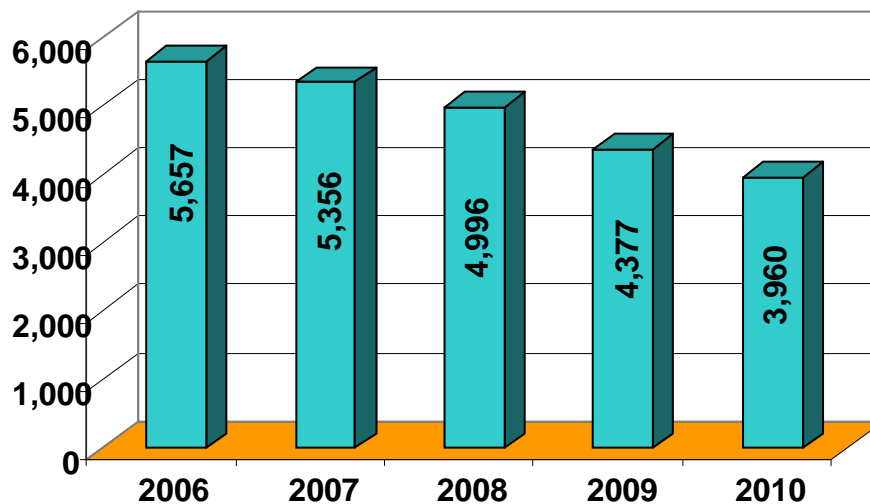
In 2010 a total of **3,960** accidents on the water system was addressed, which is **417 (9.5%)** fewer than in 2009. The average duration of accidents was **1 day, 23 hours and 11 minutes**. The average duration of water supply interruption for customers during water system accidents was **9 hours and 17 minutes**.

Of the total number of accidents, there were **69** Category 1 accidents (14 more than in the previous year, or a 20.3% increase). These are accidents involving interruption of supply for more than 1,000 citizens and/or impacting healthcare or other important facilities. There were **231** **Category 2** and **3,660** **Category 3** accidents.

In terms of breakdown into piping network accidents (main lines and connections) and other accidents (in particular valves and other equipment) there were **2,046** main line and connection accidents repaired in 2010 (**127** fewer than in 2009) and **1,914** other equipment failures.

The most frequent cause of the failures was the corrosion of material (**62.6%**) and soil movement (**29.3%**). The two reasons above caused **91.9%** of failures.

### Numbers of corrected water system failures between 2006 and 2010



## COLLECTION AND TREATMENT OF WASTEWATER

Overall length of wastewater system	3,765 km
Length of wastewater connections	935 km
Number of wastewater connections	114,699
Number of pumping stations operated	285
Number of wastewater treatment facilities	21 BWWTP + 1 CWWTP

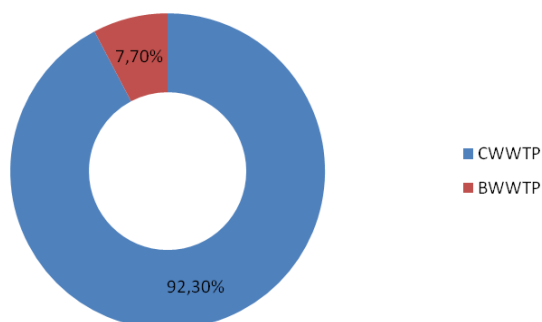
1.235 million citizens were connected to a wastewater system in Prague in 2010. The system's total length including connections was 4,700 km. Prague's sewer system was built as a single network. The system's main sewers collect the wastewater to the Central Wastewater Treatment Plant (CWWTP). The outskirts of Prague have a separate sewerage network that does not mix effluent and rainwater but diverts them into separate systems. Besides the CWWTP, there are 21 branch wastewater treatment plants in Prague, situated in the suburban areas. All the treated water is discharged into adjacent watercourses.

In 2010 PVK operated the CWWTP as well as 21 public branch wastewater treatment plants: Běchovice, Březiněves, Horní Počernice - Čertousy, Dolní Chabry, Holyně, Kbely, Koloděje, Kolovraty, Klánovice, Královice, Lochkov, Miškovice, Nebušice, Nedvězí, Sobín, Svěpravice, Uhřetěves - Dubeč, Újezd nad Lesy, Újezd u Průhonic, Vínová, and Zbraslav.

### Wastewater treated in 2010 in m<sup>3</sup>

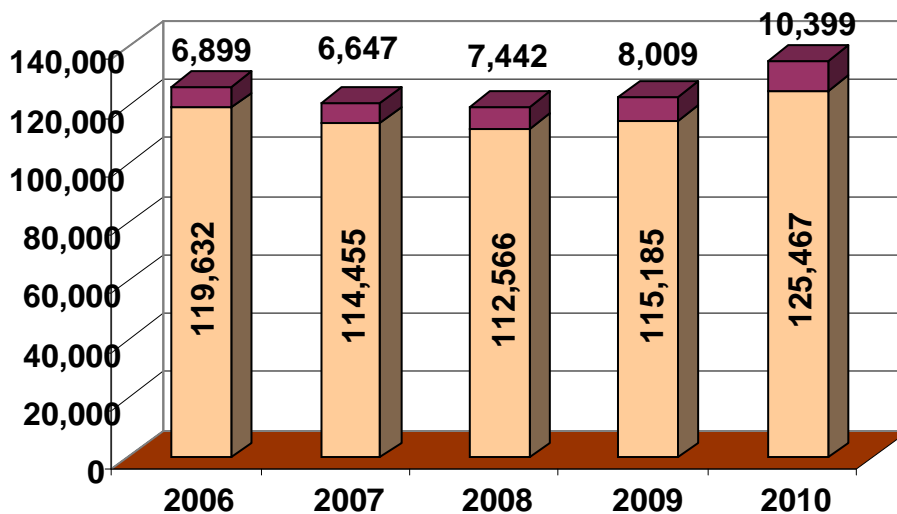
	m <sup>3</sup>
CWWTP	125 466 718
BWWTP	10 399 412
TOTAL	135 866 130

### Percentage of wastewater treated in 2010



In 2010 the CWWTP and BWWTP treated a total of 135,866,000 m<sup>3</sup> of wastewater, which is 10.3% more than last year. Although the consumption of drinking water is declining, there was a major year-on-year increase in the amount of wastewater due to torrential rains when rainwater added to wastewater. The CWWTP treated 125,467,000 m<sup>3</sup>, which is 92.3% of wastewater, and the BWWTP treated 10,399,000 m<sup>3</sup>, which is 7.7%.

**Quantity of wastewater treated at the CWWTP and BWWTP between 2006 and 2010 in thousands of m<sup>3</sup>**



**Surveying and measurements in the sewer system**

In accordance with the operating agreement between PVK and Pražská vodohospodářská společnost, preventive sewer network surveying is conducted on an ongoing basis. In 2010, 132 km of sewers were surveyed and 2,033 access shafts were inspected throughout the sewer network. 23 faults of the sewer system were detected during the surveys. With a view to fixing the failures identified in the sewer system, 136 proposals to mend defects were prepared and forwarded to the technical service to be included in the repair and investment plans. The preventive surveying included checks of the condition of sewers prior to warranty expiry. This involved an inspection of 30 km of sewers, which detected defects in 28 of the 71 projects inspected. In cooperation with the Environment Department of the Prague Municipal Authority, 13 sewage sources polluting streams and reservoirs in Prague were found, and PVK cooperated on their elimination. The camera head of the TV survey system of 1996 was upgraded in 2010 to allow for a better quality of video recording from sewer inspections.

**Flood control**

Flood control measures in the wastewater system were completed in the south of Prague in Radotín and Zbraslav, and in Trója and Podbaba in the north in 2010.

**Wastewater system accidents**

Type of facility	Number of accidents	%
Sewers	347	12.6
Connections	1739	63.3
Shafts, chambers, reservoirs, aprons	574	20.9
Other	87	3.2
<b>TOTAL</b>	<b>2747</b>	<b>100.0</b>

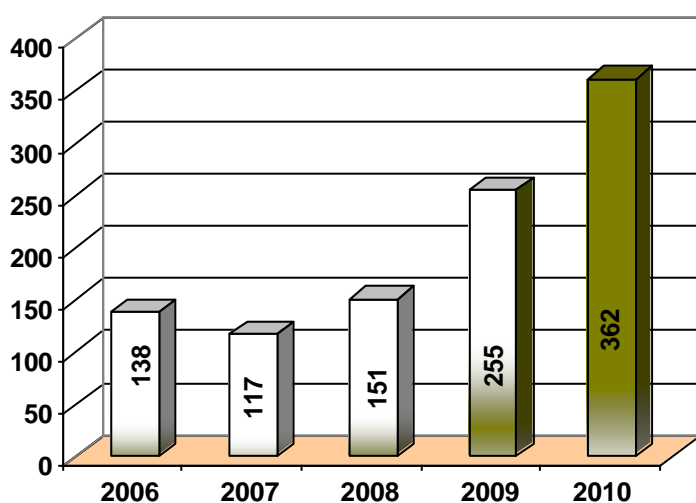
In 2010 a total of 2,747 accidents on the wastewater system was addressed, which is 159 (6.1%) more than in 2009. A breakdown of accidents by type of facility is shown in the table.

In terms of type of damage, **2,155 blocks** were removed, accounting for 78.4% of the total accidents, and 230 missing or damaged sewer shaft lids were addressed (8.4%). Other reasons for failures included destruction, damaged wall masonry, cracks, mechanical damage etc.

For the sake of comparison with previous years, the total number excludes main sewer, connection and entry shaft defects (excluding blocks and lids), of which there were 362 in 2010 (47 main sewer, 58 connection, and 257 entry shaft failures).

The number of such accidents grew by 107, or 42%, over the previous year.

### Number of rectified defects and accidents of main sewers, connections and entry shafts between 2006 and 2010



### Water quality

In 2010 the quality of drinking water and wastewater was monitored by the Water Quality Control Service (ÚKKV) accredited by the Czech Accreditation Institute (ČIA) pursuant to ČSN EN ISO/IEC 17025, which is consistent with ČSN EN ISO 9001.

The Certificate of Accreditation by ÚKKV (Testing Laboratory No. 1247) is issued with effect until 31 May 2012.

The accreditation covers the entire range of ÚKKV's activity – sampling and analysis of drinking, bottled, surface, raw, underground, and waste water as well as water from intermediary process stages (interstage water), sludge, and swim water. Waste sampling and analysis of process chemicals used in water treatment were newly introduced.

### Drinking water

Drinking water quality was monitored in accordance with Decree No. 252/2004 as amended, which lays down the requirements for drinking and hot water and scope and frequency of drinking water testing - which have been incorporated in the current water treatment plant and distribution system control plans.

Throughout 2010, drinking water was produced at two water treatment plants operated by PVK – Káraný and Želivka. The Podolí treatment plant did not supply any drinking water to consumers in 2010 and only analyses were made during the trial operation of the Podolí WTP.

The distribution network was monitored along the distribution line (reservoirs, pipelines) as well as on customer premises in 2010. Iron and the associated colour and turbidity are an important parameter in samples from the distribution system not complying with the Drinking Water Decree No. 252/2004. In 2010, 3.47% of distribution network samples were found incompliant on account of the iron indicator as per the Inspection Programme. A 1.5% improvement was recorded in comparison with 2009.

**An overall evaluation of the department's activity (regarding drinking water) expressed in figures for 2010 is as follows:**

Site	Total number of samples for microbiological and biological analyses / number of parameters	Total number of samples for chemical analyses / number of parameters	% of compliant parameters
Želivka WTP	374 / 2,751	380 / 9,550	99.8
Káraný WTP	380 / 2,798	378 / 6,721	100
Podolí WTP	0 / 0	0 / 0	-
Distribution system – reservoirs, pipelines	450 / 4,902	487 / 14,355	99.7
Distribution system – consumer premises	2,462 / 24,255	2,946 / 68,508	99.3
<b>Total</b>	<b>3,666 / 34,706</b>	<b>4,191 / 99,134</b>	<b>99.4</b>

### **Wastewater**

The Wastewater Laboratory Testing Unit monitors wastewater from the CWWTP and its process equipment including sludge and biogas, as well as wastewater from the BWWTP, industrial consumers, sewage network, and drainage points operated by PVK. Liquid waste transported to the CWWTP and BWWTP is also checked. The scope and frequency of monitoring complies with the legal regulations for wastewater in force – which have been incorporated in the current control programmes for every area.

Compared with the previous year, in 2010 the number of samples processed grew by 4.2% and the number of parameters determined grew by 1.9%. Overall, the WLTU processed **13,996** samples and determined **95,185** parameters in 2010. Of the total quantity of samples, **8,704** wastewater, sludge, liquid waste and biogas samples were processed for the CWWTP, **3,001** WW and sludge samples for the BWWTP, **671** samples from industrial customers, **306** samples from the sewer system, **96** samples from faecal cars at drainage points, and **95** samples of wastewater from water treatment plants.

**The intensity of monitoring in the sewer system including the findings of permitted value transgressions is set out in the following table.**

Year	Number of WW samples in the sewer network					
	Industrial WW producers + WW exporters		Sewer systems including accidents		Total	
	Sampled	Of which exceeded	Sampled	Of which exceeded	Sampled	Of which exceeded
2006	746	343	322	185	1,068	528
2007	774	330	373	172	1,147	502
2008	811	361	272	131	1,083	492
2009	797	286	347	116	1,144	402
2010	767	321	306	108	1,073	429

The ÚKKV analysed 2,110 drinking water samples and 225 wastewater samples for other Veolia Voda Group companies.

## Environmental protection

In terms of environmental protection, the company sets its sights very high. Many of its activities were environmentally focused. At the end of 2010 the company successfully passed an audit by the ITC Zlín certification agency concerning the observance and improvements of its integrated quality, **environmental**, and occupational health and safety management system. PVK continues to hold the prestigious gold certificate of the integrated system pursuant to ČSN EN ISO 9001:2009, ČSN OHSAS 18001:2008, and the **environmental management system** pursuant to **ČSN EN ISO 14001:2004** issued by CQS-sdružení pro certifikaci systémů jakosti, a member of IQNet.

2010 marked the introduction of additional preventive measures and improvements of policies, procedures and conduct of the company's employees and contractors in terms of the environment and occupational health and safety.

An Environmental Code of Conduct laying down the principles of environmentally responsible internal conduct and an OHS Code were implemented. Pursuant to the Environmental Code, a new customer service was launched - the sending of invoices via e-mail.

### Waste management

In terms of waste management, further major steps were taken with a view to reducing waste production throughout the company. One of the steps was the execution of a contract with ECOBAT, s.r.o., which recycles batteries and accumulators. Selected PVK facilities were provided with labelled battery containers. The containers are used for batteries originating from the employees' work and from their homes. A Maxi Tube vessel was installed in our customer centre in Dykova Street, effectively expanding our customer service offer.

The cooperation with the Asekol, s.r.o. and Ekolamp s.r.o. collective systems has proven highly beneficial. We handed more than 80% of the total quantity of discharged electrical equipment and 100% of light sources over to the collective system through them in 2010. Without the collective systems, the equipment would have been classified as hazardous waste. When using the collective systems, the equipment is handled outside of the confines applicable to waste, which is reflected in a reduction of the electrical waste disposal cost and of the overall waste production by PVK.

PVK is also involved in a pilot project concerning synergies in laboratory analyses of waste by selected Veolia Voda Group laboratories. PVK conducted a detailed waste management analysis in all Veolia Voda companies. The results of the analysis were presented to the Wastewater Treatment Plant Process Engineers' Committee of VV CR and SR.

The information on PVK's waste generation in 2010 is complemented by table T-01.



**T-01 – PVK's waste generation in 2010\*)**

Waste generated by PVK in 2010	PVK waste TOTAL	Hazardous waste	Other waste
Produced [t]	145 920,6070	27,6720	145 892,9350
% of the total waste output	100%	1.90%	98.10%

\*) Source: PVK's records kept on an ongoing basis, as of 25 Jan 2011. Verified figures to be submitted as PVK's annual waste generation report will be presented to ÚKM on 16 Feb 2011.

### Outlook

PVK prepared the foundation of a new information system that supports maintenance, specifically the Technological Records module, in 2010. The module will be launched for live use in 2011 and filled with data, which will serve as a foundation for newly introduced modules. The Accident Management module will be added in the second quarter of 2001 and the Work Planning module in the third quarter. PVK continues a programme of eliminating sewage occurrence in rainwater systems and reducing the pollution of rainwater settling reservoirs and small watercourses. Added to this programme was a plan towards reducing the loading of sewage systems with ballast and rain water. Sewer fumigation with non-toxic smoke proved an efficient method of finding rainwater leakage points.



PVK will attempt to successfully retain all three certificates, ISO, OHSAS, and EMS, in the upcoming year as well. Great attention will be paid to reducing water losses. An action plan was adopted in order to reverse the loss trend. Another major area of interest for PVK will be data exchange with the representative of the infrastructure asset owner based on a defined shared interface between both companies' information systems.

## **Institut environmentálních služeb, a.s.**

### **Shareholders:**

**30% Pražské vodovody a kanalizace, a.s., 40% Campus Veolia Environnement, 20% Dalkia Česká republika, a.s., and 10% Veolia Transport Česká republika, a.s.**

Revenue: CZK 29,593,000

Expenditure: CZK 29,553,000

Profit: CZK 40,000

Number of employees: 14

For Institut environmentálních služeb, a.s. (Institute of Environmental Services, IES), 2010 was the most successful year ever in many respects. The long-term strategy pursued by IES and its operating model in place were vindicated once again. The number of IES's educational events increased by more than 50% in 2010 compared with 2009, and the number of participants increased by 5% to 9,401 (of whom 1,139 from PVK) in 2010. Since its establishment in 2002, the number of participants in IES's educational events had totalled 45,258 by 31 December 2010. In 2010, the number of training days increased by almost 23% compared with 2009, and IES's revenues grew by 0.1% while its total expenditure was reduced by 0.3%. IES turned a moderate profit.

In 2010, IES successfully continued to build its own network of educational and training centres with a view to being closer to its customers and providing them with increasingly comprehensive services. In 2010 IES therefore opened a **new educational centre in Ostrava**, staffed by 3 employees, which provides the entire corporate education and complete outsourcing of the personnel agenda in corporate education primarily for the new IES shareholder, Dalkia Česká republika. In January 2010, IES also opened its **offices at Severočeské vodovody a kanalizace, a.s.** where it also provides the entire corporate education and complete outsourcing of the related personnel agenda. In 2010 IES also provided Stredoslovenská vodárenská prevádzková spoločnosť, a.s. with 100% of corporate education through its **educational centre in Banská Bystrica**. The centre also provides more and more educational services to Podtatranská vodárenská prevádzková spoločnosť, a.s. This development of IES's own network of educational centres and presence also has a major impact on the internal processes at IES and its Prague head office, at which the economic, accounting, methodological and marketing operations of all branches and offices are centralised. This necessitated some personnel changes.

For Veolia Transport companies, IES prepared three educational projects, which won financial support from the European Social Fund. Totalling almost CZK 10 million, the subsidies were granted to VT Morava, a.s., VT Teplice, s.r.o., and VT Praha s.r.o. September saw another very successful edition of the **V.I.P. programme (Veolia Induction Programme)**, which was attended by 69 employees of Veolia Environnement from the Czech Republic, Slovakia and Poland. Close co-operation with **Moravská vysoká škola Olomouc, o.p.s. [Moravian College Olomouc]** continued. Of the 28 students in the last year of the Economy and Management bachelor's programme, 28 successfully defended their bachelor's thesis and passed the Final State Examinations. Another year of this higher education course was successfully opened. Twenty students successfully completed a two-semester **Personnel Management** programme in co-operation with Charles University and received a certificate from the university. IES also became the supplier of in particular language training for Podtatranská vodárenská prevádzková spoločnosť, a.s. as part of that company's project subsidised by the EU. In the Czech Republic and Slovakia, practical **first aid training** continued; altogether more than 16,000 participants passed this course. The graduates have already saved three human lives.



In 2010, IES developed its “eCampus” (an educational e-learning portal). For example, the offer of English and French classes at eCampus was extended to a total of 1,000 hours of studies. IES produced another original multimedia e-learning course, “OHS and Managers”, which met with a very positive response.