



SUE "VODOKANAL OF ST.PETERSBURG" 2010

REPORT IN THE FIELD OF SUSTAINABLE DEVELOPMENT

(Annual Report)

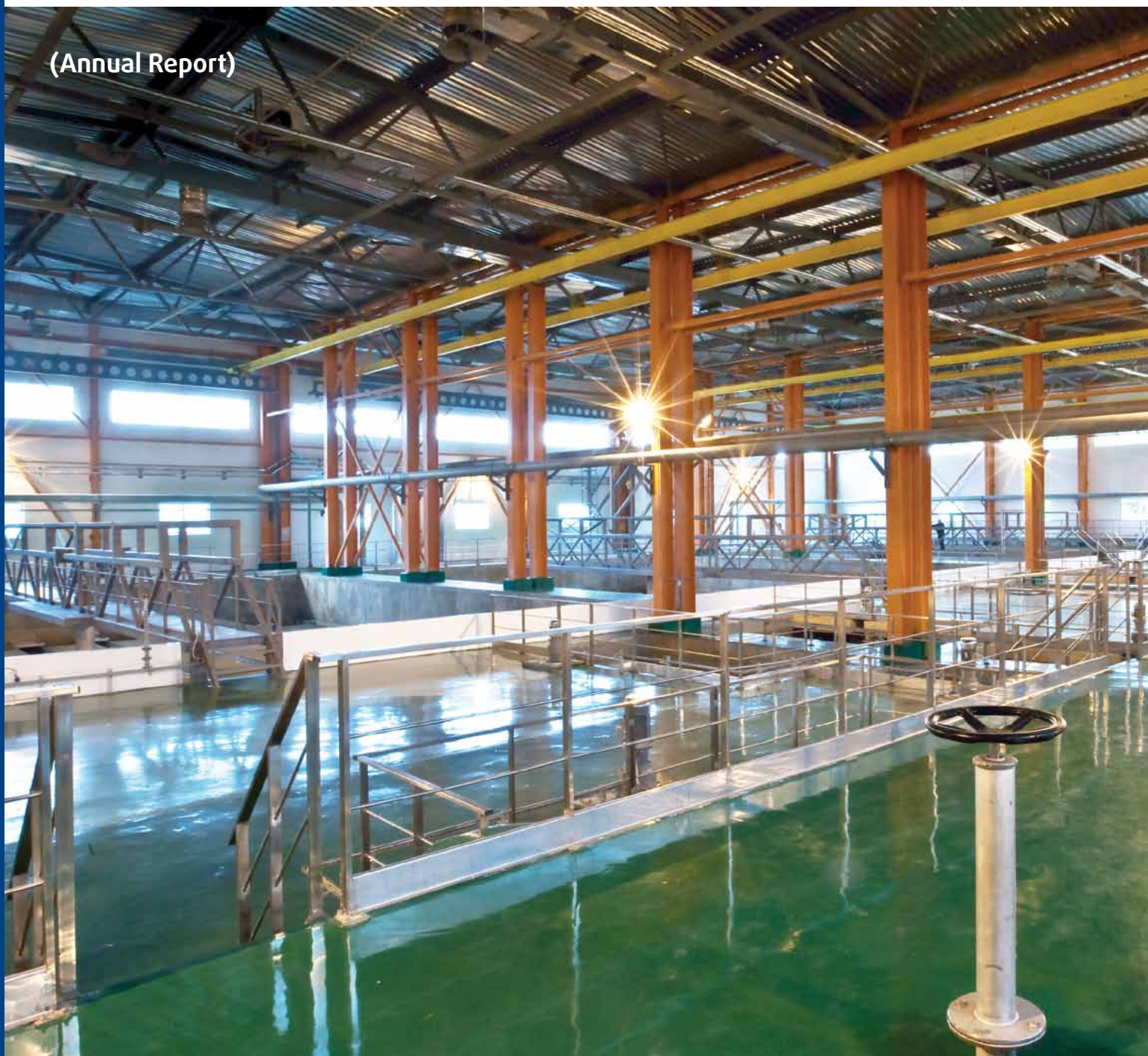




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DIRECTOR GENERAL'S ADDRESS



Dear Ladies and Gentlemen,

Continuous improvement is one of the basic principles determining the activities of Vodokanal St. Petersburg. Therefore, we are trying to improve our public reports. They are published annually by our company, however, this year's report incorporated recommendations on reporting in the field of sustainable development (GRI). In this way, we could give a more in-depth and full description of Vodokanal business-related and social activities for all interested parties.

Vodokanal is striving to become the Europe's best water company. We study and analyze customer expectations on a continuous basis and use the results to adjust our operations. We implement innovative production technologies. We create the environment where all Vodokanal employees could make maximum use of their intellectual and business potential. And all that leads us to success.

The previous year 2010 abounded with important events.

We have made a significant step to creation of innovative water supply system in Petersburg. Over two previous years, we have been working on a pilot project aimed to set up a water supply management system, and in 2010 we summed up the results of this experiment. You can read more about the work and the results achieved in this report, but I would like to note that the results were impressive. They showed that we were moving in the right direction. On the one hand, we could improve significantly the quality of water supply services and, on the other hand, achieve a notable reduction of energy costs. Basing on the experience acquired during the pilot project implementation, Vodokanal began to implement the water supply management system throughout Petersburg.

In parallel, we started up the new water treatment block at the city's biggest water treatment plant — Southern WTP. It was an extremely important event not only for Vodokanal, but also for all Petersburg: the new treatment block enabled us to reach a new level of potable water production and, at the same time, minimize negative impact on the environment.

Construction of the new block was one component of the Southern WTP reconstruction project. In the coming years, new advanced water treatment blocks will also appear at Northern and Main WTPs.

However, Vodokanal's objective is not limited to the supply of clean potable water to the citizens. We must, and do give as much attention to conservation of clean Baltic Sea. Over the recent years, Vodokanal has implemented a large-scale environmental program — The Neva Untreated Wastewater Discharge Closure Program. Let me remind you that before 1978 municipal sewage was not treated at all in the former Leningrad. All dirt produced by the city industries, dwelling houses, hospitals and institutions was discharged directly into the Neva and other water-courses. Today, we treat 93 per cent of sewage. By 2015, we want to reach the 98% level. And I have no doubts that these plans can come true. Implementation of the unique project — Extension of the Main Sewage Collector in the northern part of the city — is progressing in strict compliance with the time schedule and will be completed by the end of 2012.

In 2010, the construction of Collector caused some inconveniences for the citizens: the traffic along two Neva embankments had to be officially restricted last spring. But we kept to the schedule and, as we had promised, the traffic was resumed in full by the end of December.

Reduction of untreated water discharge in combination with the implementation of enhanced phosphorus and nitrogen removal technologies at wastewater treatment plants have already benefitted the condition of the Baltic Sea. Our Finnish colleagues noted that, in summer 2010, the quantity of blue-green algae in the Baltic Sea diminished obviously despite very hot weather. And the Finnish President

Tarja Halonen mentioned at the meeting with the Russian President Dmitry Medvedev that wastewater treatment in Petersburg was "a world-class achievement". Of course, we are pleased to hear such a high appraisal of our work. However, it is not only Vodokanal that should take credit for the results achieved. They would have been unreachable without the support of the city administration and federal government, without close cooperation with foreign partners, primarily, Finnish experts. And we keep working. There is still a great deal of work for us to do in order to improve the condition of the Neva and the Baltic Sea.

"A great deal of work" means not only implementation of new technologies and commissioning of new plants. It is very important to change the people's mentality. Therefore, Vodokanal did its best to develop its educational and awareness-building programs in 2010. Our museum complex "The Universe of Water" was visited by over 200,000 people in one year. It is an absolute record over the life of the museum. Furthermore, the web-portal da-voda.com was created in 2010 with the support of Vodokanal where different articles and videos devoted to water in all its manifestations can be found. By the way, this website won the Runet Award last year.

Any educational and awareness-building activities are time-consuming. They do not give quick results. However, we can see that the society is gradually changing its behaviour towards water. People begin to treat water carefully. It is evidenced by the trend to lower water consumption. More and more people now use meters to measure their water consumption; water saving technologies are being wider applied in everyday life. And we rejoice at that.

Felix V. Karmazinov
SUE "Vodokanal of St. Petersburg"
Director General



CALENDAR OF EVENTS 2010

JANUARY

- The HELCOM (Baltic Marine Environment Protection Commission) Land-Based Pollution Group excluded the sub-spot "Vodokanal's Central WWTP in St. Petersburg" from the list of hot spots.
- The new exhibit — "Communicating vessels" was added to The Universe of Water museum collection.

FEBRUARY

- The Herrenknecht tunneling machine began tunneling works in the last section of the Main Sewage Collector Extension's second line at the depth of 70 metres below the ground level.
- The Director General of SUE "Vodokanal of St. Petersburg" Felix V. Karmazinov took part in the Baltic Sea Action Summit 2010 (Helsinki, Finland). It was announced that Vodokanal St. Petersburg intends to select and use chemicals in compliance with the European standard REACH.
- The Universe of Water museum complex (Water Museum) opened its own website: www.vodokanal-museum.ru.
- Under the Russian-British Climatic Timeout Program, Vodokanal's Youth Environmental Centre (YEC) presented some mini-projects dedicated to the climate change theme and implemented by Petersburg school students at their schools.

MARCH

- The official ceremony devoted to the completion of the South-West Sludge Incineration Plant Construction Project implemented with active participation of the European Commission was held at the South-West WWTP. The final acceptance certificate was executed upon the expiration of the incineration plant warranty period.
- The round table dedicated to environmental cooperation between Petersburg and Finland and attended by the Finnish President Tarja Halonen, the Governor of St. Petersburg Valentina Matvienko and Director General of Vodokanal Felix Karmazinov, was held at SUE "Vodokanal of St. Petersburg".
- Under the "The Young Think of the Baltic Sea" Program timed to the World Water and Baltic Sea Day, Vodokanal's Youth Environmental Centre organized interactive classes "Big Little Sea" and the environmental awareness project "One Drop Saves Another".
- SUE "Vodokanal of St. Petersburg" participated in the International Environmental Forum "Ecology of Big City" (St. Petersburg).
- Vodokanal supported the creation of informational web-portal "Leningrad. Victory" (www.Leninigradpobeda.ru) under a charity program.
- Vodokanal's official website (www.vodokanal.spb.ru) won the All-Russian Contest "Best Corporate Media 2010" in the nomination "Web-Portal".

APRIL

- SUE "Vodokanal of St. Petersburg" became the Russia's first water company to obtain the Recognized For Excellence Certificate, 5 stars, of the European Foundation for Quality Management (EFQM).
- Vodokanal opened the season of fountains: the fountain in front of Kazansky Cathedral was the first to open.
- Vodokanal's Northern Water Treatment Plant (Northern WTP) celebrated its 40th anniversary.
- The final competition of comic magazines and animated videos "United by Water" was held at Vodokanal's Youth Environmental Centre (YEC).

MAY

- SUE "Vodokanal of St. Petersburg" won the contest "100 Best Russian Organizations. Science. Innovations. Scientific Research" in the nomination "Russia's best companies and organizations for innovations and scientific research".
- Vodokanal St. Petersburg participated in the Third International Environmental Congress; one of the Congress round tables — "Environment, Water and Healthy Lifestyle" was held at the Information and Training Centre.
- "The Universe of Water" museum took part in the international event "The Night of Museums 2010".
- Light-musical fountain complexes in Lenina Square and Moskovskaya Square opened a new season.

JUNE

- Vodokanal St. Petersburg participated in the International Water Forum EQUATEC 2010 and the conference "Water Sector Development Prospects up to 2020" organized by the National Union of Vodokanals.
- The geoinformation system "Baltika" designed by Vodokanal won the Russian Geoinformation Projects 2009-2010 Competition in the nomination "The Brightest Corporate Project".
- Vodokanal actively participated in the city festival "Red Sails".
- A new web-portal — www.da-voda.com — was created with the support of SUE "Vodokanal of St. Petersburg". The web-portal was launched on the eve of the International Environmental Day — Ecologist Day.
- "The Universe of Water" museum complex housed Alexander Raichstein's (Helsinki) installation-exhibition "Pablo and Alexander — Games with Picasso".



JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
<ul style="list-style-type: none"> • A new 350,000 m³/day cold water treatment block was put into operation at Southern WTP. • Vodokanal presented the results of its pilot project aimed to create a water supply management system in Uritskaya Pumping Station service zone. • SUE "Vodokanal of St. Petersburg" won the contest "100 Best Russian Organizations. Environment and Occupational Safety". 	<ul style="list-style-type: none"> • The St. Petersburg Government approved the long-term target program "On Energy Saving and Improving Energy Efficiency of Water Supply Systems in the Southern Zone of St. Petersburg up to 2012". • Vodokanal launched an open tender for organizing LLC Vodokanal-Finance bond issue aimed to raise funds for the project "Main Sewage Collector Extension in the Northern Part of St. Petersburg from Finlandsky Bridge to Kantemirovskaya Street". • Vodokanal participated in the Third International Tea and Coffee Festival. 	<ul style="list-style-type: none"> • The first Russian language edition of the book "Water Supply Practice" issued by Vodokanal St. Petersburg in cooperation with the German Association for Gas and Water (DVGW) was presented in the framework of IFAT – Trade Fair for Water, Sewage and Waste (Munich, Germany). • SUE "Vodokanal of St. Petersburg" obtained the Confidence in Employer Certificate (the Certificate is bestowed by the State Labour Inspection in St. Petersburg, Trade Union Federation of St. Petersburg and Leningrad Region, and Regional Association of Employers "St. Petersburg Union of Industrialists and Undertakers"). • Vodokanal St. Petersburg entered into a MEUR 5 loan agreement with the Nordic Environment Finance Corporation (NEFCO) and a MEUR 3.75 agreement of non-refundable assistance with the Northern Dimension Environmental Partnership (NDEP) under the project "Reconstruction and Modernization of Small Wastewater Treatment Plants in St. Petersburg". • The Festival of Knowledge was held at Vodokanal's Information and Training Centre on 1 September. 	<ul style="list-style-type: none"> • Vodokanal St. Petersburg won the Sixth International Quality Competition of Central and Eastern Europe (CEE). For the first time ever a Russian public utility got such award. • SUE "Vodokanal of St. Petersburg" participated in the Second International Clean Water Forum in Moscow. • In the framework of the Clean Water Forum, Vodokanal St. Petersburg presented a new guidebook "Potable Water Quality Benchmarking" (authors: Head of Russian Rospotrebnadzor G.G. Onischenko, Director of Human Ecology and Environmental Hygiene Research Institute Yu.A. Rakhmanin, Director General of SUE "Vodokanal of St. Petersburg" F.V. Karmazinov, et al.) which proposes new approaches to supply of good-quality potable water to citizens based on the national and foreign best practice. • Vodokanal St. Petersburg signed the Memorandum of Cooperation with Lahti Science and Business Park (Finland) regarding establishment of Water Excellency Centre in St. Petersburg. • The open tender for LLC Vodokanal-Finance bond issue organization services was completed. The tender winner was OAO "Bank St. Petersburg". • The Director General of Vodokanal St. Petersburg F.V. Karmazinov became the winner of IV Independent Business Award "Chief of the Year" in the nomination "Honoured Chief". • Vodokanal organized the first "Welcome to Vodokanal" party for new company employees. 	<ul style="list-style-type: none"> • Excursion to Vodokanal's facilities was organized for a group of Moscow-based popular bloggers. • Vodokanal hosted the round table organized by the International Academy of Sciences on Ecology, Human Safety and Nature, where the Company specialists presented fundamental provisions of the draft federal law "On Water Supply and Sanitation". • The Federal Financial Markets Service registered the issue of LLC Vodokanal-Finance bonds (2 million securities for the face value of 2 billion Roubles in total). • Vodokanal obtained the Certificate of Membership in the European Foundation for Quality Management (EFQM) – one of the world's most honoured and prestigious organizations dealing with quality issues. • The web-portal www.da-voda.com created with the support of Vodokanal St. Petersburg got the Runet Award in the nomination "Health and Recreation". 	<ul style="list-style-type: none"> • The third stage of the Main Sewage Collector Extension was completed making it possible to lift traffic restrictions for two Neva embankments. The percentage of wastewater treatment in Petersburg grew to 93%. • The inaugural issue of LLC Vodokanal-Finance's five-year bonds was placed in full. • Vodokanal won the Grand-Prix at the All-Russian Contest "Conscientious Supplier 2010" in the nomination "For Production Efficiency and Product Competitiveness, Compliance with International Management and Quality Regulations". • The Director General of Vodokanal St. Petersburg F.V. Karmazinov was awarded the National Prize "Man of the Year 2010" in the nomination "Environmental Protection". • Wastewater Treatment Plant in Kronstadt celebrated its 30th anniversary. • Vodokanal validated a new collective agreement for 2011–2013.



ABOUT THE COMPANY

Vodokanal History

The history of the city's centralized water supply goes back to 10 October, 1858, when the Charter of "St. Petersburg Water Pipelines Joint-Stock Company" was approved by the Russian Emperor Alexander II.

Among the founders of the Joint-Stock Company were engineers, such as A.N. Erakov, P.I. Palibin, E.I. Okel, A.A. Peretz, and big businessmen — I.I. Glazunov, M.I. Yakunchikov, I.N. Kushinnikov.

1858-1917 годы

The JSC faced huge financial and technical problems at the initial stage. In early 1863, the construction of water networks was, practically, suspended. By then, the water tower in Shpalernaya st. (architects I.A. Merz and E. Shubersky) has been built and several kilometers of water distribution networks have been laid. The JSC's registered capital was spent, the shares sold badly, and even the government subsidy could not alter the situation. In March 1863, the 1 Guild merchant A.I. Kron from St. Petersburg joined the JSC, contributed the lacking sum (approximately, 900,000 Roubles) and took up completion of the long-drawn works.

Water supply to the first customers started by the end of 1863.

Some modifications were made to the initial design during the construction period. At first, it was decided to take water from a sort of a "ladle" — the artificial water body near Tavrichesky Palace connected with the Neva. However, the "ladle" proved to be unsuitable for this purpose, and the JSC had to arrange water intake from the Neva.

Before mid-1870es, the water network was only used by the citizens on the left-bank side. The new joint-stock company (Partnership) was established in 1873 (to be managed by English contractors) to supply water to Peterburgskaya (Petrogradskaya) and Vyborgskaya areas.

In 1890 the State Duma took a decision to buy out the assets owned by the St. Petersburg Water Pipelines Joint-Stock Company, and in 1892 — to buy out also the assets of the New Water Networks Partnership. The City Executive Commission for water supply of St. Petersburg was established to manage the water networks and was subordinated to the city administration. The manager of city water networks was appointed on a submission from the chairman of the Executive Commission. During the first decades of the centralized water supply operation in St. Petersburg all customers received water which passed only coarse mechanical treatment. In 1889 sand filters were put into operation at the Main Waterworks (the filters had been built by the St. Petersburg Water Pipelines Joint-Stock Company as strongly demanded by the city authorities).

In 1911 the filtration station with water ozonation was built in Peterburgskaya (Petrogradskaya) area. Chlorine disinfection of drinking water was implemented at the Main Waterworks (the first chlorination experiments were made in Kronstadt in 1909). The Executive Commission for sewerage construction and water supply rehabilitation in St. Petersburg established by the City Duma had worked since 1911 and took over most of the functions in relation to water supply development.

The Soviet Period

World War I and the Civil War had a negative impact on the technical condition of the city's water supply system, including its plants, equipment and networks. In 1920s-early 1930s wood pipes were sometimes used for construction of water networks due to the lack of more suitable materials



It was only by 1935 that the pre-revolution level of water supply to the city network had been reached. However, there were also some achievements at that time.

First of all, construction of the Southern Waterworks (stage I was put into operation in 1933, a part of stage II — in 1940) and modernization of the Main Waterworks treatment facilities should be mentioned.

In 1923-1924 construction of sewer networks was resumed. In 1925 the city authorities approved the major sewerage plans for Leningrad (separate system with four independent sewer basins). Vasilyevsky Island was selected as experimental district for the construction of a new sewerage system. Construction of sewers in Vasilyevsky Island (total length of street networks — 153.3

km) had lasted for 10 years. Vasileostrovskaya sewage pumping station was completed by 1930. Wastewater was discharged to the Neva Bay without any treatment.

In the 1930s more and more sewers were built in other city districts. The length of sewer networks in Leningrad reached 1130 km which exceeded twice the pre-revolution level. In 1940 a new sewerage scheme of Leningrad was adopted. It was also based on a separate sewerage system. The scheme envisaged mechanical treatment and precipitation followed by discharge to four channels of the Neva Bay. Stormwater was to be discharged to all watercourses in the city. It was planned to use the tunneling method to build the main sewers.

A special page in Vodokanal's history is related to World War II and the blockade





of Leningrad. The waterworks and facilities, clean water tanks, treatment plants, water networks and sewers were subject to intensive bombings and shelling. As many as 955 shells exploded within the area of the Southern WTP alone. The personnel of the most important facilities were put on a war footing.

Destruction of networks caused the flooding of basements, streets and squares and sometimes even the whole city districts. Nevertheless, both the city water networks and the sewerage system were working without interruption except 25-26 January 1942 when the electricity supply was cut off.

Over the period between 1950 and 1970 the annual average water supply to the city has grown more than twice — from 912,800 m³ to 2,057,600 m³. The Southern WTP stage II was put into operation in 1948, Volkovskaya WTP — in 1964, and the Northern WTP stage I — in 1971. Wide-scale construction of water pumping stations was underway too. In 1952 the State Committee of the Council of Ministers of the USSR approved the project of sewerage construction in the central part of Leningrad where a combined sewerage system was proposed instead of separate sewerage. The first stage of sewerage in the city centre including the Main Pumping Station was put into operation in 1958.

In 1966 the General Scheme of Leningrad Sewerage was approved which included, among other things, three big complexes of wastewater treatment facilities. The first one — Central WWTP — was put into operation in 1978 (stage I). Before that, all city wastewater was discharged to the water bodies almost without any treatment. The Central WWTP, stage II, was put into operation in 1984, and the Northern WWTP, stage I, — in 1987. The construction of the South-West WWTP started in 1986.

Contemporary History

In the 1990s, SUE "Vodokanal of St. Petersburg" developed and implemented a novel-for-Russia concept of strategic

planning of the public utilities' financial operations and business. Creation of a management system based on the corporate development planning was a crucial step to implementation of this concept in the company.

It is the implementation of the strategic planning concept that ensured sustainable development of SUE "Vodokanal of St. Petersburg". In 1992 the company was able to become self-sufficient and raise the necessary investments for reconstruction and development. In 2004, the St. Petersburg Water and Wastewater Systems Reconstruction and Development Programme for 2004-2011 was worked out. On 22 September 2005, the South-West WWTP was inaugurated in the presence of the President of the Russian Federation V.V. Putin, the President of Finland Tarja Halonen and the Swedish Prime-Minister Göran Persson.

Alongside with the construction of new facilities using the cutting-edge technologies, wide-scale reconstruction of the existing WWTPs was implemented. By 2006, three "hot spots" in the Baltic Sea catchment basin have been eliminated.

The reconstruction of the Central WWTP in 2007 made it possible to meet, and even surpass the HELCOM standards of nutrient concentrations. By commissioning two sludge incineration plants — at the Northern WWTP and South-West WWTP — in 2007, St. Petersburg became the first megapolis to fully solve the problem of sewage sludge utilization.

In 2008 Vodokanal St. Petersburg celebrated its 150th anniversary. One of the most important events of the jubilee year was the startup of the Main Sewage Collector Stage 1.

In 2009 Vodokanal celebrated its 20-year cooperation with the Ministry of the Environment of Finland. "The Baltic Sea. Common Sea. Common Concern" Conference was dedicated to the anniversary.

In June 2009, the ceremonial removal of the last chlorine container from the

A special page in Vodokanal's history is related to World War II and the blockade of Leningrad. The personnel of the most important facilities were put on a war footing. Both the city water networks and the sewerage system were working without interruption except 25-26 January 1942 when the electricity supply was cut off



Northern WTP marked Vodokanal's decision to stop using liquid chlorine for water disinfection and to use hazard-free sodium hypochlorite as a substitute.

In December 2009, the second stage of the Main Sewage Collector Extension was put into operation to ensure treatment of 91% of all wastewater in St. Petersburg.



In July 2010, the new 350,000 m³/day potable water treatment block at Southern WTP was put into operation (it began to supply water to the city in January 2011). In 2010, Vodokanal summed up the results of its pilot project aimed at implementation of water supply management system, and started to implement the system in the southern districts of the city.

By the end of 2010, the next stage of the Main Collector Extension Project has been completed, and the connection of the next 12 direct discharges to the Collector was marked by an official ceremony in January 2011. As a result, the level of wastewater treatment in the city increased to 93%.

Mission and values

Mission

Provision of high-quality water and sanitation services ensuring good quality of life for customers, sustainable development of the megapolis, creation of water consumption culture and conservation of the Baltic Sea water environment.

Vision

We see Vodokanal among the world's best providers of water and sanitation services due to the quality of its services and environmental awareness.

Values

- **Responsibility before future generations** — careful and efficient use of natural resources including water, energy, forests, etc.
- **Responsibility before the customers** — continuous studies of the customers' expectations and requirements, improvement of customer interaction procedures to raise the level of satisfaction with the water and sanitation services.

In 2008 Vodokanal St. Petersburg celebrated its 150th anniversary. One of the most important events of the jubilee year was the startup of the Main Sewage Collector Stage 1



- **Responsibility before the staff** — continuous improvement of labour safety, good salaries and wages, social security for the company employees and their families, and for the retired employees.
- **Innovative approach** — incorporation of international best practice in the company management, the use of advanced technologies and creation of know-how in different fields of activities — that is the only way to reach success and to be a leading company.
- **Openness to the public and responsibility before the society** — transparency of the company activities, access to reliable information on the company work and history, close contacts with the mass media, educational institutions and public and environmental organizations — all that constitutes the basis of our information policy.

Corporate Management System

Corporate management system building philosophy

Corporate management of SUE “Vodokanal of St. Petersburg” is based on the following principles:

Accountability	The company’s executive body shall be accountable to the owner (City of St. Petersburg), the state authorities and control bodies in compliance with the applicable law.
Transparency	The company shall ensure timely disclosure of reliable information on any material facts in relation to its activities, including its financial standing, social and environmental performance and operating results, as well as provide free access to such information for all stakeholders in compliance with the law of the Russian Federation
Responsibility	The company shall acknowledge the rights of all stakeholders as provided by the applicable law and seek collaboration with the stakeholders to reach the company goals and to maintain financial sustainability and social stability.
Efficiency	The company will only reach its goal provided that each employee — from director general to ordinary officer — works efficiently.

Vodokanal has its scientific technical council being an advisory body. The council scrutinizes various matters in relation to the development of water and sanitation systems in St. Petersburg, issues relevant recommendations and reviews the results of research and development.
Vodokanal’s corporate management system is continuously developing and improving due to strategic initiatives of the company management and the owner – City of St. Petersburg.

Overview of management approaches

The following management approaches are used by SUE "Vodokanal of St. Petersburg" to improve its operations:

- strategic planning,
- self-assessment according to the EFQM (European Foundation for Quality Management) Excellence Model,
- re-engineering of processes,
- assessment of customer / personnel satisfaction,
- process-based approach,
- independent audits of ISO 9001, 14001 and OHSAS 18001 management systems,
- benchmarking and comparison with the best European water companies,
- sociological studies of public awareness and expectations, annual public reports.

In 2004, Vodokanal implemented a process-based approach under the management systems: ISO 14001 (Environmental Management System, EMS), 9001 (Quality Management System, QMS) and OHSAS 18001 (Occupational Health and Safety System). The systems were integrated after certification in 2006. All three systems pass successfully the inspections and a two-level internal audit — at the branch level and the company level. In 2007, the data recording and analytical functions of the integrated system were automated by creating the information management system for quality, environment and occupational health and safety — IS ECOT. Further upgrading of the management system is performed in compliance with the Standardization Concept.

In September 2007, SUE “Vodokanal of St. Petersburg” was awarded the Russian Government’s Quality Prize 2006 at the official ceremony. This prize is the national analog of prestigious European EFQM Quality Award.

In 2009, Vodokanal made a self-assessment of its operations according to the EFQM criteria and submitted the materials for participation in the competition for the European Quality Award. Following the on-site assessment by EFQM assessors Vodokanal St. Petersburg got a certificate acknowledging that its corporate management system complies with the Recognized for Excellence level according to the EFQM criteria. This result was confirmed in 2010.

Furthermore, in 2010, SUE “Vodokanal of St. Petersburg” took part in the International Quality Contest of Central and Eastern Europe where it became a winner. The Total Quality Management (TQM) and re-engineering approaches are used by Vodokanal to improve its management of business-processes. The improvements are implemented by a special project task force. They use a functional business-process simulation methodology and DMAIC approach to implement improvements. The key processes — Water Supply and Wastewater Disposal — are structured. Following the re-engineering results, the organizational structure and headcount were optimized and the number of management levels was reduced from 6 to 4. Some processes were outsourced, in particular, sewage sludge incineration, sewer cleaning by multi-purpose combined vehicles, car service for the personnel, security guards for company facilities, and some others.

Since late 1990s, SUE “Vodokanal of St. Petersburg” has made benchmarking studies. Later, the benchmarking was followed up, primarily, in the framework of cooperation with the Baltic Sea Region water companies and exchange of best practice with Russian public utilities.

In parallel with the process improvement Vodokanal is upgrading its set of indicators for strategic and on-line monitoring of processes. The assessment tools are:



internal and external audit of management systems; self-assessment according to excellence models and corporate management rating criteria. Performance indicators are monitored by means of special indicator sets. The process performance monitoring by (strategic, tactical and real-time) indicators is performed at different management levels (site, district or branch).

Key processes aimed at performance management.

Vodokanal has two key (major) processes: water supply service process and sanitation service process. The company developed a system of process performance indicators at all levels to ensure better performance of the key processes.

The key performance indicators of the water supply service process are:

- Compliance of potable water quality in the water distribution networks with the physical and chemical parameters set out in the current regulatory documents, expressed as percentage;
- Reduction of breakdown rate per 10 km of networks;
- Reduction of the number of complaints about low water head;
- Percentage of emergency repairs on the networks made on schedule;
- Percentage of planned maintenance on the networks made on schedule;
- Percentage of water distribution losses.

The key performance indicators of the sanitation service process are:

- Compliance of wastewater treatment quality with the regulatory target values, expressed as percentage;
- Total number of sewer blockages (clogging) per 10 km of sewer networks per year.



The performance management process for water supply and sanitation services is based on Deming-Shewhart-Taylor cycle:

Plan	target process indicators are planned for the next year before it begins, on the basis of the strategic indicators, required resources and result analysis of the previous year. The cause-and-effect relationships between the approaches applied and the results we want to achieve are determined at this phase.
Do	the service is provided; daily operational indicators are monitored at all process levels. At this phase, management is limited to ensuring the achievement of tactical (monthly) targets.
Check	the progress of achieving performance indicators is checked using the daily and weekly data
Act	the progress of achieving tactical targets and the reasons for deviation from targets are analyzed, and the necessary corrective actions are worked out at weekly working meetings. Such actions help adjust the existing approaches to achieve the targets.

Following the on-site assessment by EFQM assessors Vodokanal St. Petersburg got a certificate acknowledging that its corporate management system complies with the Recognized for Excellence level according to the EFQM criteria

Following the results of internal audits under EMS and QMS, the areas for process management improvement are identified. Annually, the EMS and QMS manager issues an analytical report about the functioning of EMS and QMS for the top management, this report being one of the tools to analyze the performance of processes by the company management. Moreover, the analysis of process performance is on the agenda of quarterly Board meetings where the progress towards the achievement of targets is scrutinized. Likewise, the management systems are analyzed at the levels of production branches and other company units. The results of analysis are used to identify areas for improvement, work out the necessary corrective measures and actions to improve the existing approaches for the purpose of achieving strategic targets.

Main provisions of corporate culture

The main provisions of corporate culture adopted by SUE "Vodokanal of St. Petersburg" are set out in the company standard "Code of Corporate Ethics". The Code contains compulsory rules of conduct to be observed by all company employees, their positions or responsibilities notwithstanding. The Code of Corporate Ethics also gives a definition of potential conflict between personal and corporate interests.

The objectives of the Code of Corporate Ethics are:

- Determine the Company mission and values.
- Establish the standards of ethical conduct and the general principles which underlie relations among the company employees, relations with customers, partners, state authorities, local administration bodies and the society in general.



- Nurture favorable environment for the development of corporate culture based on lofty ethical principles.
- Make the company employees aware of their personal responsibility for the performance of their duties.

The company has also introduced the standards "Public Relations", "Information Policy Provisions", etc. pertinent to the corporate culture. Working in accordance with the above standards in 2010, Vodokanal could improve the company image among the customers and raise their satisfaction with the services provided.

Improvement of business processes in 2010

In 2010, Vodokanal continued improving its business processes. Primarily, it refers to the customer service process. For the purpose of optimizing this process in the course of performing contractual obligations and improving the quality of customer service, district-based units were established at the Company's production branches, St. Petersburg Water Supply and St. Petersburg Wastewater Disposal, instead of the unified customer service centre to take over the customer service function within relevant service areas.

Company structure

SUE "Vodokanal of St. Petersburg" is headed by its Director General – Felix. V.Karmazinov.

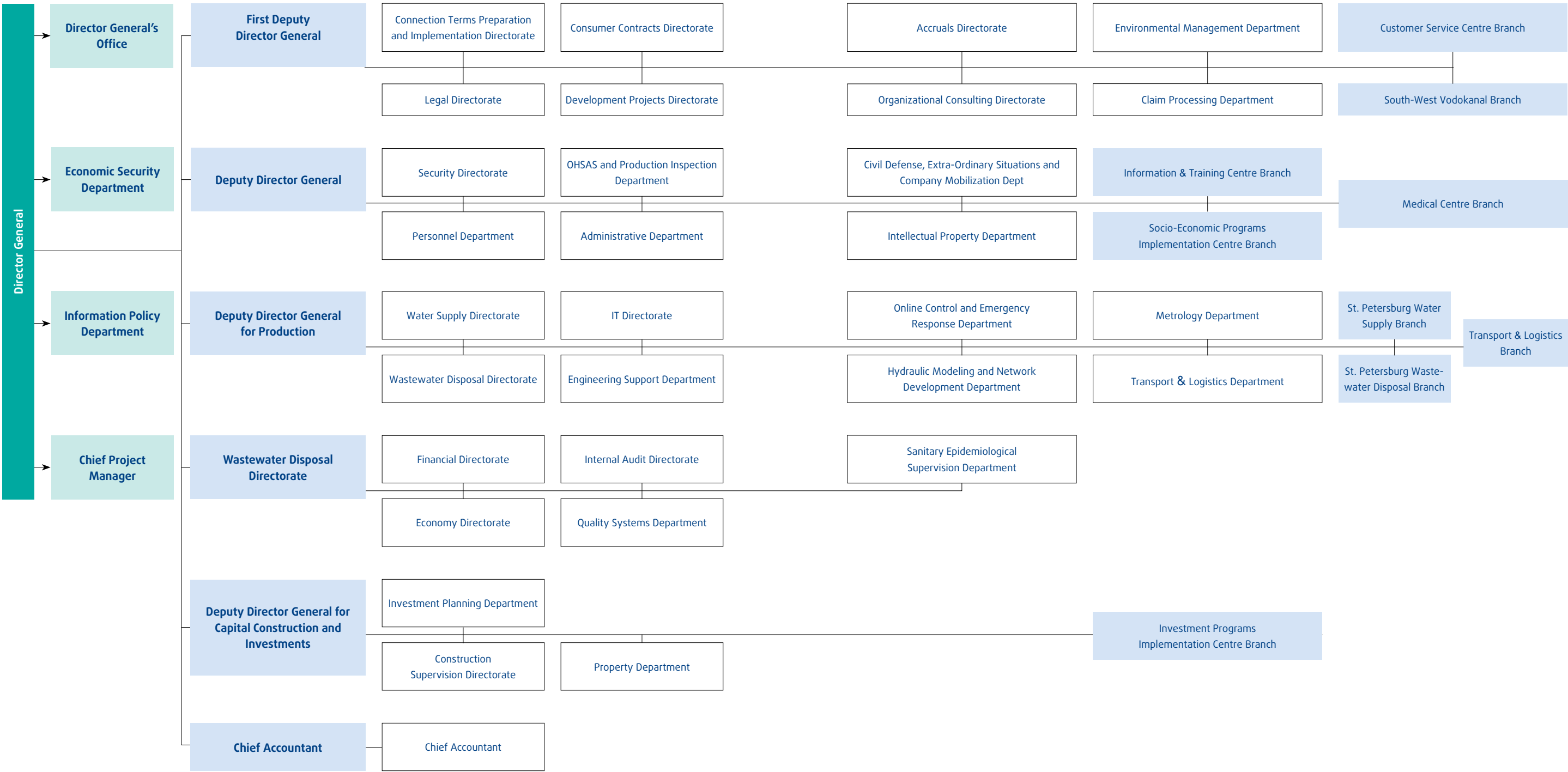
In 2010, SUE "Vodokanal of St. Petersburg" comprised 9 branches:	
1	St. Petersburg Water Supply
2	St. Petersburg Wastewater Disposal
3	South-West Vodokanal
4	Transport and Logistics
5	Customer Service Centre
6	Investment Programs Implementation Centre
7	Socio-Economic Programs Implementation Centre
8	Information and Training Centre
9	Medical Centre





SUE "Vodokanal of St. Petersburg" Organizational Chart

since 01.01.2011





VODOKANAL TODAY

Company Profile

The State Unitary Enterprise “Vodokanal of St. Petersburg” provides water and sanitation services to the City of St. Petersburg. It is the country’s biggest public utility and one of the key municipal companies in St. Petersburg. Vodokanal’s assets are owned by the City of St. Petersburg represented by relevant public authorities. Vodokanal provides its services to the city inhabitants (approx 4.8 Mio. people) and many thousands of companies and organizations in St. Petersburg/ As of 31.12.2010, the staff of SUE “Vodokanal of St. Petersburg” numbered 8,598 people.

The water supply system comprises:

6,518.4 km of water networks

200 boosting pumping stations

9 water treatment plants (the biggest are Southern WTP, Northern WTP and Main WTP)

2 sodium hypochlorite production plants

The wastewater disposal system comprises:

8,099.4 km of sewer networks

229.12 km of tunnel collectors

134 sewage pumping stations

21 wastewater treatment plants (the biggest are Central WWTP, Northern WWTP and South-West WWTP)

3 sludge incineration plants

Main achievements of SUE «Vodokanal of St. Petersburg» in the field of water treatment:

- All potable water supplied to the city is UV-treated to ensure epidemiologic safety;
- Liquid chlorine is no more used for water disinfection, it is replaced by hazard-free, non-toxic sodium hypochlorite;
- Hazard-free and non-toxic ammonia sulfate is used for water ammoniation instead of ammonia solutions;
- Water condition in the Neva is checked by means of a biomonitoring system where crayfish act as chief inspectors;
- PAC (powdered activated carbon) dosing is implemented to remove odors and oil.

Main achievements of SUE “Vodokanal of St. Petersburg” in the field of wastewater treatment:

- Around 93% of all wastewater was treated in St. Petersburg by the end of 2010; the percentage will be 98% by 2015;
- Petersburg has solved the sludge disposal problem: three sludge incineration plants are in operation in the city;

Vodokanal’s assets are owned by the City of St. Petersburg represented by relevant public authorities

Vodokanal provides its services to the city inhabitants (approx 4.8 Mio. people) and many thousands of companies and organizations in St. Petersburg

As of 31.12.2010, the staff of SUE "Vodokanal of St. Petersburg" numbered 8,598 people

- The treatment plants in Petersburg have implemented the enhanced nutrient (phosphorus and nitrogen) removal process to meet the HELCOM recommendations. The process helps reduce the biological burden on the Neva, Gulf of Finland and Baltic Sea.

Vodokanal has an effective customer feedback system. Since 2004, a round-the-clock “Hot Line” has been in operation where one can get any information about Vodokanal activities.

Call the Hot Line: 305 09 09

Vodokanal St. Petersburg has charge of the city fountains and public toilets. Moreover, Vodokanal gives much attention to education. It has its Information and Training Centre which comprises “The Universe of Water” museum complex and the Youth Environmental Centre.





The most important events in 2010

- 1. One of the most significant events in 2010 was the summing-up of the pilot-scale water supply management system project implemented in the service zone of Uritskaya Pumping Station (the area with approx. 140,000 population). The pumps and other process facilities were replaced by energy efficient equipment at Uritskaya Station and at 11 boosting pumping stations. Automatic air release valves and anti-shock valves were installed in the pumping station and on the network. Moreover, metering checkpoints were installed: using the pressure data transferred from the checkpoints the system sets automatically operating regimes of all plants. As a result, the monthly average energy consumption reduced by more than 42%, and unaccounted-for water reduced by 39%.
- 2. In 2010, the new 350,000 m3/day water treatment block was put into operation at Southern WTP.

It is one of the Russia’s most advanced treatment blocks. It can cope with any changes of water quality in the Neva and provide absolutely safe and harmless potable water. In particular, the treatment block has a pre-ozonation stage which facilitates greatly the downstream water treatment process. There is another characteristic feature of the new block — it is environment-friendly: a closed water cycle is used for the backwashing of filters. The sediment produced in the water treatment process is also treated.

- 3. The next stage of the Main Sewage Collector Extension Project in the northern part of the city has been completed by the end of 2010. This enabled Vodokanal to fulfil its promise and lift in December the traffic restrictions in Pirogovskaya and Arsenalnaya embankments (the restrictions were imposed last spring because of construction of Collector shafts). The works performed during the year resulted in elimination of 12 direct wastewater discharges — ap-



prox. 57,000 m3/day in total. The wastewater discharges were connected to the Main Collector and channeled to the Northern WWTP for treatment. The level of wastewater treatment reached 93%.

- 4. Due to reduction of untreated wastewater discharge and implementation of enhanced phosphorus and nitrogen removal technologies at wastewater treatment plants, fewer blue-green algae than before were observed in the eastern part of the Baltic Sea in summer 2010, according to the Finnish ecologists’ estimates. And in November 2010, the Finnish President Tarja Halonen mentioned at the meeting with the Russian President Dmitry Medvedev that wastewater treatment in Petersburg was “a world-class achievement”.
- 5. In 2010, the specialists of Vodokanal St. Petersburg actively participated in the development of the draft federal sectoral law “On Water Supply and Sanitation”. The draft law establishing a legal framework for effective functioning and sustainable development of water sector in the Russian Federation was introduced in the Russian State Duma on 11 January 2011.
- 6. Vodokanal won the Sixth International Quality Competition of Central and Eastern Europe. The Competition was organized by the European Foundation for Quality Management (EFQM). Vodokanal is the Russia’s first public utility to achieve such result. In addition to its victory in the main competition, Vodokanal St. Petersburg was also awarded a special diploma for its achievements in the sphere of corporate social responsibility.
- 7. The web-portal www.da-voda.com created with the participation of Vodokanal St. Petersburg won the Runet 2010 Award in the nomination “Recreation and Health”. This web-portal was created in the framework of Vodokanal’s awareness-building activities. It aims to provoke interest of active Internet community in the issues related to careful attitude to water.

Investments in 2010

The amount of 14,252.7 Mio. Roubles was invested in the development and rehabilitation of water supply and sanitation systems in St. Petersburg in 2010. It is the sum of Vodokanal’s investment program and the cost of works ordered by GU “Employer’s Office for Construction and Capital Repairs of Engineering and Energy Facilities”. In 2010, Vodokanal’s investment program amounted to 8,870.3 Mio. Roubles.

The program was funded from different sources, including:	
Federal budget	1,035.3 Mio. Roubles
St. Petersburg budget	1,858.4 Mio. Roubles
Vodokanal’s own funds	3,738.3 Mio. Roubles
Raised funds	2,146.2 Mio. Roubles
Connection fee	92.1 Mio. Roubles.



Under the investment program, Vodokanal invested 2,013.9 Mio. Roubles in the water supply system, namely:	
in the development of bigger water treatment plants	212.9 Mio. Roubles
in the rehabilitation and development of water distribution networks	532.8 Mio. Roubles
in the improvement of energy efficiency of water supply facilities	560.4 Mio. Roubles
in other needs (e.g. production bases, purchase of equipment, security systems)	707.8 Mio. Roubles.
The amount of 6, 798.5 Mio. Roubles has been invested in the wastewater disposal and treatment, namely:	
in the closure of untreated wastewater discharges	5, 369.0 Mio. Roubles
in the upgrading of wastewater treatment plants	605.2 Mio. Roubles
in the rehabilitation and development of sewers	122.7 Mio. Roubles;
in the improvement of energy efficiency of wastewater disposal facilities	500.3 Mio. Roubles;
in other needs (e.g. production bases, purchase of equipment, security systems)	201.3 Mio. Roubles.

The amount of 57.9 Mio. Roubles has been invested in the development of the city infrastructure (public toilets and fountains) and for the social needs. Much attention was paid to the preparation of design documentation and cost estimates. The cost of the design works program in 2010 amounted to 835.6 Mio. Roubles, that is 2.5 times more than in 2009. This points to the fact that a new stage of the Company investment activities aiming at the innovation-based development has begun. The volume of water development works in St. Petersburg carried out in 2010 by the order of GU "Employer's Office for Construction and Capital Repairs of Engineering and Energy Facilities" amounted to 5,382.4 Mio. Roubles and was financed from the St. Petersburg budget. Vodokanal personnel inspected the quality of construction and installation throughout the year.

Generally, the investment activities of the Company in 2010 were based on a number of documents that provide systematic and integrated development of the engineering infrastructure in Saint-Petersburg:

- Master Plan of Saint-Petersburg (approved by the Law of St.Petersburg No728-99 dated 22.12.2005);
- General Water Supply Scheme and General Wastewater Disposal (Sewerage) Scheme of St. Petersburg for the period up to 2015 (approved by the Decree of the Government of St.Petersburg No 1587 dated 11.12.2007);
- "Integrated Public Utilities Infrastructure Development Program in St. Petersburg, for Heat and Water Supply, Wastewater Disposal and Treatment up to 2015" (approved by the Decree of the Government of St. Petersburg No 1270, 21.10.2008, as amended by the Decree of the Government of St.Petersburg No 1384 dated 30.11.2009);

The cost of the design works program in 2010 amounted to 835.6 Mio. Roubles, that is 2.5 times more than in 2009

- The Investment Program of SUE "Vodokanal of St.Petersburg" for 2009-2011.
- In 2010, the Investment Program of SUE "Vodokanal of St.Petersburg" for 2009-2011 was revised and approved by the Tariff Committee of St. Petersburg. The amendments reflected the changes in the amount of financing made according to the results of the annual tariff regulation exercise.

Awards in 2010

Achievements of Vodokanal St.Petersburg regularly receive recognition by Russian and foreign experts.

- In 2010, Vodokanal was awarded the following national and international prizes:
- All-Russian Economic Prize "Modernization Leaders";
 - Gold medal "100 Best Russian Companies. Environment and Industry Safety";
 - Winner of the VI International Quality Tournament of the Central and Eastern European Countries;
 - "Confidence in Employer" Certificate (under the project "Report on Company Activities in Implementation of Labour Rights of Employees and Employers");
 - Grand Prize in the Contest "Conscientious Supplier 2010";
 - International award of the Foundation for Enterprise Development (title "The Best Company of the Year" and "The Company of High Quality Accounting").

In 2010, Felix V. Karmazinov, Director General of SUE "Vodokanal of St. Petersburg", was awarded the independent business prize "Chief of the Year" in the nomination "Honored Chief", became the winner of the national award "Man of the Year" in the nomination "The Environment Protection" and got the title "Manager of the Year" in the

nomination "For outstanding results in management, contribution to the sustainable development of the country" under the contest "Conscientious Supplier 2010" .





RISK MANAGEMENT

Financial risk management organization

Vodokanal follows a balanced financial policy based on the Strategic Plan and long-term perspective. The basis of the forecast is unconditional compliance with the key financial ratios (calculated according to both Russian and International Financial Reporting Standards) maintaining the values as recommended by International Financial Institutes. To make a long-term forecast, the company used its financial model calculated for the period up to 2030. It helps evaluate Vodokanal's financial capabilities taking into account the implementation of big investment projects using its own or borrowed funds. The model considers macroeconomic factors and company development factors to identify potential sources of investments and to project development options under different scenarios.

The model provides instruments for comparative analysis and monitoring of Vodokanal's dynamically changing results. Using the results of the monitoring and analysis made by means of the financial model, Vodokanal management promptly make the necessary amendments to the Company's production and investment programs.

Vodokanal uses a hedging mechanism

to reduce potential financial risks. When applying this mechanism, it is important to select a reliable counterpart to make the agreement of interest/ currency risks hedging. The counterpart was selected among the bigger financial institutes that follow a rather conservative policy in the derivative market. As a result, a package of agreements was signed with BNP Paribas. Under the agreements, Vodokanal shall, until the end of 2011, make payments of agreed amounts in Russian Roubles to the counterpart in accordance with the approved time schedule (which coincides with the international loan payment schedule). In return, the counterpart will transfer to Vodokanal the payments in Euro at a fixed exchange rate throughout the effective period of the hedging agreements — ca. 35 Roubles per 1 Euro.

Risk Management in 2010

In 2010, Vodokanal continued using long-term forecasting and financial modelling to minimize financial risks. By continuous monitoring of the financial situation and assessing potential impacts of the current financial situation on the key financial indicators the Company could promptly update its financial policy and maintain the key financial



ratios describing the Company's financial stability and solvency at the proper level.

In 2010, Vodokanal continued improving its financial model with the support of Pöyry Oy — a well-known consultant in the field of financial modelling for the European water sector. The output of the model's latest version is a package of financial statements prepared in compliance with the International Financial Reporting Standards (IFRS). The improved model corresponds to the European level and allows to predict and analyze Vodokanal's key financial indicators in accordance with IFRS.

Vodokanal policy in the field of financial management and minimization of potential risks was appreciated by the leading international rating agencies Standard&Poor's and Moody's, which gave Vodokanal the following investment-grade credit ratings:

- S&P — BB+ . Stable outlook
- Moody's — Baa3. Stable outlook

Non-financial risk management

Segmentation of non-financial risks has been made by Vodokanal. The key aspects of the Company activities which may lead to risks are identified.

They include:

- Risks associated with the customer dissatisfaction with water and wastewater service quality.
- Risks associated with the environmental pollution.
- Risks associated with changes in legislation.
- Risks associated with the general decline in the culture of water use.
- Risks associated with the potable water source contamination.
- Risks of industrial accidents.
- Risks associated with potential diseases in hazardous working conditions.

The above risks are managed by the Company systematically, using a process-based approach.

In particular, to minimize the risks associated with the customer dissatisfaction with water and wastewater services,

the quality management system based on the International Standard ISO — 9001 is improved continuously. Regular interaction with customers through the Hot Line in combination with the Company's information disclosure policy (including active communication with mass media) help mitigate this risk too. Internal and external audits as a part of the Environmental Management System and Quality Management System (EMS & QMS) quickly identify the management areas which need to be improved and help improve the processes at all stages of the service life cycle.

Managing the environment pollution risks, Vodokanal enhances the reliability of water supply and sewerage systems, improves wastewater treatment and sludge utilization technologies and raises the issues of environmental friendliness of the existing motor transport. Improvement of the environmental management leads to mitigation of the risks associated with emergency situations and consequently, to the improvement of service quality and mitigation of the environment pollution risks.

To alleviate the risks associated with undesirable changes in legislation, Vodokanal actively participates in development of regulations, makes suggestions and argues its position.

To prevent the risks associated with a decline in the culture of water use, Vodokanal implements awareness-building programs, including environmental education of children and teenagers. The management of the risks associated with potable water source contamination is based on early prevention of such contaminations. In particular, Vodokanal St. Petersburg has implemented the biomonitoring of river water by crayfish at all its water intakes. And oil spills in the river are detected by the monitoring system installed on one of the bridges across the Neva, upstream of the first city water intake.

To mitigate the risks of industrial accidents, the OHSAS-18001 system has been functioning in Vodokanal since 2004. The main task of the occupational health and safety management system

Managing the environment pollution risks, Vodokanal enhances the reliability of water supply and sewerage systems, improves wastewater treatment and sludge utilization technologies and raises the issues of environmental friendliness of the existing motor transport



is identification of hazards and risk assessment. Vodokanal has identified the hazards and risks associated with the Company core activities and those associated with changes in its activities. Internal and external audits of this system allow to identify, in a timely manner, the areas where the safety systems should be improved. The accident rates in the Company have been maintained at a level below the industry average for many years.

Minimization of the risks associated with potential diseases in hazardous working conditions is achieved by regular health checks, medical surveys and preventive immunization. The Company has its own Medical Centre with high-qualified staff and up-to-date equipment. That allows to timely diagnose any abnormalities and provide timely medical treatment. All the above measures have significantly reduced the personnel disease incidence risks.

In 2007-2010, the Company worked on implementation of the EFQM Business Excellence Model. Elements such as strategic planning, key activities results, consumer and employee satisfaction, partnership and relationship with the society, became an integral part of the Company management culture and helped mitigate the above risks.

Status of the non-financial risk management process in 2010

In 2010, the non-financial risk management process was under constant control based on ISO European Standards and EFQM Business Excellence Model.

In particular, the raw water quality bio-monitoring system at water intakes was upgraded to increase its reliability in 2010. In accordance with the approved schedules of occupational health and safety inspections, relevant activities were held in branch divisions and administration. In total, 61 inspections were carried out in the period under review. Corrective actions were worked out to eliminate all discrepancies. Corrective and preventive actions improve the performance of the occupational health and safety system and the corporate management of Vodokanal St.Petersburg.





PARTICIPATION IN EXTERNAL INITIATIVES

Compliance with HELCOM (The Baltic Sea Protection Commission – Helsinki Commission) recommendations

In compliance with the commitments taken by the Russian Federation under the Helsinki Convention on the Baltic Marine Environment Protection, Vodokanal St. Petersburg strives to reduce untreated wastewater discharge and remove nutrients (nitrogen and phosphorus) from wastewater.

The Convention on the Protection of the Marine Environment of the Baltic Sea (Helsinki Convention) was signed by all the Baltic Sea countries in 1974. Then, due to the geopolitical changes (collapse of the USSR, unification of Germany) and development of the international environmental and maritime law, a new convention was signed in 1992.

The main purpose of the convention is to protect the marine environment of the Baltic Sea, restore and preserve the environmental balance in the Baltic Sea region and ensure sustainable use of its resources.

Member-countries committed themselves to take all necessary legislative, administrative and other measures to prevent the Baltic Sea pollution and eliminate the existing pollution sources for the purpose of the Baltic Sea environment restoration. In October 1998, Russia approved 1992 Helsinki Convention (Decree of the Government of the Russian Federation No 1202 dated 15.10.1998).

Preventing pollution in the Baltic Sea Basin by nitrogen and phosphorus is an imperative environmental challenge for all countries in the Baltic Sea Region.

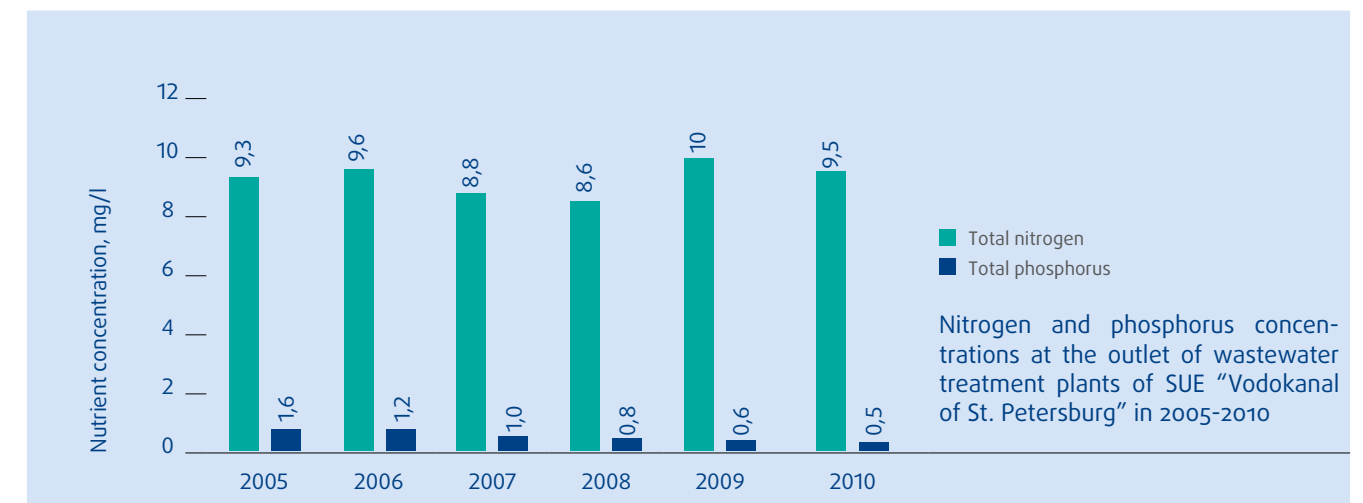
With the adoption of new recommendations for municipal wastewater treatment by Helsinki Commission on 15 November 2007, the requirements to removal of nutrients from municipal wastewater drained into the sewerage system became much more stringent. When discharging municipal effluents it is necessary to achieve the following values: total phosphorus – not more than 0.5 mg/l, total nitrogen – not more than 10 mg/l.

Vodokanal St. Petersburg is actively working to upgrade the biological wastewater treatment process and, in particular, to improve the removal of phosphorus compounds. To meet these requirements and reach stable nutrient removal performance of wastewater treatment plants in St. Petersburg, enhanced biological treatment and chemical phosphorus precipitation processes have been used since 2005.

For example, the South-West Wastewater Treatment Plant (SWTP) which has been in operation since 2005 operates the advanced biological treatment process of Cape Town University and uses a stationary chemical phosphorus removal facility. Modernization of aeration tanks for enhanced nutrient removal is underway at the



St. Petersburg's largest Central Wastewater Treatment Plant. Alongside with the Russian technology "Kreal", the European-type Johannesburg scheme with automated process control is being implemented there. Since 2008, the chemical phosphorus removal process has been used on a full scale there. In 2008, the Northern Wastewater Treatment Plant launched full-scale tests of the chemical precipitation and currently the chemical is used on an industrial scale. The commissioning of the stationary chemical dosing system is planned for summer 2011. With the support of the Swedish company SWECO the updated scheme of biological treatment with chemical phosphorus precipitation is being implemented.



The important milestone in fulfillment of HELCOM recommendations is the completion of the extension of the main sewage collector in the northern part of the city. In late 2010, another stage was completed – 12 untreated wastewater discharges with the total volume of 57,000 cubic meters per day were connected to the collector and channeled to Northern Wastewater Treatment Plant for treatment. As a result, the level of wastewater treatment in St. Petersburg reached 93%.

Participation in the UN Global Compact

Since March 2007, SUE "Vodokanal of St. Petersburg" is a member of the United Nations Global Compact

The UN Global Compact is an initiative to enable the companies to ensure compliance of their activities and strategy with ten general principles in the field of human rights, labour, environment and anti-corruption. The UN Secretary-General Kofi Annan first proposed an idea of the Global Compact to the World Economic Forum in Davos, Switzerland, on 31 January 1999. In July 2000, the Global Compact was officially presented at the UN headquarters in New York. Since then, the Global Compact with its thousands of members in more than 100 countries has evolved into the biggest voluntary initiative related to the social responsibility of business.

The key principles of the Global Compact are as follows:

- observance and protection of human rights declared by the international community;
- provision of the right to conclude labour contracts;
- elimination of discrimination in the sphere of labour and employment;
- prevention of negative environmental impacts;
- assistance in the development and distribution of green technologies
- support of anti-corruption activities



SUE "Vodokanal of St. Petersburg" considers the implementation of the corporate socially-oriented policy to be its priority task. The corporate social policy of the Company is focused on the systemic growth of labour efficiency and satisfaction and loyalty of employees by means of HRM rules and procedures in accordance with the world practice and international standards based on the unity of purposes, values and corporate traditions of SUE "Vodokanal of St.Petersburg".

The fact that SUE "Vodokanal of St.Petersburg" joined the UN Global Compact initiative confirms the Company commitment to improving sound business practice in accordance with international norms.

In the course of the implementation of the Global Compact principles SUE "Vodokanal of St.Petersburg" is developing and introducing various social programs aimed to increase the level of social protection, motivation and efficiency of labour, staff qualification, and to ensure the team spirit and healthy life-style of the personnel.

SUE "Vodokanal of St.Petersburg" executes its activity in the territory of the Russian Federation guided by international regulations on human rights.

SUE "Vodokanal of St.Petersburg" cooperates with clients and partners regardless of their nationality and religion.

SUE "Vodokanal of St.Petersburg" employs full-time workers and part-time workers under civil contracts regardless of their nationality and religion.

The Company established equal working conditions for men and women at various levels of its activities.

Every year SUE "Vodokanal of St.Petersburg" provides to the Global Compact Office the necessary documents: Communication on Progress and Survey of the UN Global Compact Russian Network participant.

SUE "Vodokanal of St.Petersburg" takes part in the activities aimed at supporting the Global Compact principles, annual meetings of the Global Compact participants and in the process of the selection of candidates to the steering Committee of the Global Compact network.

Participation in the development of the draft federal law "On Water Supply and Sanitation"

In the second half of 2010, experts of Vodokanal St. Petersburg took an active part in the development of the federal law "On Water Supply and Sanitation". This law is intended to become the industry-specific regulation, which will pave the way to a new sphere of legislation — laws of water supply and sanitation.

To prepare this draft law, a special working group was established by Vodokanal to



The fact that SUE "Vodokanal of St.Petersburg" joined the UN Global Compact initiative confirms the Company commitment to improving sound business practice in accordance with international norms

develop the draft law together with Ministry of Regional Development of the Russian Federation, Non-Commercial Partnership "The National Union of Vodokanals" (NUV), the Russian Association of Water and Wastewater and other stakeholders. Meetings of the working group were held both on the premises of Vodokanal and in Moscow.

As a result, two draft federal laws — "On Water Supply and Sanitation" and "On amending separate legislative acts of the Russian Federation in connection with the adoption of the Federal Law "On Water Supply and Sanitation" were prepared. The content of these draft laws was discussed with scientific and public organizations, governmental authorities and other stakeholders.

On 11 January 2011, the draft laws were submitted to the State Duma of the Russian Federation. It is planned to review and finalize them during 2011 in consideration of the submitted comments and proposals.

The law "On Water Supply and Sanitation" is intended to become an integrated regulatory act in the water and wastewater sector, which will ensure effective functioning and development of the sector. All current departmental regulations (which today often contradict one another) will be systemized in the new law. Its adoption should help solve current issues in the water supply and sanitation field, including distinct division of liability for the discharge of pollutants into water bodies between water companies and customers.

- The law also regulates the issues concerning:
- property relations in the water supply and sanitation sphere,
 - institutional framework of water companies,
 - potable water quality control,
 - wastewater discharges into water bodies through centralized sewerage systems,
 - prices (tariffs) in the water supply and sanitation sphere,
 - planning and development of centralized water supply and sanitation systems,
 - contractual relations in the water supply and sanitation sphere,
 - and other aspects of water companies.

Inclusion into the REACH European Regulation

REACH — Registration, Evaluation, Authorization and restriction of CHemicals — is the European Union Regulation governing production and turnover of all chemicals including their compulsory registration.

The basis of the REACH system consists of the following elements:

- registration of chemicals;
- assessment of technical records and/or the substance;
- issuing permits for placement in the market and use;
- restrictions on production, placement in the market and use;
- harmonized classification and labeling;
- access to information.



In 2010, within the framework of The Baltic Sea Action Summit in compliance with the status of a subsequent consumer Vodokanal St. Petersburg undertook the Commitment in respect of the Baltic Sea: "Introduction of improved measures to provide environment-friendly selection and use of chemicals in Vodokanal St.Petersburg in accordance with the REACH standards".

The Commitment was undertaken to protect the Baltic Sea from the effects of hazardous substances by selecting environment-friendly chemicals to be applied in production processes and laboratories of Vodokanal St. Petersburg and provide safe chemical handling.

This Commitment includes the following items:

1. Informing potential suppliers (importers) about Vodokanal's methods of using chemicals;
2. Collection and review of existing safety data sheets;
3. Informing suppliers about the requirement to submit safety data sheets in accordance with the REACH standards.

A mandatory and integral part of Vodokanal's cooperation with external suppliers is the submittal of existing safety data sheets for chemicals and substances by suppliers.

In the future, Vodokanal St. Petersburg plans to develop cooperation with The Baltic Sea Action Group (BSAG) within the framework of the undertaken Commitment to improve the condition of water resources in the Baltic Sea.

Participation in UNIDO programs

UNIDO is the United Nations Industrial Development Organization. It mobilizes knowledge, experience, information and technologies, thereby contributing to the productive employment, development of a competitive economy and providing environmental sustainability. One of the UNIDO projects is related to the develop-



ment of chemical leasing. Chemical leasing is a new conception of relationships between chemical producers, suppliers and consumers, based on the transition from direct chemical sales to service-oriented joint work business models. Chemical leasing business models help build mutually beneficial relations between the parties of production process based on optimization of chemical use (reduced volumes, exclusion of highly toxic chemicals, substitution of less hazardous or natural components).

In 2010, the UNIDO North-Western International Centre of Cleaner Production submitted a project (which was implemented by Vodokanal) of implementing safe, low-concentrated sodium hypochlorite for water disinfection to the first competition of the Global Chemical Leasing Award.

Vodokanal started the implementation of this project in 2006 at Southern Water Treatment Plant (SWTP). That allowed to abandon the hazardous highly toxic substance — liquid chlorine. Sodium hypochlorite is produced in cooperation with ZAO "Aquatechservis" — a company engaged in the implementation and maintenance of equipment.

In summer 2007, a framework agreement on implementation of chemical leasing models in the water supply and sanitation sector was signed between Vodokanal St. Petersburg and the UNIDO North-Western International Centre of Cleaner Production. Development of cooperation led to the signing of a tripartite agreement (including ZAO "Aquatechservis") in late 2009, which became the precondition to study the possibility of introducing the chemical leasing concept in the production. The Global Chemical Leasing Award was established by UNIDO and the Austrian Ministry of Agriculture, Forestry, Environment and Water Management. The awarding ceremony for the winners of the first competition took place in Prague on 1 March 2010 during the Pan-European conference on chemical control "ChemCon Europe-2010". The UNIDO management acknowledged that Vodokanal's chemical leasing activities in the water supply and sanitation sphere were extremely important and promising, because securing a human right to free access to clean water and sanitation and prevention of water contamination are among the main priorities of the UN.



INTERACTION WITH STAKEHOLDERS

Partnership concept

In 2010, Vodokanal St. Petersburg improved its partner relationship management approaches. The partners were classified by types of activity and services, and relevance and importance of this partnership for the Company. The Company adheres to the concept of multilateral partnership support, including interaction on technical, technological, financial, organizational and methodological aspects of work with partners and suppliers.

As for its international partners, Vodokanal continued to successfully cooperate with such organizations as:

- the Ministry of the Environment of Finland;
- the John Nurminen Foundation;
- some foreign partners supplying equipment and technologies.

The partnership with the Russian and European banking community, as well as with different investors is successfully implemented in Vodokanal. Investments through the public-private partnership scheme are an example of sound and coherent concept of Company partnership. Some years ago, this concept was used for the construction of South-West Wastewater Treatment Plant, and modernization of Northern Water Treatment Plant is planned for the next years.

The basic principle of the partnership concept adopted by Vodokanal: each partner fulfills its obligations in due time and at a good quality level.

Over decades of cooperation with foreign and domestic partners, Vodokanal has never failed to fulfil its obligations which is highly appreciated by its partners.

Membership in associations, unions and other entities

Vodokanal St. Petersburg pays great attention to participation in professional associations and unions.

In 2009, Vodokanal became a co-founder of the non-commercial partnership "The National Union of Vodokanals" (NUV), which consolidated companies of different ownership, whose share is 2/3 of the total water supply in Russia. The main activity of NUV is the improvement of interaction between water companies and governmental authorities for the purpose of introducing new operational standards, technical regulations and ensuring investment attractiveness of the sector. The strategic goal of NUV is the creation of conditions for implementation of the self-regulation mechanism as the most effective tool for the water supply and sanitation sector management.

Felix V. Karmazinov, Director General of Vodokanal St. Petersburg, was elected President of the National Union of Vodokanals.

Vodokanal St. Petersburg maintains partner relations with Russian water companies and in the framework of other professional associations. The Company is a member of the Russian Association of Water Supply and Wastewater Disposal, participates in "Baltvod" association of north-western water companies. Vodokanal St. Petersburg is also a member of the Non-Commercial Partnership "The Russian Water Society".

Vodokanal St. Petersburg is a member of the Non-Commercial Partnership "Association of Builders of St. Petersburg", which got the status of a self-regulatory organization in 2009. In the same year, this partnership granted to Vodokanal permits for the works which impact on the safety of capital construction facilities.



To bring the list of works in compliance with the changes to the current legislation, during 2010, Vodokanal interchanged twice its permit for the works which impact on the safety of capital construction facilities.

Since 2001, Vodokanal has been actively cooperating with the Tunnel Association of Russia. This cooperation allows Vodokanal to widely use the Russian and foreign experience of underground works to create the urban infrastructure of St.Petersburg.

Interaction with consumers

One of the most important aspects of Vodokanal activities is maintaining daily contacts with consumers.

The Company communicates with consumers in several ways: in the course of services provision, in the course of communication at Vodokanal's initiative (interviews, focus groups), by discussing various problems in the mass media, by organizing different meetings with citizens.

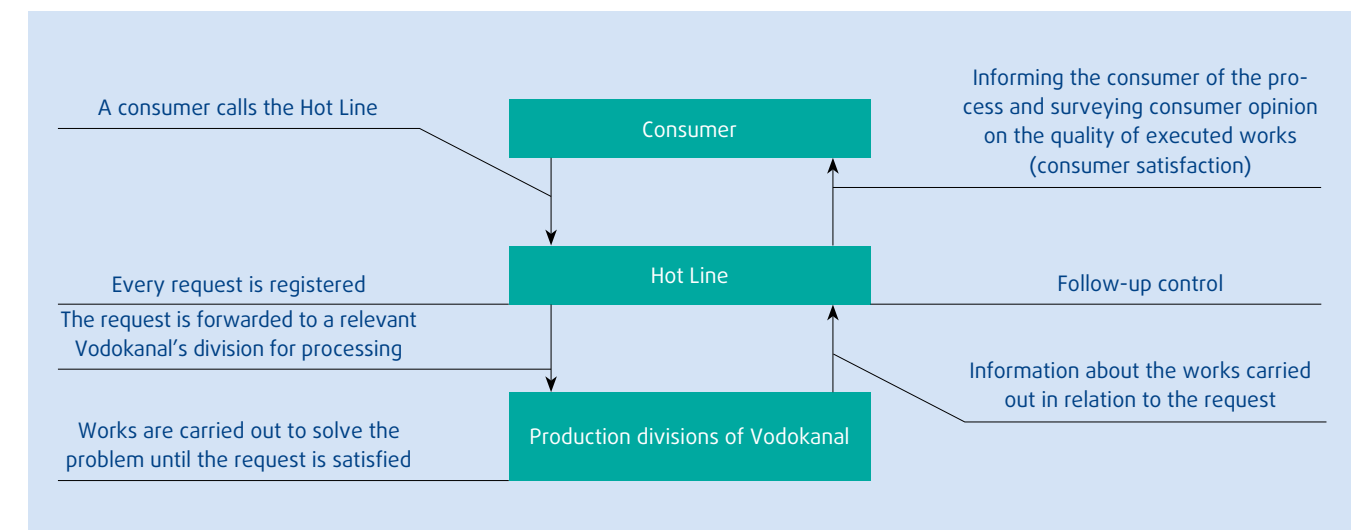
Consumers come to SUE "Vodokanal of St.Petersburg" with questions regarding execution of authorizations for connection to water and sewage networks,

conclusion of contracts, payments under contracts. Since water is a product and sewage collection — a service, Vodokanal is implementing a new contract policy in relation to formalization of contractual relations with its customers. For this purpose, special customer service units are set up in Vodokanal's production branches to communicate with customers within their service areas in each administrative district of the city. The reception rooms provide the necessary information and document forms; there is always a portfolio to collect consumers' wishes and complaints.

Quick response to the consumers' complaints of deficiencies in water and sewage networks operation is an important aspect. Since 2003, SUE "Vodokanal of St.Petersburg" has been operating the Hot Line which receives customer calls round the clock (tel.: +7 (812) 305-09-09). Besides, SUE "Vodokanal of St.Petersburg" receives requests through the Internet (there is a separate section "Feedback" on the corporate website www.vodokanal.spb.ru).

All incoming requests are recorded in the information system and forwarded to the production division responsible for remediation of relevant section of network and informing the customers

Vodokanal-consumers interaction through calls





of the works performed. All the request processing stages – from the call to remediation – are under the control of a body independent from the production division which performs works. The monitoring of the request processing may only be stopped after the consumer confirms that the works are completed. Thus, it is a consumer that evaluates the final results of works in relation to every call.

Moreover, the described system enabled citizens, consumers and clients to use information and consultation services of the Hot Line operators directly.

While developing the calls receiving system, the analysis of calls distribution over 24 hours was carried out. The results of the analyses ensured efficient arrangement of work involving proper quantity of skilled operators at any time in a 24-hour period.

The process of managing customers’ requests includes also computer registration of all incoming calls. Codification of calls ensures efficient analysis of the quality of services and possibility to determine the trends of improvement focused at preventive elimination of causes of complains.

Processing of customers’ requests is based on the information obtained by means of up-to-date technologies – in particular “Call-center” – the automated system of calls registration and distribution. The information obtained through this system enables us to ensure receipt of all the incoming requests and optimize operations in terms of their handling time and time of a customer’s waiting for an operator’s answer.

All these factors contribute to the improvement of the customer service quality.



Interaction with suppliers

Vodokanal St.Petersburg tends to build long-term and mutually beneficial relationships with suppliers.

To use the Company’s funds in an effective way, Vodokanal makes procurements using regulated procedures, including:

tender (open or closed)	is a bid process where a customer can evaluate the bids not only by the price but also by other criteria (warranty period, quality, duration of works, qualification, etc.);
auction (open or closed)	is a bid process where the only criterion by which the bids are evaluated is the contract price;
request for quotation (only open procedure)	is a procedure other than bidding; the participant which offers the lowest contract price is considered to be the winner. The maximum contract price in this procedure is 500,000 Roubles, and the procedure may only be launched once in three months for the same product for the whole Company including its branches.
single supplier (performer, contractor) procurement	is a method of purchasing goods, works and services where the customer sends an offer of contract only to one supplier (performer, contractor). This procedure is applied only in strictly defined cases where other procurement procedures are not feasible or reasonable.

The most preferred procurement method is bidding (tender, auction). Calls for tenders, as well as all necessary tender documentation are placed on Vodokanal’s corporate website under the section “Procurements”.

The published information on bidding and requests for quotations includes customer’s contact persons for tendering / technical issues. Persons wishing to submit their tenders (requests for quotations) can receive clarifications on various issues in relation to the preparation of tenders either orally, by contacting the contact person specified in documentation or in a written form by sending an inquiry. The Order Regulations Department is responsible for clarification of issues concerning preparation of applications; the initiator division is responsible for clarification of issues related to the Terms of Reference and provisions of draft contracts.

To select suppliers (performers, contractors) in an effective way, the use of the bidders’ qualification evaluation criteria plays a significant role in the procurement procedures, and rather stringent qualifications requirements have to be set for the bidders in the event of procuring very complex goods (works, services).

For the procurement of some goods, works or services, prequalification is held to determine the circle of bidders with a relevant experience. In the course of prequalification the following selection criteria are used: bidder’s experience in the area relevant to the subject of the tender, fixed assets, qualifications of managers and specialists,



staff potential, equipment available, ability to perform over 50% of works on its own (for civil works), financial resources, company rating, certificates and diplomas, bidder's reputation. With such approach, goods and services can be procured on optimal terms and conditions.

Interaction with financial institutions

In 2010, implementation of the loan agreements signed in 2009 with the leading financial institutions, such as the European Bank for Reconstruction and Development, the Nordic Investment Bank, the European Investment Bank, continued. The Neva untreated wastewater discharge closure project is financed with these loan funds.

The most important result of interaction with financial institutions was the use of a new-for-Vodokanal instrument for the financing of big investment projects – the LLC "Vodokanal-Finance" (subsidiary of SUE "Vodokanal of St. Petersburg").bonded loan.

Placement of securities on the trading site of ZAO "MICEX Stock Exchange" began on 15 December 2010 and ended in the evening on the same date.

The overall demand exceeded the nominal size of issue.

Series 01 non-convertible interest-bearing documentary bearer bonds of LLC "Vodokanal-Finance", with obligatory centralized care (state registration number 4-01-36398-R dated 16 November 2010), are placed in the amount of 2 million bonds at the face value of 1,000 Rubles each and with a maturity date on the 1820th day from the starting date of the bonds placement. The placement method is public subscription. The transaction size is 2 billion roubles.

Series 01 first bond's coupon rate was set at 8,8% per annum.

The manager of the LLC "Vodokanal-Finance" bond issue was OAO "Bank Saint-Petersburg", the leading co-managers — OAO Bank "OTKRYTIYE" and ZAO "BFA".

The proceeds will be used to finance the project "the Northern Tunnel Collector Extension from Finlyandsky Bridge to Kantemirovskaya Street". The project is financed with the St. Petersburg budgetary funds, from the federal budget, loans and non-refundable assistance of international organizations, as well with Vodokanal's own funds. The untreated wastewater discharges connection to the Collector will be fully completed by the end of 2010, and in 2012 one of the most complex collector elements will be commissioned — the Pumping Station (URS) where the collector has the maximum depth — 90 m.

Interaction with personnel

The personnel is one of key stakeholder groups, so Vodokanal St. Petersburg pays special attention to its interaction with the personnel.

In January — March 2010, the personnel management policy was revised. The goal of the policy is to ensure rational and effective use of qualified human resources to improve the Company performance and consumer satisfaction. One distinctive feature of this policy is the establishment (in addition to the basic policy areas) of the basic principles in the field of personnel management which reflect the system-based approach.

In 2010, the basic personnel management processes were described and personnel services functions were standardized.

Benchmarking of personnel management with the best Russian and European companies is organized and conducted. As a result of these studies the best personnel management techniques are selected for subsequent implementation at the Company.

Fast adaptation of new Vodokanal employees to their professional tasks and optimization of their entry into the Company's social environment are important aspects of work with the personnel. The tutorship procedure is ap-

The most important result of interaction with financial institutions was the use of a new-for-Vodokanal instrument for the financing of big investment projects — the LLC "Vodokanal-Finance" (subsidiary of SUE "Vodokanal of St. Petersburg") bonded loan

plied to young company workers, as well as to trainees — students of vocational colleges. Adaptation is organized for all newcomers. Hands-on training and the adaptation process are implemented in accordance with individual plans developed by tutors in consideration of the young employee's level of general and professional knowledge. In 2010, adaptation procedures were applied to 1794 persons.

"Welcome to Vodokanal" parties for new employees are becoming a good corporate tradition.

In 2010, the personnel satisfaction survey was made based on the studies of satisfaction, loyalty and commitment indices. A 10-score system for the assessment of personnel satisfaction indices was introduced. Questionnaires revealed a high degree of employee commitment, satisfaction with team work and with manager.

The results of studies are used to make additional plans and update the basic

plans of work with personnel.

Interaction with Trade Unions

A trade union organization operates in Vodokanal, its activities are aimed at the strengthening of interaction and development of social partnership with the employer in order to improve the living standards of employee, ensure guaranteed salaries, occupational safety and a social package.

The employer determines the Company remuneration system, sizes of salaries and forms of material and moral recognition in consideration of the trade union committees' opinion.

In late 2010, the Vodokanal staff conference took place where a new Collective Agreement for 2011-2013 was signed. In that agreement the information on a number of social issues is structured and arranged. Now the collective agree-





ment contains the rules of time record calculation, the new procedure of awarding the "Veteran of Vodokanal" rank, and some other updates. The trade unions are deeply involved in discussions of occupational safety issues, inspections of branches, workplace certification. Favorable sanitary conditions are created for the employees in all structural subdivisions. The trade unions also participate in the arrangement of recreation for employees and their families, in the work with veterans and organization of sports events.

Interaction with Educational Institutions

In 2010, the cooperation between Vodokanal St. Petersburg and St. Petersburg State University of Water Communications reached a new level.

The training for 41 employees of Vodokanal under the higher professional education programs with a specialization in "Balanced use and protection of water resources" was organized.

The training of Company employees on the premises of State University of Architecture and Civil Engineering, Saint-Petersburg State Transport University, and other institutes of higher education continued.

In 2010, 217 college and vocational schools students were trained (general course and hands-on training) on Vodokanal's premises.

The social partnership of Vodokanal and Professional College No 89 continued — in the field of water specialists training. Within the framework of this partnership, a unified educational environment is created, joint educational process is arranged and the consolidated management mechanism is used for the training of qualified personnel. On the premises of Professional College No 89 training facilities for emergency and recovery works including the training ground are installed; there are also training facilities for welding, sanitary, ventilation and electrical works, small-size mechanical equipment, and laboratory testing equipment. Teachers and masters of PC-89 are trained at production facilities of Vodokanal St. Petersburg, fieldwork is organized for students of the water and sanitation department, the students participate in professional skill contests together with Vodokanal's em-



ployees.

Vodokanal St. Petersburg actively interacts with schools of St. Petersburg, Leningrad region and other Russian cities. The number of schools participating in programs and projects of the Youth Environmental Centre and museum complex "The Universe of Water" is constantly growing.

Interaction with Environmental Organizations

Environmental area is one of the most important activities of Vodokanal St. Petersburg, and the Company is closely cooperating with Russian and international environmental organizations in this sphere.

In particular, representatives of Vodokanal take part in the activities, organized by the Russian department of the Baltic Sea Protection Commission (HELCOM), the John Nurminen Foundation (Finland), the Baltic Sea Action Group (Finland).

In summer 2010, Felix V. Karmazinov, Director General of Vodokanal St. Petersburg, participated in the first meeting of the Baltic Sea Friendship Club in Helsinki, Finland.

With the support of Vodokanal St. Petersburg, the environmental organization "The Green Cross" implemented a number of youth environmental projects and conducted several press tours for journalists of regional environmental periodicals.

Interaction with federal and regional authorities

SUE "Vodokanal of St. Petersburg" works in close interaction with the federal and regional authorities.

Representatives of Vodokanal St. Petersburg participated in the preparation of comments and proposals to draft regulatory and legal acts to be submitted to federal and regional authorities for consideration, including the Governmental Clean Water Program, Rules of Service Provision to Citizens, federal law "On Amending the Federal Law "On Natural Monopolies", federal law "On Amending the Housing Code of the Russian Federation and Some Legal Acts of the Russian Federation", etc.

The Company specialists participated in the events held under the aegis of the State Duma, Federation Council, Ministry of Regional Development, Ministry of Natural Resources, Ministry of Finance, and Ministry of Economic Development of the Russian Federation, and also the events organized by the Government of St. Petersburg, city administration committees and the Legislative Assembly of St. Petersburg.

Moreover, Vodokanal carries out its activities in close interaction with territorial bodies of Rospotrebnadzor, Rosprirodnadzor, Rostekhnadzor and Environmental Prosecutor's Office of St. Petersburg.

Interaction with the mass media

Interaction with the mass media is a major part of Vodokanal's information policy, and disclosure of information — one of the Company values.

Vodokanal's relations with the mass media are based on the principles of objectivity, reliability and efficient response.

Vodokanal's information policy aims to create a positive company image, improve mutual understanding between the company, its customers and the society, and to foster the culture of water use and responsible attitude towards the environment.



The forms of interaction with the mass media are as follows:

- preparation and distribution of press releases and information reports about the Company activities;
- response to the mass media’s inquiries;
- arrangement of interviews of Vodokanal’s representatives in the mass media;
- press conferences, briefings, round tables;
- press-tours for journalists to Vodokanal’s facilities;
- initiating publications in printed and electronic media, and TV/radio items;
- design and maintenance of websites describing the Company activities.

The mass media’s interest in Vodokanal activities is growing every year. 6138 materials about the Company activities were publicized (in printed media, Internet, radio and TV) in 2010. In 2009, the number of such materials was 4364. The digests of Vodokanal activities-related materials are presented to the Company management on a daily basis. It helps give a quick response to publications, provide the necessary comments and clarifications and pinpoint new themes for interaction with the mass media.

Development of the Internet sphere was in Vodokanal’s special focus in 2010. The museum complex’s website www.vodokanal-museum.ru has been launched, where the information about new museum programs is placed regularly. Vodokanal’s official website www.vodokanal.spb.ru won the contest “Best Corporate Media 2010” in the nomination “Web-Portal”.

Moreover, the web-portal www.da-voda.com was created with the support of Vodokanal in 2010. It is an awareness-raising website devoted to water in all its manifestations. At the end of 2010, this website won the Runet Award in the nomination “Health and Recreation”.



Participation in exhibitions and conferences

One of the tools of Vodokanal’s interaction with the stakeholders is the participation in Russian and international exhibitions and conferences.

In June 2010, Vodokanal together with colleagues from the non-commercial partnership “The National Union of Vodokanals” (NUV) took part in the international water forum EQUATECH 2010 “Water: Ecology and Technology” (Moscow). In the framework of the forum, Vodokanal and NUV presented a joint booth and conducted the conference “Strategy of Water Sector Development Up To 2010”. Under the aegis of the forum, Vodokanal held a number of interactive “water lessons” for school children from Moscow, Kaluga and Tver.

In September 2010, Vodokanal delegation visited the International Water and Waste Exhibition IFAT-2010 (Munich, Germany), where, among other things, the first edition of the book “Water Supply Practices” was presented. The book issued with Vodokanal’s support generalizes experience of German experts in the sphere of water treatment, transportation and storage.

In October 2010, Vodokanal together with NUV became the main partner of the Second International Forum “Clean Water” (Moscow). In the framework of the forum, NUV held the roundtable dedicated to the environmental regulations issues; Vodokanal presented the book “Potable Water Quality Benchmarking”.

Moreover, in 2010, Vodokanal took an active part in the work of the Neva Environmental Forum (the Company hosted one of the roundtables dedicated to water resources), exhibition “Ecology of the Big City”, conference “The Baltic Sea Day” and other events.





RESULTS OF ACTIVITIES IN 2010

WATER SUPPLY

SUE "Vodokanal of St.Petersburg" provides potable water to the population of 4,848,000 people, as well as to dozens thousand of companies and organizations in the city.

Vodokanal activities related to provision of water supply services include the following:

- Water intake and water treatment;
- Water transportation.

St.Petersburg takes water from surface and underground sources. The main water source is the Neva River; Vodokanal takes more than 96% of water from it.

St.Petersburg water supply system includes:

9 waterworks;

200 boosting pumping stations

6,518.4 km of water networks

2 low-concentration sodium hypochlorite plants

Pipeline diameters of the municipal water network in St. Petersburg range from 50mm (house connections) to 1.4m (water pipelines). The bigger share (62%) of networks in the St. Petersburg water supply system are made of cast iron. Recently, polyethylene pipes began to gain in popularity, they are especially widely used for major repairs and reconstruction of networks. About 60% of water networks in St. Petersburg have been in operation for 20–50 years. The operating time of 22% of all networks is over 50 years, and such networks need reconstruction or replacement.

Adjusted capacity of Water Treatment Plants:

Southern WTP	900,000 m³/day
Northern WTP	608,000 m³/day
Main WTP	422,000 m³/day
Volkovskaya WTP	211,000 m³/day
Kolpino WTP	151,000 m³/day
Zelenogorsk WTP	7,000 m³/day
Kronstadt WTP	18,000 m³/day

*Adjusted capacity of WTPs means capacity of waterworks calculated in consideration of raw water quality deterioration, technical condition of water facilities and more stringent requirements to potable water quality in compliance with the Resolution of the Government of Saint-Petersburg No. 1270 dated October 21, 2008 (as amended by the Resolution of the Government of Saint-Petersburg No. 1384 dated 30.11.2009).

Daily average supply of potable water to the city

2008	2,168,900 m³
2009	2,028,200 m³
2010	1,994,600 m³

Water losses on the networks amounted to 12.1% in 2010; the breakdown rate of water networks (number of damages per 10 km) — 3.6.

There are 3 water supply zones in St. Petersburg — Southern, Northern and Central.

The Southern water supply zone includes:

- The Southern WTP (first-elevation pumping stations, water treatment facilities, clean water tanks and second-elevation pumping stations).
- Dudergofskaya WTP (first-elevation pumping stations, clean water tanks and second-elevation pumping stations).
- Kolpino WTP (first-elevation pumping stations, clean water tanks and second-elevation pumping stations).
- Kronshtadt WTP (first-elevation pumping stations, clean water tanks and second-elevation pumping stations).
- Named boosting pumping stations of the third and forth elevation (Moskovskaya, Frunzenskaya, Uritskaya, South-Western, Rybatskaya, Kupchinskaya, Strel'ninskaya, Lomonosovskaya, LGU Petrodvortsovaya Waterworks, Petrodvortsovaya Waterworks, Pulkovskaya, Orlovskaya);
- Boosting pumping stations of the third and forth elevation;
- Water supply and distribution networks.

The system supplies water to Moskovsky, Frunzensky, Krasnoselsky districts, the left-bank part of Nevsky, Kirovsky, Pushkinsky, Petrodvortsovy, Kolpinsky districts and the town of Kronstadt.





The Northern water supply zone includes:

- The Northern WTP (first-elevation pumping stations, water treatment facilities, clean water tanks and second-elevation pumping stations).
- Zelenogorsk WTP (first-elevation pumping stations, water treatment facilities, clean water tanks and second-elevation pumping stations).
- Sestoretsk WTP (first-elevation pumping stations, water treatment facilities, clean water tanks and second-elevation pumping stations). Actually, this WTP is a tertiary treatment facility for the treated water from NWTP. In case of any faults in the water pipeline which delivers water from NWTP, the Plant takes water out of the Razliv Lake.
- Underground water sources of Kurortny district.
- Named boosting pumping stations of the third elevation: Murinskaya, Kush-elevskaya, Primorskaya, Severo-Primorskaya, Kolomyazhskaya, Ozero Dolgoe, Martynovskaya, Parnasskaya, Osinovaya Roscha, Gorskaya, Pesochenskaya, Novoselovskaya, Shuvalovskaya);
- Boosting pumping stations of the third and forth elevation;
- Water supply and distribution networks.

The Northern water supply zone supplies water to Vyborgsky, Kalininsky, Krasnogvardeisky, Kurortny, Primorsky districts, and the right-bank part of Nevsky district.

The Central water supply zone includes:

- Main WTP (first-elevation pumping stations, water treatment facilities, clean water tanks and second-elevation pumping stations).
- Volkovskaya WTP (first-elevation pumping stations, water treatment facilities, clean water tanks and second-elevation pumping stations).
- Named boosting pumping stations of the third and forth elevation (Vasileostrovskaya, Gavanskaya, Petrogradskaya);
- Boosting pumping stations of the third and forth elevation;
- Water supply and distribution networks.

The Central water supply zone supplies water to Central, Admiralteisky, Vasileostrovsky districts, part of Moskovsky, Kirovsky and Petrogradsky districts.



Water treatment technologies

Treatment of water from surface sources.

The water treatment process at the key WTPs taking water from St. Petersburg surface sources (the Neva River and the Gulf of Finland) includes the following stages:

- a two-stage water disinfection system,
- coagulation of pollutants (aluminium sulfate is used),
- flocculation (polyacrylamide-based cationic flocculant is used)
- sand filtration in the contact clarifiers (one-stage treatment scheme).
- sedimentation and sand filtration in rapid filters (two-stage treatment scheme)
- when necessary (if water quality in the Neva becomes worse or for odor and oil removal), the powdered activated carbon dosing system is used.

The two-stage integrated process of potable water disinfection guarantees epidemiological safety of water supply in of St. Petersburg, and full compliance of the microbiological parameters with the current regulations.

The integrated disinfection process includes, first of all, the chemical method using non-hazardous chemicals — sodium hypochlorite (it should be noted that Vodokanal has completely abandoned liquid chlorine — hazardous in storage and transportation) and ammonium sulfate. The chloramines produced as a result of interaction between ammonium ions and hypochlorite ions maintain the disinfecting effect not only in the process of water treatment at waterworks, but also in the course of water transportation in the water distribution networks.

At the secondary water disinfection stage at WTPs (prior to water distribution to the customers) the physical method (UV disinfection of water) is used. St. Petersburg is the world's first megapolis to treat all potable water

with ultraviolet which kills viruses effectively (while chemical disinfection suppresses microbes).

In 2010, a new water treatment block was put into operation at the Southern WTP (K-6 block), with the capacity of 350,000 m³/day. The water treatment technology used at this block includes the following actions:

- Preliminary ozonation (is used to facilitate further water treatment rather than to disinfect).
- Clarification: coagulation, flocculation, sedimentation in lamella sedimentation tank, sludge thickening, recirculation and removal.
- Filtration through dual media rapid gravity filters (sand/ activated granular carbon).
- Air-water system of filter backwashing.
- System of backwash water equalization, treatment and utilization.
- Sludge treatment.
- Chemical storage, preparation and dosing.
- Disinfection with sodium hypochlorite and ammonium sulfate.

Potable water is also UV treated before it goes to customers.

Zelenogorsk WTP takes raw water from underground sources. The groundwater treatment process in Zelenogorsk is as follows:

- removal of excessive concentrations of iron and manganese by means of aeration;
- removal of the sludge resulting from air oxidation of ferric hydroxide (III) by means of filtration through the gravel-sand media of the first-stage rapid filters;
- catalytic oxidation of manganese and its separation on second-stage pressure filters as dioxide.

Water is disinfected by sodium hypochlorite solution.

Oxidation of dissolved ferrous iron and blow-up of dissolved carbonic acid is performed in the aerator. To provide more enhanced oxidation of iron and



manganese compounds, sodium hypochlorite solution is injected into water. The first-stage rapid filters apply TRITON drainage system which represents the hemispheric channels located on the bottom and covered by slotted elements. These elements are formed by stainless steel wire winding and welding to a guide frame of the element. The wire is profiled in such a way that slots widening inwards are formed between its rows. Such a solution ensures high reliability of the drainage structure, and the widening form of the slots decreases potential blockage of filtering elements and simplifies the backwashing. After the reconstruction of open filters, TRITON drainage system allowed the use of dual-media bed without increasing its overall height. The bottom filter bed is made of quarts sand; the upper filter bed — of anthracite. The second stage of Zelenogorsk WTP is designed for further water treatment in terms of iron and manganese removal and includes six Culligan pressure filters, Grundfos supply pumps, flushing pumps for pressure filters, damper tanks, sodium hypochlorite dosing equipment, flow meters, chlorine analyzers.

The water treatment process management is fully automated. The plant operation data are displayed on the monitors of the plant dispatcher.

Tertiary water treatment technologies used at Petrodvorets and Sestroretsk WTP.

As a result of electrochemical corrosion of steel water pipelines, secondary pollution of potable water with iron may occur.

Previously, both Petrodvorets and Sestroretsk WTPs used own surface water sources — Nikolsky pond and the Razliv Lake. Because of excessive pollution of these water bodies, both plants started to apply tertiary treatment of potable water supplied by the city waterworks. The tertiary treatment is performed on the existing water treatment units — sand filters (one-stage treatment scheme).

In order to prevent corrosion of steel pipes and reduce iron content in the water undergoing tertiary treatment at Petrodvorets and Sestroretsk WTPs, anticorrosion treatment is performed including addition of calcium chloride and soda ash to the treated water. Both plants have equipment for reception, dilution and dosing of 32% calcium chloride solutions, and systems of preparation and dosing of 10% soda ash (sodium carbonate). Injection of calcium salts and carbonic acid to the treated water which results in pH increase, allows to slow down the corrosion process, and in some cases — to stop oxidation of iron in steel pipes thanks to formation of calcium carbonate film which isolates steel from water and dissolved oxygen contained in it. The measures taken resulted in reduction of iron concentrations at Petrodvorets "check points" by 2-5 times on the average in 2010 compared to the same period in 2009. In comparison with 2009 indicators, iron concentrations in water from Sestroretsk water network decreased as well.

Tertiary water treatment technologies used at boosting waterworks.

To improve potable water quality at remote sections of the network, tertiary treatment systems are constructed at the boosting pumping station. These facilities use specialized filter medium — calcite, calcinated dolomite, etc. which ensure both removal of iron and reduction of water corrosion aggressiveness. By using these systems we can simplify the operation of the tertiary treatment facilities, as no chemicals are used.

Water quality control

Water quality control at SUE "Vodokanal of St.Petersburg" is carried out at all stages — from raw water intake to a water meter at the house inlet.

Water quality control at SUE "Vodokanal of St.Petersburg" is carried out in accordance with the programs approved.

The control points to be included into the Production program were selected according to the following principle based on systematic approach: waterworks — water mains — city quarter network — customer

The Working Program of Production Control of potable water quality of St.Petersburg was developed in accordance with SanPiN 2.1.4.1074-01 "Potable water. Hygiene requirements to potable water supplied by centralized systems. Quality control"; in 2007, it was approved by Rospotrebnadzor (Russian Federal Consumer Rights Protection and Human Health Control Service) of St.Petersburg and adopted by the Chairman of the Committee for Energy and Engineering Support. The program includes 174 points where the water quality is checked for 83 parameters.

Water quality is checked for the following groups of parameters:

- composite,
- organoleptic,
- chemical (organic and non-organic),
- microbiological,
- parasitological (lamblia cysts),
- virological (presence of hepatitis A virus antigen and rotavirus antigen),
- hydro-biological (phyto — and zooplankton),
- radiation safety.

The table of the main water quality indicators for 2010 is placed on the corpo-

rate website in the section "Water supply. Water quality".

The Production program of water quality control covers 306 additional points and provides for more detailed assessment of the water supply system. The control is performed according to the short list of 12 indicators of primary importance.

The control points to be included into the Production program were selected according to the following principle based on systematic approach: waterworks — water mains — city quarter network — customer.

The monitoring results enable us to:

- trace the dynamics of changes of qualitative characteristics of potable water at all the stages of water production and transportation,
- identify "hot spots" and problem sections of water network,
- prioritize investments into implementation of technologies (selection of water treatment technologies, reconstruction of the existing facilities and capital repair of water networks, change of hydraulic modes of water system)
- evaluate the efficiency of corrective actions.





Levels of water quality control

- On-line process control with use of automatic analyzers and systems of automated continuous monitoring;
- laboratory control;
- control by an independent organization — Water Research and Control Center;
- control by Rospotrebnadzor.

The automated analyzers are installed on all the stages of water treatment. A signal from the equipment is sent to a control unit and to the process engineers providing for the real-time control of the process.

In 2010, over 25,000 water samples were analyzed for 83 parameters. Minor deviations from regulatory requirements in terms of "total iron" were identified in the distribution water network.

The monitoring results show that potable water in St. Petersburg is harmless in terms of its chemical composition and safe in terms of epidemiological and radiation conditions.

Achievements of 2010

- Completion of a new water treatment block (K-6) at the Southern WTP**
In July 2010, a new water treatment block with the capacity of 350,000 m³/day was put into operation at the Southern WTP.
Modern technological solutions used at this block ensure managing any changes of raw water quality. The block applies preliminary ozonation of water — ozone is added to water before the treatment process to improve it considerably. The treatment process comprises two stages: first — clarification, coagulation and sedimentation in lamella tanks; then — filtration through dual media gravity filters (sand/ activated granular carbon). Sodium hypochlorite with the addition of ammonia sulfate is used for water disinfection; then the water is UV treated. The water used for filter backwashing is not discharged to the Neva River, but treated here again. Thus, negative environmental impact is considerably reduced. Treatment of sludge generated in the course of water treatment is also provided.
- Implementation of chemical treatment systems at water treatment plants aiming at reduction of water corrosiveness.**
In 2010, the system of anticorrosive water treatment (addition of calcium chloride and soda ash to treated water) was put into operation at Sestroretsk WTP. The measures taken resulted in reduction of iron concentrations at Sestroretsk "check points" compared to the same period in 2009.
The trial operation of the anticorrosion water treatment system is going on at Petrodvorets WTP. As a result of the treatment, the iron concentrations at the check points of Petrodvorets reduced by 50% on the average compared to the same period in 2009.
- Implementation of the Information System "Water Balance" on the basis of the unified information system of the Company's activities automation.**
In 2010, the Information System "Water Balance" was put into a full-scale operation. The Information System "Water Balance" provides for the following:

- Automatic planning of the scope of work related to water balance items and its recalculation, and the needs for chemicals and electricity for Vodokanal's core operations, including breakdown by months;
- Automatic preparation of daily production assignments with regard to the daily consumption coefficient;
- Operational control of the daily production assignments, registration of actual production volume in terms of recalculation, and daily write-off of used chemicals;
- Control of water losses and water used in the course of water treatment;
- Operational supervision of the execution of the planned production volumes and compliance with norms of chemicals and energy use.
- Automatic preparation of analytical reports on chemicals and water balance of water supply and wastewater disposal services;

In 2010, works on implementation of the Information System "Management of networks maintenance and repair" began.

The Information System "Management of networks maintenance and repair" provides for the following:

- Automatic preparation of Vodokanal's Production program for all the departments and types of work;
- Formation of the uniform electronic register of passports of Vodokanal's facilities which includes information about every facility; keeping standard maintenance charts and maintenance specification charts, production history;
- Automatic planning of resource requirements for execution of works;
- Automatic preparation of requests for purchase of spare parts and supplementary materials with regard to inventories in warehouses, inventories ordered from the suppliers, minimum balance and delivery cycle;
- Automatic preparation of work tasks, including a list of operations and appointment of required personnel for each operation, a list of necessary materials, spare parts and special vehicles; control of work process;
- Operational supervision of the Production Program performance by each team;
- Operational supervision of availability of materials and spare parts necessary for works, special vehicles and personnel for each team;
- Accounting of tangible costs, labour inputs, special vehicles used for each task completed;
- Operational supervision of compliance with norms of the Production Program performance;
- Analysis of operational indicators and criteria of production activity.

In 2011, we plan to continue works on implementation of the Information System "Management of networks maintenance and repair".

4. Organization of water supply from underground sources

4.1. Reserve water supply

A new reserve water supply facility was put into operation in the area of Murinskaya WTP (2 wells); the design works for the water intake well located in 59-b area of Primorsky district (18 Turistskaya St) have been completed; water intake wells at the addresses: 81 Engelsa Pr; 43 2nd Murinsky Pr, are at the design stage. Works on the construction of the reserve water supply facility in the area of Pulkovskaya water supply sub-station (3 wells) have been completed.



4.2.OrganizatiOn of the centralized household water supply

The 1st stage of a new water intake in the village of Krasavitsa, Kurortny district was completed (2 wells to supply water and heat to citizens in winter season, 2010-11); works on designing the centralized water intakes in Molodezhnoe, Dyuny, Solnechnoe have been commenced.

5. Modernization, reconstruction of water pipelines and networks

In 2010, works on the construction of the 2nd line of the water pipeline (inverted siphon) across the Srednya Nevka River to the Elagin Island were completed. In 2010, the reconstruction of the water pipeline on Parkovaya St., Pushkin, was completed.

Totally, the amount of completed works on reconstruction, capital repair and construction of water pipelines in 2010 was 38.1km.

6. Improvement of the early pollutants detection system for the Neva River

6.1.Modernization of nine bioelectronic systems used at the Neva water biological quality monitoring facilities (WQBMF)

In 2010, the modernization of bioelectronic systems of WQBMF was performed. In the framework of the modernization of the biomonitoring system, the number of crayfish increased, new algorithms of signal procesing were introduced. More advanced system of data processing, increased number of duty crayfish – all this increases the biomonitoring reliability, provides new opportunities for the operative control of the water supply system.

6.2.Establishment of the oil spill detection system in the Neva River water area to protect the water intake of Kolpino WTP

In 2010, a new component of the early pollutants detection system was implemented. It is the system to detect emergency oil spills in the Neva River water area to protect the water intake of Kolpino WTP.

Optical-electronic equipment which responds to the appearance of oil spots and ensures determination of qualitative characteristics changes and visual evaluation of the resource condition was installed on Kuzminsky Railway Bridge and at Kolpino WTP.

7. Implementation of the water supply management system to provide remote data collection from water meters of Vodokanal’s customers in K-17 zone (the service area of Uritskaya pumping station).

In 2010, the automated system of collection, processing, storage and transfer of measurement data from Vodokanal’s customers was put into a full-scale operation in Uritskaya water supply zone. The project includes the hydraulic mode monitoring system, a set of tools to improve the hydraulic mode, the automated water balance system, new energy efficient, state-of-the art, high-capacity pumps, the system of optimal management of water supply mode. As a result of the project implementation, the energy consumption, failure rate and water losses were reduced.

In 2011-2012, the similar system will be implemented in the Southern water supply zone.

Perspectives of the water supply development system

Actions aimed at the development of St. Petersburg water supply system are stated in St.Petersburg Government regulation No 1270 “On the Program of the complex development of St.Petersburg public utilities systems, including heat supply, water supply, wastewater disposal and treatment, up to 2015” dated 21.10.2008 and revised in St.Petersburg Government regulation No 291 dated 14.03.2011.

In the end of 2010, SUE “Vodokanal of St.Petersburg developed the draft program

“Clean Water of St.Petersburg” for the period of up to 2010, which states the main long-term targets and tasks for the Company.

The project was designed with regard to the tasks stated in the Federal special-purpose program “Clean Water” approved by St. Petersburg Government regulation No 1092 dated 22.12.2010.

The development of the draft program “Clean Water of St. Petersburg” was based on the results of survey of the existing condition of St. Petersburg water supply system and the analysis of the experience of implementation of advanced technological solutions focused on the improvement of quality of water supply services provided to the citizens and increase of energy efficiency and energy saving.

Objectives of the draft program “Clean Water of St.Petersburg” are as follows:

Provision of safe potable water to the customers;

Reliability of water supply services;

Improved energy efficiency and implementation of the energy saving policy;

Availability of water supply services.

Tasks of the draft program include the following:

Reconstruction of the waterworks taking water from surface sources.

Construction and reconstruction of the waterworks taking water from underground sources.

Reconstruction of water pipelines including, as a matter of priority, replacement of steel and ferroconcrete water pipes.

Corrosion protection of steel pipes.

Establishment of the water supply management complex.

Construction of networks and waterworks for small communities.

Connection of constructed/reconstructed facilities to the water supply system aiming at the development of the city infrastructure.

In the course of implementation of the program “Clean Water of St.Petersburg”, we plan to build new treatment blocks at the Main and Northern water treatment plants. After the completion of the reconstruction works at Main WTP and Northern WTP, practically all potable water delivered to customers will be treated using up-to-date technologies.

To extend the use of underground sources, we plan to develop water supply facilities in the suburbs of St. Petersburg, including the construction of Dyuny-Solnechnoe WTP and Molodezhnoe WTP in Kurortny district; and modernization of Gantulovskaya Gora WTP and Dudergofskaya WTP in Petrodvortsovy and Krasnoselsky districts, respectively.

In order to reduce the frequency of failures, we plan the reconstruction of over 100 km of water pipelines annually. The first-priority task is to replace ferroconcrete



pipelines (diameter — above 700mm), because damages of ferroconcrete pipelines are usually related to emergencies connected to water floods (frequent flooding of territories and inflicting damage on both city’s property and citizens’ property).

Modernization of process equipment of pumping stations, namely:

- replacement of pumps;
- creation of automated systems of hydraulic modes regulation based on frequency control mechanisms (installation of the pump control boards with frequency converters and other equipment);
- creation of automated systems of processes management at the water treatment plants;
- modernization of power equipment (transformers, switchgears);
- implementation of the equipment for water flow measurement and control (back valves, pressure sensors, flow and volume measurement units);
- replacement of lighting systems with LED lighting equipment;
- arrangement of commercial metering units, installation of baseband equipment aimed at the connection to the AEICMS system.

Creation of an integrated system of collection, registration, storage, processing and transfer of data on water consumption by customers, including the following aspects:

- equipping all the categories of customers with metering devices with pulse input;
- installation of the equipment of automated registration, storage and transfer of water consumption data.



Creation of the distribution network control system:

- installation of the hydraulic pressure controllers (which prevent hydraulic surges);
- installation of automated air release valves;
- installation of control units, check devices (gates, valves);
- installation of flow meters with remote data transfer at the pumping stations and water supply zones borders;
- installation of automated “check points” to control pressure in the network and determine the output parameters of the pumping stations operation.

In order to solve the problem of water supply to the private sector of St.Petersburg villages, where hydrants are used at the moment, we plan the following:

- construction of street networks in St.Petersburg suburbs and water service pipes to which individual houses may be connected;
- connection of newly constructed networks to the existing water supply networks in the suburbs of St.Petersburg;
- preparation of the existing networks and water supply facilities to start provision of water supply services to the customers of St. Petersburg suburbs.

The development of St. Petersburg water supply system under the approved General Water Supply Scheme for the period of up to 2015 and 2025 in perspective provides the opportunity for the overall city development. In order to provide water supply services to new development areas, Vodokanal arranges works on:

- construction or modernization of water supply networks and facilities to provide a possibility of water supply to new construction or reconstruction projects of the capital construction;
- connection of new pipelines installed on the developed areas of St.Petersburg to the existing water supply networks;
- preparation of the existing water supply networks and facilities to start provision of water supply services to newly constructed or reconstructed projects of St.Petersburg.

The draft program “Clean Water of St. Petersburg” is designed for improvement of quality of St.Petersburg water utilities operation, provision of affordable water supply services to ensure decent life quality for the customers.

WASTEWATER DISPOSAL

Saint-Petersburg is sewered according to the combined scheme: 70% of the whole territory has a combined sewer system, which collects domestic and industrial as well as surface (rainfall, snowmelt) runoffs, the rest of the territory, mainly new-built districts and suburbs, is sewered according to the separate scheme (rainfall and snowmelt waters are collected separately from other wastewaters). St. Petersburg sewerage and wastewater treatment system is a network of inter-connected engineering facilities, which provide collection of wastewater from customers, its transportation and treatment at wastewater treatment plants to meet the parameters stipulated in mandatory standards and norms.

The wastewater disposal system comprises:	
sewerage network	8,099.39 km
tunnel collectors	229.12 km
sewage pumping stations (SPS)	134
wastewater treatment plants of different capacity	21
sludge incineration plants	3

Pipeline diameters of the municipal sewage network in St. Petersburg range from 150mm (courtyard networks) to 1,5m. The main material for sewage pipelines is reinforced concrete (81% of all networks). Polyvinylchloride and polyethylene pipes are widely used in recent years. They are used most extensively for major repairs and network rehabilitation. Tunnel sewers are the basic mains for transporting sewage waters to wastewater treatment plants. In the city of Leningrad, construction of tunnel sewage collectors began in 1947. Tunnel collectors’ inner diameter varies from 1.5 to 4.9 meters, the depth is 6 to 90 meters. Sewage pumping stations’ design capacities vary from 300 m³/d to 1,000,000 m³/d. SUE “Vodokanal of St.Petersburg” undertakes modernization and reconstruction of SPS, using modern submersible pumps and integrated sewage pumping stations. Apart from replacing pumping and electrical equipment, other auxiliary mechanisms are also modernized.



SUE “Vodokanal of St.Petersburg” operates 21 wastewater treatment plants with design capacities varying from 500 m³/d to 1.5 mio m³/d. These plants treat 2.3 Mio. m³ of wastewater per day, which corresponds to 93 % of the total amount of wastewater entering the sewerage system of SUE “Vodokanal of St.Petersburg”. The remaining 7 % of wastewater is discharged untreated at the moment. In 2010 the amount of pumped wastewater was 915.4 Mio.m³, the amount of treated wastewater was 823.9 Mio.m³.

Adjusted capacity of wastewater treatment plants, m³/day*	m³/day*
Central Wastewater Treatment Plant	800,000
Northern Wastewater Treatment Plant	600,000
South-West Wastewater Treatment Plant	290,000
Petrodvorets Wastewater Treatment Plant	65,000
Pushkin Wastewater Treatment Plant	65,000
Kolpino Wastewater Treatment Plant	60,000
Kronstadt Wastewater Treatment Plant	22,000
Sestroretsk Wastewater Treatment Plant	17,000
Repino Wastewater Treatment Plant	10,000
Pontonny Wastewater Treatment Plant	10,000
Zelenogorsk Wastewater Treatment Plant	9,000
Metallostroy Wastewater Treatment Plant	7,600
Osinovaya Roscha Wastewater Treatment Plant	800
Prigorodnye Wastewater Treatment Plant	750
Torfyanoye Wastewater Treatment Plant	700
Zavodskie Wastewater Treatment Plant	300
Pargolovo Wastewater Treatment Plant	200
Osinovaya Roscha Wastewater Treatment Plant	800
Pesochny, Rechnaya Str. Wastewater Treatment Plant	300
Pesochny, Lestnaya Str. Wastewater Treatment Plant	700
Molodezhnoye, Primorskoye highway Wastewater Treatment Plant	700

* Adjusted capacity of wastewater treatment plants is calculated for dry weather conditions taking into account wastewater quality requirements in accordance with the Resolution of the Government of Saint-Petersburg No. 1270 dated October 21, 2008 (as amended by the Resolution of the Government of Saint-Petersburg No. 1384 dated 30.11.2009).



Wastewater disposal in Saint-Petersburg is based on the territorial zoning principle in accordance with division into sewer catchment areas. Saint-Petersburg wastewater is treated at three major WWTPs: Central Wastewater Treatment Plant (CW-WTP), Northern Wastewater Treatment Plant (NWWTP), South-West Wastewater Treatment Plant (SWTP) and medium-capacity wastewater treatment plants in the northern and southwestern suburbs.

There are five catchment areas in St. Petersburg:
Northern Wastewater Treatment Plant (NWWTP);
Central Wastewater Treatment Plant (CWWTP);
South-West Wastewater Treatment Plant (SWTP);
Northern Suburbs;
South-western Suburbs.

NWWTP catchment area provides wastewater disposal from the right Bank of the River Neva: Nevsky (the right bank), Krasnogvardeysky, Kalininsky, Vyborgsky and Primorsky districts. Wastewater treatment is mainly carried out at Northern Wastewater Treatment Plant. A part of wastewater in the northern part of Vyborgsky district is treated at the local WWTPs — Torfyanoye, Prigorodnye, Zavodskie, Pargolovo, Osinovaya Roscha.

CWWTP catchment area provides wastewater disposal from the left Bank of the River Neva, including Nevsky (the left bank), Vasileostrovsky, Centralny, Admiralteysky, Frunzensky, Moskovsky and a part of Kirovsky districts. Besides, CWWTP catchment area collects wastewater from a part of Pushkinsky, Nevsky (the right bank) and Krasongvardeysky districts. Wastewater treatment is carried out at the Central Wastewater Treatment Plant.



SWTP catchment area provides wastewater disposal from a part of Kirovsky and Krasnoselsky districts, as well as receives wastewater from the town of Strelna of Petrodvortsovy district. Wastewater treatment is carried out at the South-West Wastewater Treatment Plant. Saint-Petersburg is the first large city in the world which has solved the problem of sewage sludge treatment. Three sludge incineration plants are operated in the city — at Central Wastewater Treatment Plant, Northern Wastewater Treatment Plant, and South-West Wastewater Treatment Plant. The heat obtained in the process of incineration is used for technical purposes, for space heating of buildings and electrical energy production, which allows SUE "Vodokanal of St.Petersburg" to achieve significant savings of energy resources. (Thus, in 2010, about 10 % of electrical energy consumed at the Northern Wastewater Treatment Plant, was produced by the steam generator of the sludge incineration plant.) Flue gases go through a three-stage purification process. Sludge incineration allowed to dispose of 68,815.7 tons of dry solids (t DS) in 2008, 92,236.3 t DS in 2009, and 100,512.66 t DS in 2010.



Wastewater Treatment Technologies

Today, wastewater treatment plants of "Vodokanal of St.Petersburg" are implementing the technologies which ensure wastewater treatment in compliance with all standards, including removal of nutrients (nitrogen and phosphorus).

The main wastewater treatment stages implemented in SUE "Vodokanal of St. Petersburg" are as follows:

- mechanical treatment
- chemical and biological treatment (includes conventional biological treatment and nutrient removal process)
- wastewater disinfection
- sludge treatment and recycling

Mechanical treatment is designed for wastewater clarification. This block comprises an inlet chamber, mechanized screens, grit removal units and primary clarifiers. Biological treatment is the main wastewater treatment process before wastewater is discharged into the water body. This stage includes aeration tanks and secondary sedimentation tanks. The



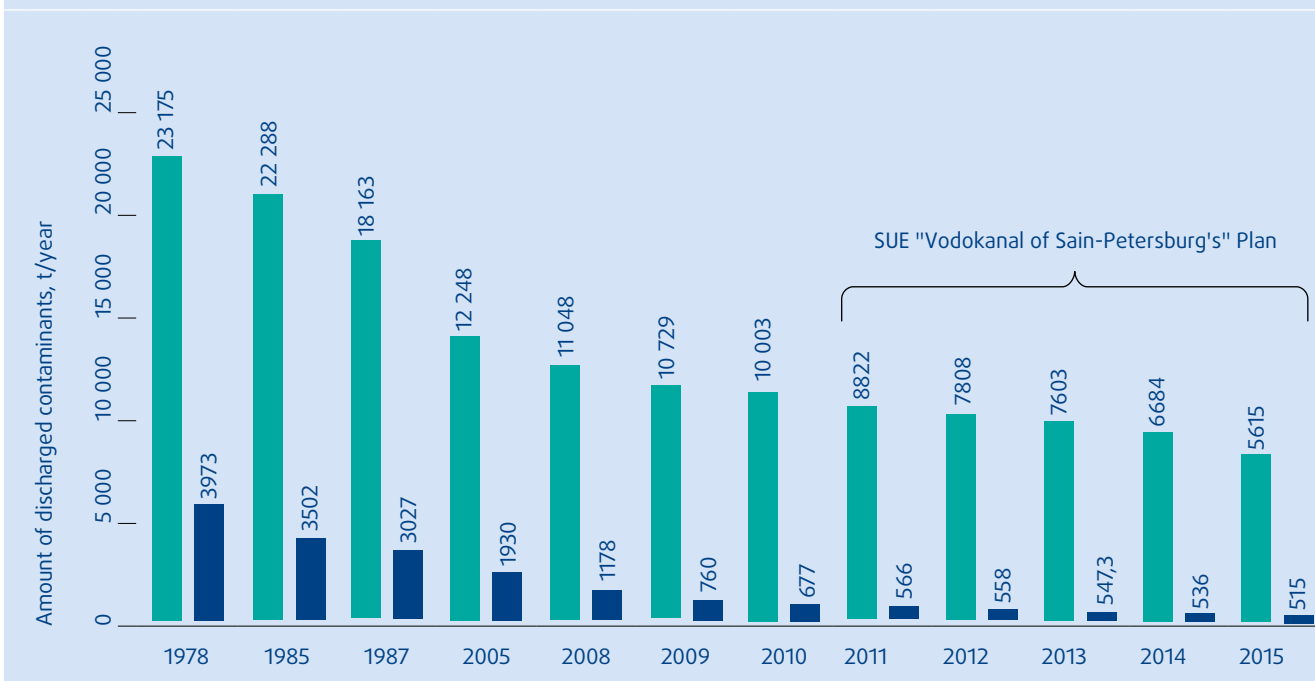
biological treatment process is maintained by means of activated sludge life activities in the aeration tanks through continuous contact with the atmospheric oxygen injected into the aeration tank. Activated sludge is a biocenosis inhabited by different bacteria, protozoa and multicellular organisms which modify contaminants contained in wastewater and, thus, treat them. Until recently, only mechanical and biological treatment was implemented at

wastewater treatment plants. However, it did not provide the quality of treated effluent stipulated in the HELCOM recommendations for nutrient removal. That is why at present chemical and biological wastewater treatment is implemented at Vodokanal's wastewater treatment plants, combining advanced nutrient removal by means of biological treatment and chemical phosphorus precipitation. Iron sulfate is used as the chemical.

■ Amount of nitrogen, t/year
■ Amount of phosphorus, t/year

Reduction dynamics of nutrient discharges into water bodies

Alleviation of nitrogen and phosphorus burden on St. Petersburg water bodies



According to the end-of-the-year results for 2010 the concentrations of total nitrogen and phosphorus in Vodokanal's treated effluent are 9.5 mg/l and 0.5 mg/l, accordingly.

In order to improve the environmental situation of the city's water bodies and in the Gulf of Finland, a certain amount of effluent water undergoes disinfection. UV disinfection technology is implemented at the South-West Wastewater Treatment Plant, Sestroretsk

and Repino WWTPs. Currently, designs are being prepared for treated effluent disinfection at all the other wastewater treatment plants, its startup being scheduled for 2015.

As for the problem of sewage sludge disposal, it has been solved through construction of three sludge incineration plants: at Central, Northern and South-West WWTPs. The incineration plants use the fluidized bed combustion technology.

Wastewater Quality Control

Wastewater quality control in SUE "Vodokanal of St. Petersburg" is carried out at several levels in compliance with Wastewater Quality Assessment Programs at SUE "Vodokanal of St.Petersburg's" environmental facilities. These programs have been approved by the Neva-Ladoga Basin Water Authority and Rospotrebnadzor Authority.

Wastewater quality control is carried out:

on the consumer side, in compliance with the approved monthly plans;

at the entrance to wastewater treatment plants in compliance with Wastewater Quality Assessment Programs at "Vodokanal of St.Petersburg's" facilities;

at wastewater treatment plants' discharge points in compliance with Wastewater Quality Assessment Programs at Vodokanal's facilities;

at untreated effluent discharge points in compliance with Wastewater Quality Assessment Programs at "Vodokanal of St. Petersburg's" facilities.

Wastewater quality control is carried out by monitoring generalized physical and chemical parameters, microbiological and parasitological parameters. The monitoring of wastewater inflow and discharge is carried out at over 200 points by 48 parameters.

Treatment efficiency for household wastewater is quite high:

over 90 % removal of suspended solids, BOD, COD and total phosphorus;

around 70 % of total nitrogen removal.

Besides, SUE "Vodokanal of St.Petersburg" carries out monitoring of water bodies in compliance with the Water Body Regular Monitoring Program, approved by the Neva-Ladoga Basin Water Authority.

At WWTPs' treated effluent discharge points natural water quality control is carried out and the treated effluent discharge impact on natural water composition of the receiving water bodies is assessed.

Achievements of 2010

Sewerage Networks

- The next construction stage of the Northern Tunnel Collector extension was completed, which allowed to connect to it 12 untreated effluent discharge lines with the total amount of 57,000 m³ of wastewater per day to be directed to Northern WWTP for treatment. The amount of treated wastewater in St.Petersburg has reached 93 %.
- Construction of inverted siphon across the River Srednaya Nevka was completed, which resulted in the closure of untreated effluent discharge in the amount of 950 m³/day. 8 untreated effluent discharge lines were connected to the sewerage system.



- Under the Primorsky Prospect reconstruction project, 2 untreated effluent discharge lines with the flow of 1,600 m³/day were connected to the sewerage system.
- Rehabilitation, major repairs and construction of 47.88 km of sewerage networks were completed.
- Untreated effluent discharge closure scheme was designed for the area of the River Ohta.
- Design of the wastewater disposal plan for Krasnoselsky District of Saint-Petersburg to the South of Volkhonskoye Highway (Krasnoye Selo, settlements of Toriky, Skachky and Gorelovo) was completed.
- Construction designs and estimates for rehabilitation of combined sewerage network from Leo Tolstoy Square to Dobrolubova Prospect of the Petrogradskaya Side were prepared.

Wastewater Treatment Plants

- In the framework of fulfilling HELCOM recommendations for wastewater treatment, a series of activities were carried out at the city's wastewater treatment plants to intensify the nutrient removal process. As a result, in late 2010, the concentrations of total nitrogen and phosphorus in the treated effluent at the outlet of WWTPs were 9.5 mg/l and 0.5 mg/l, respectively, in compliance with the HELCOM requirements.
- Advanced technology of biological monitoring of flue gas purification after sludge incineration was launched. Giant African snails are used for this purpose. This method was designed by the scientists of Saint-Petersburg Scientific Research Center for Environmental Security of the Russian Academy of Sciences. Snails inhale a mixture of flue gases and normal air, which imitates the atmospheric conditions in the sanitary protection zone of a sludge incineration plant. Special equipment monitors the functional condition of snails (mainly, their

heart rate and mobility). This African giant snail-based system of continuous air pollution monitoring at the border of the buffer zone of a sludge incineration plant can signal not only drastic and considerable changes in the level of air pollution biological hazard. It can also monitor accumulation of possible negative impact to the health condition of the indicator group of snails, which is connected with the chronic poisonous influence of air contaminants, released into the air with flue gases, even at relatively low concentrations of such substances. Besides, this system takes into account the synergetic effect produces by various air contaminants even in small doses.

Landfill-Stored Sludge Treatment

- To alleviate the negative environmental impact of a landfill, we completed the first stage of sludge removal from Severny Landfill near the rural settlement of Novosyolky. The methods of stationary dewatering in geotubes and chemical treatment are used for sludge hazard reduction and increasing sludge water yield.
- Preliminary works for using the geotubing method at Volhonka-2 Landfill have been completed.

As a result of these activities in 2010, 7,9 % of the total amount of sludge stored at the landfills was treated.

Assessment of New Wastewater and Sludge Treatment Technologies

- A cycle of works has been carried out to evaluate effluent disinfection with alternative chemicals.
- A number of phosphorus removal chemicals have been tested.
- The cutting-edge technologies for measuring the depth of sludge deposition in reservoirs have been tested.
- The testing of new tertiary treatment systems is being carried out.

Future Development of Wastewater Disposal System

At the end of 2010, SUE "Vodokanal of St.Petersburg" worked out a draft program "Clean Water of the Baltics", which contains the main goals and tasks for the future development of the Company until 2020.

1. Closure of untreated wastewater discharges

- Completion of untreated wastewater discharges connection to the Northern Tunnel Collector will allow to provide treatment of 95% of all city wastewater by the end of 2011, and to improve the environmental situation in the historical part of the city. By 2015, it is planned to treat 98% of wastewater. To achieve this goal, it will be necessary to build a tunnel collector along Naberezhnaya Robespyera Str., to connect untreated wastewater discharges of Petrogradskiy District to the wastewater disposal net-

work, to construct a collector in the area of the River Okhta, and to build a wastewater treatment plant in Metallostroy community.

- Development of the surface runoff control and disposal system.
- Termination of flush water discharges from Main Waterworks, Petrodvorets and Kronshtadt Waterworks.

2. Upgrading and construction of wastewater treatment plants

- Implementation of advanced nutrient removal technologies
- Construction of tertiary treatment and treated effluent disinfection facilities
- To meet HELCOM recommendations for wastewater treatment quality it has been planned to connect local wastewater treatment plants Prigorodniye, Zavodskiy, Pargolovo, Osinovaya Roscha and Torfyanoye to the sewerage network.
- Construction of wastewater treatment plants in Molodyozhny community and in the town of Lomonosov.





3. Improvement of sewage sludge treatment and disposal technologies

Prevention of sewage sludge storage landfills' adverse impact on the environment. In accordance with Vodokanal's plans the whole quantity of sludge stored at landfills will be processed by 2020.

4. Improvement of energy efficiency

Reconstruction of the Central and Northern Wastewater Treatment Plants of St.Petersburg is aimed at transition to alternative (renewable) energy sources and reduction of adverse impact on the environment. The project includes anaerobic sludge treatment technology: biogas will be produced in the process of sludge digestion, which is planned to be used for combined electricity and heat production.

The expected outcome of the project is reduction of energy consumption from external sources through:

- reduction of electric consumption by the plant;
- production of electric energy from the plant's own alternative/renewable sources.

This project will also allow heat production from the plant's own alternative/renewable sources.

5. Advance in the wastewater disposal system's reliability

- Construction of back-up tunnel collectors
- Construction and rehabilitation of wastewater disposal networks
- To increase the reliability of the tunnel collectors' operation, the construction of cross-tunnels is planned, which will allow to carry out further rehabilitation of the existing network and to modernize the collector switching to the WWTP in the town of Zelenogorsk.

6. Provision of centralized sewerage systems for small communities.

7. Sewerage network management

Creation of sewerage management system on the basis of sewage catchment areas, including implementation of wastewater flow metering and control systems.

8. Optimization of recycling process

Implementation of the technology of construction material production with inclusion of ash from sewage sludge incineration. It will allow to recycle the whole amount of ash produced at sludge incineration plants and, thus, prevent its storage at landfills.





CUSTOMER SERVICE

Customer service management in 2010

Customer / client service is in the focus of Vodokanal's attention.

The underlying principle of this field of activities is: "Vodokanal for the clients (customers), not the clients (customers) for Vodokanal".

Vodokanal's customer service is based on the following principles:

- Maximal result for the client (customer) and minimal requirements to the client (customer);
- search for a solution satisfactory to both parties; and
- continuous optimization of the company interaction with its clients (customers).

In 2010, Vodokanal continued practical implementation of the above principles. For the purpose of optimizing, and improving the quality of the customer service, special units (water supply and sanitation districts) were established at the company's production branches, St. Petersburg Water Supply and St. Petersburg Wastewater Disposal, and made

responsible for customer relations within relevant service areas.

The easy-to-reach customer service units were created with the aim to ensure a quick response to the changing customer requirements and the customers' calls. Besides, the idea was to organize the service provision process in consideration of special features of the customers' facilities and the existing water / sewer networks in the relevant areas.

In 2010, Vodokanal started to implement a new customer contract scheme based on the functional principle: separate contracts for potable water supply and for collection of wastewater and pollutants.

The specialists of the water supply and sanitation districts at the branches "St. Petersburg Water Supply" and "St. Petersburg Wastewater Disposal" are responsible for consultation of clients and customers (on the making, amending and termination of contracts of water supply and sewage / pollutants collection), collection of applications and documents for contracting, and the drafting of contracts within relevant service areas.

The customers having single contracts of water supply and sewage/pollutants

The underlying principle of this field of activities is: "Vodokanal for the clients (customers), not the clients (customers) for Vodokanal"

collection are invited by Vodokanal to rearrange their contractual relations with the Company by making separate contracts.

When making new contracts with its customers, Vodokanal takes into account their wishes to a maximum extent and follows an individual approach to each customer. Vodokanal offers to its customers the right of choice: they may enter into separate contracts for water supply and wastewater disposal either in relation to each facility (if they have a direct connection to the Company's water distribution and sewerage networks), or in relation to several facilities.

Vodokanal guarantees to its customers that new contracts are made at their maximal convenience:

- the Company officers visit a customer's facility in the agreed time;
- the Company officers examine water supply and sewerage systems on the day of visit;
- when drafting separate contracts, the Company uses, to a maximum extent, the information and documents already submitted to it by the customer.

In 2010, a new customer service information system was put into operation by Vodokanal.

Due to a full-scale operation of this system the Company could automate many of the functions related to preparation of the documents to be issued in the course of customer service, including draft contracts of water supply and sewage / pollutants collection.

The benefit of the new information system is the possibility to reduce the period of documents issuance by automating the document preparation process.

In 2010, Vodokanal began to build an electronic archive of contract-related documentation.

The purpose of electronic archive is to avoid reiterated requests for the documents which have already been submitted by the customer, to provide access to electronic copies of documents for the company units as required in the course of work with clients and customers.

Optimization by Vodokanal of its contract-related functions led to reduction of the number of documents to be submitted by customers in order to make contracts for water supply and sewage collection.

Plenty of information which had to be confirmed by the customer (client) with relevant evidence is now simply specified by the customer (client) in his contract application.

The customer (client) may choose a preferable payment procedure (by acceptance or direct debiting) specifying it in his application.

The customer is not asked to submit the documents issued by Vodokanal (authorizations for connection to centralized water supply and sanitation systems) and the documents which have already been provided to the Company (unless such documents have been amended).

It takes less time now to prepare draft contracts of potable water supply and sewage collection: now they are issued within 10 working days from receiving the contract application and the necessary package of documents (compared to a 30-day period set out in the Civil Code of the Russian Federation).

Vodokanal is in the process of implementing an Internet-based system of collecting applications and documents for contracts of water supply and sewage/pollutants disposal. In this way, the time requirements for the drafting of contracts by Vodokanal will be further reduced, and personal visits of customers to the Company for the purpose of making contracts will be minimized.





Connection to water distribution and sewerage networks

Vodokanal provides to its clients and customers the services on authorizations preparation and connection to the engineering networks based on the issued authorizations.

This work includes the following:

- Preparation of specifications
- Consultancy
- Preparation of connection conditions and conclusion of connection contracts
- Review of design documentation
- Preparation of other authorizations (baseline data, approval of layout, etc.).
- Execution of connection contracts.

* incl. specifications — 3730, connection conditions — 778, baseline data — 266.
** The contracts are made in compliance with Vodokanal’s Investment Program for 2009-2011 and contain conditions of connection to water / sewerage networks.

Results of work

Work type	Number of documents prepared				Number of consultations			
period	2007	2008	2009	2010	2007	2008	2009	2010
Issue of authorizations (incl. specifications, connection conditions, baseline data, etc.)	6281	7250	6987	8623*	5150	7388	5091	5552
Review of design documentation	3045	3169	2950	3456	3654	3802	3540	3840
Number of connection contracts drafted	-	-	123	311				
Number of contracts concluded**	-	-	24	181				

In 2010, the number of connection contracts made under Vodokanal’s Investment Program for 2009-2011 grew considerably as compared to 2009. The total installed capacity of the facilities connected under the 2010 contracts was: for water supply — 1114.96 m³/hour, for wastewater disposal — 992.62 m³/hour.

The following regulatory documents are issued and approved for the purpose of improving the quality of customer service:

- Instruction on strengthening control over the issue of specifications for connection to engineering networks No. dated 02.09.2010
- “Rules of interaction between structural divisions of SUE "Vodokanal of St. Petersburg"
- “Rules of interaction between structural divisions in preparing Connection Conditions and Contracts of Connection”

In compliance with the approved Rules, the specification preparation period is reduced to 2 days (compared to 14 working days under the law) and the connection conditions preparation period — to 5 days (compared to 30 days under the law). Collection of requests and consultancy at the address: Block 5, bldg. 103, Moskovsky prospect.

Vodokanal is the Russia’s first water company to organize collection of requests for specifications via the Internet. Quick response to requests and the possibility for clients to send requests at any convenient time are the advantages of this method. Fifty-nine specifications were prepared on Internet requests in 2010.

To improve the quality of customer service, requests for the issuance of authorizations and consultancy are collected from 8:00 a.m. till 20:00 p.m. (without lunch break). Due to extension of the client admission period and the possibility to obtain specifications via the Internet, there is, practically, no queue to the request collection desk.

Reception of clients is also organized in the city suburbs.

All necessary information about the procedure of issuing the authorizations can be found on website: www.vodokanal.spb.ru.

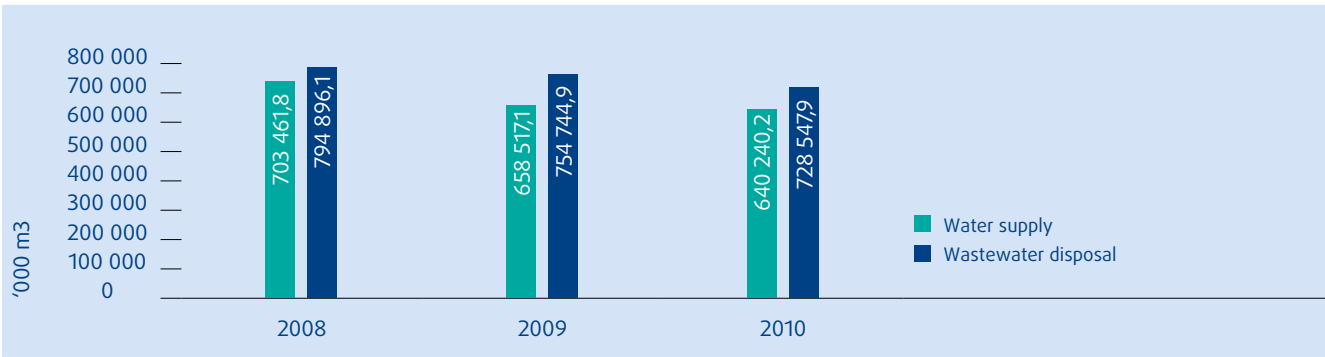
The works performance and the citizens’ calls in relation to the quality of customer service are monitored continuously, and corrective actions are taken to improve the performance indicators.

To decide how to optimize the customer service, clients are asked to fill in questionnaires, and their feedback and suggestions are analyzed. The average score of the clients’ points given to all items of the questionnaire (the respondents were asked to appraise the completeness and quality of the information provided, timely issuance and quality of documents, convenience of service, friendliness of personnel, etc.) is in the range 4.04-4.84 (five scores max.). It is the evidence of the customers’ high satisfaction with the quality of services and indication of the need to further improve the permits preparation procedure.

Volume of sales

The trend to lower water consumption continued in 2010, which demonstrates responsible attitude to water resources among the customers. In 2008 — 2010, water consumption reduced by 9%.

Volumes of water and sanitation services in 2008 — 2010, in physical units (‘000 m³)



Such reduction of water consumption in St. Petersburg can be explained by:

- Transition to the billing for actual consumption measured by individual cold/hot water meters (consumers paid according to the standard consumption rate before the installation of water meters);
- Water saving actions on the consumer side (emergency repairs and elimination of leaks on local networks, repairs of in-house pipes, etc.);
- Water conservation by the citizens;
- Actions performed by housing organizations, management companies, condominiums and housing cooperatives to reduce water consumption



Accounts receivable

Vodokanal has developed a mechanism of individual work with customers aimed to ensure timely payment for potable water and sanitation services or, in the event of indebtedness, to recover the debt.

In 2010, the management of SUE "Vodokanal of St. Petersburg" decided to hold regular meetings to discuss measures against the debtors between Vodokanal's branches: "Customer Service Centre", "Water Supply" and "Wastewater Disposal", for the purpose of strengthening control over the procedures and effect of this activity. All in all, 37 such meetings were held in 2010.

In parallel, the Customer Service Centre branch provided regular training in the specifics of this activity, reporting procedures and preparation of analytical materials for all responsible persons in each water supply / sanitation district. The Microsoft Office Access database "BD PUV" was designed and implemented for the use by managers and specialists at all levels. The database supports on-line monitoring of the status of each customer's indebtedness, its duration and types of charges, providing digital and graphical data display. This helps take steps to prevent the growth of debts.

In 2010, close interaction with the city authorities in charge of the St. Petersburg budget was organized:

- Monthly meetings at District Administrations and the City Administration Committees where the cause of indebtedness and time of debt repayment are discussed.
- The exchange of (electronic, etc.) data about the allocated funds and actual provision of services in physical and money terms and about the status of indebtedness, with the city authorities in charge of the St. Petersburg budget.
- Full-scale quarterly comparative checks of bills and collected payments for customers of certain categories.
- Timely issuance and delivery of bills to relevant customers on a monthly basis.
- Due to such efforts, the payments by the "St. Petersburg Budget" Category customers were collected in full in 2010.

In parallel, the management of the Customer Service Centre Branch organizes joint working meetings with the defaulters where the issues related to payments and reconciliation are discussed. The meetings held in 2010 led to 155 agreements of debt restructuring (com-



pared to 90 in 2009) with the customers who lack funds to pay for Vodokanal services. Ninety such agreements were made in 2009.

In 2010, the outstanding debts were monitored more efficiently; the activities aimed to limit or stop the services for certain customers were better coordinated.

For example, in 2010, the production branches limited water supply/sanitation services for 186 customers, stopped provision of services to 68 customers and resumed provision of services to 99 customers, following the requests from the Customer Service Centre.

Limitation or stoppage of services



Thus, in 2010, the number of customers for which water supply / sanitation services were limited or stopped increased 1.6 times, leading to reduction of debt in the customer categories "Industries" and "Other".

Moreover, the percentage of customers with outstanding (over 2 months) debts reduced in 2010.

The share of the customer category "Providers of Services to Households" in the overall debt structure is the biggest (44.6% as of 01.01.2011). Their share increased by 1,6% in 2010.

Recovery through arbitration is one of the instruments to recover debts.

In 2010, Vodokanal filed 1,075 claims to the arbitration court to recover debts in the total amount of 1,207,121,869.40 Roubles.

209 claims of debt recovery in the total amount of 221,435,028.36 Roubles sent by Vodokanal to relevant debtors in 2010 had been settled by the latter before such claims were sent to the court of arbitration.

399 claims of Vodokanal were settled by defendants in full before the arbitra-

tion award: the total recovered amount was 571,700,981.09 Roubles.

In 503 court proceedings on the claims filed by Vodokanal in 2010, the arbitration award was to enforce the payment of 242,561,373.62 Roubles by defendants in favour of Vodokanal.

In 2010, the court of arbitration approved 22 amicable agreements of paying the debt to Vodokanal in installments (the total amount: 13,055,409.01 Roubles).

Moreover, in 2010, court proceedings on some of the claims filed by the Company before 2010 were finalized. As a result, 157 judgments of recovering 75,402,937.39 Roubles from the defendants were awarded.

In 2010, the South-West Vodokanal Branch made much effort to recover debts: it filed to the court of arbitration 202 claims of recovering debts in the total amount of over 247.7 Mio. Roubles, where 98 Mio. Roubles were paid by its customers before the arbitration award and 34.5 Mio. Roubles were recovered under the arbitration award.

In 2010, Vodokanal continued to publish the information about its main debtors



on its corporate website (section "Lists of Debtors"). Such information is updated on a monthly basis.

As of 01.01.2011, Vodokanal's accounts receivable amounted to 3,066,670,300 Roubles.

Structure of accounts receivable in 2010

Customer group	Accounts receivable as of 01.01.10	Accounts receivable as of 01.01.11
Providers of services to households	1 141 409,2	1 366 309,1
GP TEK (heat supplier)	165 024,9	154 384,6
TGK-1 (electricity supplier)	202 962,7	194 358,8
St. Petersburg budget	27 930,9	39 143,1
Federal budget	140 488,5	276 052,1
Organizations in Leningrad Region	253 026,7	268 467,1
Other	243 545,8	242 989,4
Industries	483 758,9	524 966,1
TOTAL	2 658 147,5	3 066 670,3

The share of different customer categories in the structure of accounts receivable:

Customer group	As of 01.01.10	As of 01.01.11	Growth or reduction of share in 2010
Providers of services to households	42,9%	44,6%	1,6%
GP TEK (heat supplier)	6,2%	5,0%	-1,2%
TGK-1 (electricity supplier)	7,6%	6,3%	-1,3%
St. Petersburg budget	1,1%	1,3%	0,2%
Federal budget	5,3%	9,0%	3,7%
Organizations in Leningrad Region	9,5%	8,8%	-0,8%
Other	9,2%	7,9%	-1,2%
Industries	18,2%	17,1%	-1,1%

Call Centre

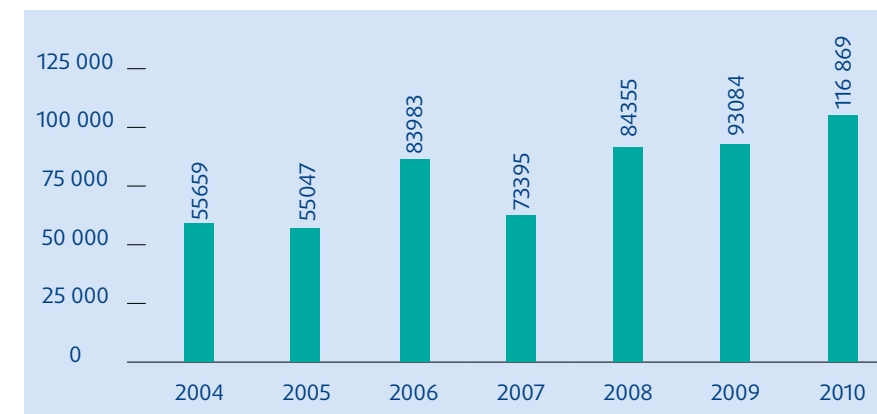
SUE "Vodokanal of St.Petersburg" has its Hot Line to receive calls from the customers (phone: +7 (812) 305-09-09, see also "Interaction with customers" for more details). In 2004 – 2010, the implementation and use of the calls recording and handling system, as well as other improvements of this process, led to reduction of call duration from 12 to 2 minutes with the maximum waiting time of 2 minutes (in peak periods, when up to 200 calls per hour are received). These performance indicators meet the international standards.

At present, the average time of waiting for the operator's reply is 8-20 seconds. In 2004 – 2010, the number of calls of general nature (general inquiries or consultations) increased from 55,659 to 93,084.

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Inquiries

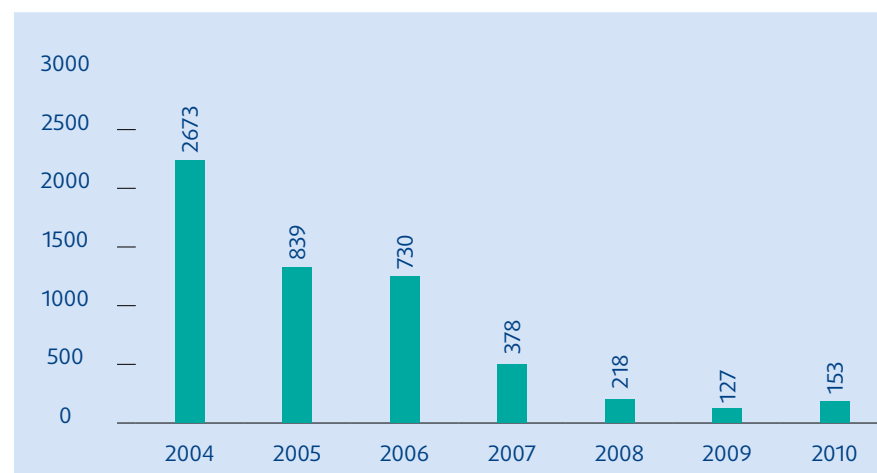




The number of inquiries in relation to Vodokanal activities has increased over these years. It can be explained by the increasing number of new customers and the growing interest of the citizens in the Company operations.
The number of complaints received by Hot Line reduced from 30,146 to 25,309 in 2004–2010

The most frequent complaints are those about low cold water head and blockages in the yard sewers. In 2004, the Hot Line received 2,673 complaints about low water head, and in 2010 — there were 153 complaints only, i.e. the number of complaints has reduced more than 17 times over the 6 years.

Complaints about low cold water head



The number of complaints about blockages of the yard sewers has reduced 1.5 times from 2004 to 2010





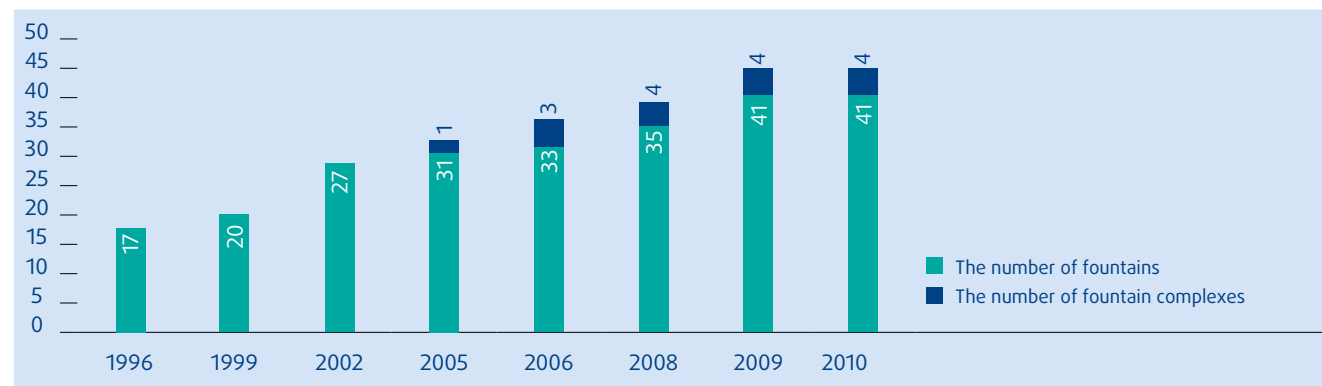
CITY FOUNTAINS

In 2010, State Unitary Enterprise "Vodokanal of St. Petersburg" operated 45 fountains and fountain complexes.

The history of St. Petersburg fountains goes back to 1705, the fountains have lived through several periods of prosperity and decline. And by the time the decision was taken to pass the city fountains into the economic management of State Unitary Enterprise "Vodokanal of St. Petersburg", fewer than 20 of 350 fountains were functioning in the city. Most of them were in a state of failure.

Vodokanal St. Petersburg has been maintaining fountains and fountain complexes since 1996. Company subdivisions were established, whose functions were to reconstruct and maintain the fountains.

The number of fountains and fountain complexes



Over the period 1996-2010, Vodokanal St. Petersburg has renovated 27 fountains. In addition to the renovation of the existing fountains Vodokanal has constructed new fountains in the most significant locations as well.

By 2008, Vodokanal had constructed 15 fountains and fountain complexes using its own and budgetary funds including the color-music fountain complex in the square in front of Finlyandsky Station (put into operation in 2005) and the fountain complex in Moskovskaya Square (put into operation in 2006).



The largest fountain complex is in Moscow Square. Its total area is 18,000 m²; the total volume of bowls is 3,700 m³. The ensemble consists of 11 bowls. The pumps of the fountain complex pump about 580,000 m³ of water per day. The fountain bowls are installed at a depth from one to three meters below the level of Moskovsky prospect.

The fountain complex in Lenin Square consists of 20 separate granite units with light and music. The total water volume of all bowls is over 2,000 m³.

Among the fountains operated by SUE "Vodokanal of St. Petersburg" is the fountain in the garden near the Kazan Cathedral, the fountain in Aleksandrovsky Garden, the fountain in Southern-Primorsky Park, the fountain in the garden near Gostiny Dvor (Kronstadt) and others.

In 2010, 41 fountains and 4 fountain complexes were operated.

All city fountains are located in the places which are the most popular among citizens and guests of the city, in different city districts. All the fountains are unique: they differ by the year of construction, size, architecture and are made of different materials.

The fountains operated by Vodokanal St. Petersburg are equipped with over 7,500 lamps, over 4,000 nozzles, 847 pumps, 915 electromagnetic valves and almost 300km of cabling. During a winter period, the performance of all the fountain and fountain complex equipment is tested; the relevant parts and units are repaired or replaced.

In 2010, the lighthouse fountain in 300 Years of Saint-Petersburg Park, the drinking fountain in Sennaya Square and the fountain near the building of the Russian National Library were taken into economic management by Vodokanal St. Petersburg.

Besides, in 2010 Vodokanal carried out capital repairs of the four fountains: the fountain in Maneznaya Square, the "Putti" fountain, two fountains in Nikolsky Garden; the capital repairs of the "Boy with Duck" fountain started as well. After the capital repairs, the his-

toric appearance of the fountain will be restored: the copy of the sculpture stolen by vandals will be installed.

In 2010, based upon the results of technical conditions of each fountain, the Committee for Energy and Engineering Support together with Vodokanal St. Petersburg formulated targeted programs for capital repairs and renovation of fountains and fountain complexes. 6 fountains are included in the capital construction program, 14 fountains — in the renovation program.

In 2011, it is planned to complete the capital repairs of the "Boy with Duck" fountain, make the capital repairs of the fountain near Gostiny Dvor in Kronstadt and start the capital repairs of the fountain in Zelenogorsk.

Besides, in 2011 the renovation of fountains in Pisarev Garden and in San-Galli Garden is planned.





PUBLIC TOILETS

In 2010, SUE "Vodokanal of St. Petersburg" operated 659 public toilets.

- 403 portable cabins
- 35 urinal-type toilets

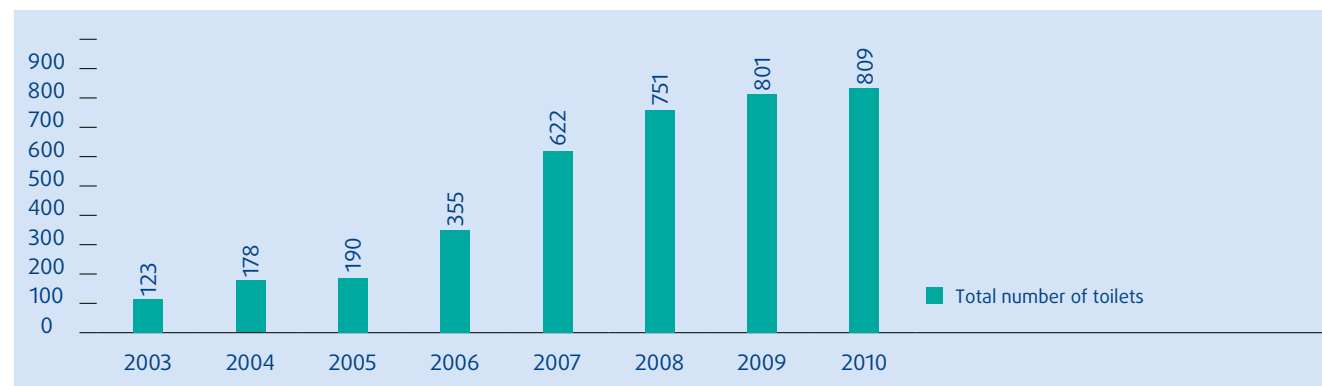
There are 809 public toilets in the economic management of Vodokanal St. Petersburg, including:

- 210 stationary toilets
- 141 modular toilets
- 20 mobile sanitary and hygienic complexes on the base of automobile chassis

Among them, in operation:

- stationary toilets — 127
- modular toilets — 74
- portable cabins — 403
- mobile sanitary and hygienic complexes (on the base of buses, semi-trailers and Valday vehicles) — 20
- urinal-type toilets — 35

Total number of toilets



The total number of outdoor public toilets in St. Petersburg in the 1950-70s reached 700. They were managed by SUE "Zentr-Servis", the municipal authority "Spetssluzba", landscaping companies, housing offices, which operated the toilets.

In early 1990s, the number of public toilets reduced. As a result of privatization many buildings and facilities were bought out, leased or redesigned as no restrictions were imposed on the use of such buildings and facilities.

According to the inventory made by territorial district authorities of St. Petersburg, at that moment there were about 300 toilets on the city budget, a part of which had already been entered into a long-term lease, and the others were becoming dilapidated and going to ruin. Vodokanal St. Petersburg was assigned with the task to solve this problem.

Vodokanal St. Petersburg has been operating public toilets since 2001. In December 2001, the decree of the Ad-

ministration of St. Petersburg No. 1492-ra "On Development of St. Petersburg Public Toilet Network" was issued. Vodokanal St. Petersburg assumed responsibility for the maintenance and servicing of public toilets owned by Saint-Petersburg, as well as client's functions in repairs, renovation and development.

During the construction of shopping centers, Vodokanal St. Petersburg issues technical conditions that specify the mandatory inclusion of public toilet facilities in public areas. Today, practically every large shopping centre has free public toilets.

Since 2006, a lot of work has been done to install modular toilets of a new generation next to metro stations, as well as in the places agreed with district administrations. They are equipped with modern sanitary and hygienic facilities, provide more conveniences to visitors and have more esthetic appearance.

Besides, Vodokanal St. Petersburg was

the first to acquire movable sanitary and hygienic complexes on automobile chassis which allow to provide better services to visitors than portable cabins. Complexes and modular toilets help solve the task of providing services to inhabitants in central districts.

In order to increase the number of operated public toilets in St. Petersburg and to improve the quality of services provided by Vodokanal, in 2010 the renovation of one toilet and capital repairs of 12 public toilets was made.

During the city festivals — New Year, Christmas, Victory Day and Day of the City, "Scarlet Sails 2010" — Vodokanal set up movable toilets. In total, in 2010 movable toilets were provided for more than 650 events on requests of different organizations.

In 2010, a new target program for the development of public toilet network for 2011-2014 was prepared.

In compliance with this program, in 2011 it is planned to:

- renovate 17 stationary public toilets;
- make capital repairs of 5 public toilets;
- acquire modular toilets to be installed in city gardens and parks;
- design the renovation of 28 stationary toilets.

In total, by 2014 Vodokanal St. Petersburg plans to:

- renovate 47 stationary public toilets;
- make capital repairs of 14 public toilets;
- acquire 9 mobile sanitary and hygienic complexes on the base of automobile chassis;
- acquire 47 modular toilets to be installed in gardens and parks.

As a result of the renovation program implementation and capital repairs, 852 public toilets will be in operation by 2014.

- 210 stationary toilets
- 155 modular toilets
- 29 mobile sanitary and hygienic complexes on automobile chassis;
- 438 portable cabins





INNOVATIONS

IMPLEMENTATION OF NEW TECHNOLOGIES IN THE FIELD OF WATER SUPPLY AND WASTEWATER DISPOSAL

SUE "Vodokanal of St. Petersburg" actively introduces up-to-date technologies, which ensure provision of customers with good-quality water supply and wastewater disposal services minimizing the environmental impact.

Water Supply

- At the new water treatment block at Southern Treatment Plant a number of innovative solutions are applied.
The inclusion of the ozonization stage in the water treatment process provided the following benefits:
 - Taste and odor removal.
 - Removal of color caused by humic substances.
 - Turbidity reduction.
 - Suppression of algae growth.
 - Microflocculation effect (improvement of the colloidal organic matter flocculation process).
 - Reduction of chemical consumption.
 - Flocculation time reduction.
 - Increase of filtration rate.
 - Extension of filtration time.
 - Reduction of backwash water.
 - Reduction of sludge volumes after filter backwash.
 - Organic matter reduction (including chlororganic compounds).
 - Partial disinfection.

The use of mechanical agitators provides rapid water mixing before it enters into the first flocculation chamber in every process line, thus fostering flock formation and improving the downstream sedimentation process. The existing scheme of hydraulic chemical mixing at old plants depends on the plant load and is less effective.

The water sedimentation process is using lamella sedimentation tanks which provides advantages as compared to the conventional water sedimentation scheme:

- Higher hydraulic load and larger sedimentation area
- Shorter retention time
- Higher sludge concentration
- Significant reduction of the facility area
- Significant reduction of the volume of sludge to be thickened
- Absence of supernatant
- Lower investment costs
- Shorter start-up period
- Higher quality of clarified water
- Better performance at low water temperature.

Water is filtered in dual media gravity filters. Dual media filtration combining quartz sand and granulated activated carbon (GAC) provides a number of advantages of treatment:

- The rate of head loss is lower than in sand filters.
- Filter cycle is on average 60% longer than in sand filters.
- The required amount of backwash water is less than for sand filters.
- The rate of air flushing is the same, while the rate of backwash in dual media filtration is lower than in sand filters.

- Both the GAC layer and sand layer effectively capture solids, and this shows that filtration takes place in all parts of the filter. The effective removal of suspended solids is achieved, and the outlet turbidity may reach the values less than 1 NTU.

One of the main goals of using activated carbon is to remove organic matter. Due to filtration through activated carbon filters, dissolved organic compounds are effectively removed in the adsorption and biological degradation process.

- In order to reduce iron concentrations in tap water in St, Petersburg, a method of anticorrosion water treatment is developed and implemented.
This method is aimed at preventing the secondary contamination of water during its distribution due to corrosion processes, which occur after the contact of water with steel and cast iron pipes.
The technology provides injection of calcium compounds and salts of carbonic acid into the water treated at city water treatment plants. This technology is implemented at Petrodvorets Water Treatment Plant and Sestroretsk Treatment Plant.
- In 2010, large-scale coagulant tests were designed and made to select chemicals that are capable to ensure a high quality of water treatment at low temperatures. In total, 38 brands of coagulants were tested. The most promising brands of coagulants were selected. Using the series of chemicals will allow to increase the flexibility of the applied water treatment technology in general.

- In 2010, a new technology for the Neva River monitoring was introduced — the accidental oil spill detection system used to protect water intakes at water treatment plants.

A few kilometers upstream the first Vodokanal water intake, on Kyzminsky Railway Bridge in Leningrad region, optic and electronic equipment is installed to detect oil pollutions in the Neva River. The equipment includes optic devices that measure the oil film thickness on the water surface and automatic analyzers, which measure the oil product concentration (water samples are pumped into the device). Rotating cameras for surveys were installed on the bridge as well. All collected data are transferred to the control room at Kolpino Water Treatment Plant where they are analysed to take relevant decisions.

Currently, the early warning oil detection system is not fit for operation in a winter season. However, in the future it will be improved to allow the monitoring all year round.

- In 2010, the system for industrial biomonitoring of the Neva water quality was improved.

The operating principle of this system is to record the animal cardiac rhythm using special sensors, which are fixed on the crayfish shells. If toxic substances get into water the crayfish cardiac rhythm will sharply change and control room operators will receive a corresponding signal.

As part of the biomonitoring modernization the number of crayfish at the plants increased. The biomonitoring system modernization also includes new algorithms of signal processing. All this — a more advanced system of data processing, increasing the number of crayfish on duty — improves the biomonitoring reliability, gives new opportunities to manage the water treatment system in real time.

In the second half of the year the modernized biomonitoring system was put into operation and currently it is operating in normal mode at all water intakes. The comprehensive system for early detection of contaminations in the Neva River also includes chemical monitoring and radiological monitoring.

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6. Vodokanal tested innovative ideas for creating an effective water supply management system in K-17 zone (Uritskaya Water Treatment Plant).

In 2011, the work will continue to establish the water treatment complex management system in St. Petersburg. Currently, the system is being implemented in the Southern Water Supply Zone.

The following main activities aimed at establishing the unified system for water treatment complex management in Saint-Petersburg can be selected:

- The creation of a hydraulic model that allows to determine a water supply network optimization strategy (elimination of excessive pressure, improvement of the rate mode, building a modern system of hydraulic mode management).
- The main tool for making decisions on the network reconstruction is its mathematical model that allows to make multivariate hydraulic calculations, particularly to identify the sections with minimal rates and overloaded sections and select the best activities to eliminate these defects, calculate various scenarios of water consumption, strategies to repair, modernize and construct water pipelines. An important moment is the hierarchical approach to the network sections: the most important sections, water conduits, street distribution network etc. are singled out.
- The modernization of pumping stations to reduce energy consumption by 30-40 % due to efficiency increasing and implementation of an automated pressure control using "check points" set in networks.
- As a result of the pumping equipment modernization, frequency drives will be used for all pumping units that will allow to smoothly start up and stop engines and reduce the load on the power grid. Operating regimes of pumps are selected automatically based on the readings of flow meters, pressure recorders in "check points" and other criteria (for example, water level in clean water reservoirs). As a result, the optimal values of water pressure and water flow are maintained at the outlets. Reduction of excessive pressure in the water pipeline reduces its breakdown rate, distribution losses and increases its life. Due to a smooth start up and stop of pumping units the network loads in transient modes drop manifold that reduces the breakdown rate by preventing water hammers. The opportunity of automated self-start up for pumping units in case of emergency power failure, as well as automated putting into operation standby pumping units minimize water supply interruptions and reduce the number of operating personnel. Work of pumping units in the most energy efficient mode provides power savings and increases the resource of pumping units themselves.
- The installation of modern fittings, which will allow to improve the water supply reliability and provide stable network operation, eliminate hydraulic hammers and air plugs.
- Application of modern control valves, which operate off-line according to preset parameters, provides the pressure regulation in separate subzones and minimizes excessive pressure that allows to reduce water losses.
- Installation of air valves allows to release the air accumulated in water pipelines, thereby increasing the reliability and efficiency of the network, as well as providing high flow measurements accuracy.
- The installation of pulse output meters to make water balance, monitor water consumption and control leaks online.

Due to automatic meter readings there is no need for inspectors' visits, that allows to take readings and issue invoices strictly on required dates, thus improving the collection of payments and minimizing the "human factor". Automatic comparison of meter readings taken at pumping stations, on the

The modernization of pumping stations to reduce energy consumption by 30-40 % due to efficiency increasing and implementation of an automated pressure control using "check points" set in networks

networks and on the consumer site allows to diagnose and locate leaks, unauthorized connections, and identify faulty meters. Emergency teams get preliminary information about the locations of leaks and losses before water flows out on the surface and people start to make calls.

- Installation of "check points" for online water quality control in the network and on the consumer side.
Online water quality control in the network allows to adjust the water supply modes in a timely manner and guarantee compliance of water quality with regulatory requirements.

Sanitation

Throughout 2010, Vodokanal St. Petersburg continued developing wastewater treatment technologies and improving environmental situation in the Neva, Gulf of Finland and Baltic Sea.

1. **State-of-the-art technologies are used for construction of the extension of the Main sewage collector in the Northern part of the city.** In particular, the URS pumping station under construction is a unique facility. That is an original pumping station; it was designed to adjust the wastewater flow rate through the collector to prevent the tunnel silting. URS will be located in a 90m deep, 26m diameter shaft.
In 2010, the tunnelling of the most complicated section of the collector started – from Arsenalnaya Street to Lenin Square (in this section a so-called "flowing ground" is located) –using Herrenknecht tunnelling machines.
2. **Vodokanal St. Petersburg implemented a chemical phosphorus removal technology.** It allowed to consistently meet the HELCOM recommendations for removing this nutrient from wastewater. In 2010, a stationary chemical dosing system Ferix-3 was put into operation at Central Wastewater Treatment Plant. A similar system is being prepared for commissioning at Northern Wastewater Treatment Plant in June 2011.
3. **Vodokanal continued searching for safe and effective methods of wastewater disinfection.** In 2010, several tests of relevant technologies and chemicals were conducted both in laboratory conditions and directly in the process at city wastewater treatment plants.
At South-West Wastewater Treatment Plant, at Repino and Sestroretsk Wastewater Treatment Plants an ultraviolet disinfection system was in operation.
4. **Efforts were made to improve the efficiency of suspended solids removal from wastewater.**
Vodokanal conducted some tests of tertiary treatment pilot plants. Implementation of such systems at wastewater treatment plants in Saint-Petersburg will allow to significantly increase the quality of the wastewater treatment.
5. **Treatment of wastewater sludge stockpiled in landfills continued.**
In order to solve one of the most important tasks and reduce the negative impact on the environment, Vodokanal is implementing a sludge treatment project at Severny landfill. Under this project, a technology of static sludge dewatering



tering with its preliminary treatment with stabilizing and passivating chemicals in special textile bags – "geotubes" is applied. The main advantages of this method are:

- elimination of negative impact on the environment;
- significant reduction in volumes and areas of stored sludge;
- creation of a standby sludge treatment system in case of equipment failure at sludge treatment complexes at wastewater treatment plants;
- elimination of a threat of emergency situations at a landfill with the possibility of getting contamination into soil and water;
- elimination of odors from stockpiled sludge.

In summer 2010, the application of "geotubes" started to treat the sludge at Volkhonka-2 landfill. According to Vodokanal plans, all the sludge stored at city landfills will have been treated by 2020.

6. Saint-Petersburg is the only megapolis in the world, which has successfully solved the problem of wastewater sludge utilization. It uses the most promising utilization technique – incineration.

Advantages of the method are:

- 100 % utilization of the dewatered sludge;
- Sludge incineration and ash production, reducing the volume 10 times;
- Industrial use of ash;
- Absence of pathogenic microflora and odors in the ash;
- Content of hazardous components in the treated gases from sludge incineration meets the RF and EU standards;
- Using the flue gas heat for hot water supply and space heating;
- Utilization of the produced steam. Possibility to generate electricity.

Today, incineration of wastewater sludge from all city WWTPs is practiced at three plants: CWWTP, SWTP, NWWTP.

7. One of the important fields of Vodokanal work is search for ash recycling technology.

In 2010, the final preparations to developing a technology of construction mate-

rial manufacturing with inclusion of ash from wastewater sludge incineration were completed.

Implementation of this technology will allow to recycle all ash from sludge incineration, thereby preventing its disposal to landfills. .

8. Vodokanal is actively implementing energy saving technologies.

In 2010, the main fields of energy saving were:

- application and implementation of energy saving technologies and equipment;
- application of energy efficient engineering solutions;
- monitoring of the plant and equipment operation.

Within this framework, the Central and Northern Wastewater Treatment Plants modernization project is being implemented with the aim to use their own renewable energy sources. This project covers construction of digesters and installation of a turbogenerator at the CWWTP SIP.

A possibility of applying heat pumps at CWWTP is being contemplated to get additional heat energy from discharged effluents.

9. Vodokanal is searching for new methods of wastewater treatment.

In 2010, survey works were carried out on Vodokanal production sites:

- to select analogous chemicals for chemical phosphate removal;
- to select optimal dosing points and chemical doses;
- to test the cutting-edge technology by which the level of sludge in tanks can be identified;
- to apply advanced technologies of treatment efficiency biomonitoring both for wastewater and the flue gases emitted into the air after sludge incineration. This technology is implemented at SWTP.

The development of sanitation management system is also worth mentioning. Implementation of this system by the Company will allow to obtain a true picture of each customer's wastewater quantity and quality. As a result, it will be possible to manage the sanitation system, i.e. maintain optimal hydraulic modes and ensure the optimal load of wastewater treatment plants.

10. Vodokanal started to assess water quality and origin of contamination of several water bodies in St. Petersburg.

That will allow to optimize the measures aimed to reduce the adverse impact of Vodokanal activities on water bodies.

This work is related to:

- the Neva River;
- the Malaya Nevka River;
- the Izhora River;
- the Suzdalskoye Lake (Upper);
- the Neva Bay and Eastern Part of Gulf of Finland.

This work will allow to assess the true condition of water bodies, investigate the reasons and identify sources of water contamination, as well as to select schemes of water quality monitoring with indication of sampling points which can give the most complete picture of a water body condition.





PATENT WORK

In 2010, Vodokanal St. Petersburg got 12 patents for inventions and useful models.

Vodokanal major policy principles in the intellectual property field are:

providing timely legal protection of intellectual activities results in compliance with the intellectual property law (in particular, technical solutions as inventions; useful models, art and design solutions as industrial samples)

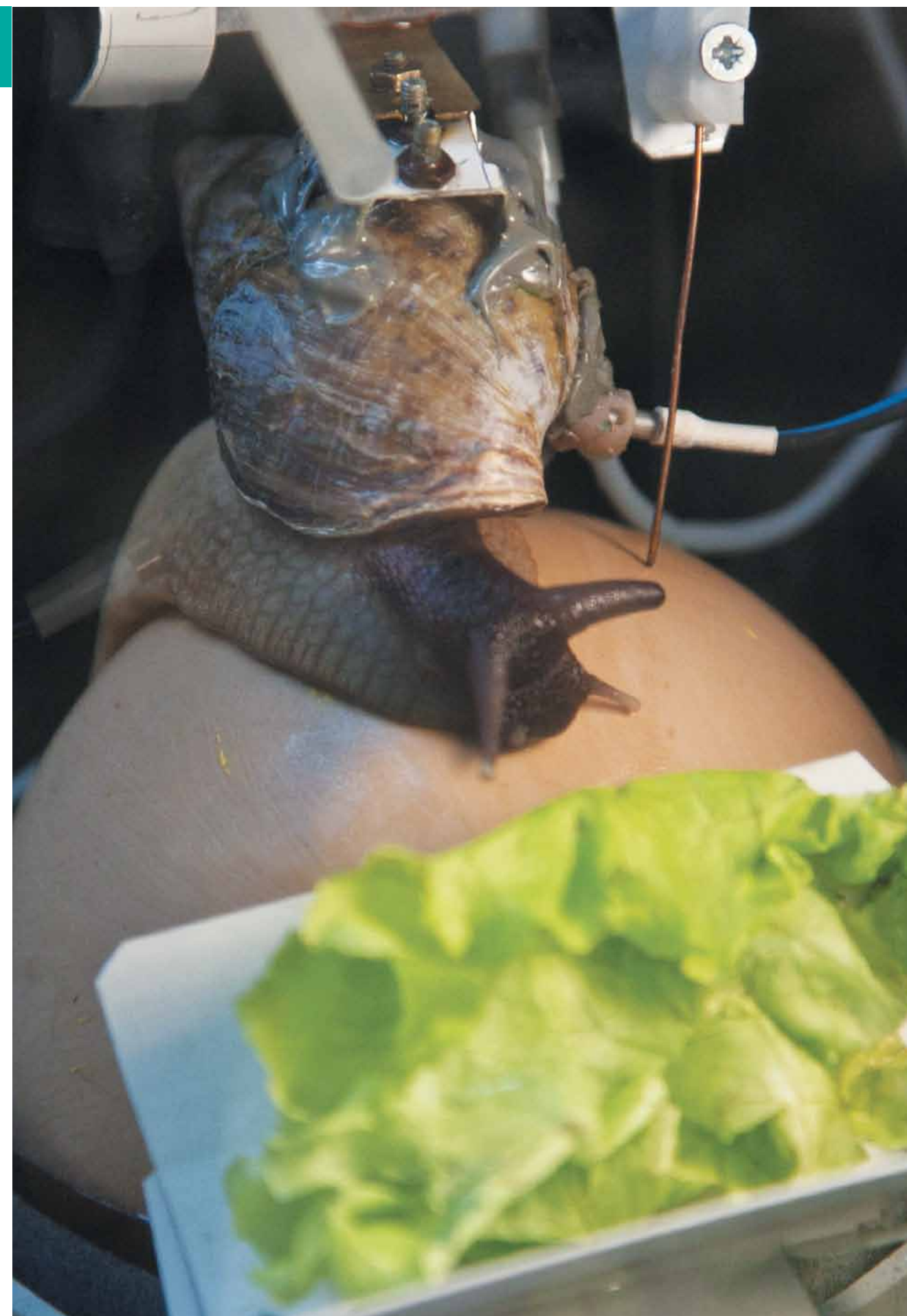
preventing the violence of company exclusive rights to intellectual property

planning and management of design and/or product development and /or services.

Among the patents received in 2010 — the patent for the invention "Method for liquid disinfection with ultraviolet and the device for its implementation", useful models "System for processing data on innovative activities in the water supply filed", "Energy consumption management system in the operation of pumping stations", "Plant for a small community to treat domestic wastewater and its sludge utilization" and others.

18 applications were prepared as well for state registration as inventions and useful models of different technical solutions.

Besides, Vodokanal annually assesses the effectiveness of intellectual property use, expenditures of Research & Development (R&D) and technical level of R&D results. Vodokanal St. Petersburg pays a lot of attention to research work aimed at creating protectable intellectual activity results.



Vodokanal has implemented a unique biomonitoring system using african snails to monitor the flue gas produced in the sludge incineration process



IT INFRASTRUCTURE DEVELOPMENT

The IT infrastructure of Vodokanal — a big, advanced industrial company — is an indispensable instrument to support its production, economic and financial activities.

Vodokanal's IT infrastructure is divided into the following levels:	
analytical superstructure — management reports	OLAP level
automation of economic/ financial and auxiliary activities	ERP level
automation of production tasks	MES level
automatic control of equipment	SCADA level

Unified information system for the automation of the company activities
The main IT development actions are aimed at the building of the Unified Information System for the Automation of the Company Activities (UIS ACA).

- UIS ACA is used for efficient management of information and processes:
- the staff at all levels receive the necessary volumes of reliable and consistent information;
 - creation of integrated information space;
 - end-to-end data exchange between the UIS ACA subsystems and other data systems of Vodokanal;
 - single input of data at the point of origin;
 - integration with other Vodokanal's information systems is possible.

In 2007-2008 the UIS ACA prototype based on 18 subsystems (over 40 software modules) was created. In December 2008, acceptance tests of the UIS ACA prototype were carried out at the Water Supply Production Unit.

- In 2010, the "Customer Service Centre" Subsystem (IS CSC) was created and put into full-scale operation as the next phase of UIS ACA implementation. The Subsystem supports the unified database of clients and their requests, authorizations, contracts with clients, meter readings, charges, billing, collection of payments and accounts receivable. **This will allow to:**
- assess potential customers' interest in Vodokanal services;
 - control the procedures of issuing authorizations and signing of contracts;
 - give the possibility for customers to obtain authorizations via the Internet using "the Personal Desk" function;
 - plan the volumes of water and sanitation services;
 - handle accounts receivable in an efficient way;
 - ensure timely and reliable accounting and reporting;
 - improve the payment collection rate.

Two data processing centres (DPC) were built and a fail-safe cluster launched on their basis in order to put the system into full-scale operation.
In 2010, the UIS ACA module "Integrated Production Planning System IS "Water Balance" was put into full-scale operation. As a result of the system implementation, Vodokanal could organize the business processes of calculating, performing and analyzing the Water Balance at a much better level. Due to that, the Company could optimize and control production volumes and consumption of chemicals, fuel

for sludge incineration and electric energy on a daily basis. IS "Water Balance" supports the whole cycle of business processes of main production management (for a one-day or longer period).
In 2010, another UIS ACA module was launched: the environmental information system to provide data about Vodokanal's untreated wastewater (direct) discharges and the customers within the sewer basins where such discharges are located.

- The IS "Direct Discharges" makes calculations and issues data reports on:
- direct discharges of domestic sewage, combined sewage and stormwater; and
 - masses of pollutants discharged with untreated wastewater.
- Statistical reports and reports on effluent quality analyses can be tied to direct discharges, water bodies or customers.

The automated system for acquisition, processing, storage and transfer of measured data from Vodokanal's customers' metering instruments was put in operation in Uritskaya zone. The system supports remote reading of individual water meters installed on the consumer side. The meter readings are used by IS CSC to credit charges automatically, and by IS "Water Balance" — to calculate daily and monthly balances of potable water supply and sales.
Despite the implementation of UIS ACA, some specific tasks of Vodokanal will be solved by means of special-purpose information systems, such as the integrated management / financial accounting system "Everest", the information system "Hot Line", the integrated centralized control system and the automated electricity metering system.

Information system "Hot Line"
The information system "Hot Line" was put into operation in 2006.

The system was implemented in 10 phases within one year.
Nearly 70,000 applications from the citizens collected over the previous 5 years were entered into the system.
Workstations of operators, dispatchers and mobile teams' engineers were automated in 7 area divisions of Vodokanal.



In 2010, the UIS ACA module "Integrated Production Planning System IS "Water Balance" was put into full-scale operation. As a result of the system implementation, Vodokanal could organize the business processes of calculating, performing and analyzing the Water Balance at a much better level



Eighteen standardized directories of different categories (application type, area of responsibility, reason, location of defect, etc.) were built to facilitate the work of operators. The directories help identify – at the time of registration – whether the application has been received more than once.
IS “Hot Line” comprises 9 subsystems, each designed for a specific set of tasks. All in all, over 200 workstations have been automated.

IS “Hot Line” helped solve the following city-specific tasks:

- to create an integrated database of the citizen’s complaints and calls
- to ensure proper accounting and reporting
- to coordinate the activities of Vodokanal’s departments and to establish the contacts with the municipal service agencies
- to organize systematic analysis of the citizens’ complaints / applications in order to recommend preventive measures
- to create a unified source of consultation and reference information on all matters in relation to municipal housing and public utilities services

Integration with the city address database is achieved to ensure quick full-scale search of the applicant’s address in the area where any breakdown or planned interruption of water supply occurred.

The system development plan covers the following targets:

- automation of planned maintenance management;
- implementation of the corporate on-line reporting system;
- integration with other city information systems (city information system “004”, etc.).



Integrated system of centralized control
Vodokanal has set up the UDS (Unified Data Storage)-based Integrated System of Centralized Control to improve accessibility and reliability of process information, to structure the latter by the control levels and, consequently, to accelerate and improve the process of managerial decision-making.

Main functions of the system:

- automatic collection of process data arriving via different communication channels
- continuous monitoring of conditions and operating regimes on all process facilities
- on-line provision of reliable, real-time data to the company managers and specialists for them to take reasonable managerial decisions
- long-term secure storage of data in the UDS during several years
- integration with other information systems at the data exchange level
- standard unified data access for the company managers and specialists
- processing and analysis of process parameter values according to the approved algorithms
- automated reporting

Main advantages of the system:

- creation of a unified protected information space in the company’s process network by integrating segregated local process control systems
- easy-to-use due to the unified process visualization system. No need to have several displays
- possibility to trace – from the company administration’s centralized control room or from the branches’ control rooms – each specific process parameter or group of parameters at any production facilities in real time
- possibility to incorporate an alert subsystem to send a warning if selected parameter values exceed the preset limits;
- possibility of remote on-line control of equipment in emergency situations according to the approved operating rules
- remote pickup of the meter readings, processing of archives, less manual work to record the meter readings
- analysis of emergency situations within different periods of time
- primary on-line diagnostics of process equipment faults

Automated system for commercial and technical metering of electric energy
The Automated Electricity Information /Commercial Metering System (AEICMS) is designed to measure the active and reactive electric energy and power consumed or supplied by Vodokanal (bound to universal astronomical time) and to display, store, process and transfer the measurement data.

- The system supports the following functions:
- measurement of active/ reactive electric energy;

measurement of 15-minute increments of active / reactive energy;

automated collection of measured data with the binding to universal astronomical time;

automated storage of measured values in the protected special-purpose database;

automated transfer of measurement results and condition of facilities and measurement instruments to higher levels (to the organizations — actors of the wholesale electricity market);

automated recording and monitoring of events.

- By implementing AEICMS Vodokanal could:
- improve the accuracy of electric energy metering;
 - reduce power consumption in peak hours;
 - automate data collection, transfer and processing;
 - provide on-line access to electricity consumption data at remote facilities;
 - make payments to the electricity supplier according to differential tariffs;
 - provide required volumes of reliable information to the employees at all levels.

Due to AEICMS Vodokanal could make more lucrative contracts with the electricity supplier and, consequently, cut down its electricity costs in terms of money.

- Corporate digital department integration network**
In 2010, the Corporate Digital Department Integration Network (CDDIN) was upgraded under the Information Infrastructure Development Concept of Vodokanal:
- Twelve company units were added to the unified network.
 - 800 new SCS ports were installed.
 - Over 4.5km of optic fibre trunk lines were laid.
 - Videoconferencing system for 200 users was put into full-scale operation. Due to this system, managers can participate in briefings without leaving their work stations.
 - An alternate command station (ACS) for company management is constructed at South-West WWTP. The ACS has all equipment required for the operation of Civil Defense and Extra-Ordinary Situations team, including the multi-channel audio/video conferencing system and computer-based workstations for on-line company management.



A water supply management system is created in the service zone of Uritskaya Pumping Station.



SOCIAL RESPONSIBILITY

AWARENESS BUILDING

Undertaking its mission, Vodokanal places special emphasis on developing careful and responsible attitude towards water resources and environment in general.

The recent years' stable trend towards reduction of water consumption is, in particular, the result of Vodokanal's awareness building efforts.

For the purpose of disseminating the culture of water use and developing environmental thinking Vodokanal widely cooperates with the mass media

In 2010, the Internet-portal www.da-voda.com, targeted for the active part of Internet community was launched with the support of Vodokanal. This portal contains different videoclips, films, animated cartoons and texts about water and its role in the human life explaining why we should handle water resources with care and attention. At the end of 2010, the portal www.da-voda.com won the national Runet award in the nomination "Health and Recreation".

The key instruments of the Company's awareness building activities are the Youth Environmental Centre (YEC) and "The Universe of Water" museum complex — both being part of the Information and Training Centre branch.

Youth Environmental Centre

The Youth Environmental Centre was established in 2002, and many hundred thousand children and teenagers have participated in its training sessions, programs and projects since then.

The main goal of YEC is to disseminate ideas about the importance of environment and water protection using effective methods of environmental education and awareness raising, and to familiarize the younger generation with Vodokanal activities, its social and environmental policies and role in the city development.

Due to advanced approaches, interesting design and up-to-date content, the projects can be implemented in partnership with different Russian and international organizations.

Many high-ranking guests have visited the YEC and learnt about its activities, among them: His Royal Highness Prince of Wales Charles, His Royal Highness Prince of Denmark Joachim, Her Royal Highness Princess of Denmark Mary, President of Finland Tarja Halonen, Consuls of many countries, members of the Government of the Russian Federation and representatives of Russian and international companies.

In 2010, the Youth Environmental Centre put an emphasis on sustainable water use, energy efficiency and climate change — the world's most burning themes which are in a special focus of Vodokanal.

In particular, the YEC was a co-organizer and participant of the Scientific and Practical Conference in the framework of VI Environmental Festival "We Speak FOR Resource Saving".

In 2010, the YEC was partner of 14th UN Model Youth Conference dedicated to water challenges (it was an international educational project for high school students).

The project "One Drop Saves Another" was implemented under the "The Young Think of the Baltic Sea" Program, where school students made their own research in the field of sustainable water use: made water audits in their flats and gave "clean water lessons" to their parents.

In 2010, the contest of comic magazines and animated videos "United by Water" was finalized. The videos can be found on Vodokanal's corporate website (section "Videoarchive").

In the period 29 June — 4 July, the Russian-Finnish youth camp was organized under "Water. Russia. Finland. Outlook of the Young" project. The YEC

was one of the project organizers. Environmental programs were offered for the children spending their holidays in Zvezdny recreation camp near the town of Luga.

The YEC specialists participated in the family festival "Water and Ourselves" in the framework of the Second International Clean Water Forum (October 2010).

The teacher's recommendations for the Water Lesson developed by the YEC were posted on the International Clean Water Forum website to be used by teachers for the all-Russian Water Lesson.

All in all, the YEC implemented 21 projects in 2010, where over 18,000 children and nearly 1,600 teachers participated.

In 2010, a large-scale renovation of educational environment in the YEC interactive rooms began.

Museum Complex "The Universe of Water"

In 2010, The Universe of Water was visited by 202,408 people. It is 5.5% more than in 2009 (then 191,733 people came to see the museum collections).

The Universe of Water museum complex in 56, Shpalernaya st. is an open





social project of SUE "Vodokanal of St. Petersburg". It provides visualization of the company mission and values by means of special museum techniques. The museum complex not only offers a full picture of the man's views of water and its properties, but also shows the history of St. Petersburg, the city where water is a city-forming essence and the source of scientific, engineering and cultural achievements rather than just something that is used for household or industrial needs.

The exhibition in the Water Tower was opened in 2003 — it was Vodokanal's present on the occasion of the 300th anniversary of St. Petersburg. In 2006, at the International Forum of European museums in Portugal, Vodokanal's museum was highly commended "for big achievements in raising the social value of museum exhibition".

The former clean water reservoir was transformed into The Universe of Water museum in 2008 when Vodokanal St. Petersburg celebrated its 150th anniversary.

The museum complex comprises three exhibitions:

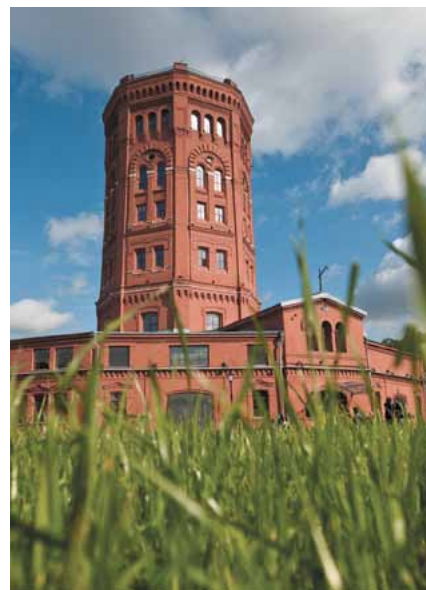
**Multimedia exhibition
"The Universe of Water"
(in the former underground clean
water reservoir).**

It is a unique storage of modern water knowledge. The exhibition is based on multimedia technologies, stereo effects and textual explanations. Over three dozen videofilms disclosing various aspects of the water element are demonstrated here.



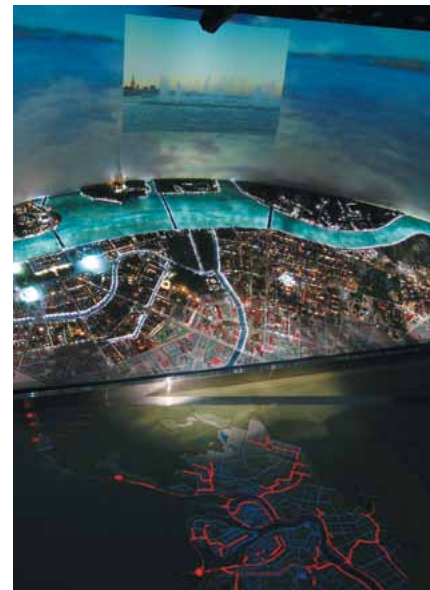
**Classical museum exhibition
"The Water World of St. Petersburg"
(in the old water tower).**

The exhibits — documents, pictures, objects, collections of sanitary equipment and hatches — show the history of water supply and sewerage origination and development.



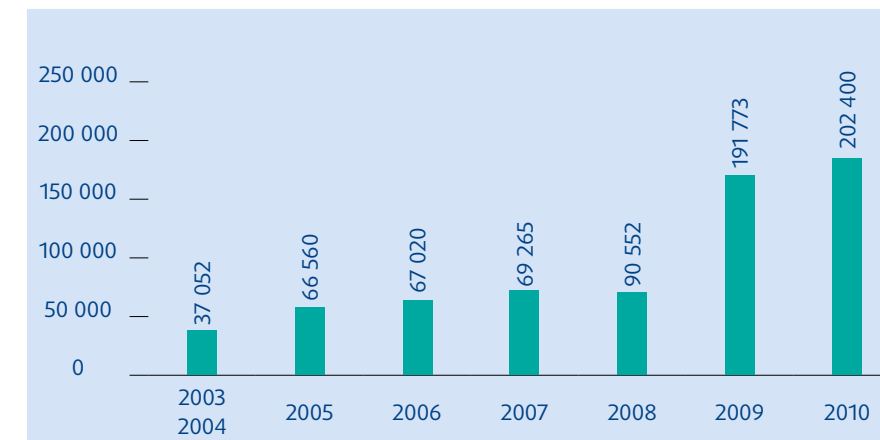
**Multimedia exhibition
"The Underground World of
St. Petersburg" (in the left annex
to the Water Tower).**

Visitors can trace the route of water from the intake to treatment plants, then to the flats via distribution networks and back to the treatment plants. Here, they can also look at a gigantic model of the historical centre of St. Petersburg. The model was produced by the Institute of Architecture to Vodokanal's order.



The Water Universe offers novel interactive programs for visitors of different age groups. Various awareness-raising interactive excursion programs are developed for pre-schoolers and school students by which they can learn about historical and cultural relations between man and water. General and thematic excursions are offered for students and adults.

Visitors of the museum complex (number of persons)

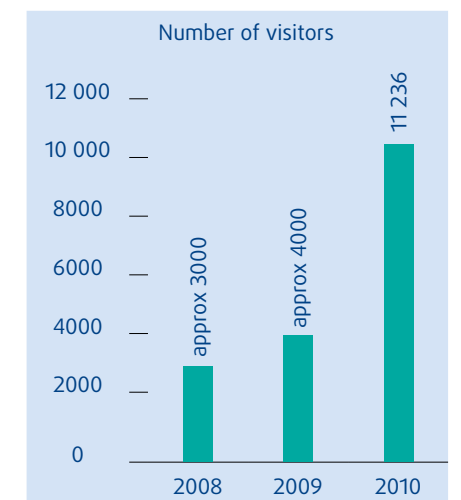


In 2010, The Universe of Water was visited by over 202,000 people. Although the floor area of the museum complex is not very big, this museum outperforms, in terms of the number of visitors, many similar European museums, such as Water Museum in Lisbon, Municipal Sewerage Museum in Paris, Waterworks Museum in Prague and Water Information Centre in Kiev.

Following the tradition, The Universe of Water took part in the international "Night of Museums" event in 2010. The result was record-breaking: over 11,000 people came to see the museum complex.



Visitors of "the Night of Museums" event (number of persons)





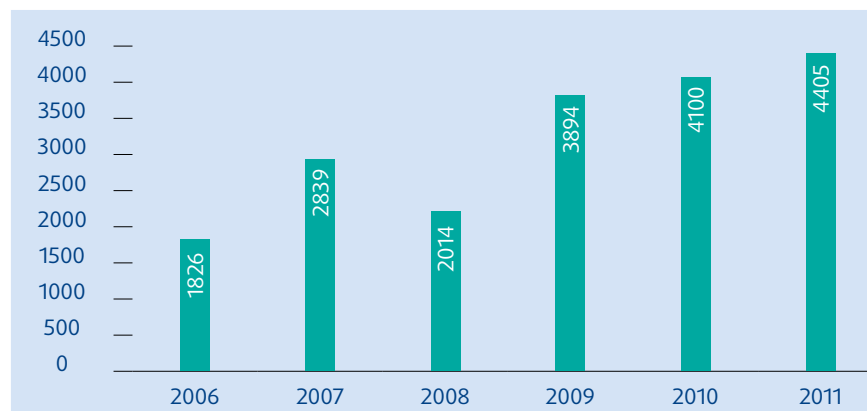
In 2010, The Universe of Water participated in the city festival of children's museum programs "Children Museum Days in St. Petersburg". The outcome was successful: the museum complex was visited by nearly 18,000 people.

According to tradition, the Information & Training Centre in 56, Shpalernaya st. hosted the Knowledge Festival of the city school students on September 1, 2010.

At the International Water Forum Equatech-2010 (June 2010, Moscow) the personnel of The Universe of Water together with their colleagues from the Youth Environmental Centre presented special interactive programs for schoolchildren from Moscow, Tver and Kaluga. Moreover, interactive programs were prepared for III International Tea and Coffee Festival (August 2010) and the Second International Clean Water Forum (October 2010).

In late December 2010, the museum complex gave 53 interactive New Year performances for the city school students and the children of Vodokanal employees. All in all, 4405 children came to the New Year performances.

Participation in the New Year performances (number of people)



In 2010, four concerts in the framework of the Water Music Art Festival (this joint project of Vodokanal and the international musical festival "Palaces of St. Petersburg" began in autumn 2009) were hosted by the museum complex (in the former clean water reservoir).





ENVIRONMENT PROTECTION AND SAFETY

Environment protection

Improvement of the ecological state of water bodies and the environment in general is one of the strategic goals of SUE "Vodokanal of St. Petersburg".

In 2003, Vodokanal approved the Environmental policy of the Company.

In 2008, the Environmental policy was updated (since the commitments specified therein were fulfilled to a large extent).

The environmental management system in accordance with Standard ISO-14001 is applied in Vodokanal.

In addition to the commitments in relation to protection of regional water bodies from wastewater pollution, reduction of drinking water losses during production and distribution, closure of untreated flushing water discharges, compliance with environmental laws, etc. it is specially stressed in the Environmental policy that the training of the younger generation in interacting with the environment is the key focus of the awareness-raising activities of SUE "Vodokanal of Saint-Petersburg".

Vodokanal activities to protect the environment include reduction of environmental load on the water bodies in St. Petersburg, Gulf of Finland and Baltic Sea; reducing the area of land used as landfills for wastewater sludge storage; implementation of sustainable technologies.

In 2010, Vodokanal worked hard in these fields.

Under the untreated wastewater discharge closure program, Vodokanal completed another phase of the extension of the Main sewerage collector in the Northern part of the city and connected 12 direct discharges to it. As a result, the wastewater treatment level in St. Petersburg reached 93% (in 2009 this figure was about 90%).

The improvement of wastewater treatment technologies continued, including implementation of enhanced nutrient (nitrogen and phosphorus) removal.

Preventing pollution of the Baltic Sea basin is an urgent environmental issue

for all the countries in this region. Nitrogen and phosphorus in municipal wastewater lead to eutrophication of water bodies, i.e. the growth of blue – green algae. As a result of eutrophication, flora and fauna in the water bodies suffers and water can become unusable.

Due to the global character of the eutrophication problem, the Baltic Sea countries have taken a decision to join their forces and save the marine environment together. The Helsinki Commission on the Baltic Marine Environment Protection (HELCOM) approved the treatment quality parameters for nutrients: nitrogen and phosphorus, to be met by all countries in the region. Vodokanal follows these recommendations in its work.

In 2010, at Vodokanal wastewater treatment plants, the results in the nitrogen and phosphorus removal field were achieved that are close to the HELCOM recommendations, and sometimes surpass them.

Finnish environmentalists have already noted the results achieved: according to their observations, in summer 2010, in the Eastern part of the Baltic Sea the number of blue – green algae reduced in comparison with previous years. The Finnish experts attribute it to the high wastewater treatment level in St. Petersburg.

Tarja Halonen, President of Finland, called the improvements in wastewater treatment in St. Petersburg "the achievement of the world class" during her meeting with Dmitry Medvedev, Russian President in November 2010.

In 2010, Vodokanal worked on a project to treat wastewater sludge stockpiled at landfills, to reduce the negative landfill impact on the natural environment. As a result, 7,9% of the total volume of sludge stockpiled at landfills was treated using the method for stationary dewatering in geotubes..

One of the environmental projects launched in 2010 was biomonitoring of flue gases from the sludge incineration plant at South-West Wastewater Treatment Plant by means of snails.

Considerable attention was paid to the implementation of sustainable technologies.

In particular, at the new block of Southern Water Treatment Plant the closed cycle of flush water (i.e. water that is used for filter backwashing) is implemented. Before that, flush water was discharged into water bodies.

Implementation of the water supply management system in the Uritskaya pumping station zone allowed to save about 40% of electric energy.

The operation of sludge incineration plants reduces the need to purchase energy – heat and electricity generated in the incineration process are used by Vodokanal for its auxiliary needs.





Indicators of pollutant discharges entering into water bodies in St. Petersburg

Indicator	Measurement units	2006	2007	2008	2009	2010
Flow of wastewater discharged through public sewerage systems into water bodies.	Mio.m³/year	1,026.1	1,023.6	1,034.6	970.4	952.1
Mass of suspended solids discharged into water bodies	t/year	20,535.0	19,418	21,845.4	15,826.9	14,120.8
Mass of BOD discharged into water bodies	t/year	26,860.2	26,074.3	28,627.3	18,718.2	17,678
Mass of total nitrogen discharged into water bodies,	t/year	11,282.1	11,037.3	11,048.2	10,729.6	10,003
Mass of total phosphorus discharged into water bodies	t/year	1,576.7	1,269.7	1,177.8	760	677.7

Labour safety

Vodokanal’s Occupational Health & Safety Management System created in accordance with the requirements of the international standard OHSAS 18001 and applicable Russian law guarantees that identified risks are under the control of the company.

The main purpose of company’s occupational health and safety policy (approved in 2008) is the creation of necessary conditions at workplaces to achieve high performance results, the complexity of production, the diversity of applied technologies and machinery being taken into account.

Employees of SUE “Vodokanal of Saint-Petersburg” and all stakeholders (contractors, visitors) are informed about the Company’s occupational health and safety policy.

The goals declared in the Policy were successfully reached in 2010.

The effective operation of OHSAS at SUE “Vodokanal of Saint-Petersburg” provides as well employee’s health safety management. Programs for disease prevention and health improvement of employees, monitoring of working conditions and health of employees as well

as monitoring of efficiency of the measures taken have become an important element of OHSAS. The monitoring system includes:

- monitoring of working environment (assessment of sanitary and hygienic working conditions, organization of labour and social and psychological factors at work);
- monitoring of health status of employees (health survey for the detection of early signs of diseases, biological monitoring, polling of employees).

The international audit carried out in June, 2010 confirmed that OHSAS at SUE “Vodokanal of Saint-Petersburg” operates in compliance with the requirements of OHSAS 18001-2007.

In 2010, in order to ensure safe working conditions, 1286 work places were certified for working conditions in the Vodokanal structural subdivisions. On the basis of certification results, action plans to improve working conditions (ensuring safe working conditions) of the Company structural subdivisions employees. Over the review period upon work place certification results, 153 actions were carried out to improve safe working conditions for Company

employees. During 2010, regular checks to meet labour safety requirements were carried out in subdivisions. Over the review period, 577 violations of health and occupational safety requirements were corrected.

During 2010, SUE “Vodokanal of Saint-Petersburg” has carried out as part of the Occupational Health & Safety Management System the following activities:

- working conditions at six company production facilities are improved due to the introduction of new, safe practices and advanced technologies ensuring reliable and failure-free operation reducing the rate of injuries and professional diseases;
- monitoring of assessment of safe working conditions at 1286 workplaces is organized and carried out based on instrumental measurements of hazardous and harmful production factors;
- 100% of employees have personal protective equipment;
- training and knowledge testing of 6780 company employees in occupational health and safety is carried out.

Injury dynamics by years:



- Injury prevention allowed to ensure the following indicators in the Company:
- the number of insurance events per 1000 employees: Vodokanal’s average is 0.74; industry average is 1.23;
 - the number of days of temporary disability per one insurance event: Vodokanal’s average is 23.5; industry average is 67.69.



PERSONNEL POLICY

The staff of Vodokanal numbered 8,598 people as of 31.12.2010.

37% of Vodokanal employees have higher, or incomplete higher education.

The employee turnover in Vodokanal was 7.21% according the 2010 results.

In January-March 2010, Vodokanal St.Petersburg revised its personnel management policy.

The policy goal is to provide a quality formation, rational and effective use of human resources to increase the Company performance and consumer satisfaction. The distinctive aspect of this policy is the establishment (in addition to the basic policy areas) of the basic principles in the personnel management field, which reflect the system approach.

In 2010, the basic personnel management processes were described and personnel services functions were standardized as well.

Benchmarking is organized and conducted in the personnel management field among the best representatives of Russia and Europe.

During these studies the best technologies in the personnel management field are selected, which then will be implemented in the Company.

Adaptation and tutorship

An important area of work with the personnel is to provide fast adaptation of the newly employed by Vodokanal for their professional development, optimization of entering a student into the Company social environment.

Tutorship procedure is applied to young company workers, as well as trainees — students of vocational educational institutions. Adaptation is organized for all newly employed workers. The hand on training and adaptation process is conducted in accordance with an individual plan, which the tutor develops taking into account the education and specialized training of a young worker.

In 2010, 1794 persons went through adaptation procedures.

In 2010, the good Company tradition to hold "Welcome to Vodokanal" celebrations for new employees appeared.

Personnel satisfaction survey

In 2010, the personnel satisfaction survey was made based on the satisfaction index analysis, loyalty and commitment. 10-score system for personnel satisfaction indices was introduced.

Questioning revealed a high degree of employee commitment, satisfaction with work in the team and immediate supervisor.

Based upon the results of conducted studies action plans, which are aimed at increasing personnel satisfaction, are made and major plans of work with personnel are adjusted.

Management of personnel recruitment and selection

Personnel selection is conducted both on internal and external labour markets in compliance with the Company standard "Labour market survey" and "Recruitment of new employees". Personnel selection is made on the basis of applications executed by heads of subdivisions. The application includes selection criteria for applicants for a vacancy — job specifications. To close vacancies, first, employees from the Company personnel reserve are selected. The internal labour market is

established to search and select employees, which is supported by an internal information system.

When searching and selecting personnel from the external labour market up-to-date personnel technologies are applied: Internet-resources, specialized publications, employment services, interviews, case studies, a comprehensive assessment and psychological diagnostics of applicants.

Personnel development

Personnel development management is made through competence management based on individual development plans.

Competence models are made and indicators of position effectiveness are selected for the personnel reserve positions, which were assessed in 2010.

Work with the Company personnel reserve is carried out in compliance with the standard "Work with personnel reserve".

At present, Company "key positions" are selected. Current personnel reserve is identified, which includes employees who act for the supervisors during their absence, as well as prospective personnel reserve, which includes specialists and chiefs for certain "key positions". Besides, a Group of talents is sorted out of the personnel reserve, which includes employees with the highest development potential.

Working stages: promotion — self-assessment and assessment based on competences and key position indicators — feedback — making a career plan — making an individual development plan — setting goals and indicators of goal achievement.

Personnel reserve provides personnel security of the Company, continuity of management and reduces the risk of losing control over the Company in the transitional period of changing the Company general management.

The external personnel reserve from the best graduates is being created.





Personnel training

Vodokanal established the continuous training system "From Worker to Manager". The system aims at personnel development and accumulation and generalization of scientific knowledge and practical results.

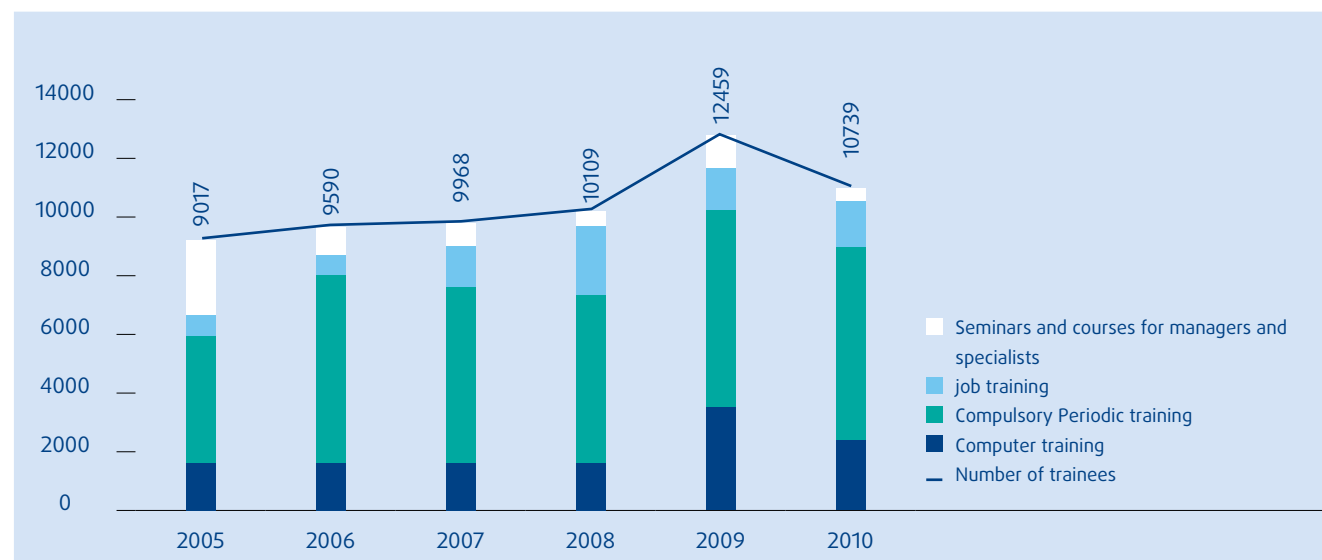
Continuous staff training is based on the training chain: compulsory training — training to maintain professional competence — development training.

The training is based on the thematic curriculum made in consideration of the company need for competent personnel and according to the assessment of the personnel training requirements, a survey of the personnel satisfaction and individual development plans.

The thematic curriculum is used as a basis for development of training programs and teacher's books, improvement of training facilities, involvement of external educational organizations, preparation of time schedules and training programs.

In 2010, 10,739 trainees participated in the training programs (Vodokanal employees may take several programs in one year).

Distribution of Trainees by areas of learning



In 2010, 1171 Company employees were trained. The training was related to vocational preparation, retraining and refresher courses for blue collar jobs. 2688 trainees took part in corporate programs of computer and communicative literacy. 284 people took seminars and refresher courses for managers and specialists.

Training activities are being implemented in several areas: its own curricula, third party training organizations, cooperation with institutions of science and higher education and partner educational projects.

Over the past few years, we significantly increased the number of programs aimed at the study of new water and sanitation technologies, best practice, new software products and implementation of innovative training methods (simulator training, computerized training courses).

On average, based on the results of 2010, 43.9 hours were spent for one Vodokanal employee. It is significantly above the average indices in Russia.

Professional skills contests

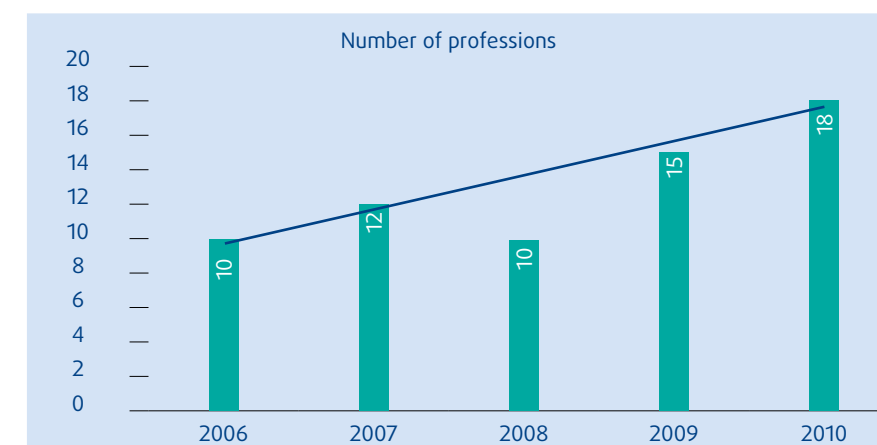
Vodokanal's training activities are supplemented by professional skills contests.

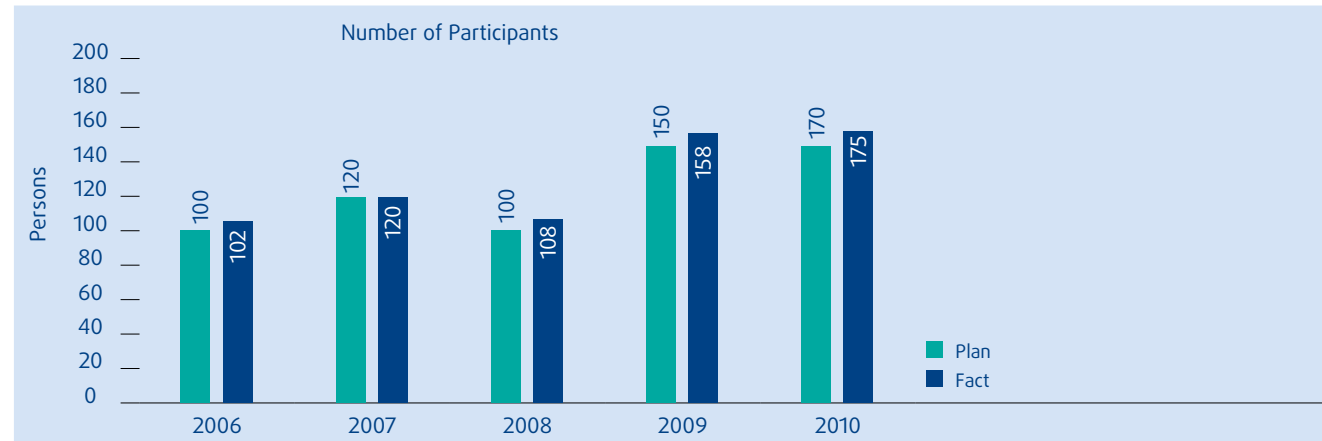
Basically, Vodokanal's professional skills contests for "Best Professional" title are aimed to:

- identify high-qualified specialists, motivate the employees to raise the efficiency of their work using moral and material incentives;
- disseminate the knowledge and raise the prestige of blue-collar professions, develop tutorship;
- prevent fluctuation of production staff, stabilize labor relations;
- improve work quality, disseminate advanced methods and techniques, raise labor productivity;
- improve the knowledge of the Occupational Health and Safety Rules.

In 2010, eighteen final "Best Professional" Contests for 175 specialists were held. Among them: chemical analysis laboratory assistants (water and sanitation), pump operators (water and sanitation), electricians, medical nurses, emergency repair metalworkers (water and sanitation), autocrane and excavator operators, drivers, mechanical technicians, instrumentation repairmen, auditors of EMS and QMS, field engineers (water and sanitation), electric gas welders, health and safety engineers.

Dynamic of participation in professional skills Contests





In 2010, 41 Vodokanal workers took part in the interregional and inter-sectoral contest "Stroymaster" among blue collar jobs in St. Petersburg and Leningrad region. Vodokanal representatives took first places in the nominations "Best electrician on electric equipment repairs and maintenance", "Best metalworker", "Best team of emergency repair metalworkers' (sanitation)", "Best team of emergency repair metalworkers' (water)", "Golden Hands Master".

Corporate media

Since 1999, Vodokanal has been publishing its corporate newspaper "Vodokanal News". The newspaper is published 10 times a year with circulation of 4000 copies. In 2010, several "direct lines" with representatives of the Company management were organized: Director General, Director of Medical Centre and Director of Centre of Social and Economical Programs Development answered the employees' questions on newspaper pages.

In 2010, a special insert was released dedicated to the 65th anniversary of Victory in Great Patriotic War.

In electronic form the newspaper is placed on the company corporate website (www.vodokanal.spb.ru).

In 2010, the website itself won the competition "Best Corporate Media of the Year" in the nomination "Electronic Media. Internet-Portal".

In 2010, a website of the museum complex "The Universe of Water" was launched (www.vodokanal-museum.ru).





SOCIAL POLICY

Social policy of Vodokanal St. Petersburg is a part of personnel management and has a special place in the employee motivation development, improving their self-expression in work.

Mechanisms of social support to employees, their families, and retired pensioners are continuously improved in Vodokanal St. Petersburg, particularly by means of providing employees with quality medical services and creating conditions for their good recreation and health improvement.

In 2010, the Collective Agreement update continued. A new Collective Agreement came into force on 1 January 2011 and will be effective up to 2013 inclusive. During the work on a new edit of the collective agreement local regulations were updated, amendments and additions are made.

The main programs of Vodokanal's social policy:

- Social protection program and targeted material assistance
- Recognition of achievements of the employees
- Medical support of the employees
- Recreation programs for employees and their families

- Arrangement of mass and cultural, sporting and corporate events
- Provision of catering and transport

Social protection program and targeted material assistance

In accordance with the Collective Agreement of SUE "Vodokanal of St. Petersburg" the following payments were made in 2010:

- Lump-sum benefit to retiring employees; to employees who reached jubilee age; as well as for an uninterrupted service in the Company;
- monthly targeted material assistance to veterans of the Great Patriotic War (former Company employees), payments to the war veterans on the occasion of the Full Lifting of Leningrad Siege and the Victory day, payments to the citizens of besieged Leningrad, to Nazi camp prisoners (former Company employees);
- quarterly targeted material assistance to retired employees (former Company employees);
- financial assistance for medical treat-



- ment, in case of damage caused by fire, natural disaster, theft etc.
- payments for childbirth
- payments after death of a relative
- payments to employees, who worked for the Company prior to a recruitment into the Armed Forces of the Russian Federation and were newly employed

Recognition of employees' achievements

Awarding the title "Labour Veteran of Vodokanal of St. Petersburg"

In 2010 the Company held two ceremonies of awarding the title "Labour Veteran of Vodokanal of St. Petersburg". This title is awarded to the employees who have had 20 years or more of uninterrupted work experience in the Company (in exceptional cases not less than 10 years, taking into account the employee's particular contribution). The awarding of the title is accompanied by presenting with a special badge and paying a money reward.

In 2010 113 employees were awarded the title "Labour Veteran of Vodokanal of St. Petersburg".

Awarding the title "Honorary Employee of Vodokanal of St. Petersburg"

The title is awarded by recommendation of managers and groups of staff to the Company's employees as well as to other persons who have made a considerable contribution to development of water supply and sewerage system of St. Petersburg. The title of "Honorary Employee of Vodokanal of St. Petersburg" can be awarded for development, mastering and implementation of modern equipment and cutting-edge technologies, implementation of the labour management types and methods yielding considerable economic effect, promotion of a positive Company image in Russia and abroad, tutorship, promotion of the Company's corporate culture and high professional competence.

Awarding of the title is accompanied by

presenting the employee with a special badge "Honorary Employee of Vodokanal of St. Petersburg", by issuing a certificate, making an appropriate entry in the employee's work record and by paying a monetary reward to the employee.

An honorary employee has a right to obtain a free voucher to sanatorium "Burevestnik" for a health-improving vacation and sanatorium-and-spa treatment. The award ceremony for the title "Honorary Employee of Vodokanal of St. Petersburg" took place once in 2010 and was timed to the Company's anniversary. 6 employees were awarded this title in 2010.

Organization of medical care

Vodokanal's social policy in terms of provision of medical care to its employees is based on a package of services aimed at health protection, disease prevention, provision of timely and high-quality medical aid, modern and high-technological treatment methods. SUE "Vodokanal of St. Petersburg" comprises a Medical Center as its branch. Its structural units provide a multilevel medical care system for the Company's employees.

It consists of the following facilities:

- Medical units in Company branches
- Medical unit dental rooms
- Diagnostic and Treatment Center (two sites: 42 Kavalergardskaya St. and 103 Moskovsky Av.)
- Dental Clinic (56 Shpalernaya St.)
- Specialized mobile medical complex (fluorography)
- Medical unit of sanatorium "Burevestnik".

All departments of the Branch are licensed to provide medical services. The total of 8 licenses have been obtained, including 7 licenses for medical works (services) and 1 license for laboratory research. The general list includes 65 different medical services. Medical con-





sulting is provided by professional and teaching staff of medical research institutes and medical educational establishments of St. Petersburg. The Medical Center employs 15 Doctors of Medicine, 59 doctors, 65 nurses and radiographers of the highest category.

The following tasks are set for medical care management:

- Carrying out of treatment and prevention activities for the Company's employees, introduction of new healthcare services, implementation of state-of-the-art diagnostics, treatment and prevention methods.
- Provision of qualified and specialized medical aid to the Company's employees in the framework of Compulsory Health Insurance (CHI) and Voluntary Health Insurance (VHI), provision of full range of services in outpatient and dental clinics, provision of preventive treatment and rehabilitation.
- Carrying out of regular medical check-ups and case follow-up for the Company's employees.
- Carrying out of mandatory health examinations of employment candidates and regular health examinations of the employees exposed to adverse or hazardous working conditions; early detection of occupational diseases' symptoms; planning follow-up activities to monitor the Company's employees' health in the conditions of occupational factors' influence; diagnosing occupational and common diseases' primary symptoms as a result of carrying out of regular medical examinations; supervision of regular examinations.
- Carrying out of anti-epidemiological preventive treatment, vaccination of employees in accordance with the Company's scope of activities and against seasonal infectious diseases.
- Carrying out of temporary disability examinations of employees, working out a complex of rehabilitation activities.

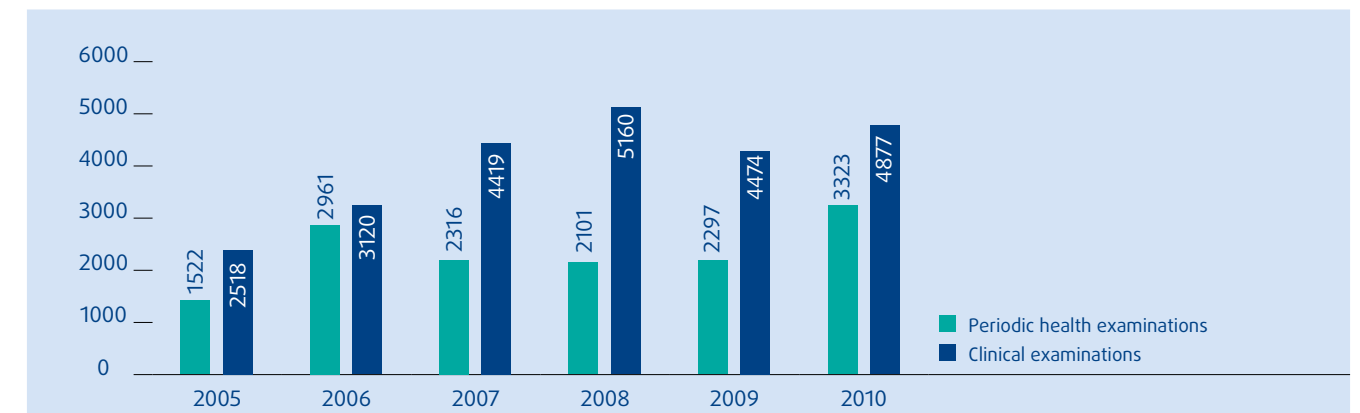
Medical aid is provided to Vodokanal's employees on the basis of compulsory health insurance (CHI) and voluntary health insurance (VHI). The Company's employees have access to high-technology medical examination methods, such as CT, MRI, expert class US, endoscopy, laboratory research of all degrees of complexity, specialist consultations on all aspects of outpatient medical aid.

In 2009 – 2010 there was carried out a transfer to clinical examinations of patients



with chronic diseases. For other categories of patients (healthy and apparently healthy patients) clinical examinations are carried out every 2 – 3 years, which provides additional resources to offer medical services to the city population.

Coverage of Vodokanal's employees with clinical and periodic health examinations (number of patients)



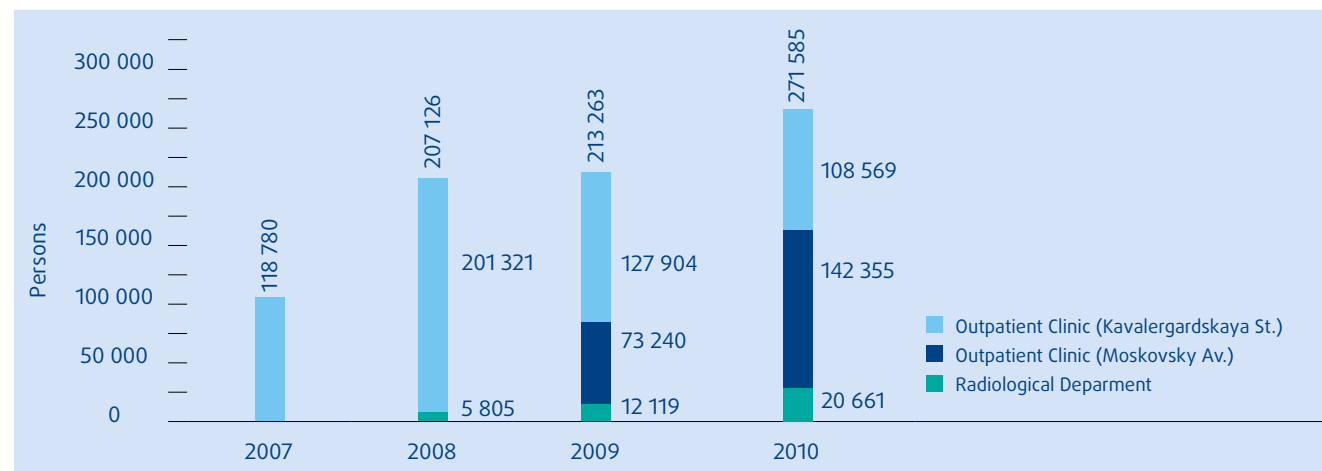
Currently the Diagnostic and Treatment Center is a well-equipped facility, aimed at providing medical aid to the Company's employees, their family members, Vodokanal's veterans and the city population.

Commissioning of a new building of the Diagnostic and Treatment Center at 103 Moskovsky Av. in 2008 allowed to implement new high-technological methods of medical examination and treatment on the basis of state-of-the-art MRI and CT equipment, to introduce innovative rehabilitation methods, provided new opportunities which had previously been unavailable. In the period between 2007 and 2010 it allowed to achieve a 2.5 times increase in the amount of outpatient medical services.





Dynamics of medical services, provided by the Diagnostic and Treatment Center (DTC)



The doctors' surgeries in the DTC are provided with equipment and supplies in accordance with contemporary medical requirements. So, the DTC of SUE "Vodokanal of St. Petersburg" ranges with the top-level outpatient clinics of St. Petersburg. During its operation the Medical Center has carried out health examination of all Vodokanal's employees. An advanced health examination helped to diagnose acute and chronic diseases, as well as the risk factors which can lead to diseases. The employees diagnosed with diseases and risk factors are registered for follow-up care, they go through preventive treatment and receive consultations on improving their health.

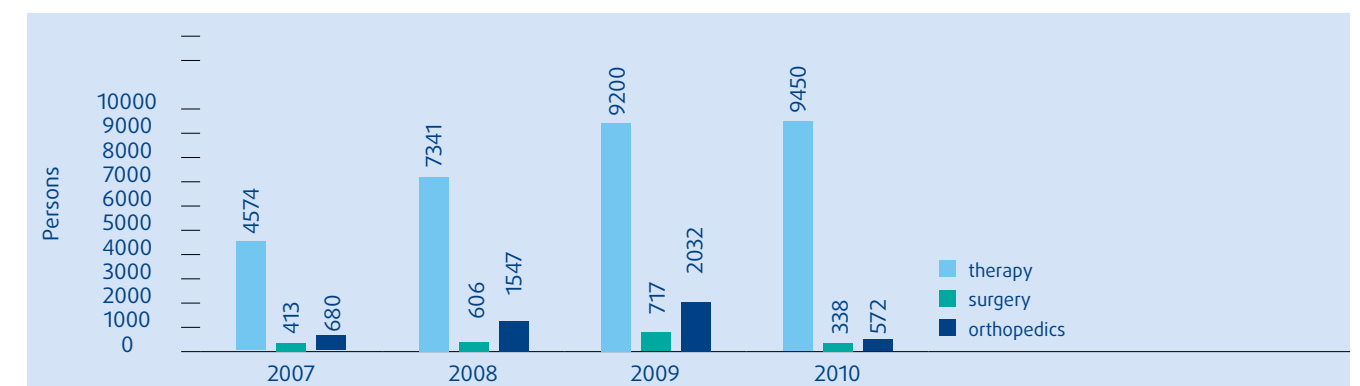
Any Vodokanal's employee can address DTC specialists in order to receive the necessary high-level specialist medical aid, to be provided with necessary diagnostic examinations at the highest quality level.

In 2004 a Dental Clinic was set up. The Dental Clinic staff are highly skilled broad specialists with work experience in several spheres of dental services.



The Dental Clinic provides a full range of dental health services and up-to-date dental prosthetics. Provision with modern medical equipment and improvement of labour management have allowed to increase the capacity for dental health services by 2 times since 2007 until 2010.

Dental Health Services Dynamics



In 2010 there was established Production Branches' Medical Service which incorporated 9 health units situated in different city districts. Its purpose is to provide medical services to the Company's production branches. The distribution of health units in different parts of the city allows to provide emergency medical aid in the shortest possible time, to provide employees with medical treatment, preventive treatment and rehabilitation and follow-up care in proximity to their workplaces. In 2010 it was continued to improve the integrated medical information system "Avicenna". It allowed to create electronic patient records and an integrated information environment for all medical structural units.

Continuous development of healthcare services system in 2010 allowed SUE "Vodokanal of St. Petersburg" to provide its employees with a package of high quality medical aid, to maintain a good health condition, extend professional longevity, to improve "the quality of life" of all Vodokanal's employees.

Organization of recreation for employees and their family members.

Organization of quality leisure for the employees and their family members is one of the main constituent parts of Vodokanal's social policy.

The Program consists in providing the employees, their family members, the Company's ex-employees with an opportunity of obtaining privileged vouchers (with partial cost compensation) to the sanatoriums "Burevestnik" and "Orlovsky" for health-improving recreation and sanatorium-and-spa treatment.

To maintain the priority of health protection, prevention of occupational diseases and reduction of working day losses the employees exposed to hazardous work environment are provided with an additional vacation (besides the one guaranteed by the Russian legislation). The length of the additional vacation is 10 calendar days. It is provided to employees for charge-free rehabilitation and treatment in sanatorium "Burevestnik", where 163 Vodokanal's employees went through a course of rehabilitation in 2010.

The children of Vodokanal's employees are provided with a recreation opportunity in children's health camp "Zvezdny". In the summer of 2010 it welcomed over 1500





children (about 398 children every session). There also took place traditional children's programs during the winter, autumn and spring vacations.

The inherent part of children's recreation is visiting the Children's Environmental Center, situated on the territory of the Camp, which offers unique environmental programs comprising study of water samples from various sources, developing lessons and games.

Qualified pedagogical staff offer children exciting and educational activities, such as walking trips and theme excursions to World War II battle sites, visiting the sites connected with the history of St.Petersburg and other towns of the North-Western Region. There are various interest groups, children take part in quizzes, concerts, exciting horse rides, cycling and walking tours to picturesque sites, go swimming to the swimming pool.

Leisure Program

Special celebrations are held on national and professional holidays (The Victory Day, End of the Siege of Leningrad, etc.)

with the Company's employees, Vodokanal's veterans, veterans of World War II (former employees) taking part in them.

Every year October 10 is The Company Day. On this day the best employees are presented with awards.

The employee's children are presented with tickets to theatrical performances, organized by Vodokanal during school vacations.

Every year the Company organizes exhibitions of creative works by Vodokanal's employees and their family members. Thus, in 2010 about 70 people took part in the exhibition "Creativity Waters".

One of the major directions of the Company's corporate life is sports activities. Sports grounds and swimming-pools are rented to hold sports events and trainings. Vodokanal has its volley-ball team, football team, floorball team, ping-pong team, swimming team, ski team, veterans' football team on a permanent basis.

Vodokanal's sports teams took an active part in sports events, organized by Physical Training and Sports Society (FSO) "Russia" (3 prize), Interregional Trade Union Committee (1 prize), and

Central District of St.Petersburg (1 prize). SUE "Vodokanal of St.Petersburg" held a sports contest among its branches in 8 kinds of sport.

In 2008 Vodokanal's women's volley-ball team won the 1 prize in The Women's Sports Festival "Madonna of Ryazan".

In 2010 Vodokanal's employees also took part in the following sports events:

- summer tourist meeting
- FSO "Russia" Ping-Pong Club Championship
- Central District Mini Football Cup
- Central District Mini Football Friendship Cup
- "Veterans" Mini Football Championship
- City Football Championship
- Volley-ball Championship (amateur league)
- Russia Kayak and Canoe Paddling Championship among veterans, etc.

Catering and Transport

All Vodokanal's employees are provided with corporate catering on the territory of the Company in accordance with canteens' work schedules in each Branch, with partial compensation of the cost of meals. Emergency teams' mechanics and drivers, working 24-hour shifts, are provided with free hot meals in the night time, which are delivered to their work places on specially equipped vehicles.

For over 10 years the employees have been provided with special transport to deliver them to their work places in the morning and to the nearest underground station at the end of the working day.





TARIFF POLICY

The operations of SUE "Vodokanal of St. Petersburg" in St. Petersburg and the sub-urbs are tariff-regulated.

The legal framework of tariff regulation and general principles of tariff policy for public utilities are established by the Federal Law No. 210-FZ dated 30 December 2004 "On Principles of Public Utility Tariffs Regulation" and the Decree of the Federal Government No. 520 dated 14 July 2008 "On Pricing Principles and Regulation of Tariffs, Surcharges and Limiting Indices to Be Used by Public Utilities".

Under the current law, the tariffs for public utilities are regulated, at the federal level, by the Federal Tariff Authority. This federal executive body is authorized to exercise legal control over the national regulation of prices (tariffs) for services and to monitor the use thereof; it sets the average price change limits for the subjects of the Russian Federation.

At the level of St. Petersburg as the subject of the Russian Federation, the tariff activities of Vodokanal are supervised and monitored by the St. Petersburg Municipal Tariff Committee.

The Tariff Committee issues a special instruction establishing tariffs for Vodokanal water services for each customer group for each subsequent planning period.

The established tariff comprises two components:

- tariff for the financing of the production program
- tariff surcharge to finance Vodokanal's investment program.

The Tariff Committee issues a special instruction establishing charges for connection to water supply and sewerage networks for the period of 3 or more years.

Principles of tariff policy

The Federal Law No. 210-FZ dated 30 December 2004 establishes the following general principles of tariff regulation:

- the balance of interests between the public utility and its customers should be reached to ensure affordability of goods and services provided by the public utility and, at the same time, efficient work of the public utility;
- the tariffs and surcharges should cover financial needs of the public utility as required for the implementation of its production and investment programs;
- motivate reduction of production costs, improve economic efficiency of operations and the use of energy saving technologies by the public utilities;
- create conditions as required for the raising of investments in order to develop and upgrade the infrastructure of public utilities;
- full repayment of the costs incurred by public utilities in the process of implementing its production and investment program;
- accessibility of information on the structure of tariffs and surcharges.

Tariffs for company services in 2010

Water tariffs for 2010 are established by the instruction of the Tariff Committee No. 117-r dated 10.11.2009 "On establishment of tariffs for cold water and wastewater disposal by the State Unitary Enterprise "Vodokanal of Saint-Petersburg" in 2010". The Tariff Committee's instruction was published in Nevskoye Vremya newspaper, issue of 10.12.2009.

Tariffs for water supply services	
Customer groups	Tariffs for water supply services in the period 01.01.2010 – 31.12.2010
Water supply service providers	
Drinking water supply, RUB/m³	11.14
Other customers	
Potable water supply, RUB/m³	16.26
Process water supply, RUB/m³	2.94
Tariffs for wastewater services	
Customer groups	Tariffs for wastewater services in the period 01.01.2010 – 31.12.2010
Wastewater service providers	
Wastewater disposal, RUB/m3	11.14
Other customers	
Wastewater disposal, RUB/m3	18.90

Note: the tariffs are shown net of VAT

Note: the tariffs are shown net of VAT

Tariffs for connection of newly constructed (reconstructed) real estate units to Vodokanal's cold water supply and sewerage systems in 2009-2011 are established by the Instruction of the Tariff Committee No. 156-p dated 10.12.2008.





Tariffs for connection, 2009-2011, RUB/m³/h

Type of service	Connected capacity up to 4.17 m³/h	Connected capacity 4.17-41.67 m³/h (inclusively)	Connected capacity 41.67 m³/h or more
Cold water supply	714,000	711,600	709,200
Wastewater disposal	738,000	735,600	733,200

Reasons for tariff increments

SUE "Vodokanal of St. Petersburg", like other big production companies in the region, is influenced by different macroeconomic factors. The main factors are: growth of tariffs for electricity and heat, and inflationary increase of prices for other organizations' services and products used by Vodokanal in its operations. For the purpose of minimizing the influence of price growth on the tariffs, the Company implements sustainable technologies and optimizes production processes.

In order to provide high-quality services to its customers, meet new regulatory requirements to the water sector and provide capacities for the city development, Vodokanal upgrades the existing water supply and sanitation facilities and builds new ones implementing advanced technologies on a large scale. The target development parameters are defined in the Program of Integrated Development, approved by the Resolution of the Government of St. Petersburg No. 1270 dated 21.10.2008. Operation of newly-built and modernized facilities and increased volume of repairs on water and sewerage networks lead to better performance but entail extra costs.

To set tariffs for a planned period, the tariff regulation authorities undertake in-depth independent expertise of Vodokanal's investment and production programs in consideration of the need to maintain affordability of tariffs and of the ceiling of tariff growth as established by the Federal Tariff Agency for St. Petersburg. The joint work of Vodokanal and the tariff regulation authorities results in the establishment of tariffs as low as practicable, which ensures the achievement of targets set by the Government of St. Petersburg.





FINANCIAL STATEMENTS

THE MAIN FINANCIAL INDICATORS OF SUE "VODOKANAL OF ST. PETERSBURG"

Indicators, Mio. RUB	2006	2007	2008	2009	2010
Turnover	13 475	14 850	16 720	18 413	20 060
Operating costs	11 677	12 649	14 123	15 484	17 694
Gross profit	1 797	2 200	2 597	2 929	2 366
Net profit	146	56	24	72	379
Profitability of the core activity,%	15,4	17,4	18,4	18,9	13,4

These indicators demonstrate that over the recent years SUE "Vodokanal of St. Petersburg" has worked with a positive financial result. The growth of the key financial indicators gave a possibility to finance the activities aimed at the achievement of service quality targets in compliance with the long-term company development strategy. The bigger scope of production program (in physical, and money terms) in 2010 as compared to the previous years led to lower profitability of the core activity, however, this indicator is maintained at a high level for a public utility.

Indicators	2006	2007	2008	2009	2010
Current ratio (standard: 1 to 2)	2,03	2,44	2,0	1,59	1,13
Quick ratio (over 0.8 or higher)	1,49	1,94	1,46	1,14	0,83
Cash ratio (0.2 or higher)	0,36	0,34	0,15	0,20	0,22

Over the recent years, Vodokanal has maintained its solvency at a rather high level which is evidenced by the fact that its current assets exceed its short-term liabilities. The main liquidity ratios comply with the regulatory values, which means that the company is able to settle its obligations in a timely manner.

Indicators	2006	2007	2008	2009	2010
Equity to Total Assets	0,83	0,84	0,84	0,87	0,88
Financial leverage	0,17	0,16	0,16	0,13	0,14

Vodokanal maintains a stable structure of its balance sheet with non-current assets predominating (this can be explained by the specifics of the water sector which has a high capital coefficient. The share of fixed assets in the balance sheet structure is over 75%. The Equity to Total Assets Ratio and Financial Leverage are high which means that the company capital structure is stable. Hence, the company has financial stability, maintains a sufficient level of solvency and is developing dynamically.

BALANCE SHEET

As of December 31, 2010

Organization	SUE "Vodokanal of St. Petersburg"
Taxpayer Identification Number	
Type of business	
Form of incorporation/ Type of ownership	
State Unitary Enterprise/ RF subject owned	
Unit of measurement:	'000 RUB.
Location (address)	42, Kavalergardskaya st., St. Petersburg, 191015

ASSETS	Code	As of the beginning of accounting period	As of the end of accounting period
1	2	3	4
I. NON-CURRENT ASSETS			
Intangible assets			
including:	110	69 138	160 325
R&D	111	-	4 232
Fixed assets	120	93 226 161	103 056 624
including:			
buildings	121	11 581 610	12 777 486
structures	122	77 661 811	84 499 068
machinery and equipment	123	3 982 740	5 502 080
Construction-in-progress	130	18 802 329	16 424 914
Income-bearing investments in inventories	135	-	-
Long-term investments	140	188 740	63 870
Deferred tax assets	145	267 329	276 962
Other non-current assets	150	-	-
TOTAL Section I	190	112 553 697	119 982 695





II. CURRENT ASSETS			
Inventories	210	1 585 814	1 363 682
including:			
raw materials and other similar assets	211	540 918	618 691
rears and fatteners	212	44	-
production-in-progress costs	213	-	-
finished products and goods for resale	214	-	-
goods shipped	215	-	-
deferred expenses	216	1 044 852	744 991
other inventories and costs	217	-	-
Input value-added tax	220	194 408	231 234
Accounts receivable (where payments fall due more than 12 months after the reporting date)	230	594 881	459 697
including buyers and customers	231	152 390	95 954
Accounts receivable (where payments fall due within 12 months from the reporting date)	240	3 389 141	4 156 799
including buyers and customers	241	2 779 990	3 224 184
Short-term investments	250	15 226	15 026
Cash	260	880 188	1 476 676
Other current assets	270	-	-
TOTAL Section II	290	6 659 658	7 703 114
BALANCE (Lines 190 + 290)	300	119 213 355	127 685 809

LIABILITIES	Code	As of the beginning of accounting period	As of the end of accounting period
1	2	3	4
III. CAPITAL AND RESERVES			
Registered capital	410	1 167 627	1 167 627
Added capital	420	96 525 884	103 357 576
Reserves	430	41 218	60 167
including:			
reserves required by law	431	-	-
reserves required by foundation documents	432	41 218	60 167
Target financing and proceeds	450	4 160 472	4 493 212
Undistributed profit (loss)	470	924 113	1 247 374
TOTAL Section III	490	102 819 314	110 325 956
IV. LONG-TERM LIABILITIES			
Loans and credits	510	8 400 003	7 814 639
Deferred tax liabilities	515	73 831	84 647
Other long-term liabilities	520	1 563 088	761 737
TOTAL Section IV	590	10 036 922	8 661 023
V. SHORT-TERM LIABILITIES			
Loans and credits	610	953 178	1 710 427
Accounts payable, including:	620	3 427 619	5 124 151
suppliers and contractors	621	2 253 424	3 732 727
payroll debt	622	104 903	128 846
debt to state extra-budgetary funds	623	25 734	41 313
tax arrears	624	569 555	198 546
other creditors	625	474 003	1 022 719
Arrears of income payments to participants (founders)	630	-	-
Deferred income	640	1 976 322	1 864 252
Provisions for liabilities	650	-	-
Other short-term liabilities	660	-	-
TOTAL Section V	690	6 357 119	8 698 830
BALANCE (Lines 490 + 590 + 690)	700	119 213 355	127 685 809



Note on off-balance assets

Item	Code	As of the beginning of accounting period	As of the end of accounting period
1	2	3	4
Rented fixed assets,	910	3 635 872	3 880 898
including lease	911	3 629 383	3 875 395
Inventories received on trust	920	40	-
Goods accepted for commission	930	-	-
Bad debts written off as loss	940	276 001	299 542
Obligation / payment securities, received	950	100 441	280 986
Obligation / payment securities, issued	960	-	-
Depreciation of housing stock	970	51 941	53 929
Depreciation of outdoor improvements and similar facilities	980	211 199	296 989
Software products and databases	990	47 023	353 131
Instruments of labour in operation	991	285 662	294 460

Director General		F.V. Karmazinov
	(signature)	(name)
Chief Accountant		G.A. Khachaturova
	(signature)	(name)

23 March 2011

Income statement

2010	OKUD Form No. 1 Date (year, month, day)	Codes		
		0710002		
		2010	12	31
Organization: SUE "Vodokanal of St. Petersburg"	OKPO	03323809		
Taxpayer Identification Number	Taxpayer's ID	7830000426		
Type of business	OKVED	90.00.1, 41.00.1, 41.00.2, 85.11, 85.12, 85.13, 85.14		
Form of incorporation / Type of ownership State Unitary Enterprise / RF subject owned	OKOPF/OKFS	42	13	
Unit of measurement: '000 RUR	OKEI	384		


Item			
Description	Code	in the accounting period	in the corresponding accounting period of the previous year
1	2	3	4
Income and expenses from ordinary business			
Net revenues from sales of goods, products, works and services (less value-added tax, excise and other compulsory payments)	010	20 059 571	18 412 932
Prime cost of sold goods, products, works and services	020	(17 694 013)	(15 484 330)
Gross profit	029	2 365 558	2 928 602
Business costs	030	—	—
Management costs	040	—	—
Sales profit / loss	050	2 365 558	2 928 602
Other income and expenses			
Interest receivable	060	4 593	3 195
Interest payable	070	(556 157)	(747 646)
Income from membership in other organizations	080	134	446
Other income and expenses	090	1 658 597	1 428 313
Other expenses	100	(2 255 406)	(2 579 751)



Before-tax profit / loss	140	1 217 319	1 033 159
Deferred tax assets	141	2 926	15 963
Deferred tax liabilities	142	(8 027)	(3 668)
Current profit tax	150	(836 667)	(971 374)
Allocated funds	151	3 422	1 599
Net profit (loss) in the accounting period	190	378 973	72 481
For reference:			
Fixed tax liabilities (assets)	200	598 304	752 447

Breadown of profit and loss items

Item		In the accounting period		In the corresponding period of the previous year	
Description	Code	Profit	Loss	Profit	Loss
1	2	3	4	5	6
Penalties, fines and forfeits as acknowledged, or to be paid according to the court decision or arbitral award	210	11 728	749	8 063	238
Profit (loss) of past years	220	6 111	17 419	129 108	93 215
Indemnification of damages caused by default or improper performance of obligations	230	10 945	3 968	7 760	10 602
Foreign exchange differences	240	1 150 211	706 541	815 049	1 227 066
Transfers to allowance account	250	X	-	X	-
Accounts receivable / payable written off upon expiry of action prescription	260	4 095	60 305	9 875	146 829

Director General		F.V. Karmazinov
	(signature)	(name)
Chief Accountant		G.A. Khachaturova
	(signature)	(name)

23 March 2011

AUDIT REPORT ON FINANCIAL STATEMENTS

The audit firm ZAO "Marketing, Consulting, Design" has audited the financial statements of State Unitary Enterprise "Vodokanal of Saint-Petersburg" for 2010 in compliance with the contract No 4-93-05.10.

Audited entity:

State Unitary Enterprise "Vodokanal of Saint-Petersburg".
Location: 42 Kavalergardskaya str., Saint-Petersburg, 191015, Russia. State registration: by the Decision of the Executive Committee of the Leningrad Council No 738 dated 05.09.1988

Auditor

ZAO "MCD".
State Registration Certificate of ZAO "MCD" No. AOL-262 issued 29.07.1991.
Legal address of the audit firm ZAO "MCD": 2 Ploschad Truda, Saint-Petersburg, 190000.
Location: 20, Aptekarskaya nab., St. Petersburg, 197376
Phone: (812) 600-91-03.
Fax: (812) 600-91-50.
License for auditing No. E 002484, issued by the Order of the Russian Federation Ministry of Finance dated 06.11.2002 No. 255, term of validity: till 06.11.2012.
ZAO "MCD" is a member of the self-regulatory organization Not-For-Profit Partnership "Institute of Professional Auditors" (NP IPAR). It is put on the Register of the self-regulatory organization NP "Institute of Professional Auditors" (NP IPAR), on 30.10.2009, № 10202000038.
We have audited the attached financial statements of the State Unitary Enterprise "Vodokanal of St. Petersburg" including:
Balance Sheet as of 31 December 2010;
Income Statement for 2010;
Statement of Changes in Equity for 2010;
Cash Flow Statement for 2010;
Appendices to the Balance Sheet;
explanatory notes.

Responsibility of the audited entity for financial statements

The management of SUE "Vodokanal of St. Petersburg" is responsible for preparation of reliable financial statements in compliance with the Russian accounting standards, and for the internal control system as required for the statements not to contain any material misrepresentations of bona fide acts or any errors.

Responsibility of the auditor

Our responsibility is to express our opinion on reliability of the financial statements on the basis of the audit made by us. We have made the audit in compliance with the federal auditing standards. These standards require observation of the applicable code of ethics and the planning and performing of audit in such a manner as to obtain sufficient confidence in the absence of any material misrepresentations in the financial statements.
The audit included the auditing procedures aimed to obtain the audit-based evidence confirming the figures in the financial statements and disclosure of information in the latter. The choice of auditing procedures is subject to our judgement which is based on our assessment of the risk of material misrepresentations made due to malpractice or errors. In the process of assessing this risk, we have examined the internal control system which supports the preparation of reliable financial statements, with the aim to select relevant auditing procedures rather than express our opinion about the effectiveness of the internal control system.



The audit also included assessment of the proper nature of the applicable accounting policy and soundness of the estimated figures obtained by the management of the audited entity, as well as the assessment of financial statements in general. We believe that the audit-based evidence provides sufficient grounds for the expression of opinion on reliability of financial statements.

Opinion

In our opinion, the financial statements reflect truly, in all material respects, the financial standing of State Unitary Enterprise "Vodokanal of St. Petersburg" as of December 31, 2010, and the results of its financial and economic activities and cash flow in 2010 in compliance with the Russian accounting standards.

Deputy Director General of Audit. Head of the Audit Department

Gazaryan A.V.
Qualification certificate for general audit
No 009228 dated 28.12.95
(for unlimited period)



28.03.2011

Project Manager

Svinjina O. I.
Qualification certificate for general audit
No 19117 dated 26.07.01
(for unlimited period)



26.07.2011

CONTACT INFORMATION

State Unitary Enterprise
"Vodokanal of
St. Petersburg":

42 Kavalergardskaya St.,
Saint-Petersburg 191015, Russia
Tel.: +7 (812) 274-16-79,
Fax +7 (812) 274-13-61
(Documents Division)
e-mail: office@vodokanal.spb.ru
e-mail: personal@vodokanal.spb.ru –
Personnel Department (for CVs)
Website: www.vodokanal.spb.ru

Hot line — +7 (812) 305-09-09

Directorate for preparation and
implementation of connection terms:

- 1. Block 5, 103 Moscovsky Prospect,
Saint-Petersburg,
8.00am—8.00pm, no lunch break.
Tel.: +7 (812) 326-52-32, 329-34-50
- 2. Room 103, 7 Filtrovskoye Shosse,
Pushkin,
9.00am—6.00pm,
lunch break 1.00pm—2.00pm.
Tel. +7 (812) 438-47-58
- 3. Room 14, 1 Leningradskaya Street,
Kronshtadt,
8.00am—5.00pm,
lunch break 12.00am — 1.00pm.
Tel. +7 (812) 438-47-19
- 4. Room 218, 15 Saperny Per., Kolpino,
8.00am—5.00pm,
lunch break 12.00am—1.00pm.
Tel. +7 (812) 438-47-55
- 5. Room 12, 1 Syvorovtsev Per.,
Petrodvorets,
8.00am—5.00pm,
lunch break 12.00am—1.00pm.
Tel. +7 (812) 438-47-02

Museum complex "The Universe of
Water":

56 Shpalernaya Street, (Chernyshevs-
kaya metro station)
Tel.: 8 (812) 438-43-75,
275-43-25, 438-43-01
Open hours:
Wednesday-Sunday
(Monday and Tuesday — closed).

Expositions are open 10.00am -8.00pm.
Museum tickets can be bought till 7.00pm.
Website: www.vodokanal-museum.ru

Youth Environmental Center of SUE
"Vodokanal of St. Petersburg":

56 Shpalernaya Street, (Chernyshevs-
kaya metro station)
Tel. +7 (812) 438-43-96
E-mail: dec@vodokanal.spb.ru

Burevestnik Sanatorium:

Office in St. Petersburg:
Room 10, 12/15 Stavropolskaya Street,
Tel. +7 (812) 271-26-27,
271-20-71, 274-16-78;
Fax and telephone: 8 (812) 438-44-85
Office in Luga:
16 Zapadnaya Street
Tel. +7 (813-72) 4-33-03, 2-36-60

Medical Centre

E-mail: medcenter@vodokanal.spb.ru
Medical Diagnostic and Treatment Centre:
Lit. Я, 42 Kavelergardskaya Street
Tel. +7 (812) 438-44-20
Open hours:
Monday-Friday,
8.00am—8.00pm,
Saturday and Sunday — closed.
Medical Diagnostic and Treatment Centre
(Radiodiagnosis Department):
Block 2, 103 Moskovsky Prospect,
Saint-Petersburg.
Tel. +7 (812) 438-47-77, 326-52-78
Open hours:
daily 8.00am—10.00pm
Saturday 8.00am—4.00pm,
Sunday — closed
Radiology Department:
Open hours: daily 8.00am—8.00pm
Make an appointment by phone:
+7 (812) 326-52-78,
438-44-20, 438-47-77.

Dental Clinic:

Lit. AK, 56 Shpalernaya Street.
Tel. +7 (812) 326-53-19
Open hours:
Monday-Friday,
9.00am—9.00pm,
Saturday 9.00am—3.00pm,
Sunday—closed.
E-mail: medcenter@vodokanal.spb.ru

