V ВСЕРОССИЙСКИЙ ВОДНЫЙ КОНГРЕСС | VODEXPO 2021

PROGRAM

June 28 – 30, 2021

June 28

	Central area	Hall A	Hall B	Hall C	Hall D
11:00-12:30	**Investments in sustainable development of water infrastructure. From property disputes to outcomes for the overall good** With the participation of: Ministry of Economic Development of Russia, Ministry of Construction of Russia, Ministry of Natural Resources of Russia, Rosvodresursy, VEB RF, All-Russian Society for Nature Conservation Despite the closer attention of the state to the water sector, the scope of implementation of infrastructure projects keeps us from talking about qualitative changes that could provide for the achievement of the National goals. Over the past 10 years, the vector of the state support for the communal infrastructure of the water sector has changed 180 degrees from compulsory corporatization to a blanket ban on private property. Preferences for concessionaires while banning the use of other forms of PPP actually marginalized the institution of concession agreements. Nowadays the approach to infrastructure financing is changing: new debt instruments for sustainable and green financing appear; new requirements to the assessment of infrastructure projects, including compliance with the sustainable development goals are set. What are “green” and “sustainable” financing facilities? What are the prospects	**Education and training of personnel for the water and wastewater utilities** With the participation of: Ministry of Education and Science of Russia The introduction of advanced technologies into the operating processes of enterprises requires new training and retraining programs for the personnel. At the same time, the rapid development of information systems opens up new opportunities for specialists; however, exacerbates the competition between employers for highly professional labor resources. Key issues on the agenda are as follows: • Professional training programs for the future; • Strategies of water and wastewater services providers to attract the best personnel and create a favorable environment for their professional advancement; • Prospects for increasing labor productivity at enterprises up to European standards.	**Development strategy for the land reclamation in Russia** With the participation of: Ministry of Agriculture of Russia The bottleneck of the effective water use in the agrarian-industrial complex is underdevelopment and low rates of modernization of the land reclamation complex. These tasks should be solved through the implementation of the Strategy for the Development of Land Reclamation in Russia, within the framework of a separate federal program for the effective involvement of agricultural land in the turnover and the development of the land reclamation complex of the Russian Federation.	**Water use in the mining industry. Possible utilization of industrial water in rock formations.** With the participation of: Rosnedra, LLC "Geological Center of St. Petersburg State University" Certain types of water are allowed to be placed in rock strata used by subsoil users. These waters cannot be used for drinking purpose; however, they do not pose a threat to the environment, since the injection of these waters is carried out according to an agreed project provided a license and geological justification are available. Key issues on the agenda are as follows: • risks of expanding the types of water that subsoil users can inject into rock strata • requirements for the justification of pumping trade effluents into the interstratal space • specific features of carrying out expert examination and monitoring in rock formations.	**Prospects for the extension and expansion of the "60+" program. Assessment of the ongoing projects.** With the participation of: Ministry of Construction of Russia, Ministry of Economic Development of Russia The program of the Ministry of Construction of Russia for the modernization of communal infrastructure facilities with more than 60 percent depreciation is an avant-garde project aimed at resolving the problem of the growing deterioration of the life support infrastructure. The feasibility of its extension and replication of the tools used throughout the country depends on the success and effectiveness of the implementation of the projects included in the program. Since September 1, 2020, an integrated system for monitoring failures and their elimination in the housing and utility infrastructures has been launched in all regions of Russia. The system provides for accumulating operational and reliable data on failures, as well as establishing a clear procedure for monitoring their elimination. The platform provides for the information exchange with the systems of the Ministry of Emergency Situations and the Ministry of Energy of Russia. During the current heating period, the platform recorded more than 7.3

	for an intermittent growth in the number of implemented high quality water projects?				thousand failures at housing and utility infrastructures; more than half of them occurred in the water distribution networks. How to estimate the amount of the required infrastructure renovation work? Can the new federal program based on the "60 plus" implemented today, solve the problem of shabby networks and outdated infrastructure?
12:30-13:00	Coffee-break				
13:00-14:30	**Requirements to the quality of drinking water and technologies to meet them. Prospects for the implementation of the FP "Clean Water"** With the participation of: Rospotrebnadzor, Ministry of Construction of Russia Housing and Public Utilities Fund The updated SanPiN "Hygienic standards and requirements for ensuring the safety and (or) harmlessness of environmental factors for humans" came as a surprise to municipalities and water utilities that were confronted with the fact of non-fulfillment of new requirements for the quality of drinking water. To what extent is the practice of toughening the state requirements for products justified by concern for individual without coordination with business and investors and providing them with a sufficient transition period? Is the population ready to pay more for the utilities of improved quality, and is the state ready to waive the goals of the federal project "Clean Water" or increase its funding from the budget? What steps should water utilities (vodokanals) take to meet the new legislative requirements, given that these novations were not included in their investment and operation programs.	**Digitalization and standardization of utility tariffs - a driver for the sustainable development of the water supply sector?** With the participation of: Ministry of Construction of Russia, Ministry of Economic Development of Russia, FAS Russia The improvement of legislation in the field of the government regulation of tariffs is on the path of developing digitalization, durability and standardization. These principles are expected to strike a balance between the interests of utility users and economically sound tariffs. The reform of the tariff policy that has been going on for more than 30 years, is aimed at finding a balance between the interests of consumers, investors and resource supplying enterprises that meets the principles of sustainable development. At the same time, the evidence from practice shows that the declaration of transparency and the long-term period of regulation do not eliminate the investor's risks; and the tariff settlement remains non-transparent and politicized. The improvement of the legislation in the field of the government regulation of tariffs is moving on the path of digitalization, durability and standardization. In economically developed countries, infrastructure companies are not only key elements of the safety and life support of the population, but a "safe haven" for investors since it is offering the latter low-risk investment projects. How should tariff policy be refocused to provide the investors and businesses with a sure footing for the long-	**Baikal is a national and global treasure. Minimization of anthropogenic impact as a key task for the Baikal SPNR** With the participation of: State Duma Committee on Natural Resources, Property and Green Relations Project office of FP "Baikal", Ministry of Transport of Russia, Ministry of Construction of Russia The implementation of the FP "Preservation of Lake Baikal" shows that the activities carried out on the territory of the Baikal natural territory are inadequate. Specially set more stringent environmental standards hit primarily the local population. At the same time, the hydrochemical and toxic poisoning of Lake Baikal cannot be stopped. An important task is effective predicting water flow in Lake Baikal as the main condition for maintaining the current level regime. An inventory of the measures applied shall be carried out followed by the correction based on the impact of the developing economic sectors on the state of the Baikal natural territory.	**Water use in the mining industry. Problems of waste water land disposal** With the participation of: Ministry of Natural Resources of Russia Rosprirodnadzor Impossible legal land disposal of effluents and prohibited effluent discharge into water bodies or further use for irrigation provoke forced violation of the law or cause high opportunity costs by restraining the economic development of low-water and water-deficient regions. What are the risks of permitting the discharge of unpolluted water /effluents into the catchment area / on the land? What requirements should be set to the procedure of regulating the land disposal of such water and the method for calculating fees for NEI?	**Different types of groundwater use. New rules for “the game” for the preservation of the national wealth.** With the participation of: Rosnedra, International Association of Hydrogeologists Although groundwater is a renewable resource, its stock is limited and the quality deteriorates every year. The reasons for the deterioration of the groundwater quality are associated both with the general increase in anthropogenic load on the adjacent territories, and with the obsolescence of the water wells. Also, a significant threat is posed by legalized uncontrolled drilling, including aquifers of strategic importance for civil defense and emergency situations. A critical problem is the lack at the legislative level of the concept of the boundaries of groundwater deposits and their relationship with surface water bodies. This leads to the issuance of licenses for using subsoil for the purpose of prospecting, exploration and abstraction of groundwater whatever groundwater deposit and an artesian basin it belongs to. What regulatory and organizational steps need to be taken to put the use of groundwater under control and ensure its implementation? Issues: • The lack at the legislative level of the concept of the boundaries of groundwater deposits and their relationship with surface water bodies. • Issuance of licenses for using subsoil for the purpose of prospecting, exploration

		term sustainable business (SDG 6 and SDG 11)? To what extent will digitalization and standardization of tariffs contribute to improving the investment attractiveness of a still unprofitable industry? Do the current approaches to reforming tariffs meet the interests of water utilities (vodokanals)?			and abstraction of groundwater whatever groundwater deposit and an artesian basin it belongs. • Necessary amendments to the regulations and organizational algorithms with the purpose of optimizing the use.
14:30-15:15	Break				
15:15-17:00	Plenary Session: **Strategic development of water industry branches**				

June 29

	Central area	Hall A	Hall B	Hall C	Hall D
10:00-11:30	**Establishing a new federal project for the construction and upgrade of treatment facilities: needs assessment, setting goals and objectives.** With the participation of: Ministry of Natural Resources of Russia, Ministry of Construction of Russia, RAWW The environmental safety strategy singles out the construction and upgrade of treatment facilities as a priority area of development; however, according to Federal Statistics Agency (Rosstat), in 2019 less than 48 billion rubles were invested in wastewater collection and treatment, while public sewers and similar systems discharged during this time almost 59% of all polluted water into surface water bodies. Environmental efficiency improvement initiatives to be developed and implemented at 300 facilities that produce the highest negative impact on the environment are estimated on average from 6 to 12 billion rubles for each facility. How to estimate the cost of improving the entire wastewater disposal infrastructure in Russia so that the compliance with the environmental legislation can be ensured? What measures should be included into the government program that sets this goal. How to prioritize and take into account	**Smart Vodokanal: integration of separate processes into a single city ecosystem** With the participation of: Ministry of Construction of Russia World experience shows that the future lies in the integration of all technological and business processes of life support into a single ecosystem of urban services. Even today many elements of this ecosystem provide for improving the consumer quality of utilities, reducing failures in networks, improving the efficiency and convenience of accounting. The introduction of automation and digital technologies should be reasonable and cost-effective, taking into account the current level of the enterprise and the state of the city management system. The best practice of various cities makes it possible to define the key areas of investment planning for the digital development of the municipal infrastructure in terms of water supply and wastewater disposal systems. What does the water utility of the future look like? What applied effects can a water utility receive from the introduction of digital technologies and how the profitability can be ensured? How to maintain in pursuit of individual effective solutions the possibility of establishing a "smart water utility" - an	**Diffuse runoff and uncontrolled pollution of water bodies** With the participation of: Ministry of Agriculture of Russia The implementation of the federal project "Rehabilitation of the Volga" has given a new impetus to the study of diffuse pollution of natural waters. The “Concept of the reduction of diffuse pollution of water bodies” has been developed. Within the framework of this concept the methods for assessing the scale of contamination of various types of territories have been substantiated, recommendations have been developed for planning measures to reduce the impact of diffuse sources on the water quality; and a prototype of an automated system has been designed to support decision-making in the field of reducing diffuse pollution of water bodies. How to introduce the obtained results into the modern practice of water protection activities and into the legal regulation? How should diffuse pollution control be arranged within a coordinated land-use planning strategy for river basins? What steps should be foreseen in the roadmap for the phased introduction of charges for diffuse pollution of water bodies?	**Water use in the fuel and energy complex: directions and priorities of state policy** With the participation of: Ministry of Energy of Russia, Vernadsky Foundation The largest water users at the moment are thermal and nuclear power plants. The “big” energy sector accounts for 35.4% (24.09 of 68.03 billion cubic meters) of water abstracted from the natural sources. However, neither environmental nor tax legislation considers the fuel and energy complex as a separate, specific type of water use. The fuel and energy complex cannot further develop as an industry competitive in the world market without developing coordinated requirements to water users in accordance with the new system regulating the negative impact on the environment; without adjusting the regulations of permissible discharges of pollutants with account of the conditional background of water bodies, as well as support measures that stimulate the introduction of new technologies.	**International cooperation in water management. National Development Goals and UN Sustainable Development Goals: What kind of world will we live in in 2030?** With the participation of: Eurasian Economic Commission, CIS Interstate Innovation Council, OECD (Water Project), VEB RF Russia takes an active part in the activities on the way towards achieving the Sustainable Development Goals (SDGs) adopted by the UN Sustainable Development Agenda for the period up to 2030. Most of the goals and objectives of sustainable development have been already to some extent built in the main strategic and program documents in Russia. Thus, the National Development Goals of the Russian Federation are based on the key international goals and correspond to the objectives of SDG-6: Ensuring the availability and sustainable management of water resources and sanitation for all and SDG-11: Ensuring transparency, security, resilience and environmental sustainability of cities and communities. Today, strict requirements are applied to international cooperation programs. The joint work should result in the projects that improve efficiency and ensure sustainable management of water resources, provide for the infrastructure for the digital water

	future changes in the environmental requirements? Within the frames of the national project “Ecology” the Russian Association for Water and Wastewater presents a concept of a new federal project “Construction and upgrade (modernization) of the treatment facilities of the public wastewater disposal systems”.	enterprise where all decisions are made on the basis of product data throughout the entire life cycle - from water abstraction, transportation, repair of networks and equipment to customer relations and planning investments for the further development of the urban infrastructure in terms of water supply and wastewater disposal systems.			resources management both at the level of basins and regions, and in cities.
11:30-12:00					
12:00-13:30	**Rehabilitation of the Volga ecosystem: new challenges** With the participation of: Ministry of Natural Resources, Ministry of Construction Housing and public utilities fund The federal project "Rehabilitation of the Volga" has become groundbreaking both in terms of coverage and efficiency of the implemented measures. Maintaining the dynamics of the project implementation and expanding the geographic coverage and the range of activities have been important tasks of the project. So, at present, the issues of including in the project measures on the construction of storm sewers and expansion of its geography to the basin of the Volga and Kama rivers are being worked out.	**Modernization and expansion of the main transport infrastructure. New Federal Project "Inland Water Transport": Prospects** With the participation of: Ministry of Transport of Russia Inland water transport has compelling advantages over other transport means including low infrastructure costs and minimal environmental impact. However, at present it receives extremely little use compared to the Soviet period. The task of restoring the transport potential in this area will significantly reduce the cost and improve the ecological performance of transportation, but at the same time it requires significant capital expenditures. What the parameters and priorities of the new federal project should be and what goals will it achieve?	**The system of regulating wastewater discharges into water bodies: environmental responsibility of water users or regulatory risks for business?** With the participation of: Ministry of Natural Resources of Russia Ministry of Agriculture of Russia, Rosrybolovstvo Rosprirodnadzor The problem of the countrywide requirement to meet the MPCs of pollutants in effluents discharged into fishery water bodies has been facing industries for a long time being at the same time infeasible. Odd requirements annually result in significant costs for the enterprises; at the same time, they do not contribute in any way to the preservation and restoration of aquatic ecosystems. The standards for permissible discharges are so stringent that meeting them is impossible due to the lack of treatment technologies at the existing facilities. Taking into account the transition to the standardization based on the best available technologies, the standards should be established only for those substances and indicators that can be removed at the treatment facilities provided the best available wastewater treatment technologies have been introduced.	**Safety of hydroengineering systems** With the participation of: Ministry of Agriculture of Russia, Ministry of Energy of Russia Rosvodresursy During the Soviet period, thousands of dams and other small hydroengineering structures were built, that were properly maintained, and the necessary remedial works were carried out. Over the next 30 years, no overhaul works were executed, and many hydraulic structures were left ownerless. To repair and upgrade the hydraulic structures subsidizing from the federal budget is needed; however, in the first place, formalization of ownership for the facilities shall be done and projects shall be prepared. How can algorithms of the process be developed in order to solve the problem on a national scale? What conditions shall be met to make small-scale hydraulic structures attractive for the private sector?	**Development of the systems for monitoring water bodies** With the participation of: Ministry of Natural Resources of Russia, Rosvodresursy, Rosgidromet, Russian environmental operator, Government of Kamchatka Krai The water strategy defined developing an optimal structure of the state observation network, improving its technical equipment, introducing advanced forecasting methods, and designing an information system for data systematization as the tasks of the state monitoring system of water bodies. Today, 12 years after the adoption of the strategy, the improvement of the monitoring system should be based on advanced technologies and methods of data acquisition, processing, analysis, use, and integration into unified systems. Key issues on the agenda are as follows: • New obligations on disclosing the information on the state of the environment; • Improving the system of monitoring water bodies; • The system of monitoring water bodies as an element of the technological and economic development; • Incorporating the system of monitoring water bodies into the federal project “Integrated environmental monitoring system”.
13:30- 13:45					

13:45-15:15	**New reality of FP "Clean Water": what changes with its transfer to the national project "Housing and Urban Environment"** With the participation of: Ministry of Construction Housing and public utilities fund The transfer of the federal project "Clean Water" from the national project "Ecology" to the national project "Housing and the Urban Environment", the change in its target indicators, the actual rejection of developing public water supply in the countryside makes it necessary to reconsider goal setting in the project, to pay more attention to the economics of operating new facilities built withing the frames of the project. At the same time, in course of the project implementation, a unique methodological base was developed that should be replicated in the algorithms for making government decisions related to both investments and tariffs. The process of digitalization of the use of the Guide on advanced technologies is of particular value. Could the development of the Guide lay the foundation for the investment part of tariff setting in water supply? Issues: • Development and use of the methodological base if the FP “Clean Water” as a basis for the future projects in the field of establishing water supply systems • Tariff setting with account of water treatment technologies - low operating costs as the basis for a successful choice of design options • Digitalization of the use of the Guide on advanced technologies: what corrections shall be made?	**Sustainable development of the Arctic: developing an environmentally friendly infrastructure for a comfortable life and economic development** With the participation of: Ministry for the Development of the Russian Far East, Rosgidromet The development of the Arctic involves the development of special organizational and technical solutions. In the field of water use, under consideration are the issues of minimizing the discharge of pollutants into water bodies during economic and other activities in the Arctic zone, as well as the state support for the introduction of the best available technologies, the elimination of the objects of accumulated damage to water bodies. A separate task is to create conditions for the private investment in the region.	**The system of regulating wastewater discharges into water bodies: environmental responsibility of water users or regulatory risks for business? (continuation)** With the participation of: Ministry of Natural Resources of Russia Ministry of Agriculture of Russia, Rosrybolovstvo Rosprirodnadzor Almost all the effluents discharged into water bodies do not meet the quality standards; accordingly, water utilities have to pay extra charges for the negative environmental impact; besides they are held liable for the damage to the water bodies caused by the discharge of effluents that do not meet the unfeasible standards. What steps should be taken to spend the environmental fines paid for the negative impact on the environment and for the compensation of the damage to the water bodies, for the construction and upgrade of the treatment facilities in order to prevent discharging effluents that exceed the established technological indicators?	**Issues related to the development of water and wastewater infrastructure within the framework of the urban planning policy and programs for the construction of housing stock in NP "Housing and Urban Environment"** With the participation of: Ministry of Construction The implementation of large-scale housing construction programs requires high-quality communal infrastructure. The current rules of the relations between the construction sector and the capabilities of resource supplying companies do not fully ensure the required quality. The investment climate and minimization of developers' risks is the key for the development of the housing market. However, excluding the cost of infrastructure and all connections from the cost of housing, shifting this burden onto the resource supplying organizations is not a solution to the problem.	
15:15-16:00					

16:00-18:00	Key Plenary Session

June 30

	Central area	Hall A	Hall B	Hall C	Hall D
10:00–11:30	**Technological and organizational support for the development of water and wastewater infrastructure (register of designers)** With the participation of the Russian Association for Water and Wastewater The Russian Association for Water and Wastewater is developing a national register of the organizations carrying out design and survey work in the field of reconstruction, modernization and construction of water supply and wastewater treatment facilities. This register is designed to improve the quality of preparation of design documentation, construction, reconstruction of capital construction projects in the framework of the implementation of federal programs of the "Ecology" national project and other investment projects relating to the water supply and wastewater disposal. The developed point-based rating criteria will provide the registry user with a comprehensive assessment of the professional qualifications of the designer, his design experience.	**Wastewater sludge as fertilizer, biofuel and building material: technological and legal capabilities** With the participation of: Rosstandart, GIZ GmbH TC-343 "Water Quality" of Rosstandart has developed a standard "Technical concepts of wastewater sludge treatment. General Requirements", that sets the requirements to the methods and equipment for the treatment of wastewater sludge generated in the process of mechanical, physicochemical and biological wastewater treatment in public wastewater disposal systems of communities, urban districts to ensure a decrease in sludge volume and humidity, stabilization of organic substances, disinfection, change of structure and production of secondary commercial products. Depending on the processing method used, the composition and properties, sludge can be classified as a "secondary product" and intended for use as organic fertilizer, organo-lime fertilizer, soil (vegetation soil), recultivant, insulating and building material, biofuel.	**Water supply for rural settlements** With the participation of: Ministry of Agriculture of Russia, Ministry of Construction of Russia Excluding the task of supplying the rural population with drinking water from public water supply systems from the FP “Clean Water” leaves the solution to this issue open. This task should be fulfilled within the framework of the State Program for 2020-2025 "Integrated Development of Rural Areas". What should be the parameters of this program? How can the cost of measures and their composition be estimated?	**The impact of storm sewers on the quality of the urban environment and comfortable living: problems and solutions** With the participation of: Ministry of Construction of Russia Developing the systems for surface runoff removal should resolve the problems of flooding in cities, discharging diffuse polluted wastewater into water bodies, and the premature failure of infrastructure elements such as roads, pipelines, buildings and structures. The main obstacles to solve this problem are the lack of the responsibility of the municipality to built storm sewers; the lack of the requirements to construct the systems for removing surface and ground runoff in the settlements in the process of new construction, reconstruction or total renovation. An action plan for the development of surface runoff drainage systems should include regulatory, organizational and financial measures, including the identification of the responsible owner and the procedure for the transition of the storm sewer assets to him.	

11:30-12:00					
12:00-13:30	**Technological and organizational support for the development of water and wastewater infrastructure** With the participation of: Ministry of Construction of Russia, VEB RF Technological and organizational support for the development of the water supply infrastructure faces the lack of qualified specialists to guide projects, both at the design stage and at the construction stage; the lack of a qualification center for the above-mentioned specialists, consequently, the customer has to rely on soft data and, often, on parole promises; as well as the lack of the institution that guarantee the implementation of adopted engineering solutions, according to the criterion for obtaining the design indicators of the constructed system.	**Wastewater sludge utilization and reuse** With the participation of: Ministry of Construction of Russia, Ministry of Natural Resources of Russia To date, the existing system of regulation of relations in sludge handling does not provide for a clear demarcation when the wastewater treatment process finishes (as an integral part of the wastewater disposal process), and the sludge becomes a waste product and consumption residual. The regulation of this demarcation by the explanatory letters issued by the Ministry of Construction of Russia, the Ministry of Natural Resources of Russia and Rosprirodnadzor is inappropriate and leads to the ambiguous law enforcement in various constituent entities of the Russian Federation. Most of the raw materials or products produced from water and wastewater sludge remain unwanted due to the lack of constant demand, high transportation costs or regulatory restrictions.	**Membrane technologies in water and wastewater treatment: yesterday, today, tomorrow** Moderator: TC-343 The scientific idea of the development of membranes has made a great leap forward in recent years. Today, a full-fledged market segment is being formed both in the field of water treatment and in the field of wastewater treatment. The main issues that outline this business are as follows: ensuring the reliability of operation and service, the optimal capital and operation costs, training of personnel.		
13:30-13:45					
13:45-16:00	Plenary Session				