

WATER MANAGEMENT

Gazprom Neft implements action programmes that aim to minimise its volume of water consumption, mitigate environmental risks in water resource conservation and improve the environmental condition of water bodies and their coastal areas. The Company regularly monitors water protection zones as well as surface water, groundwater and wastewater and assesses the bottom sediment conditions of surface water bodies in the areas where it operates. During the reporting year, scientists from the Polar Research Institute of Marine Fisheries and Oceanography carried out comprehensive studies of the water environment near the Prirazlomnaya offshore platform. The experts concluded that the key hydrological and hydro-chemical indicators of the water condition (transparency, salinity and the content of oxygen, hydrogen, inorganic phosphorus and other elements) are consistent with the natural background.

Key water resource conservation projects in 2015 included:

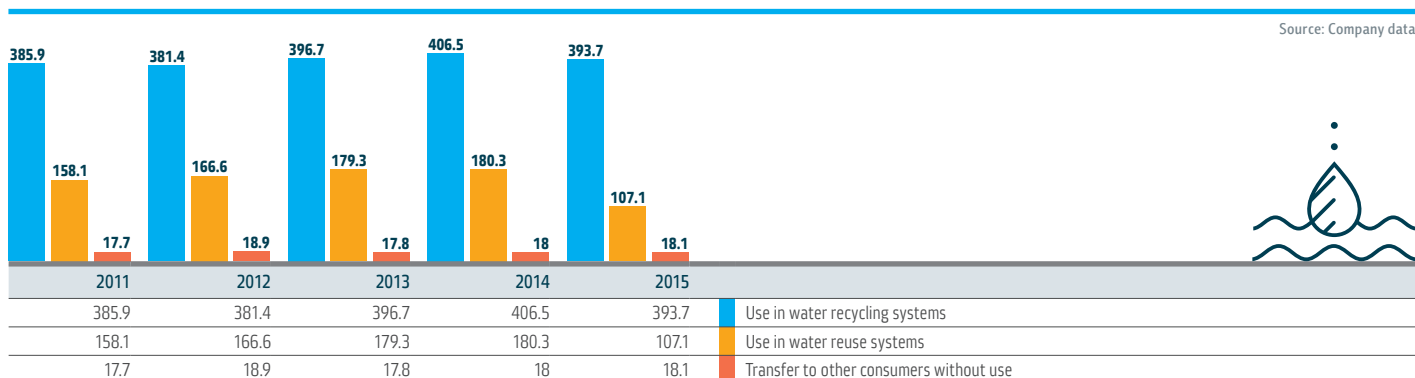
- **THE CONSTRUCTION OF THE WORLD'S TWO MOST NORTHERLY UNDERWATER OIL PIPELINE CROSSINGS VIA THE INDIKYAKHA AND MUDUYAKHA RIVERS (PART OF THE MESSOYAKHA PROJECT IN THE YNAD)** using horizontal directional drilling. Utilising this method made it possible to preserve the natural landscape of the rivers and eliminate any man-made effects in the flora and fauna. The inverted siphon (the section of the pipeline laid under the riverbed) was thickened by 5 mm to improve the reliability of the pipeline's operation. In order to protect the environment against thermal effects, the inverted siphon was placed in a protective case with diameter of 1,020 mm and wall thickness of 16 mm. The route of the pipeline was selected based on consultations with representatives of the government authorities, public organisations and the chiefs of reindeer herding communities.

➤ THE CONSTRUCTION OF THE BIOSPHERA MODERN COMPLEX OF BIOLOGICAL TREATMENT PLANTS AND A UNIT TO TREAT SULPHUR AND ALKALINE WASTEWATER AND PROCESS CONDENSATE AT THE MOSCOW OIL REFINERY.

The Biosphera complex will use a final water purification technology that is unique to the Russian oil refining industry and allows for increasing the efficiency of wastewater treatment to 99%. The use of a multi-stage biological treatment system will enable the plant to reduce water consumption by 60%, while 75% of the water will be recycled into the enterprise's production cycle. The Biosphera complex is to open in 2017. In addition, a unit will be launched in 2017 to remove sulphides and ammonia nitrogen from wastewater. The unit, which aims to ensure the highest possible environmental performance parameters for the operation of process facilities that are being introduced as part of the refinery's comprehensive modernisation, will have production capacity of 120 m per hour. In 2015, the complex obtained a permit to discharge wastewater via a centralised water disposal system. At present, wastewater is only discharged at the Kuryanovskaya activated sludge plant. Overall, the complex reduced water consumption per measurement unit of the enterprise's performance index by 6% in the reporting year thanks to the modernisation programmes¹.

The Company's employees took part in a number of nature conservation campaigns in the reporting year, including the nationwide campaign "Our Rivers and Lakes – Clean Shores". The Moscow Oil Refinery served as a partner in organising and holding the "Protect the Shore!" environmental campaign in Kapotnya.

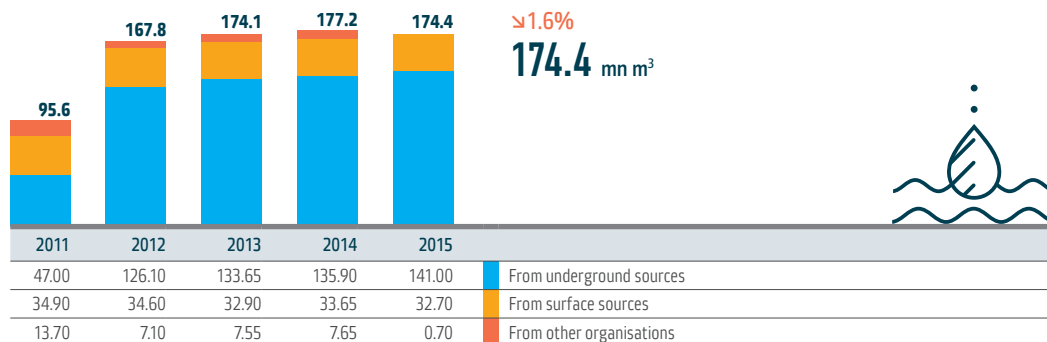
VOLUME OF WATER CONSUMPTION // *mn m³*



¹ The Equivalent Distillation Capacity Index (EDCI) serves to assess the competitiveness indicators of enterprises. The EDCI for oil refineries is calculated according to a formula that includes the performance of refinery technological units and energy systems, pipeline and tank capacity as well as the capacity utilisation percentage of all the index's components.

VOLUME OF WATER WITHDRAWN FROM VARIOUS SOURCES¹ // mn m³

Source: Company data



¹ The increase in the volume of water with drawn and received is related to increased drilling volumes at the enterprises of the Company's Upstream Division.

SPECIFIC WATER CONSUMPTION AND DISPOSAL INDICATORS IN 2015 //

Indicators	Specific water consumption for the Company's own needs	Specific disposal of contaminated water to surface water bodies
m ³ /t of extracted hydrocarbons (TOE)	2.181	0.336
m ³ /t of processed hydrocarbons (TOE)	0.001	0.001

WASTE MANAGEMENT

The Company's industrial waste management system makes it possible to optimise waste flows, mitigate the environmental impact and reduce the economic cost of waste generation. The Company strives to maximise the possible use of large-tonnage waste in order to mitigate its environmental impact.

WASTE DISPOSAL

The Moscow Oil Refinery is the first Russian oil refinery to complete the disposal of all its accumulated oily waste. The refinery fulfilled this requirement three years earlier than required. Over five years, the refinery utilised more than 180,000 tonnes of oily waste and eliminated the facilities at which it had been stored. As a result, the enterprise freed up 15 hectares of land and reclaimed contaminated soil.

In order to meet this objective, Gazprom Neft began developing a corporate strategy for the utilisation of drilling waste in 2015. The goal of the strategy is to reduce the proportion of waste sent for disposal and to maximise its use in production processes as well as to employ the most environmentally and economically effective methods of waste utilisation taking into account the specifics of the regions where the Company operates. This work is to be completed in 2016.

In 2015, Gazprom Neft completed research and development work aimed at improving the efficient use of drilling waste. Company specialists have developed technology to obtain environmentally friendly soil from drill cuttings that can be used for the subsequent reclamation of sludge pits. A state environmental expert review has given a positive assessment to this technology.