

ENVIRONMENTAL MANAGEMENT

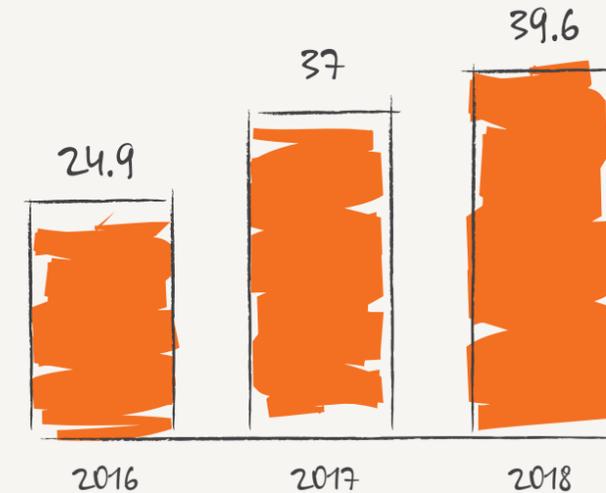
- TMK Profile
- Letter to Shareholders
- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations
- Sustainable Development**
- Corporate Governance Code
- Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts

As a leader of the global pipe industry, TMK sees ensuring environmental safety while maintaining fast production growth and driving stronger economic performance as a strategic priority.

- TMK's environmental expenditures increased in 2018 by 5% year-on-year.
- External environmental training and awareness programs completed by 817 TMK's employees and managers across all levels.
- 11 of the Company's plants confirmed their compliance with ISO 14001:2015.
- Percentage of water recycled and reused by TMK's Russian plants reached 95.32%.
- Total pollutant emissions decreased by 1% year-on-year.
- A total of 26 investment initiatives undertaken, aimed at fulfilling the requirements of national legislation, ensuring environmental safety and a favorable environment
- Despite an increase in output, overall water consumption levels remained flat year-on-year

- We recognize our social responsibility for protecting the environment across our footprint.
- Environmental targets are an integral part of TMK Group's Development Strategy.
- In our operations, we are guided by international environmental protection initiatives and treaties, and comply with local environmental standards and regulations.

TMK's total environmental expenditures,
\$ million



Our environmental management practices are guided by **PAO TMK's Environmental Policy** (www.tmk-group.ru/media_ru/texts/814/EKOPOLITIKA_TMK_s_Koncepciey_realizacii.pdf), which is in line with the Fundamentals of Government Policy in Sustainable Development in the Russian Federation Through 2030, as well as the Environmental Security Strategy of the Russian Federation Until 2025 and is based on effectiveness and efficiency of environmental activities, environmental and social responsibility, and transparency.

In 2018, we focused on improving the environmental performance of production processes, reducing water consumption, controlling air pollution, and minimizing the amount of landfilled waste while allocating necessary resources to these activities.

Financing environmental initiatives helps TMK's plants to comply with the local environmental protection and safety laws, standards, and regulations.

We increased funding for environmental activities by 5% in 2018, spending a total of \$39.6 million.

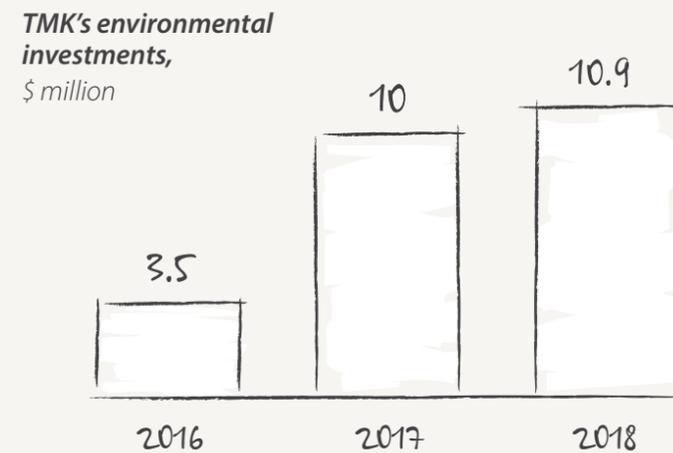
ENVIRONMENTAL MANAGEMENT

- TMK Profile
- Letter to Shareholders
- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations
- Sustainable Development**
- Corporate Governance Code Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts

Environmental Management System

PAO TMK's Environmental Policy and the individual environmental policies adopted by TMK Group's plants outline the Company's commitments to reducing and preventing environmental impact from its operations in the Company's host regions.

TMK's plants make consistent efforts to ensure continuous improvement of our environmental performance and manage environmental risks. 11 of the Company's plants have implemented an ISO 14001:2015 compliant environmental management system – **they successfully passed audits and confirmed their compliance during 2018.**

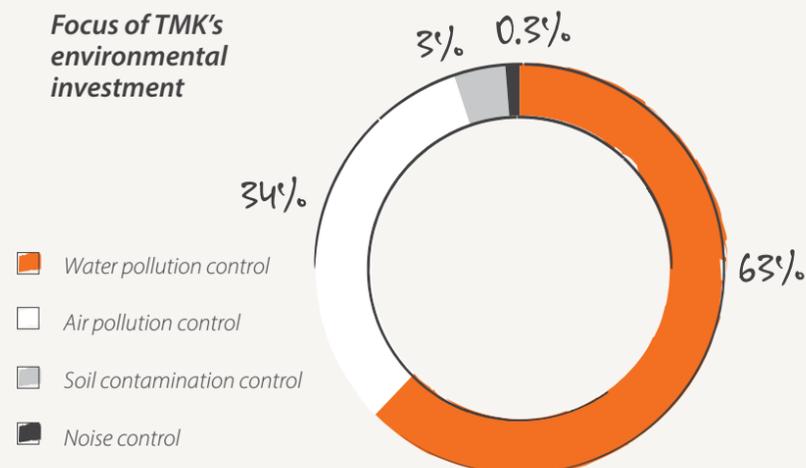


Environmental Investments

Environmental projects are an essential component of the Company's development programs, including our current Strategic Investment Program.

Our environmental investment focused on water and air pollution control (63% and 34%, respectively).

During 2018, TMK implemented 26 capex projects to ensure compliance with local laws, environmental safety, and a healthy environment.



We make sure that our green investment in fixed assets is steadily rising: it increased by 8% year-on-year to \$11 million.

Key Capex Projects and their Results

Russian division: Seversky Pipe Plant:

- completed upgrade of aeration tank No. 3 and reduced impact on the Severushka River
- continued building water reuse treatment facilities for a heat treatment facility, which will help reuse up to 20 million cubicmeters of treated water
- installed aspiration equipment at the crushing and screening plant

TAGMET:

- TAGMET launched dust control and gas cleaning units at the ferro-alloy and lumps preparation facility of its EAF shop

Sinarsky Pipe Plant:

- The combined heat and power (CHP) plant at Sinarsky Pipe Plant completed technical upgrades of its boiler facility including a redesign of exhaust pipe No. 4 to comply with the environmental legislation

American division:

- Koppel plant upgraded its EAF shop gas cleaners, improving the overall performance of its gas cleaning systems
- Ambridge is upgrading its water disposal system
- Catoosa implemented noise control measures to comply with local laws

Emissions Control

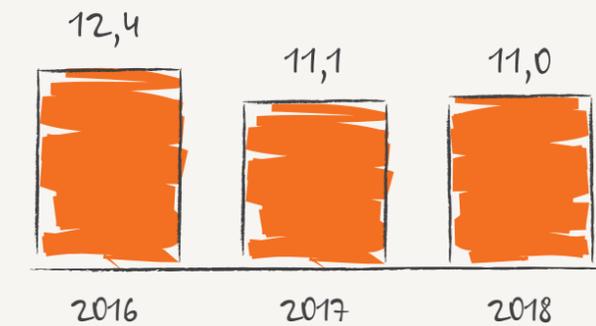
TMK's facilities comply with the legislation covering air emissions inventory, regulation, and control, as well as operations in adverse weather conditions. Our emissions control activities ensure compliance with the prescribed air emissions limits.

Key initiatives to reduce air emissions implemented by TMK's facilities

-  Improving the performance of gas cleaning units
-  Air emissions control in adverse weather conditions
-  Containing, redirecting, and cleaning dust and gas flows

TMK's air pollution control expenditures totaled \$2.1 million in 2018. The money was used to implement a range of organizational and technical initiatives, improve treatment technologies, and carry out routine maintenance and overhauls of treatment facilities. These efforts helped **reduce** the Company's overall gross pollutant emissions to 11 thousand tonnes in 2018 (down 1% year-on-year).

Total pollutant emissions by TMK, thousand tonnes



We make efforts to ensure a comfortable environment for people living in areas adjacent to sanitary protection zones around our plants. To that end, we install high-performance gas cleaning equipment and implement noise control measures (in 2018, at the Russian division's Volzhsky Pipe Plant, Seversky Pipe Plant, TAGMET and TMK-INOX, and at the American division's Camanche and Catoosa).

-1% y-o-y

These efforts helped reduce the Company's overall gross pollutant emissions

- TMK Profile
- Letter to Shareholders
- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations

Sustainable Development

- Corporate Governance Code Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts

Water Management

As stated in TMK's Environmental Policy, the Company's water management strategy focuses on reducing water consumption and mitigating negative impact on water bodies. **A recycling water supply system is essential for any of TMK's new, upgraded or renovated facilities.** In 2018, percentage of water recycled and reused by TMK's Russian plants reached 95.32%.

Key initiatives to mitigate negative impact on water bodies implemented by TMK facilities

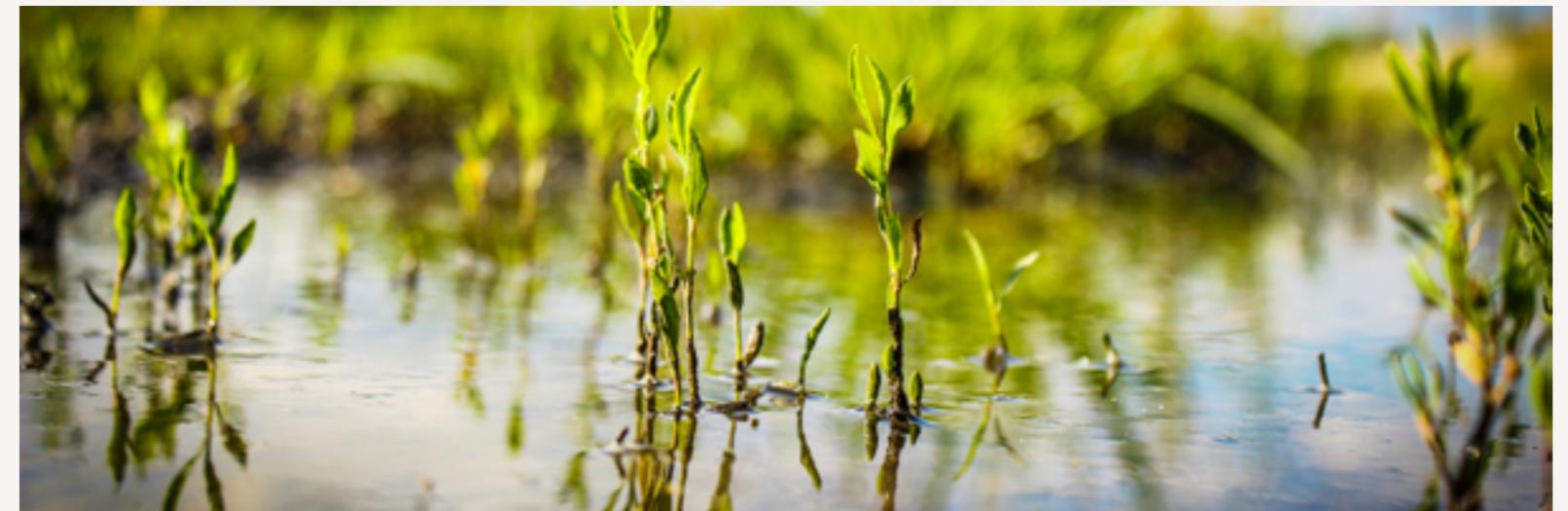
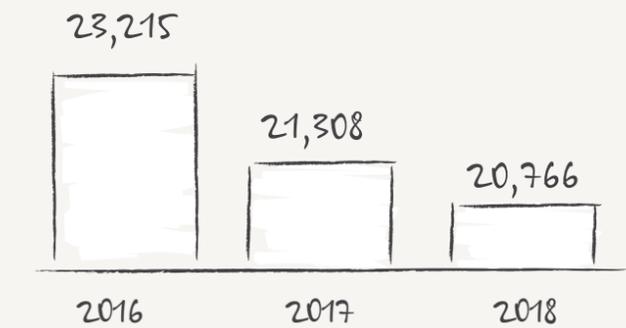
-  Building and up-grading treatment facilities
-  Organizational measures to prevent spills, leaks, and unsustainable use of water
-  Enhancing water recycling and reuse systems

Subject to permits, TMK's facilities abstract water from surface and underground sources to supply water for production, general and drinking, and process use, and public needs.

TMK spent \$17.8 million on sustainable water use and water pollution control in 2018. 2018 progress vs. 2017:

- Despite an increase in output, overall water consumption levels remained flat year-on-year
- Water intake from surface water bodies decreased by 3%
- Wastewater decreased by 2%, and wastewater discharge to natural water bodies was reduced by 10%
- Discharge of pollutants into water bodies decreased by 11%

TMK's water intake from surface water bodies, thousand cubic meters



- TMK Profile
- Letter to Shareholders
- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations

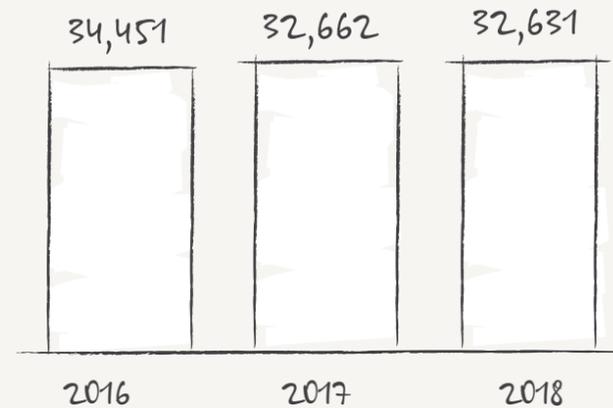
Sustainable Development

- Corporate Governance Code
- Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts

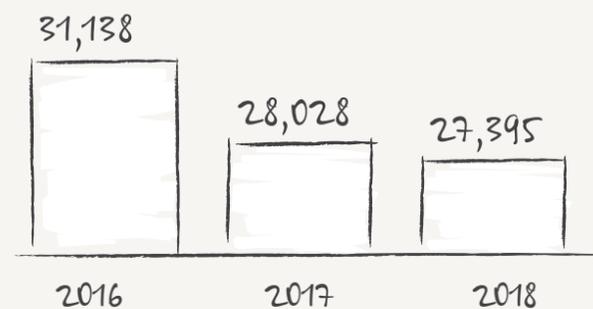
ENVIRONMENTAL MANAGEMENT

Success of our sustainable water use efforts is demonstrated by positive changes in TMK Group's water consumption.

TMK's overall water consumption, thousand cubic meters



TMK's total wastewater, thousand cubic meters



Key water management initiatives and results across TMK's facilities:

Russian division

Seversky Pipe Plant

- cleaned waste water pits at Pipe Rolling Shop No. 1 and Pipe Rolling Shop No. 3, which helped reduce oil sediment content in the discharge water
- started cleaning the water recycling system for untreated process water at Pipe Rolling Shop No. 2

Sinarsky Pipe Plant

- Sinarsky Pipe Plant cleaned the intake screens at the Isetsy water intake

Seversky Pipe Plant

- Seversky Pipe Plant completed cleaning bottom deposits in the biological treatment system for industrial wastewater, storm water, and sewage

TAGMET

- TAGMET replaced pipelines of its water recycling system, thus reducing seawater consumption by eliminating losses

Orsky Machine Building Plant

- Orsky Machine Building Plant repaired pumping equipment, and cleaned waste water wells, pipelines and the plant's waste water discharge system

American division

Blytheville

- The Blytheville facility upgraded its water supply system and started enhancing its water disposal system

Baytown

- The Baytown facility upgraded its filtration system at the quenching unit

- TMK Profile
- Letter to Shareholders
- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations

Sustainable Development

- Corporate Governance Code
- Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts

Waste Management

TMK's waste management system aims to:

- reduce waste generation
- reuse waste
- minimize waste landfill.

Our production and consumption waste management is in line with approved industrial guidelines and standards in place at TMK's facilities, which set up a recycling system and practice waste sorting. Volzhsky Pipe Plant and Seversky Pipe Plant developed and rolled out specialized industrial waste management software solutions. Our waste disposal and temporary storage sites are subject to industrial environmental monitoring.

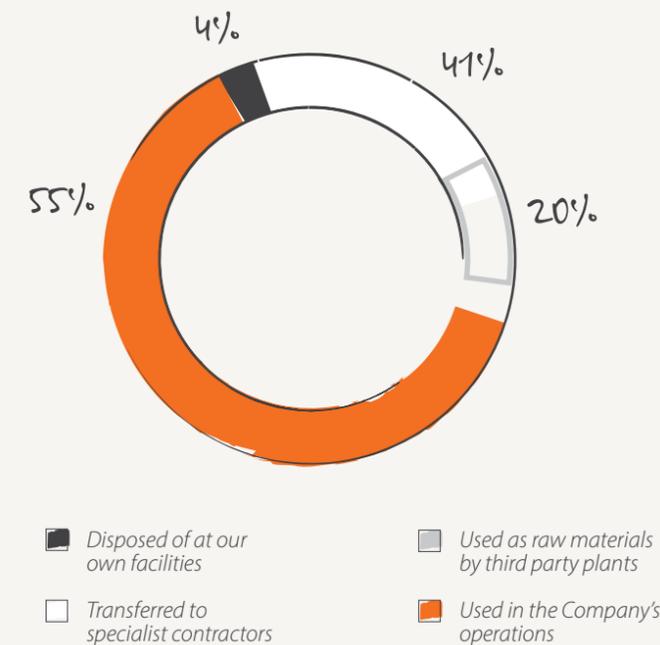
In 2018, we spent \$4.8 million to minimize the impacts of our waste on the environment, including about \$1 million on land protection (land reclamation, etc.).

Total waste generation from TMK's operations increased in 2018 to 684 thousand tonnes due to production growth at the Russian and American divisions.

TMK decommissioned and transferred for disposal a total of 452 units of PCB-containing electrical equipment in 2018, including 4 transformers and 448 condensers.

The following figures for 2018 clearly illustrate our waste management performance: 4% of total waste generation was disposed of at our own designated facilities, 55% was reused internally, **and** 41% was transferred to specialist contractors, of which 20% was reused as raw materials by other industries.

Waste usage



TMK contributes to the Government efforts to fulfil Russia's obligations under the Stockholm Convention on Persistent Organic Pollutants ratified by the Russian Federation. The Company developed a Program for Disposal of PCB-Containing Equipment (equipment containing polychlorinated biphenyls).

Key waste management initiatives and results across TMK's facilities:

Sinarsky Pipe Plant :

- reclaimed basins 2 and 3 of its sludge collector (biological stage) to recover 8.66 hectares of disturbed land
- upgraded a mill scale deoiling centrifuge at the recovery unit of its treatment facilities for industrial wastewater

Volzhsky Pipe Plant

- Volzhsky Pipe Plant planted 214 trees on the landfill operation area

Blytheville

- The American division's Blytheville facility implemented a range of spill prevention measures to prevent any negative impact on soils

- TMK Profile
- Letter to Shareholders
- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations
- Sustainable Development**
- Corporate Governance Code
- Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts

ENVIRONMENTAL MANAGEMENT

Environmental and Industrial Monitoring

Our plants are continuously monitoring the areas around their production facilities for environmental impact, leveraging a high-performance industrial environmental monitoring system. All plants of the Russian division have in place certified chemical laboratories equipped with all necessary state-of-the-art equipment.

ENVIRONMENTAL EDUCATION

A total of 817 employees and managers across all levels completed external environmental training and awareness programs in 2018.

In addition, TMK's Corporate University TMK2U launched Ecology for Non-Specialists, a new training program developed in-house. The program covers the basics of environmental legislation and explores the environmental aspects of TMK Group's operations. Additionally, the Company offers a range of up-to-date distance learning programs.

The Company's plants include environmental safety matters in their **briefings for contractors** working at TMK's production facilities. Our plants are implementing educational initiatives to improve environmental awareness among school and university students; 219 students attended such lectures in 2018.



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- Key Highlights
- Company Overview
- Shareholder Information
- Corporate Governance Report
- Stakeholder Relations
- Sustainable Development**
- Corporate Governance Code
Compliance Report
- Management Discussion and Analysis
- List of Transactions
- Made by PAO TMK in 2018
- Glossary and Contacts