

IEarn Circles

Learning Circle:Our rivers our world

Final Publication

Countries collaborating:U.S.A,Republic of Moldova.Columbia

## **Grade of river pollution,main causes ,solution**

### **Hackensack River**

The quality of the water in the Hackensack River is poor. Since the government doesn't allow swimming in the river or eating fish or crabs from it, we can assume it is not clean. Yet, the water quality of the river is good enough for people to go kayaking and it is getting better.

The sediment in the river is contaminated. The riverbed contains toxic chemicals for 22 miles. Hundreds of sediment samples taken from the Hackensack River show dozens of contaminants. Mercury was detected in elevated levels throughout the riverbed, including some particularly high readings. A chemical found in the river is fluoranthene. Fluoranthene is a polycyclic aromatic hydrocarbon, which is a group of chemicals formed when coal, oil, and gas are burned. This can cause cancer. The state of New Jersey is currently waiting to find out if the river qualifies to be a Superfund site. If it is designated as a Superfund site the federal government provides funding to clean the chemicals out of the river. President Trump wants to scale back the EPA (Environmental Protection Agency) which makes cleaning up the river even harder.

Despite this setback the Hackensack Riverkeeper is trying to make improvements. From April to November, the Hackensack River has massive cleanups to remove garbage from the river. They have Giving Tuesday which is when they can remove a set amount of money from a person's bank account every Tuesday. Citizens can report pollution to the police or Riverkeeper. Additionally, one has the opportunity to volunteer to cleanup.

In the future, people can work to upgrade sewage treatment plants to prevent wearing down of the waterways. More donations can be given in several ways off their website. Every individual can stop littering and start treating water and Earth with respect.

### **Additional Resources:**

<https://www.hackensackriverkeeper.org/activities-and-events/cleanups/>

<https://www.hackensackriverkeeper.org/take-action/clean-streetsclean-water-campaign/>

<https://www.hackensackriverkeeper.org/about-us/our-mission/>

<https://www.ridgefieldpark.org/environmental-commission/pages/hackensack-river-watershed>

<https://www.northjersey.com/story/news/environment/2017/02/10/stew-contaminates-found-hackensack-riverbed-tests/97548744/>

### **Pollution in the Medellin River ,Columbia**

Decontamination of the Medellín River has decreased between 40% and 45%

In 2010, the Medellín River has 80 percent less pollution, thanks to the fact that for more than 25 years Empresas Públicas de Medellín (EPM) has been developing the "Sanitation of the

Medellin River and its tributary streams" program. "Ana María Pareja Escobar Social Communication Student Eafit University" I open this presentation mentioning only some of the good

things that are done annually from the city of Medellin for the recovery of part of our great tributary the MEDELLIN RIVER.

Water supply and sanitation in Colombia - Wikipedia

### **Purification Plant (San Fernando)**

The wastewater reaches the Plant through the sewer networks located in the neighborhood roads, which discharge the collectors parallel to the streams, which in turn are connected to the interceptors located on each side of the river and that

,finally, they go to the site of the San Fernando Plant. Conclusions We managed to know how the water purification process is carried out in the San Fernando plant  
Purification process in the San Fernando plant The water passes through a sewer network then enters a tank where the garbage in these waters is separated, then they take it to some sedimentation tanks here the water, the fat and the solid materials are separated.

### **The biggest pollutants in the river**

The contamination of the Medellín River is mainly caused by commercial and industrial companies. Most companies in the Aburrá Valley are connected to EPM's public sewer network. Some companies, depending on their productive sector, generate wastewater with substances of sanitary interest, which, when mixed in the sewage network, are confused with the waters coming from the residential and service sectors.

### **Where it flows?**

The Medellín River flows beyond the boundaries of the municipality of Barbosa in the area of Puente Gabino with the Grande River, where together they form the so-called Porce River, which flows a few kilometers later into the Nechí River, which in turn is poured into the Cauca River, whose waters flow into the Magdalena River in Bolívar.

### **Republic of Moldova, Criuleni town.**

#### **Dniestr River(Nistru River)**

The Dniester (Nistru) River is the main artery of the Republic of Moldova - the economic one, and the main source of drinking water for a large part of the localities.

The state of the Dniester River is a direct indicator of both the health of the people and ecological environment.

That's why the ACCESS TEAM Criuleni has run a civic project with the aim: to inform and alert the responsible local authorities about the state of the River Nistru.

For these reasons Access Team has collected information about environment and quality of water, has shared the SOS flyers through the local population, and has organized the Cleaning Day of the Criuleni beach.

The Access Team Criuleni address to the local and central authorities:

Have you any real information about the state of the river Dniester (Nistru)?

Have you any statistic data about the state of health of people that drink the water from the Dniester?

Do you think is it right that Public Sanitation Centre and Local Ecological Department don't have any information about it?

The Access Team Criuleni address to all people:

Let start to care our rivers!

Let drink clean water!

Let be a healthy nation!















# Râul Nistru strigă

# SOS



Starea râului Nistru este una alarmantă. Calitatea apei se caracterizează printr-un grad mare de poluare cu substanțe nocive, deșeuri menajere, fertilizanți ce sunt aruncate de către societate.



Starea

Consecințe



Asupra sănătății omului:  
dizenteria, holeria, poliomielita, hepatita epidemica, giardiaza.



Asupra mediului:  
1. poluarea animalelor acvatice de către substanțele chimice  
2. poluarea chimică și radioactivă a legumelor, fructelor.

Nu fi indiferent!!!  
Acționează și îndrumă-i pe ceilanți!

Spune



poluării!

