Improve the water quality of urban streams in the city of São Paulo by eliminating the discharge of wastewater and the trash into them, in order to increase the community's life and environmental condition.
Summary balance 2007 - 2017

SABESP
R$ 254 milhões
US$ 67 million

151
Cleaned Streams

Population:
2,5 million
2,5 MILHÕES DE PESSOAS BENEFICIADAS
Program Results

Tenente Rocha Stream
The Clean Stream Program
Challenges and Actions
Metropole – population growth

TIETE PROJECT ACTIONS
Then, why we have a Cleaned Stream Program?
**Collection and Wastewater Treatment System**

**Gravity**

- Coletor predial: Private lateral
- Coletor secundário: wastewater network
- Coletor-tronco: main collector
- Interceptor: interceptors
- EEE: WWPS – Wastewater Pumping Station
- ETE: WWTP - Wastewater Treatment Plant
- Corpo receptor: Receiving waterbody

Reference: [https://www.google.com.br/search?rlz=1C1SQJL_pt-BRBR775BR775&biw=1138&bih=764&tbm=isch&sa=1&ei=fYslW_ rI8WV5wW3gAOG-Ag#imgrc=73nWtYt08MhDcM](https://www.google.com.br/search?rlz=1C1SQJL_pt-BRBR775BR775&biw=1138&bih=764&tbm=isch&sa=1&ei=fYslW_ rI8WV5wW3gAOG-Ag#imgrc=73nWtYt08MhDcM)
Metropolitan Challenges – population growth

1940
Impediments to build the sewage system

2005
- Removing and Relocating people occupying stream margins
Metropolitan Occurrences

Oil at sewage network;

- Repairs and cleanings at the sewage network;

- Promote the connection of laterals to the network;
Brazil: Separated System (Wastewater and stormwater)

Stormwater in the Wastewater System

Wastewater in the Stormwater System

Reference:
https://www.villageofshorewood.org/505/Sanitary-Sewer-System

*Eliminating the clandestine wastewater connections in stormwaters pipelines*
Metropolitan Occurrences

Trash and diffuse pollution carried by rainwater and street cleaning

- Cleaning riverbanks and riverbeds
- Community Education
Education and community engagement

Keeping the streams cleaned depends on community participation

Collaborative Governance Program
Sabesp and Municipality of São Paulo Responsibilities

- Repairs and cleanings in the sewage lines;
- Promote the connection of laterals to the sewage lines;
- Eliminating the clandestine sewage connections in stormwater pipelines
- Collaborative Governance Program (community education and engagement).

- Cleaning riverbanks and riverbeds;
- Removing and relocating people occupying stream margins
The Clean Stream Program
Tracking and management
Indicator: Biochemical Oxygen Demand (BOD)

BOD: Measurement of the oxygen needed by bacteria to consume organic matter

mg/l

Goal: BOD < 30 mg/l

Visual Indicators

- No odor
- Clear water
- No Trash
- No Bush
- Aquatic life – plants and small fishes
Tracking | Instant prober
The Clean Stream Program

Results achieved
Mandaqui Stream

2011, September
BOD 240 mg/l

Area: 12 square miles
Population: 460,000

2018, April
BOD 21 mg/l

- 6 miles sewage network
- 455 connections
Uberaba Stream: Pinheiros Afluent

- Area: 6 square miles
- Population: 240,000
- 0.8 mile of sewage network

2009, March
BOD = 85 mg/l

2018, April
BOD = 16 mg/l
Pacaembu Stream

- Area: 1.5 square mile
- Population: 28,000
- 56 miles sewage lines

2016, August
BOD = 140 mg/l

2018, March
BOD = 10 mg/l
Main Success Factors

- Partnership between Sabesp and Municipalities
- Funding
- Relocation of people living at stream margins
- Education and community engagement
- Tiete Project
- Continuous tracking and management
Then,
Why we have a Cleaned Stream Program?
It’s the guarantee that all of the sewage system was done and our maintenance and operation are working very well.
It’s about public health, environment and the community’s quality of life.
THANK YOU VERY MUCH!

Valéria Moia Monte Alegre Angeli
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