

SOMOS



Comitês e Agência

Photo: PCJ Basins Agency Archive

Live better!

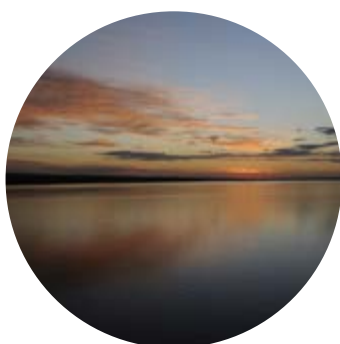
**Strong investments assure cleaner water
on the Basins of the Piracicaba, Capivari
and Jundiaí Rivers**

Jaguari River Dam, in Vargem, SP

Sewage treatment
increases from 6%
to 72%

The Jundiaí River is the first one
in the country to be requalified:
better-quality water for the region





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Editorial Staff

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Should or should we not learn from our mistakes on water management?

Common sense says we learn from our mistakes. However, if we pay a closer look to the history of mankind, we will see that such statement is untrue. It is a fact that many of our advancements were conquered by observing a need. However, by analyzing the relationship between humans and the environment, we may conclude that, for centuries, we have been making mistakes regarding the conscious and sustainable use of our resources. Mainly water resources.

Then, how about learning from what is going right and spreading these positive actions? With this in mind, the Agency of the PCJ Basins, as the executive branch of the PCJ Committees, has been working to do its share, by financing, up to this moment, over R\$ 600 million, in approximately 680 sewage treatment, loss control, reforestation, and environmental education initiatives, as well as other institutional actions that are necessary to the adequate performance of the Water Resources Management Integrated System.

We have also made agreements with foreign entities, such as the International Water Office (OIEAU), which, through a program from the European Committee called WaterClima, has provided resources for studies, discussions and the implementation of a pilot project on the PCJ Basins, focused on mitigating problems related to climate changes.

More recently, in 2016, through a partnership between the PCJ Committees and the Water Supply and Sanitation Association (Sanasa/Campinas), we took a step that illustrates how we may use technology to save our water resources: the implementation of the water reuse pilot unit in Campinas.



Our major challenge is still water provision, since we monitored the startling effects of the drought in 2014/15 to the daily life of the population and the industries. What happened was only an example of what may affect our civilization in case urgent measures are not taken – and in case we don't learn our lesson.

Throughout its history, mankind has lived through centuries taking from nature what was necessary for its subsistence. Urbanization and the consequent industrial development created an unbalance in such relationship, accelerating the resource extraction and transforming our natural assets (among them, water) into mere raw materials for economic growth.

However, time proved that, differently from what we thought, natural resources are not inexhaustible. Nature works in perfect balance, and human existence is only a part of this ecosystem.

Mankind must learn, from individual effort, but also from the work made by serious and competent organizations, to rebalance its relationship with the environment and its resources. There is no time to lose.

Barjas Negri
President of the PCJ Committees
Mayor of Piracicaba



COMMITTEES AND AGENCY: Investing in the Future of PCJ Basins

While the PCJ Committees determine the destination given to the resources raised by the water usage charges, the PCJ Basin Agency works as an executive branch of the entity, executing the actions established on the Basins' Plan.

One of the management instruments, established on state legislations and on Federal Law no. 9,433/97 is the charging for the use of water resources. Its goal is to decentralize the management of financial resources obtained by charging the use of water resources, in order to benefit the regions directly.

The Committee for the Basins of Piracicaba, Capivari and Jundiaí Rivers (CBH-PCJ) was created in November 1993, following the proclamation of the State Law no. 7,663, from 1991, in the State of São Paulo, that regulates the State Policy for Water Resources.

In São Paulo, the basin committees are three-party organisms

that work as “water parliaments” in their regions. One-third of its members are indicated by the State's Executive Power, one-third by the city halls of the municipalities that integrate the basin, and one-third by civil society entities: business associations, unions, Non-Governmental Organizations (NGOs) and professional entities. The civil society representatives are elected periodically.

In Minas Gerais, State Law no. 13,199/99 determines that the basin committees are constituted by one-fourth of representatives from the State's Executive branch, one-fourth shall be indicated by City Halls, one-fourth by the users of water resources, and one-fourth by



Plenary meeting of the PCJ Committees

LINHA DO TEMPO

1988

JUNE

State Decree 28.489 – Recognizes the Piracicaba River Basin's critical role as a basic model for water resources management

OCTOBER

Enactment of the new Constitution of Brazil.

1989

OCTOBER

São Paulo State Constitution is enacted, with specific chapters about Urban Development and Environment; Natural Resources and Sanitation. Creation of the Inter-Municipal Consortium of Piracicaba and Capivari Basins

1991

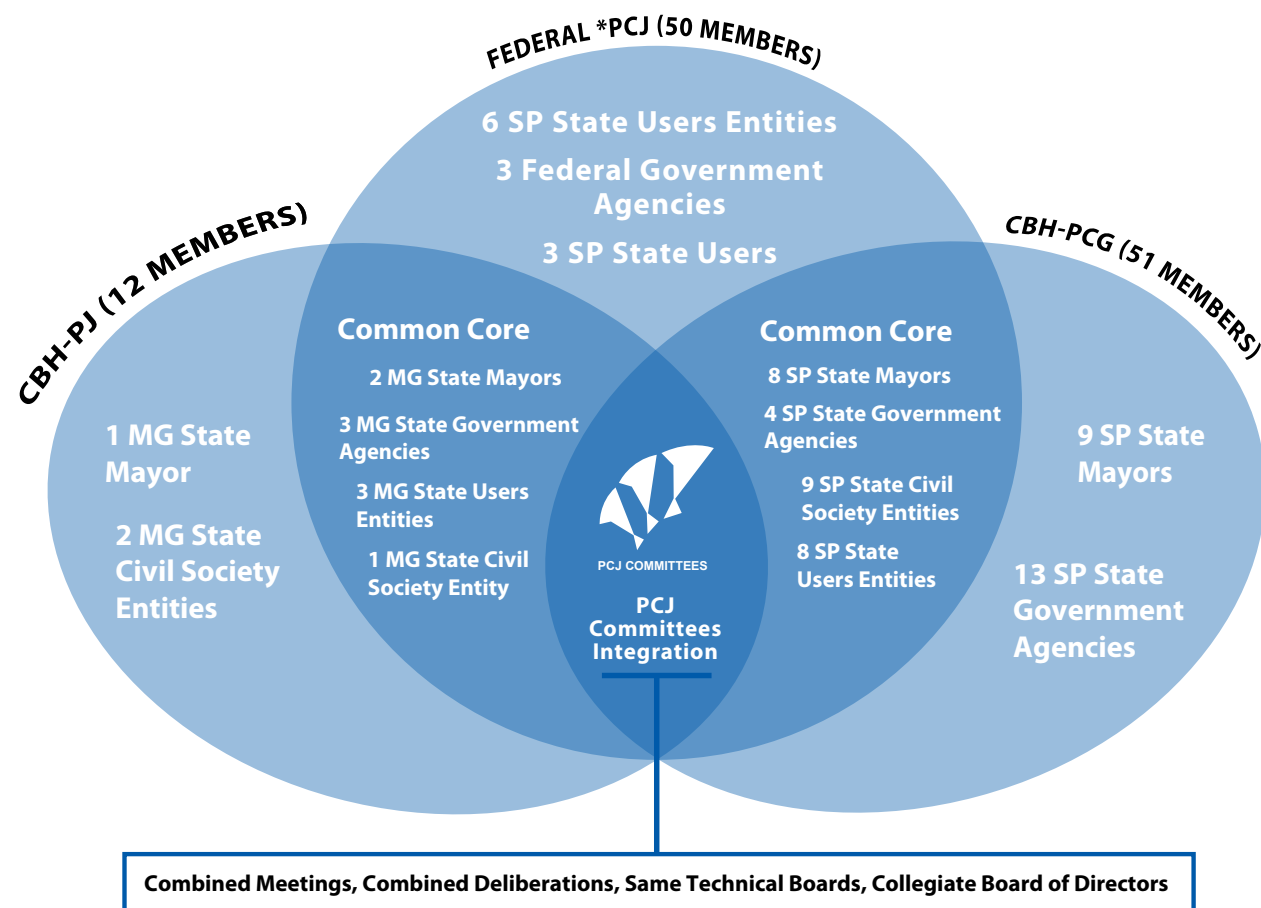
DECEMBER

State Law Nº 7.663 institutes the System and the Policy of Water Resources for São Paulo State.

1993

NOVEMBER

Creation of the Committee of the Basins of Piracicaba, Capivari and Jundiaí Rivers - CBH-PCJ*. CBH-PCJ approves and refers draft law for the creation of the PCJ Basins Agency.



civil society representatives, which are also elected.

The PCJ Committees determine the destination of resources obtained by charging for the water usage in the regions and, also, of the values provided by the State Fund for Water Resources of the State of São Paulo (Fehidro).

Technical chambers created by the committees (see illustration

on page 7) answer for activities in specific areas of operation.

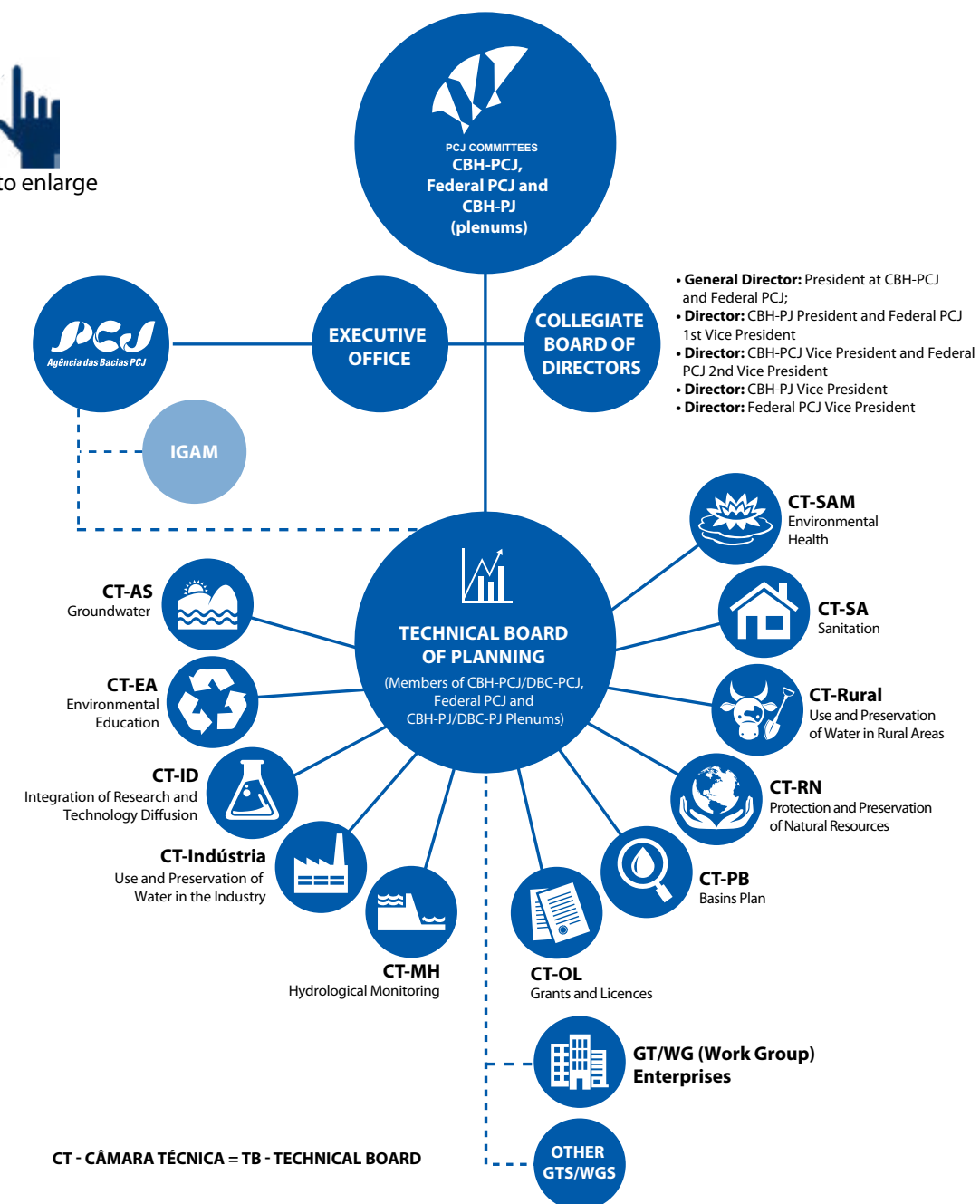
What happens is that the committees do not have a judicial nature, therefore, they do not have a corporate taxpayer enrollment number (CNPJ). Thus, in order to manage the financial resources, it is necessary to create delegation entities that work as executive branches for the committees.

Federal Law no. 10,881/04 authorizes the National Water Agency (ANA) to celebrate management agreements with water agencies to manage the resources of the respective basin committees.

The Basin Agency of the Piracicaba, Capivari and Jundiaí Rivers is responsible for managing the financial resources in the region of the PCJ Basins.💧



Click to enlarge



1994

DECEMBER

CBH-PCJ starts the application of financial resources from the State Fund for Water Resources from the State of São Paulo (Fehidro).

1997

JANUARY

The Federal Law no. 9,433 establishes the Water Resources System and National Policy.

1998

JULY

The State Law no. 10,020 regulates the constitution of basin agencies for the State of São Paulo.

AUGUST

The three-party Committee of CBH-PCJ is created to suggest the establishment of the PCJ Basin Agency.

SEPTEMBER

The State Council for Water Resources of the State of São Paulo authorizes the creation of the PCJ Basin Agency.

1999

JANUARY

The State Law no. 13,199 establishes the Water Resources System and Policy for the State of Minas Gerais.
State **Law no. 13,194** – Fhidro is created for the State of Minas Gerais.

Impressive NUMBERS

Between 1993 and 2016, the percentage of sewage collected on the 76 municipalities of the PCJ Basins increased from 50% to 85%; and the treatment rose from 6% to 72%, with important effects on the water quality. The secret? Clear priorities and agreements among managers.

Since the creation of the PCJ Committees, in 1993, up to the end of 2016, the percentage of sewage collected on the 76 municipalities that are part of the region increased from 50% to 85%. Even more impressive was the advance on the domestic sewage treatment – from 6% to 72% during the same period, and it may reach 86% up to 2020, according to the goals of the Plan of the Basins for the Piracicaba, Capivari and Jundiaí Rivers (2010-2020). During that same period, the population of the area went from 3.5 million inhabitants, in 1993, to approximately 5.9 million, in 2016.

These numbers have a direct impact on the water offer and quality in the region, which

becomes even more important due to the severe water crisis that affected the State of São Paulo in 2014/2015. And the achievements of the period are even more significant due to the economic crisis of the last years, which reduced the revenues of the Union, the states and municipalities severely, limiting the investment capacity.

What is the “secret” for this success on PCJ? “There is no secret; since we had limited resources, we invested since the beginning in partnerships and agreements that led to clear investment priorities”, says the president director of the PCJ Basin Agency, Sergio Razera. “The concentrated effort explains the positive numbers”, he adds.

2000

JULY
The Law no. 9,984 creates the National Water Agency (ANA).

2002

MAY
Creation of the Federal PCJ Committee and constitution of the PCJ Committees. Integration between CBH-PCJ and Federal PCJ.

2004

JUNE
The Federal Law no. 10,881 regulates the delegation of the water agency's roles.

2005

OCTOBER
The PCJ Committees approve the charging for the use of water resources for waterbodies under the domain of the Union on the PCJ Basins.

The nomination of the PCJ Consortium is approved to perform the duties of the Water Agency on rivers under the domain of the Union.

The transitory delegation to the PCJ Consortium allows the installation of the PCJ Water Agency.

DECEMBER
The State **Law no. 12,183** regulates the charging for the use of water resources in the State of São Paulo.



“During the first years of the work, we invested over 80% of the resources raised from charging the water usage in the domestic sewage collection and treatment. This was the biggest problem in the region, since the industrial waste production has always been adequately controlled by the Environmental Company of the State of São Paulo (Cetesb). The industry removes 92% of everything it produces in terms of water contamination in the region,” he affirms.

“From 2012/2013, due to the significant advance on urban sewage

collection and treatment, we then became dedicated to fight water losses on municipal supply systems. According to our calculation, from every 100 liters of water collected, 36 liters got lost, mainly during the distribution. The goal, for 2020, is to reduce the losses to 25%, and we believe we are already close to 31%,” says Razera.

The Plan of the PCJ Basins estimated investments of R\$ 886 million between 2009 and 2020 to recover the quality of the waterbodies, including the implementation of effluent collection and

“We are working hard to protect the springs, toward environmental education and to monitor the volume and quality of the Rivers’ waters”

Sergio Razera,
president director of the PCJ
Basin Agency.

The Basin Plan estimates investments of R\$ 886 million between 2009 and 2020.



treatment systems. It is estimated that, in order to reach the collection and treatment goals, established for 2020, approximately R\$ 373 million are still necessary.

The resources have been obtained mainly from the State Government, the Federal Government – through the Growth Acceleration Program (PAC) and from resources

derived from the municipalities and from partnerships.

New projects

The success reached in sewage collection and treatment and in the reduction of water losses has allowed the Committees and the PCJ Agency to dedicate efforts and resources to new projects.

“We are working hard to protect the springs, toward environmental education and to monitor the volume and quality of the Rivers’ waters,” says Sergio Razera. “Also, we want to improve the sewage and water treatment, so as to return higher-quality waters to the Rivers”, he concludes.💧

2006

SEPTEMBER

The PCJ Committees approve the charging for the use of water resources for waterbodies under the domain of the State of São Paulo on the PCJ Basins.

2008

MARCH

Installation of the Piracicaba-Jaguari Committee – Committee from the State of Minas Gerais

JUNE

Integrated creation of the PCJ Committees and the Committee for the Basins of the Piracicaba-Jaguari Rivers (CBH-PJ).

2009

MAY

The by-laws of the PCJ Basin Agency are approved.

AUGUST

PCJ Committees approve the procedures to nominate the Deliberative and Supervisory Boards and the nomination of the president of the PCJ Foundation, mayor Barjas Negri (Piracicaba).

NOVEMBER

Installation of the PCJ Basin Agency

REDUCING LOSSES: strategic goal

The action of the PCJ Committees allows important advances in water loss reduction. However, there is still plenty to do.



Marco Antonio dos Santos,
vice Vice-President of the PCJ Committees and
Technical Director of Sanasa/Campinas.

In every water collection, treatment and distribution system, one of the major problems are losses. The water that is collected and treated, but that is not consumed and gets lost on the way. Considering that water is an increasingly scarce resource, controlling water losses is fundamental.

Controlling water losses in supply systems is an operating activity that must be developed by every basic sanitation company. And, this is strategically related to the company's financial health.

Losses, on some level, happen in every water supply system in the world with two different characteristics: actual losses, created by leakage, and apparent or financial losses, related

to fraudulent connections, lack of hydrometers and water theft. "I understand that loss reduction, much more than a strategic objective, must be faced as an important additional finan-

cial resource, fundamental also for the environmental and social process, being part of the sustainability strategy of every company whose raw material is such an important asset as water", said Mar-



2009

DECEMBER

The PCJ Committees approve the nomination of the Foundation to perform the duties of the water agency.

2010

FEBRUARY

CNRH 111 Resolution – Delegates the authority to the PCJ Basin Agency Foundation to perform the duties of the PCJ Basin Water Agency.

NOVEMBER

The PCJ Committees approve the Management Agreement draft between ANA and the PCJ Basin Agency Foundation.

2011

JANUARY

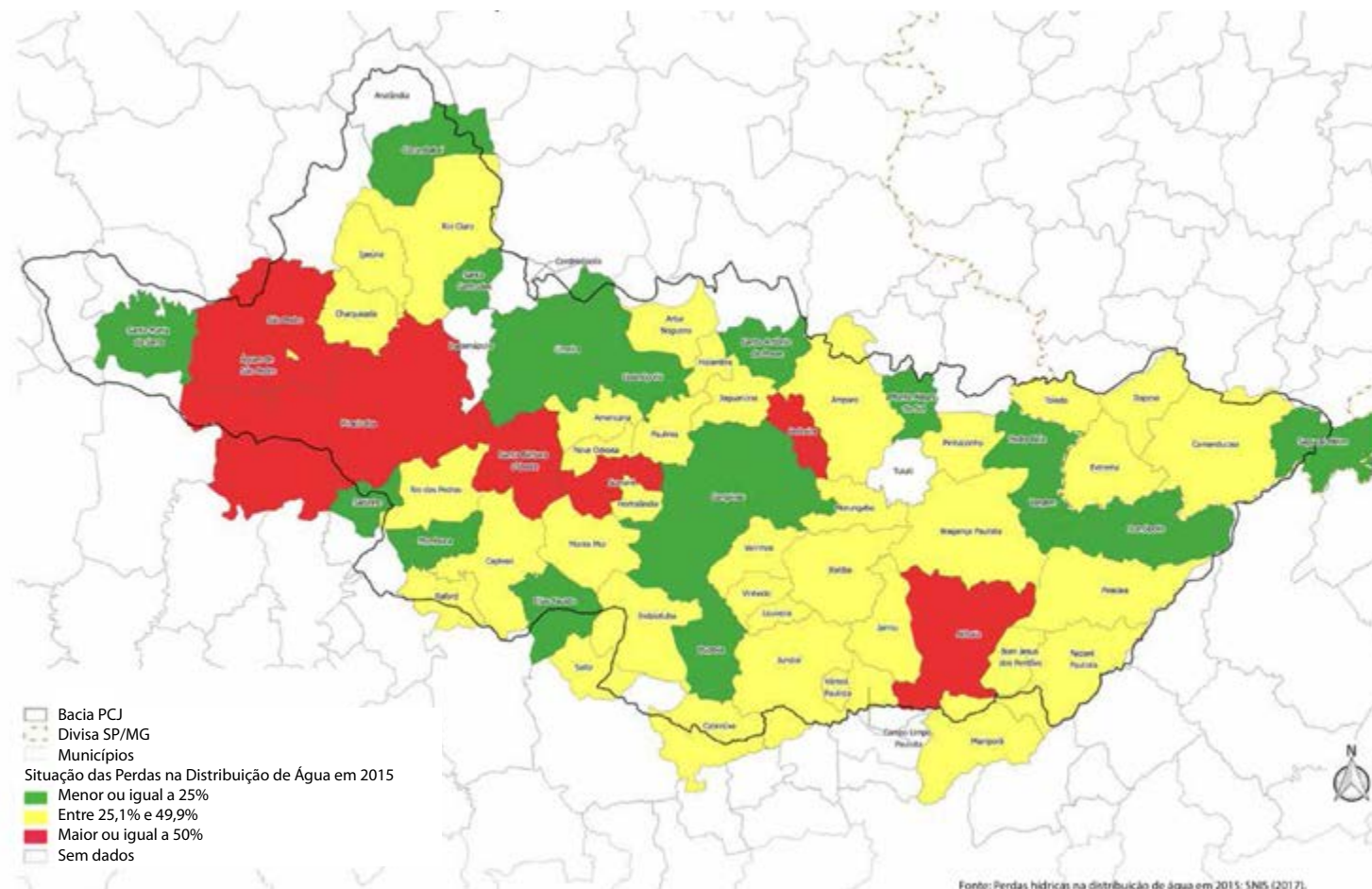
The PCJ Basin Agency is delegated the roles of water agency for the PCJ Basins, according to the federal legislation.

2012

DECEMBER

The internal regulation of the Basin Committee for the Piracicaba and Jaguari rivers is approved.

Water Losses in Water Distribution, by municipality.



The goal of the PCJ Committees is to reduce losses to

25% up to 2020.

co Antonio dos Santos, Technical Director of Sanasa Campinas and Vice-President of the PCJ Committees.

Between 1994 and 2016, the PCJ Committees invested to fight losses not less than 36% of the financial resources made from charging the water resource usage in the federal and state domains of the basins in São Paulo and Minas Gerais, as well as in the State Fund for Water Resources from the State of São Paulo (Fehidro).

The results are significant. In 2012, it was calculated that 36% of the water captured got lost in the process. Today, this number was reduced to 31%, and the goal is to reduce losses to 25% by 2020.

That is, a lot was accomplished, but there is a long way ahead. After all, most municipalities of the PCJ Basins still show

inadequate levels usage for the captured water.

With data provided by the National Sanitation Information System (SNIS), by the PCJ Basin Agency classifies the municipalities into three categories, according to the loss percentage: lower or equal to 25%; between 25.1% and 49.9%, and higher than 50%.

Most municipalities of the PCJ Basins is between 25.1% and 49%. However, some of the municipalities with the largest pop-

ulations were already able to reduce losses to class one.

The average in Brazil is 39.07% for financial losses (6.53 billion cubic meters a year) and 36.9% (5.95 billion cubic meters a year) for actual losses, according to SNIS. The water supply systems reach an excellence standard in water losses, with indicators lower than 15%.💧



Photo: PCJ Basins Agency Archive

2013

NOVEMBER

To celebrate the 20th anniversary of the PCJ Committees, the Yara Journalism Award is created.

2014

AUGUST

The National Council of Water Resources (CNRH) approved a resolution that readjusts the charging values for water usage for the Piracicaba, Capivari and Jundiaí rivers (PCJ). The Basic Unit Prices (PUBs) are paid by large collectors to the National Water Agency (ANA).

2015

OCTOBER

Approval of the Recovery, Preservation and Protection Policy for Springs of the PCJ Committees.

2017

APRIL

The requalification of the last stretch – from category 4 to category 3 – makes the waters of the Jundiaí river to be considered adequate for collection and treatment across the entire trajectory. The Jundiaí river is the first one in the country to be completely requalified.

2018

MARCH

World Water Forum, in Brasília.

NOVEMBER

25 years of CBH-PCJ.

Charging for the Use of Water Resources

This measure has been fundamental to improve the quality of the waters of the PCJ Basins.



The charging for the use of water resources has become a great ally in the fight to recover the water basins all over the country. Established by the PCJ Committees in 2006, the charging generates indispensable financial resources to preserve and maintain the quality of the water.

In relation to the PCJ Basins, the most expressive outcome from charging for the use of water resources is the evolution of the sewage treatment, which went from 6% of the total amount produced by the municipalities of the region to 72%, in 2016. Among other achievements, this work al-

lowed the reclassification of the last stretch of the Jundiá River. In 2017, the municipality of Salto, for example, was once again able to collect water from the Jundiá River for treatment.

Another fundamental destination for the charged resources are the Payments for Environmen-

tal Services (PSA). PSA rewards rural landowners that adopt water resource recovery and preservation practices on their lands.

The numbers of the 76 municipalities covered by the PCJ Basins show the importance of the subsidies generated by this charging for the collection of water resources. Currently, in most of the municipalities on the area of the three basins, the water distribution network reaches over 90% of the population. The sewage collection also exceeds 90%, while three fourths of all the collected sewage already go through treatment.

The values created by the charging are also destined to reforestation, loss control and environmental education.

In 2016, the charging for the use of water resources on the PCJ Basins reached 2,597 users from the State of São Paulo, 122 federal users and 25 from the State of Minas Gerais. The water usage charging generated R\$ 55 million in 2016 and R\$ 321 million between 2006 and 2016. The numbers are from the PCJ Basin Management Report, from 2016.

The charging in Rivers from the federal domain is an example of efficient management of public resources, since from the amount of R\$ 212,478,336.26 raised between 2006 and 2016, 98% are hired and 70% of the total has already been paid.

For the Administrative and Financial Director of the PCJ Basin Agency, Ivens de Oliveira, "the charging is an instrument, whose goal is to confer water its real

value, stimulating the rationalization of natural resources. The generated resources are an indispensable management instrument to improve and preserve the water quality," says Ivens.

In 2018, the resources generated with the charging shall be used on the Environmental Recovery, Preservation and Protection Program for the areas of interest, allocated to the following projects: Analândia sources, Charqueada/São Pedro springs, and the elaboration of Integral Property Projects (PIPs) on the Sub-basin of Tabajara, in Limeira.

The Payment for Environmental Services Program (PSA) will also receive funds in 2018 for the Jaguariúna Basin project and the Mantiqueira Preservation project (PSA-MG). The PCJ Basin Agency will also dedicate funds from the charging to open a new Selection Bidding for Areas and Projects related to the PCJ Springs Policy, in the area of the PCJ Basins in São Paulo. 💧



Ivens de Oliveira,
Administrative and Financial Director
of the PCJ Basin Agency



The Charging for the Use of Water Resources is regulated, in São Paulo, by **Law no. 7,663 from 1991**; in Minas Gerais by **Law no. 13,199, from 1999**; and on the federal level by **Law no. 9,433, from 1997**.

JUNDIAÍ RIVER: advancing toward its decontamination

The River is the first one in Brazil to be reclassified – from class 4 to class 3 – after 34 years of mobilization and investments from society and the public power.

Photo: PCJ Basins Agency Archive



Text Mode



“The result was only possible due to the articulation of all the society around the basin of the Jundiaí River and, then, of the entire PCJ region”.

Domênico Tremaroli
Cetesb Jundiaí

The Jundiaí River became the first one in the country to be reclassified – from class 4 to class 3 – by the Council of Water Resources from the State of São Paulo (CRH) and, now, its waters may be used for human consumption, after treatment, along the entire course of 123 km, within eight municipalities. The last stretch of the River, with 56 km, was reclassified in 2016, which will reduce the several water supply problems of the city of Salto and the region.

In 1977, the Jundiaí River was classified on class 4, the most severe of the classification (see chart on page 21), indicating that its waters could not be collected for treatment, not even for industrial use.

The reclassification is a major achievement of the Committees, the PCJ Basin Agency and the technical chambers, and it involved “several people, lots of money and a lot of time,” explains Domenico Tremaroli, Manager of the Environmental Agency of Cetesb Campinas. “The result was only possible due to the articulation of all the society around the basin of the Jundiaí River and, then, of the entire PCJ region,” he adds.

The Jundiaí River is one of the largest affluent of the Tietê River and, for decades, it received thousands of tons of sewage and industrial waste, in several areas, because it covers a highly urbanized and one of the most industri-

alized regions in the State of São Paulo.

The central point for the decontamination was the creation of sewage treatment stations on the municipalities of Campo Limpo Paulista, Várzea Paulista and Itupeva, with state, federal and municipal resources and the charging for the use of water resources.

The city of Jundiaí, which was responsible for 70% of the River’s pollution, worked intensively not to contaminate the springs. The

State Government invested in a recovery model for the water basin, and Cetesb managed the actions. It also funded the executive projects of structural works. The municipalities and their autonomous water and sewage services contributed for the execution of the works, while the industries anticipated resources from the water usage charging.

The advances in the decontamination of the Jundiaí River also have positive effects on the Tietê River, one of the most important – and also one of the most polluted – Rivers in the State of São Paulo.

“Now, Jundiaí is no longer considered polluted along its entire extension,” says Domenico Tremaroli. “The waters of the Jundiaí River are not only appropriate for supply, but the fish returned to the River, which was unthinkable some years ago. One of the fish species is jundiá, which names the River,” Tremaroli concludes. 💧

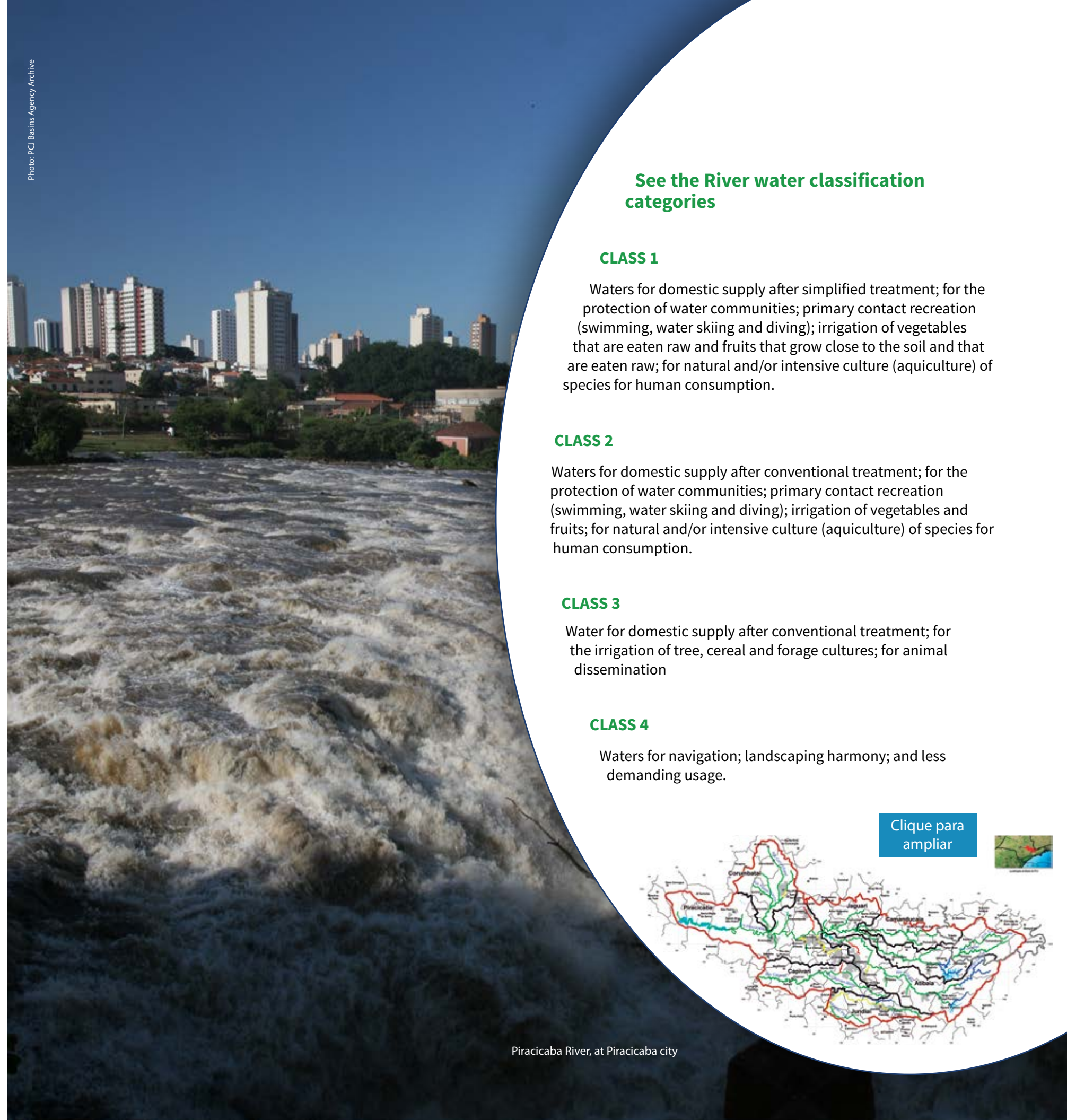


ETE Campo Limpo



ETE Varzea Paulista

Photo: PCJ Basins Agency Archive



See the River water classification categories

CLASS 1

Waters for domestic supply after simplified treatment; for the protection of water communities; primary contact recreation (swimming, water skiing and diving); irrigation of vegetables that are eaten raw and fruits that grow close to the soil and that are eaten raw; for natural and/or intensive culture (aquaculture) of species for human consumption.

CLASS 2

Waters for domestic supply after conventional treatment; for the protection of water communities; primary contact recreation (swimming, water skiing and diving); irrigation of vegetables and fruits; for natural and/or intensive culture (aquaculture) of species for human consumption.

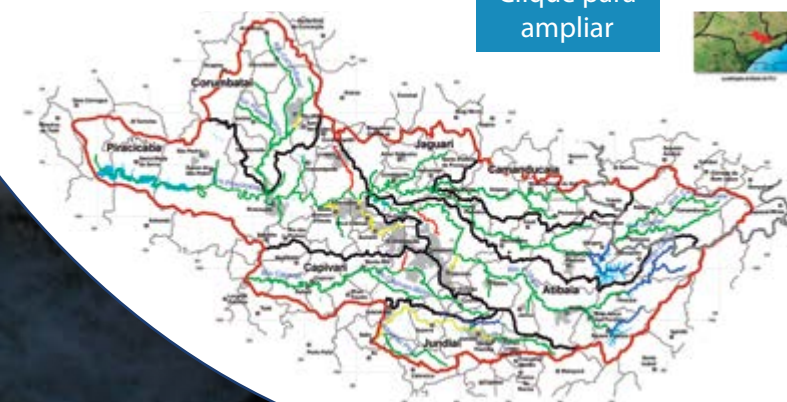
CLASS 3

Water for domestic supply after conventional treatment; for the irrigation of tree, cereal and forage cultures; for animal dissemination

CLASS 4

Waters for navigation; landscaping harmony; and less demanding usage.

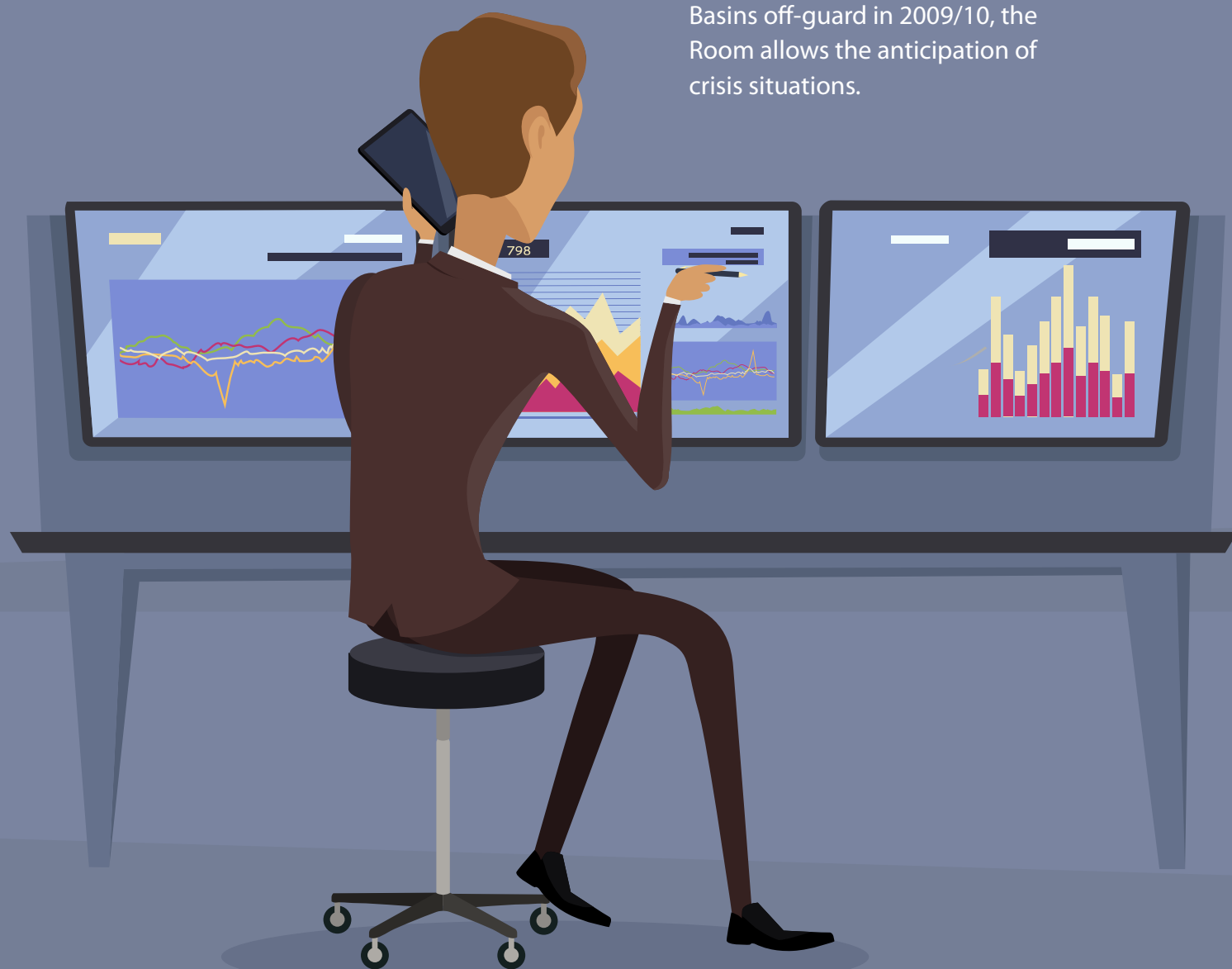
Clique para ampliar



Piracicaba River, at Piracicaba city

SITUATION ROOM: real time monitoring

Created after the floods that caught the region of the PCJ Basins off-guard in 2009/10, the Room allows the anticipation of crisis situations.



Text Mode

Monitoring in real time the water and rainfall conditions of the PCJ Basins. This is the role of the PCJ Situation Room (SSPCJ), created on October 2010, which also monitors the flow rates and levels of the seven main Rivers of the three basins – Piracicaba, Capivari, Jundiaí, Atibaia, Jaguari, Camanducaia and Corumbataí –, of several affluent, as well as the Cantareira System. It also monitors the collection flows and the discharge of major users.

SSPCJ was created after the region of the PCJ Basins was caught off-guard by floods in several cities, leaving many families without their homes.

An agreement between the Committees and the PCJ Agency, the Department of Water and Electric Power (DAEE), the Agricultural Research Support Foundation (Fundag) and the Hydraulics Technological Center Foundation of the University of São Paulo (FCTHUSP) allowed the installation of the Room, operating in the headquarters of DAEE, in Piracicaba. And, it became even more important during the severe water crisis that occurred in the State of São Paulo in 2014/15.

“With the assistance of computer tools, SSPCJ provides data that guide managers to release or restrict

flows. It also issues warnings related to floods or droughts, in order to contact public authorities and the Civil Defense when necessary,” explained Luiz Roberto Moretti, Director of the Médio Tietê Basin (DAEE). The Room counts on 34 monitoring spots (level, flow and rainfall), four collection volume-measuring spots and one spot to measure the sewage discharge volume. On some spots, it is also possible to estimate the level six hours in advance.

Considering the relevance of the Situation Room, measures are being established to concentrate data on the water quality of the Rivers, interconnecting the information from the Infoáguas System, from Cetesb and SSPCJ through a cooperation agreement among Cetesb, DAEE and the PCJ Basin Agency.

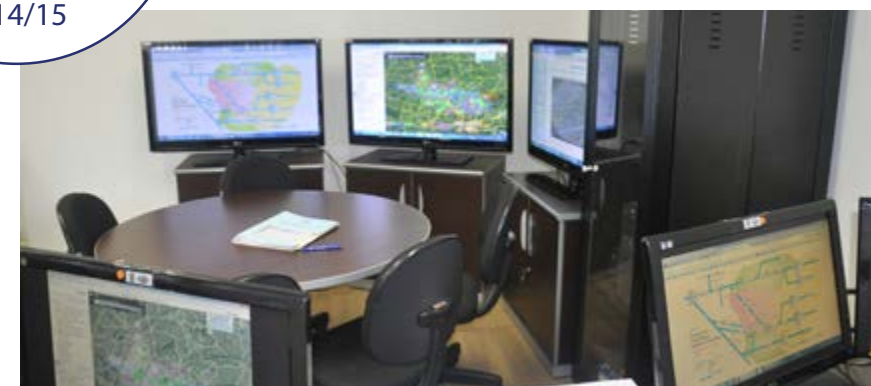
The Room’s website(www.sspcj.org.br) provides ac-



Luiz Roberto Moretti,
Director of the Médio Tietê Basin
(DAEE).

cess to Daily Reports (rainfall, level and flow data, rainfall estimation and radar images) and to Daily Synthesis Reports (rainfall and flow on the PCJ area), as well as to monthly newsletters with rainfall data; a rainfall map; operation graphs for the Cantareira System; average, maximum and minimum flows of the Rivers monitored by DAEE’s telemetry; and monthly limnograms (River level) and hydrograms (River flow). ♦

The Situation Room became even more important after the water crisis in 2014/15





WATER: a universal right

SPECIAL CONTENT

The PCJ Committees elaborated a Water Safety Plan, adequate to the goals of WHO.

The Water Safety Plan, created by the World Health Organization (WHO) in 1999, attempts to develop control elements to assure the safety of the water quality for human consumption. According to WHO, the water contamination is responsible for 80% of diseases in underdeveloped countries.

From laboratory examinations on water quality and risk assessments, the Safety Plan attempts to minimize the contamination on the water basin of the collection spring, in addition to eliminate contamination on treatment stations and on the distribution network system.

The PCJ Committees are under the final elaboration phase of the Water Safety Plan's Pilot Project, which will create a Reference Term for the municipalities of the PCJ Basins.

Developed by the Environmental Health Technical Chamber of the Committees (CT-SAM), the pilot project has been implemented in four partnering municipalities: Santa Bárbara d'Oeste, Santa Gertrudes,

Cordeirópolis and Ipeúna. The project also counts on the partnership of the São Paulo State University (Unesp), the National Health Foundation (Funasa), the Brazilian Sanitary and Environmental Engineering Association (ABES) and the University of São Paulo (USP).

After several training stages for the technicians of sanitation companies, in September 2017, a team from Funasa visited the four cities to analyze the water quality. Now, the team is elaborating the diagnosis, with the goal of indicating the critical control points.

According to Adriana Correa, Coordinator of CT-SAM, "the plan is a responsibility of the municipalities. It assures the water offered to the population is safe, representing health, not diseases. It is a public health goal. It also assures the quantity and continuity of the water and the supply," she says.

For her, "with the elaboration of the guiding document to hire the services, the so-called Reference Term, we will allow every municipal-



Adriana Fabiana Corrêa da Silva

Coordinator of the Environmental Health Technical Chamber of the PCJ Committees

ity in the region of the PCJ Basins to implement the Water Safety Plan, which will contribute to improve the water quality and the health of the population. The Reference Term will be exclusive, since every municipality will adjust it to their reality", she concludes.💧

Recover, preserve and protect

The Springs Policy of the PCJ Committees implemented since 2015, assures the safe access to water resources and guides the individual protection projects.

SPECIAL CONTENT

The Recovery, Preservation and Protection Policy for the PCJ Springs, started in 2015, through the deliberation of the PCJ Committees no. 238/2015, has four theme programs:

1. Environmental Recovery, Preservation and Protection in areas of interest;
2. Payment for Environmental Services (PSA);
3. Incentive to the creation of Protection and Recovery Areas for Springs (APRM) of regional interest;
4. Protection of the Atlantic Forest and Cerrado Biomes.

“The PCJ Committees, through their Preservation and Protection Technical Chamber for Natural Resources and the Rural

Water Usage and Preservation Technical Chamber, have dedicated joint efforts to build this policy,” explains Patrícia Gobet de Aguiar Barufaldi, Technical Director of the PCJ Basin Agency.

She explains that, in order to evaluate the merit of proposals and actions within the scope of the PCJ Springs Policy, GT-Mananciais was created; this is a technical group constituted by representatives from the two chambers mentioned.

The Director adds that the PCJ Springs Policy works as a tool to establish guidelines directed toward the preservation of waters, soil, native vegetation, moist areas, swamps, marginal lakes and springs. “This tool assists in the planning of actions towards the environmental recovery, preservation and protection of areas of interest for supply, in addition to guiding volunteering recovery initiatives”, explains Patrícia.



According to her, the initiatives have been made through the elaboration of Integral Property Projects (PIPs) in the municipalities of the PCJ Basins. “The Policy establishes PIP as one of its instruments, allowing the mapping of the environmental situation within the scale of the rural property, resulting in executive projects toward environmental adequacy, specifically by planning actions for ecological recovery”.

Patrícia Barufaldi highlights as one of the main achievements obtained through the Policy the use of the ArcGIS technology, through a specific application called PIP-PCJ Collector, offering more agility in the field, as well as the online management of data and information, integrated to the PCJ database.

Upon the completion of the PIPs, “the goal is to start concentrating the services to recover the indicated areas, that is, fencing works (isolation of areas with recovery potential), planting, ser-



Patrícia Gobet de Aguiar Barufaldi,
Technical Director of PCJ
Basin Agency

vice maintenance and monitoring, using resources from PAP-PCJ and from other sources (partnerships).

Currently, there are ongoing projects in Holambra, Analândia, Charqueada and São Pedro.

For the following years, the goal is to develop more actions

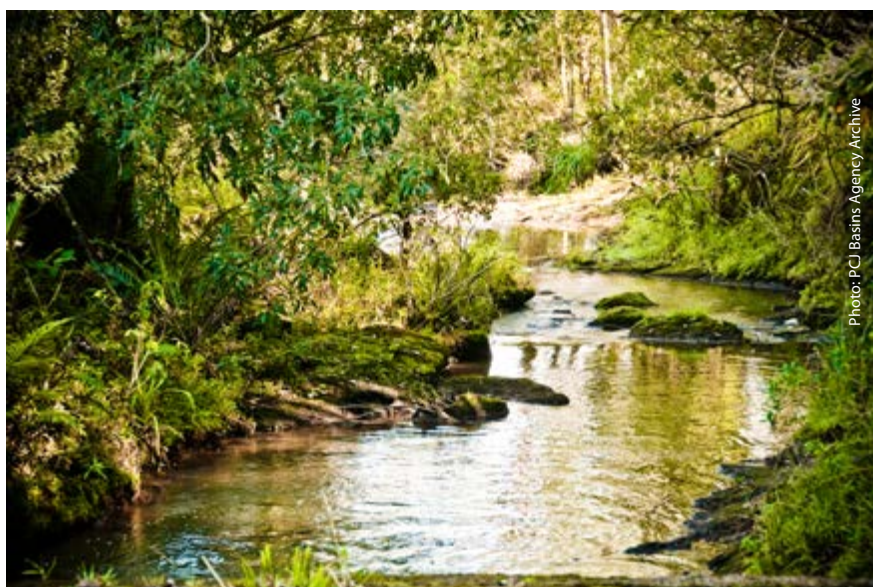
of the program 2 - Payment for Environmental Services (PSA). The

next stages of the work also include the implementation – through GT-Mananciais – of the incentive programs to create Recovery and Protection

Areas for Springs (APRM) of regional interest and the Protection of Atlantic Forest and Cerrado Biomes.💧

The goal now is to develop more actions of the program 2 – Payment for Environmental Services.

On the right path for water preservation



João Baraldi,
Coordinator of the Rural Water Usage
and Preservation Technical Chamber
(CT-Rural)

Created in 2015, GT Mananciais has been fundamentally important for the definition and implementation of the Springs Recovery, Preservation and Protection Policy of the PCJ Committees. The work group is constituted by members of the Rural Water Usage and Preservation Technical Chamber (CT-Rural) and of the Natural Resources Preservation and Protection Technical Chamber (CT-RN), coordinated by João Baraldi, who is also the Coordinator of CT-Rural.

In addition to Baraldi, the coordination of GT-Mananciais is constituted by Henrique Bel-

linaso (deputy coordinator) and João Demarchi (secretary). The PCJ Springs Policy is a response from the PCJ Committees to the aspirations of the segments that defend a broader application of the resources made from the PCJ charging for the recovery and protection of springs, as well as to preserve the soils, in order to facilitate the rain water infiltration, allowing a greater regularization of flows on our Rivers.

Another action in which GT Mananciais is directly involved is the Forest Recomposition Master Plan on the PCJ Basins, which, according to Baraldi's opinion,

will be decisive to assure water for the countryside and the city. "This role that the Committees and the Agency have performed is fundamental in order to show the right path to the rural producer. This is one of the first steps, and it will teach us the right way to do this, where reforestation is needed and how to preserve the soil. In turn, the city will be benefitted by the countryside. If the water quality and its quantity is improved in the countryside, the city will evidently have a better product in larger amounts", João Baraldi highlights.💧

Educating for change

The Environmental Education Policy of the PCJ Committees allows materials to be adapted to be used across the entire territory of the basins.

The Environmental Education Policy of the Water Basin Committees for the Piracicaba, Capivari and Jundiaí Rivers was created on the Environmental Education Technical Chamber, in 2004. The starting point was realizing the need to implement environmental education on the territories of the PCJ Committees, based on five major axes. They are: the importance of the integrated understanding of the environment, the strengthening of local and regional actions, the building of citizenship and the integration action respecting the pluralism of ideas, the collective construction and the interdisciplinarity.

The policy was approved and established by the deliberation of the PCJ Committees no. 231/15, from 8/12/2015. "In 2013, we discussed and reviewed this policy, from a series of meetings. The result was the deliberation no. 231/2015," explains the environmental manager and specialist on water resources Tiago Georgette, coordina-

tor of the Environmental Education Technical Chamber of the PCJ Committees. He explains that, in 2015, the Work Group of the Environmental Education Policy was created (GT-Política), with the goal of allowing the new Environmental Education Policy to be adapted and used by the different audiences.

The final proposal was approved by the members of the technical chamber in 2016, and its final version was produced in the beginning of 2017. "The next step will be applying the available material to train environmental educators, which will happen in the territory of the basins, under the responsibility of several institutions," he adds.

"The material was made available during the 15th Extraordinary Meeting of the PCJ Committees, which took place in August 2017, in Holambra (SP)," explains Tiago Georgette.

Formação de educadores ambientais é uma das prioridades dos Comitês PCJ



Tiago Valentim Georgette,
Coordinator of the Environmental
Education Technical Chamber (CT-EA)

Exchange of experiences

"Challenges for environmental education, training and social mobilization in face of the water crisis" was the theme of the 14th Environmental Education Interbasin Dialogue, which took place in September 2016, in São Pedro (SP). For Tiago Georgette, "the event allowed a broader dialogue on environmental education among the representatives of the 21 committees of water basins of the State of São Paulo". "I am certain that this exchange of experiences will benefit everyone", he concludes.💧

SPECIAL CONTENT



Jaguari River Falls, Sapucaí Mirim, MG

Photo: Paulo Henrique



Payment for Environmental Services

The basin Program in Jaguariúna and the expansion of the Preservation Project in Mantiqueira are the priorities for the following years.

The PCJ Committees will have as their priority for the following years two major initiatives related to the Payment for Environmental Services (PSA): the PSA Program for Jaguariúna Basins and the expansion of the Preservation Project in Mantiqueira (PSA-MG).

PSA rewards rural landowners that adopt water resource preservation practices on their lands. Specially, for the recovery of areas with degraded springs and tree planting, promoting a reduction in sedimentation and the increase of the water offer.



Paulo Henrique Pereira,
Coordinator of the Water
Preservation Program.

The payment has been implemented since 2008 in the territory of the Water Basins of the Piracicaba, Capivari and Jundiá Rivers through the Water Production Project. The first experiences were developed on the water micro-basins in Nazaré Paulista and Joanópolis (SP), and in Extrema (MG).

PSA pilot project on the Nazaré Paulista and Joanópolis Basins ma-



Text Mode

tured in 2016. The numbers are rather expressive: 41 signed agreements, 489 hectares of involved area, with payments of R\$ 200 thousand that allowed the recovery of 68.1 hectares in Permanent Preservation Areas (APPs), the preservation of forests in 321.4 hectares and the soil preservation in 99.3 hectares.

The project in Extrema counts on 224 agreements celebrated in rural properties, which demanded investments of R\$ 4.4 million, from which approximately R\$ 1.2 million came from resources made by the Federal PCJ Charging for the use of water resources. The project assured the planting of 1.3 million native trees and it protects 6,378 hectares, with 264,335 thousand meters of built fences, implementation of

one thousand meters of contention for river and rainfall waters and 40 thousand meters of terraces in an area of 100 hectares.

According to Paulo Henrique Pereira, Environment secretary in Extrema, and one of the responsible for implementing PSA in the municipality, the creation of the Water Preservation Project was only possible because the city is part of the PCJ Committees. "The financing we got was indispensable during the project phase, mainly for the Payment for Environmental Services", he says.

"In 2017, we started the project's expansion to municipalities near Extrema and that are also part of the Basin: Sapucaí Mirim and Toledo. For the next years, we will move forward with the project consolidation phase, including the municipalities of Camanducaia and Itapeva. Altogether, the project is being executed in five cities", says Paulo Henrique. ♦

The project started on the micro-basins of Nazaré Paulista, Joanópolis and Extrema. And, it is already under expansion phase.



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