



47TH IAH CONGRESS BRAZIL 2021



XV LATIN AMERICA
HIDROGEOLOGY
CONGRESS



XXI BRAZILIAN
GROUNDWATER
CONGRESS



XXII BRAZILIAN
MEETING OF
WELL DRILLERS



FENÁGUA 2021
NATIONAL WATER
TRADE SHOW

ABSTRACT INFORMATION | POSTER

Code: # 254

Category: 02. GROUNDWATER SUSTAINABILITY: MANAGEMENT, POLICY AND GOVERNANCE

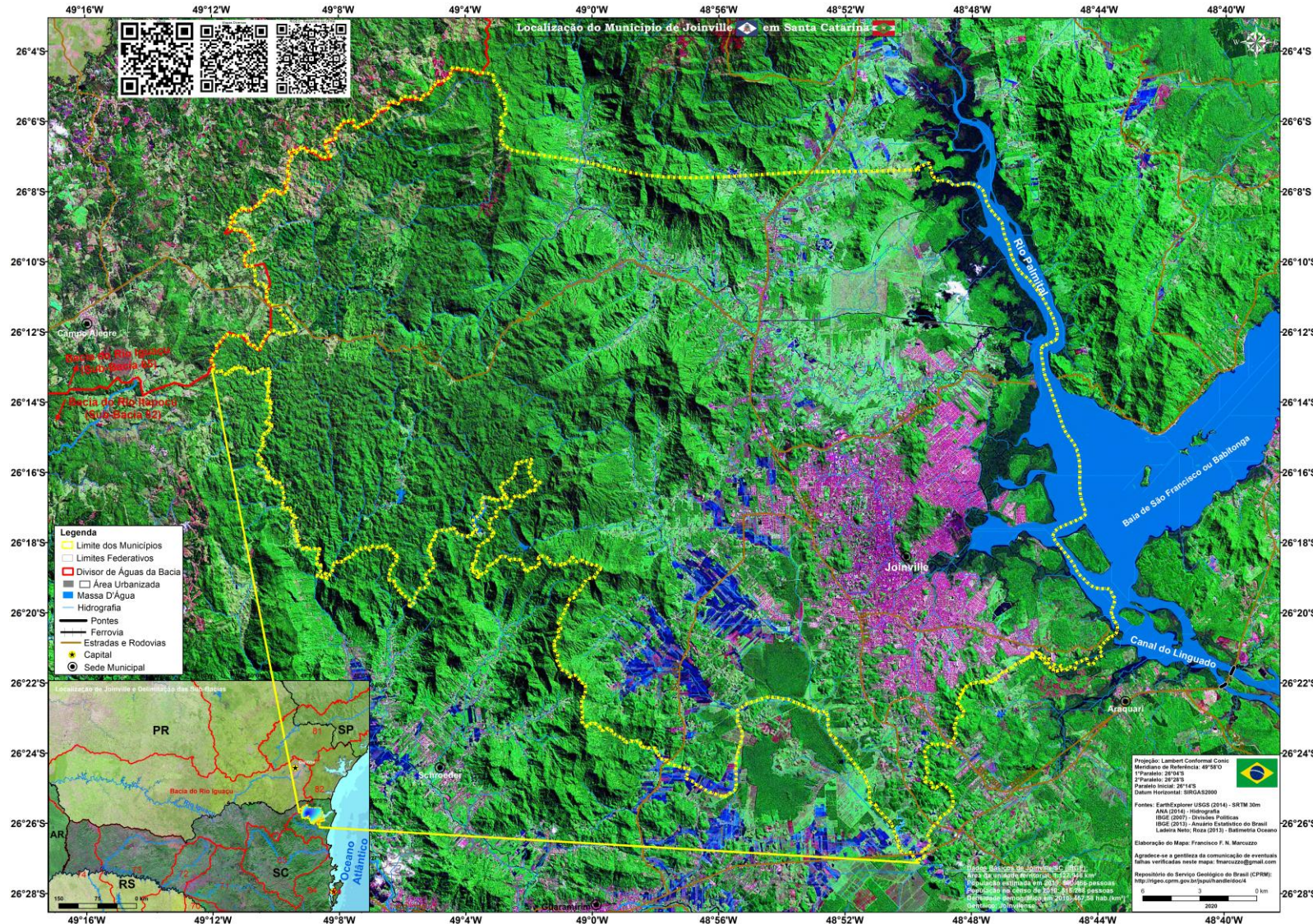
Title: Hydrogeology, Hydrolithology, Annual Exploited Volumes and Soils of the Joinville, Brazil

Author: Francisco Fernando Noronha Marcuzzo

Hydrogeology, Hydrolithology, Annual Exploited Volumes and Soils of the Joinville, Brazil

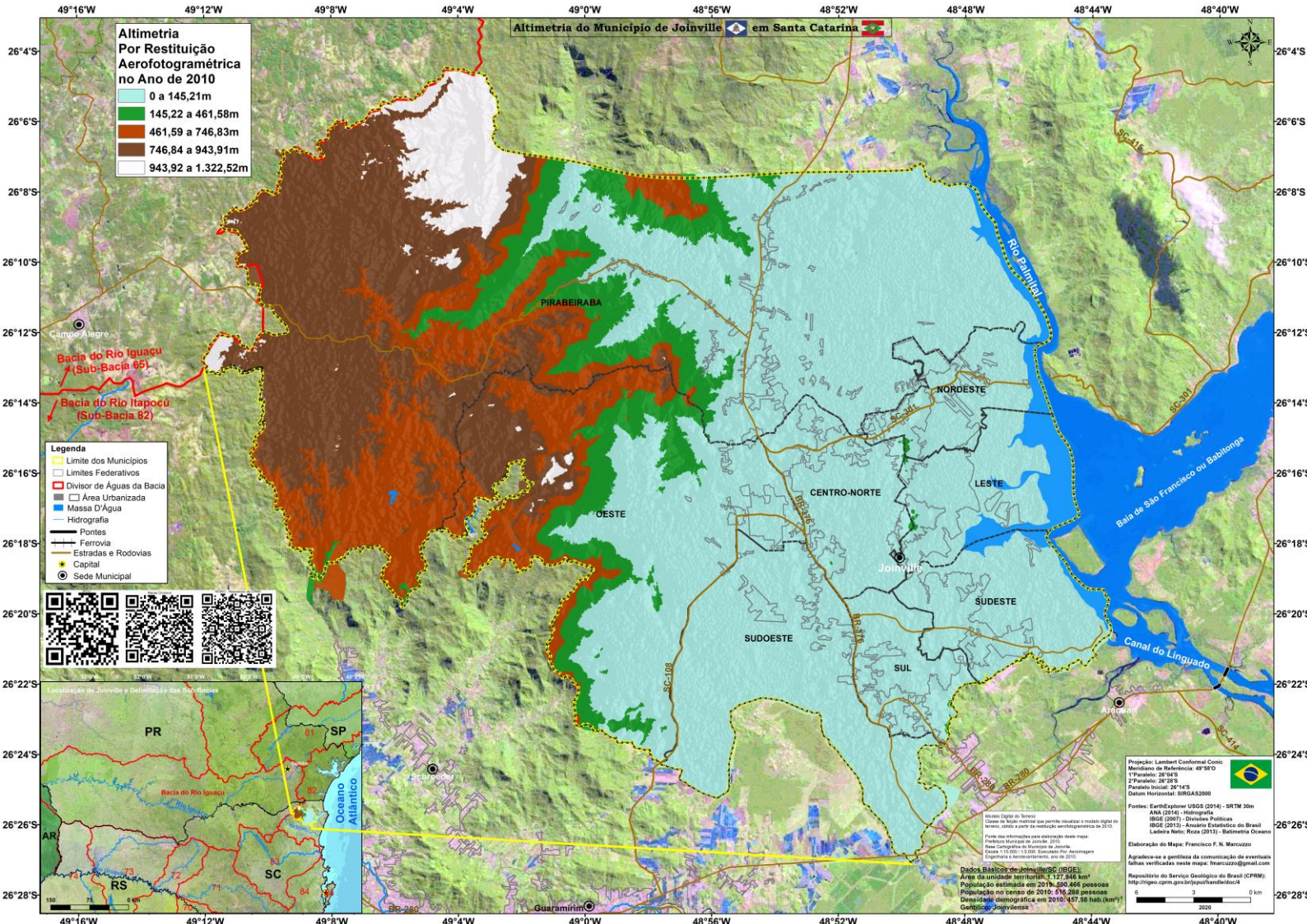
Using clippings from the hydrogeological map of Brazil, from the Geological Survey of Brazil, the objective of this work is to present and discuss the maps of hydrogeology, hydrolithology, explored annual volume and the soils of the municipality of Joinville, in State of Santa Catarina (Brazil).

Map with the location of the municipality of Joinville, in the state of Santa Catarina - Brazil



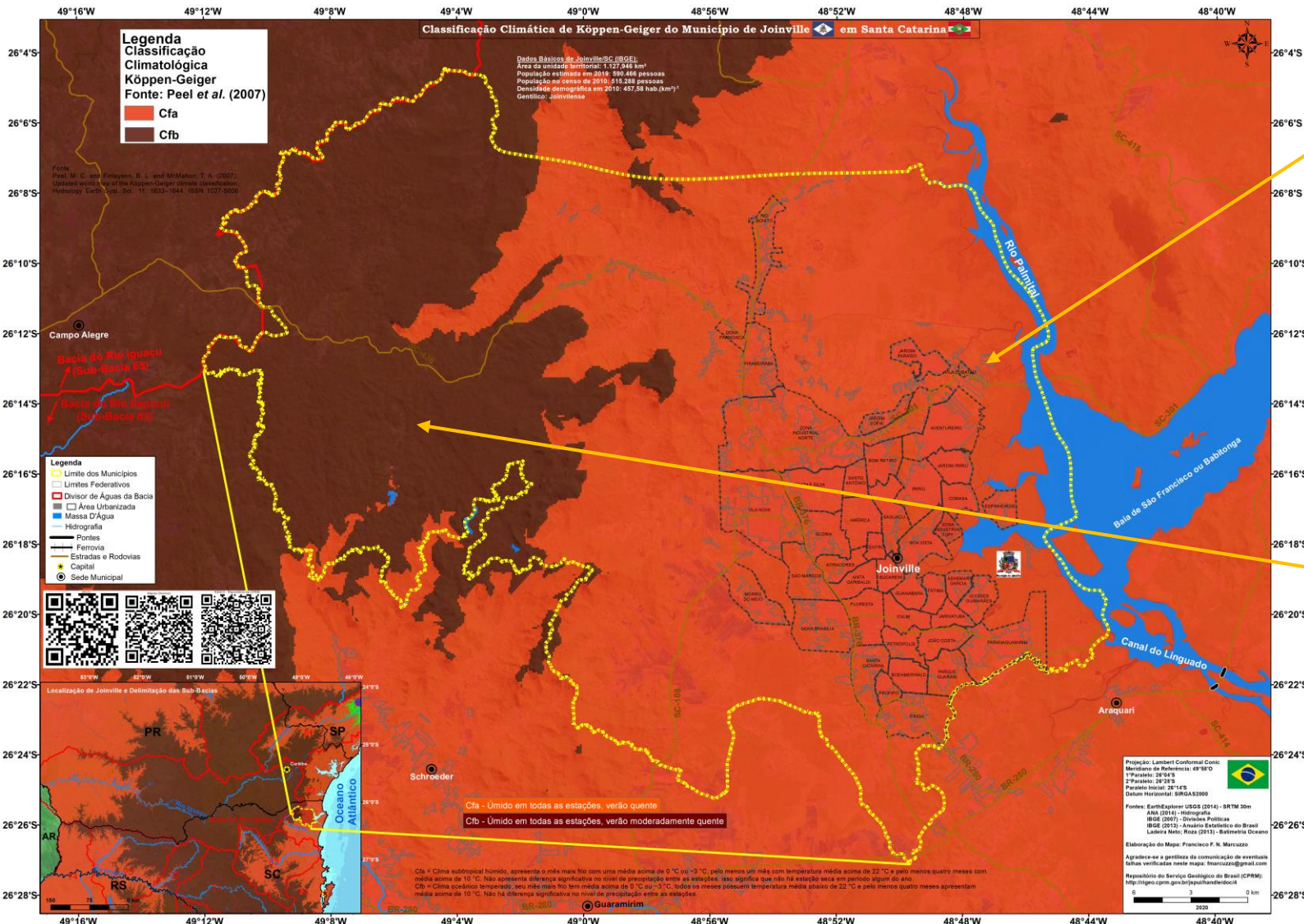
Joinville is a municipality located in South region of Brazil, in the northern region of the State of Santa Catarina, it is the largest city in the state, ahead of the capital Florianópolis, and is the third most populous city in the southern region of Brazil, behind Porto Alegre and Curitiba. The territorial area is 1,127,946 km², estimated population 597,658 people in 2019 results in demographic density of 457.58 people / km².

Hypsometric map of Joinville, in the state of Santa Catarina - Brazil



The altimetry variation of the Joinville is 1,323m, ranging from 0m in Babitonga to 1,323m on North (Pirabeiraba). The hypsometry of this study used images made available by the American Geological Survey (USGS) in 2014, the SRTM 30 meters.

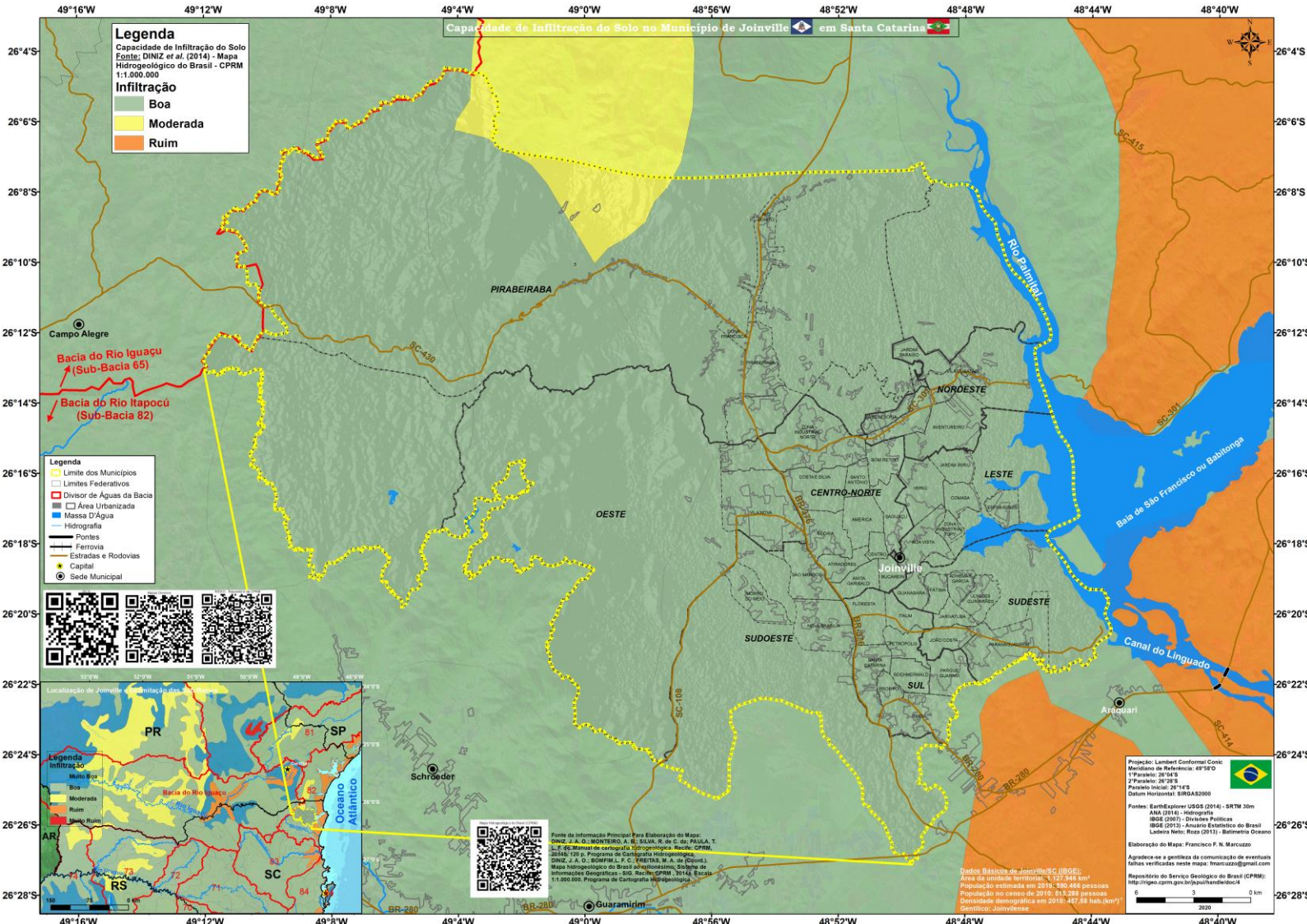
Köppen-Geiger climate classification map of Joinville, in the state of Santa Catarina - Brazil



Cfa = Subtropical humid climate, has the coldest month with an average above 0 °C or -3 °C, at least one month with an average temperature above 22 °C and at least four months with an average above 10 °C. There is no significant difference in the level of precipitation between seasons, which means that there is no dry season at any time of the year.

Cfb = Temperate oceanic climate, its coldest month has an average above 0 °C or -3 °C, every month has an average temperature below 22 °C and at least four months have an average above 10 °C. There is no significant difference in the level of precipitation between seasons.

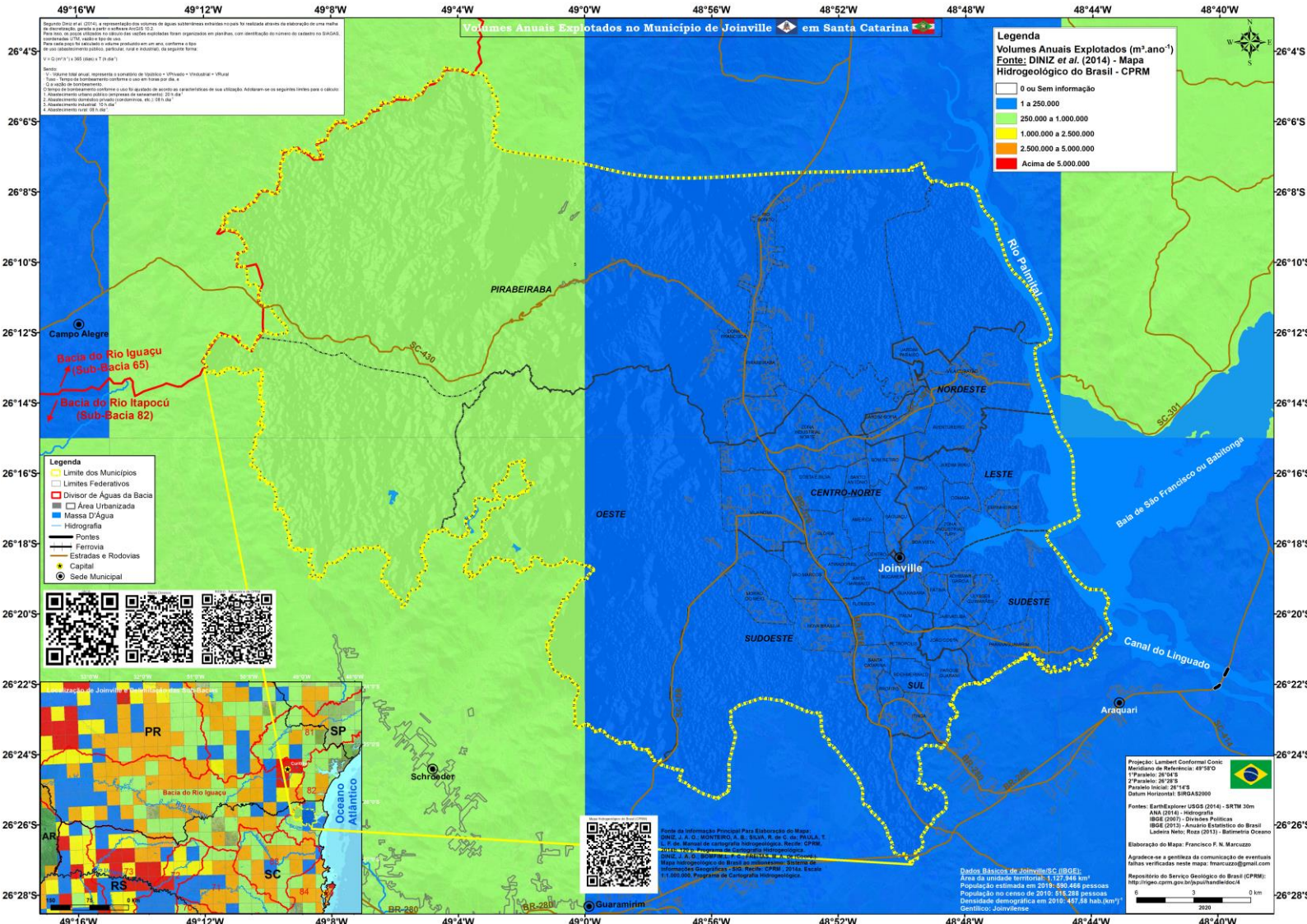
Infiltration capacity of the Joinville, in the state of Santa Catarina - Brazil



Good water infiltration
Moderate water infiltration
Poor water infiltration

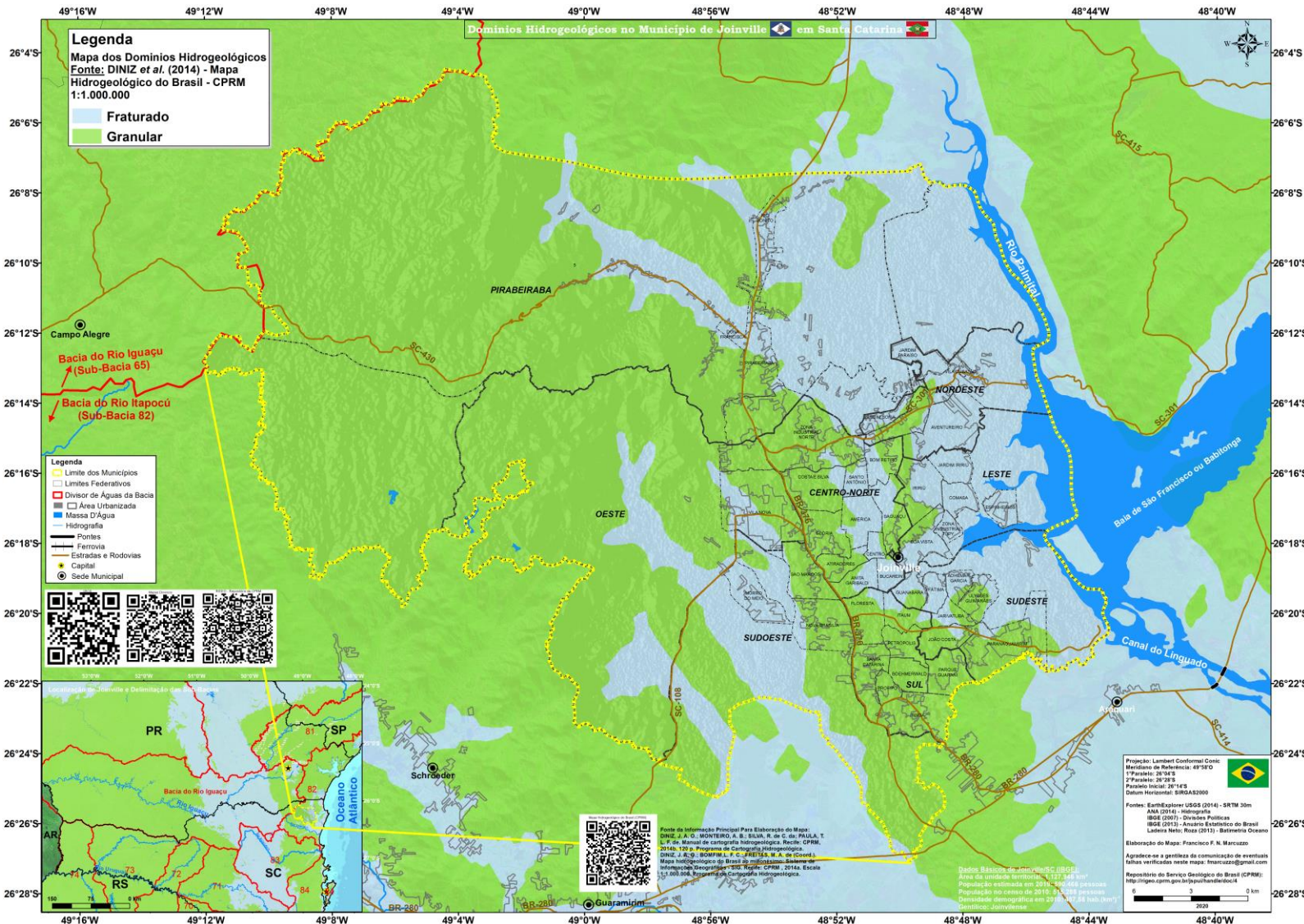
Once you have maps of soils in certain areas, with estimates of their infiltration capacity, you can, from the realization of a water balance and the determination of the respective surplus of available water for underground infiltration, perform qualitative estimates of the recharge of the aquifers. In areas where no more hydrogeological information is available detailed, these data can constitute important tools for estimate local aquifer productivity.

Explored annual volume map of the Joinville, in the state of Santa Catarina - Brazil



In general, in the territory of the municipality of Joinville, the exploited volumes are below 1 million cubic meters per year.

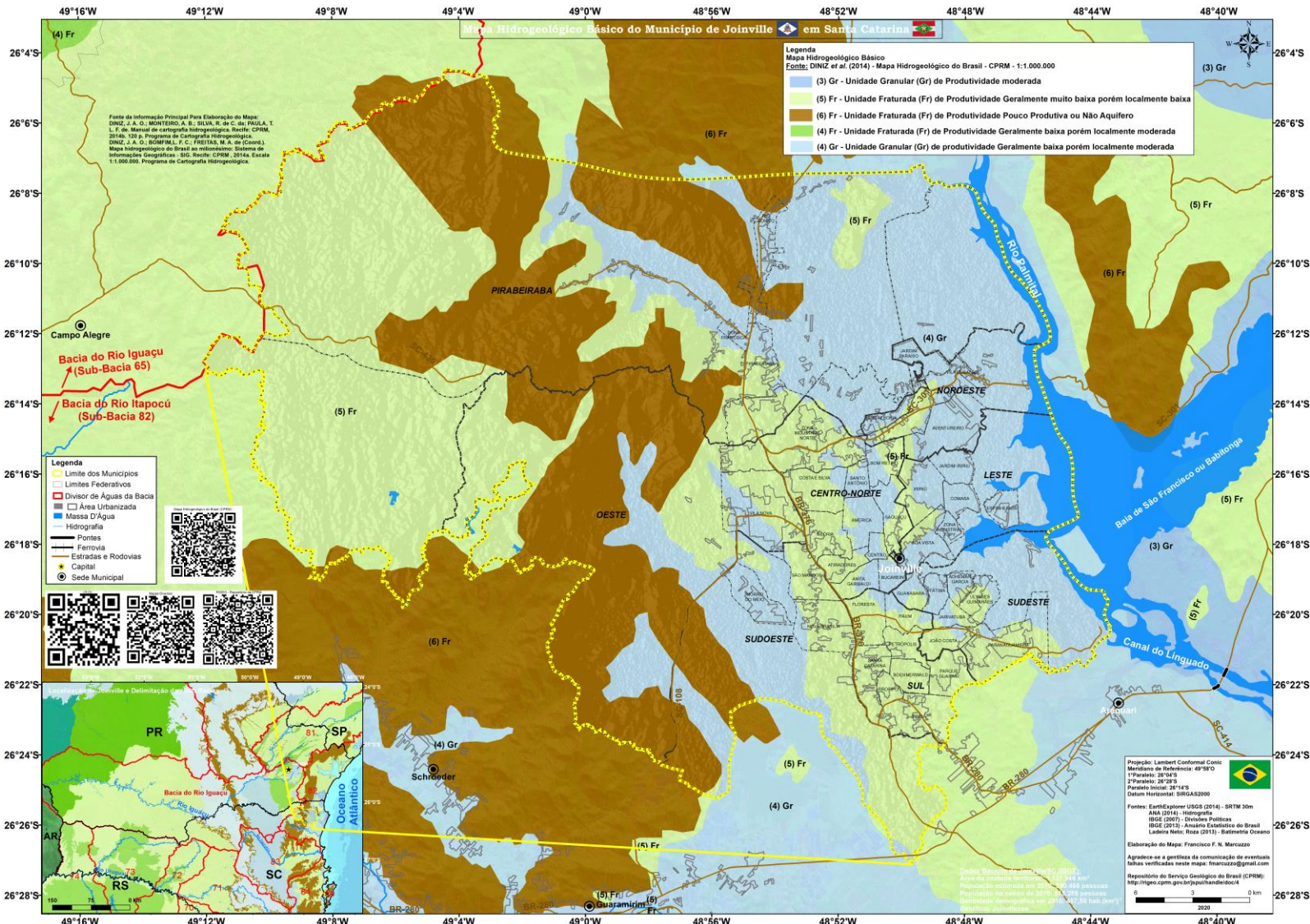
Hydrolytic map of the Joinville, in the state of Santa Catarina - Brazil



The hydrolythology of the city was separated by the grouping of geological units that store and transmit groundwater in a similar way, being the porous or granular, karst and fractured units.

The hydrolytic map of the Joinville shows the granular unit (Gr) with generally low and moderate productivity and fractured units (Fr) with low or low productivity or generally very low productivity.

Hydrogeological map of the Joinville, in the state of Santa Catarina - Brazil

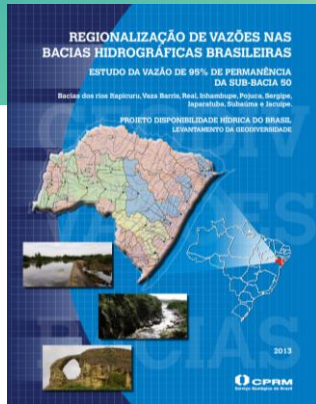
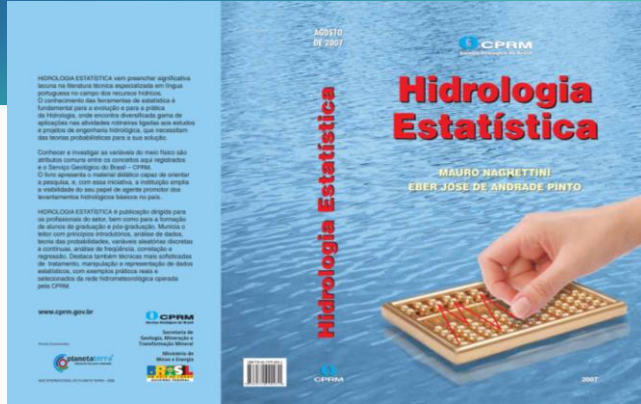
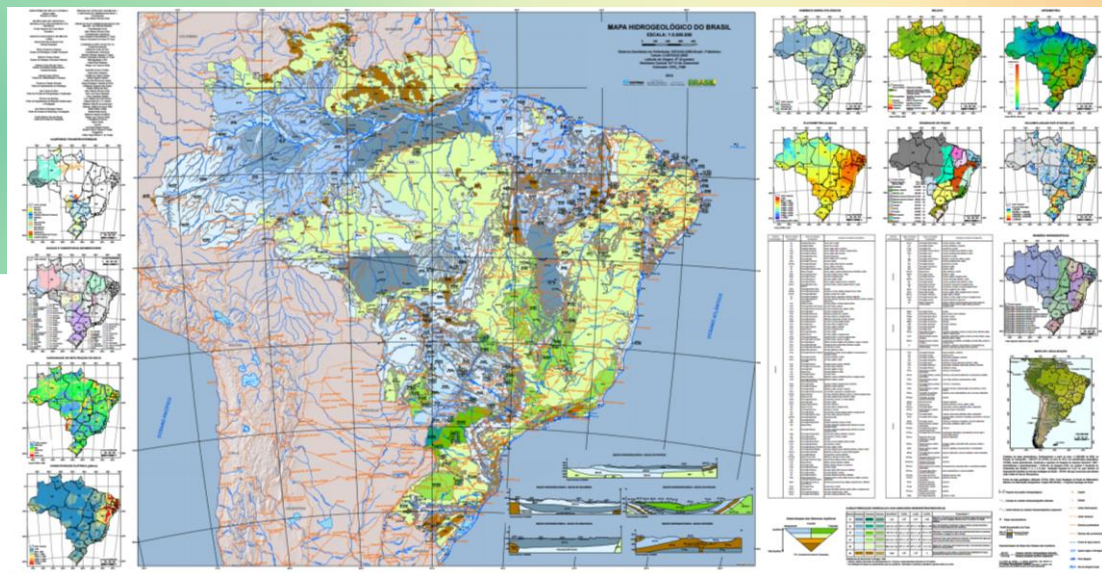


The hydrogeological map is represented by a set of hydro-stratigraphic units, obtained from each existing aquifer, explaining their spatial variations in productivity and generating hydrogeological polygons.

According to information from the Hydrogeological Map of Brazil to the Millionth, published by the Geological Survey of Brazil, hydro-stratigraphic units represent geological formations or parts of them, which store and transmit groundwater in a similar way and with productivity of the same order of magnitude, that is, considering aquifers in places where they do not suffer variations in their productivity.

Find the material on hydrogeology, hydrology and water resources available on the website of the Geological Survey of Brazil:

<https://www.cprm.gov.br/> and <https://rigeo.cprm.gov.br/ispui/>



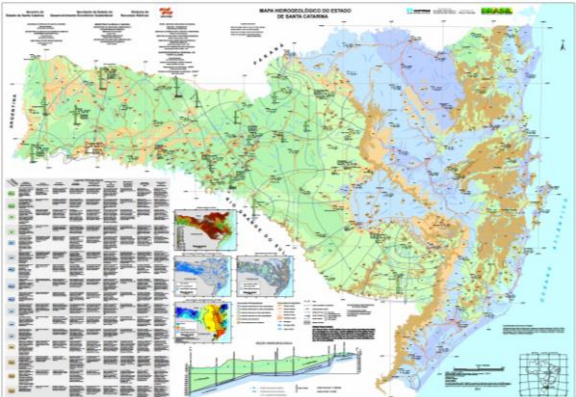
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Área de Destaque | Notícias | Notícias em Português | Notícias em Inglês

Mapa e Projetos

Sistema de Gestão de Recursos Hídricos

Geologia em 3D



RECURSOS HÍDRICOS SUBTERRÂNEOS
LEVANTAMENTO DE RECURSOS HÍDRICOS SUBTERRÂNEOS

REDE INTEGRADA DE MONITORAMENTO DAS ÁGUAS SUBTERRÂNEAS

Relatório Diagnóstico

SISTEMA AQUIFERO GUARANI NOS ESTADOS DE SÃO PAULO, MATO GROSSO DO SUL E PARANÁ
BACIA SEDIMENTAR DO PARANÁ

Volume 15

RIMAS

2012

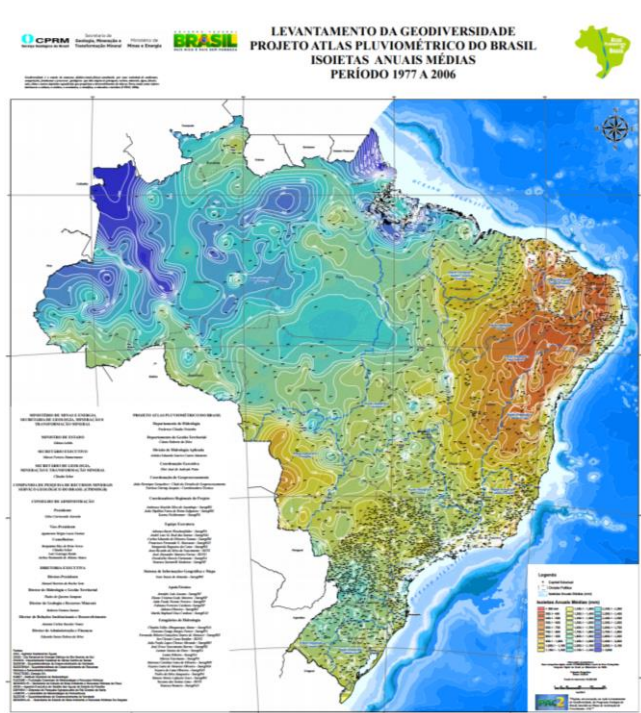
ACOMPANHAMENTO DA ESTIAGEM NA REGIÃO SUDESTE DO BRASIL

RELATÓRIO Nº 6

Área de Atuação da Superintendência Regional do CPRM de São Paulo

2016

SIGAS - Sistema de Informações de Águas Subterrâneas



AÇÕES EMERGENCIAS DE COMBATE AOS EFEITOS DAS SECAS

Execução de Testes de Bombeamento em Poços Tubulares

Manual Prático de Orientação

Programa de Perfuração, Instalação, Recuperação de Poços e Aplicação de Técnicas de Dessalinização de Água Subterrânea

CPRM

AÇÕES EMERGENCIAS DE COMBATE AOS EFEITOS DAS SECAS

NOÇÕES BÁSICAS SOBRE POÇOS TUBULARES

CARTILHA INFORMATIVA

CPRM

MONITORAMENTO ESPECIAL DA BACIA DO RIO DOCE

RELATÓRIO IV

MAIO/16

CPRM

BACIAS MONITORADAS

Os Sistemas de Alertas Hidrológicos que emitem boletins com previsões hidrológicas são:

1. Bacia do Rio Amazonas: em operação desde 1989
2. Bacia do Rio Paraguri (Pantanal): em operação desde 1994
3. Bacia do Rio Doce: em operação desde 1996
4. Bacia do Rio Cai: em operação desde 2010
5. Bacia do Rio Murtai: em operação desde 2014
6. Bacia do Rio Acre: em operação desde 2014
7. Bacia do Rio Madeira: em operação desde 2014
8. Bacia do Rio Parnaíba: em operação desde 2015
9. Bacia do Rio Taquari: em operação desde 2015
10. Bacia do Rio Branco: em operação desde 2015
11. Bacia do Rio Xingu: operação a partir de janeiro de 2017

Encontra-se em fase de avaliação técnica a implantação de 3 novos sistemas, das bacias dos rios Mundaú, Uruguai e das Velhas, e ao final de 2018 a CPRM terá 14 sistemas em operação.

Thank you for your attention!

Find all maps presented in
this work in this link:

<https://rigeo.cprm.gov.br/jspui/>



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