

JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED PLAN
OF
ENVIRONMENTAL IMPROVEMENT
IN
THE CATCHMENT AREA OF LAKE BILLINGS
IN
SAO BERNARDO DO CAMPO CITY
IN
THE FEDERATIVE REPUBLIC OF BRAZIL

Final Report

Supporting Report

February 2007

JICA LIBRARY



1184624 [3]

NJS CONSULTANTS CO., LTD.

&

YACHIYO ENGINEERING CO., LTD.

G E
J R
07-005

Foreign Exchange Rate
¥52.1/Real (Average during Jun. 2005 to Mar. 2006)

JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED PLAN
OF
ENVIRONMENTAL IMPROVEMENT
IN
THE CATCHMENT AREA OF LAKE BILLINGS
IN
SAO BERNARDO DO CAMPO CITY
IN
THE FEDERATIVE REPUBLIC OF BRAZIL

Final Report

Supporting Report

February 2007

NJS CONSULTANTS CO., LTD.

&

YACHIYO ENGINEERING CO., LTD.



1184624 [3]

PREFACE

In response to a request from the Government of Federative Republic of Brazil, the Government of Japan decided to conduct "The Study on Integrated Plan of Environmental Improvement in the Catchment Area of Lake Billings in Sao Bernardo do Campo City in the Federative Republic of Brazil" and entrusted to the study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study team headed by Mr. Ikuo Miwa of NJS CONSULTANTS CO., LTD. between July 2005 and October 2006. In addition, JICA set up an advisory committee headed by Mr. Haruo Iwahori, Senior Advisor, Institute for International Cooperation of JICA, which examined the study from specialist and technical points of view.

The team held discussions with the officials concerned of Sao Bernardo do Campo City and the Government of Federative Republic of Brazil, and conducted field surveys at the study area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the promotion of this project and to the enhancement of friendly relationship between two countries.

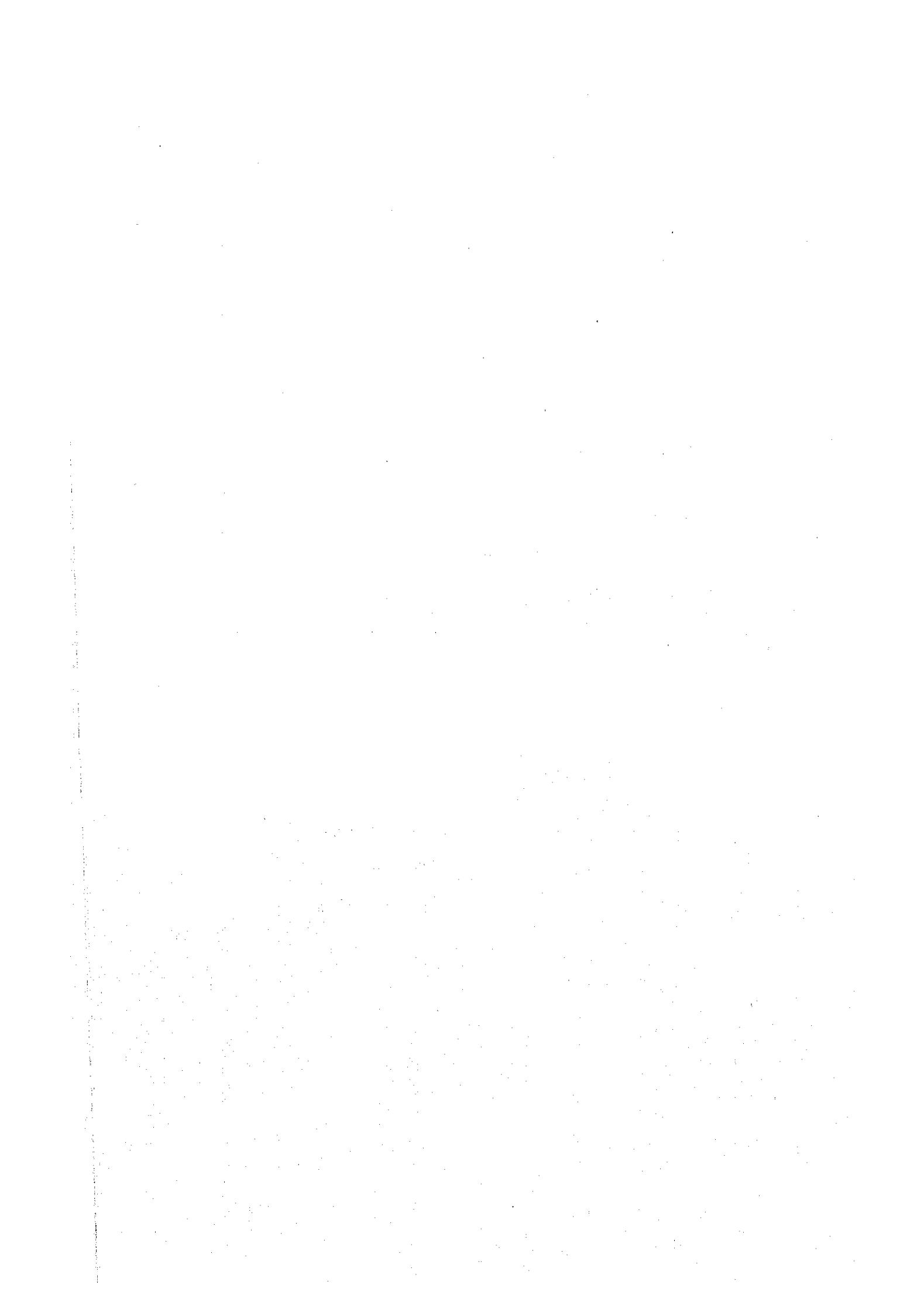
Finally, I wish to express my sincere appreciation to the officials concerned of Sao Bernardo do Campo City and the Government of Federative Republic of Brazil for their close cooperation extended to the study.

February 2007

Ariyuki Matsumoto

Vice President

Japan International Cooperation Agency



February 2007

Mr. Ariyuki Matsumoto
Vice-President
Japan International Cooperation Agency

Letter of Transmittal

Dear Sir,

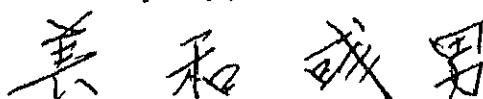
We are pleased to submit herewith the final report for "*The Study on Integrated Plan of Environmental Improvement in The Catchment Area of Lake Billings in Sao Bernardo do Campo*".

The Study aims to achieve the environmental improvement in the Lake Billings, and the Study Team formulated Master Plan in order to improve the water quality, Feasibility Study for priority projects and technology transfer through study activity and seminar/workshop.

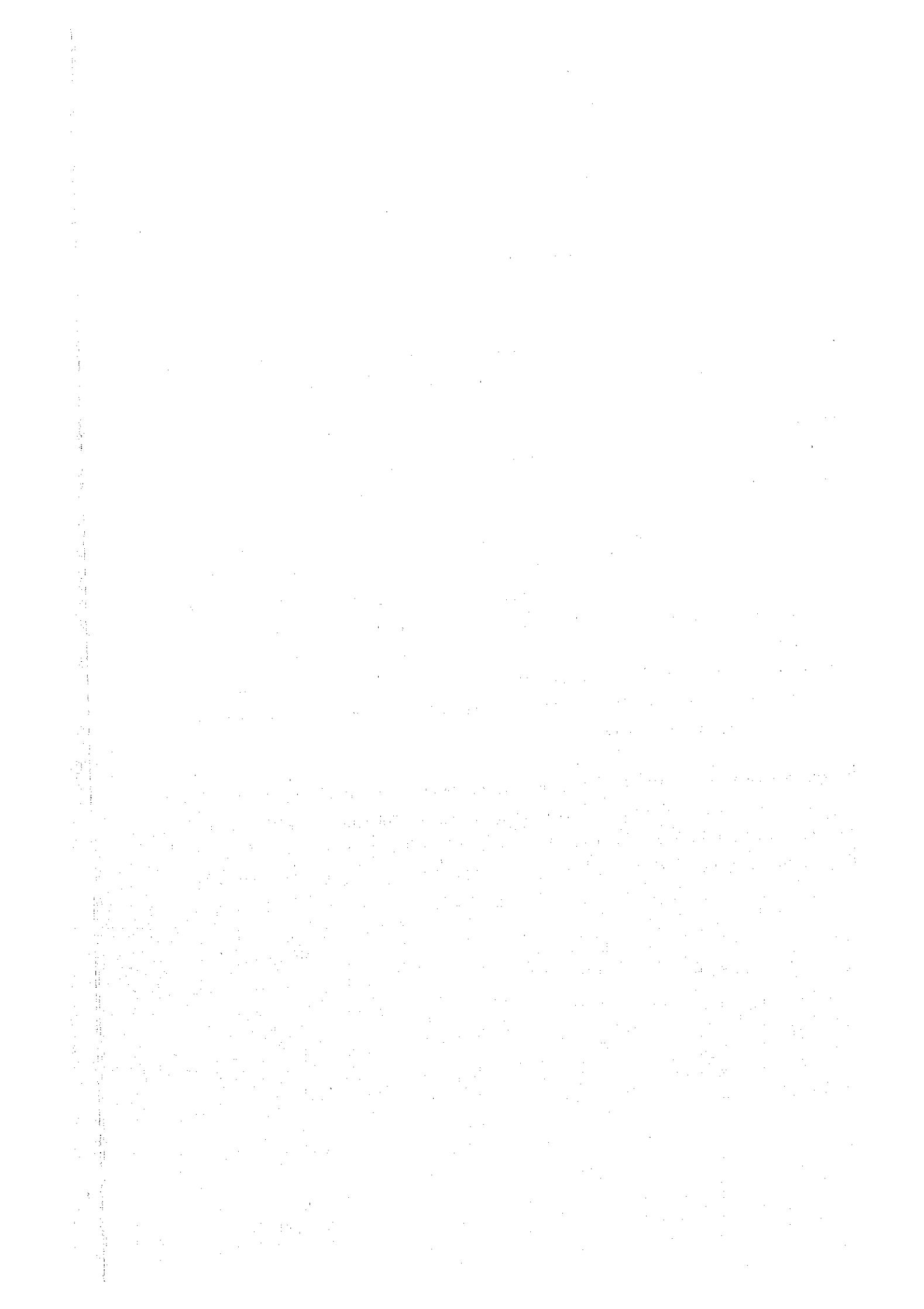
The Billings Lake one of the important water source in the grater San Paulo Region. However the situation is getting worse because of progress of water pollution in the Lake Billings arising from the increase of untreated sewage inflow by population growth and elution of nutrient from the sediment. To encounter these issues, soft measures such as residents education as well as engineering measures such as construction of sewerage and permeable pavement, etc. are planned. For the attainment of sustainability of the project, the Environmental Protection Center is also planned. Some of the recommendations made by the Study Team have already been incorporated into the Master Plan of Sao Bernard do Campo city.

We wish to take this opportunity to express the sincere gratitude to the officials of your Agency, the Steering Committee, the Ministry of Foreign Affairs, the Ministry of Land, Infrastructure and Transport, and Japan Bank for International Cooperation for their kind support and advice. We also would like to show the appreciation to the officials of Sao Bernard do Campo City, SABESP(Public company of water supply and sewerage in Sao Paulo State), ABC Consorcium, JICA Brazil Office, and the Embassy of Japan in Brazil for their kind cooperation and assistance throughout the field survey. Finally, We hope that the recommendations of the Study Team will contribute to further environmental improvement in the Lake Billings.

Very truly yours,



Ikuo Miwa
Team Leader
Study Team for The Study on
Integrated Plan of Environmental Improvement
in The Catchment Area of Lake Billings
in Sao Bernardo do Campo City



VOLUMES OF FINAL REPORT

"The Study on Integrated Plan of Environmental Improvement in The Catchment Area of Lake Billings in Sao Bernardo do Campo"

FEBRUARY 2007

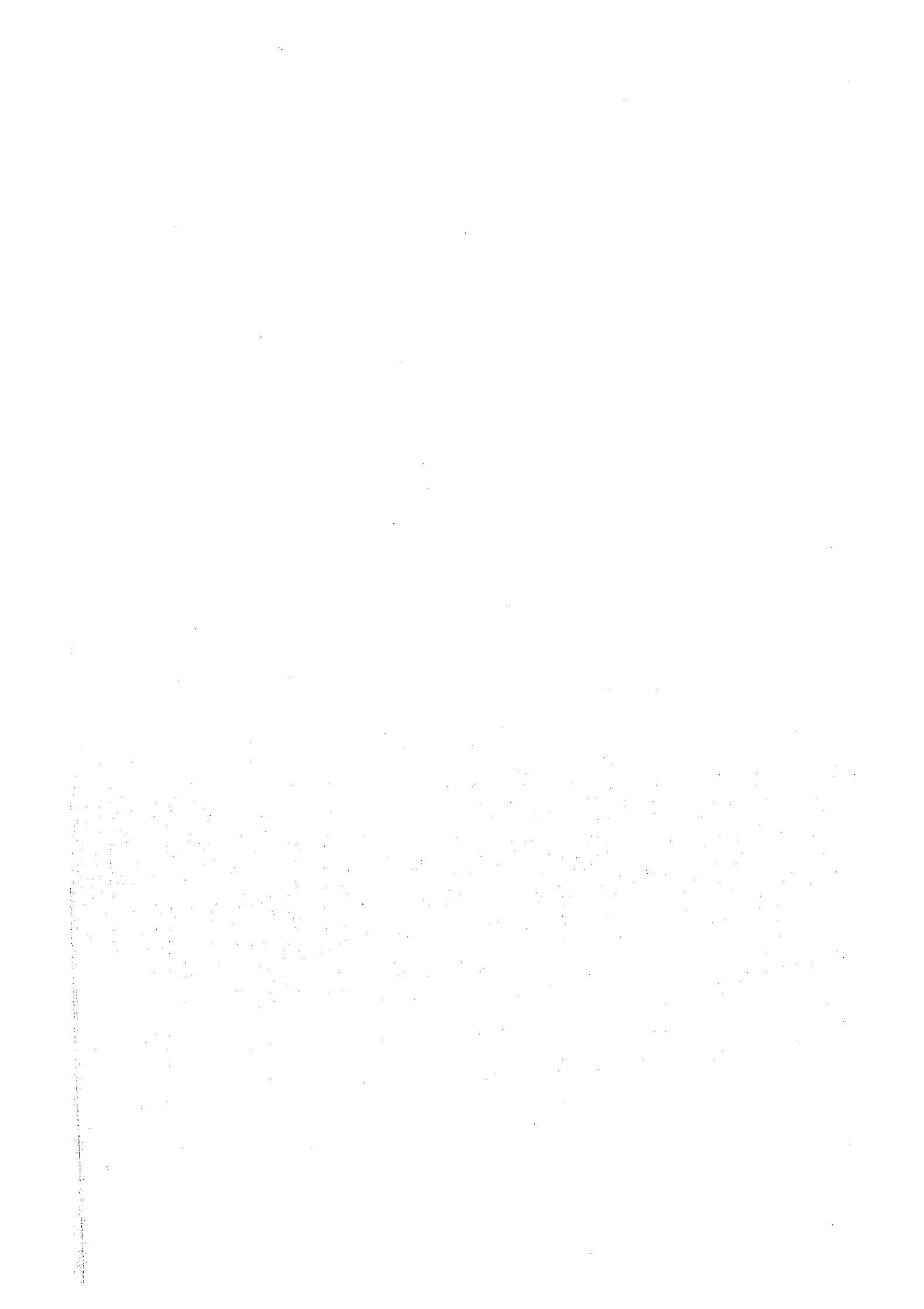
- SUMMARY REPORT**
- MAIN REPORT**
- SUPPORTING REPORT**
- DATA REPORT**

Contents

- ANNEX 1.1.1 Listagem das especies de fanerogamas da Serra de Paranapiacaba
- ANNEX 1.2.1 Censas of Population
- ANNEX 3.1.1 ATIVIDADES INDUSTRIAIS
- ANNEX 3.2.1 Escala Financeira
- ANNEX 3.2.2 Execucao Orcamentaria
- ANNEX 3.4.1 Situacao das Instalacoes Sanitarias
- ANNEX 3.6.1 Situacao de Coleta de Lixo
- ANNEX 3.8 Area e Grau de Paviment Atual -
- ANNEX 4.2.1 Organograma SABESP
- ANNEX 4.4.1 Sistema de Esgotamento Sanitario
- ANNEX 4.4.3 Situacao dos Coletores Tronco
- ANNEX 5.3.1 Monitorament hidraulico da qualidade da agua
- ANNEX 5.3.2 Qualidade de Agua na Represa Billings
- ANNEX 5.3.3 Carga dos Tributarios da Represa Billings
- ANNEX 5.3.4 Study of sediment in the Lake Billings
- ANNEX 5.3.5 Data report on survey work of the sediment in the Lake Billings
- ANNEX 7.1.1 Carga unitaria de carga gerada da Regiao Metropolitana de SP
- ANNEX 7.3 Discharged pollution loads by small basin
- ANNEX 7.4.1 ELCOM
- ANNEX 7.4.2 Sequence of CTD profiles
- ANNEX 7.4.3 Time Series Simulations of Organic Carbon
- ANNEX 7.4.4 Calibration of Coefficients of model
- ANNEX 10.1.1 Projected sewage flowrate
- ANNEX 11.1.1 Sewerage plan of Couros Trunk Line
- ANNEX 11.8.1 Dragagem do lodo acumulado no da Represa
- ANNEX 11.9.1 Depuracao direta das aguas da represa
- ANNEX 12.1.1 Public Enlightenment & Environmental Education
- ANNEX 15.1.1 Environmental and Social Consideration
- ANNEX 17.1.1 Situacao de cumprimento da meta de preservacao da agua no RG
- ANNEX 21.1.1 Situacao do Coletor Tronco do Ribeirao dos Couros
- ANNEX 21.1.3 Unit Cost/ Price
- ANNEX 21.1.2 Comparacao das alternatives do sistema de esgotamento sanitario
- ANNEX 21.1.4 Construction cost of pumping stations
- ANNEX 21.1.5 Unit Cost
- ANNEX 21.1.6 Operation and maintenance costs of pumping stations
- ANNEX 21.2.1 Projeto de utilizacao das areas acima do coletor tronco de couros
- ANNEX 21.2.2 Calculo das estacoes elevatorias
- ANNEX 21.2.3 Estacao elevatoria EEE
- ANNEX 21.3.1 Metodo Semishield de escavacao de Tuneis
- ANNEX 21.5.1 CUSTO UNITARIO POR METRO DAS OBRAS LIMEARES
- ANNEX 21.5.2 Sistema de Exportacao dos Esgotos nas Areas da Bacia Billings

- ANNEX 21.5.3** Estudo de reversao das bacias dos correlos alvarenga
- ANNEX 21.5.4** Information on Coletor tronco
- ANNEX 22.1** Caculo capacidade da estacao de tratamento de esgoto
- ANNEX 22.3** Escolha do Sistema de Tratamento de Esgotos em Comunidades
- ANNEX 23.5.1** Preco Unitario de Pavimentacao Ecologia
- ANNEX 23.5.2** Dimensoes e componentes das vias atuais e projetados
- ANNEX 24.5.1** Parque linear Custo
- ANNEX 29.1.1** Gastos com investimentos discriminados

ANNEX 1.1.1



Listagem das espécies de Fanerógamas da Reserva Biológica da Serra de Paranapiacaba

GIMNOSPERMACEAE

Podocarpus sp. SP14777

PODOCARPACEAE

Podocarpus sellowii Klotzsch: Kirizawa 2092

ANGIOSPERMACEAE

DICOTILEDONEAE

ACANTHACEAE

Aphelandra prismatica Hiem.: Hoehne SP1605

Hygrophila brasiliensis (Spr.) Lindau: Usteri SP14777

Jacobinia parabolica (Nees) Benth: Sugiyama & Kirizawa 474

Jacobinia sellowiana (Nees) Lindau: Brade 6049

Justicia brasiliensis Roth.: Sugiyama & Menezes 779

Justicia camea Lindl: Hoehne SP4698

Staurogyne mandiocana (Nees) O. Ktze.: Kirizawa & Mariano 2963

Staurogyne sylvatica Lindau: Edwall CGG SP14796

AMARANTHACEAE

Praffia paniculata (Mart.) Kuntze: Custodio 63

ANNONACEAE

Duguetia salicifolia R.E. Fries: Kirizawa et al. 2524

Guatteria dusenii R.E. Fries: Kirizawa & Chu 1158

Guatteria polycarpa R.E. Fries ssp. *drupacea* R.E. Fries: Kirizawa & Lopes 1929

Guatteria polycarpa R.E. Fries: Hoehne SP14510

Rollinia sericea (R.E. Fries) R.E. Fries: Handro 1201

Rollinia xylopifolia (A. St.- Hil. et Tul.) R.E. Fries: Hoehne SP1603

APIACEAE (UMBELLIFERAE)

Apium leptophyllum F. Müll.: Rosa & Pires 3775

Centella asiatica (L.) Urb.: Sugiyama et al. 551

Hydrocotyle quinqueloba Ruiz & Pav.: Brade 7416

APOCYNACEAE

Mandevilla funiformis (Vell) K. Schum.: Sugiyama et al. 292

Mandevilla pendula (Ule) Woodson: Sugiyama & Lopes 561

Mandevilla urophylla (Hook.) Woodson: Custodio 1159

Peltastes peltatus (Vell.) Woodson: Sugiyama & Lopes 119

AQUIFOLIACEAE

Ilex integerrima (Vell.) Reissek: Kirizawa & Guerra 1344

Ilex aff. oligoneura Loes.: Mattos SP64400

Ilex paraguariensis A. St.-Hil. var. *subpaniculata* N. Mattos: Handro 408

Ilex aff. paraguariensis A. St.-Hil.: Mattos 13898

Ilex theezans Mart. var. *gracilior* DC.: Schwebel SF/CPEF 134

ARALIACEAE

Gillertia heterophylla Marchand: Sugiyama 1280

Didymopanax angustissimus Marchand var. *conspicuum* Marchand: Gehrt SP5781

ARISTOLOCHIACEAE

Aristolochia paulistana Hoehne: Hoehne SP5819

ASCLEPIADACEAE

Ditassa sp. 1: Mattos 15447

Gonioanthela axillaris (Vell.) Fontella & Schw.: Hoehne & Gehrt SP36650

Jobinia lutzii Fontella & Schw.: Guerra & Kirizawa 114

Jobinia sp.: Edwall SP15831

Matelea orthosioides (E. Fourn.) Fontella: Kirizawa et al. 1329

Metastelma sp.: Sugiyama & Kirizawa 585

Orthosia urocolata E. Fourn.: Kirizawa et al. 2866

Oxypetalum nitidum Malme: Edwall CGG SP8885

Oxypetalum pachyglossum Decne.: Kirizawa & Mariano 2970

Tassadia subulata (Vell.) Fontella & Schw. var. *subulata*: Kirizawa 1610

ASTERACEAE (COMPOSITAE)

Achyrocline rufescens (Kunth) DC.: Sugiyama & Mariano 1298-A

Adenostemma brasiliannum (Pers.) Cass.: Usteri SP16751

Ambrosia artemisiifolia L.: Gehrt SP17125

Baccharis brachylaenoides A.P. DC.: Kirizawa & Lopes 1731

Baccharis cassiniæfolia A.P. DC.: Mattos 9073

Baccharis conyzoides DC.: Sugiyama & Kirizawa 1230

Baccharis myriophyllum A.P. DC.: Guerra & Kirizawa 82

Baccharis oreophila Malme: Custodio et al. 81

Baccharis aff. *retusa* A.P. DC.: Kuhlmann SP81673

Baccharis semiserrata A.P.DC. var. *elaegnoides* (Steud.) G.M. Barroso: Kirizawa & Lopes 1740

Baccharis singularis (Vell.) G.M. Barroso: Mattos & Mattos 14840

Baccharis tridentata Vahl: Edwall CGG SP16583

Baccharis trimera (Less.) A.P. DC.: Sugiyama & Lopes 449

Baccharis sp.: Sugiyama & Lopes 542

Chaptalia nutans (L.) Pohl: Rosa & Pires 3914

Conyza bonariensis (L.) Cronquist: Sugiyama et al. 1290

Erechtites valerianaeifolia (Wolf.) DC.: Sugiyama et al. 370

Elephantopus mollis Kunth: Custodio 2483

Eupatorium betoniciforme (DC.) Baker: Kirizawa et al. 1466

Eupatorium bupleurifolium DC.: Kirizawa & Sugiyama 2957

Eupatorium aff. *glaziovii* Baker: Custodio & Dias 312

Eupatorium vauthierianum DC. var. *glabriusculum* (DC.) Baker: Kirizawa 1611

Eupatorium vauthierianum DC. var. *ramosissimum* (Gardn.) Baker: Sugiyama & Lopes 503

Eupatorium vauthierianum DC.: Custodio 2458

Eupatorium sp.: Kirizawa 2130

Hypochoeris gardneri (Sch. Bip.) Baker: Sugiyama & Rossi 1237

Jaegeria hirta (Lag.) Less.: Kirizawa & Lopes 2956

Mikania confertissima Sch. Bip. ex Baker: Kirizawa & Lopes 1733

Mikania discolor Baker: Sugiyama et al. 692

Mikania eriostrepta B.L Rob.: Kirizawa 1619

Mikania hirsutissima DC.: Kirizawa 1404

Mikania hoffmanniana Dusén ex Malme: Guerra et al. 33

Mikania laevigata Sch. Bip. ex Baker: Custodio et al. 78

Mikania lanuginosa DC.: Kirizawa 1626

Mikania myriophylla DC var. *brevipetiolata* (Sch. Bip.) Baker: D. Lemos SP6215

Mikania paniculata DC.: Guerra et al. 42

Mikania pseudohoffmanniana G.M. Barroso: Handro 700

Mikania sericea Hook. & Arn.: Kirizawa & Lopes 1600

Mikania sessilifolia DC.: Custodio 2488

Mikania temata (Vell.) B.L Rob.: Guerra & Kirizawa 69

- Mikania trinervis* Hook. & Arn.: Kirizawa et al. 986
Mikania ulei Hieron.: Guerra & Kirizawa 69
Mikania sp.1: Rosa & Pires 3918
Mikania sp.2: Sugiyama & Kirizawa 480
Mikania sp.3: Sugiyama & Lopes 547
Mikania sp.4: Forero et al. 7650
Mikania sp.5: Custodio & Dias 302
Pentacalia desiderabilis (Vell.) Cuatrec.: Lopes et al. 99
Perezia cubatanensis Less.: Chiea 240
Piptocarpha axillaris (Less.) Baker: Kirizawa & Sugiyama 2919
Piptocarpha aff. *lucida* Bennett: Custodio 1939
Piptocarpha oblonga (Gardn.) Baker: Sugiyama et al. 367
Senecio brasiliensis (Spreng.) Less.: Kirizawa et al. 2552
Symphyopappus itatiayensis (Hieron.) K. & R.: Hoehne SP3608
Symphyopappus lymansmithii B.L. Rob.: Sugiyama & Lopes 1197
Trichodine radiata (Vell.) Blake: Rombouts SP266495
Trixis lessingii DC.: Kirizawa et al. 2558
Trixis pinnatifida Less.: Sugiyama & Kirizawa 590
Vernonia diffusa Less.: Kirizawa & Lopes 2844
Vernonia discolor (Spreng.) Less.: Toledo & Custodio 21
Vernonia glabrata Less.: Custodio 2480
Vernonia muricata DC.: Custodio & Dias 311
Vernonia nitidula Less.: Kirizawa 2921
Vernonia puberula Less.: Kirizawa & Lopes 1728
Vernonia quinqueflora Less.: Sugiyama et al. 600
Vernonia scorpioides (Lam.) Pers.: Custodio & Dias 309

BALANOPHORACEAE

- Helosis cayennensis* (Sw.) Spreng.: Sugiyama 1281-A

BEGONIACEAE

- Begonia angulata* Vell.: Gomes da Silva et al. 289
Begonia aff. *bidentata* Raddi: Luederwaldt SP18032
Begonia bradei Imsch.: Kuhlmann 2697
Begonia breviblobata Imsch.: Luederwaldt SP18034
Begonia convolvulacea (Klotzsch) A. DC.: Luederwaldt SP18020
Begonia cornipetala Imsch.: Handro 1061
Begonia cucullata Willd.: Gomes da Silva et al. 288
Begonia fernando-costae Imsch.: Luederwaldt SP8765
Begonia fischeri Schrank: Gomes da Silva et al. 273
Begonia fruticosa (Klotzsch) A. DC.: Gomes da Silva et al. 263
Begonia integrifolia Spreng. var. *cardioides* Imsch.: Gomes da Silva et al. 275
Begonia lanceolata Vell.: Gomes da Silva et al. 278
Begonia luxurians Scheidw.: Kirizawa et al. 2557
Begonia pulchella Raddi: Sugiyama & T. Menezes 773
Begonia radicans Vell.: Gomes da Silva et al. 271
Begonia solanthera A. DC.: Cordeiro et al. 917
Begonia spinibarbis Imsch.: Hoehne SP3598
Begonia valdensium A. DC.: Gomes da Silva et al. 280
Begonia vicina Imsch.: Luederwaldt SP18006

BIGNONIACEAE

- Adenocalymma* aff. *ternatum* (Vell.) Mello ex Bureau & K. Schum.: Chiea et al. 590
Anemopaegma chamberlainii var. *tenerius* (Cham.) Bureau & K. Schum.: Kuhlmann 4318
Arrabidea brachypoda (DC.) Bureau: Sakane 685
Distictella elongata (Vahl) Urb.: Sakane 687
Jacaranda montana Morawetz: Schwebel SP405

- Jacaranda puberula* Cham.: Sugiyama & Kirizawa 1242
Melloa quadrivalvis (Jacq.) A. H. Gentry: Sakane 680
Schlegelia parviflora (Oerst.) Monach.: Sugiyama et al. 1284
Tabebuia alba (Cham.) Sandwith: Sugiyama et al. 779
Tabebuia bureavii Sandwith: Gehrt SP5784
Tabebuia heptaphylla (Vell.) Toledo: Kirizawa & Chiea 2355
Tabebuia serratifolia (Vahl) Nicholson: Rosa & Pires 3976

BOMBACACEAE

- Eriotheca pentaphylla* (Vell. emend. K. Schum.) A. Robyns ssp. *witlockiana* (K. Schum.) A. Robyns: Handro 303
Quararibea turbinata Poir: Gehrt SP7540

BORAGINACEAE

- Cordia ecalyculata* Vell.: Kirizawa et al. 2634
Cordia trichodada DC.: Kirizawa & Lopes 1558
Heliotropium sp.: Kuhlmann 2844

BRASSICACEAE (CRUCIFERAE)

- Lepidium bonariense* L.: Gehrt SP8008
Raphanus raphanistrum L.: Gehrt SP14496
Sisymbrium eichleri Baill.: Usteri SP9103

CACTACEAE

- Hatiora salicornioides* (Haw.) Britton & Rose: Sugiyama & Kirizawa 336
Lepismium houletteanum (Lem.) Barthlott: Kirizawa & Chiea 2338
Rhyspalsis campos-portoana Loefgr.: Kirizawa 2093
Rhyspalsis elliptica Lindb.: Kirizawa & Truffem 1483
Rhyspalsis pulvinigera Lindb.: Taylor & Gonçalves 1638
Rhyspalsis puniceo-discus Lindb.: Taylor & Gonçalves 1636
Rhyspalsis teres (Vell.) Steud.: Sugiyama & Lopes 454

CAMPANULACEAE

- Lobelia exaltata* Pohl: Custodio 2299
Lobelia thapsoides Schott: Kirizawa et al. 1468
Siphocampylus convolvulaceus (Cham.) G. Don: Kirizawa 1300
Siphocampylus duploserratus Pohl: Edwall SP14626

CARYOPHYLACEAE

- Drimaria cordata* (L.) Willd. Roem. & Schltr.: Kirizawa & Truffem 1473
Paronychia camphorosmoides Camb.: Hoehne SP1823
Sagina apetala L.: Soares & Gehrt SP1787
Silene gallica L.: Hoehne SP1015
Spergula arvensis L.: Gehrt SP8037

CELASTRACEAE

- Maytenus alaternoides* Reissek: C. Lemos SP28176
Maytenus oestrifolia Reissek: Mattos 13902
Maytenus glaucescens Reissek: Kirizawa et al. 2564

CHLORANTHACEAE

- Hedyosmum brasiliense* Mart. ex Miq.: Lopes et al. 101

CHRYSOBALANACEAE

- Couepia venosa* Prance: Sugiyama & Lopes 1198
Hirtella glaziovii Taub.: Mattos & Moura 12762
Licania indurata Pilger: Schwebel SP567
Parinari excelsa Sabine: Kuhlmann 2738

CLETHRACEAE

Clethra scabra Pers.: Kirizawa 2138

CLUSIACEAE

Clusia criuva spp *parvifolia* Vesque : Kirizawa & Sugiyama 1810

Tovomitopsis paniculata (Spreng.) Planch. & Triana: Kirizawa et al. 2839

COMBRETACEAE

Buchenavia rabelloana Mattos: Sugiyama et al. 1283

CONVOLVULACEAE

Ipomoea bonariensis Hook: Guerra & Kirizawa 115

Ipomoea indica (Burm. F.) Meisn.: Kirizawa & Lopes 1601

Ipomoea cf. saopaulista O'Donell: Kuhlmann 3551

CORNACEAE

Griselinia ruscifolia (Clos) Taub.: Kirizawa & Lopes 1851

CUCURBITACEAE

Apodanthera argentea Cogn.: Guerra & Kirizawa 136

Wilbrandia verticillata (Vell.) Cogn.: Usteri 14

Cayaponia cf. cabocla (Vell.) Mart.: Kirizawa et al. 2543

Cayaponia aff. pilosa Cogn.: Sugiyama 805

Cayaponia temata (Vell.) Cogn.: Kirizawa 2088

Cayaponia aff. trilobata Cogn.: Hoehne SP14653

Cayaponia sp. 1: Kuhlmann SP75650

Cayaponia sp. 2: Sugiyama et al. 803

Melothria cucumis Vell.: Sugiyama et al. 553

Melothrianthus smilacifolius (Cogn.) Mart. Crov.: Kirizawa et al. 2572

Wilbrandia ebracteata Cogn.: Kirizawa 2090

CUNONIACEAE

Weinmannia discolor Gardn.: Handro SP36581

Weinmannia pinnata L.: Schwebel SP628

DROSERACEAE

Drosera villosa A. St. - Hil.: Kirizawa & Lopes 2850

ELAEOCARPACEAE

Sloanea monosperma Vell.: Kirizawa et al. 2838

EREMOLEPIDACEAE

Anthidaphne glaziovii (Thieb.) Kuijt: Mattos 11469

ERICACEAE

Gaylussacia montana (Pohl) Sleumer var. *organensis* Sleumer: Handro 1039

Gaylussacia rhododendron Cham. & Schltr.: Kirizawa & Sugiyama 1808

ERYTHROXYLACEAE

Erythroxylum gonocladum (Mart.) O.E. Schulz.: Mattos & Mattos 14845

EUPHORBIACEAE

Alchornea triplinervia (Spreng.) Müll. Arg.: Kirizawa et al. 2528

Croton lundianus (Didr.) Müll. Arg.: Saran et al. 14

Croton priscus Croizat: Kirizawa & Lopes 1928

Dalechampia triphylla Lam.: Afonso & Kirizawa 1

Euphorbia elodes Boiss.: Edwall CGG SP13876
Hyeronima alchorneoides M. Allemão: Kuhlmann SP75915
Julocroton fuscæscens (Spreng.) Baill.: Afonso & Kirizawa 4
Pera glabrata (Schott) Baill.: Sugiyama et al. 780
Sapium glandulosum (L.) Morong.: Kuhlmann 3204
Sebastiania commersoniana (Baill.) L.B. Sm. & Downs: Kuhlmann 2737

FLACOURTIACEAE

Casearia decandra Jacq.: Schwebel SP1062
Xylosma prockia (Turcz) Turkz: Mattos 9047

GENTIANACEAE

Irlbachia caeruleoascens (Aubl.) Griseb.: Gehrt SP5607
Macrocarpaea glaziovii Gilg: Hoehne SP15864

GESNERIACEAE

Besleria selliana Klotzsch & Hanst.: Lopes et al. 80
Codonanthe gracilis (Mart.) Hanst.: Chautems et al. 65
Nematanthus bradei (Handro) Chautems: Kirizawa & Lopes 1552
Nematanthus fissus (Vell.) L.E. Skog: Handro 979
Nematanthus fritschii Hoehne: Chautems et al. 64
Nematanthus gregarius Denham: Chautems et al. 69
Nematanthus teixeiranus (Handro) Chautems : Mattos & Mattos 14397-A
Nematanthus villosus (Hanst.) Wiegler: Chautems et al. 68
Sinningia elatior (Kunth) Chautems: Chautems & Custodio 45
Sinningia schiffneri Fritsch: Chautems & Custodio 44

HIPPOCRATEACEAE

Salacia amygdalina Peir.: Kirizawa & Sugiyama 1811
Salacia sp.: Sugiyama & Kirizawa 334

HUMIRIACEAE

Humiriastrum glaziovii (Urb.) Cuatr. var. *angustifolium* Cuatr.: Sugiyama & Lopes 1226

HYPERICACEAE

Hypericum brasiliense Choisy: Kirizawa & Lopes 2849

LAMIACEAE (LABIATAE)

Hyptis cf. brevipes Poit.: Sugiyama et al. 595
Hyptis cf. capitata Jacq.: Sugiyama & Kirizawa 476
Peltodon radicans Pohl: Sugiyama & Lopes 832

LAURACEAE

Cinnamomum sellowianum (Nees & Mart.) Kosterm.: Mattos SP64398
Cryptocarya aschersoniana Mez: Kirizawa et al. 2536
Ocotea aciphylla (Nees) Mez: Kuhlmann SP39026
Ocotea basicordatifolia Vattimo-Gil: Lopes et al. 81
Ocotea bicolor Vattimo-Gil: Kirizawa 834
Ocotea catharinensis Mez: Kuhlmann 3165
Ocotea dispersa (Nees) Mez: C. Lemos SP35845
Ocotea elegans Mez : Kuhlmann SP200309
Ocotea inhauba Coe-Teix.: Schwebel SP1280
Ocotea nectandrina Mez: Gomes SP109814
Ocotea paranapiacabensis Coe-Teix.: Kirizawa & Sugiyama 2074
Ocotea porosa (Nees) L. Barroso: Kuhlmann SP200305
Ocotea pulchra Vattimo-Gil: Handro 643
Ocotea serrana Coe-Teix.: Kirizawa et al. 2560

Ocotea teleiandra (Meisn.) Mez: Afonso et al. 3

Persea alba Nees & Mart. ex Nees: Handro 928

Persea obovata Nees: Handro 968

LENTIBULARIACEAE

Utricularia flaccida DC.: Edwall CGG SP14825

Utricularia praelonga A. St. - Hil. & Girard: Brade 7050

Utricularia reniformis A. St. - Hil.: Mattos & Mattos 15091

Utricularia subulata L.: Gehrt SP5280

Utricularia tricolor A. St. - Hill.: Gehrt SP39700

LEGUMINOSAE - CAESALPINOIDEAE (CAESALPINIACEAE)

Chamaecrista nictitans (L.) Moench: Sugiyama & Lopes 834

Sclerolobium pilgerianum Harms: Sugiyama & Lopes 1225

Senna macranthera (Collad.) H.S. Irving & Barneby: Kirizawa et al. 2865

Senna multiflora (L.C. Rich.) Irwin & Barneby: Luederwaldt SP1007

Swartzia langsdorffii Raddi: Kuhlmann 3237

Zollernia ilicifolia (Brongn.) Vogel: Kirizawa & Lopes 2638

LEGUMINOSAE - FABOIDEAE (FABACEAE)

Andira fraxinifolia Benth.: Kirizawa & Sugiyama 2924

Dahlstedtia pinnata (Benth.) Malme: Kirizawa & Guerra 1587

Dalbergia brasiliensis Vogel: Custodio 2474

Dalbergia frutescens (Vell.) Britton: Hoehne SP3599

Desmodium adscendens (Sw.) DC.: Sugiyama & Lopes 565

Desmodium barbatum (L.) Benth.: Kirizawa & Lopes 2958

Desmodium uncinatum (Jacq.) DC.: Hoehne SP3299

Machaerium oblongifolium Vogel: Kirizawa 824

Medicago denticulata Willd.: Hoehne & Gehrt SP18997

Medicago maculata Willd.: Gehrt SP14540

Medicago sativa L.: Edwall CGG SP18994

Mellilotus indica All.: Gehrt SP14539

Ormosia minor Vogel: Hoehne SP8480

Phaseolus clitoroides Mart.: Gehrt SP19141

Pterocarpus rohrii Vahl: Kuhlmann 2737-A

LEGUMINOSAE - MIMOSOIDEAE (MIMOSACEAE)

Affonsea edwallii Harms: Kirizawa & Lopes 1836

Affonsea juglandifolia A. St. - Hill.: Custodio & Marques 980

Inga barbata Benth.: Custodio & Carra 1032

Inga sessilis (Vell.) Mart.: Sugiyama et al. 686

Mimosa bimucronata (DC.) Kuntze: D. Lemos SP18956

Mimosa invisa Mart.: Hoehne SP3022

LOGANIACEAE

Spigelia humboldtiana Cham. & Schltr.: Kirizawa et al. 2574

Strychnos brasiliensis (Spreng.) Mart.: Mattos & Mattos 15071

LORANTHACEAE

Struthanthus concinnus (Mart.) Mart.: Sugiyama et al. 281

Struthanthus confertus (Mart.) Mart.: Kirizawa & Lopes 1927

Struthanthus salicifolius (Mart.) Mart.: Custodio et al. 858

LYTHRACEAE

Cuphea callophylla Cham. & Schltr.: Sugiyama & Kirizawa 588

Lafoensia replicata Pohl var. *lundii* Koehne: Hoehne SP1756

MALPIGHIACEAE

- Byrsinima myricifolia* Griseb.: Sugiyama & Lopes 497
Heteropterys intermedia (A. Juss.) Griseb.: Kirizawa et al. 910
Heteropterys patens (Griseb) A. Juss.: Gehrt SP8371
Heteropterys thyrsoides (Griseb.) A. Juss.: Mattos 15432
Mascagnia sepium (A. Juss.) Griseb.: Kirizawa & Guerra 1343
Stigmaphyllon arenicola C.E. Anderson: Guerra & Kirizawa 18

MALVACEAE

- Pavonia nemoralis* A. St.-Hil.: Usteri SP12187
Peltaea obsita (Mart. ex Colla) Krapov. & Cristóbal: Cerati et al. 39
Sida glaziovii K. Schum.: Sugiyama & Kawasaki 1367

MARCGRAVIACEAE

- Marogravia polyantha* Delp.: Kirizawa & Lopes 1738

MELASTOMATACEAE

- Adisanthera variabilis* Triana: Kirizawa & Lopes 2856
Behuria insignis Cham.: Moura SP130265
Bertolonia hoehneana Brade: Amorim & Vieira 3239
Bertolonia mosenii Cogn.: Chiea 429
Cidemia blepharodes DC.: Chiea 435
Cidemia cubatanensis Hoehne: Handro 1059
Cidemia suffruticosa O. Berg.: Chiea 614
Huberia semiserrata DC.: Kirizawa & Sugiyama 1812
Leandra acutiflora Cogn.: Kuhlmann 3301
Leandra amplexicaulis DC.: Hoehne SP4459
Leandra atro-purpurea Cogn.: Chiea 218
Leandra australis Cogn.: Hoehne SP3014
Leandra barbinervis Cogn.: Chiea et al. 579
Leandra carassana Cogn.: Sugiyama & Kirizawa 788
Leandra cardiophylla Cogn. var. *integra* Hoehne: Brade 6833
Leandra cardiophylla Cogn.: Chiea 612
Leandra cordigera Cogn.: Edwall CGG SP14361
Leandra cuspidata Cogn.: Silva et al. 276
Leandra dasytricha (A. Gray) Cogn.: Chiea 262
Leandra fallax Cogn.: Usteri SP14384
Leandra gardneriana Cogn.: Chiea 444
Leandra glazioviana Cogn.: Kirizawa 172
Leandra heringulana Cogn.: Landrum 2773
Leandra hirtella Cogn.: Chiea 213
Leandra melastomoides Raddi var. *longifolia* Cogn.: Hoehne SP4460
Leandra melastomoides Raddi var. *paulina* Cogn.: Usteri SP14411
Leandra melastomoides Raddi: Hoehne SP1589
Leandra niangaeformis Cogn.: Chiea 620
Leandra ossaeoides Cogn.: Custodio 1147
Leandra pulverulenta Cogn.: Kuhlmann SP41418
Leandra purpureo-villosa Hoehne: D. Lemos SP7530
Leandra quinquedentata Cogn.: Hoehne SP5998
Leandra quinquenodis Cogn.: Kirizawa 1403
Leandra refracta Cogn.: Chiea 230
Leandra regnellii Cogn.: Chiea et al. 588
Leandra ribesiaeefolia (Cham.) Cogn.: Sugiyama et al. 558
Leandra scabra DC.: Chiea 443
Leandra sublanata Cogn.: Chiea 440
Leandra xanthopogon Cogn.: Hoehne SP3015
Miconia brunnea Mart. ex DC.: Chiea 438

Miconia cabussu Hoehne: Kirizawa & Sugiyama 2843
Miconia cinnamomifolia (DC.) Naudin: Mazzoni-Viveiros 103
Miconia cubatanensis Hoehne: Kirizawa 1608
Miconia doriana Cogn.: Hoehne SP3554
Miconia fasciculata Gardn.: Chiea & Veloso 523
Miconia ligustroides (DC.) Naudin: Kirizawa 1613
Miconia lymanii Wurdack: Maguire & Maguire SP79353
Miconia polyantha Gardn.: Hoehne SP23835
Miconia prasina (Sw.) DC.: Chiea 619
Miconia pusilliflora (DC.) Naudin: D.Lemos SP23827

Miconia theaezans (Bonpland) Cogn.: Chiea et al. 577
Miconia willdenowii Klotzsch: D. Lemos SP7529
Ossaea humilis Cogn.: Chiea et al. 585
Ossaea retropila Triana: Chiea 699
Ossaea sanguinea Cogn.: Luederwaldt SP14422
Pleochiton crassifolium Naudin: Mattos & Mattos 15073
Pleochiton ebracteatum Triana: Gehrt SP5461
Salpinga margaritacea Triana: Chiea 428
Tibouchina ceratistifolia Cogn.: Chiea et al. 578
Tibouchina davata (Pers.) Wurdack: Chiea 235
Tibouchina dinopodifolia Cogn.: Edwall CGG SP14292
Tibouchina multiceps Cogn.: Kirizawa & Lopes 1926
Tibouchina mutabilis Cogn.: Chiea 224
Tibouchina pulchra Cogn.: Chiea 424
Tibouchina regnelli Cogn.: Chiea et al. 582
Tibouchina saldanhaei Cogn.: Macedo et al. 21
Tibouchina scaberrima Cogn.: Kirizawa & Lopes 2952
Tibouchina sellowiana Cogn.: Chiea 135
Trembleya parviflora (Don.) Cogn.: Sugiyama et al. 594

MEMECYLACEAE

Mouriri chamisoana Cogn.: Sugiyama et al. 1285

MELIACEAE

Cabralea canjerana (Vell.) Mart.: Kirizawa et al. 2632
Guarea macrophylla Vahl ssp. *tuberculata* (Vell.) T.D. Penn.: Kirizawa & Sugiyama 2260

MENDONCIACEAE

Mendoncia coccinea Vell.: Sugiyama 1292
Mendoncia hoehneana Mildbr.: Kuhlmann SP27185
Mendoncia aff schwackeana Lindau: Hoehne SP3036

MENISPERMACEAE

Abuta selliana Eichler: Sugiyama et al. 687
Cissampelos andromorpha DC.: Sugiyama et al. 691

MONIMIACEAE

Mollinedia aff. acutissima J.R. Perkins: Kuhlmann 3322
Mollinedia argyrogyna J.R. Perkins: Kuhlmann 4319
Mollinedia boracensis Peixoto: C. Lemos SP29813
Mollinedia jorgearum Peixoto: Hoehne SP13027
Mollinedia schottiana (Spreng.) J.R. Perkins: Kirizawa et al. 2539
Mollinedia triflora (Spreng.) Tul.: Mattos SP115751
Siparuna brasiliensis DC.: Sugiyama & Kirizawa 701

MORACEAE

- Dorstenia hirta* Desv.: Kuhlmann, fl., 31-XII-1942 (SP).
Ficus enormis (Mart. ex Miq.) Miq.: Kirizawa 2142
Ficus guaranitica Chodat: Edwall SP78278
Ficus monckii Hassler: Kirizawa 1612

MYRSINACEAE

- Ardisia cf. handroi* Toledo: Kirizawa et al. 2554
Cybianthus brasiliensis (Mez) G. Agostini: Sugiyama & Kirizawa 785
Cybianthus brownii Gleason: D. Lemos SP8449
Myrsine coriacea (Sw.) R. Br. ex Roem. & Schult.: Lopes et al. 105
Myrsine umbellata Mart.: Mattos 13658
Myrsine cf. umbrosa (Mart.) Mez.: Cerati et al. 34
Rapanea hermogenesii Jung-Mendaçolli & Bernacci: Sugiyama et al. 694
Rapanea laniifolia Mez: Lopes et al. 79
Rapanea aff. wettsteinii Mez: Kirizawa 1625

MYRTACEAE

- Blepharocalyx salicifolius* (Kunth) O. Berg: Kirizawa & Mariano 2959
Calycorectes psidiflorus (O. Berg) Sobral: Kirizawa et al. 2533
Calyptanthes concinna DC: Kirizawa 1609
Calyptanthes aff. *dichotoma* Casar.: Kirizawa & Lopes 1828
Calyptanthes grammica (Spreng.) D. Legrand: Mattos & Mattos 14376-A
Calyptanthes lanceolata O. Berg: D. Lemos SP24139
Calyptanthes sp.: Kirizawa et al. 2531
Campomanesia phaea (Berg.) Landrum: Costa SP308426
Eugenia brasiliensis Lam.: Kirizawa & Lopes 2846
Eugenia burchosifolia Nied.: Kuhlmann SP23535
Eugenia copacabensis Klaersk.: Kirizawa 1615
Eugenia handroana D. Legrand: C. Lemos SP28311
Eugenia hermesiana Mattos: Gehrt SP39701
Eugenia involucrata DC.: Sugiyama & Lopes 560
Eugenia leonanii Mattos: Santana SP118801
Eugenia monosperma Vell.: Mattos & Mattos 14396
Eugenia neolanceolata Sobral: Gehrt SP3067
Eugenia neomyrtifolia Sobral: Mattos 8677
Eugenia prasina O. Berg: Mattos & Moura 12761
Eugenia aff. pseudomalacantha D. Legrand: Kirizawa et al. 2637
Eugenia pyriformis Cambess.: Schwebel SP1268
Eugenia niedelia O. Berg: D. Lemos SP24141
Eugenia squamiflora Mattos: Mattos & Mattos 15090
Eugenia stictosepala Klaersk.: D. Lemos SP8320
Eugenia umbelliflora O. Berg: Gomes SP39703
Eugenia sp. 1: Hoehne SP3032
Eugenia sp. 2: Kuhlmann SP52556
Gomidesia affinis (Cambess.) D. Legrand: Hoehne SP3672
Gomidesia palustris (DC.) D. Legrand: Sugiyama & Mariano 1298
Gomidesia schaueriana O. Berg: Mattos SP79862
Gomidesia sellowiana O. Berg: Sugiyama & Lopes 1194
Gomidesia spectabilis (DC.) O. Berg: Sugiyama & Mariano 1294
Gomidesia sp. 1: Kirizawa et al. 908
Gomidesia sp. 2: Mattos 11457
Hexadlamys edulis (O. Berg) Kausel & D. Legrand: Mattos 13900
Marlierea angustifolia (Berg) Mattos: Mattos 15437
Marlierea aff. antonia (O. Berg) D. Legrand: Kirizawa & Sugiyama 2953
Marlierea racemosa D. Legrand & Kausel: Kirizawa et al. 2534
Marlierea skortzoviana Mattos: Kirizawa & Guerra 1383

- Marierea subulata* Mattos ver o que é???: Mattos 13655
Marierea sylvatica (Gardner) Klaersk.: Kuhlmann SP48455
Myrciogenia campestris (DC.) D. Legrand & Kausel: Mattos 16367
Myrciogenia hoehnei (Burkart) D. Legrand & Kausel: Guerra & Kirizawa 74
Myrciogenia myrcioides var. *acrophylla* (O. Berg) D. Legrand: Kuhlmann SP39038
Myrciogenia ovalifolia (O. Berg) Landrum: Mattos 11463
Myrciogenia ovata var. *regnelliana* (O. Berg) Landrum: Mattos & Mattos 14376
Myrciogenia pilotantha (Klaersk.) Landrum var. *pilotantha*: Mattos 10568
Myrciogenia venosa D. Legrand: Mattos & Mattos 15081
Myrcia breviramis (O. Berg) D. Legrand: Mattos & Mattos 14852
Myrcia cf. eriopus DC.: Kirizawa & Fino 893
Myrcia fallax (Rich.) DC.: Kirizawa & Lopes 1755
Myrcia cf. leptocada DC.: Mattos & Moura 12763
Myrcia macrocarpa DC.: Custodio 60
Myrcia multiflora (Lam.) DC.: Mattos SP64394
Myrcia aff. multiflora (Lam.) DC.: Mattos & Mattos 14395
Myrcia obcordata Mattos: Mattos 15441-A
Myrcia cf. silvatica DC.: Schwebel SP1303
Myrcia tomentosa (Aubl.) DC.: Kirizawa & Lopes 2843
Myrciaria delicatula (DC.) O. Berg: Hashimoto 94
Myrciaria floribunda (West ex Willd.) Berg: Mattos & Mattos 14846
Myrciaria sp.: Sugiyama & Kirizawa 783
Neomitrathes amblymitra (Burkart) Mattos: Kuhlmann 2826
Neomitrathes hoehnei (Burkart) Mattos: Schwebel 69
Pimenta pseudocaryophyllus (Gomes) Landrum: Mattos 16368
Pimenta pseudocaryophyllus var. *hoehnei* (Burkart) Landrum: Kirizawa & Sugiyama 1807
Psidium cattleyanum Sab.: Lopes et al. 97
Psidium aff. luriidum (Spreng.) Burkart: Santana SP157834
Psidium spathulatum Mattos: Lopes et al. 106
Psidium sp.: Santana SP157834
Siphoneugena reitzii D. Legrand: Gomes SP79373

NYCTAGINACEAE

- Guapira opposita* (Vell.) Reitz: Kirizawa & Sugiyama 2920
Neea pendulina Heimerl: Kirizawa & Lopes 1829

OCHNACEAE

- Lavradia velloziana* Vand.: Lopes et al. 109
Ouratea cf. multiflora (A. St.-Hil.) Engl.: Kirizawa & Lopes 1825
Ouratea sellowii (Planch.) Engl.: Kirizawa et al. 591
Ouratea vaccinoides (A. St.-Hil. & Tul.) Engl.: Custodio 2307
Sauvagesia erecta L.: Kirizawa & Sugiyama 1364

OLEACEAE

- Chionanthus* aff. *crassifolium* (Mart.) P.S. Green: D. Lemos SP23857
Chionanthus filiformis (Vell.) P.S. Green: Sugiyama et al. 688
Chionanthus trichotomus (Vell.) P.S. Green: D. Lemos SP15891

ONAGRACEAE

- Fuchsia regia* (Vand.) Munz: Kirizawa et al. 1462
Ludwigia elegans (Camb.) Hara: Custodio 2481
Ludwigia leptocarpa (Nutt.) Hara: Brade 7410
Ludwigia longifolia (DC.) Hara: Sugiyama & Kirizawa 1297
Ludwigia sericea (Camb.) Hara: Custodio 2482
Oenothera indecora Camb.: Gehrt SP39948

PASSIFLORACEAE

- Passiflora actinia* Hook. f.: Gehrt SP5832
Passiflora alata Curtis: Sugiyama et al. 676
Passiflora amethystina J.C. Mikan: Sugiyama et al. 1288
Passiflora deidemooides Harms: Sugiyama et al. 593
Passiflora edulis Sims : Kirizawa & Lopes 2847
Passiflora haematostigma Mart. ex Mart.: Sugiyama & Lopes 452
Passiflora marginata Mast.: Kirizawa 2081
Passiflora organensis Gardn.: Sugiyama et al. 1282

PHYTOLACCACEAE

- Phytolacca thyrsiflora* Fenzl ex Schmidt: Kirizawa 1618

PIPERACEAE

- Peperomia clivicola* Yunck.: Hoehne SP32049
Peperomia corcovadensis Gardn. f. *latifolia* Yunck.: Kuhlmann SP40200
Peperomia corcovadensis Gardn.: Lopes et al. 87
Peperomia glaziovii C. DC.: Custodio 2469
Peperomia obtusifolia (L.) A. Dietr. var. *cuneata* (Miq.) Griseb.: Usteri SP12596
Peperomia tenella (Sw.) A. Dietr.: Kirizawa 1296
Peperomia tetraphylla (G. Forst.) Hook. & Arn.: Hoehne SP30139
Peperomia urocarpa Fischer & Meyer: Usteri SP12604
Piper caldense C. DC.: Kuhlmann SP42802
Piper cernuum Vell.: Kirizawa 1629
Piper condannatoris Yunck.: Kirizawa & Lopes 1911
Piper dilatatum L.C. Rich.: Kuhlmann SP45034
Piper gaudichaudianum Kunth: Guerra et al. 45
Piper pseudolanceolatum C. DC.: Kirizawa et al. 1195
Piper pseudopothifolium C. DC.: Lopes et al. 108
Piper richardiaeefolium Kunth: Usteri SP12665
Piper schenckii C. DC.: Kirizawa & Lopes 1913
Piper aff. ubatubensis Callejas: Mattos & Mattos 14382

PLANTAGINACEAE

- Plantago australis* Lam. ssp. *hirtella* (Kunth) Rahn: Sugiyama & Lopes 1151

POLYGALACEAE

- Polygala insignis* Klotzsch: Kirizawa & Lopes 1837
Polygala minima Pohl: Sugiyama & Custodio 223
Polygala paniculata L.: Kirizawa 861
Polygala wettsteinii Chodat: Kirizawa et al. 2840
Securidaca paulensis Chodat: Sugiyama 1281
Securidaca sellowiana Klotzsch ex A.W. Benn.: Hoehne SP1610

POLYGONACEAE

- Coccocloa ascendens* Duss.: Kirizawa & Sugiyama 2263
Polygonum persicaria L.: Rosa & Pires 3862
Rumex acetosella L.: Edwall CGG SP12866

PROTEACEAE

- Panopsis multiflora* (Schott) Ducke: Kuhn 159
Roupala rhombifolia Mart.: Mattos 13906
Roupala sp.: Santana SP84333

QUIINACEAE

- Quiina glaziovii* Engl.: Sugiyama 1262

RHAMNACEAE

Rhamnus sphaerosperma Sw. var. *pubescens* (Reissek) M.C. Johnston: Lopes et al. 94

ROSACEAE

Prunus myrtifolia (L.) Urban: Kirizawa & Lopes 1835

Rubus brasiliensis Mart.: Sugiyama et al. 681

Rubus rosaefolius K.E. Smith: Custodio & Carra 1020

Rubus urticaefolius Poir.: Romaniuc et al. 62

RUBIACEAE

Alibertia concolor (Cham.) K. Schum.: Hashimoto 90

Alibertia aff. concolor (Cham.) K. Schum.: Mattos 15450

Amaiba intermedia Mart.: Sugiyama & Mariano 1296

Bathysa stipulata (Vell.) C. Presl.: Kirizawa et al. 2540

Borreria capitata (Ruiz & Pav.) DC.: Sugiyama & Kirizawa 576

Borreria flavovirens Bacigalupo & E.L. Cabral: Kirizawa et al. 900

Borreria verticillata (L.) G. Mey.: Custodio & Carra 1019-B

Chomelia cf. catharinæ (L.B.Sm. & Downs) Steyermark.: Mattos 13896

Chomelia cf. pohliana Müll. Arg.: Schwebel SP664

Coccocypselum campanuliflorum (Hook.) Cham. & Schltdl.: Sugiyama & Kirizawa 575

Coccocypselum condalia Pers.: Kirizawa & Lopes 1923

Coccocypselum cordifolium Nees & Mart.: Gehrt SP11459

Coccocypselum hasslerianum Chodat: Custodio & Carra 1067

Coccocypselum krauseanum Standl.: Hoehne SP754

Coccocypselum lanceolatum (Ruiz & Pav.) Pers.: Hoehne SP7993

Cousarea contracta (Walp.) Benth. & Hook. ex Müll. Arg.: Kirizawa & Lopes 1560

Emmeorhiza umbellata (Spreng.) K. Schum.: Kirizawa & Lopes 1602

Faramea tetragona Müll. Arg.: Kirizawa 2139

Galianthe brasiliensis (Spreng.) E.L. Cabral & Bacigalupo: Kirizawa et al. 2563

Gallium sellowianum (Cham.) Walp.: Kirizawa et al. 2860

Hilia parasitica Jacq.: Lopes et al. 65

Malanea forsteronioides Müll. Arg.: Moura SP130266

Manettia beyrichiana K. Schum.: Kirizawa & Mariano 2962

Manettia chrysoderma Sprague: Mattos & Mattos 15076

Oldenlandia salzmannii (DC.) Benth. & Hook. f.: Kirizawa & Sugiyama 2925

Palicourea radicans (Müll. Arg.) Standl.: Kirizawa et al. 2555

Posoqueria latifolia (Rudge) Roem. & Schult.: Lopes et al. 93

Psychotria leiocarpa Cham. & Schltdl.: Chiea et al. 586

Psychotria leitana C.M. Taylor: Rosa & Pires 3924

Psychotria mima Standl.: Moura SP130270

Psychotria nuda (Mart.) Wawra: Hoehne SP1103

Psychotria patentinervia Müll. Arg.: Hoehne SP19783

Psychotria pubigera Schltdl.: Sugiyama & Lopes 457

Psychotria stachyoides Benth.: Kirizawa et al. 1096

Psychotria subtriflora Müll. Arg.: Kuhlmann SP54275

Psychotria cf. suterella Müll. Arg.: C. Lemos SP35263

Psychotria vellosiana Benth.: Kirizawa et al. 2547

Rudgea gardenioides (Cham.) Müll. Arg.: Schwebel SP1068

Rudgea jasminoides (Cham.) Müll. Arg.: Kirizawa et al. 2548

Rustia formosa (Cham. & Schltdl.) Klotzsch: Kirizawa & Lopes 1831

RUTACEAE

Zanthoxylum rhoifolium Lam.var. *petiolatum* Engl.: Guerra & Kirizawa 92

SABIACEAE

Meliosma glaziovii Urb.: Gehrt SP19858

SAPINDACEAE

Allophylus petiolulatus Radlk.: D. Lemos SP19870
Matayba guianensis Aubl.: C. Lemos SP26696
Matayba juglandifolia (Camb.) Radlk.: Sugiyama et al. 678
Paulinlia carpopodea Camb.: Kirizawa & Sugiyama 2267
Serjania erecta Radlk.: Sakane 684
Serjania gracilis Radlk.: Kirizawa et al. 2861
Serjania ovalifolia Radlk.: Sakane 686
Urvillea aff. glabra Camb.: Custodio 45

SAPOTACEAE

Chrysophyllum flexuosum Mart.: Usteri SP13785
Micropholis craspedicellata (Mart. & Eichler) Pierre: Hoehne SP740
Pouteria bullata (S. Moore) Baehni: Rosa & Pires 3921

SCROPHULARIACEAE

Achetaria ocmoides (Cham. & Schlecht.) Wettst.: Mattos 15446
Bacopa stricta (Schrad.) Robyns: Edwall SP15159
Gerardia aff. genistifolia Cham. & Schlecht.: Kuhlmann 3418
Scrophularia aquatica L.: Kuhlmann SP24569
Scrophularia nodosa L.: Loefgren CGG SP15146
Scrophularia speciosa: Usteri SP15147
Veronica serpyllifolia L.: Usteri SP15111

SIMAROUBACEAE

Picramnia gardneri Planch.: Gehrt SP31513

SOLANACEAE

Athenaea picta (Mart.) Sendtn.: Kirizawa et al. 2559
Aurelliana fasciculata var. *longifolia* (Sendtn.) Hunz. & Barboza: Lopes et al. 92
Brunfelsia brasiliensis (Spreng.) L.B. Sm. & Downs ssp. *macrocalyx* (Dusen) Plowman: Kirizawa & Sugiyama 1182
Brunfelsia hydrangeiformis (Pohl) Benth. ssp. *capitata* (Benth.) Plowman: Edwall SP15183
Capsicum villosum Sendtn.: Kirizawa et al. 2551
Cestrum amictum Schlecht. var. *parviflorum* Schlecht.: Kirizawa & Lopes 1917
Cyphomandra diploconos (Mart.) Sendtn.: Kirizawa & Sugiyama 2951
Dysochroma viridiflora (Sims) Miers: Custodio 2490
Solanum americanum Mill.: Sugiyama et al. 1293
Solanum brusquense L.B. Smith & Downs: Kirizawa et al. 1169
Solanum cernuum Vell.: Kirizawa & Sugiyama 2079
Solanum excelsum A. St. -Hil. ex Dun.: Kirizawa & Chiea 2337
Solanum falcatum Witasek: Chiea et al. 591
Solanum hoehnei Morton: Custodio 2317
Solanum inaequale Vell.: Kirizawa & Lopes 3317
Solanum aff. insidiosum Mart.: Sugiyama et al. 683
Solanum maioranthum L.B. Smith & Down: Rosa & Pires 3865
Solanum mauritianum Scop.: Custodio 2464
Solanum megalochiton Mart.: Kirizawa et al. 2526
Solanum odoriferum Vell.: Sugiyama et al. 781
Solanum reflexum Schrank: Sugiyama & Rossi 1238
Solanum swartzianum Roem. & Schult.: Kirizawa et al. 2544
Solanum vallantii Dun.: Carra & Custodio 24
Solanum variabile Mart.: Kirizawa 2085
Solanum velozianum Dun.: Sugiyama & Kirizawa 789

STYRACACEAE

Styrax acuminatus Pohl: Schwobel SP1187
Styrax lancifolium Pohl: Mattos & Mattos 15097
Styrax martii Seub.: Hoehne SP3586

SYMPLOCACEAE

Symplocos densiflora Brand: Kirizawa et al. 2568
Symplocos glanduloso-marginata Hoehne: Edwall SP15930
Symplocos nitidiflora Brand: Hoehne SP28310
Symplocos variabilis Mart. ex Miq.: Kuhlmann SP200308

THEACEAE

Gordonia fruticosa Schrader: Kirizawa 2556
Ternstroemia brasiliensis Camb.: Handro 1005

THYMELAEACEAE

Daphnopsis martii Meisn.: Rossi 1682
Daphnopsis schwackeana Taub.: Schwebel SP1295

ULMACEAE

Trema micrantha (L.) Blume: Sugiyama 1291

URTICACEAE

Boehmeria caudata Sw.: Kirizawa & Lopes 1830
Pilea rhizobola Miq.: Gehrt SP7545
Urera nitida (Vell.) Brack.: Custodio 2479

VALERIANACEAE

Valeriana scandens L.: Kirizawa & Sugiyama 1176

VERBENACEAE

Aegiphila brachiata Vell.: Sugiyama & Kirizawa 1295
Aegiphila sellowiana Cham.: Kirizawa et al. 2567
Lantana camara L.: Kirizawa & Sugiyama 2872
Lippia sp.: Kuhlmann 3686.
Stachytarpheta australis Moldenke: Kirizawa & Sugiyama 1365
Verbena brasiliensis Vell.: Hoehne SP3035
Vitex schaueriana Moldenke: Sugiyama & Kirizawa 705

VIOLACEAE

Anchetea pyrifolia (Mart.) G. Don var. *hilariana* (Eichl.) Marquete & Dames e Silva: Kirizawa & Sugiyama 2922

VISCACEAE

Phoradendron crassipedophyllum Eichler: Kuhn SP153861
Phoradendron crassifolium (Pohl ex DC.) Eichler: Sugiyama & Lopes 835
Phoradendron fragile Urb.: Sugiyama & Kirizawa 605
Phoradendron undulatum (Pohl ex DC.) Eichler: Hoehne SP27226

VOCHysiACEAE

Vochysiella (Vochysiaceae) sp.: Kirizawa & Lopes 1827

WINTERACEAE

Drymis brasiliensis Miers: Kirizawa et al. 2561

MONOCOTILEDONEAE

ALISMATACEAE

Echinodorus sp.: Custodio & Carra 1029

ARACEAE

Anthurium acutum N.E. Br.: Sugiyama & Lopes 1150

- Anthurium crassipes* Engl.: Kirizawa & Lopes 1737
Anthurium hamisii (Grah.) Endl.: Kirizawa & Sugiyama 2078
Anthurium aff. hamisii (Grah.) Endl.: Kirizawa & Lopes 1746
Anthurium hoehnei Krause: Kirizawa & Lopes 1912
Anthurium longicuspitatum Engl.: Kirizawa 2141
Anthurium aff. longifolium (Hoff.) Kunth: Usteri SP10743
Anthurium marense Krause: Kirizawa et al. 2573
Anthurium pentaphyllum (Aubl.) G. Don: Kirizawa et al. 2633
Anthurium aff. purpureum N.E. Br.: Custodio 1935
Anthurium scandens (Aubl.) Engl.: Lopes et al. 112
Asterostigma lividum (Lodd.) Engl.: Kirizawa 1742
Philodendron cordatum (Vell.) Kunth: Luederwaldt SP10747
Philodendron eximium Schott: Hoehne SP5836
Philodendron cf. imbe (cpx) Schott: Kirizawa 2086
Philodendron propinquum Schott: Lopes et al. 113
Philodendron cf. roseopetiolatum Nad. & Mayo: Custodio 1937

ARECACEAE (PALMAE)

- Bactris setosa* Mart.: Kirizawa & Fino 892
Euterpe edulis Mart.: Kirizawa & Sugiyama 2266
Geonoma elegans Mart.: Usteri SP12228
Geonoma gamiova Barb. Rodr.: Kirizawa et al. 1325
Geonoma schottiana Mart.: Kirizawa et al. 1094

BROMELIACEAE

- Aechmea caudata* Lindm.: Hoehne SP12341
Aechmea cylindrica Lindm.: Hoehne SP28775
Aechmea distichantha Lem. var. *distichantha* Lem.: Kirizawa & Truffem 1482
Aechmea distichantha Lem. var. *glaziovii* (Baker) L.B. Sm.: Luederwaldt SP12342
Aechmea nudicaulis (L.) Griseb.: Custodio 1951
Aechmea pectinata Baker: Hoehne SP9479
Billbergia amoena (Lodd.) Lindl.: Kirizawa 1624
Canistrum cyathiforme (Vell.) Mez: Wanderley 84
Canistrum perplexum L.B. Sm.: Kuhlmann SP41428
Canistrum sp nova: Custodio 1127
Dyckia tuberosa (Vell.) Beer: Mattos & Mattos 15095
Neoregelia bahiana (Ule) L.B. Sm.: Hoehne SP31170
Nidularium burchellii (Baker) Mez: Luederwaldt SP12328
Nidularium innocentii Lem.: Wanderley 83
Nidularium minutum Mez: Wanderley et al. 2323
Nidularium rubens Mez: Wanderley 2326
Pitcairnia flammea Lindl.: Hoehne SP471
Quesnelia humilis Mez: Wanderley 212
Quesnelia testudo Lindm.: Wanderley 72
Racinaea aeris-incola (Mez) Spencer & L.B. Sm.: Hoehne & Gehrt SP36499
Racinaea spikulosa (Griseb.) Spencer & L.B. Sm.: Gehrt SP39742
Tillandsia geminiflora Brongn.: Wanderley 213
Tillandsia stricta Sol.: Wanderley 502
Tillandsia tenuifolia L. var. *surinamensis* (Mez) L.B. Sm.: Gehrt SP5610
Tillandsia usneoides (L.) L.: Kirizawa 1406
Vriesea altodaserrae L.B. Sm.: Kirizawa & Guerra 1387
Vriesea ensiformis (Vell.) Beer: Wanderley 71
Vriesea erythrodactylon (E. Morren) E. Morren ex Mez: Sugiyama & Lopes 571
Vriesea hieroglyphica (Carrière) E. Morren: Mattos & Mattos 14378
Vriesea hoehneana L.B. Sm.: Kirizawa et al. 2858
Vriesea inflata (Wawra) Wawra: Custodio 2460
Vriesea jonghei (K. Koch) E. Morren: Wanderley 501

Vriesea philippocburgii Wawra: Handro 577
Vriesea sparciflora L.B. Sm.: Hoehne SP17982
Vriesea unilateralis (Baker) Mez: Wanderley et al. 2324

BURMANIACEAE

Apteria aphylla (Nutt.) Barnhart, J.H ex Small: Kuhlmann SP53728
Dictyostega orobanchioides (Hook.) Miers subsp. *orobanchioides*: Gehrt SP5457

COMMELINACEAE

Commelina monticola Seub.: Kirizawa et al. 1471
Commelina nudiflora L.: Kirizawa 845
Dichorisandra pubescens Mart.: Kirizawa et al. 1324
Dichorisandra thyrsiflora J.C. Mikan: Kirizawa et al. 588
Tripogandra diuretica (Mart.) Handlos: Kirizawa et al. 1196

COSTACEAE

Costus arabicus L.: Usteri SP10977
Costus spiralis (Jacq.) Roscoe: Luederwaldt SP10979

CYCLANTHACEAE

Asplundia polymera (Hand-Mazz.) Harl.: Kirizawa & Lopes 2026

CYPERACEAE

Cyperus flavescens L.: Luederwaldt SP9361
Cyperus luzulae (L.) Retz: Kirizawa 1414
Cyperus prolixus Humboldt, Bonpland & Kunth: Usteri SP9252
Eleocharis debilis Kunth: Custodio 1142
Eleocharis elegans (Kunth.) Roem. & Schult.: Edwall CGG SP9171
Eleocharis flavescens (Poir.) Urban: Schwobel SP9165
Eleocharis maculosa (Vahl) Roem. & Schult.: Sugiyama & Kirizawa 578
Eleocharis subarticulata (Nees) Boeck.: Custodio 1141
Eleocharis sp1: Lopes et al. 78
Eleocharis sp2: Custodio 685
Eleocharis sp3: Kirizawa & Sugiyama 2869
Hypolytrum schraderianum Nees: C. Lemos SP27738
Kyllinga brevifolia Rottb.: Hoehne SP8027
Kyllinga pumila Michx.: Luederwaldt SP9299
Lagenocarpus minarum Boeck.: Luederwaldt SP9338
Lagenocarpus rigidus Nees: Kirizawa et al. 2569
Pleurostachys foliosa Kunth: Cordeiro et al. 916
Pleurostachys gaudichaudii Brongn.: Sugiyama et al. 685
Pleurostachys graminifolia Brongn.: Usteri SP9341
Pleurostachys sellowii Kunth: Muniz et al. 156
Pleurostachys striata Kunth: Edwall CGG SP9350
Pleurostachys urvillei Brong.: Kirizawa et al. 2535
Rhynchospora biflora Boeck.: Kirizawa & Sugiyama 2073
Rhynchospora brasiliensis Boeck.: Kirizawa 853
Rhynchospora exaltata Kunth: Muniz et al. 157
Rhynchospora flexuosa C.B. Clarke: Edwall CGG 1953
Rhynchospora glauca Vahl: Luederwaldt SP9467
Rhynchospora holoschoenoides (Rich.) Herter: Kirizawa & Sugiyama 2927
Rhynchospora lundii Boeck.: Usteri SP9405
Rhynchospora rugosa (Vahl) Galé: Sugiyama & Kirizawa 1240
Rhynchospora uniflora Boeck.: Edwall CGG 3153
Scleria hirtella Sw.: Kirizawa & Sugiyama 2955
Scleria latifolia Sw.: Muniz et al. 42
Scleria myricocarpa Kunth: Muniz 45

Scleria panicoides Kunth: Muniz 41

Scleria plusiophylla Steud.: Custodio et al. 118

Scleria sp1: Kirizawa & Sugiyama 2870

Scleria sp2: Sugiyama & Lopes 1221

DIOSCOREACEAE

Dioscorea bolbotricha Hand.-Mzt.: Kirizawa & Sugiyama 2072

Dioscorea kunthiana Ulne ex R. Knuth: Kirizawa & Lopes 2954

Dioscorea marginata Griseb.: Silva et al. 262

Dioscorea monadelpha (Kunth) Griseb.: Kirizawa 2971

Dioscorea sanpaulensis R. Knuth: Kirizawa 2841

Dioscorea taunglossum R. Knuth: Kirizawa 2270

Dioscorea trilinguis Griseb.: Kirizawa 1495

ERIOCAULACEAE

Leiothrix flavescens (Bong.) Ruhland: Kirizawa & Sugiyama 2928

Paepalanthus planifolius (Bong.) Körn.: Custodio et al. 860

Syngonanthus caulescens (Poir.) Ruhland: Kirizawa & Sugiyama 2926

Syngonanthus fischerianus (Bong.) Ruhland: Edwall CGG SP10208

HELICONIACEAE

Heliconia velutina Emygdio: Kirizawa et al. 1326

HYPOXIDACEAE

Hypoxis decumbens L.: Rosa & Pires 3888

IRIDACEAE

Neomarica caerulea (Ker Gawl.) Sprague: Kirizawa et al. 2635

Neomarica nitida (Ravena) Chukr: Luederwaldt 1181

Sisyrinchium commutatum Klatt: Santana SP113910

Sisyrinchium micranthum Cav.: Sugiyama & Kirizawa 587

Sisyrinchium palmifolium L.: Gehrt SP14501

Sisyrinchium vaginatum Spreng.: Kirizawa et al. 2635A

Trimezia martinicensis (Jacq.) Herb.: Sugiyama & Kirizawa 1232

JUNCACEAE

Juncus densiflorus Humboldt, Bonpland & Kunth: Sugiyama & Kirizawa 583

Juncus imbricatus Laharpe: Sugiyama & Lopes 563

Juncus microcephalus Humboldt, Bonpland & Kunth: Sugiyama & Kirizawa 1362

LILIACEAE

Alstroemeria inodora Herb.: Luederwaldt SP8911

Alstroemeria insignis Kraetzl: Lopes et al. 110

Crinum americanum L.: D. Lemos SP17960

Hippeastrum calyptatum (Ker Gawl.) Herb.: Kirizawa & Mariano 2960

Hippeastrum striatum (Lam.) Moore: Custodio 1677

MARANTACEAE

Calathea communis Wanderley & S. Vieira: Wandelrey 2325

Calathea longifolia (Schauer) Klotsch: Luederwaldt SP18812

Ctenanthe lanceolata W.C.H. Peters: Edwall SP11139

Maranta divaricata Roscoe: Luederwaldt SP11128

Stromanthe tonckat (Aubl.) Eichler.: Kirizawa & Lopes 1599

ORCHIDACEAE

Aspasia lunata Lindl.: Edwall CGG 2861

Baptistonia echinata Barb. Rodr.: Custodio Filho et al. 98

- Barbosella australis* (Cogn.) Schltr.: Gehrt SP5612
Barbosella miersii Lindl.: Usteri SP26662
Baskervillea paranaensis (Krzl.) Schltr.: F.C. Hoehne SP14607
Bifrenaria aureofulva (Hook.) Lindl.: Kirizawa & Lopes 1850
Bifrenaria harrisoniae (Hook.) Reichb. f.: Gehrt (Holotypus var. *minor* Hoehne) SP5770
Bifrenaria inodora Lindl.: Edwall CGG 3361
Bifrenaria tetragona (Lindl.) Schltr.: F.C. Hoehne (Holotypus var. *umbrophila* Hoehne) SP28707
Brachionidium restrepooides (Hoehne) Pabst: F.C. Hoehne (Holotypus de *Yolanda restrepooides* Hoehne) SP2152
Bulbophyllum napelli Lindl.: Handro 2111 (SPF)
Bulbophyllum paranaense Schltr.: Gehrt (Isotypus var. *pauloense* Hoehne & Schltr.) SP5538
Campylocentrum ornithorhynchum (Lindl.) Rolfe: Handro SP40316
Campylocentrum ulae Cogn.: Handro SP55519
Cimaea dependens (Lodd.) Rchb. f.: Edwall CGG 2869
Cimaea saccata Lindl.: F.C. Hoehne SP9473
Cleistes gracilis (Barb. Rodr.) Schltr.: Gehrt (Isotypus de *C. ionoglossa* Hoehne & Schltr.) SP5356, R
Cleistes macrantha (Barb. Rodr.) Schltr.: Handro 2031 (SPF)
Cleistes revoluta (Barb. Rodr.) Schltr.: D. Lemos SP8383
Cranichis candida (Barb. Rodr.) Cogn.: Handro 2089
Cyanaeorehis arundinæ (Rchb. f.) Barb. Rodr.: Edwall CGG 1925
Dichaea pendula (Aubl.) Cogn.: Lopes et al. 89
Elleanthus brasiliensis (Lindl.) Rchb. f.: O. Handro 2116
Elleanthus crinitipes Rchb. f.: F.C. Hoehne SP2992
Encyclia bulbosa (Vell.) Pabst: Kirizawa 1167
Encyclia calamaria (Lindl.) Pabst: F.C. Hoehne SP3902.
Encyclia euosma (Rchb. f.) Porto & Brade: Mattos & C. Moura 12797
Encyclia glumacea (Lindl.) Pabst: O. Handro 2202
Encyclia oncidoides (Lindl.) Schltr.: F.C. Hoehne SP34715
Encyclia punctifera (Rchb. f.) Pabst: O. Handro 484
Encyclia pygmaea (Hook.) Dressler: Gehrt SP7767
Encyclia vespa (Vell.) Dressler: Handro 2039
Epidendrum armeniacum Lindl.: Handro 2081 (SPF)
Epidendrum dendroboides Thunb.: Handro SP34238
Epidendrum denticulatum Barb. Rodr.: F.C. Hoehne SP1105
Epidendrum ecostatum Pabst: Handro 2207
Epidendrum geniculatum Barb. Rodr.: Handro 298
Epidendrum paranaense Barb. Rodr.: W. Hoehne SPF17265
Epidendrum aff. parum Lindl.: F.C. Hoehne SP17177
Epidendrum ramosum Jacq.: Kirizawa 1408
Epidendrum saxatile Lindl.: D. Lemos SP17180
Epidendrum secundum Jacq.: Guerra & Kirizawa 140
Epidendrum secundum Jacq. forma *albescens* (Pabst) F. Barros: Handro SP154988
Eulophia alta (L.) Fawcet & Rendle: F.C. Hoehne SP3075
Eurystyles gardneri (Lindl. ex Gardn.) Garay: Edwall CGG 4042
Gomeza crispa (Lindl.) Kl. & Rchb. F.: Barros 326: Sugiyama & Lopes 1223
Gomeza glaziouii Cogn.: Wanderley 75
Grobya amherstiae Lindl.: F.C. Hoehne SP9553
Grobya fascifera Rchb. f.: F.C. Hoehne SP14603
Habenaria brachyplectron Hoehne & Schltr.: F.C. Hoehne (Isosyntypus) SP5262
Habenaria edwallii Cogn.: Gehrt SP4746
Habenaria aff. fastigata Warming: D. Lemos SP17798
Habenaria fluminensis Hoehne: Gehrt (Syntypus) SP8274
Habenaria melanopoda Hoehne & Schltr.: F.C. Hoehne (Isotypus) SP1136
Habenaria parviflora Lindl.: Sugiyama et al. 1289
Habenaria paulensis Porsch: Kirizawa e Sugiyama 1361 (misturada com *H. edwallii*)
Habenaria pleiophylla Hoehne & Schltr.: Handro 2125 (SPF)
Hadrolaelia cocinea (Lindl.) Chiron & V.P. Castro: Sugiyama & Lopes 521
Heterotaxis brasiliensis (Brieger & Illg) F. Barros: F.C. Hoehne SP1208

- Houlelia brocklehurstiana* Lindl.: F.C. Hoehne SP5264
Jacquinella teretifolia (Sw.) Britton & Wilson: Handro 2137
Lankersterella caespitosa (Lindl.) Hoehne: Handro 2152
Lankersterella ceracifolia (Barb. Rodr.) O. Ames: Gehrt SP7523
Leptotes bicolor Lindl.: Handro 1177
Liparis vexillifera (La Llave & Lex.) Cogn.: Gehrt SP7539
Lockhartia lunifera Rchb. f.: Loefgren CGG1877
Malaxis excavata (Lindl.) O. Ktze.: Handro 2275
Maxillaria cerifera Barb. Rodr.: Sugiyama et al. 679
Maxillaria ferdinandiana Barb. Rodr.: Edwall CGG 2270
Maxillaria gracilis Lodd.: F.C. Hoehne (A. Serra) SP3571
Maxillaria cogniauxiana Hoehne: Edwall CGG 6056
Maxillaria jenischiana (Rchb. f.) C. Schweinf.: Custodio Filho 2308
Maxillaria johannis Pabst: Edwall CGG 6055
Maxillaria leucaimata Barb. Rodr.: Gehrt SP7522
Maxillaria lindleyana Schltr.: Handro 2127
Maxillaria madida Rchb. f.: Sugiyama & Kirizawa 786
Maxillaria ochroleuca Lodd.: ex Lindl.: Wanderley 76
Maxillaria picta Hook.: Custodio Filho 2493
Maxillaria pumila Hook.: Gehrt SP8258
Maxillaria rigida Barb. Rodr.: F.C. Hoehne SP5267
Maxillaria rufescens Lindl.: F.C. Hoehne SP3543
Miltonia russelliana Lindl.: Luederwaldt SP27300
Miltonia spectabilis Lindl.: Gehrt SP17815
Myoxanthus exasperatus (Lindl.) Luer: F.C. Hoehne SP4611
Octomeria alexandri Schltr.: Barros 328
Octomeria gehrtii Hoehne & Schltr.: Gehrt (Isotypus) SP5543
Octomeria grandiflora Lindl.: Barros 330
Octomeria serrana Hoehne: Gehrt (Typus) SP8147
Octomeria tricolor Rchb. f.: F.C. (Isotypus de *O. lacerata* Hoehne & Schtr.) SP4318
Oncidium barbacionae Lindl.: C. Lemos SP34712
Oncidium flexuosum Sims: Custodio Filho 1948
Oncidium gardneri Lindl.: F.C. Hoehne (A. Serra) SP17192
Oncidium longipes Lindl.: Handro 2159
Oncidium pulvinatum Lindl.: F.C. Hoehne (A. Serra) SP17193
Ornithophora radicans (Rchb. f.) Garay & Pabst: F.C. Hoehne SP27229
Pabstia jugosa (Lindl.) Garay: Handro 2096
Paradisanthus neglectus Schltr.: F.C. Hoehne (A. Serra) SP2672
Pelezia novofriburgensis (Rchb. f.) Garay: Gehrt SPF65073
Phloeophila paulensis Hoehne & Schltr.: F.C. Hoehne (Isotypus) SP2998
Phymatidium hysteranthum Barb. Rodr.: Barros 276
Phymatidium delicatum Lindl.: Guerra & Kirizawa 96
Phymatidium falcifolium Lindl.: Guerra & Kirizawa 80
Phymatidium sp.: Lopes et al. 96
Platythelis schlechterana (Hoehne) Garay: Kuhlmann 3501
Pleurothallis angustilabia Hoehne & Schltr.: sem coletor (Isotypus) SP4465
Pleurothallis arcuata Lindl.: Edwall CGG 1929
Pleurothallis auriculata Lindl.: Edwall CGG 6023
Pleurothallis bradei Schltr.: Brade 7746 (Isotypus)
Pleurothallis cryptoceras Rchb. f.: Barros 322; F.C. Hoehne (Holotypus de *P. altoserrana* Hoehne) SP13494
Pleurothallis gehrtii Hoehne & Schltr.: Gehrt (Isotypus) SP5539
Pleurothallis grobyi (Lindl.) F. Barros: Handro 548
Pleurothallis heliconiscapa Hoehne: Edwall CGG 1916 (C. Grande/Holotypus)
Pleurothallis heterophylla Cogn.: Gehrt (Isotypus de *P. hoenei* Schltr.) SP5542; Guerra et al. 39
Pleurothallis hypnicola Cogn.: Kirizawa & Lopes 1908
Pleurothallis linearifolia Cogn.: F.C. Hoehne SP22482
Pleurothallis microgemma Schltr. ex Hoehne: Handro 1042

- Pleurothallis obovata* Lindl.: F.C. Hoehne SP40321
Pleurothallis parvifolia (Lindl.) Pridgeon & M.W. Chase: Gehrt (Isotypus de *P. succedanea* Hoehne & Schltr.) SP4599
Pleurothallis pleurothalloides (Cogn.) Handro: Edwall CGG 1960 (Isotypus de *P. campestris* Barb. Rodr. var. *longipedunculata* Cogn.) SP22508; Handro 1046
Pleurothallis pterophora Cogn.: F.C. Hoehne SP1122
Pleurothallis pubescens Lindl.: Gehrt SP14598
Pleurothallis purpureoviolacea Cogn.: Edwall CGG SP22486
Pleurothallis quadridentata (Barb. Rodr.) Cogn.: Kirizawa 836
Pleurothallis rubens Lindl.: F.C. Hoehne SP1209.
Pleurothallis sclerophylla Lindl.: Kirizawa 1405
Pleurothallis sororcula Schltr.: Gehrt SP750
Pleurothallis subpicta (Schltr.) F. Barros: Handro 1189
Pleurothallis transparens Schltr.: Handro 1173
Pleurothallis tricarinata Poepp. & Endl.: Handro SP40319
Pleurothallis trifida (Lindl.) F. Barros: Barros 329
Pleurothallis wacketii Handro & Pabst: F.C. Hoehne (Holotypus) SP1210
Prescottia lancifolia Lindl.: Handro 483
Prescottia stachyodes (Sw.) Lindl.: Handro 1143
Promenaea stapelioides Lindl.: Gehrt SP4430
Promenaea xanthina Lindl.: Rosa & Pires 3900
Psilocilus modestus Barb. Rodr.: Gehrt SP7520
Rodriguezia eleutherosepala (Barb. Rodr.) Schltr.: Gehrt SP8388
Sarooglossis simplex (Griseb.) Schltr.: Brade 6858 (Isosintypus de *S. tenuis* Schltr.)
Sauvagesia nitidum (Vell.) Schltr.: Kirizawa & Lopes 1916
Scaphyglottis modesta (Rchb.f.) Schltr.: Kirizawa 1409
Scuticaria hadwenii Hort. ex Hook.: F.C. Hoehne SP1129
Stelis aprica Lindl.: Gehrt SP5300
Stelis fraterna Lindl.: Barros 332; F.C. Hoehne (Isotypus de *S. inaequisepala* Hoehne & Schltr.) SP3298
Stelis megantha Barb. Rodr.: F.C. Hoehne (Isosyntypus de *S. macrochlamis* Hoehne & Schltr.) SP4316
Stelis parvifolia Garay: F.C. Hoehne (Isotypus de *S. microphylla* Hoehne & Schltr.) SP3898
Stelis pauloensis Hoehne & Schltr.: F.C. Hoehne (Isotypus de *S. castanea* Hoehne & Schltr.) SP3541
Trichosalpinx dura (Lindl.) Luer: Gehrt (Holotypus de *Pleurothallis anomala* Hoehne) SP7965
Trichosalpinx montana (Barb. Rodr.) Luer: F.C. Hoehne (Isosintypus de *Pleurothallis lepanthipoda* Hoehne & Schltr.) SP1204
Vanilla parvifolia Barb. Rodr.: Custodio Filho 1140
Zygopetalum crinitum Lodd.: Handro 2098
Zygopetalum mackayi Hook.: Kirizawa & Sugiyama 2923
Zygopetalum pedicellatum (Thunb.) Garay: Handro 1058
Zygostates multiflora (Rolle) Schltr.: Handro 1140

POACEAE (GRAMINEAE)

- Agrostis longiberbis* Hack.: Luederwaldt SP10046
Agrostis montevidensis Spreng. ex Nees f. *subnutrica* (Döll.) A.N. Kämpf.: Luederwaldt SP10048
Andropogon bicornis L.: Guerra et al. 30
Andropogon leucostachys Kunth: Luederwaldt SP9644
Andropogon macrothrix Trin.: Luederwaldt SP9641
Aulonemia ramosissima (Hack.) McClure: Sugiyama & Rossi 1235
Axonopus compressus (Sw.) P. Beauv.: Rosa & Pires 3963
Axonopus leptostachys (Flügge) Hitchc.: Kirizawa et al. 2862
Briza calotheca (Trin.) Hack.: Sugiyama & Kirizawa 1365
Briza minor L.: Kirizawa et al. 659
Calamagrostis viridiflava (Poir.) Steud.: Sugiyama & Kirizawa 1366
Chusquea aff. anelytroides Rupr. ex Döll: Kirizawa et al. 2867
Chusquea oligophylla Rupr.: Sugiyama & Lopes 1224
Chusquea sellowii Rupr.: Mattos 11466-A
Chusquea ulei Hack.: Sugiyama & Mariano 1370
Chusquea sp. 1: Kirizawa & Lopes 1111

- Chusquea* sp. 2: Sugiyama & Lopes 496
Chusquea sp. 3: Kuhlmann 2740
Chusquea sp. 4: Kirizawa 3370
Cortaderia selloana (Schult.) Asch. & Graebn.: C. Lemos SP34188
Cynodon dactylon (L.) Pers.: Skvortzov 285
Eragrostis bahiensis Schrad.: Sugiyama & Kawasaki 1363
Eragrostis montufari (Humboldt, Bonpland & Kunth) Trin.: Luederwaldt SP10135
Eragrostis pilosa (L.) P. Beauv.: Kirizawa & Sugiyama 3219
Eriochrysis cayennensis P. Beauv.: Kirizawa et al. 2868
Ichnanthus glaber (Raddi) Hitchc.: Luederwaldt SP9962
Ichnanthus sp.: Kirizawa & Fino 887
Melinis minutiflora P. Beauv.: Kirizawa & Kawazaki 3217
Merostachys neesii Rupr.: Kuhlmann 3250
Merostachys speciosa Spreng.: Joly SPF104536
Merostachys sp.: Kirizawa 2842
Panicum demissum Trin.: Kirizawa et al. 2863
Panicum hebotes Trin.: Sugiyama et al. 602
Panicum millegrana Poir.: Sugiyama & Kirizawa 475
Panicum parvifolium Lam.: Kirizawa & Sugiyama 1177
Panicum pilosum Sw.: Sugiyama & Kirizawa 471
Panicum polygonatum Schrad.: Sugiyama et al. 484
Panicum rude Nees: Sugiyama 1279
Panicum schwackeanum Mez: Sugiyama & Lopes 453
Paradiolyra micrantha (Kunth) Davidse & Zuloaga: Usteri SP9972
Paspalum corcovadense Raddi: Sugiyama & Lopes 1152
Paspalum jurgensii Hack.: Sugiyama & Lopes 458
Paspalum pumilum Nees: Mattos 9057
Paspalum urvillei Steud.: Kirizawa & Sugiyama 3216
Phalaris angusta Nees ex Trin.: s/coletor SP10037
Poa annua L.: Kirizawa 1298
Polypogon elongatus Kunth: Luederwaldt SP10055
Saccharum asperum (Nees) Steud.: Kirizawa & Sugiyama 1366
Setaria parviflora (Poir.) Kerguélen: Kuhlmann 2286
Sporobolus indicus (L.) R. Br.: Luederwaldt SP10059

PONTEDERIACEAE

Heteranthera reniformis Ruiz & Pav.: D. Lemos SP12437

SMILACACEAE

Smilax elastica Griseb.: Kirizawa et al. 1459
Smilax remotinervis Hand.-Mazz.: Custodio Filho 49
Smilax aff. *remotinervis* Hand.-Mazz.: Sugiyama & Lopes 1219
Smilax rufescens Griseb.: Kirizawa et al. 1321
Smilax spicata Vell.: Wanderley 503

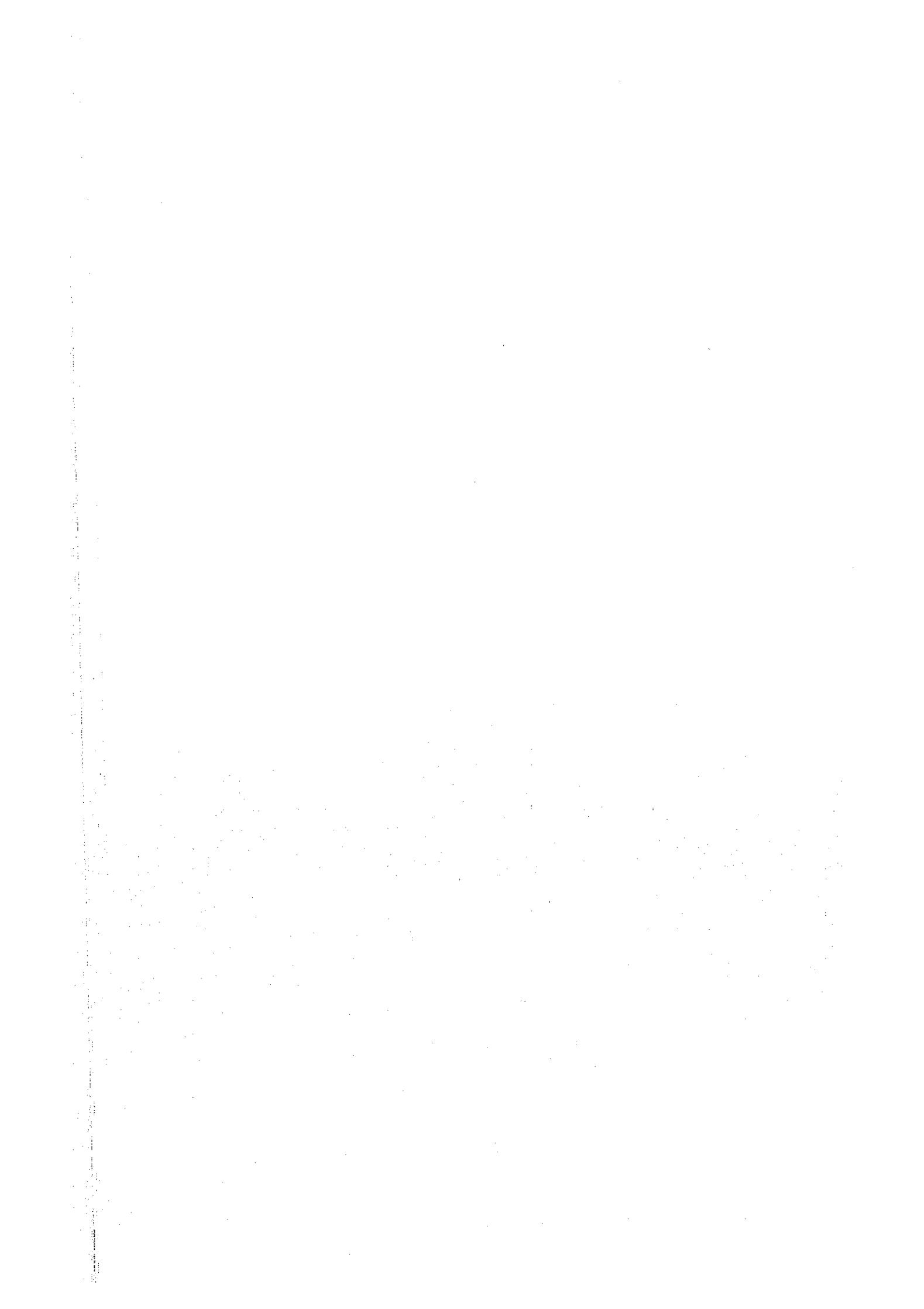
XYRIDACEAE

Xyris hymenachene Mart.: Cerati et al. 31
Xyris jupica Rich.: Cerati et al. 29
Xyris laxifolia Mart.: Cerati et al. 30
Xyris rigida Kunth: D. Lemos SP2314
Xyris savanensis Miq.: Cerati et al. 21
Xyris teres L.A. Nilsson: Cerati et al. 23
Xyris tortula Mart.: Cerati et al. 22

ZINGIBERACEAE

Renealmia petasites Gagnep.: Kirizawa et al. 2532

ANNEX 1.2.1



São Paulo (1)

Distrito/Bairro	Ano					Remarks
	1980	1991	1996	2000		
Fonte	IBGE	IBGE	IBGE			
Água Rasa	-	95.099	86.670	85.896		
Alto de Pinheiros	-	50.351	44.322	44.454		
Anhanguera	-	12.408	28.533	38.427		
Aricanduva	-	96.512	91.439	94.813		
Artur Alvim	-	118.531	110.484	111.210		
Barra Funda	-	15.977	14.338	12.965		
Bela Vista	-	71.825	64.895	63.190		
Belém	-	49.697	42.584	39.622		
Bom Retiro	-	36.136	27.788	26.598		
Brás	-	33.536	26.665	25.158		
Brasilândia	-	201.591	235.327	247.328		
Butantã	-	58.019	53.520	52.649		
Cachoeirinha	-	125.852	140.868	147.649		
Cambuci	-	37.069	32.089	28.717		
Campo Belo	-	77.952	66.553	66.646		
Campo Grande	-	82.052	84.480	91.373		
Campo Limpo	-	159.471	162.100	191.527		
Cangaíba	-	115.070	126.458	137.442		
Capão Redondo	-	193.497	200.325	240.793		
Carrão	-	87.336	79.424	78.175		
Casa Verde	-	96.396	88.935	83.629		
Cidade Ademar	-	230.794	233.588	243.372		
Cidade Dutra	-	168.821	176.262	191.389		
Cidade Líder	-	97.370	98.313	116.841		
Cidade Tiradentes	-	96.281	162.653	190.657		
Consolação	-	66.590	58.588	54.522		
Cursino	-	110.435	104.088	102.089		
Ermelino Matarazzo	-	95.609	105.202	106.838		
Freguesia do Ó	-	152.672	142.340	144.923		
Grajaú	-	193.754	272.684	333.436		
Guaiánares	-	81.373	89.004	98.546		
Moema	-	77.340	74.168	71.276		
Iguatemi	-	59.820	89.835	101.780		
Ipiranga	-	101.533	93.998	98.863		
Itaim Bibi	-	107.497	88.565	81.456		
Itaim Paulista	-	163.269	180.763	212.733		
Itaquera	-	175.366	184.543	201.512		
Jabaquara	-	214.350	212.455	214.095		
Jaçanã	-	86.830	89.646	91.809		
Jaguara	-	29.798	25.729	25.713		
Jaguaré	-	44.361	36.104	42.479		
Jaraguá	-	93.185	114.375	145.900		
Jardim Ângela	-	178.373	221.424	245.805		
Jardim Helena	-	118.381	137.603	139.106		
Jardim Paulista	-	103.138	89.261	83.667		
Jardim São Luís	-	204.284	223.252	239.161		
José Bonifácio	-	103.712	103.933	107.082		
Lapa	-	70.319	62.961	60.184		

São Paulo (2)

Distrito/Bairro	Ano					Remarks
	1980	1991	1996	2000	IBGE	
Fonte			IBGE	IBGE	IBGE	
Liberdade	-	76.245	64.349	61.875		
Limão	-	90.422	83.994	82.045		
Mandaqui	-	104.022	101.964	103.113		
Marsilac	-	5.992	7.416	8.404		
Mooca	-	71.999	63.844	63.280		
Morumbi	-	40.031	38.550	34.588		
Parelheiros	-	55.594	82.535	102.836		
Pari	-	21.299	15.434	14.824		
Parque do Camo	-	54.743	56.154	64.067		
Pedreira	-	86.001	109.336	127.425		
Penha	-	133.006	126.960	124.292		
Perdizes	-	108.840	103.746	102.445		
Perus	-	46.301	57.601	70.689		
Pinheiros	-	78.644	69.542	62.997		
Pirituba	-	152.305	151.551	161.796		
Ponte Rasa	-	102.702	98.490	98.113		
Raposo Tavares	-	82.890	87.209	91.204		
República	-	57.797	49.666	47.718		
Rio Pequeno	-	102.791	99.428	111.756		
Sacomã	-	211.200	216.869	228.283		
Santa Cecília	-	85.829	75.826	71.179		
Santana	-	137.679	132.016	124.654		
Santo Amaro	-	75.556	62.988	60.539		
São Lucas	-	152.036	144.636	139.333		
São Mateus	-	150.764	160.114	154.850		
São Miguel	-	102.964	103.656	97.373		
São Rafael	-	89.862	101.531	125.088		
Sapopemba	-	257.617	254.922	282.239		
Saúde	-	126.596	117.792	118.077		
Sé	-	27.186	21.255	20.115		
Socorro	-	43.194	38.375	39.097		
Tatuapé	-	81.840	77.492	79.381		
Tremembé	-	125.075	143.298	163.803		
Tucuruvi	-	111.884	101.957	99.368		
Vila Andrade	-	42.576	54.147	73.649		
Vila Curuçá	-	124.300	138.810	146.482		
Vila Formosa	-	97.940	91.410	93.850		
Vila Guilherme	-	61.625	53.533	49.984		
Vila Jacuí	-	101.236	110.360	141.959		
Vila Leopoldina	-	26.827	26.487	26.870		
Vila Maria	-	122.662	113.212	113.845		
Vila Mariana	-	132.822	124.193	123.683		
Vila Matilde	-	109.023	99.414	102.935		
Vila Medeiros	-	156.140	145.474	140.564		
Vila Prudente	-	114.297	100.428	102.104		
Vila Sônia	-	83.006	79.320	87.379		
São Domingos	-	70.386	72.919	82.834		
Lajeado	-	112.807	129.729	157.773		

Diadema

Distrito/Bairro	Ano					Remarks
	1980	1991	2000	1996	2000	
Fonte	Diadema	Diadema	IBGE	IBGE		
Taboão	-	47.041	45.474	46.846	45.742	
Piraporinha	-	15.590	21.808	20.110	21.981	
Casa Grande	-	28.173	34.651	31.676	34.641	
Eldorado	-	28.820	38.270	31.372	38.280	
Serraria	-	21.250	27.911	22.432	28.006	
Concelção	-	27.788	38.122	31.059	38.103	
Centro	-	39.775	43.170	39.003	43.236	
Campanário	-	27.702	28.894	29.186	28.938	
Canhema	-	19.668	22.092	20.079	22.108	
Vila Nogueira	-	32.072	33.215	30.941	33.254	
Inamar	-	17.408	22.782	20.412	22.775	

São Bernardo do Campo

Distrito/Bairro	Ano						Remarks
	1980	1991	1996	2000	1996	2000	
Fonte	SBC	SBC	SBC	SBC	IBGE	IBGE	
Alto da Serra		35	48	77	48	-	
Alvarenga	7,779	27,952	43,569	54,585	43,576	54,585	100%
Alves Dias	23,213	26,085	26,972	27,188	26,976	27,188	
Anchieta	13,355	18,749	17,704	16,770	17,687	16,770	
Assunção	31,778	44,438	43,535	41,918	43,539	41,918	
Baeta Neve	39,918	48,554	53,978	49,779	53,929	49,779	
Bairro dos Cas	28,229	28,527	40,731	43,969	40,722	43,969	
Balneário	441	451	623	606	623	606	100%
Batistin	6,740	12,095	24,581	27,655	24,568	27,655	100%
Botujuru	1,500	5,116	9,981	11,735	9,985	11,735	
Capivari	814	801	1,444	1,454	1,443	-	
Curucut		355	1,327	1,633	1,339	-	100%
Centr	42,047	45,163	44,966	44,231	44,950	44,231	
Cinc	2,213	5,736	7,988	9,435	7,988	9,435	100%
Cooperativa	4,042	6,099	13,218	17,364	13,290	17,364	
Demarch	11,938	23,600	23,244	24,009	23,234	24,009	
Ferrazópolis	29,808	38,655	41,221	41,378	41,225	41,378	
Imigrantes	-	14	16	1	16	-	
Independência	19,237	21,476	21,686	22,060	21,669	22,060	
Jordanópolis	14,835	18,131	17,433	16,711	17,432	16,711	
Montanhão	12,706	34,986	60,979	83,565	60,939	83,565	
Nova Petrópolis	10,316	13,442	15,551	17,259	15,543	17,259	
Paulicéia	23,657	26,343	24,287	21,807	24,245	21,807	
Planalto	22,669	24,890	25,383	26,919	25,471	26,919	
Rio Grande	4,226	4,891	5,379	6,429	5,374	6,429	100%
Rio Pequeno		27	101	75	101	-	
Rudge Ramos	41,820	41,457	40,390	39,512	40,418	39,512	
Santa Terezinha	9,934	17,587	20,117	22,043	20,118	22,043	
Taboão	19,911	26,811	25,885	23,990	25,877	23,990	
Taquacetuba	1,030	607	1,111	2,238	3,363	-	100%
Santa Cruz		1,605	2,252	1,272			100%
Tatetos	653	1,402	2,439	2,561	2,433	-	100%
Varginha	793	596	1,997	2,620	1,998	-	100%
Zanala		217	277	329	277	-	

Santo André

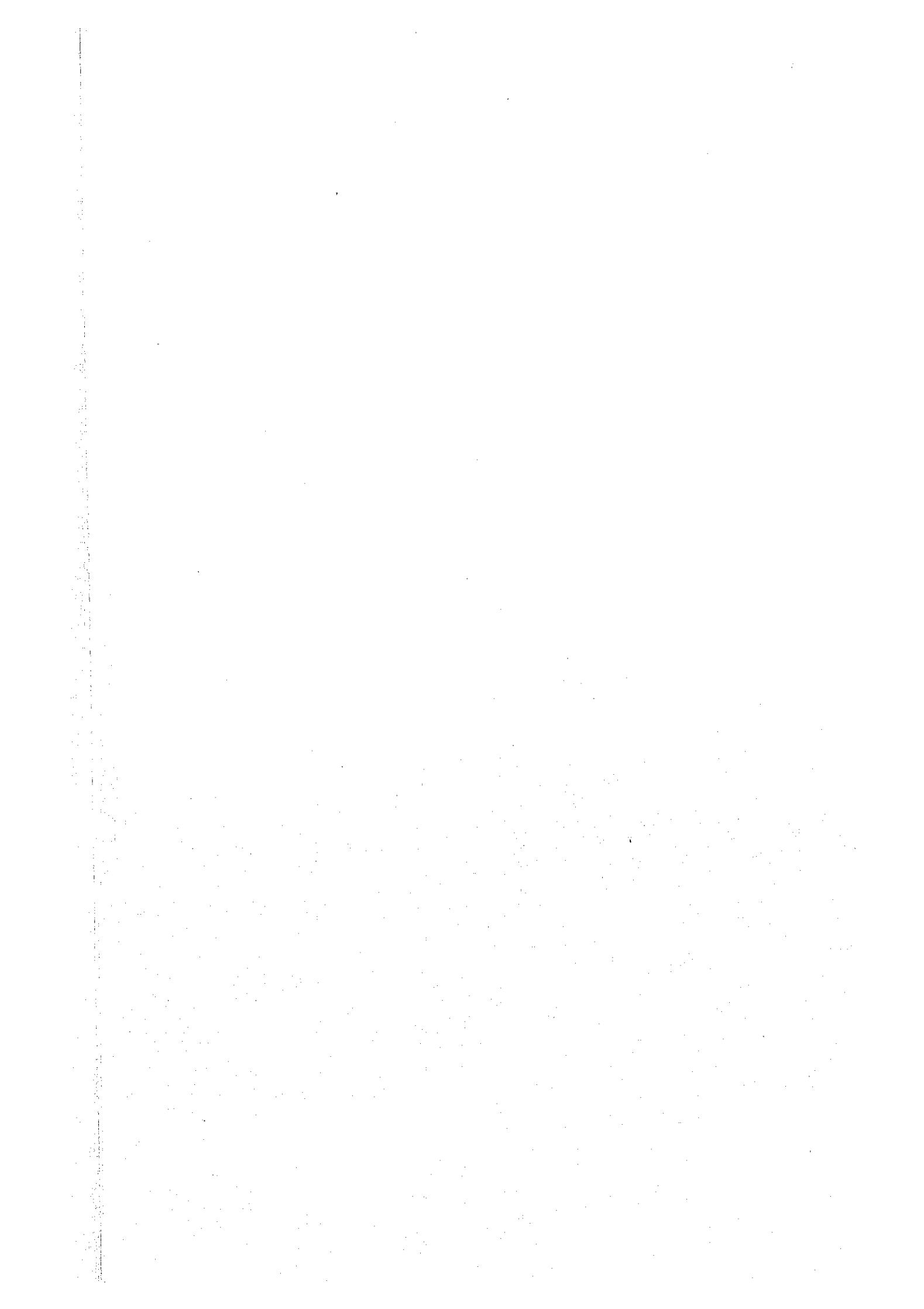
Distrito/Bairro	Ano					Remarks
	1980	1991	1996	2000		
Fonte	SBC	SBC	SBC	SBC		
Santo André	-	519.757	526.455	548.903		
Capuava	-	93.351	95.497	97.021		
Paranapiacaba	-	3.883	2.868	3.407		100%

Ribeirão Pires

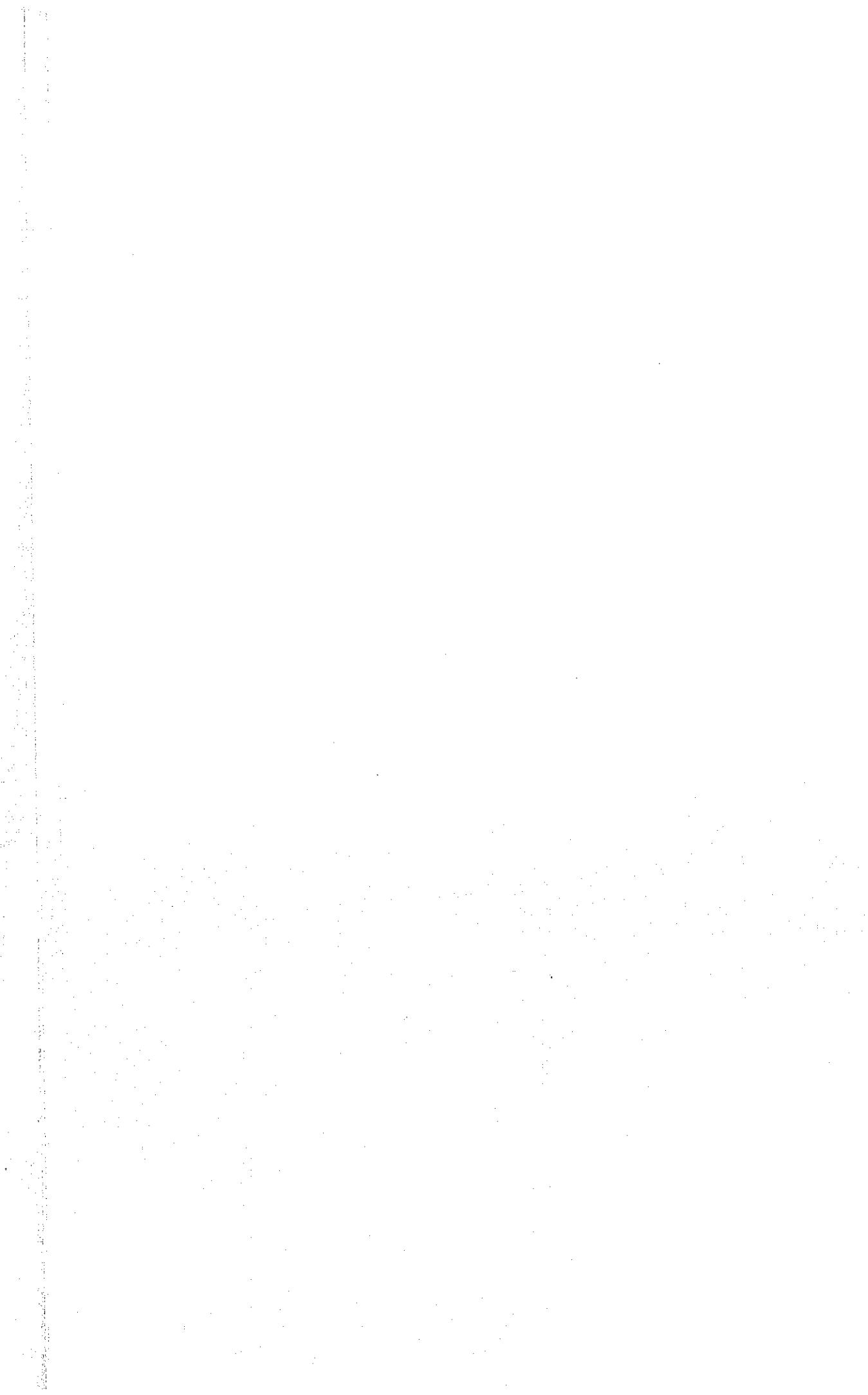
Distrito/Bairro	Ano					Remarks
	1980	1991	1996	2000		
Fonte			IBGE	IBGE		
Barro Branco	-	-	1.654	1.839		
Santa Luzia	-	-	8.195	9.082		
Roncon	-	-	5.828	6.453		
Santana	-	-	3.756	3.676		
Colônia	-	-	9.855	8.741		
Pastoril	-	-	1.006	1.194		
Ponte Seca	-	-	3.610	4.640		
Centro	-	-	3.304	3.118		
Allança	-	-	13.148	13.688		
Pilar Velho	-	-	4.515	4.982		
Guapituba	-	-	1.783	1.544		
Sertãozinho	-	-	325	294		
Reprêsa	-	-	5.495	5.860		
Centro Alto	-	-	4.660	4.642		
Suissa	-	-	8.309	8.241		
Bocaina	-	-	4.951	4.950		
São Caetaninho	-	-	3.476	3.430		
Centro Ouro Fino Paulista	-	-	2.460	3.272		
Tecelão	-	-	-	985		
Tanque Calo	-	-	2.199	2.337		
Quarta Divisão	-	-	1.858	3.767		
Irapoá	-	-	1.634	1.823		
Pouso Alegre	-	-	3.293	3.629		
Soma	-	-	921	1.103		
Casa Vermelha	-	-	395	311		
Km 4	-	-	920	907		

Rio Grande da Serra

Distrito/Bairro	Ano					Remarks
	1980	1991	1996	2000		
Fonte		IBGE	IBGE	IBGE		
Rio Grande da Serra		29.901	34.736	37.091		100%



ANNEX 3.1.1



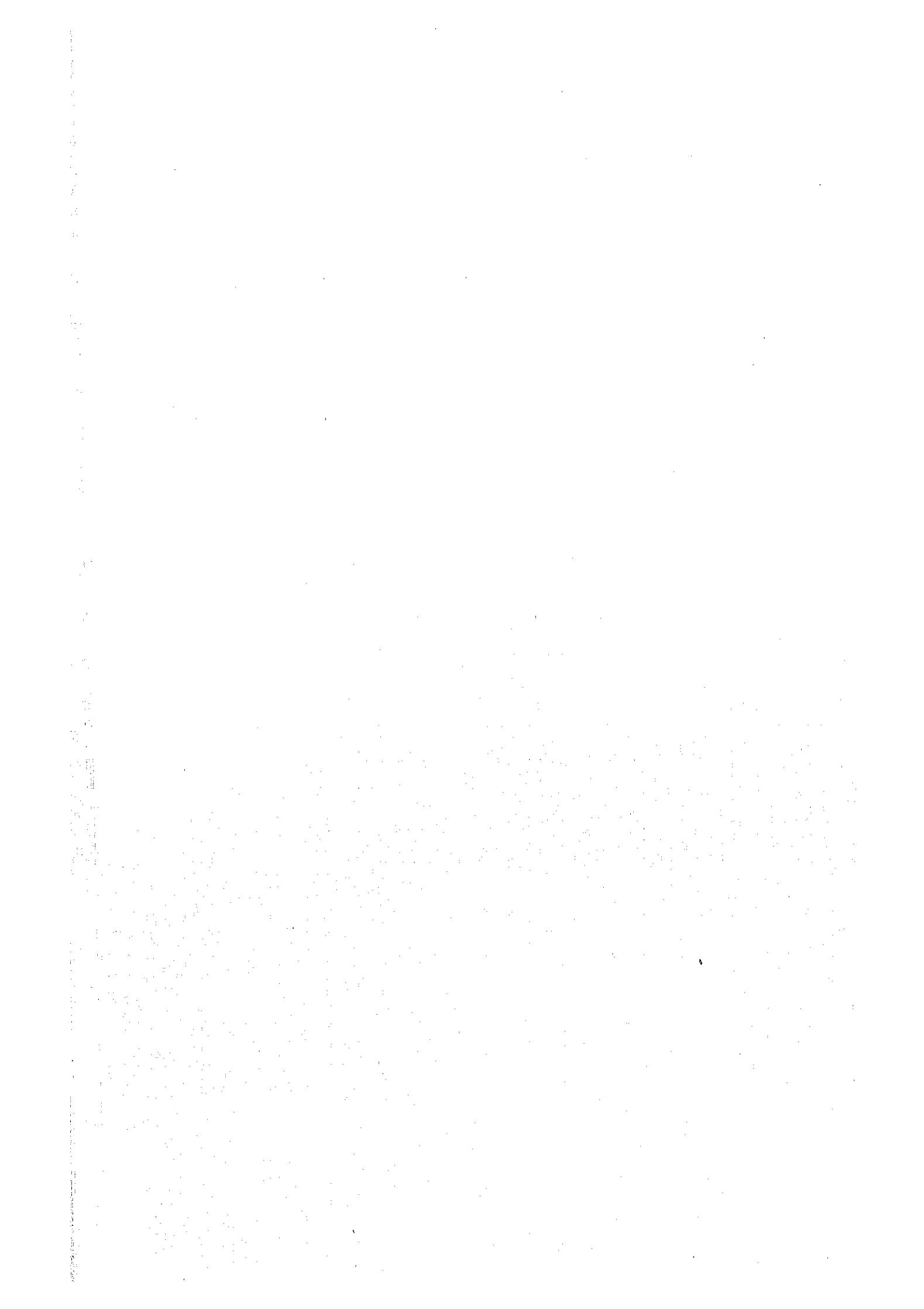
ATIVIDADES INDUSTRIAS DESENVOLVIDAS NO MUNICÍPIO POR BAIRRO - 2004

Material Anexo A3.6(2) ATIVIDADES PRINCIPAIS INDUSTRIAS NO MUNICÍPIO POR BAIRRO - 2004

ATIVIDADES	Município	TOTAL GERAL	
		Quantidade	Valor
Extracção de Minerais	Zona Rural Taboão da Serra	0	0
Produtos de Minerais não Metálicos	Ribeirão das Neves	0	0
Metalúrgica	Centro Industrial de Araxá	0	0
Medicina	Belo Jardim	0	0
Material Elétrico e de Comunicação	Assu	0	0
Material de Transporte	Alto Paraisópolis	0	0
Madeira	Itajubá	0	0
Papel, Papelão e Celulose	Itabirito	0	0
Bonfá	Itatiaiuçu	0	0
Couro, Peles e Assentamentos	Itaúna	0	0
Química	Jaguariaíva	0	0
Produtos Farmacêuticos	Itaúna	0	0
Perfumaria, Sabões e Véias	Itaúna	0	0
Produtos de Materiais Plásticos	Itaúna	0	0
Têxtil	Itaúna	0	0
Vestuário, Calçados e Artifícios de Tecidos	Itaúna	0	0
Produtos Alimentares	Itaúna	0	0
Bebidas	Itaúna	0	0
Editoriais, Gráficas	Itaúna	0	0
Diversas	Itaúna	0	0
Construção Civil	Itaúna	0	0
Serviço Industrial de Utilidade Pública	Itaúna	0	0
Refinado de Petróleo e Destilação de Álcool	Itaúna	0	0
Fumo	Itaúna	0	0
	TOTAL	32	32

Material Anexo A3.1.1 ATIVIDADES INDUSTRIAS DESENVOLVIDAS NO MUNICÍPIO POR BAIRRO - 2004

ATIVIDADES	TOTAL GERAL																									
	Álvres Dias	Assunção	Baleia Nereu	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Balneário	Zona Rural							
Extracão de Minerais		3																	5							
Produtos de Minerais Não Metálicos	1	6	2	4	3														1							
Metalúrgica	9	17	15	1	7	1	16	13	6	13	1	8	14	11	7	5	14	24	58							
Mecânica	12	5	19	6	1	9	3	10	9	7	8	2	3	4	16	13	4	32	30							
Material Elétrico e de Comunicação	3	2	5	6	1	6		3		1	2	1	6	7	2	1	16	35	2							
Material de Transporte	1	4		3				2	3		1		2	3	1	10	9	17	1							
Madeira	1	1	3	2	9		2											1	1							
Mobiliário	3	4	8	16	1	21	1	22	11	5	17	4	1	11	4	8	6	4	4							
Papel, Papelão e Celulose	1	1	2		3		2	1					1	1	2	1	1	3	3							
Borracha		1	1	1	1	3	1						1	3		1	3	5	24							
Couro, Peles Q Assentamentos																1	1	2	10							
Química	2	2	3	1	7		2	7	6	3	1		3	2	12	3	1	5	7							
Produtos Farmacêuticos								2										12	84							
Perfumaria, Sabões e Velas	1	1						2										2	5							
Produtos de Materiais Plásticos	2	1	5	2	3	1	3	9	5	1	1	1	6	5	1	1	8	1	20							
Têxtil		3					2	1				1	4		2	4	2	3	24							
Vestuário, Calçados e Artigos de Tecidos	6	5	9	12	1	1	35	3	2	7	7	9	10	6	2	9	13	8	183							
Produtos Alimentares	1	4	4	3		11	6	6	1	2	4	3	3	1	3	1	1	1	74							
Bebidas		1						1	1								1	4	4							
Editorial s Gráfica	1	6	3	5		19	1	2		5	5	1	4	5	1	1	8	17	6							
Diversas	1	3	1	3	1	9	3	2	5	1	3	3	3	1	5	12	1	11	2							
Construção Civil		1														4			5							
Serviço Industrial de Utilidade Pública		1	2														1	1	25							
Refinaria de Petróleo e Destilação de Álcool																	1	1	1							
Fundo																	1	1	9							
TOTAL	44	44	97	78	3	74	9	153	79	50	57	39	6	55	78	85	42	40	103	163	11	193	26	174	8	171



ANNEX 3.2.1

Material Anexo A3.2.1 Escala Financeira dos Municípios Relacionados à Bacia da Represa Billings (2002)

Material Anexo A3.2.1 Escala Financeira dos Municípios Relacionados à Bacia da Represa Billings (2002)

Descrição	Unidade	São Paulo	Diadema	São Bernardo do C.	St. André	R. Pires	RG Serra
Receitas orçamentárias realizadas	Reais	9.443.705,403	242.605.000	898.664.956	394.793.202	66.482.535	13.068.566
Correntes	Reais	9.611.828.344	145.563.000	939.526.274	415.034.957	58.326.944	12.995.332
Tributárias	Reais	4.468.519.339	58.225.000	235.566.346	136.388.050	11.906.789	1.685.617
Imposto sobre a Propriedade Predial e Territorial - IPTU	Reais	1.675.310.808	1.746.756	100.148.954	52.817.597	7.172.413	400.310
Imposto Sobre Serviços - ISS	Reais	1.973.615.891	12.809.544	71.261.881	49.604.926	2.574.206	560.359
Imposto sobre Transmissão-Intervivos - ITBI	Reais	254.827.251		12.373.303	14.718.951	723.589	51.889
Taxas	Reais	171.434.981	5.240.268	19.098.016	3.404.941	647.749	556.450
Melhoria	Reais	1.357.582		0	4.290	14.933	0
Contribuição	Reais	0		272.588	0	2.534.165	0
Patrimonial	Reais	215.709.047	9.704.200	25.211.404	8.186.058	729.082	27.716
Industrial	Reais	0		0	0	0	0
Agropecuária	Reais	964.769		58.411.111	0	0	0
Serviços	Reais	39.201.273	2.426.050	26.664.107	380.781	137.666	0
Transferências Correntes	Reais	4.093.125.974	485.827.318	253.306.278	38.021.629	10.447.295	
Transferência Intergovernamental da União	Reais	334.702.663		48.002.926	53.454.140	16.181.155	6.379.822
Transferência Intergovernamental do Estado	Reais	3.105.688.794		375.132.665	184.965.145	17.837.611	4.067.472
Outras Transferências	Reais	1.390.044		9.065.784	1.394.908	0	0
Demais Receitas Correntes	Reais	6.338.932		152.183	3.006.574	0	104.540
Dívida Ativa	Reais	259.996.589		30.053.004	8.825.717	3.850.908	536.388
Receitas Diversas	Reais	152.178.862		11.838.925	5.169.967	891.362	107.655
Outras Receitas Correntes	Reais	794.307.942		107.573.400	16.773.789	4.997.613	834.705
Capital	Reais	193.742.555		10.605.808	4.655.842	8.155.591	73.234
Crédito	Reais	173.328.620		5.642.213	0	522.774	0
Alienação de Bens	Reais	483.860		100.011	329.986	66.625	2.034
Transferências de Capital	Reais	14.682.729		4.863.255	4.365.856	7.566.193	0
Transferências da União	Reais	0		161.779	0	90.293	0
Transferências dos Estados	Reais	0		0	0	767.526	0
Outras Receitas de Capital	Reais	5.247.346		0	0	0	71.200

Descrição	Unidade	São Paulo	Diadema	São Bernardo do C.	St. André	R. Pires	RG Serra
Despesas orçamentárias realizadas	Reais	9.690.336,281		881.537,551	403.648,564	66.966,560	14.816.089
Correntes	Reais	8.571.887,998		746.298,158	369.249,456	47.450,245	12.757,782
Outras Despesas Correntes	Reais	0		46.142	16.142,125	0	0
Capital	Reais	1.118.448,283		135.239,393	34.399,108	19.516,314	2.058.306
Investimentos	Reais	826.915,667		127.885,127	33.398,356	15.959,943	0
Inversões Financeiras	Reais	126.578,129		4.811,624	0	0	1.599.756
Pessoal e Encargos Sociais	Reais	3.841.001,620		375.328,210	205.403,676	24.446,474	6.110.703
Legislativa	Reais	289.093,718		18.310,000	15.917,931	2.554,643	826,287
Judiciária	Reais	69.769,619		0	6.801,082	418,019	206.083
Administrativa	Reais	344.284,485		63.316,646	104.202,244	8.937,285	2.317,115
Valor do Fundo de Participação dos Municípios	Reais	52.944,519		16.154,234	16.385,121	10.176,719	5.095,575
Valor do Imposto Territorial Rural - ITR	Reais	832.658		33.506	413	2.166	1.154
Valor do Imposto sobre Operações Financeiras - IOF - OI	Reais	5.180		0	0	0	0
Fundo de Manutenção e Desenvolvimento do Ensino Fundamental e de Valorização do Magistério - Fundef Multigovernamental	Reais	650.404,244		36.952,074	12.164,461	0	0

ANNEX 3.2.2

Material Anexo A3.2.2

Execução Orçamentária SBC (2001-2004)

(1) Receita Orçamentária

		2001		2002		2003		2004	
		Valor	%	Valor	%	Valor	%	Valor	%
Receita Orçamentária		847,186,413	100.00	851,891,616	100.00	1,016,787,131	100.00	1,236,040,870	100.00
Receitas Correntes		844,818,300	99.72	841,297,942	98.76	963,332,163	94.74	1,124,213,466	90.95
Receita Propria		366,947,153	43.31	430,039,384	50.48	508,633,434	50.02	602,645,272	48.76
Receita Adinda de Transferências		477,871,147	56.41	411,258,558	48.28	454,698,729	44.72	521,568,195	42.20
Receitas de Capital		2,368,113	0.28	10,593,674	1.24	53,454,968	5.26	111,827,404	9.05
Operações de Crédito		311,427	0.04	5,642,213	0.66	0	0.00	3,963,749	0.32
Transferências		1,821,456	0.22	4,863,255	0.57	3,851,429	0.38	7,290,338	0.59
Demais Receitas de Capital		235,230	0.028	88,206	0.01	49,603,538	4.88	100,573,316	8.14

(2) Despesa

		2001		2002		2003		2004	
		Valor	%	Valor	%	Valor	%	Valor	%
Despesa Total		860,204,192	100.00	846,649,143	100.00	1,012,969,900	100.00	1,234,890,439	100.00
Despesas Correntes		716,920,582	83.34	717,862,546	84.79	827,178,992	81.66	941,161,136	76.21
Custeio		330,163,882	38.38	309,740,939	36.58	373,644,552	36.89	469,128,081	37.99
Pessoal		349,129,781	40.59	390,215,829	46.09	427,140,130	42.17	445,860,416	36.11
Subvenções e Contribuições		4,199,459	0.49	4,344,000	0.51	6,172,854	0.61	5,863,409	0.47
Precatórios		27,371,000	3.18	7,427,001	0.88	13,123,684	1.30	13,255,037	1.07
Serviço da Dívida		6,056,460	0.70	6,135,323	0.72	7,097,772	0.70	7,054,193	0.57
Despesas de Capital		143,283,610	16.66	128,786,597	15.21	185,790,908	18.34	293,729,303	23.79
Obras e Instalações		99,329,625	11.55	96,197,905	11.36	141,871,829	14.01	240,705,276	19.49
Equipamentos		3,916,367	0.46	7,902,159	0.93	11,173,195	1.10	11,626,086	0.94
Amortização da Dívida		2,529,430	0.29	2,542,641	0.30	4,231,368	0.42	5,409,111	0.44
Precatórios		30,854,275	3.59	14,956,225	1.77	16,648,742	1.64	21,023,994	1.70
Outras Despesas		6,653,913	0.77	7,187,667	0.85	11,865,773	1.17	14,514,837	1.18



ANNEX 3.4.1

Material Anexo A3.4.1 Situação das Instalações Sanitárias na Bacia da Represa Billings

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Rede Geral	Fossa Séptica	Fossa Rudimentar ou Vala	Cursos d'Água ou Outros
SÃO PAULO	2,985,977	2,604,766	108,074	117,982	155,155
Aricanduva	76,867	73,864	528	289	2,186
Aricanduva	26,109	24,355	201	88	1,465
Carrão	22,992	22,456	63	21	452
Vila Formosa	27,766	27,053	264	180	269
Butantã	106,548	98,426	2,541	1,215	4,366
Butantã	16,388	16,032	136	170	50
Morumbi	9,578	8,787	421	316	54
Raposo Tavares	24,617	22,991	883	550	193
Rio Pequeno	31,135	27,523	465	24	3,123
Vila Sônia	24,830	23,093	636	155	946
Campo Limpo	137,737	111,283	4,509	7,401	14,544
Campo Limpo	52,178	44,097	831	3,076	4,174
Capão Redondo	64,567	51,533	3,016	3,241	6,777
Vila Andrade	20,992	15,653	662	1,084	3,593
Casa Verde/Cachoeirinha	87,509	79,440	1,205	1,233	5,631
Cachoeirinha	39,761	33,459	966	995	4,341
Casa Verde	24,395	24,163	102	74	56
Limão	23,353	21,818	137	164	1,234
Cidade Ademar	99,377	70,673	8,206	9,581	10,917
Cidade Ademar	65,772	54,504	1,943	2,641	6,684
Pedreira	33,605	16,169	6,263	6,940	4,233
Cidade Tiradentes	49,677	43,164	2,485	1,494	2,534
Cidade Tiradentes	49,677	43,164	2,485	1,494	2,534
Ermelino Matarazzo	56,881	49,868	1,560	838	4,615
Ermelino Matarazzo	29,241	24,477	790	653	3,321
Ponte Rasa	27,640	25,391	770	185	1,294
Freguesia/Brasilândia	107,296	97,817	1,959	1,457	6,063
Brasilândia	65,478	56,773	1,553	1,403	5,749
Freguesia do Ó	41,818	41,044	406	54	314
Guaiianases	66,151	53,146	2,741	3,865	6,399
Guaiianases	25,598	20,578	1,080	2,147	1,793
Lajeado	40,553	32,568	1,661	1,718	4,606
Ipiranga	127,094	118,905	1,188	2,173	4,828
Cursino	30,209	29,573	83	133	420
Ipiranga	30,647	29,189	381	962	115
Sacomã	66,238	60,143	724	1,078	4,293

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Rede Geral	Fossa Séptica	Fossa Rudimentar ou Vala	Cursos d'Água ou Outros
Itaim Paulista	93,627	81,791	1,914	1,422	8,500
Itaim Paulista	55,024	48,135	1,015	675	5,199
Vila Curuçá	38,603	33,656	899	747	3,301
Itaquera	130,074	114,542	4,266	1,794	9,472
Cidade Líder	31,125	26,576	1,833	151	2,565
Itaquera	53,442	47,256	1,384	822	3,980
José Bonifácio	28,621	26,833	657	424	707
Parque do Carmo	16,886	13,877	392	397	2,220
Jabaquara	62,416	56,731	197	844	4,644
Jabaquara	62,416	56,731	197	844	4,644
Lapa	87,703	83,104	806	2,935	858
Barra Funda	4,480	4,279	24	1	176
Jaguara	7,488	6,755	229	59	445
Jaguaré	12,359	9,379	162	2,763	55
Lapa	19,867	19,559	250	4	54
Perdizes	35,576	35,337	140	13	86
Vila Leopoldina	7,933	7,795	1	95	42
M' Boi Mirim	130,958	98,820	9,437	16,014	6,687
Jardim Ângela	64,950	40,600	7,992	12,798	3,560
Jardim São Luís	66,008	58,220	1,445	3,216	3,127
Moóca	97,227	95,921	549	426	331
Agua Rasa	26,554	26,276	230	18	30
Belém	11,678	11,161	87	386	44
Brás	8,167	8,125	12	-	30
Mooca	20,629	20,541	41	6	41
Pari	4,408	4,334	62	1	11
Tatuapé	25,791	25,484	117	15	175
Parelheiros	28,074	4,844	7,095	13,177	2,958
Marsilac	2,114	7	847	1,179	81
Parelheiros	25,960	4,837	6,248	11,998	2,877
Penha	137,264	129,285	3,496	1,620	2,863
Artur Alvim	31,595	28,579	1,147	893	976
Cangaiba	38,394	35,429	1,424	442	1,099
Penha	37,451	35,722	755	254	720
Vila Matilde	29,824	29,555	170	31	68
Perus	28,109	18,208	4,207	3,558	2,136
Anhanguera	9,376	4,797	2,880	1,498	201
Perus	18,733	13,411	1,327	2,060	1,935
Pinheiros	99,227	98,158	862	81	126
Aldo de Pinheiros	13,696	13,649	10	3	34
Itaim Bibi	29,566	29,478	19	33	36

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Rede Geral	Fossa Séptica	Fossa Rudimentar ou Vala	Cursos d'Água ou Outros
Jardim Paulista	32,712	32,003	673	10	26
Pinheiros	23,253	23,028	180	35	30
Pirituba	108,867	94,561	4,793	3,768	5,745
Jaraguá	38,423	32,549	2,131	1,922	1,821
Pirituba	46,902	43,365	511	1,188	1,838
São Domingos	23,542	18,647	2,151	658	2,086
Santana/Tucuruvi	95,848	93,532	685	155	1,476
Mandaqui	30,027	29,409	204	23	391
Santana	36,125	35,634	136	26	329
Tucuruvi	29,696	28,489	345	106	756
Santo Amaro	67,644	64,572	1,050	423	1,599
Campo Belo	21,503	20,386	182	119	816
Campo Grande	27,243	25,620	623	265	735
Santo Amaro	18,898	18,566	245	39	48
São Mateus	100,920	79,398	4,762	6,451	10,309
Iguatemi	25,954	18,293	2,444	2,709	2,508
São Mateus	41,911	36,853	909	326	3,823
São Rafael	33,055	24,252	1,409	3,416	3,978
São Miguel	100,511	80,777	4,741	3,974	11,019
Jardim Helena	36,594	27,643	2,646	2,479	3,826
São Miguel	26,660	23,371	542	195	2,552
Vila Jacuí	37,257	29,763	1,553	1,300	4,641
Sé	140,193	139,677	63	19	434
Bela Vista	24,697	24,638	7	4	48
Bom Retiro	8,213	7,989	6	-	218
Cumbuci	8,924	8,897	6	1	20
Consolação	21,781	21,715	5	3	58
Liberdade	21,941	21,906	11	-	24
República	20,810	20,754	21	7	28
Santa Cecília	26,151	26,119	5	2	25
Sé	7,676	7,659	2	2	13
Socorro	148,737	90,404	22,068	27,226	9,039
Cidade Dutra	51,091	45,526	1,292	2,068	2,205
Grajaú	86,223	33,628	20,673	25,133	6,789
Socorro	11,423	11,250	103	25	45
Tremembé/Jaçanã	68,290	55,612	5,013	2,283	5,382
Jaçanã	24,412	22,018	894	256	1,244
Tremembé	43,878	33,594	4,119	2,027	4,138
Vila Maria/Vila Guilherme	87,523	82,312	2,276	563	2,372
Vila Maria	32,386	30,184	729	417	1,056
Vila Medeiros	40,015	37,180	1,466	82	1,287

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Rede Geral	Fossa Séptica	Fossa Rudimentar ou Vala	Cursos d'Água ou Outros
Vila Mariana	109,470	108,749	463	34	224
Moema	26,371	26,017	324	2	28
Saúde	39,748	39,470	93	28	157
Vila Mariana	43,351	43,262	46	4	39
Vila Prudente/Sapopemba	148,158	137,182	2,409	1,669	6,898
São Lucas	40,861	38,811	568	56	1,426
Sapopemba	76,110	68,265	1,432	1,578	4,835
Vila Prudente	31,187	30,106	409	35	637

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Rede Geral	Fossa Séptica	Fossa Rudimentar ou Vala	Cursos d'Água ou Outros
Diadema					
Taboão	12,296	12,294	12,278	16	1
Piraporinha	6,135	6,132	5,343	789	1
Casa Grande	9,437	9,424	8,596	828	2
Eldorado	10,351	10,136	9,632	504	102
Serraria	7,556	7,543	7,055	488	4
Conceição	10,516	10,454	10,156	298	-
Centro	12,742	12,698	12,097	601	-
Campanário	7,834	7,831	7,71	121	1
Canhemba	5,983	5,983	5,643	340	-
Vila Nogueira	9,161	9,143	8,527	616	-
Inamar	6,129	6,098	5,345	753	12
	98,140	97,736	84,672	5,354	123
São Bernardo do Campo					
Taboão	6,719	6,715	6,688	27	2
Paulicéia	6,206	6,203	6,195	8	-
Rudge	12,434	12,433	12,256	177	-
Anchieta	5,213	5,209	4,674	535	3
Jordanópolis	4,85	4,807	4,806	1	-
Planalto	7,418	7,412	7,4	12	2
Independência	6,265	6,265	6,25	15	-
Alves	7,214	7,203	6,061	1,142	5
Cooperativa	4,595	4,481	3,968	513	33
Baeta	14,473	14,461	13,422	1,039	2
Centro	13,963	13,963	13,446	517	-
Assunção	12,423	12,423	12,317	106	-
Nova	5,119	5,117	5,097	20	-
Santa	6,981	6,981	6,547	434	-
Bairro	11,861	11,852	10,943	909	5
Ferrazópolis	11,383	11,367	9,242	2,125	4
Demarchi	6,905	6,903	6,549	354	1
Montanhão	21,406	21,186	16,423	4,763	32
Botujuru	3,056	3,035	2,848	187	3
Balneária	173	172	172	-	1
Alvarenga	14,507	14,321	13,925	396	74
Batistini	7,343	7,307	6,173	1,134	19
Rio	1,719	1,71	1,647	63	4
Cinco	2,526	2,523	2,509	14	3
	189,902	192,339	165,908	14,491	193
Santo André					
Santo André	157,252	156,957	149,399	7,558	54
Capuava	27,35	27,336	26,919	417	10
Paranapiacaba	859	853	801	52	4

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Rede Geral	Fossa Séptica	Fossa Rudimentar ou Vala	Cursos d'Água ou Outros
Ribeirão Pires					
Barro Branco	496	484	484	-	10
Santa Luzia	2,474	2,453	2,451	2	8
Roncon	1,745	1,74	1,74	-	4
Santana	1,06	1,057	1,057	-	3
Colônia	2,345	2,343	2,343	-	1
Pastoril	362	362	347	15	-
Ponte Seca	1,259	1,245	1,187	58	12
Centro	891	891	887	4	-
Aliança	3,609	3,562	3,373	189	42
Pilar Velho	1,303	1,277	1,271	6	21
Guapituba	358	312	312	-	-
Sertãozinho	77	77	76	1	-
Reprêsa	1,545	1,506	1,501	5	23
Centro Alto	1,385	1,385	1,385	-	-
Suíssa	2,337	2,334	2,331	3	-
Bocaina	1,337	1,333	1,325	8	3
São Caetaninho	918	899	899	-	19
Centro Ouro Fino Paulista	886	873	873	-	12
Tecelão	247	181	180	1	52
Tanque Caio	618	617	617	-	-
Quarta Divisão	978	957	924	33	21
Itrapoã	484	460	459	1	11
Pouso Alegre	936	906	904	2	21
Soma	292	277	264	13	11
Casa Vermelha	87	74	71	3	10
Km 4	235	231	231	-	3
	27,204	26,096	25,752	344	287
Rio Grande da Serra					
Rio Grande da Serra	9,722	9,116	8,961	155	426

ANNEX 3.6.1

Material Anexo A3.6.1 Situação de Coleta de Lixo na Bacia da Represa Billings

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Queimado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
SÃO PAULO	2,985,977	2,882,934	79,122	4,746	19,175	
Aricanduva	76,867	76,022	411	5	429	
Aricanduva	26,109	25,441	263	1	404	
Carrão	22,992	22,827	141	2	22	
Vila Formosa	27,766	27,754	7	2	3	
Butantã	106,548	100,127	5,880	36	505	
Butantã	16,388	16,329	57	-	2	
Morumbi	9,578	8,930	612	11	25	
Raposo Tavares	24,617	24,190	403	5	19	
Rio Pequeno	31,135	28,936	1,788	7	404	
Vila Sônia	24,830	21,742	3,020	13	55	
Campo Limpo	137,737	129,827	6,174	112	10	
Campo Limpo	52,178	48,908	2,750	66	5	
Capão Redondo	64,567	62,453	1,394	26	4	
Vila Andrade	20,992	18,466	2,030	20	1	
Casa Verde/Cachoeirinha	87,509	84,767	2,181	11	1	
Cachoeirinha	39,761	38,359	1,074	9	-	
Casa Verde	24,395	23,708	685	-	1	
Limão	23,353	22,700	422	2	-	
Cidade Ademar	99,377	92,187	5,999	24	1	
Cidade Ademar	65,772	63,194	1,995	9	1	
Pedreira	33,605	28,993	4,004	15	-	
Cidade Tiradentes	49,677	48,120	230	151	6	
Cidade Tiradentes	49,677	48,120	230	151	6	
Ermelino Matarazzo	56,881	56,332	379	13	-	
Ermelino Matarazzo	29,241	28,826	360	5	-	
Ponte Rasa	27,640	27,506	19	8	-	
Freguesia/Brasilândia	107,296	103,547	2,372	90	2	
Brasilândia	65,478	61,763	2,342	88	2	
Freguesia do Ó	41,818	41,784	30	2	-	
Gualanases	66,151	64,709	714	107	4	
Gualanases	25,598	25,103	201	76	1	
Lajeado	40,553	39,606	513	31	3	

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Queimado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
Ipiranga	127,094	123,374	3,482	6	-	
Cursino	30,209	29,890	314	1	-	
Ipiranga	30,647	28,596	1,949	-	-	
Sacomã	66,238	64,888	1,219	5	-	
Itaim Paulista	93,627	91,591	1,325	41	2	
Itaim Paulista	55,024	53,426	1,126	27	1	
Vila Curuçá	38,603	38,165	199	14	1	
Itaquera	130,074	127,785	970	220	25	
Cidade Líder	31,125	30,886	85	18	-	
Itaquera	53,442	52,751	583	11	-	
José Bonifácio	28,621	27,986	141	149	21	
Parque do Carmo	16,886	16,162	161	42	4	
Jabaquara	62,416	61,116	1,113	1	-	
Jabaquara	62,416	61,116	1,113	1	-	
Lapa	87,703	83,576	4,032	56	-	
Barra Funda	4,480	4,100	377	-	-	
Jaguara	7,488	7,474	8	6	-	
Jaguaré	12,359	10,349	1,970	21	-	
Lapa	19,867	19,431	434	-	-	
Perdizes	35,576	34,321	1,242	-	-	
Vila Leopoldina	7,933	7,901	1	29	-	
M' Boi Mirim	130,958	119,936	9,563	290	42	
Jardim Ângela	64,950	59,196	4,841	266	37	
Jardim São Luís	66,008	60,740	4,722	24	5	
Mooca	97,227	96,116	1,099	3	-	
Água Rasa	26,554	26,548	1	1	-	
Belém	11,678	11,280	396	2	-	
Brás	8,167	8,161	5	-	-	
Mooca	20,629	20,526	101	-	-	
Pari	4,408	4,407	1	-	-	
Tatuapé	25,791	25,194	595	-	-	
Parelheiros	28,074	24,544	1,800	1,358	166	
Marsilac	2,114	1,185	305	506	77	
Parelheiros	25,960	23,359	1,495	852	89	
Ipiranga	127,094	123,374	3,482	6	-	
Penha	137,264	135,016	1,392	23	2	
Artur Alvim	31,595	30,988	328	1	-	
Cangaiba	38,394	37,370	1,006	4	-	

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Queimado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
Penha	37,451	36,847	56	10	2	
Vila Matilde	29,824	29,811	2	8	-	
Perus	28,109	24,274	2,412	365	18	
Anhanguera	9,376	7,107	1,798	250	15	
Perus	18,733	17,167	614	115	3	
Pinheiros	99,227	98,506	713	-	-	
Alto de Pinheiros	13,696	13,600	91	-	-	
Itaim Bibi	29,566	29,424	142	-	-	
Jardim Paulista	32,712	32,236	475	-	-	
Pinheiros	23,253	23,246	5	-	-	
Pirituba	108,867	106,151	2,230	104	5	
Jaraguá	38,423	37,466	759	33	2	
Pirituba	46,902	45,503	1,158	54	2	
São Domingos	23,542	23,182	313	17	1	
Santana/Tucuruvi	95,848	94,186	1,621	8	1	
Mandaqui	30,027	28,621	1,393	2	1	
Santana	36,125	35,894	212	1	-	
Tucuruvi	29,696	29,671	16	5	-	
Santo Amaro	67,644	66,643	1,908	7	2	
Campo Belo	21,503	20,829	635	5	-	
Campo Grande	27,243	25,949	1,246	1	2	
Santo Amaro	18,898	18,865	27	1	-	
São Mateus	100,920	95,300	3,835	386	14	
Iguatemi	25,954	23,910	1,527	290	6	
São Mateus	41,911	41,182	304	17	1	
São Rafael	33,055	30,208	2,004	79	7	
São Miguel	100,511	97,476	2,266	39	3	
Jardim Helena	36,594	35,766	451	37	2	
São Miguel	26,660	26,432	78	2	1	
Vila Jacuí	37,257	35,278	1,737	-	-	
Sé	140,193	139,523	575	-	-	
Bela Vista	24,697	24,611	83	-	-	
Bom Retiro	8,213	8,062	70	-	-	
Cambuci	8,924	8,894	30	-	-	
Consolação	21,781	21,772	9	-	-	
Liberdade	21,941	21,921	20	-	-	
República	20,810	20,624	179	-	-	
Santa Cecília	26,151	25,971	179	-	-	

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Quemlado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
Penha	37,451	36,847	56	10	2	
Vila Matilde	29,824	29,811	2	8	-	
Perus	28,109	24,274	2,412	365	18	
Anhanguera	9,376	7,107	1,798	250	15	
Perus	18,733	17,167	614	115	3	
Pinheiros	99,227	98,506	713	-	-	
Alto de Pinheiros	13,696	13,600	91	-	-	
Itaim Bibi	29,566	29,424	142	-	-	
Jardim Paulista	32,712	32,236	475	-	-	
Pinheiros	23,263	23,246	5	-	-	
Pirituba	108,867	106,161	2,230	104	5	
Jaraguá	38,423	37,466	759	33	2	
Pirituba	46,902	45,503	1,158	54	2	
São Domingos	23,542	23,182	313	17	1	
Santana/Tucuruvi	95,848	94,186	1,621	8	1	
Mandaqui	30,027	28,621	1,393	2	1	
Santana	36,125	35,894	212	1	-	
Tucuruvi	29,696	29,671	16	5	-	
Santo Amaro	67,644	65,843	1,908	7	2	
Campo Belo	21,503	20,829	635	5	-	
Campo Grande	27,243	25,949	1,246	1	2	
Santo Amaro	18,898	18,865	27	1	-	
São Mateus	100,920	95,300	3,835	386	14	
Iguatemi	25,954	23,910	1,527	290	6	
São Mateus	41,911	41,182	304	17	1	
São Rafael	33,055	30,208	2,004	79	7	
São Miguel	100,511	97,476	2,266	39	3	
Jardim Helena	36,594	35,766	451	37	2	
São Miguel	26,660	26,432	78	2	1	
Vila Jacuí	37,257	35,278	1,737	-	-	
Sé	140,193	139,523	575	-	-	
Bela Vista	24,697	24,611	83	-	-	
Bom Retiro	8,213	8,062	70	-	-	
Cambuci	8,924	8,894	30	-	-	
Consolação	21,781	21,772	9	-	-	
Liberdade	21,941	21,921	20	-	-	
República	20,810	20,624	179	-	-	
Santa Cecília	26,151	25,971	179	-	-	

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Queimado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
Sé	7,676	7,668	5	-	-	
Socorro	148,737	138,726	8,155	552	20	
Cidade Dutra	51,091	48,309	2,629	39	1	
Grajaú	86,223	79,115	5,410	510	19	
Socorro	11,423	11,302	116	3	-	
Tremembé/Jaçanã	68,290	62,941	3,359	348	36	
Jaçanã	24,412	23,886	313	27	2	
Tremembé	43,878	39,055	3,046	321	33	
Vila Maria/Vila Guilherme	87,523	86,623	847	6	-	
Vila Guilherme	15,122	15,108	12	2	-	
Vila Maria	32,386	31,662	686	4	-	
Vila Medeiros	40,015	39,853	149	-	-	
Vila Mariana	109,470	108,847	598	4	1	
Moema	26,371	26,360	9	1	-	
Saúde	39,748	39,452	293	2	1	
Vila Mariana	43,351	43,035	296	1	-	
Vila Prudente/Sapopemba	148,158	146,046	1,487	14	6	
São Lucas	40,861	40,067	530	2	-	
Sapopemba	76,110	75,268	608	11	6	
Vila Prudente	31,187	30,711	349	1	-	

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Queimado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
Diadema						
Taboão	12,296	12,278	16	1	2	
Piraporinha	6,135	5,343	789	1	3	
Casa Grande	9,437	8,596	828	2	13	
Eldorado	10,351	9,632	504	102	215	100%
Serraria	7,556	7,055	488	4	13	
Conceição	10,516	10,156	298	-	62	
Centro	12,742	12,097	601	-	44	
Campanário	7,834	7,71	121	1	3	
Canhemba	5,983	5,643	340	-	0	
Vila Nogueira	9,161	8,527	616	-	18	
Inamar	6,129	5,345	753	12	31	
	98,140	84,672	5,354	123	404	
São Bernardo do Campo						
Taboão	6,719	6,688	27	2	4	
Paulicéia	6,206	6,195	8	-	3	
Rudge	12,434	12,256	177	-	1	
Anchieta	5,213	4,674	535	3	4	
Jordanópolis	4,850	4,806	1	-	43	
Planalto	7,418	7,4	12	2	6	
Independência	6,265	6,25	15	-	0	
Alves	7,214	6,061	1,142	5	11	
Cooperativa	4,595	3,968	513	33	114	
Baeta	14,473	13,422	1,039	2	12	
Centro	13,963	13,446	517	-	0	
Assunção	12,423	12,317	106	-	0	
Nova	5,119	5,097	20	-	2	
Santa	6,981	6,547	434	-	0	100%
Bairro	11,861	10,943	909	5	9	
Ferrazópolis	11,383	9,242	2,125	4	16	
Demarchi	6,905	6,549	354	1	2	
Montanhão	21,406	16,423	4,763	32	220	
Botujuru	3,056	2,848	187	3	21	
Balneária	173	172	-	1	1	100%
Alvarenga	14,507	13,925	396	74	186	100%
Batistini	7,343	6,173	1,134	19	36	100%
Rio	1,719	1,647	63	4	9	100%
Cinco	2,526	2,509	14	3	3	100%
	194,752	165,908	14,491	193	703	

Subprefeituras e Distritos	Total de Domicílios Particulares Permanentes	Coletado por Serviço de Limpeza	Coletado em Caçamba de Serviço de Limpeza	Queimado ou Enterrado na Propriedade	Jogado em Terreno Baldio, Logradouro, Curso d'Água ou Outro Destino	Remarks
Santo André						
Santo André	157,252	149,399	7,558	54	295	
Capuava	27,350	26,919	417	10	14	
Paranapiacaba	859	801	52	4	6	100%
	185,461	177,119	8,027	68	315	
Ribeirão Pires						
Barro Branco	496	484	-	10	12	
Santa Luzia	2,474	2,451	2	8	21	
Roncon	1,745	1,74	-	4	5	
Santana	1,060	1,057	-	3	3	
Colônia	2,345	2,343	-	1	2	
Pastoril	362	347	15	-	0	
Ponte Seca	1,259	1,187	58	12	14	
Centro	891	887	4	-	0	
Aliança	3,609	3,373	189	42	47	
Pilar Velho	1,303	1,271	6	21	26	
Guapituba	358	312	-	-	46	
Sertãozinho	77	76	1	-	0	
Reprêsa	1,545	1,501	5	23	39	
Centro Alto	1,385	1,385	-	-	0	
Suíssa	2,337	2,331	3	-	3	
Bocaina	1,337	1,325	8	3	4	
São Caetaninho	918	899	-	19	19	
Centro Ouro Fino Paulista	886	873	-	12	13	
Tecelão	247	180	1	52	66	
Tanque Caio	618	617	-	-	1	
Quarta Divisão	978	924	33	21	21	
Irapoã	484	459	1	11	24	
Pouso Alegre	936	904	2	21	30	
Soma	292	264	13	11	15	
Casa Vermelha	87	71	3	10	13	
Km 4	235	231	-	3	4	
	28,264	25,752	344	287	428	
Rio Grande da Serra						
Rio Grande da Serra	9,722	8,961	155	426	606	100%
	9,722	8,961	155	426	606	

