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COLOMBIA

WATER AND SANITATION PROGRAM FOR THE MUNICIPIO OF PASTO

(CO-L1028)

LOAN PROPOSAL

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CONTENTS

PROJECT SUMMARY

| | | |
|------|--|----|
| I. | DESCRIPTION AND RESULTS MONITORING | 1 |
| A. | Background and context | 1 |
| B. | Water and sewer services in Pasto..... | 1 |
| II. | PROGRAM OBJECTIVE, EXPECTED OUTCOMES, COMPONENTS, AND COST | 5 |
| A. | Objective and strategies | 5 |
| B. | Components..... | 5 |
| C. | Costs and financing | 6 |
| D. | Expected outcomes..... | 7 |
| III. | FINANCING STRUCTURE AND RISKS..... | 7 |
| A. | Financing structure | 7 |
| B. | Environmental and social safeguards | 8 |
| C. | Risks..... | 9 |
| D. | Other considerations..... | 9 |
| IV. | IMPLEMENTATION AND MANAGEMENT PLAN..... | 11 |
| A. | Program management agreements..... | 11 |
| 1. | Institutional arrangements for execution..... | 11 |
| 2. | Execution and supervision of the investment components | 12 |
| 3. | Procurement..... | 13 |
| 4. | Revolving fund..... | 13 |
| 5. | Operation and maintenance | 13 |
| B. | Monitoring and evaluation..... | 13 |

| Annexes | |
|-----------|--------------------------|
| Annex I | DEM Summary |
| Annex II | Results Matrix |
| Annex III | Procurement Plan Summary |

| Electronic Links | |
|------------------|---|
| REQUIRED | |
| 1. | Annual work plan (AWP) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1656043 |
| 2. | Monitoring and evaluation agreement http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1656053 |
| 3. | Procurement plan http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1672716 |
| 4. | Environment and Social Management Report http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1657742 |
| OPTIONAL | |
| 1. | Technical annex http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1657737 |
| 2. | Economic viability analysis http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1672547 |
| 3. | Evaluation of EMPOPASTO financial capacity and Municipio of Pasto ability to pay http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1672553 |
| 4. | ICAS institutional capacity assessment http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1656066 |

ABBREVIATIONS

| | |
|-------------|---|
| AWP | Annual work plan |
| CONPES | Consejo Nacional de Política Económica y Social [National Economic and Social Policy Council] |
| CORPONARIÑO | Corporación Autónoma Regional de Nariño [Nariño Autonomous Regional Corporation] |
| CRA | Comisión de Regulación de Agua Potable y Saneamiento Básico [Water and Basic Sanitation Regulatory Commission] |
| DNP | Departamento Nacional de Planeación [National Planning Department] |
| EIS | Environmental Impact Studies |
| EMPOPASTO | Empresa de Obras Sanitarias de Pasto S.A.E.S.P. |
| ESMR | Environmental and social management report |
| ESR | Environmental and social impact review |
| ICAS | Institutional Capacity Assessment System |
| INE/WSA | Infrastructure Department / Water and Sanitation Division |
| InfraFund | Infrastructure Fund |
| MAVDT | Ministry of Environment, Housing and Territorial Development |
| MHCP | Ministry of Finance and Public Credit |
| PCANC | Programa de Control de Agua No Contabilizada [Program to Control Unaccounted-for Water] |
| POD | Proposal for operation development |
| RPUC | Residential Public Utility Company |
| SAVER | Programa de Saneamiento de Vertimientos [Waste Discharge Sanitation Program] |
| SPCG | Special Projects Coordination Group |
| SSPD | Superintendencia de Servicios Públicos Domiciliarios [Office of the Superintendent of Residential Public Utilities] |
| TOR | Terms of reference |
| WTP | Wastewater treatment plant |

(CO-L1028)

Reviewed by ESR on: 12 October 2007.

The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. DESCRIPTION AND RESULTS MONITORING

A. Background and context

- 1.1 **National policy.** The national government's efforts to ensure efficient and sustainable universal provision of water and sanitation services are threefold: (i) support regional utilities; (ii) better distribute and target government resources; and (iii) reduce pollution in watersheds. To further these efforts, the Ministry of Environment, Housing and Territorial Development (MAVDT) designed the SAVER Waste Discharge Sanitation Program, supported by the Bank under the Water and Sanitation Initiative.
- 1.2 **Municipal policy.** One of the objectives of the Municipal Development Plan is to expand coverage and improve the quality of water and sanitation services on a sustainable basis. Under the plan, Empresa de Obras Sanitarias de Pasto S.A.E.S.P. (EMPOPASTO) is responsible for meeting this objective in the urban area. Thus, EMPOPASTO has developed a 10-year investment plan estimated at nearly US\$50 million, financed with own resources and loans with rate schedule approved by the Comisión de Regulación de Agua Potable y Saneamiento Básico [Water and Basic Sanitation Regulatory Commission] (CRA). For the rural area, the plan maintains the system of service delivery through community-based organizations with municipio-funded investment subsidies. Another objective involving water and sewer service projects is the Road Mobility Plan.

B. Water and sewer services in Pasto

- 1.3 **The borrower.** Since 1974, the municipio has entrusted water and sewer services in the urban area of Pasto to EMPOPASTO. Created as a corporation with official standing, its purpose is to develop the infrastructure and technology to achieve financial self-sufficiency, support supply watershed sustainability, and make its human resources more effective so as to position itself as a model utility. Its board of directors has seven members elected by the shareholders for renewable two-year terms, two of them independent of the municipal government, and one representing the minority shareholders. The manager and statutory auditor, as well as a delegate from the residential public utility social development and oversight committees,¹ attend board meetings where they may participate in discussion but not vote.
- 1.4 **Organization.** The company is organized into four departments (Business, Infrastructure, Operations, and Administrative/Financial) and four supporting offices (Legal, Internal Control, Planning, and Disciplinary Control) that report to Management, with an aggregate staff of 190 employees (3.0 employees per 1,000 connections). The institutional assessment conducted with the Bank's Institutional Capacity Assessment System (ICAS) indicates that EMPOPASTO has a satisfactory level of fiduciary development, consistent with its progress in developing a process map, manual of job descriptions and authorities, annual

¹ Under to national legislation, user organizations have the right to appoint a delegate to represent them on the boards of directors of the residential public utility companies and protect the community's interests.

business plan tracking system, and operational risk management system. EMPOPASTO is implementing the ISO-9001 Quality Management System and Standard Internal Control Model MECI 1000:2005.

- 1.5 **Service conditions, problem addressed, and rationale.** The Municipio of Pasto has an estimated population of 395,000, 82% of whom live in the urban area, and 18% in 16 rural administrative units called corregimientos. Water and sewer system coverage in the urban area is 94%. The unserved population in outlying areas supply themselves using rudimentary community-operated systems with drains connected to the EMPOPASTO sewer system. In the rural areas, where services are run by community organizations, the water service reaches 75% of the population, although only 30% receives disinfected water, while sewer coverage is 35%. Raw water is taken from the Pasto River and other streams with lower usable flow than demanded in low water periods, and from the Bobo River, a regulated pump system for dry seasons. The water is treated at three plants with a guaranteed capacity of 900 liters per second, 95% of the time. Due to the risk created by the Galeras volcano, the city's growth is restricted to areas that must be supplied through pumping, entailing higher operating costs. Faced with this situation, the company has a program to control unaccounted-for water (known by its Spanish-language acronym, PCANC), which runs at nearly 40%, and an operating cost reduction plan, and is evaluating new water sources for treatment at a new plant to serve high-lying areas without the need for pumping and make the system less vulnerable.
- 1.6 Although residential wastewater collection coverage is relatively high, and a good portion of the wastewater is carried to an interceptor parallel to the Pasto River that empties into the river at the city limits, waste discharges into the river at many other points, leading to dissolved oxygen levels of up to 0 mg/l before leaving the city (see Environment and Social Management Report, paragraphs 4.8 to 4.10). These discharges, accentuated by the city's rising population density, are causing health problems and harming the environment. The company prepared a master plan in the mid-1990s and has been extending the collector network, although many of the collectors have yet to be built. The sanitation strategy calls for building the collectors in a first stage, and then building a wastewater treatment plant in a second stage.
- 1.7 **Rural areas.** In rural areas, water and sewer services are run by community-based organizations. To improve these organizations, the Municipio of Pasto has been making isolated investments and business development efforts, with the technical support of EMPOPASTO in project preparation and execution. However, rural systems have problems achieving adequate quality levels (disinfection of the water supply and service continuity) and long-term service sustainability.
- 1.8 **Rates.** The company's rates are calculated according to a methodology established by the CRA in Resolution 287 of 2004, which sets rates using long-run average cost, including the company's investment plan for the next 10 years. Long-run average cost is computed on the basis of costs incurred by the company in a base year and adjusted by an efficiency factor (100% for administration and 83.45% for

operation in the case of EMPOPASTO). The CRA calculates this factor by means of regression models based on the costs of all companies in the country (benchmarking). The target rate, which will be reached in May 2009 as provided by the CRA, is US\$0.62 per m³ for water and US\$0.40 per m³ for sewerage.

- 1.9 **Subsidies.** In Colombia, there are five types of consumers: residential, industrial, commercial, official, and special. Residential users are classified into six socioeconomic strata (according to the features of their housing and its surroundings). Users in strata 5 and 6 and industrial and commercial users contribute to subsidies for strata 1, 2 and 3 under a solidarity and equity system. Stratum 6 pays 1.6 times the average rate; stratum 5, 1.5 times; the industrial sector, 1.3 times; the commercial sector, 1.5 times; stratum 3, 0.85 times; stratum 2, 0.6 times; and stratum 1, 0.5 times. Those using more than 20 m³ per month in any stratum are ineligible for subsidies, and all users have to pay for operation and maintenance and a portion of investment. EMPOPASTO's rates are based on efficiency costs and encourage the company's competitiveness, promote the rational use of services, and target basic service subsidies to poor families.
- 1.10 **Business condition.** EMPOPASTO has more than 63,300 water system users and 62,900 sewer system users, distributed as follows: residential, 90.5%; industrial, 0.1%; commercial, 8.9%; and official, 0.5%. The first three residential strata account for 77% of customers; stratum 4, 10%; and all others, 13%. To ensure the financial sustainability of public utilities, legislation provides that, if revenues from surcharges fail to cover subsidies, the company receives the difference from the State. Accordingly, the municipio has funds available under the Revenue Sharing Act (see paragraphs 1.11 and 1.13). In 2007, average monthly consumption per user was: residential, 14.4 m³; industrial, 225.6 m³; commercial, 23.1 m³; and official, 169.8 m³. The micrometering rate is 87%; the meter reading rate is 87%; portfolio turnover is 49 days; and collection efficiency is 90%. Billing is monthly, with 16 meter reading and billing cycles. Bills may be paid at the company's main office, four supermarkets, and 12 commercial banks that use the company's agency network. EMPOPASTO bills and collects for the garbage collection service provided by the Municipal Waste Management Company, and is paid 4.5% of billings for this service.
- 1.11 **Financial condition.** The company's financial position at 31 December 2007 is considered satisfactory, with US\$12.6 million in billings for 12.4 million m³ sold. Of total revenues, 53% were from water service, 37% from sewer service and 10% from municipal transfers. Net operating cash flow was enough to cover operation and maintenance costs, finance the investment program (US\$2.9 million), and meet financial obligations. The EBITDA margin was 32% of operating revenues, which made it possible to cover depreciation. In 2006 and 2007, the company's operating revenues increased significantly as a result of rate hikes aimed at meeting the target rate based on the national rate standard. In 2006, the company and the municipio created a solidarity and income redistribution fund, to receive transfers from the

municipio to the company under Law 715. In 2007, the company received in excess of US\$1 million.

- 1.12 Net cash revenues from services provided over the last three years (US\$7.08 million) were enough to cover capital investments (US\$6.5 million) with internally generated funds and transfers from the municipio. In the 2007 fiscal year, cash on hand was US\$3.3 million. The asset structure is 52.2% backed by equity and 47.5% by third-party capital, of which the municipio holds 17%. Current assets are 1.65 times current liabilities. Fixed assets consist of: (i) land, buildings, line networks, and underground cable networks; (ii) plants and pipelines; (iii) machinery and equipment, furniture, fixtures, and equipment; (iv) transportation equipment; and (v) computer hardware and accessories.

Table I-1
Profit and Loss Statement
(US\$000)

| | 2004 | 2005 | 2006 | 2007 |
|-----------------------------------|--------------|---------------|---------------|---------------|
| Residential | 6,403 | 7,834 | 7,616 | 8,101 |
| Commercial | 1,771 | 2,038 | 2,171 | 2,309 |
| Industrial, Official, and Special | 681 | 856 | 876 | 932 |
| Transfers or (Discounts) | (252) | (231) | 1,226 | 1,304 |
| Operating revenues | 8,603 | 10,497 | 11,889 | 12,646 |
| <i>Growth rate</i> | <i>31.2%</i> | <i>22.0%</i> | <i>13.3%</i> | <i>6.4%</i> |
| Labor | 1,967 | 2,449 | 1,939 | 2,008 |
| Maintenance and repairs | 1,474 | 1,470 | 2,100 | 2,469 |
| Supplies, materials and other | 1,428 | 1,503 | 2,634 | 1,250 |
| Overhead | 1,140 | 1,236 | 2,149 | 820 |
| Personal services | 1,226 | 1,312 | 962 | 2,037 |
| Operation and maintenance | 7,235 | 7,970 | 9,785 | 8,584 |
| <i>Growth rate</i> | <i>25.1%</i> | <i>10.2%</i> | <i>22.8%</i> | <i>-14.0%</i> |
| EBITDA | 1,368 | 2,527 | 2,104 | 4,062 |
| <i>EBITDA margin</i> | <i>15.9%</i> | <i>24.1%</i> | <i>17.7%</i> | <i>32.1%</i> |
| Depreciation | 1,225 | 1,836 | 1,299 | 1,052 |
| Financing income | 471 | 526 | 472 | 742 |
| Financing expenses | 301 | 181 | 65 | 111 |
| Other revenues and (expenses) | 183 | 125 | 327 | (733) |
| Taxes | 339 | 805 | 618 | 836 |
| Net income for the year | 157 | 357 | 921 | 2,072 |

- 1.13 **Financial management of the Municipio of Pasto.** The municipio's performance over the past three fiscal years indicates that its financial condition is adequate. Own revenues have been sufficient to cover operating expenses and debt service, and contribute toward financing sector investments. Budget performance is 97% for revenues, and 90% for expenses. Transfers from the national government, mainly under Law 1176,

Table I.2
Budget Performance, Municipio of Pasto
(US\$000)

| Account group | 2004 | 2005 | 2006 | 2007 |
|-----------------------|---------------|---------------|---------------|--------------|
| Own revenues | 20,210 | 24,630 | 27,388 | 25,47 |
| Transfers from Nation | 51,099 | 54,835 | 64,828 | 67,52 |
| Capital revenues | 8,068 | 11,787 | 14,294 | 14,06 |
| Total revenues | 79,377 | 91,252 | 106,51 | 107,0 |
| Operation | 7,765 | 8,171 | 8,872 | 9,280 |
| Debt service | 1,999 | 1,980 | 2,324 | 2,868 |
| Investment by sector | 62,075 | 75,587 | 90,164 | 94,91 |
| Total expenses | 71,839 | 85,738 | 101,36 | 107,0 |
| Ending balance | 7,538 | 5,513 | 5,149 | - |

are the main source of resources, financing 75% of sector investments. Each year, the municipio allocates funds from its budget for drinking water and sanitation. In 2006, these funds totaled US\$2.45 million, most of which was transferred for use by EMPOPASTO under signed agreements.

II. PROGRAM OBJECTIVE, EXPECTED OUTCOMES, COMPONENTS, AND COST

A. Objective and strategies

- 2.1 The program objective is to ensure high-quality, efficient, and long-term self-sustainable water and sewer services for the urban and rural population of the Municipio of Pasto. The program will include expanding service coverage to users currently without service; strengthening the business capacity of EMPOPASTO and rural organizations; and restoring adequate environmental levels in the bodies of water within the city, thereby contributing to a cleanup of the Pasto River and reducing the risk of floods in various parts of the city.
- 2.2 **The program and the Bank's Water and Sanitation Initiative (document GN-2446-3).** The program is fully consistent with the Bank's Water and Sanitation Initiative, contributing to the goals of three of its components: (i) one city in the "100 Cities" program, addressing the priority need for increased coverage in poor areas; (ii) one of the Efficient and Transparent Utilities; and (iii) 21 communities in the "3,000 Rural Communities" program.
- 2.3 **Program strategy.** For the urban area, the strategy is to support EMPOPASTO in improving and expanding the sewer system and reducing operating costs and the vulnerability of the water supply system. For the rural area, the program will combine the technical experience and strengths of EMPOPASTO, which will execute this component, with the municipio's financial responsibility for allocating subsidies to the poor (in this case, rural) population using resources under Law 1176 of 2007.

B. Components

- 2.4 **Engineering and administration** (US\$3.5 million). This component includes project design activities, construction supervision for works, advisory activities during design and construction, and the cost of program administration by EMPOPASTO.
- 2.5 **Component 1. Water supply works** (US\$8.6 million). This component is aimed at reducing the vulnerability of the supply system by means of an unaccounted-for-water control program that includes a survey of networks and equipment, hydraulic modeling, sectoralizing, provision of equipment, and macro and micrometers, and construction of the Piedras system drinking water plant with a treatment capacity of 250 liters per second, and water pipes including interconnection to the existing system and storage tanks for distribution to the city's expansion areas.
- 2.6 **Component 2. Sewerage works** (US\$24.3 million). This component includes construction of wastewater interceptors and collectors for cleanup of the streams flowing into the Pasto River (Chapal, Mijitayo, Surorientales, Américas, and Aranda-La Milagrosa), as well as rehabilitation and construction of sewer networks in high-priority areas to be covered by the Municipal Mobility Plan (Calle 16,

Calle 17, Calle 20 and Calle 6 Sur). Covered activities include procurement of pipes, supplies, labor, materials and equipment required for the construction and testing of sewer networks, collectors, inspection chambers and others, as well as any necessary consulting work.

- 2.7 **Component 3. Business development** (US\$0.75 million). This component includes: (i) support for strengthening the company in terms of human resources, strategic planning and direction, asset structure, finance and budget, and contracting; (ii) deployment of an ABC cost system, including software; (iii) computer integration of the company; and (iv) implementation of a corporate governance action plan, providing for a series of measures regarding optimal shareholding structure; the makeup of the board of directors and board member selection and appointment; selection and appointment mechanism for the manager and executive staff; allocation of responsibilities between the board and management; and reporting and communications policies.
- 2.8 **Component 4. Water for rural areas** (US\$4.05 million). Consists in setting and implementing a policy in some 21 rural *cabeceras* (chief towns of municipios) by adopting effective technologies that are technically and financially sustainable as part of an integrated effort to ensure system sustainability through active community involvement in the various stages of the project cycle, strengthening of community arrangements, and setting of rates that cover operation, maintenance, and rehabilitation costs.
- 2.9 **Environmental and social management plan** (US\$0.35 million). This component includes the following activities: (i) a program for community development, environmental education, and training of the population involved in activities; and (ii) a program for monitoring and supervision of environmental and social risks and impacts.

C. Costs and financing

- 2.10 The total cost of the program is US\$44.0 million, with US\$27.8 million of that amount financed with loan proceeds from the Bank's Ordinary Capital, and a local counterpart contribution of US\$16.2 million. The Municipio of Pasto will be responsible for providing the local funding for the "Water for rural areas" component, and for transferring to EMPOPASTO the pro rata portion of the debt service incurred in financing this

Table II.1
Costs and Financing

| ITEMS | Total Cost | Contributions | | % |
|--|---------------|---------------|---------------|--------------|
| | | IDB | Local | |
| 1 Engineering and administration | 3,500 | 800 | 2,700 | 16.7 |
| 1.1 Studies and designs | 200 | 150 | 50 | 0.3 |
| 1.2 Program management and administration | 1,000 | 50 | 950 | 5.9 |
| 1.3 Works supervision | 2,300 | 600 | 1,700 | 10.5 |
| 2 Direct costs | 37,700 | 26,400 | 11,300 | 69.8 |
| 2.1 Drinking water works | 8,600 | 3,800 | 4,800 | 29.6 |
| 2.1.1 Control and reduction of unaccounted-for water | 2,300 | 1,000 | 1,300 | 8.0 |
| 2.1.2 Piedras system purification plant | 6,300 | 2,800 | 3,500 | 21.6 |
| 2.2 Sewerage works | 24,300 | 18,300 | 6,000 | 37.0 |
| 2.2.1 Interceptors and collectors | 19,300 | 14,000 | 5,300 | 32.7 |
| 2.2.2 Sewer networks | 5,000 | 4,300 | 700 | 4.3 |
| 2.3 Corporate development program | 750 | 500 | 250 | 1.5 |
| 2.4 Water for rural areas | 4,050 | 3,800 | 250 | 1.5 |
| 3 Concurrent costs | 700 | 300 | 400 | 2.5 |
| 3.1 Environmental and social management plan | 350 | 200 | 150 | 0.9 |
| 3.2 Land and easements | 150 | - | 150 | 0.9 |
| 3.3 Audits | 200 | 100 | 100 | 0.6 |
| 4 Unallocated costs, Contingencies | 500 | 300 | 200 | 1.2 |
| 5 Finance costs | 1,600 | - | 1,600 | 9.9 |
| TOTAL PROJECT COSTS | 44,000 | 27,800 | 16,200 | 100.0 |
| % | 100 | 63 | 37 | |

component. For this component, the municipio has requested retroactive recognition of up to US\$695,000 in expenditures made on six projects between December 2007 and December 2008, which have been reviewed by the project team. The borrower has requested that the loan be made in U.S. dollars from the Single Currency Facility of the Bank's Ordinary Capital. In order to minimize the exchange risk, the borrower may, at a future time and with the guarantor's consent, request use of the Local Currency Facility for the conversion of program disbursements and outstanding balances into Colombian pesos. The Municipio of Pasto has submitted a request for nonreimbursable resources to the Spanish Cooperation Fund for Water and Sanitation in Latin America and the Caribbean. If approved, those resources would be incorporated into the program under a supplementary operation.

D. Expected outcomes

- 2.11 The following are the program's proposed operational targets: (i) 18 months after disbursement eligibility, EMPOPASTO will have commenced works related to the Chapal collector, the unaccounted-for water program, and business strengthening activities; (ii) 3 years after disbursement eligibility, collector works will have commenced; (iii) 6 months after start of operations at the Chapal stream collector, there will be an improvement in water quality indicators at the confluence of the Pasto River and the stream (oxygen concentration, dissolved oxygen demand, and number of coliforms, values to be determined once the water quality model is ready in the first year of program execution) under the average daily flow conditions shown in the historical series; (iv) 6 months after start of operations at the Piedras River treatment plant, EMPOPASTO's energy costs will have fallen; and (v) at the end of the program, drinking water coverage will have increased by 30,000 people: 21,000 of them in the urban area and 9,000 in the rural area.

III. FINANCING STRUCTURE AND RISKS

A. Financing structure

- 3.1 **Borrower, guarantor and executing agency.** The borrower and project executing agency will be EMPOPASTO, which will be legally accountable to the Bank for the local counterpart contribution, debt payments, and performance requirements. The borrower has requested an exception to Operational Policy OP-303, "Guarantees Required from the Borrower," in relation to the guarantee provided by the Municipio of Pasto with respect to the performance requirements and the local counterpart. The Republic of Colombia will serve as guarantor of payment obligations to the Bank for the loan, interest, and other finance charges, and will cooperate fully to ensure that the project objectives are met. Based on the EMPOPASTO's financial strength, as described in paragraph 3.12, as well as the stability and financial adequacy provided by the rate structure for the water sector in Colombia and the company's investment project delivery capacity, the project recommends that the waiver be granted. The Municipio of Pasto will be responsible

for providing local counterpart funding for the “Water for rural areas” component and for transferring to EMPOPASTO the pro rata portion of the debt service incurred in financing this component, through an internal arrangement between these two entities that does not alter the obligations of each to the Bank as borrower and guarantor. The executing agency and the municipio will enter into an agreement establishing the terms of the local contribution and debt repayment in connection with the “Water for rural areas” component, as well as the responsibilities and compensation of EMPOPASTO for technical and administrative assistance services under that component. **The loan contract will include a clause requiring signature of this agreement, including the Operating Regulations governing the “Water for rural areas” component (see paragraph 4.5), as a condition precedent to the first disbursement for this component.**

- 3.2 **Financing structure.** The Bank’s financing of this operation will be a US\$27.8-million loan for a multiple works program with specified works. The Bank loan proceeds will cover 63% of the program’s total cost, and the local contribution will finance 37%. The loan will be for a term of 25 years, with a six-year grace and disbursement period.

**Table III-1
Disbursement Schedule
(in US\$ millions)**

| Year/ Source | IDB | Local | Total | % |
|-----------------|-------|-------|--------|-------|
| 1 | 3.9 | 1.5 | 5.4 | 12.3 |
| 2 | 5.2 | 1.3 | 6.5 | 14.7 |
| 3 | 6.7 | 3.0 | 9.7 | 22.1 |
| 4 | 5.7 | 4.0 | 9.7 | 22.1 |
| 5 | 3.3 | 3.8 | 7.1 | 16.1 |
| 6 | 3.0 | 2.6 | 5.6 | 12.7 |
| TOTAL | 27.8 | 16.2 | 44.0 | 100.0 |
| % | 63.0% | 37.0% | 100.0% | |

B. Environmental and social safeguards

- 3.3 An environmental and social review of the project concept document (ESR meeting 39-07) confirmed the program’s classification as category “B” and suggested an environmental assessment. The team reviewed the assessment of the program’s potential socioenvironmental impacts, particularly those associated with the water intake of the Piedras system and the concentrated discharge into water bodies resulting from construction of the various collectors. The team determined that the terms of reference (TOR) for the works design studies and for the environmental studies, which the executing agency has chosen to treat as an environmental impact assessment even though not required by environmental laws, include the preparation of works management plans and an evaluation of the impact of the works, as well as any necessary mitigation and compensation measures for affected parties. The team determined that the TOR included health and safety protection measures associated with construction and operation of the program works, as well as any measures required to mitigate the region’s potential risk exposure.
- 3.4 The program’s expected socioenvironmental impacts are generally positive: (i) improved health conditions for the beneficiary population; (ii) aesthetic and water-quality improvement in critical, densely urbanized sections of the Pasto River and Chapal stream; (iii) reduced vulnerability of the water supply system, diversified sources to ease pressures on the supply watersheds, and reduced operating costs due to less pumping from the Bobo River; and (iv) contribution to

poverty reduction for the rural population. The team delivered value-added for EMPOPASTO by including in the program the calibration and validation of a water quality model (QUAL2-K) for the Pasto River and the Chapal stream, to monitor the program's impacts and plan future investment in the city's sanitation system.

- 3.5 Potential adverse impacts—whether direct, indirect or cumulative—are insignificant, and mitigation measures are of low complexity and easy to implement, and are provided in the design specifications. Regarding easements, plans provide for compensation of the affected parties. EMPOPASTO and the municipio have conducted public hearings in the communities that will benefit from the “Water for rural areas” projects. Issues such as (i) natural disaster risk management, (ii) management of water resources, and (iii) protection of natural sources and watercourses, were fully addressed in the program framework. This will result in significant additional benefits for the beneficiary communities. The program's environmental and social management report presents the details of the impact assessment and describes the environmental compensation programs.

C. Risks

- 3.6 Increase in subsidy amounts. In view of the user breakdown and trends in consumption, and considering that many new users will likely fall into subsidizable categories, the gap between subsidies and surcharges could widen. Although the legislation is clear regarding the municipio's obligation to transfer funds for the payment of subsidies, and the national government is looking into making this transfer directly from the national government to EMPOPASTO, the project team recommends monitoring this issue during program execution. **The loan contract will include a clause to ensure the flow of income required by the company (see paragraph 3.12).**
- 3.7 EMPOPASTO is a new Bank client, and so will need to adapt its contracting and monitoring arrangements to meet Bank requirements. Executing the InfraFund technical cooperation program contributed valuable experience, which has been taken into account in determining program execution arrangements, while the company's structure allows the necessary adjustments. The size of the program in relation to the company's current investments, and the diversity of its components, argue in favor of structuring a program execution unit attached to the General Management Office, supported by line subunits.

D. Other considerations

- 3.8 **Analysis of engineering considerations.** The technical analysis was based on existing designs for the Chapal stream collector, the PCANC program to control unaccounted-for water, and five “Water for rural areas” projects, and took into account the results of the Master Sewerage Plan (1995), the Waste Discharge Sanitation and Management Plan (2007), and the environmental impact assessment of the Piedras raw water system. It is clear from this information that the proposed works are feasible, the selected problem-solving alternatives are appropriate, and their design follows good engineering practices. TOR were agreed upon with the

Bank for the designs of all other program works, ensuring that they will be financed with EMPOPASTO and InfraFund funds, and incorporating the evaluation of alternative solutions to problems to ensure that least-cost solutions are adopted. These designs are being executed and will be delivered during 2009. The company expects to launch certain bidding processes for the construction of designed works. The municipio and the company requested retroactive recognition of seven “Water for rural areas” projects, which were analyzed during program preparation. Link 1 provides a detailed description of the program, its progress, costs and execution timetable.

- 3.9 **Economic considerations.** A socioeconomic evaluation was performed on the already designed Chapal stream interceptor and it was found that the project is feasible using conservative benefits from similar projects in Colombia (decontamination and flood prevention benefits), with an EIRR of 17% and an NPV of US\$1.8 million. The cost efficiency methodology developed by the MAVDT was used for the “Water for rural areas” projects. A total of 16 projects were evaluated, 10 of which were found to be economically viable. The Department of the Environment of the Municipio of Pasto, which is responsible for the sector in rural areas, has a roster of projects totaling US\$8 million, which far exceeds the cost of the program (US\$3.8 million). During program execution, the economic evaluation process will be completed in the following areas: (i) Piedras plant, determining whether the proposed plant reduces the economic operating costs of the current drinking water system and determining the optimal entry date for satisfying future demand and avoiding rationing; and (ii) collectors and interceptors, verifying that the economic savings from less flooding and the increase in welfare from decontamination of urban still waters exceed total costs.
- 3.10 **Impact on low-income groups.** This operation qualifies as a poverty-targeted investment (PTI), as the percentage of low-income beneficiaries (strata 1 and 2) of the urban project is 60% (see link, “Economic viability analysis”). For the rural component, this percentage is as high as 99%. The average monthly stratum-1 bill is 13,668 Colombian pesos (13.4 m³), which is equivalent to 2.2% of the average monthly household income of 627,647 pesos. For a household in the poorest decile, with a household income of 303,000 pesos, the monthly bill would amount to 4.5%, which is acceptable. It may be concluded that the majority of users would be able to afford the new bill.
- 3.11 **Institutional considerations.** Governance structure. The governance structure assessment carried out in preparing for the operation shows the needs for adjustments to facilitate the implementation and continuity of long-term policies. The corporate governance action plan proposes improvements to the decision-making process based on a strategic direction set by the board of directors and actions on various fronts, such as the responsibilities of the Management Office and the role of the internal auditors. Organizational structure. The assessment carried out in preparing for the operation shows the need to perform a valuation of the company’s operating assets based on a current inventory of assets and to

consolidate the various labor structures currently coexisting within the company. A plan of action to address these issues was developed with the support of consulting services financed by InfraFund.

- 3.12 **Financial considerations regarding EMPOPASTO.** The financial analysis of the company was performed using a proprietary financial model developed by INE/WSA, based on the company's audited financial statements for the last two fiscal years and on historical operating information. The projections were made in 2008 pesos for the life of the loan, and include operating revenues and costs, capital investment, external financing, fixed assets, and working capital. Based on preliminary financial projections, EMPOPASTO is in sound financial condition, with average earnings of US\$2.23 million during the first six years, average cash balance of US\$4.3 million, and adequate efficiency indicators (EBIDTA exceeding 30%, collection efficiency exceeding 91.0%, and indebtedness of 30%). The viability analysis indicates that: (i) the company has the capacity to provide the local counterpart contribution during the program execution period; and (ii) operating revenue sources are sufficient to cover all operating and maintenance costs (including depreciation) as well as debt service for all assets. **The loan contract will include a clause stating that the borrower will take action acceptable to the Bank to secure the required funds in the event that the rates fail to generate sufficient revenues to cover the costs of operation, maintenance and depreciation, satisfy the borrower's obligations on a timely basis, and allow the borrower to contribute a 10% share to the financing of its expansion program.**
- 3.13 **Financial analysis of the Municipio of Pasto.** Analysis indicates that the municipio has the financial capacity to guarantee the debt service payment obligations incurred to finance the "Water for rural areas" component and to guarantee that the local contribution is provided for it on a timely basis. Over the past four years, the municipio earned on average more than US\$95 million in current and capital revenues, more than US\$80 million of which is allocated to investment. The resulting borrowing capacity of approximately US\$5.1 million/year is sufficient to enable the company to meet the aforementioned obligations. According to the parameters established by the national government, the Municipio of Pasto is ranked as green light, with debt interest to operational savings ratios of 3.15%:<40% and debt balance to current revenue ratios of 26.93%:80.0%, which evidences the municipio's sound financial condition.

IV. IMPLEMENTATION AND MANAGEMENT PLAN

A. Program management agreements

1. Institutional arrangements for execution

- 4.1 The Management Office will be responsible for program execution, acting through the Special Project Coordination Group (GCPE). **Designation of the program's Special Projects Coordination Group and support personnel by**

EMPOPASTO will be a condition precedent to the first disbursement of the loan proceeds. This group will be tasked with planning, organizing and directing all activities and processes needed for program execution, coordinating the activities of the company's technical and support areas, and preparing the various reports with the required accuracy and timeliness. The GCPE will consist of an interdisciplinary team of professionals, including a project coordinator, two engineers, a manager for the "Water for rural areas" component assisted by two professional staff, a procurement specialist, and an administrative manager. Created under the agreement for technical cooperation operation ATN/OC-10669-CO for the execution of studies financed by InfraFund, the GCPE has allowed the company to strengthen its capacity to manage and address future investments and to prepare to capitalize on opportunities to use its technical, administrative and management experience in activities that complement its current scope. The GCPE will also be responsible for coordinating company actions in other special projects and programs, such as the Aguas de Nariño Departmental Plan.

2. Execution and supervision of the investment components

- 4.2 **Program execution timetable.** The execution schedule reflects the time required to perform planned activities and works, including measures aimed at minimizing potential environmental impacts, particularly those generated during construction of the works. The proposed six-year disbursement period is considered realistic and feasible, and takes into account EMPOPASTO's management ability as well as the required coordination with the works undertaken under the Road Mobility Plan by the municipio, which will simultaneously participate in the program's sewerage works, generating savings in construction costs and reducing adverse impacts during works construction.
- 4.3 **Works execution and supervision.** The execution of program works will be contracted with experienced construction firms pursuant to bidding processes, in accordance with Bank procurement policies. Works will be supervised by consulting firms specializing in the relevant areas and contracted pursuant to competitive bidding processes. **The loan contract will include an execution condition whereby EMPOPASTO will attach the final designs, respective environmental permit, and certification of land availability to the request for the Bank's no objection for works to be contracted.**
- 4.4 **Execution and supervision of the business development strategic plan.** The corporate governance action plan and management strengthening plan measures have been identified and are being implemented. It is expected that, before the Bank's Board of Directors considers the loan proposal, the bylaws will be amended to include a code of good corporate governance practices. Two additional consulting assignments are being performed with InfraFund resources in the areas of labor and operational structure and asset inventorying and valuation. The results of these consulting assignments will be consolidated in 2009 under component 3 of the program. The company's cost management and computer integration activities will be undertaken in 2009.

- 4.5 **Execution and supervision of the “Water for rural areas” component.** This component will be governed by Operating Regulations that establish eligibility criteria; the component’s guidelines; the bidding, procurement, and supervision processes regarding the works; a description of coordination, control, planning and monitoring arrangements; budget and accounting systems; a description of the revolving fund disbursement, expenditure, and replenishment process; the responsibilities of the municipio and EMPOPASTO; community enterprise strengthening activities; and the TOR for technical, environmental, rate, financial, and economic studies; the terms and conditions for resource contributions, including financing sources and eligible expenses. The TORs for these studies will be attached to the Operating Regulations. **The project team recommends that the loan contract should require the executing agency to provide evidence that the Operating Regulations are in effect, as a condition precedent to the first disbursement for this component (see paragraph 3.1).**

3. Procurement

- 4.6 **Procurement plan.** Prior to negotiating the loan contract, the borrower will agree with the Bank regarding a procurement plan (Annex III). Procurements for any given period will be provided under the Bank-approved plan and will follow the methods and ranges set forth therein. The procurements will be reviewed on an ex ante basis until an evaluation of the borrower’s management capacity justifies a change to ex post reviews. The procurement of goods and services, civil works and consulting services financed in whole or in part with program funds will be performed in accordance with the Bank policies of documents GN-2349-7 and GN-2350-7.

4. Revolving fund

- 4.7 Once the conditions precedent to the first disbursement have been met, the Bank will create a revolving fund for up to 5% of the loan amount. These funds will be managed within a bank account set up in the program’s name, and account activity reports will be delivered within 60 days after the end of every calendar semester.

5. Operation and maintenance

- 4.8 All works to be built, with the exception of the “Water for rural areas” component, will be operated and maintained by EMPOPASTO, which has the technical staff and means necessary for their smooth operation and proper maintenance. Since the works planned under the program will not generate an unusual operational overload for the company, no action will be needed other than ongoing personnel training and development.

B. Monitoring and evaluation

- 4.9 **Supervision.** The monitoring and evaluation system is based on the Bank’s new supervision arrangements and consists of: (i) a project execution plan (PEP), which includes the procurement plan and monitoring of the indicators established in the Results Framework; (ii) the annual work plans (AWPs), which include the agreed-

upon and required measures to mitigate the risks identified in the Risk Analysis; (iii) the semiannual reports, which include progress on the AWP and an action plan for the following semester regarding issues that require corrective action to improve program and EMPOPASTO performance; and (iv) a supervision plan aimed at achieving results and evaluating program performance.

- 4.10 **Monitoring.** The program will be monitored pursuant to a Results Framework (Annex II), using indicators that measure water body quality and the reduction in EMPOPASTO's operating costs. Quality will be monitored in the form of biochemical oxygen demand, which measures the river's organic load, dissolved oxygen as a proxy for the river's ability to support aquatic life, and the number of coliforms, which measures the water's reuse potential. Output indicators will measure progress in execution, while outcome indicators will measure operation (intercepted flow). Achievement of operational results and corporate development will be measured by means of the performance indicators set forth in Table IV.1, which correspond to the indicators to be reported in connection with the Bank's Water and Sanitation Initiative. The indicator targets will be updated periodically with the company. **Plans call for an initial review of results by month 18 of the loan term, and a midterm review at 36 months, for purposes of monitoring the indicators and progress in program execution.** The project team considers the company's environmental and monitoring and evaluation systems to be satisfactory. **The project recommends that the loan contract include an execution condition whereby the company agrees to assist in monitoring the indicators in Table IV-1.**

Table IV-1. Performance Indicators

| Indicators and Targets (Values at the end of each calendar year) | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|-------|---------------------|-------|-------------------------|-------|
| 1. Operational margin (EBITDA) (%) | 32.0% | 50.0% | 50.0% | 52.0% | 52.0% |
| 2. Employees per 1,000 connections | 3.0 | 2.9 | 2.8 | 2.7 | 2.7 |
| 3. Unaccounted-for water rate (%) | 42.2% | 42.0% | 41.0% | 39.0% | 37.0% |
| 4. Micrometering rate | 89.3% | 89.5% | 90.0% | 90.0% | 91.0% |
| 5. Spot billing rate | 98.1% | 98.1% | 98.3% | 98.5% | 98.5% |
| 6. Drinking water service coverage | 93.2% | 93.5% | 93.5% | 94.0% | 94.0% |
| 7. Sewer service coverage | 92.9% | 93.0% | 93.2% | 93.5% | 93.5% |
| 8. % of wastewater treatment | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 9. Average service continuity | 99.4% | 99.4% | 99.5% | 99.5% | 99.5% |
| 10. Annual collection efficiency | 93.0% | 94.0% | 94.0% | 94.0% | 94.0% |
| 11. Corporate governance indicators | | New bylaws approved | | Action plan implemented | |

- 4.11 **Data compilation and ex post evaluation.** The borrower will compile the information required to evaluate achievement of program goals with a view to an ultimate evaluation of the program's efficiency and efficacy in attaining objectives and capitalizing on lessons learned. In preparing for the operation, baseline data were compiled for measuring program efficiency, and the procedures for obtaining such data were included in the Results Framework.
- 4.12 **External audits.** During program execution the company will, on an annual basis, within the first 60 days after the end of each fiscal year and throughout the term of the loan contract, deliver program and company financial statements audited by an independent firm acceptable to the Bank (in accordance with the requirements of documents AF-100 and AF-300). The contracting of such firm, financed with loan proceeds, will comply with document AF-200 and will be for a multiyear period of at least two years, pursuant to TOR previously approved by the Bank (documents AF-400 and AF-500). External audits will be both financial and operational, requiring the submission of a semiannual interim report. A program closing audit will be delivered within 120 days after the last disbursement.

**Development Effectiveness Matrix
Summary**

| Criterion | Score |
|---|-------------|
| Section 1. IDB Strategic Development Objectives – Area Rating | 6.3 |
| Country Diversification | 0.7 |
| Corporate Initiatives | 2.5 |
| Harmonization and Alignment | 1.1 |
| Beneficiary Target Population | 2.0 |
| Section 2. Country Strategy Development Objectives – Area Rating | 9.6 |
| Country Strategy Sector Diagnosis | 6.0 |
| Country Strategy sector objective and indicator | 3.6 |
| Section 3. Program Logic – Area Rating | 6.3 |
| Program Diagnosis | 2.4 |
| Proposed Solutions (@ PP) | 1.3 |
| Proposed Solutions (@ POD) | 1.1 |
| Results Matrix Quality | 1.5 |
| Section 4. Evaluation & Monitoring – Area Rating | 4.1 |
| I. Evaluation | 2.1 |
| II. Monitoring | 2.0 |
| Section 5. Economic Performance – Area Rating | 10.0 |
| Economic Rate of Return | 10.0 |
| Cost-effectiveness | 0.0 |
| Section 6. Risk Management – Area Rating | 7.5 |
| Environmental & social risk classification | B |
| Environmental & social risk policy compliance | |
| Risk Matrix Score | 5.0 |
| Mitigation Matrix Score | 2.5 |
| Section 7. Additionality- Area Rating | 6.7 |

RESULTS FRAMEWORK

| | |
|--------------------------|--|
| Project objective | Economic demand for drinking water and sanitation from the urban and rural population addressed on an efficient and sustainable basis. |
| | |

| Result indicators | Baseline | Target level | | |
|--|---|--|---|--------|
| | | 2009 | 2010 | 2014 |
| Increased water supply coverage in the area: greater number of water service subscribers | 62,500 | 63,700 | 65,000 | 68,000 |
| Increased water supply coverage in strata 1 and 2 of the urban area. | 37,625 | 38,347 | 39,130 | 40,936 |
| Improvement in Pasto River quality at the city exit (Tennis Club Station) | Parameter 2006 Q (L/s) (October) DBO5 (mg/l) 210 OD (mg/l) 3 Coliforms 10^9 | These values will be determined once the results of the water quality model are ready. | | |
| The number of annual complaints of flooding and/or sewage overflows decreases | These values will be determined once the results of the water quality model are ready. | | | |
| EMPOPASTO keeps its financial risk level low. | 1.66% 48% 91% 8.12% 32.1% | Liquidity ratio Financial indebtedness Collection efficiency Interest coverage EBITDA / Service operating income | > 1.0 < 40% > 85% > 1.5 > 20% | |
| The number of people receiving sanitation services in rural areas has increased. | 0 | 1,600 | 2,500 | 9,000 |

| | |
|---|--|
| Component 1. Water | |
| <i>Output</i> | |
| Drinking water treatment plant built and operating. | The Las Piedras drinking water supply system, including the installation of a treatment plant with a 250 l/s capacity, 3-km long and 12" to 20" diameter raw water pipes, 3-km long and 18" to 24" diameter treated water pipes, and storage/distribution tanks with 5,000 m ³ capacity, is built and commences operations by year-end 2015. Built and operating by December 2011. |

| | | | | | | | |
|---|---|-------|--------|-----------------------------|--------|------|--------|
| Intermediate outcome | | | | | | | |
| Water service coverage in the urban area has increased: greater number of water service subscribers | 62,500 | | 63,700 | | 65,000 | | 68,000 |
| Output | | | | | | | |
| Reduced average pumping costs in KWH saved | These values will be determined once the Piedras plant feasibility studies are ready. | | | | | | |
| Output | | | | | | | |
| Program to Control Unaccounted-for Water (PCANC) implemented | Installation of pressure reduction valves, sectorization of systems by district, installation of household and master metering, purchase of flow monitoring equipment. The final values for this component will be obtained in the first year of program execution. | | | | | | |
| Intermediate outcomes | | | | | | | |
| Sectors targeted | 2 | | | To set intermediate targets | | | |
| Outcomes | | | | | | | |
| Unaccounted-for water rate | 42.2% | 42.0% | 41.0% | 39.0 | 38.0 | 37.0 | |

| Component 2. Sewer | Base | Year 1 | Year 2 | Year 3 | Year 4 |
|---|-------------|---------------|--|---------------|---------------|
| <i>Output</i> | | | | | |
| By the end of the program execution period, 20 km of collectors and interceptors with diameters of 12” to 40” in concrete pipes have been built and are collecting waste water, as follows: | | | | | |
| A. Chapal stream interceptor (left and right banks) built and operating by month 36. | 0 Km | | 6.6 km of concrete pipe with diameter of 8” to 44”. | | |
| B. Mijitayo collector built and operating by month 36. | 0 Km | | 6.8 km of concrete pipe with diameter of 12” to 2.15 meters. | | |
| C. Suroriental collector built and operating by month 40. | 0 Km | | 3.2 km of concrete pipe with diameter of 24” to 92”. | | |
| D. Aranda collector built and operating by month 50. | 0 Km | | 1.0 km of concrete pipe with diameter of 24”. | | |
| E. Américas collector built and operating by month 60. | 0 Km | | 1.6 km of concrete pipe with diameter of TBD” to TBD”. | | |
| F. Panamericana collector by month 60. | 0 Km | | 1.0 km of concrete pipe with diameter of 20” to 30”. | | |
| <i>Intermediate outcomes</i> | | | | | |
| Reduced number of direct wastewater discharges into bodies of water (Pasto River and affluents): at the Chapal Stream. | 6 | | 3 | | 0 |

| | | | | | |
|---|-------------|------|------|------|--|
| <i>Outcomes</i> | | | | | |
| Chapal Stream | Parameter | 2006 | 2013 | 2016 | |
| Improved average flow quality parameters at the Chapal Stream Station | Q (L/s) | 508 | | | |
| Box Culvert Departmental Hospital | DBO5 (mg/l) | 188 | | | |
| | OD (mg/l) | 1.5 | | | |
| | Coliforms | TBD | | | |
| For 2013 and 2016, the values will be determined once the results of the water quality model are ready. | | | | | |

| | | | | | |
|--|-------------|---------------|---------------|---------------|---------------|
| Component 3. Business development | Base | Year 1 | Year 2 | Year 3 | Year 4 |
| <i>Output</i> | | | | | |
| Development and implementation of a strategic plan integrated with events and goals. | | Executed | | | |
| Adjustment organizational structure process-based focus | | Executed | | | |
| <i>Intermediate outcomes</i> | | | | | |
| Capital structure makes execution of the city's Water and Sewer Master Plans viable. | | | | Executed | |

| | | | | | |
|--|-----------------------|---------------|---------------|---------------|---------------|
| Component 4. Water for rural areas | Base | Year 1 | Year 2 | Year 3 | Year 4 |
| <i>Output</i> | | | | | |
| Execution of water and basic sanitation investment plan for the projects included in the program. | 5 | 5 | 3 | 2 | |
| <i>Intermediate outcomes</i> | | | | | |
| Rural water supply systems serving 30 veredas (territorial subdivisions) built and operating (water supplied to users 24 hours a day). | 5 | 5 | 8 | 8 | 4 |
| <i>Outcomes</i> | | | | | |
| The finances of the systems served by the program show long-term sustainability rates. | Liquidity ratio | > 1.0 | | | |
| | Collection efficiency | > 85% | | | |

Collection of information on indicators. EMPOPASTO will provide the information required to calculate each of the indicators in this matrix. The incremental cost of calculating the indicators is zero, since it is already being done by the company.

Water and Sanitation Initiative indicators

| Indicators and targets (Values at the end of each calendar year) | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|-------------|---------------------|-------------|-------------------------|-------------|
| 1. Operational margin (EBITDA) (%) | 32.0% | 50.0% | 50.0% | 52.0% | 52.0% |
| 2. Employees per 1,000 connections | 3.0 | 2.9 | 2.8 | 2.7 | 2.7 |
| 3. Unaccounted-for water rate (%) | 42.2% | 42.0% | 41.0% | 39.0% | 37.0% |
| 4. Micrometering Rate | 89.3% | 89.5% | 90.0% | 90.0% | 91.0% |
| 5. Spot billing rate | 98.1% | 98.1% | 98.3% | 98.5% | 98.5% |
| 6. Drinking water service coverage | 93.2% | 93.5% | 93.5% | 94.0% | 94.0% |
| 7. Sewerage service coverage | 92.9% | 93.0% | 93.2% | 93.5% | 93.5% |
| 8. % of wastewater treatment | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 9. Average service continuity | 99.4% | 99.4% | 99.5% | 99.5% | 99.5% |
| 10. Annual collection efficiency | 93.0% | 94.0% | 94.0% | 94.0% | 94.0% |
| 11. Corporate governance indicators | | New bylaws approved | | Action plan implemented | |

PROCUREMENT PLAN

| Description of the contract and estimated cost of procurement (US\$) | Procurement method | Review (prior or post) | IDB Contribution | Prequalification (Yes/No) | Estimated publication date of specific procurement notice | Estimated contract length | Status |
|--|--------------------|------------------------|------------------|---------------------------|---|---------------------------|---------|
| I. CIVIL WORKS | | | | | | | |
| 1.1 Water system | | | | | | | |
| 1.1.1 Piedras system construction (water treatment plant, pipes and tank) Cost: US\$6,300,000 | NCB | Prior | 63% | No | February 2011 | 18 months | Pending |
| 1.1.2 Program to control unaccounted-for water Cost: US\$2,300,000 | NCB | Prior | 63% | No | February 2010 | 24 months | Pending |
| 1.2 Sewer system | | | | | | | |
| 1.2.1 Chapal stream interceptor Cost: US\$5,800,000 | NCB | Prior | 63% | No | October 2009 | 18 months | Pending |
| 1.2.1 Mijitayo collectors Cost: US\$5,700,000 | NCB | Prior | 63% | No | February 2011 | 18 months | Pending |
| 1.2.2 La Milagrosa collectors Cost: US\$1,400,000 | NCB | Prior | 63% | No | March 2010 | 10 months | Pending |
| 1.2.2 Surorientales collectors Cost: US\$3,300,000 | NCB | Prior | 63% | No | March 2010 | 12 months | Pending |
| 1.2.3 Las Américas collectors Cost: US\$3,100,000 | NCB | Prior | 63% | No | January 2012 | 12 months | Pending |

| Description of the contract and estimated cost of procurement (US\$) | Procurement method | Review (prior or post) | IDB Contribution | Prequalification (Yes/No) | Estimated publication date of specific procurement notice | Estimated contract length | Status |
|---|--------------------|------------------------|------------------|---------------------------|---|---------------------------|---------|
| 1.2.4 Group 1 Sewer Networks (Calles 16 and 17) | NCB | Prior | 63% | No | June 2011 | 12 months | Pending |
| Cost: US\$2,650,000 | | | | | | | |
| 1.2.5 Group 2 Sewer Networks (Calles 20 and 6ª sur) | NCB | Prior | 63% | No | February 2010 | 12 months | Pending |
| Cost: US\$2,300,000 | | | | | | | |
| 1.3 Water for rural areas systems | | | | | | | |
| 1.3.1 Vereda San Francisco-Briceño system in the Mapachico corregimiento (district) | NCB | Prior | 100% | No | October 2009 | 8 months | Pending |
| Cost: US\$50,000 | | | | | | | |
| 1.3.2 Pradera Bajo aqueduct, La Caldera district | NCB | Prior | 100% | No | October 2009 | 8 months | Pending |
| Cost: US\$90,000 | | | | | | | |
| 1.3.3 Anganoy and San Juan de Anganoy aqueduct | NCB | Prior | 100% | No | February 2010 | 8 months | Pending |
| Cost: US\$90,000 | | | | | | | |
| 1.3.4 Vereda Vista Hermosa aqueduct | NCB | Prior | 100% | No | February 2011 | 8 months | Pending |
| Cost: US\$35,000 | | | | | | | |
| 1.3.3 Santa Teresita aqueduct | NCB | Prior | 100% | No | February 2011 | 8 months | Pending |
| Cost: US\$100,000 | | | | | | | |
| 1.3.3 Santa Lucía aqueduct | NCB | Prior | 100% | No | February 2011 | 8 months | Pending |
| Cost: US\$135,000 | | | | | | | |
| 1.3.3 Treatment plant for Popular and Arnulfo Guerrero neighborhoods | NCB | Prior | 100% | No | February 2012 | 8 months | Pending |
| Cost: US\$110,000 | | | | | | | |

| Description of the contract and estimated cost of procurement (US\$) | Procurement method | Review (prior or post) | IDB Contribution | Prequalification (Yes/No) | Estimated publication date of specific procurement notice | Estimated contract length | Status |
|--|--------------------|------------------------|------------------|---------------------------|---|---------------------------|---------|
| 1.3.3 Jamondino and El Rosario aqueduct Cost: US\$145,000 | NCB | Post | 100% | No | February 2012 | 8 months | Pending |
| II. PROCUREMENT OF GOODS | | | | | | | |
| 2.1. Procurement of a Business Information System (BIS) Cost: US\$250,000 | NCB | Prior | 67% | Yes | January 2010 | 12 months | Pending |
| III. CONSULTING SERVICES | | | | | | | |
| 3.1 Enterprise structure and management consolidation Cost: US\$300,000 | QCBS | Prior | 67% | Yes | January 2010 | 12 months | Pending |
| 3.2 Activity-based cost accounting (ABC) Cost: US\$60,000 | QCBS | Prior | 67% | No | January 2010 | 12 months | Pending |
| 3.3 Computer integration and BIS Cost: US\$140,000 | QCBS | Prior | 67% | No | January 2010 | 12 months | Pending |
| 3.4 Supervision of unaccounted-for water program works Cost: US\$100,000 | SLNF | Post | 25% | Yes | January 2011 | 24 months | Pending |
| 3.5 Supervision of Piedras system works Cost: US\$400,000 | SLNF | Prior | 25% | No | January 2010 | 18 months | Pending |
| 3.6 Supervision of Chapal stream interceptor works Cost: US\$400,000 | SLNF | Prior | 25% | Yes | January 2010 | 18 months | Pending |
| 3.7 Supervision of Mijitayo collector works Cost: US\$350,000 | SLNF | Prior | 25% | Yes | January 2011 | 18 months | Pending |

| Description of the contract and estimated cost of procurement (US\$) | | Procurement method | Review (prior or post) | IDB Contribution | Prequalification (Yes/No) | Estimated publication date of specific procurement notice | Estimated contract length | Status |
|--|---|--------------------|------------------------|------------------|---------------------------|---|---------------------------|---------|
| 3.8 | Supervision of Surorientales and La Milagrosa collector works | SLNF | Prior | 25% | Yes | January 2010 | 12 months | Pending |
| | Cost: US\$300,000 | | | | | | | |
| 3.9 | Supervision of Group 1 network works | SLNF | Prior | 25% | No | January 2011 | 12 months | Pending |
| | Cost: US\$150,000 | | | | | | | |
| 3.10 | Supervision of Group 2 network works | SLNF | Prior | 25% | No | January 2010 | 12 months | Pending |
| | Cost: US\$150,000 | | | | | | | |

LEGEND:

NCB: National competitive bidding

SLNF: Short list of national firms

ICB: International competitive bidding

QCBS: Quality- and cost-based selection