


2016

# SUSTAINABILITY REPORT

AGUAS andinas




**G4-5, G4-6 y G4-31**

**Aguas Andinas S.A.**

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# INDEX

## BUSINESS MODEL



## WATER AND QUALITY OF LIFE



## RESILIENCE



## CIRCULAR ECONOMY



## SOCIAL LEGITIMACY



## DIGITALIZATION



## INNOVATION AND PEOPLE



## ABOUT THIS REPORT

# VISION

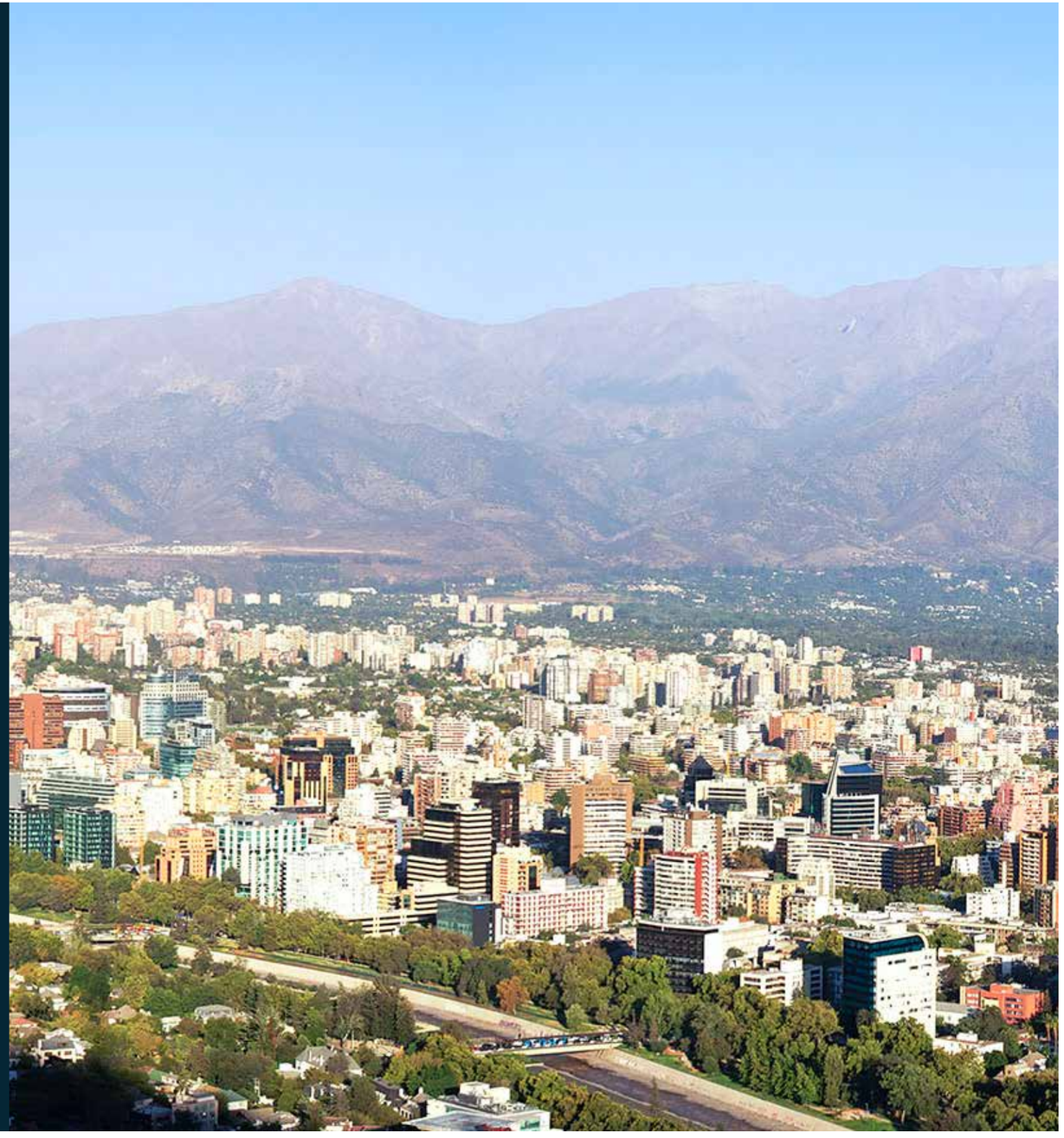
**To be a leader for sustainability in Chile, ensuring water for future generations.**

**We are a multiservice company with a management based on the sustainability of resources. We want to be Chile's best ally to face the challenges involved in its commitments for mitigating climate change.**

# PURPOSE

**We work to make the city work and provide well being to its inhabitants.**

**To achieve this we manage resources efficiently, creating shared value and the lowest price for our customers. We innovate to achieve the universality of our services and have a societal impact in the places where we operate.**



# COMPANY PROFILE

G4-3, G4-4 y G4-6

Aguas Andinas S.A. is the largest sanitation company in Chile and one of the most important in Latin America. It provides potable water, sewerage and wastewater treatment services to more than two million customers, classified as residential, commercial and industrial. Together with its subsidiaries, it forms a group of companies that seek to provide a complete and comprehensive service in the Chilean sanitation market.

**8 millon**

**people:** the estimated population supplied by Aguas Andinas and its sanitation subsidiaries.

**70 thousand**

**hectares** encompasses the concession area in the Metropolitan Region.

**100%**

**coverage** in potable water.

**100%**

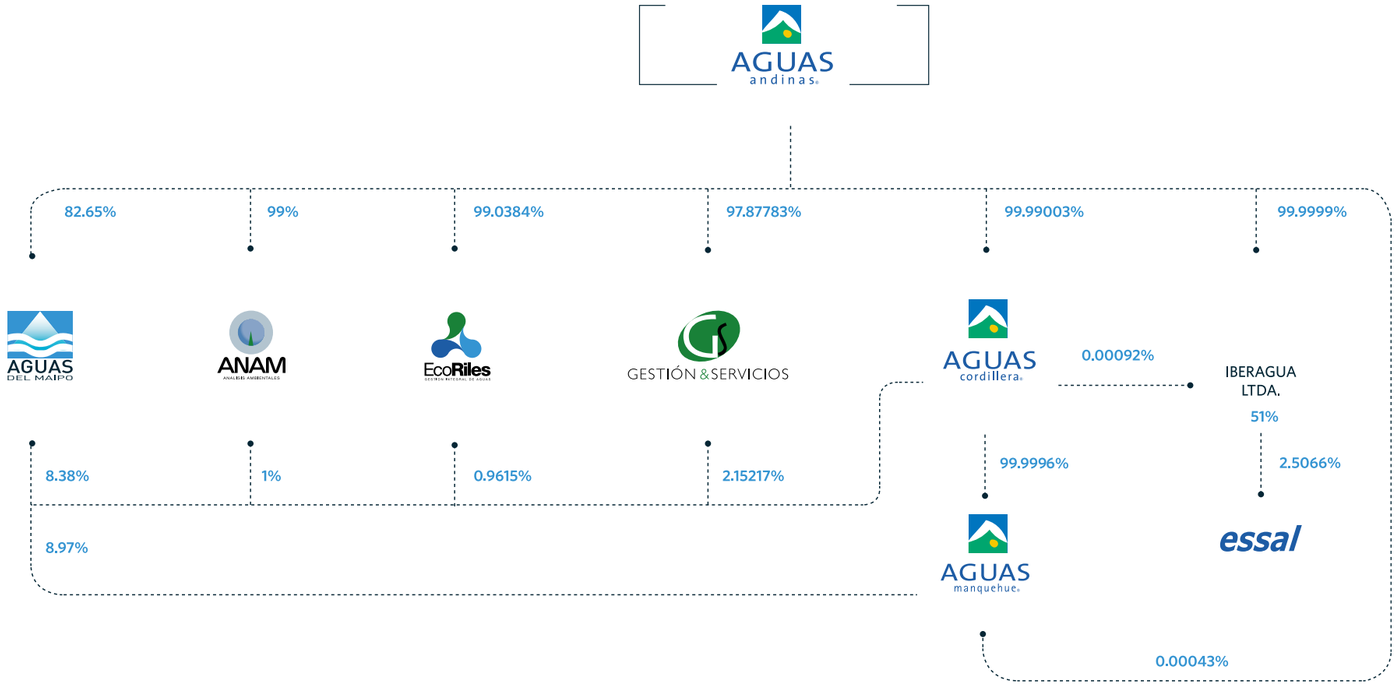
**sewerage** coverage.

## REGULATED COMPANIES

| | |
|---|---|
| Aguas Andinas S.A.<br>Aguas Cordillera S.A.<br>Aguas Manquehue S.A.<br>Empresa de Servicios Sanitarios De Los Lagos S.A. (ESSAL) | Regulated by the sanitation legislation, these companies provide potable water production and distribution services, along with wastewater collection and treatment and disposal of residues. |

## NON-REGULATED COMPANIES

| | |
|---|---|
| EcoRiles S.A.<br>Gestión y Servicios S.A.<br>Análisis Ambientales S.A. (Anam)<br>Aguas del Maipo S.A. | Water and environmental services companies: industrial water treatment services, commercialization of materials and non-conventional renewable energy generated by water and its treatment for sanitation companies, laboratory analysis, and development of projects in the service of water and the environment. |



# LETTER OF THE CEO

G4-1

## A DETERMINED COMMITMENT FOR THE COMMON GOOD

Success makes obsolete all the circumstances and behaviors that led to its achievement. As one of the most important world biologists, the Chilean scientist Humberto Maturana, tells us, living beings appear when the niche that makes them possible arrives.

Our natural niche, Chile, faces challenges similar to global challenges: a growing urbanization of the Earth, which will exceed 10 billion people during this century; the unsustainable pressure on natural resources; and the decline in biodiversity, food, and energy from fossil fuels. Given this scenario, Aguas Andinas and its group of companies are absolutely committed to the sustainable development of Chile and its citizens.

To this end, we are implementing a strategic transformation, deep in depth, that should lead us to become the first global Chilean multi-service company in the sustainable management of resources.
A determined commitment for the common good. Although the definition of the strategy is an exciting process, it is in the practical application of concrete actions that evaluate the effectiveness of its objectives. These ambitious goals should lead Aguas Andinas to become the country's best ally in the fulfillment of its commitments of the UN, made official in the agreement signed at the 2015 United Nations Conference on Climate Change, COP 21. Combating the effects of climate change, in addition to addressing emission reduction targets for CO2, greenhouse gases and others defined in the sustainable development commitments; represents an excellent opportunity to deepen citizen's societal development, integration and improvement in quality of life.

In order to face these complex challenges, we are implementing initiatives summarized into seven strategic pillars. Addressing social, environmental and economic challenges, making our commitment to sustainable development profitable.

This holistic vision is imperative: water, energy, food, people and biodiversity form a completely interconnected network. Along those lines, our investments in infrastructure are aligned with advanced asset management, taking the long-term view, embuida of the resource management capacity with a Circular Economy vision, Industry 4.0, open innovation and, above all, societal vision with support to the communities with which we live.

The UN marked the year 2017 with the motto WhyWasteWater?, advising that only 67% of the world population enjoys some type of with wastewater treatment services. This stat is key to guaranteeing the health and social welfare of communities. In our country, the picture is encouraging: the Metropolitan, Los Lagos and Los Ríos regions - where Aguas Andinas and subsidiaries hold concessions- show 100% coverage in the treatment of wastewater, which means their residents can enjoy significant health benefits, recuperate natural spaces and national competitiveness. Our permanent approach is to meet more ambitious goals. In Aguas Andinas we have laid the foundations to transform our existing wastewater treatment plants, which are among the most technologically advanced in the world, into biofactories. Biofactories will allow us to have a net positive energy balance; not only to avoid all forms of pollution, but also to regenerate the natural environment; achieve "zero residue," reducing, reusing and recycling; and increase the employability of professionals and human development to communities.
These goals are not just a dream. They are tangible realities that define the future approach to leave a better world for future generations. At Aguas Andinas we are designing and building that future starting today. We trust that it will be our best contribution for Chile and its citizens.

**Narciso Berberana**
CEO of Aguas Andinas

# SANTIAGO DESERVES A 7 (SM7) AND SUSTAINABLE DEVELOPMENT GOALS (SDG)

Being a leading company on sustainability in Chile arises from Aguas Andinas' commitment to become a strategic ally for Chile in the efficient management of natural resources, in the context of climate change.

The company's sustainability is subordinated to that of the country, for that reason, all its present and future work conforms fully to the principle of shared value. The recent water crisis affecting the central, northern and southern areas of the country, the projections for a progressive rise in temperature and, as a counterpart, the scarcity of precipitation events together with the phenomena of winter rains at high altitudes in the mountains and convective rains in the summer, are all generating deep impacts that show the need to adapt and generate a resilient culture, aware of the scarcity of resources and that wastes are assets, in sum, that the new economy has ceased to be linear and evolved into a circular one. Aguas Andinas assumed this challenge through its new plan **"Santiago deserves a 7."** Based on the premise the future is built from today, **"Santiago Deserves a 7"** is built under seven pillars or strategic axes.



## 1. BUSINESS MODEL

**Focus:** Economic sustainability.
**Goal:** Achieve a sustainable company, capable of generating shared value for its stakeholders.

## 2. RESILIENCE

**Focus:** 100% continuity.
**Goal:** Be able to adapt to changing environments and overcome contingencies.

## 3. DIGITALIZATION

**Focus:** Agility
**Goal:** Use technology to service interactions between customers and the company and attain more agile and efficient processes.

## 4. CIRCULAR ECONOMY

**Focus:** Zero impact
**Goal:** Achieve sustainability for sanitation activities through the use and production of renewable resources and conservation of the environment.

## 5. SOCIAL LEGITIMACY

**Focus:** Shared value
**Goal:** Achieve the societal approval of the internal and external community, seeking a joint development of shared value, based on relationships of respect, trust and transparency.

## 6. INNOVATION AND PEOPLE

**Focus:** Value creation and adaptation
**Goal:** Promote innovative environments and boost the well-being of employees and their capacity for change.

## 7. WATER AND QUALITY OF LIFE

**Focus:** Benefits of water
Distribute the contributions of water for the benefit of people, their health and well-being.

When the work teams set out to develop specific plans within each of these axes, the synergies between the final goal of "Santiago deserves a 7" and another of the company's major tasks began to be seen: Collaborate with achieving the 17 Sustainable Development Goals proposed by the United Nations in September 2015, which sets concrete goals to be achieved by 2030. This same purpose inspired the organization of this 2016 Sustainability Report.

The following is an outline that highlights the multiple synergies between the initiatives of Santiago deserves a 7 and the SDG.

## FROM AGUAS ANDINAS TO THE SUSTAINABILITY GOALS

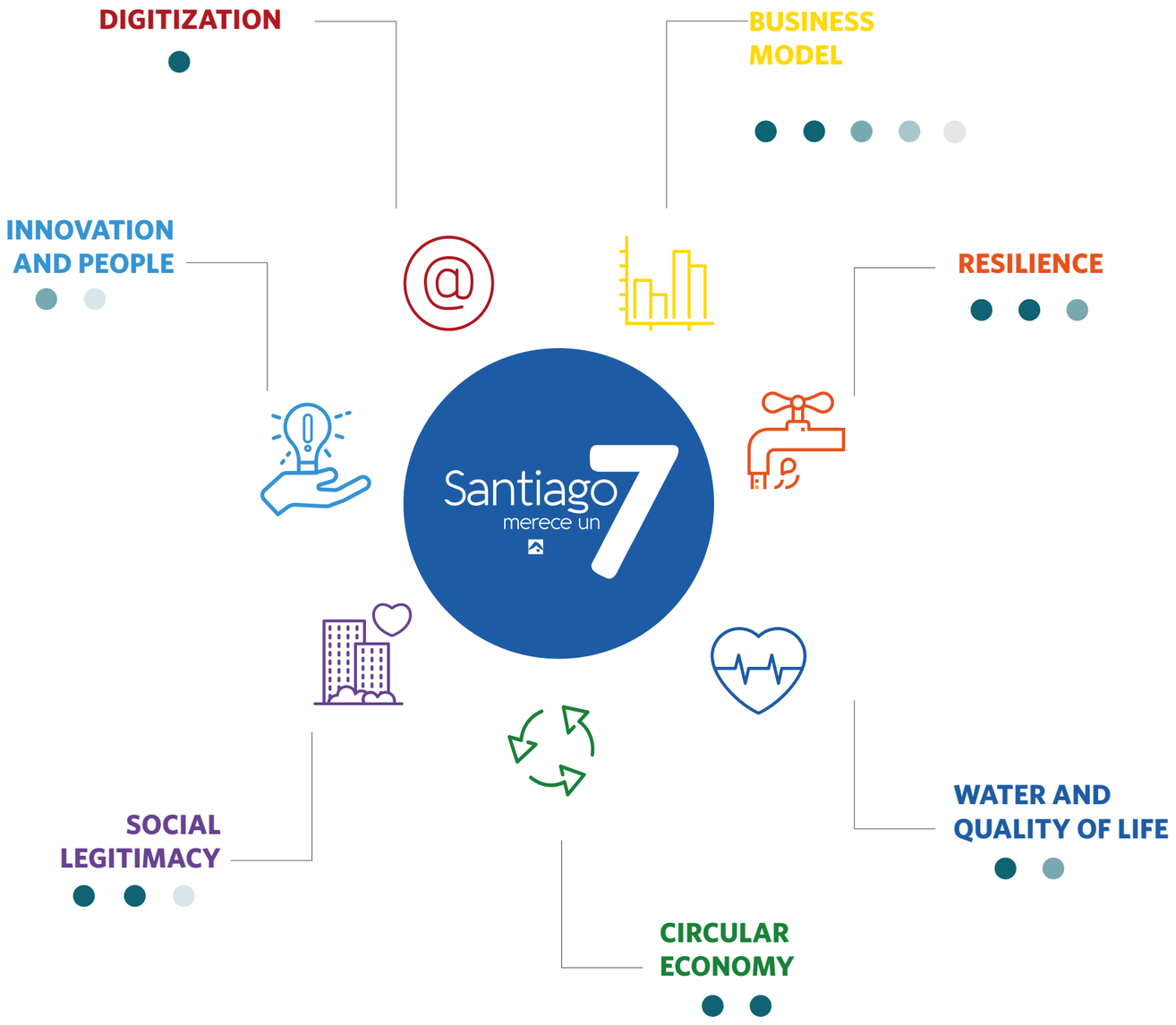
| | MAIN SDG INITIATIVES UNDERWAY | SDG |
|---|---|---|
| **BUSINESS MODEL** | Sub-Management of Compliance | 16 |
| | Evaluating Board Performance | |
| | Board Training | |
| | Approval of Risk Map for the Board | |
| | Incorporating women into the Board | 5 - 11 |
| | Comprehensive Supplier Management | 8 |
| | Approval of Anti-Corruption Policy | 16 |
| | Approval of Sponsorships, Donations and Academic Collaboration Policy | 16 |
| | Strengthening of the Complaints Channel | 5 - 8 - 10 |
| | Sensitization of workers in Sustainable Development and Circular Economy | 4 |
| **RESILIENCE** | Climate Change Strategy | 1 - 11 - 13 |
| | Hydraulic Efficiency Plan | 6 - 11 |
| | Energy Efficiency Plan | 7 - 13 |
| | Safety equipment | 1 - 6 |
| | Plan of Improvements in Management of Aqueducts | 1 - 6 |
| | Study of the age of pipes | 1 - 6 |
| | Simulation for events | 1 - 6 |
| | Strategic Customer Plan | 6 |
| | Continuous Improvement in Claims Management | |
| **DIGITIZATION** | Virtual Office | 9 - 11 |
| | Electronic Billing | 9 - 11 |
| | Client Data warehouse | 9 - 11 |
| | AMR Solutions - Telelearning | 9 - 11 |
| | Sct mobile – Work Parts | 9 - 11 |
| **CIRCULAR ECONOMY** | Cogeneration Project | 7 |
| | Thermal Hydrolysis | 7 |
| | Emissions Monitoring | 13 |
| | Sludge Assessment | 7 - 12 |
| | Waste Baseline | 11 |
| **SOCIAL LEGITIMACY** | AVANZA Program | 8, 10 |
| | Good Neighbor Program | 11 |
| | Awareness Campaigns | 6 |
| | Educational Programs | 4,6 |
| | Amiga Account | 1 - 6 |
| **INNOVATION AND PEOPLE** | Integrated talent management | 8 |
| | Water School | 4 - 6 - 8 |
| | Certification under NCH3262 5 | 5 |
| | Measuring Organizational Climate - GPTW | 8 |
| | Ten Commandments of Good Conduct | 8 |
| | Health and Safety Management System | 3 |
| | Cetaqua | 9 |
| | WaterLab | 9 |
| **WATER AND QUALITY OF LIFE** | APR Management | 6 |
| | Compliance with Rural Potable Water Quality (APR) | 6 |
| | ESSAL Biodiversity Initiatives | 15 |
| | City Gas | 7 |

## SANTIAGO DESERVES A 7 AND THE SUSTAINABILITY STRATEGY

The strategic plan **"Santiago Deserves a 7"** reflects the commitments assumed in the sustainability policy and strategy, designed in 2015 and validated during the first quarter of 2016 by the Board of Aguas Andinas.

The Sustainability Strategy contemplates working on the following 7 focuses, associated with the expectations of its stakeholders:

- Promoting an ethical and transparent culture
- Protecting, developing and committing to our talents
- Maintaining fair and responsible relationships with our suppliers and contractors
- Efficient and environmentally friendly operations
- Development of our neighboring communities near operating facilities
- Quality, service availability and customer satisfaction



# BUSINESS MODEL

**Focus:** Economic sustainability.

**Goal:** "To be a sustainable enterprise our way of working should allow us to generate shared value to all".

# 1. CORPORATE GOVERNANCE

## 1.1. PROPERTY AND CONTROL OF THE COMPANY

**G4-7**

Sociedad General de Aguas de Barcelona S.A. (AGBAR) is the controlling and strategic partner of Aguas Andinas. It has a 56.6% interest in Inversiones Aguas Metropolitanas S.A. (IAM), a company that in turn owns 50.1% of the shares of Aguas Andinas S.A.[1]

With 150 years of history, AGBAR is an international leader in water and environmental management, with a presence in 24 countries, where it serves 25.6 million people daily.

AGBAR is 100% controlled by Suez Environnement Spain S.L., a company belonging to the Suez Group. With over 120 years of experience in 70 countries and around 82,000 employees, the Suez Group is a world leader in water and waste management.

**DISTRIBUTION BY TYPE OF SHAREHOLDER**



| 50.10% | 26.30% | 7.58% | 5.00% | 2.61% | 8.42% |
|---|---|---|---|---|---|
| IAM | International | Stock Brokers | CORFO | AFP | Others |

[1] For more information on the asset makeup and the financial statements of the company, see the Aguas Andinas S.A. Financial Report, pages 13 and 20.

## 1.2 COMPOSITION OF THE BOARD OF DIRECTORS

**G4-34, G4-38, G4-39, G4-40**

The highest corporate governance body of Aguas Andinas is the company's Board of Directors. In April 2016 at the Shareholders' Meeting, the Board was renewed.[2] The Board consists of 12 board members, 10 men and 2 women, of whom seven are named members and five are alternates. In turn, three board members are independent. None of them performs executive functions in the company. These are board members with experience in the business world, with several of them holding executive positions or board positions in other companies.

For its part, ESSAL has its own board of directors.[3]



**DIRECTORES TITULARES**

| | | |
|---|---|---|
| **GUILLERMO PICKERING DE LA FUENTE** Presidente | **BRUNO PHILIPPI IRARRÁZABAL** | **RICARDO ESCOBAR CALDERÓN** |
| **HERMAN CHADWICK PIÑERA** | **RODRIGO MANUBENS MOLTEDO** Independiente | **PEDRO SIERRA BOSCH** Independiente |
| **FERNANDO SAMANIEGO SANGRONIZ** | | |

**DIRECTORES SUPLENTES**

| | | |
|---|---|---|
| **CHRISTOPHE CROS** | **LAUREANO CANO INIESTA** | **LORETO SILVA ROJAS** |
| **SONIA TSCHORNE BERESTESKY** | **RODRIGO TERRÉ FONTBONA** Independiente | |

[2] At the 26th General Shareholders' Meeting, held on April 27, 2016, Nicole Nehme Zalaquett and Felipe Larraín Aspillaga were appointed named board members, who respectively resigned from the Board of Directors on August 11, 2016 and September 29, 2016. In accordance with the Corporations Law, Pedro Sierra and Fernando Samaniego, elected at the shareholders' meeting as alternate directors, proceeded to replace them definitivel.
[3] More information on ESSAL corporate governance at: www.essal.cl

## 1.3 PROGRESS IN THE IMPLEMENTATION OF BEST CORPORATE GOVERNANCE PRACTICES [4]

### 1.3.1. Role of the Board in strategic definitions

G4-42

The process of reviewing and redesigning the corporate Sustainability Policy and Strategy and the map of corporate interest groups was approved by the Board of Directors, which assumed the commitment to monitor its progress every year.

### 1.3.2. Induction of new board members

During the months of April and May, 2016, a process of inducting the new members of the Board of Directors was carried out. The induction included the presentation of fundamental aspects of the business, its risks, main policies and procedures, as well as the most relevant legal framework applicable to the company and its Board of Directors. In addition, a series of presentations were made directly by the company's corporate managers.

### 1.3.3 Training for Board Members

G4-43

As set forth in the Company's Compendium of Policies and Procedures on Corporate Governance, in 2016 the Company's Board of Directors carried out a process of updating its members' knowledge on issues relevant to its management.

To this end, Alberto Etchegaray, President of the Corporate Governance Center at Universidad Adolfo Ibáñez, gave a presentation on the different models and trends in corporate governance, both in Chile and in the Foreign; the duties of board members, such as care, confidentiality, loyalty, diligence and information; as well as national and international jurisprudence on the matter.

For his part, in October attorney Mauricio Larrain gave a presentation about the advances and paradigms in matters such as diversity, inclusion and sustainability; primary risk control tools, and practices that improve the effectiveness of boards.

In ESSAL, training was also given to the Board.
In August 2016, the Director of the School of Administration at Universidad Católica, Enrique Alcalde, gave a presentation on models of Corporate Governance, Board Member duties and national and international jurisprudence on the matter.
For his part, in December attorney Carlos Díaz spoke about the main risk control tools and practices that improve the role of Boards.

### 1.3.4. Field Visits

G4-47, G4-49

In order to get a closer look at the state and functioning of the main facilities, in 2016 members of the Board visited the La Florida and Las Vizcachas potable water production plants and the Mapocho Trebal wastewater treatment plant. In these instances, the board members had the opportunity to relate directly to the employees at each unit, and to understand their concerns and interests.

### 1.3.5. Corporate Governance Assessment

G4-44

On a biennial basis, the Board of Aguas Andinas carries out a formal evaluation procedure, which, under the advice of an external expert, allows detecting and implementing possible improvements in its organization and operation. In 2016 the self-evaluation process of the members of the Board of Directors was advised by Tomate Consultores and its partner Mr. Sergio Guzmán.

### 1.3.6. New tool for Board reporting

G4-45, G4-46

In order to streamline and make efficient the company's reporting process, a computer tool was implemented that allows board members to more easily obtain information from board meetings and store the documents used by this body for decision-making in a common file.

### 1.3.7. Risk management

G4-2

Each company's management annually carries out a survey of its main risks and proposes actions for their mitigation. For this, the organization has several corporate tools, including the Risk Map, which was approved by the Board of Directors in 2016.

[4] The detailed description of the policies and regulations governing the operation of Aguas Andinas' Corporate Governance, as well as information pertinent to compensation of the Board of Directors, is detailed in Financial Report 2016 - Pages 95 - 103, available at: www.aguasandinasinversionistas.cl.

# 2. STRENGTHENING CORPORATE COMPLIANCE

## 2.1 CREATION OF THE DEPUTY MANAGEMENT OF CORPORATE COMPLIANCE

SDG 16
G4-49

In 2016 the creation of the Compliance deputy management was approved, which depends on the Company's Board of Directors, through its Chairman. The Deputy Management is responsible for managing the corporate ethics structure of the company and verifying compliance risk in these matters. This deputy management will also ensure, among other matters, compliance with the Crime Prevention Model developed under the legal provisions of Law N° 20,393, the Code of Ethics and the investigation of complaints received by the Aguas Group's complaints channel. The deputy management has a defined structure and budget, guaranteeing autonomy and independence in the execution of its work.

## 2.2 ETHICAL MANAGEMENT SYSTEM

**SDG 16**

**G4-56, G4-SO4, G4-57, G4-58**

In May 2016, a simple, secure and confidential corporate complaint channel was launched, open to employees, suppliers and customers who are aware of or suspected of any activity that could lead to a violation of laws, ethical principles of the company, their values, the Code of Ethics, the Crime Prevention Model, or that constitute acts of harassment, sexual harassment, discrimination and/or unfair situations. The channel is administered by an external third party, who reports on allegations to the deputy management of Compliance for further analysis and investigation.

It is possible to access the channel from the Intranet or from the Aguas Andinas website, both for the formulation of complaints and for any queries that may arise.

In 2016 four complaints were registered for workplace harassment, which reported minor and specific labor disputes between employees. The allegations, in which no executive of the company was involved, were duly investigated and resolved, listening to both parties and to the witnesses who were aware of the facts.

Within the framework of the strengthening of the ethical management system, 192 employees of the company participated in “Ethical Dilemma Workshops.” In these sessions, managers, deputy managers and bosses, in addition to receiving an update on the Crime Prevention Model, were exposed to real cases where they proposed value-based dilemmas through role-playing dynamics. The sessions were valued by the participants as reflection and training, allowing them to know, understand and apply the company’s values in concrete situations.

In the same spirit, the company organized a talk for directors, executives, professionals and union leaders of the organization called "Compliance: A Compliance Strategy for a Changing Environment and How to Anticipate Risks."

The talk was made by attorney Nicole Nehme, an expert in competition law and economic regulations.

## 2.3 CRIME PREVENTION MODEL

SDG 16

The Company's Crime Prevention Model addresses the risks, exposures and controls of the company in relation to the crimes of bribery, money laundering, financing of terrorism and reception, as provided by Law N° 20,393, which establishes criminal liability for legal persons.

## 2.4 ANTICORRUPTION MODEL

SDG 16

The Aguas Andinas Code of Ethics and its subsidiaries recognize integrity as one of the basic principles of corporate ethics, disapproving corruption in all its forms. Equity, integrity and impartiality should govern relations between employees and managers, as well as relationships with all other stakeholders, whether natural or physical, and whether from the public or private sector. In order to concretize these concepts and have a practical guide to guide employees in their daily activities, the Anti-Corruption Policy was created, which was approved by the Board in April 2016.

## 2.5 SPONSORSHIPS, DONATIONS AND ACADEMIC COLLABORATION

SDG 16

G4-41, G4-SO6

In June 2016, the Board of Aguas Andinas approved the policy of Sponsorships, Donations and Academic Collaboration, thus describing options for collaboration. The document, available on the corporate website, defines the concepts of sponsorship, donations, beneficence and academic collaboration, and establishes the goals and requirements to access these opportunities, in addition to defining conceptual and economic boundaries.

The policy was accompanied by concrete procedures to support it. In turn, a Donations Committee was created to monitor the correct implementation of the policy, which meets once a month and is made up of the General Manager, Corporate Managers and the Compliance Officer.

Aguas Andinas does not make contributions to political parties and, as established by the sponsorships, donations and academic collaboration policy, any contribution must be approved by the committee. Likewise, Aguas Andinas does not contribute to political parties.

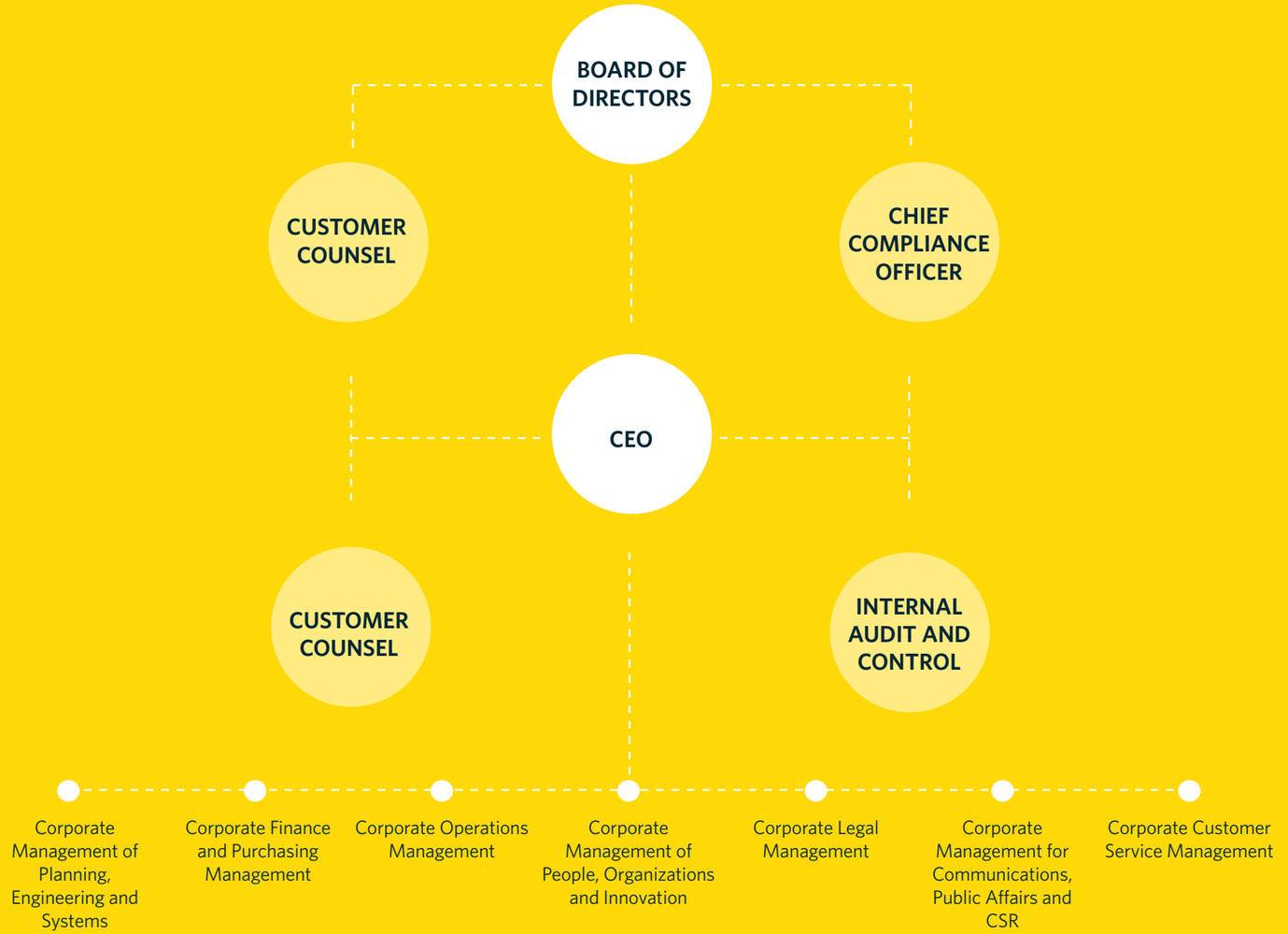
[5] Model implemented in Aguas Andinas S.A., Aguas Cordillera S.A., Aguas Manquehue S.A., EcoRiles S.A., Gestión y Servicios S.A. and Análisis Ambientales S.A. (ANAM).

# 3. ORGANIZATIONAL STRATEGY

**G4-35, G4-36, G4-37, G4-42, G4-EC6**

In addition to establishing strategic guidelines and supervising the company's management, the Board defines the structure of responsibilities of each corporate management, delegating administration and management functions of the main economic, social and environmental aspects to managers and executives.

## 3.1 ORGANIZATION CHART



## 3.2 ADMINISTRATIVE COMMITTEE (CODIR)

The committee, CODIR, is composed of the CEO and the seven corporate managers of Aguas Andinas. It meets weekly in order to understand, analyze and discuss the execution and implementation of the main activities and operations that are part of the company's daily administration. Four of the main executives are Chilean and four come from abroad.

CODIR's work is complemented by other committees composed of managers and sub-managers, according to their area of responsibility: Regulatory Committee, Investment Committee, Donations and Sponsorship Committee and Communications Committee.

The total compensation of the managers is determined according to average market levels, by size of company and specialization of the industry. It consists of a fixed portion and a variable compensation component, according to the company's earnings and the individual and collective goals set for the year.

Aguas Andinas publishes in its annual report the aggregate income of its senior executives, as well as the composition, structure of named benefits and average income of its executives. The company does not have compensation plans or special benefits directed at its executives, other than the aforementioned variable bond.

In 2016 variable compensation, which contemplates social, environmental and economic objectives, represented 17.4% of fixed compensation.

## 3.3 STRATEGIC PLANNING

**SDG 8**

**G4-24, G4-50, G4-51, G4-52, G4-53**

As mentioned in the first pages of this Report, Aguas Andinas' new strategic plan, called "Santiago Deserves a 7," is the result of an introspection process carried out by the company during the first quarter of 2016. The proposal developed by the corporate managers, in which the 7 strategic pillars were first formulated, was presented to the Board in July 2016. In order to transform these pillars into reality, a new way of working was required that would motivate the passion and commitment of employees.

Thus, in May, seven working groups were defined, composed of people from different areas, each composed of a sponsor, a leader and a community manager. The teams aim to identify new project opportunities in resilience, circular economy, innovation and people, digitization, water and quality of life, and business model and present them to the management committee for approval. Also, the teams use the Knowledge Management platform, Gecon, previously implemented in the organization, to submit ideas for discussion and to house relevant information.

Based on these strategic priorities, at the end of 2016 work began on the design and implementation of a new corporate scorecard, which, in addition to being structured using these 7 pillars, contains specific performance targets to be met. This scorecard will be the main driver of the variable compensation and performance evaluation models of the organization's employees. In addition, these indicators make up the key performance indicators to be submitted monthly to the Board of Directors.

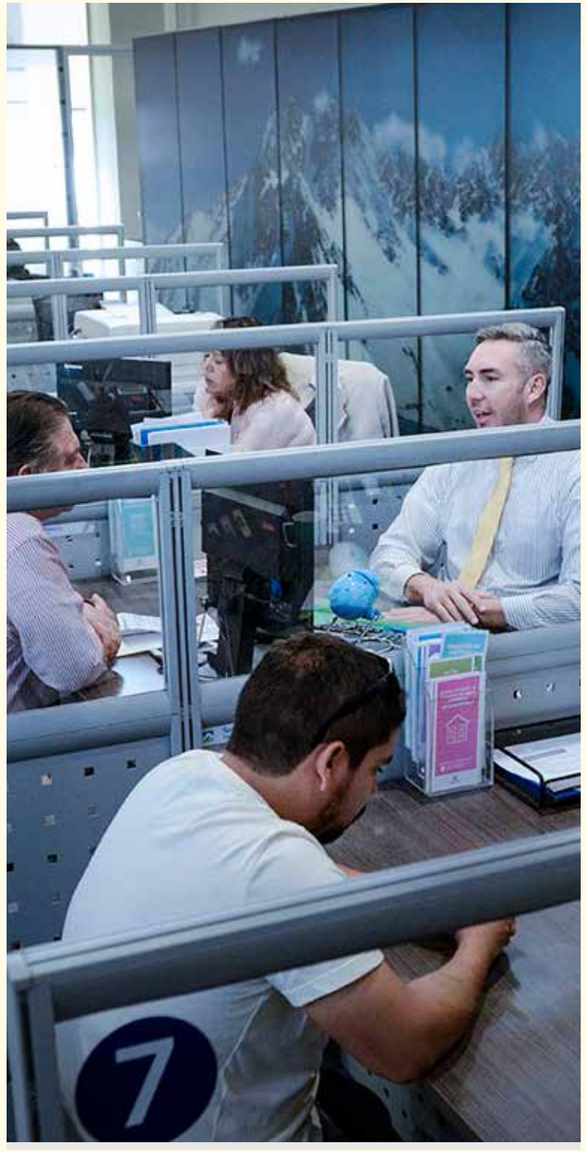
***In order to identify new project opportunities on matters of resilience, circular economy, innovation and people, digitization, water and quality of life, and the business model, seven working groups were defined, integrated by people from different areas.***

## 3.4 SUSTAINABILITY STRATEGY

In 2016 there was a convergence between the sustainability strategy and the corporate strategy, "Santiago deserves a 7". However, given that the company's mission is to be a leader in sustainability, a number of significant improvements were introduced that account for progress in this area. A detailed description of the progress can be found in the corresponding chapters.

| FOCO | LÍNEA DE ACCIÓN | PRINCIPALES AVANCES 2016 |
|---|---|---|
| **Promotion of an ethical and transparent culture** | Updating the ethical management system | - Consolidation of the ethical management system<br>- Ethical dilemma workshops<br>- Creation of the Compliance Sub-Management |
| | Reporting / Transparency on Sustainability issues | - Reporting advances on Sustainability to the board of directors<br>- Water School |
| | Conflicts of Interest Management Manual (relations with related companies) | - Anti-Corruption Model<br>- Policy of Sponsorships, Donations and Academic Collaboration |
| **Protection, development and commitment of our skills** | Deepening the Career Development Model<br>Training and Performance Evaluation | - Training of 15 professionals for a Master's in Water<br>- Training in sustainable development and circular economy<br>- Lean and Six Sigma Training<br>- Coaching<br>- Development of the roles of consultants and deputy managers in human resources development |
| | Design of a diversity policy for the organization (including the Board of Directors) and practices that support it | - Certification in NCh 3262<br>- Equality and Reconciliation Policy<br>- Equality and Reconciliation Committee<br>- Launching of an incentive for inclusion |
| | Measuring and Strengthening Organizational Climatel | - Implementation of the Great Place to Work survey |
| | Risk Assessment in Human Rights | - Training in Human Rights for employees at the Water School<br>- Training in Human Rights for suppliers<br>- Human Rights Clauses in Supplier Policy and Ten Commandments |
| | Health and safety management policy and system<br>Transversal (all business units) | --- |

| | | |
|---|---|---|
| **Maintaining fair and responsible relationships with our suppliers and contractors** | Review of supplier selection and evaluation policy incorporating the vision of sustainability risks | - Supplier Policy<br>- Supplier Ten Commandments<br>- New supplier evaluation model |
| | Categorization of critical suppliers according to risk exposure | - New categorization of suppliers<br>- Identification of critical suppliers |
| | Elaboration of Development Plans (collaboration initiatives) with critical suppliers according to sustainability risk | - Active Listening Program |
| | Deepening the monitoring model of critical suppliers (audits and corrective plan) | - Development of a new supplier evaluation model to be implemented in 2017 |
| | Designing a Contractor Loyalty Program (fair trade relationship, training) | --- |
| | Health and Safety Promotion in Contractors | - Training for contractors |
| **Efficient and environmentally friendly operations** | Design and implementation of a climate change strategy | - Drought and climate change plan<br>- Prediction model for precipitation-turbidity<br>- Geological analysis study of soil and contribution to turbidity phenomena<br>- Early warning network study for high turbidity events<br>- Security works |
| | Eco-efficiency plan: Hydraulic efficiency and leakage control | - Master Plan for Hydraulic Efficiency |
| | Eco-efficiency Plan: Energy Efficiency Measures | - Electric vehicles<br>- Energy Efficiency Plan |
| | Plan for the development of alternative energy sources (ERNC) | --- |



| | | |
|---|---|---|
| | R&D Plan: Study of water sources | - Drought and climate change plan<br>- Glacial contribution in Maipo river watershed<br>- CNID Agreement |
| | Policy and Biodiversity Plan: Focus on Watershed Conservation | --- |
| | Emissions Reduction Plan | --- |
| | Waste Reduction Plan | - Disposal agreements for biosolids |
| **Development of our neighboring communities to Operational facilities** | Community relations policy and program with neighbors throughout the cycle | - Restructuring of the relationship-building plan with communities surrounding our large plants<br>- Policy of Competitive Funds |
| | Evaluation of the permanent and transversal social impact | - Social Legitimacy Survey |
| | Implementation of plans for local development | - Competitive funds<br>- Implementation of the Advanced Program<br>- Rural Potable Water Management (APR)<br>- Courses of Professional Plumbers |
| **Quality, service availability and customer satisfaction** | Customer awareness campaigns on water efficiency | - Responsible Use Campaign - (#Usewhatyouneed)<br>- Gotagotham (Gotham Drop)<br>- Plant Visits |
| | Campaigns to raise awareness among waste disposal customers | - Gotagotham<br>- Visits to Plants |
| | Specific solutions for vulnerable customers | - Implementation of the program “Aguas Andinas gives you a hand” |
| | Deepening of the WEB strategy (platform for payment, ticket, information and attention) | - New sales outlets (external)<br>- Virtual office<br>- Biometric registration in self-consultations.<br>- Self-consultation in your neighborhood |
| | Management of complaints and continuous satisfaction | - Creation of the Customer Counsel |
| | Program for detection and control of customer turnover | --- |

### 3.4.1 Interest Groups
### G4-24

Aguas Andinas' policy and sustainability strategy, as well as the map of the main interest groups, were approved by the Board.[6]

| TYPE OF GROUP | INTEREST GROUPS |
|---|---|
| **Capital Suppliers** | Majority shareholder (controlling shareholder) |
| | Minority shareholders |
| | Creditors and bondholders |
| **Authorities** | Communal: municipalities |
| | National: Legislators of the area, Agencies |
| | Regional: Intendancy, governance, ONEMI |
| **Regulatory bodies** | SISS |
| | Other regulatory services |
| **Association of Water Users** | Canal Association |
| | Surveillance Boards |
| | Water communities |
| **Consumer Association** | Asociación de Consumidores |
| | Environmental/Social Organizations |
| | Political Organizations (Political Parties and think tanks) |
| **Customers** | Customers and industrial users |
| | Customers and home users - people |
| **Neighboring Communities** | Communities close to the WWTP |
| | Communities of neighboring production installations |
| | Neighboring companies in zone of influence |
| **Suppliers / Contractors** | Critical providers |
| | Non-Critical Providers |
| | Related Companies |
| | Construction & Real Estate |
| **Employees** | Unionized and non-unionized employees |

[6] The sustainability policy is published on the Aguas Andinas website: https://www.aguasandinas.cl/la-empresa/desarrollo-sustentable/politica-de-sustentabilidad

### 3.4.2 Awareness in Sustainable Development G4-HR2

In order to understand what it means to "Be the leader of sustainability in Chile, ensuring water for future generations" and transform the ideas included in "Santiago Deserves a 7" into concrete and transversal projects and actions, a training session was held to sensibilize employees on these matters.

A specific Sustainable Development training plan was designed, which during 5 sessions held in 2016 had a participation of 92 workers. The workshop "Sustainable Development: Strategy Beyond Economic Factors" was addressed to Managers, Deputy Managers, Senior Executives and Engineers to make real contributions to the process of injecting sustainability in the company. The presentations focused on topics such as context and expectations about sustainable development, the role of the company, human rights, water management and sustainability reports. In addition, the experiences of SUEZ Water Spain and Aguas Andinas were analyzed in depth.

In 2017 the program will be replicated in order to cover all Aguas Andinas professionals.

***In 2017 the program will be replicated in order to cover all Aguas Andinas professionals.***

# 4. ORGANIZATIONAL AND CULTURAL TRANSFORMATION

**G4-13**

With the goal of moving towards a more efficient and functional structure to address challenges, in 2015 the company began an Organizational and Cultural Transformation process focused on the search for efficiencies through the modernization of processes; the reorganization of key areas for the clients' experience; and the introduction of new forms of work –more linked to a matrix organization. This process continued in 2016 under the supervision of the Transformation Committee, made up of a multidisciplinary team, under the responsibility of the Transformation Deputy Management within the Corporate Management for People, Organization and Innovation.



| Transformation area | Implications / benefits |
|---|---|
| **Clientes: Fase II**<br>In 2015, Phase II began to transform corporate customer service management, a process that continued in 2016. It aimed to strengthen the commercial focus of the process of adding customers, with an emphasis on the link and proximity to the clients/users. | Success with centralizing the process of incorporating new customers and standardizing the criteria for processing feasibility and acceptance of projects.<br>In addition it redesigned the relationship between urbanizing groups and the business of public works, connections and certifications. |
| **Customers: Phase III**<br>Continuing the Transformation of the Corporate Customer Service Management in 2016, Phase III was carried out, which established a new territorial customer care model. | It seeks to increase customer satisfaction, through the efficient care and programming of activities within each territory. In addition it looks to increase operational coverage and achieve better acceptance within the communities, so as to develop long-term relationships of trust.<br><br>This new territorial order allows a faster and more efficient way for attending to more than 170,000 annual work orders. |
| **Human Resources**<br>The Sub-Management of Human Resources Development was created, which will focus on Integrated Skills Management. The Head of Services and Administration of Persons will be responsible for efficient carrying out all human resources processes, allowing the fulfillment of the promised levels of service, putting the focus on care given to employees.<br><br>The new model also incorporates the figure of the Consultant on human resources development, who is responsible for interacting with the different management divisions.<br><br>Additionally, improvements were made at the system and process levels to support the structural changes. | From the outset this model allows for designating an exclusive team to develop skills within the company, differentiating it from the team that develops the operational processes. In addition, the model seeks to be closer to management, so as to identify its needs and channel them early on. Finally, the changes involve the digitization of more transactional processes and ultimately, providing better service to the employee. |
| **Debts payable**<br>Opportunities were identified for the optimization of payment processes to suppliers and technological tools were incorporated that grant greater traceability and efficiency to the process. | These initiatives make it possible to leverage efficiency and automation, allowing a drop in the number of payment dates to our suppliers and thus ensuring relationships of long-term trust and reducing the risk of loss of VAT due to late accounting of bills. |
| **Engineering**<br>Engineering management was subdivided into two sub-departments: design and construction | In this way, they can tackle in a coordinated and efficient way the challenges in the Investment Plans and the works demanded by third parties. |
| **Network Management Model**<br>In order to comply with the Hydraulic Efficiency Plan and move from a hydraulic performance level of 70% to 80%, it is necessary to implement a series of Operational Plans, which directly impact the activity of the Network Management and the Sub-Management Divisions for Operations of Zonal Operations | The company seeks to organize itself to carry out all operations in the field and in its operational control center to achieve the ambitious goal of moving from 71 to 80% of performance of the network. |

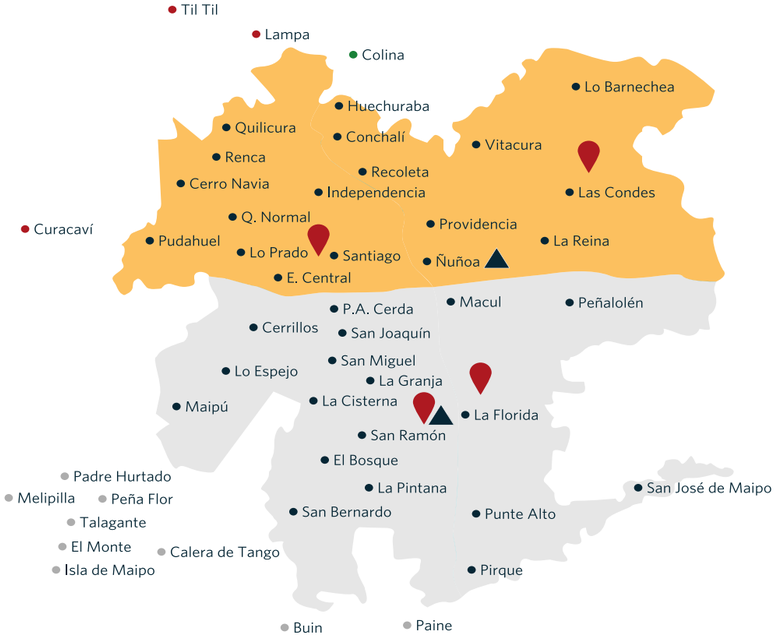
# NEW TERRITORIAL MODEL OF CUSTOMER ATTENTION

## Current model

- Zona Mapocho
- Zona Antilco
- Zona Cordillera Mapue
- Zona Maipo
- Centros
- Gerencia Territorial y Subgerencia Comercial


## 2017 Model

- Zona Norte
- Zona Sur
- Centros
- Gerencia Territorial y Subgerencia Comercial




Looking forward, the company's Transformation program will not stop. During the first half of 2017, the IT Transformation Project will be carried out, more oriented toward a service delivery model, clearly identifying the client's needs and establishing a sourcing strategy within the management.

The structural and process changes introduced in 2016 were accompanied by a process of cultural transformation and transformation of the physical spaces into modern spaces conducive to collaborative work

## 4.1 TEN COMMANDMENTS FOR BEST LABOR PRACTICES

**SDG 8**

In 2016 the Ten Commandments of Best Work Practices was launched, based on the corporate principles and the results obtained in the ISTAS 21 survey from 2015.

Its objective is to promote best practices that contribute to a good working environment, where people are respected and work and family life is reconciled, making efficient use of time within the working day. The 10 behaviors included in the Ten Commandments are directly related to corporate values, and seek to become the guideline of daily action for all workers. First, it was distributed through the delivery of a printed version to each employee. In order to achieve the integration and implementation of these desired behaviors in all employees, a communication campaign was planned that will include videos, dynamics and multiple sensitization activities.

**The 10 best practices are:**

*1. Act according to the basic rules of courtesy: greet, say goodbye and thank.*
*2. Let us act with honesty, coherence and transparency*
*3. Listen and help our peers*
*4. Let us encourage a direct and respectful language*
*5. Be innovative and look for improvements*
*6. Let us recognize the job well done*
*7. Encourage a culture without discrimination by valuing diversity*
*8. Be respectful of each other's time and space*
*9. Respect the start and end times of meetings*
*10. Make good use of e-mail, sending it to a single recipient and within working hours*

## 4.2 TRANSFORMATION OF PHYSICAL SPACES FÍSICOS

The changes implemented in the organization's facilities had two common purposes: To design employee-centered environments, with the intention of improving their quality of life in the office and accompanying projects for improving efficiency and teamwork, with spaces designed specifically for it, without walls and with more opportunity to interact.

The redesigned spaces are more colorful, with more lighting and more flexible furniture, being open, collaborative, catchy and enjoyable spaces. In this environment tangible benefits are expected to be achieved for employee communications, promoting creativity, and improving efficiency. The renovations carried out in 2016 were accompanied by changes in the habitability systems of each floor; self-sustaining systems of climate, injection and lighting systems that consume less energy.

***Aguas Andinas works to promote best work practices that contribute to a good working environment, where people are respected and work and family life is reconciled.***

# 5. CERTIFICATIONS

On a voluntary basis, the company submits its most critical processes to evaluation following precise standards imposed by external certifications. The certifications obtained by Aguas Andinas are:

| Standard | Scope of certification |
|---|---|
| **ISO 9OO1**<br>System of<br>Quality Management | **Processes:**<br>• Production of surface and underground potable water.<br>• Wastewater treatment and management of biosolids.<br>• Attention to customers and users.<br>• Invoicing, recovery and collections.<br>• Incorporation of new services.<br>• Transportation of potable water.<br>• Collection of wastewater.<br>• Maintenance of production facilities.<br>• Maintenance of sewage collectors.<br>• Integrated AP network management. |
| **IISO 14001**<br>System of<br>Environmental management | **Enclosures:**<br>• Surface and Underground Potable Water Production Plants<br>• Wastewater Treatment Plant and Management of Biosolids |
| **OHSAS 18001**<br>Occupational Safety and Health | **All activities carried out in the facilities of:**<br>• Aguas Andinas, Aguas Cordillera and Agua Manquehue. |
| **ISO 22301**<br>Business continuity | **Enclosure:**<br>• La Florida Potable Water Production Plant |
| **ISO 50001**<br>Energy efficiency | **Enclosures:**<br>El Trebal Depuration Plant<br>La Farfana Depuration Plant (May 2016) |
| **NCH 3262**<br>Gender Equality and Reconciliation | **Enclosures:**<br>• Corporate building. |

In December, the transition process began for the certification of ISO 9001 and ISO 14001 under the new 2015 version. This brings with it relevant changes within the organization, as it requires a greater participation in Management systems from the entire organization, especially senior management, and puts more emphasis on identifying risks of the process and the incorporation of the interest groups, among others. These first steps will be crucial in preparing the certification of these systems in 2018. Likewise, with respect to the ISO 22301 Business Continuity standard, the scope will be expanded, incorporating the Las Vizcachas potable water production plant and the Contact Center.

***In 2017 the first integrated audit of all the systems under ISO 9001, ISO 14,001, OHSAS 18,001, ISO 22,301 and ISO 50001 will be carried out, to have a more efficient process and generate less impact within the organization, helping us to improve the integration of Management Systems.***

For its part, ESSAL is certified under standards ISO 9,001, ISO 14,001 and OHSAS 18,001. In 2016 the management system was recertified and the following enclosures were incorporated:

**Nevada PWTP**
(Los Lagos)

**San Pablo PWTP**
(San Pablo)

**Oromo PWTP**
(Puranque)

**San José PWTP**
(Calbuco)

**Pudeto PWTP**
(Ancud)

**Corvi PWTP**
(Castro)

# 6. FINANCIAL ECONOMIC PERFORMANCE

## 6.1 MAIN ECONOMIC FIGURES 2016

SDG 8

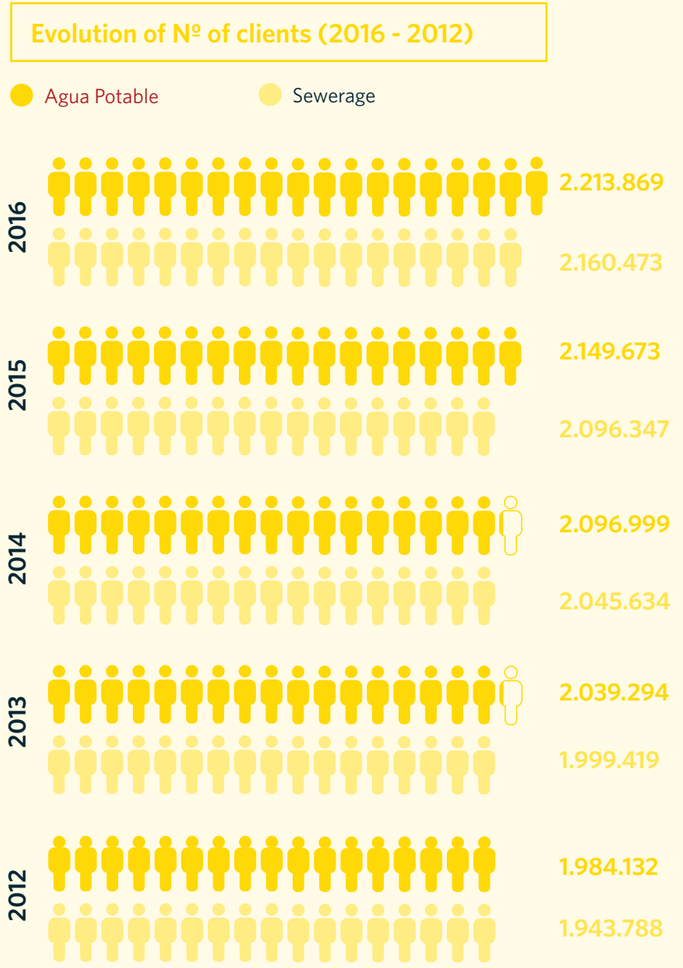
G4-8, G4-9

| Main figures as of December 31 | 2015 | 2016 |
|---|---|---|
| Total potable water customers | 2,149,673 | 2,213,869 |
| Total wastewater collection customers | 2,096,347 | 2,160,473 |
| Total water billed (millions of cubic meters) | 562.2 | 569.2 |
| Collected sewage billed (millions of cubic meters) | 542.9 | 549.6 |
| Wastewater treatment and disposal billed (millions of cubic meters) | 473.3 | 480.2 |
| Sewerage interconnection billed (millions of cubic meters) | 121.8 | 122.2 |

| Clients by Sanitation Company | Potable Water Customers | Sewerage Customers |
|---|---|---|
| Aguas Andinas | 1,821,908 | 1,782,710 |
| Aguas Cordillera | 158,260 | 155,619 |
| Aguas Manquehue | 13,649 | 13,228 |
| Essal | 220,052 | 208,916 |

*In 2016, due to the growth of the city of Santiago and its progressive housing development, a record 64,196 new customers were gained for potable water services, which represents a 3.0% increase compared to 2015.*

*Likewise, customers with sewage service amounted to 64,126, equivalent to 3.1% more in relation to the previous year.*



## 6.2 ECONOMIC PERFORMANCE - FINANCIAL

**G4-EC-1**

As a result of the seriousness and soundness of the company's economic and financial management policies, the economic value generated by the Aguas Group during 2016 increased by 8% over the previous year.



**Economic value generated and distributed by Aguas Andinas**

| INTEREST GROUPS | 2016 | 2015 |
|---|---|---|
| **Economic Value Created (M$)** | **513,074.466** | **479,936,593** |
| 1. Income from ordinary activities | 492,002,980 | 473,396,705 |
| 2. Other Income | 14,597,521 | (42,658) |
| 3. Financial Income | 6,473,964 | 6,582,547 |
| **Distributed Economic Value** | **424,107,884** | **398,026,782** |
| 1. Operating costs | 146,867,695 | 140,045,676 |
| 1.1 Consumption of raw materials and secondary materials | 33,442,759 | 37,353,766 |
| 1.2 Other expenses by nature | 113,424,936 | 102,691,909 |
| 2. Salaries and social benefits for employees | 53,621,906 | 50,688,949 |
| 3. Payment to Capital Providers | 181,921,326 | 179,186,006 |
| 3.1 Financial Costs | 27,117,541 | 27,905,133 |
| 3.2 Payment of Dividends | 134,644,071 | 124,757,206 |
| 3.3 Earnings by adjustment units | 20,159,713 | 26,523,667 |
| 4. Payments to Governments | 40,057,657 | 26,174,522 |
| 5. Investments in the community[7] (donations) | 1,639,582 | 1,931,629 |
| **Economic value withheld** | **88,966,582** | **81,909,811** |

[7] The difference from 2015 in this item includes expenses and investments associated with community relations, awareness and donations

# 7. SUPPLIERS

**G4-12, G4-EC9**

The trust relationship between Aguas Andinas and its suppliers is based on a chain of commitments, in which suppliers and contractors are key players. This is why, in 2016, the management and relationship model with suppliers and contractors continued, strengthening the implementation of a series of projects.

## 7.1 PROJECT OF PURCHASING TRANSFORMATION

The process started in 2015 with the restructuring of the Purchasing Department and the incorporation of the new profiles to the organization, followed by a series of additional measures to strengthen the supply management. These included the development of a 2016-2017 Procurement Plan, the development of a Strategic Procurement Scorecard and the consolidation of 83% (before only 41%) of the organization's purchases in SAPMM. With this strategic change in purchase management, more than Ch $ 1,000,000 has been captured in savings for strategic purchases.

## 7.2 NEW SUPPLIER POLICY AND TEN COMMANDMENTS

**SDG 9**

**G4-SO9, G4-SO10, G4-HR1, G4-HR4, G4-HR5 y G4-HR6**

In order to promote fair and responsible relations with its suppliers, who are key stakeholders for the provision of sanitation services, the Management Committee of Aguas Andinas approved a new Responsible Relations Policy with Suppliers. It includes commitments that the organization assumes with its suppliers, inviting them to comply with a series of sustainability standards or criteria related to human rights, the health and safety of employees, respect for the environment and ethical behavior, particularly with corporate ethics.

In addition, this guideline establishes the criteria that will regulate the purchasing processes of the Aguas Group in order to maintain a fair, long-term and mutually beneficial business relationship with suppliers and contractors, guaranteeing transparency and high quality standards in the delivery and bidding of goSDG and services.

At the same time, a Supplier Ten Commandments was designed whose purpose is to establish the expected behaviors of suppliers and contractors working with the Group. In this document, upon signing each contract, the suppliers declare to know and commit to:

1. Compliance with the commitments assumed in the contracts as well as actions that unconditionally adhere to the legislation in force.
2. Knowledge and adoption of Aguas Group's corporate standards as indicated in the Responsible Supplier Relations Policy and its implementation in the company's processes, policies, regulations, systems and procedures.
3. Application and implementation of working conditions, based on the respect and protection of Human Rights.
4. Maintenance and safeguarding of the conditions of safety and occupational health of every employee.
5. Ensure good treatment of clients and employees of the Aguas Group.
6. Care and protection for the environment.
7. Ethical behavior.
8. Respect and fair dealings with the communities surrounding the facilities of the Aguas Group.
9. Delivery of timely and reliable information to the Aguas Group.
10. Support of the image and reputation of the companies forming the Aguas Group.

Both documents are complementary to the requirements previously required of any supplier organization of the "Special Regulations on Environment, Safety and Health at Work for Contractors and Subcontractors of the Aguas Group and Related Companies," "Documented Requirements for the Special Regulation on the Environment, Safety and Health at Work" and the "Aguas Group Code of Ethics."

## 7.3 ACTIVE LISTENING TO SUPPLIERS

**SDG 9**

In order to be able to design a new model of relationship with suppliers that is efficient and that achieves its tasks, it was necessary to adopt an innovative joint company-supplier construction approach. To this end, an active listening program was designed, which, through more than 65 personal meetings with current and potential suppliers, indicated the medium and long-term needs of the company in terms of supply, while receiving the concerns and opportunities for improvement from the perception of these stakeholders.

## 7.4 NEW REGISTRY MODEL FOR ACCREDITED SUPPLIERS

In November 2016, it was decided to outsource and automate the registry of contractors and consultants of Aguas Andinas with Achilles, under the REPRO system. This initiative will present great advantages to the company and suppliers. For the company, the information will be centralized in a repository, and will be usable to execute the purchasing processes more efficiently. For suppliers, it will allow them not only to sign agreements with Aguas Andinas, but also offer their services to other users of the platform. At the end of the year a total of 175 suppliers were registered on the platform. At the same time, a thorough review was carried out at the internal level concerning the administrative bases of the tenders to analyze the conditions required of bidders with the aim of improving economic offers and increasing the number of participants.

## 7.5 NEW CATEGORIZATION OF SUPPLIERS

**G4-LA14 y G4-HR10**

In 2016, corporate purchasing management created a new classification where suppliers are located according to the following criteria: frequency of purchase, origin, criticality for the business, the type of purchases, the type of accreditation required to operate with the company and the size of the company. This work will allow the development of specific relationship strategies, customized communication plans for each category, and specific control procedures to mitigate the risks associated with the supply chain. In 2016, 99% of purchases of products and services were made from local suppliers. At the end of the year, Aguas Andinas had the support of 130 contracting companies.[8]

***In 2016, 99% of purchases of products and services were made from local suppliers.***

[8] This information does not include ESSAL

## 7.6 DEVELOPMENT OF A NEW EVALUATION OF SUPPLIERS.

**SDG 9**

**G4-LA14, G4-HR10**

To ensure the selected supplier complies with the requirements agreed upon in the contracts, and once the service or delivery of the product has commenced, the company conducts annual evaluations, delivering a work plan to the suppliers in case of deviations. This process is framed within the certification and recertification that are annually made to the Integrated Management Systems ISO 9,001, 14,001 and OHSAS 18,001. Seventeen suppliers were evaluated in 2016 in the area of recertification of the standard. From this evaluation, no actual or potential significant negative impacts were detected, so no corrective action was necessary in this regard.

In 2016, a new model was developed to evaluate suppliers in a comprehensive way, planning to implement the model starting in 2017. This new process will include a review of the suppliers with greater depth on topics such as quality of service, communication, image, materials, personnel, risk prevention, business continuity, deadlines, labor and administrative compliance and also in aspects of environmental management

**G4-HR2**

The Annual Meeting with contractors carried out by Aguas Andinas for the last 2 years, attended by 55 contractors, was an opportunity to present the new evaluation model and dialogue and raise awareness among the main contractors on topics such as risk prevention, suppliers, sustainability and legal framework.

## 7.7 REDEFINING THE SUPPLY PROCESS FOR CRITICAL PRODUCTS/SERVICES

**SDG 9**

To mitigate the risk of business continuity failures due to supply chain reasons, a new procedure was established to define the allocation and monitoring of critical suppliers.

First, it was established that once a year the main services of each area will be reviewed and the risk matrix will be applied, where the main outsourced services are classified according to the area of impact in the processes and the type of risk involved: operational, financial, commercial, environmental or information security. Those services evaluated with a higher rating are defined as **" Critical Outsourced Services"** and therefore, the providers that provide these services make up the list of **"Critical Suppliers of the Aguas Group."**

The procedure establishes that critical outsourced service providers will be evaluated on a semi-annual basis by the company's contract managers, according to the current Supplier Evaluation procedure within the Aguas Group. In addition, these suppliers will be monitored in an integral manner.

## 7.8 STRATEGIC BIDDING

Due to its operational or economic relevance, for large-scale bids Aguas Andinas developed a plan for recruiting or scouting suppliers. The plan consisted of a proactive search for companies providing the service to be tendered, the call to participate in explanatory meetings and answer doubts. This process, implemented in 3 strategic tenders (Specialties, Network Materials and the CCO Operational Control Center), allowed the company to get even closer to current or potential suppliers and ensure the presentation of more and better service proposals.

# 8. REGULATORY FRAMEWORK

In Chile the sanitation sector is developed under a single regulatory framework headed by the **General Law of Sanitation Services** (DFL 382-88) and its **regulation** (DS 1199-04). Providers of sanitation services are overseen by the Superintendency of Sanitation Services (SISS).

***The SISS is the entity in charge of monitoring the performance of the company and acts as a regulatory counterpart in the tariff setting process. The tariffs are updated every five years, in a process involving the concessionaire company together with the regulator. Tariffs are adjusted using an objective and technical model that considers: the total long-term cost of a model company; an annual minimum return on assets of 7% after tax; and allowable adjustments between updates linked to polynomials indexed to the IPC and IPP.***

Currently, four legislative bills of great impact for the development of businesses and the provision of sanitation services in the country are in progress.

- **Water Code:** The proposed amendment to the pending Water Code seeks to modify the legal regime on the use of water, changing perpetual rights into temporary concessions, limited to a maximum of 30 years. Likewise, it establishes that the exploitation rights will have an expiration term in case of non use of the resource. The bill also seeks to prioritize the uses of water for subsistence and ecosystem preservation over productive uses.
- **SERNAC:** The bill to amend the SERNAC Law aims to strengthen the National Consumer Service, giving them powers to supervise, administer fines in administrative procedures, issue general instructions, regulate collective mediation and even interpret the law. In addition, under the bill fines are significantly increased for breaches of the Consumer Protection Law and greater powers are given to consumer associations.
- **Rural Sanitation Services (RSS):** This bill, which became the law of the Republic in February 2017, empowers a committee or a cooperative authorized by the MOP to operate the RSS. (Production and distribution of potable water and collection, treatment and final disposal of sewage).
- **Legislative Bill:** Changes to sanitation legislation: One of the changes introduced by the bill approved in December by the House of Deputies relates to a notable reduction of the rate of return of capital used in the current tariff-setting process. In addition, it modifies the criteria with which non-regulated services are treated in the calculation of tariffs. It also modifies, in favor of the regulatory body, the composition of the Committee of Experts that must resolve discrepancies between the companies and the regulator in the tariff process. On the other hand, the initiative requires companies to fully incorporate any urban territory adjacent to the current operational territories, in the case of existing social housing or housing programs incorporated into the social plans of the Government. Furthermore, the project grants the SISS the power to unilaterally modify, in a discretionary way, the development plans of the companies, leaving them exposed to being forced to make investments without financing. Finally, it prevents collections, imposes compensation to users and raises fines to the provider up to a maximum of 10,000 UTAs.

As soon as the legal initiative became known, the financial markets reacted strongly and the Aguas Andinas stock index (AGUAS A) recorded a drastic drop of 15%. Likewise, the company has manifested itself by its concern over not only the manner in which it was legislated, but also its substance, since the proposed changes will make long-term financing of investments impossible. Eventually the government of Chile it had to withdraw support, clarifying that the initiative did not have the government's support, which is indispensable for changes to the sanitation law. Afterwards, the Minister of Finance came out to give a clear signal to the market that the proposed changes are not supported by the Government. Finally, the discussion will resume in March 2017.

# 9. FINES AND PENALTIES

**G4-LA16, G4-EN29, G4-SO8, G4-S011,G4-PR2, G4-PR4, G4-PR7, G4-PR8, G4-PR9**

During the year 2016, the SISS sanctioned Aguas Andinas 6 times for a total of 2,092 UTA.

The increase in the fines paid by the company during 2016 was determined by the imposition of two punctual sanctions. The first one refers to the absence of a contract bidding process and the failure to provide timely information to the SISS. The second relates to the massive cut of drinking water because of the turbidity event of the month of April. Both situations respond to specific events and due to the amount of sanctions issued by the authority, have been appealed judicially.

There are also three additional sanctions underway for the alleged non-compliance with the instructions on the delivery of feasibility certificates. These fines have also been claimed in court.

Due to non-compliance with the schedule of works of the Development Plan, the regulator fined Aguas Andinas for 102 UTA, a sanction not appealed judicially.

Additionally, the Local Police Court of the Municipality of Bosque fined the company 250 UTM, for the flooding with wastewater on Ochagavía street.

For its part, ESSAL paid a total of $ 182,856,032 for fines, the most significant being those related to violations imposed by the SISS for deficiencies in the quality of wastewater treatment and disposal service and deficiencies in the continuity of potable water distribution service.

***The total amount of fines paid in 2016 by Aguas Andinas amounted to $ 1,172,090,066.***

## 9.1 AGREEMENT FOR COLLECTIVE DEMAND WITH CONADECUS

In 2016 the process of collective action filed by the National Corporation of Consumers and Users - CONADECUS - was concluded, through a settlement agreement. The demand corresponded to Aguas Andinas' response to turbine supply cut-off events in the Maipo River in January and February of 2013.

## 9.2 MEDIATION WITH SERNAC

In October 2016, Aguas Andinas agreed to participate in a voluntary mediation process with the National Consumer Service (SERNAC) in order to jointly address the reasons that led to the massive cut-off of drinking water supply on April 16, 17 and 18, 2016. In the process, the possible involvement of users outside the scope of force majeure is being evaluated. The voluntary mediation process is pending.

# WATER AND QUALITY OF LIFE

**Focus:** Water Benefits

**Objective:** "We want to spread the contribution of water, for the benefit of people, their health and their well-being, building a favorable environment".

# 1. WATER CYCLE

**G4-14**

Aguas Andinas' management of the integral water cycle includes the processes of capturing natural resources, production of drinking water, distribution of the water, and then collection and treatment of wastewater, ending with the restitution of the resource to the environment. Below is a description of the process together with the main performance indicators.

## 01

**CAPTURE OF RAW WATER:**
Capturing water in its original state ENVIRONMENT: from surface and ground surfaces with minimal environmental impact.

## 02

**PRODUCTION OF POTABLE WATER:**
Produce potable water with quality and efficiency, leaving it fit for human consumption.

## 03

**DISTRIBUTION OF POTABLE WATER:**
Transporting drinking water with continuity in the service, to each home, trade or industry within the concessioner territory.

## 04

**WASTEWATER COLLECTION:**
Remove the wastewater through the sewer system with maximum safety and care for the environment.

## 05

**WASTEWATER TREATMENT:**
Decontaminate wastewater in facilities with advanced technologies, complying with the standards of Chilean legislation.

## 06

**RESTITUTION OF THE GOOD:**
Return the treated water into natural channels in optimal conditions for irrigation, contributing to the conservation of the environment and the quality of life of future generations.

## 1.1 CAPTURE

SDG 6

G4-EN8, G4-EN9

The production of potable water begins with the capture of the water resource, which comes from different sources. In the Metropolitan Region, 87% of the raw water captured by Aguas Andinas comes from surface sources, mainly from the Maipo and Mapocho rivers.

The remaining 13% is extracted from the natural aquifers that pass through the subsurface of the concession area. These underground sources are composed of 201 deep wells and drains that extract water from 3 aquifers.

**Raw water abstracted (million cubic meters/year)**

| | Aguas Andinas | | | | ESSAL | |
|---|---|---|---|---|---|---|
| **Source** | **2015** | **%** | **2016** | **%** | **2016** | **%** |
| Surface water | 685.1 | 85.9% | 681.8 | 87.0% | 24.51 | 35.5 |
| Groundwater | 112 | 14% | 101 | 12.9% | 39.99 | 64.5 |
| Municipal water supply or other water utilities | 0.5 | 0.1% | 0.6 | 0.1% | 0 | 0 |
| **TOTAL** | **797.6** | | **783.4** | | **64.5** | |

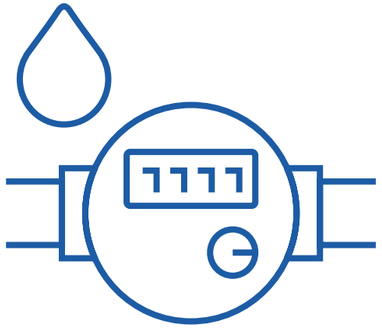
**Annual volume of capture from major sources (ESSAL not included)**

| Sources where water is captured | Annual volume of capture 2015 ($m^3$) | % of water captured from total flow (2015) | Annual volume of capture 2016 ($m^3$) | % of water captured from the total flow (2016) |
|---|---|---|---|---|
| Río Maipo | 582,201,262 | 26.43% | 537,616,589 | 15.73% |
| Mapocho River | 32,143,767 | 28.41% | 44,038,008 | 28.92% |
| Estero Arrayan | 6,004,160 | 23.38% | 9,629,617 | 25.61% |
| **TOTAL** | **620,349,189** | **-** | **591,284,214** | **-** |

## 1.2 PRODUCTION

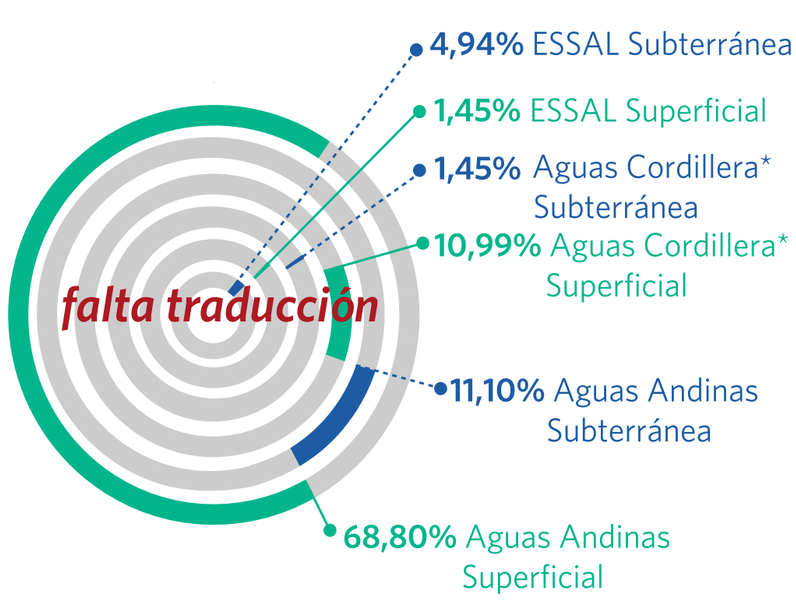
**SDG 3, SDG 6 y SDG 11**

Potable water is produced through two types of processes: physical processes, where branches, paper, gravel, sand, etc. are eliminated; and physicochemical processes, where water is clarified through coagulation and flocculation processes. In order to transform raw water into water suitable for human consumption, Aguas Andinas has the Las Vizcachas complex in Santiago, the La Florida potable water production plant and 12 smaller facilities such as Padre Hurtado, Lo Gallo, San Enrique and El Sendero. In addition, the company has three arsenic abatement plants and a nitrate abatement plant. In the case of ESSAL, the production of potable water is carried out in 28 Production Plants distributed between the Los Lagos and Los Ríos Regions.



### 2016 CONSOLIDATED POTABLE WATER PRODUCTION

Aguas Andinas and subsidiaries have an installed capacity for drinking water of 38.27 $m^3/s$ (including reserves). Meanwhile, total production in 2016 reached 809 million $m^3$.




- **4,94%** ESSAL Subterránea
- **1,45%** ESSAL Superficial
- **1,45%** Aguas Cordillera* Subterránea
- **10,99%** Aguas Cordillera* Superficial
- **11,10%** Aguas Andinas Subterránea
- **68,80%** Aguas Andinas Superficial

**Measurement at the exit of the plants:**
809
millions of cubic meters

**From surface water:**
667,5
millions of cubic meters

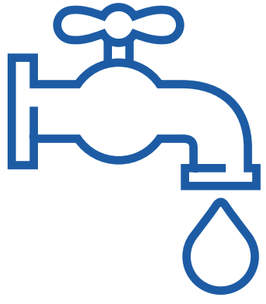
**From groundwater:**
141,5
millions of cubic meters

## 1.3 DISTRIBUTION

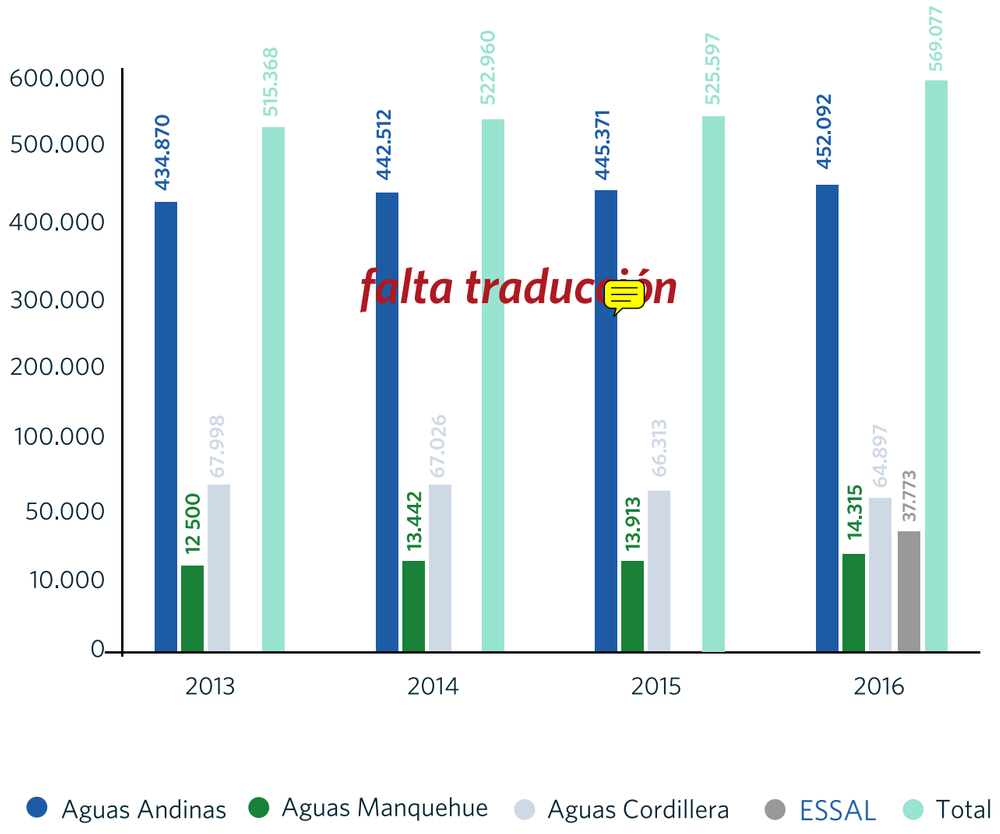
SDG 6

The potable water leaving the production plants passes through five large aqueducts to the 252 storage ponds, which have a capacity of 1,261.7 billion liters. From there, water is transported through 13,193 kilometers of underground pipes in the Metropolitan Region, which supply the homes or facilities of customers. The tanks are located strategically in different places of the Metropolitan Region and are filled each night, in the hours of less consumption. In this way, in the morning they are full, allowing to continuously deliver potable water to the entire population.

In the case of the Los Lagos and Los Rios Regions, the company has 127 storage tanks, with a total capacity of 67.935 billion liters. The length of the distribution network in these regions reaches 2,300 kilometers.



**Drinking water billed to customers (thousands of m³)**




**Number of annual breaks**

| Business | No. of annual breaks |
|---|---|
| Aguas Andinas | 2,108 |
| ESSAL | 782 |

The distribution phase is one of the critical points in the efficient management of water resources. For this reason, Aguas Andinas has implemented a model of integrated management of potable water networks that allowed it to drastically reduce the number of breaks produced in the network, reaching levels below 0.12 faults/km, an index much lower than the industry at the international level.

**Aguas Andinas installs drinking locations available to the city**

Defined as hydration points, the company designed new drinking locations that began operations as a pilot plan in the Metropolitan Park of Santiago. 21 models will be installed that will attract the attention of the passers-by, since they have three outlets of water: for drinking, for filling bottles and for the use of pets. This initiative is a contribution to the quality of life of the inhabitants of Santiago who use the park as a recreation space and for sports activities.

In the future, the possibility of an alliance will be explored to expand the scope of this initiative, and install these hydration points in plazas and public parks throughout the Region.

## 1.4 COLLECTION, DECONTAMINATION AND RESTITUTION

**SDG 3, SDG 6 y SDG 15**

Wastewater is delivered to Aguas Andinas' treatment plants through a collection network of 10,705 kilometers in the Metropolitan Region and 2,038 kilometers in the Los Lagos and Los Ríos Regions.

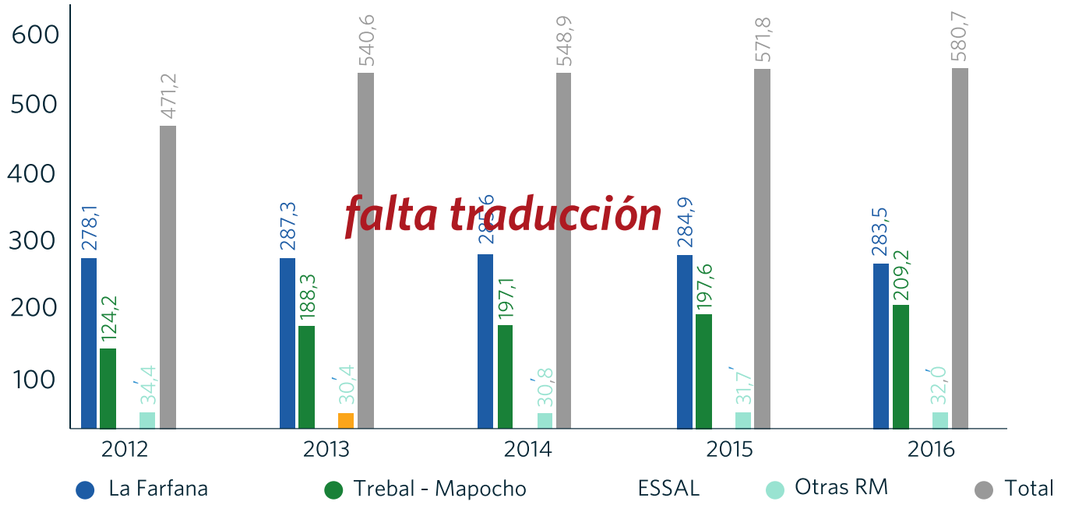
In the Metropolitan Region, Aguas Andinas has 14 treatment plants (El Trebal, La Farfana and Mapocho Plant), in addition to 10 smaller plants that operate 24/7 and have a treatment capacity of 16,494 cubic meters per second, decontaminating 100% of the region's wastewater.

Santiago is the first city in the region to achieve 100% decontamination of the wastewater generated in the watershed. This was one of the company's most challenging and successful projects.

For its part, ESSAL has 27 sanitation facilities with a total purification capacity of 55 million cubic meters.

The purified wastewater is restored to water courses, complying with current legislation and in optimal and safe conditions, both for the environment and for people. In 2016 more than 536.3 million cubic meters of decontaminated and safe water were reintegrated into the natural water system, completing the integral water cycle.

**Refined water (millions of m³)**



# 2. WATER QUALITY COMPLIANCE

SDG 6

**G4-PR1**

The Superintendency of Health Services (SISS) is responsible for monitoring compliance with current regulations regarding the quality of drinking water[9] by sanitation service companies. In Aguas Andinas, more demanding indicators and targets were established than the current regulations, improving the processes to promote quality assurance with internal defaults approaching zero

In the case of Aguas Andinas, the compliance percentages from the year 2015 are maintained, except in relation to total coliform bacteriological parameters. For its part, Aguas Cordillera maintained 100% compliance for all categories monitored by the regulator during 2016. Aguas Manquehue experienced a decrease in compliance percentage with respect to 2015, only in the measurement of non-critical parameters (fluoride).

ESSAL has been making great efforts to maintain quality indices in drinking water through internal inspections, plant visits, network cleanses, parallel controls and fundamentally in the practical training of Water Systems Managers. In addition, the Department of Quality supports and advises the Department of Production and Networks in each of the contingency events that may arise.

| CATEGORY | COMPLIANCE IN QUALITY% | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aguas Andinas | | | Aguas Cordillera | | | Aguas Manquehue | | | ESSAL |
| | 2014 | 2015 | 2016 | 2014 | 2015 | 2016 | 2014 | 2015 | 2016 | 2016 |
| Bacteriologia | 99,6% | 100% | 99,6% | 100% | 100% | 100% | 100% | 100% | 100% | 99,9% |
| Turbidity | 99.6% | 99.6% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 99,9% |
| Residual free chlorine | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Critical parameters | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Non-Critical Parameters | 98.7% | 98.25% | 98.25% | 100% | 100% | 100% | 100% | 100% | 98.31% | 100% |
| Summary | 99.6% | 99.6% | 99.6% | 100% | 100% | 100% | 100% | 100% | 99.7% | 99.9% |

[9] NCh 409 - Drinking Water Quality Standard

## 2.1 ARSENIC AND NITRATE PLANTS

Groundwater is an important source of raw water, being useful to strengthen the operation of water treatment plants from surface sources and supply sectors that do not have this type of resource. However, the underground layers have a high concentration of minerals, so it is necessary to treat them, prior to making them potable. Given the above, and considering the increasing regulatory requirements in terms of arsenic and nitrate concentrations present in the water, the construction of two new arsenic plants began, in addition to the two existing ones. A Nitrate plant also began operations.

Construction of the San Antonio Arsenic Abatement Plant began in the municipality of Lo Barnechea, with a capacity of 500 l/s. This plant could reduce the arsenic concentration from 0.033 [mg/l] to less than 0.005 [mg/l] [10]. In addition, during 2016 the expansion of the Quilicura Arsenic Abatement Plant was proposed, which will allow increased capacity from 100 l/s to 250 l/s.

Also during 2016, work began on the Nitrate Abatement Plant located in Pomaire. This plant will treat the water coming from groundwater sources so as to reduce the concentration of nitrates from 52 [mg/l] to 42 [mg/l] [11] through a dilution process. The plant has a production capacity of 45 l/s.

***In 2016, the expansion of the Quilicura Arsenic Abatement Plant was tendered, which will increase capacity from 100 l/s 250 l/s.***

[10] Current Regulation: maximum of 0.01 [mg/l].

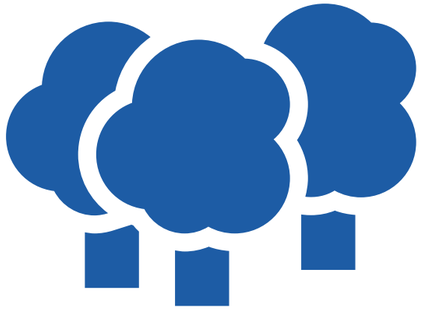
[11] Current Regulation: maximum of 50 [mg/l].

# 3. BIODIVERSITY

SDG 6 y SDG 15

G4-EN11, G4-EN12, G4-EN14, G4-EN21, G4-EN26, G4-EN31

Aguas Andinas has voluntary conservation projects in areas of high biodiversity value in the Aguas de Ramón Natural Park and the La Farfana, El Canelo and Melipilla Environmental Lagoons. In these last three areas, the company operates facilities.



## 3.1 INICIATIVAS DE PROTECCIÓN DE LA BIODIVERSIDAD

| NAME | TYPE OF AREA | DESCRIPTION | INVESTMENT $ |
|---|---|---|---|
| **Aguas de Ramón Natural Park** | Unprotected area of the Metropolitan Region of high biodiversity value<br>**36,000 ~~hectares~~** | Created on July 3, 2002 through an agreement between Aguas Andinas, CORFO, PROTEGE and CONAF.<br><br>It aims to promote the values of outdoor life, environmental education, recreation, sports and nature conservation for the inhabitants of Santiago | 63,762,882 |
| **La Farfana Environmental Lagoon** | agoon that hosts several species of birds within the property of the La Farfana plant **15 ~~hectares~~** | Designed by the Chilean Union of Ornithologists (UNORCH), it aims to conserve aquatic avifauna and maintain a protected ecosystem for the life that naturally grows in the Santiago Watershed. Conducts a permanent monitoring of water quality, diversity and the preservation of species in the lagoon. | 34,902,620 |
| **El Canelo** | Small sub-watershed of the Cajón del Maipo watershed<br>**20 ~~hectares~~** | A natural space rich in biodiversity (vegetation and avifauna) in which there is a potable water source (Estero El Canelo). | 6,300,000 |
| **Melipilla Environmental Lagoon** | Hosts several species of birds, located within the property of the Agua de Melipilla Wastewater Treatment plant.<br>**4.3 ~~hectares~~** | A natural space rich in biodiversity (avifauna). The avifauna present in the lagoon are monitored. | 1,716,560 |

## 3.2RICHNESS, ABSOLUTE AND RELATIVE ABUNDANCE OF BIRDS IN THE LA FARFANA AND MELIPILLA ENVIRONMENTAL LAGOONS [12]

| Common Name | Richness | | | Absolute Abundance (#) | | | Relative Abundance (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | La Farfana Environmental Lagoon | | Melipilla Lagoon | La Farfana Environmental Lagoon | | Melipilla Lagoon | La Farfana Environmental Lagoon | | Melipilla Lagoon |
| | 2015 | 2016 | 2016 | 2015 | 2016 | 2016 | 2015 | 2016 | 2016 |
| **Ducks and Swans** | 10 | 7 | 5 | 191 | 102 | 155 | 56.18 | 48.47 | 64.60 |
| **Herons and Huairavos** | 4 | 1 | 1 | 8 | 6 | 4 | 2.35 | 2.98 | 1.70 |
| **Queltehues** | 1 | 1 | 1 | 3 | 5 | 5 | 0.88 | 2.62 | 2.10 |
| **Seagulls** | 2 | 2 | 1 | 41 | 84 | 9 | 12.06 | 24.78 | 3.80 |
| **Divers** | 3 | 2 | 1 | 7 | 9 | 3 | 2.06 | 4.49 | 1.30 |
| **Taguas** | 4 | 1 | 4 | 89 | 36 | 58 | 26.18 | 16.14 | 24.20 |
| **Yecos** | 1 | 0 | - | 1 | 1 | - | 0.29 | 0.52 | - |
| **Playeros** | - | - | 1 | - | - | 1 | - | - | 0.40 |
| **Perritos** | - | - | 1 | - | - | 5 | - | - | 2.10 |
| **Total** | **25** | **14** | **15** | **340** | **243** | **234** | **100.00** | **100.00** | **100** |

[12] Information on biodiversity is presented for the first time in the Melipilla Lagoon. The quantitative information corresponds to the last monitoring carried out in the Lagoon, while the information of La Farfana's Environmental Lagoon is an average of the monitoring carried out during the year.

The La Farfana environmental lagoon is a conservation area of high biodiversity value, since in its 15 hectares hosts several species of birds. In 2016 there was the sporadic appearance of new species occurred in the lagoon, like the coscoroba swan and the black duck.

For its part, and since 2014 Aguas Andinas began monitoring aquatic birds in the lagoon of the Melipilla WWTP. In this location, the bird population grows, with even new species appearing in a state of conservation: in October 2016 the presence of 15 species of birds of aquatic environments were recorded, of which 14 are residents and 1 migratory, and the total abundance reached 240 individuals. These data demonstrate the relative importance of the wetland to the waterfowl community.

At the end of 2015 a study was contracted on the terrestrial birds present in the zone bordering the La Farfana Plant. There were 32 species of birds, belonging to 9 orders and 18 families. The Order best represented was the Passeriformes, with 9 Families and 20 species such as the tijeral, the viudita and the thrush. This study is planned to be carried out again in 2017, with the objective of detecting possible impacts of operations on local fauna.

In a small sub-watershed of the Cajón del Maipo, El Canelo, the company has also implemented a biodiversity conservation project. It is a natural area of 20 hectares rich in biodiversity, closed to the public, and where the company performs frequent monitoring of flora, protecting it particularly because of its link with the water quality of the estuary.

## 3.3 ESSAL MANAGEMENT PROJECT ON NATIVE WATERSHED MANAGEMENT

In 2013, ESSAL designed a Sustainable Forest Management Project with the multiple purpose of restoring, conserving and protecting two watersheds. The initiative was implemented in the El Boldo estate, Corral commune and in the Bellavista estate, commune of Paillaco, totaling 427 hectares of protection.

In both locations, the main activity has been active restoration, through the planting of native forest species such as Coigue (Nothofagus dombeyi), Olivillo (Aextoxicon punctatum), Canelo (Drimys winteri), Luma (Luma apiculata), Avellano (Gevuina avellana), among others. To date, 130,000 plants have been introduced.

Additionally, as part of the work to protect the land, more than 10 kilometers of fence were built, and internal roadways were improved. These conservation projects are widely disseminated among the community, especially in nearby schools, and work continues on developing agreements to promote collaborative work with private and public entities in the area.

# 4. RURAL DRINKING WATER

**SDG 1, SDG 6 y SDG11**

Aguas Andinas carries out important work in rural areas as an active partner of the Rural Potable Water Program.

This program, promoted by the Ministry of Public Works through the Department of Hydraulic Works (DOH), seeks to improve the quality of life of Chileans living outside large cities, through the implementation of potable water systems whose operation and maintenance remain in the hands of the community itself.

The National Congress of Chile approved the Law on Rural Sanitation Services, legislation that will require institutionalization of this program and incorporate the scope of wastewater sanitation into the management of rural communities. Aguas Andinas has expressed to the authorities and community leaders their total willingness to continue participating in this project, bringing the experience and corporate skills to solve the new challenges.

In 2016, and under the agreements signed with the DOH, Aguas Andinas and its subsidiary Essal continued to provide technical, community, administrative and financial-accounting advice to 361 community organizations located in the Metropolitan, Los Lagos and Los Ríos Regions, respectively. Over the course of the year, the technical teams of both companies carried out more than 1,500 visits to provide training and guidance in their management of community, operational, administrative, water care and patrimonial matters. Over the year, 31 training days were held for leaders and employees, with an estimated participation of 2000 people. The first regional supplier fairs for APR Systems also took place, in which about 50 companies exhibited their products and services to communities representatives.

The work carried out by Aguas Andinas and ESSAL as a Technical Unit enabled MOP to complete investments in excess of Ch $ 22,000 million in 2016 (corresponding to engineering designs, construction of 33 new APR systems, expansion and improvement of 11 APRs), directly benefiting a total of 4,337 families who had access to potable water. An important part of these investments was focused on the sectors affected by the water deficit situation that affected the central zone of the country.

## EXPANDING THE ESSAL CONCESSION AREA

ESSAL, in conjunction with the municipalities, SERVIU and local community neighbors, implemented a plan to expand the concession area, reaching seven new locations in 2016 (Puerto Montt, Calbuco, Fresia, Chaitén, Rio Bueno, San Pablo and San José de la Mariquina) bringing potable water to 1,332 homes.


**Rural potable water**

| Year | Connection | APR Services | New services | New starts |
|---|---|---|---|---|
| **2016** | 110,546 | 361 | 16 | 4,337 |
| **2015** | 106,209 | 345 | 7 | 5,675 |
| **2014** | 100,534 | 338 | 16 | 6,442 |

***The Rural Potable Water Plan benefits 110,546 families in the three regions, with an estimated population of 440,000 inhabitants, and a coverage of 100% in concentrated rural localities.***

# RESILIENCE

**Focus:** 100% continuity

**Objective:** "We must be able to adapt to changes in the environment and overcome the contingencies that ensure sustainability"

# 1. CLIMATE CHANGE ACTION PLAN

**SDG 6, SDG 11 y SDG 13**
**G4-EC2**

Climate change has intensified, and its effects are impacting the Santiago Watershed. It is estimated that temperatures will increase by two degrees in the central zone by the end of the 21st century, temperatures above 3,000 meters altitude will rise and rainfall will be reduced by between 5% and 20%.

With a view to being a leader for sustainability in Chile, Aguas Andinas has assumed a key and active role in this area, recognizing and studying the multiple challenges facing the industry, with climate change being one of the risks with the greatest potential for impact.

Climate change in particular produces effects with the potential to alter rainfall and patterns, increasing the risk of drought, as well as the occurrence of extreme weather events like heavy storms, avalanches and floSDG. In this sense and in the face of the droughts that have hit the north-central part of the country in recent years, the company has undertaken a series of projects aimed at finding short-, medium- and long-term solutions to safeguard the availability of the resource for human consumption.

All these initiatives will aim to contribute to Sustainable Development Goal N°6 "Clean Water and Sanitation" promulgated by the United Nations in 2015, where specific goals include, among others, universal and equitable access to potable water and sanitation services; improving water quality and efficient use of water resources, "... ensuring the sustainability of freshwater harvesting and water supply to cope with water scarcity and substantially reduce the number of people suffering from water scarcity...."

The 2016-2030 Drought and Climate Change Plan seeks to assess the climatic conditions of the Santiago watershed that could potentially affect supply. This plan contemplates work in two lines of action:

- Formation of a long-term action plan, under which work began on projections of water demand and supply, studies were launched on underground sources, international experiences in drought environments were initiated, and new sources of water supply were investigated.
- Evaluation of extreme turbidity events under climate change conditions, based on the development of studies on the turbidity phenomenon of the recoverable waters of the Maipo River and the planning of safety works for these types of events.

## MEASURES TO INCREASE WATER AVAILABILITY

Integrated management with Maipo river users. Recharge of aquifers, creation of Water Communities. Purchase of water, lease of rights.

Access to New Sources: desalination, transfer from neighboring watersheds to the RM, regulated reservoirs.

Intervention in rivers, oversight of illegal extractions

Recovery and increase of groundwater production. (Drilling of new wells for a total flow of 600 l/s, equivalent to an annual volume of 19 $hm^3$).

## MEASURES TO ENHANCE EFFICIENCY

Implementation of the measures defined in the Master Plan for Hydraulic Efficiency. A recovery of 75$hm^3$ is estimated once the entire plan is implemented, equivalent to the consumption of a population of more than 1,000,000 inhabitants

Network Management: Reduction of breakages

## MONITORING MEASURES

Groundwater level monitoring system.

Weather monitoring.

## INFRASTRUCTURE FOR EMERGENCY SITUATIONS

25% increase in potable water reserves.

## MAIN INITIATIVES PLANNED ON CLIMATE CHANGE:

**"Drought and Climate Change Plan:**" Definition and evaluation of Climate Change and Drought scenarios for the Aguas Group, through the year 2030. Proposal, assessment and recommendation of solution measures for potential supply shortages in each scenario.

**Precipitation-Turbidity Forecasting Model:** Development and evaluation of a hydrological forecasting system for the Maipo River watershed, by means of a forecast of hourly flows and its subsequent use as an alert indicator in episodes of high turbidity.

**"Glacial Contribution to the Maipo River Watershed" Study:** Understand the current state of glaciers in the Maipo watershed and analyze the contribution (spatial and temporal) of glaciers of different types to the river runoff in the upper Maipo river watershed

**Study "Geological Analysis of Soils and Contribution to Turbidity Phenomena:"** Geological characterization of the sub-watersheds of the Maipo and Mapocho rivers and evaluation of their potential contribution to high turbidity phenomena.

**Study "Early Warning Network for High Turbidity Events:"** Expansion of the network of meteorological and fluviometric stations in the Maipo and Mapocho River watersheds and evaluation of their potential use as an early warning system for high turbidity events

## 1.1 AGREEMENT WITH THE CNID

In December 2016, Aguas Andinas signed an important agreement with the National Council for Innovation for Development (CNID in Spanish) to develop, orient and promote research, development and innovation on water resources.

The CNID is a public-private body whose mission is to advise the Presidency of the Republic on the identification, formulation and execution of policies and actions that strengthen innovation, competitiveness and development in Chile, proposing public and private actions in the matter.

# 2. RESPONSE TO EMERGENCIES

In 2016, Aguas Andinas had to face two critical events with just over two months between them. The first was an extreme turbidity event in the Maipo river, which forced the production of potable water to be paralyzed and, as a result, service to 1 million households was interrupted. The second was a break in the middle of one of the water mains along Avenida Providencia. On this occasion there was no interruption of the service and the damage was overcome in 24 hours, however the resurfacing of the road took 20 days, generating a high impact on access and mobilization in this major artery of the city of Santiago.

## 2.1 TURBIDITY EVENT IN SANTIAGO

During the first week of April, over a period of 24 hours rainfall in the Metropolitan Region far exceeded the historical record for April of accumulated rainfall in Santiago, reaching 99mm. In the same month, and up in the mountain range, rainfall reached close to 450mm. This unusual event, in addition to overflowing the Mapocho River, flooding the Northern Highway and many subterranean buildings near the river, caused drags and landslides that increased the turbidity of the Maipo River from 200 TBUs13, which is its usual average, to 79,000 TBUs. It is noteworthy that the potable water plants are designed to produce water up to 3,000 TBUs, that is, 20 times with respect to the normal turbidity of the river.

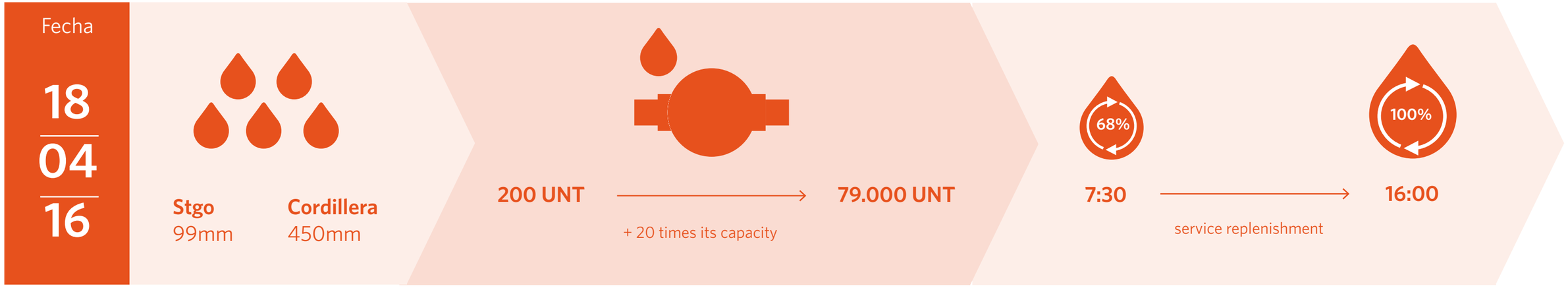
The company declared the state of pre-emergency due to the turbidity that was projected in the Maipo and Mapocho rivers, which activated protocols that involved coordination with the authority, resource mobilization, regulation of pressures and increasing monitoring in the watershed.

Due to the high turbidity of the Maipo River, a state of Emergency was declared and Aguas Andinas had to stop the operation of its potable water production plants, which implied a massive cut in supply, involving 731,000 customers.

It was supported by the delivery of tank trucks to critical customers like the Sótero del Río, Calvo Mackenna and El Salvador hospitals, and Santiago Prison 1. The supply was replenished beginning at 6am on Monday, April 18. Thanks to the efficient operation of the crisis, at 7:30am the service replenishment reached 68% of affected customers. And at 4pm, supply normalized completely.

On that same day, Aguas Andinas began repairing 35 breaks14 produced by the replenishment process, and a special support procedure was carried out for customers in El Arrayán, with door-to-door water delivery.

The whole process was accompanied by a major communication effort with the citizens, through various channels including the website, Twitter, Facebook, press and mass media, timely informing them about the sectors of the cuts and the location of tanks to supply alternatives.




[13] TBU: Turbidity measurement units
[14] The breakdowns occurred within a period of 1 week and the low number of breaks is remarkable considering the 4MM population reset.

## 2.2 BREAK IN PROVIDENCIA

The second major event of 2016 occurred on June 9 when a potable water main collapsed under the northern causeway of Avenida Providencia and in front of the Tajamar Museum. Its effect altered the backbone of the city, affecting the vehicular flow and causing the cut of operations to a section of Line 1 of the Metro.

The reaction of Aguas Andinas began instantaneously, launching three fronts of attention according to established protocols and in permanent coordination with the authorities and the Metro: operative management, communications and customer attention. Due to the presence of an alternative potable water network in the affected area, there were no supply cuts during the episode.

The repair of the rupture also began in urgency, with the excavation, cutting and removal of the affected pipe, in order to assemble the new piece. Subsequently, the Company carried out the resurfacing following the standards requested by the Serviu of the Metropolitan Region and recovery of the damaged areas.

The capacity of Aguas Andinas' professionals allowed these events to be remedied in a minimum amount of time and with greater precision. It was an impact in the city, a situation of alertness, but one that was overcome thanks to a team of excellence along all its lines.

Along with making repairs, the company took care of the damages to the people, the Metro and the Municipality.

## 2.3 BUSINESS CONTINUITY PLAN FOR MASSIVE CUTS DUE TO HIGH TURBIDITY

**SDG 1, SDG 6 y SDG11**

Aguas Andinas developed a business continuity plan in 2016 to guide the company's actions in response to an episode of increased turbidity in the upper Maipo River watershed.

This plan, in addition to being a roadmap that ensures maximum coordination and coherence among the different operational plans that come into force when the company faces a high turbidity episode, defines the functions and responsibilities of each of the departments. This provides a greater degree of control over the key decisions that must be made during crisis management.

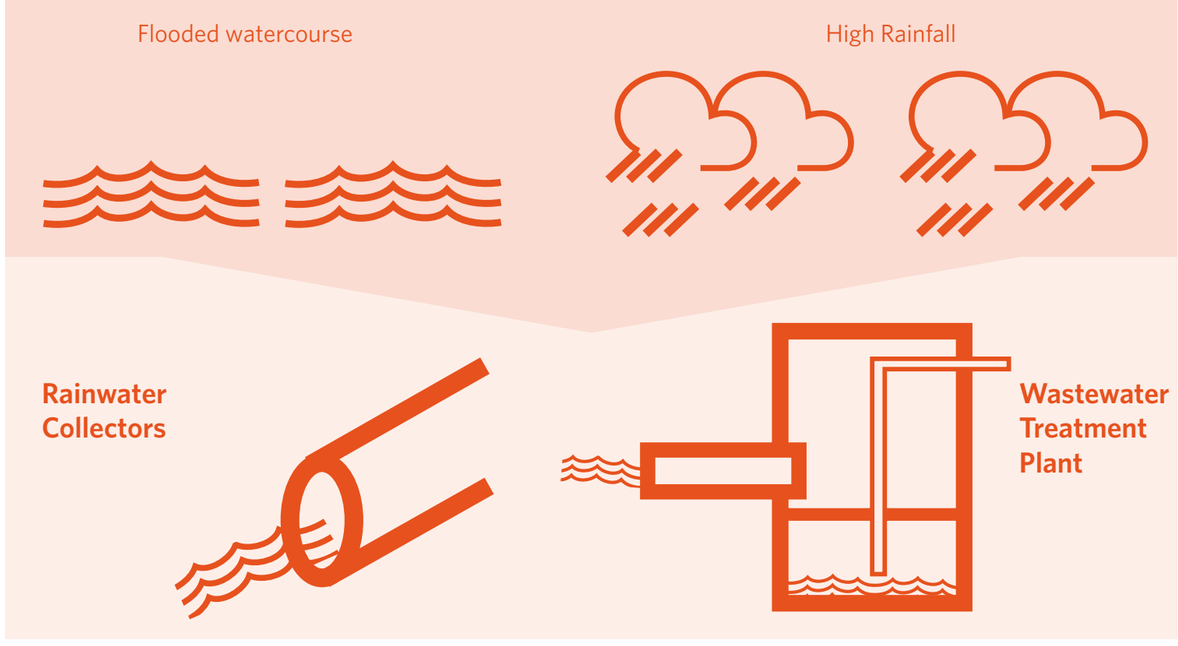
### 2.3.1 Identification of critical points affected by rainwater

For years, and as part of the company's regular management, specific actions have been developed to mitigate the impact of rainfall on the collection and wastewater disposal service. Likewise, with regard to the natural flood conditions of the watercourses, measures are also taken to mitigate damages in the catchments, with the aim of avoiding discontinuities in the supply of drinking water.

The Annual Preventive Maintenance Program of the Collection Network includes critical points that, based on experience, generate operational problems in situations of high rainfall. These points can be either collectors or wastewater elevators (WEs). The program includes actions such as the provision of on-site inspectors for pre-monitoring and during rainfall, the installation of UD shutters in the most critical cases, the provision of sandbags for the channeling of surface runoff and exhaust pumps, generators, hoses, industrial vacuum cleaners and shutter compressors.

In addition, the program of Preventive Cleaning of Ventilation Grates and Troughs allows for minimizing the risk in the case of WEs.

### CRITICAL POINTS



# 3. CONTINUITY OF SERVICE

**SDG 6 y SDG 11**

To meet the target set in SDG N°6 and ensure the supply of fresh water to address water scarcity and substantially reduce the number of people suffering from water scarcity, in 2014 an ambitious investment plan was launched. It seeks to increase the autonomy of the system by building new water reserves, which will provide greater security of supply in the face of emergency situations. The first phase of the plan was operational starting in 2014 and meant to increase potable water reserves by 25%. The second phase will be operational in 2018.

Additionally, the company continues to make investments related to network upgrades and integral and preventive maintenance.

# 4. 2016 AGUAS GROUP INVESTMENTS

**G4-EC7**

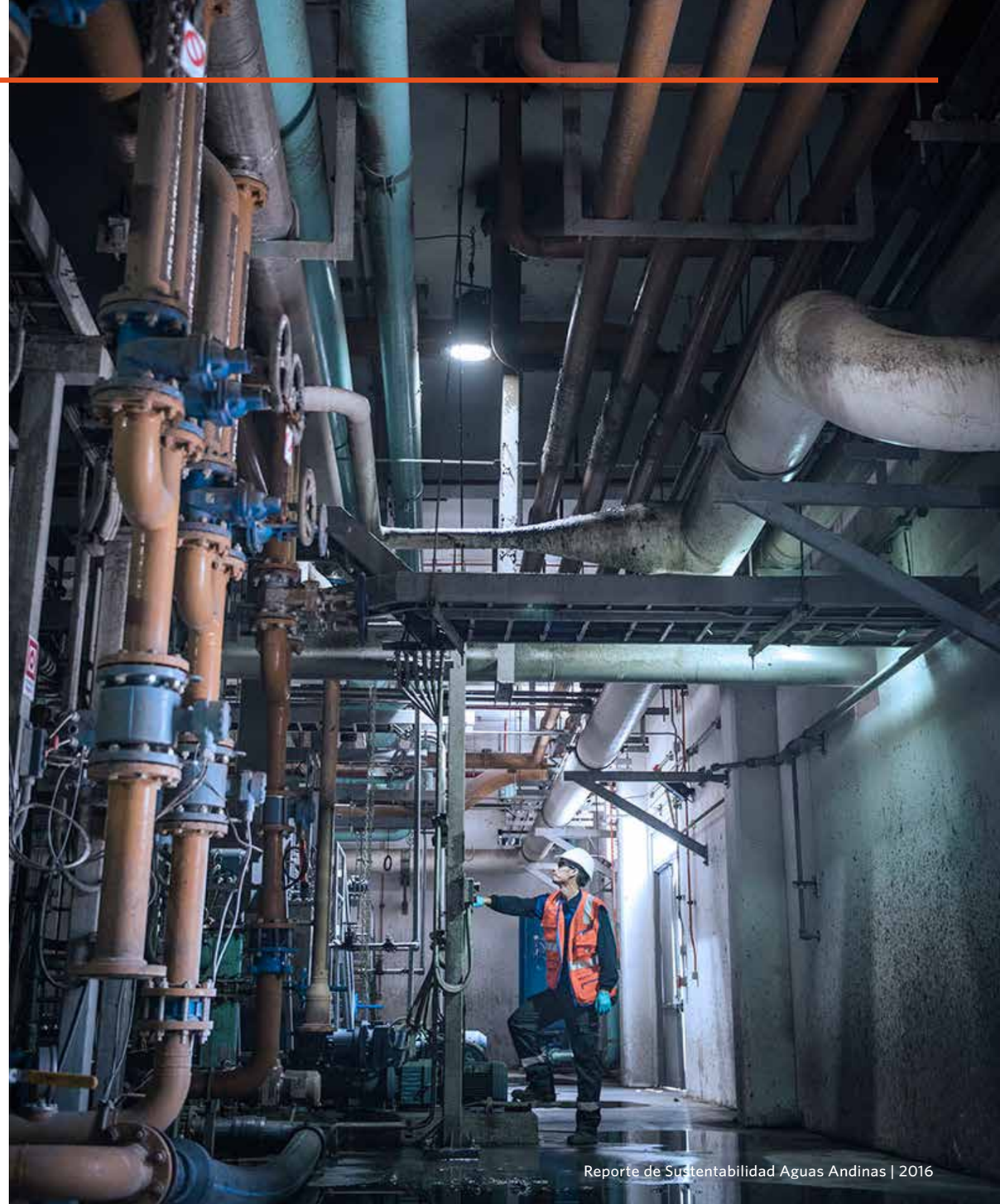
This was a year of great investments, ensuring the sustainability of the company and ensuring the continuity and quality of the service it provides to users. Investments of more than $ 112,978 billion pesos were made, 48% for works associated with growth, safety and quality of service and 41% for replacement and operational improvement plans. The remaining 11% corresponds to ESSAL investments.

In this plan, the main investments were related to the preventive renewal of sewage networks; upgrades to meters, starters, home connections, faucets, valves and smaller networks; replacements of operational assets; implementation of information and telecontrol systems, and plans for hydraulic efficiency and operational improvements.

## SECRO

Aguas Andinas participated in the creation and operation of the Crisis and Resilience Management Service of Organizations, SECRO, an organization bringing together several leading companies in sustainability. The aim of the initiative is to allow for coordinated and joint action, while sharing best practices in crisis management.

The purpose of the organization is to anticipate, prevent and minimize the effects of emergencies, especially those caused by natural, technological or social causes, thus becoming a reference group in risk management for these types of situations.



# 5. SAFETY WORKS

**SDG1, SDG6, SDG9, SDG11 y SDG13**

## 5.1 HYDRO RESERVES

**SDG 6 y SDG9**

The maintenance and construction of new water reserves has been Aguas Andinas' main investment to deal with the effects of climate change. The objective is to increase the autonomy of the system through the construction of water reserves that provide greater supply security in the face of emergency situations. In order to cope with the water shortage caused by droughts or rainfall events above the normal level, Aguas Andinas maintains three relevant sources of water reserves.

These reserves provide backup storage by permanently controlling water levels with respect to the needs of use for the water supply, privileging at all times an optimal use that ensures the continuity, quality and quantity of the potable water service. Given its strategic nature, its physical security is assured by inspections and restricted access.

As a complement to the above, the company has the Las Vizcachas Potable Water Safety Tanks, with an operational capacity of 160,000 m3 which, together with other installations of the system, provide up to nine hours of backup to the supply in case of extreme turbidity in the Maipo River.

| | Operational capacity (millions of cubic meters) |
|---|---|
| **Source of reserve** | **2016** |
| El Yeso Reservoir | 220 |
| Laguna Negra | 600 |
| Laguna Lo Encañado | 50 |

## 5.2 PIRQUE POND
**SDG 6**

In 2016, the Environmental Impact Study (EIA) for the Water Reserves for Human Consumption Project, Metropolitan Region, was processed and begun. This is an important work that will increase the autonomy of the system from 9 to 32 hours in cases of extreme turbidity.

The raw water pond will be located on a 71-hectare site, located 7 kilometers upstream of the Las Vizcachas Complex, will have a capacity of 1,500,000 cubic meters distributed across six ponds, and will conclude construction in 2019.

In order for the project to be developed in balance with the interests of its neighbors, Aguas Andinas decided to implement an Advanced Voluntary Citizen Participation process (PACA in Spanish). Through meetings with municipalities, neighborhood associations and social organizations of the commune, the project was socialized and the main doubts and concerns of the future neighbors of the pond were collected.

This project, which contemplates a total investment of US$85MM, is expected to begin construction in the second half of 2017, depending on the duration of the EIA process.

***The Pirque Pond is an investment project, in line with the permanent search for adapting to changes in the environment and overcoming contingencies.***

## How will Pirque Pond work?



The six ponds will be filled with raw water, from the Independent Tank, through an elevation plant.

In situations of high turbidity in the river, which force the Independent Tank to close, the drainage valves will be opened and water will be sent from the Pirque Pond to the Las Vizcachas Complex, for the production of potable water.

Once the emergency is over, and when the water quality of the river allows entry into the production plants, the volume of water will be restored to the reserve pond.

## 5.3 EXTENSION OF PADRE HURTADO PLANT

**SDG 6 y SDG 11**

Another investment made in 2015, aimed at strengthening the production of potable water and ensuring the supply of potable water, was the expansion of the treatment capacity of the Padre Hurtado Potable Water Plant. The improvements introduced increased the production capacity from 1,000 to 1,300 [l/s], allowing the plant to have greater autonomy during excessive turbidity events. Likewise, construction of a new regulation tank it is expected to begin in the municipality of Padre Hurtado, with a capacity of 2,000 $m^3$ and an estimated investment of $1,600 billion pesos.

## 5.4 CHANGING FILTERS IN VIZCACHAS AND COMPONENTS

**SDG 6**

Continuing with the plan initiated in 2015, where four new filters were started up, each one with 400 [l/s], in 2016 it was proposed to refit 16 additional filters for the Las Vizcachas Potable Water Plant. In addition, improvements were made to the bottom of the filters and change of gates. The upgrade of this complex involves a total investment of approximately $36 billion and optimizes the washing system and improves plant efficiency.

## 5.5 NEW CHAMISERO PLANT

**SDG 6, SDG 9 y SDG 11**

In 2016, and in response to growing demand of the population of the Chamisero and Chicureo areas, work began to build a new potable water plant that will supply the north of the Metropolitan Region. It is expected to be operational in May 2018. Likewise, a regulation tank is planned in the area with a capacity of 2,000 $m^3$.

# 6. FACING OUR HYDRIC EFFICIENCY

## 6.1 HYDRAULIC EFFICIENCY PLAN

**SDG 6 y SDG 13**

Initiated in 2015, it seeks to achieve a technical performance of 80%, recovering 75 cubic hectometers (hm3) of potable water per year, equivalent to a population of over 1,000,000 inhabitants. The Water Efficiency Plan being developed by the Aguas Group involves both the transportation process and the distribution of potable water. Within the process of transporting potable water, the project involves 70 kilometers of aqueducts, 48 kilometers of adductions, 230 kilometers of drives and 1,350 kilometers of feeders. Additionally, the company's 240 storage tanks are included within the plan. potable, se consideran los 13.000 kilómetros de red de distribución, los arranques (que superan el millón trescientos mil), las 71.300 válvulas de red y los 24.500 grifos distribuidos en la Región Metropolitana.

***During the transport phase, the following activities will be carried out over a period of 6 years:***

1. ***Technological tests for leak detectiona***
2. ***Repair of leaks in adductions, drives and feeders.***
3. ***Overflow program for aqueducts and tanks.***
4. ***Program for inspection and repair of aqueducts***

To achieve the goal, the following hydraulic efficiency measures will also be implemented over a period of six years:

**Construction:**
Includes engineering services, supply of equipment, execution of works and the implementation of all infrastructure.

**Exploitation and Operation:**
Includes on the one hand, implementation of leak detection and repair activities, incorporating dynamic micro-sequencing and gas leak detection, as new tools to the group and, on the other hand, pressure management, incorporating 620 regulatory stations in addition to existing ones, all with telemetry for remote monitoring from the Operational Control Center (CCO).

**Business Loss:**
Includes the change of a high percentage of accountants and the systematic search for fraudulent use of the service.

Si bien el plan de Eficiencia Hidráulica tiene un horizonte trazado a seis años, se generaron algunos avances en 2016, entre los cuales cabe destacar:

**2016 Progress in the Hydraulic Efficiency Plan**

Although the Hydraulic Efficiency plan has a six-year horizon, some progress was made in 2016, among them:

- • End of the conformation stage of the Master Hydraulic Efficiency Plan
- • Detection and repair of leaks along 647 km, resulting in 2,047 leaks
- • Civil works Stage I considered to adapt the network: the contract began in November 2016.
- • Search for technologies to detect leaks in the potable water transport network began, being able to test the Gas Helio. As a result of the advances, it was possible to reduce unaccounted water by 20.6 Hm3 in 2016. That is, the percentage of water not accounted for at the end of 2016 was 28.4%, more than 2 points below the 30.5% with which it closed the 2015 year.

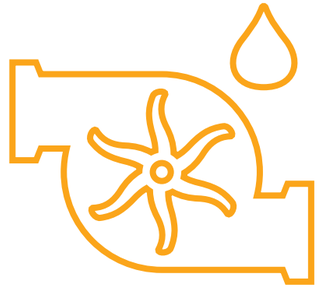
## 6.2 PLAN OF IMPROVEMENTS IN AQUEDUCT MANAGEMENT

**SDG 6 y SDG 13**

As part of the measures implemented to reduce potable water losses, improvements were implemented in the operational control of aqueducts, in order to minimize overflows, adjusting the demand model and implementing control points. The estimated contribution of aqueducts management to reducing the Group's loss in 2016 exceeds 80%. The rest was provided by the reduction of losses in the distribution network.

In 2017 will continue working on the effective management of aqueducts, through the following measures:

- Optimize the operating model of the transport system, which allows local adjustments to demand.
- Begin internal repairs in 2 sections that have been diagnosed with faults (Laguna Negra and the Puente Alto Aqueduct).
- Consolidate a structural assessment of the aqueducts, based on inspections carried out in the last 6 years, in order to prepare an Inspection and Repair Program for the next 5 years.



# CIRCULAR ECONOMY

**Focus:** Zero impact

**Objective:** "We want to achieve sustainability in our work through the use and production of renewable resources and preservation of the environment."

## SDG6 Y SDG13

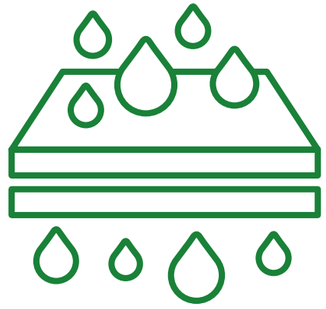
The concept of a circular economy involves the simultaneous reduction of consumption of materials on the one hand and the use of waste in the production chain on the other. In the sanitation sector, the main contribution to the circular economy is an intrinsic part of the business: to use water again and again, just like the natural cycle. In this area, Aguas Andinas maintains its commitment to assure the population the treatment of 100% of the city's wastewater, returning it to the natural channels free of all pollution.

Seeking to share the concepts of a Circular Economy across the board, in September and in coordination with the Sustainability team of AGBAR, two Circular Economics and Sustainable Development courses were developed, in addition to training employees, identifying opportunities to implement this philosophy in the company's operations in the region. A total of 42 employees participated.

**In relation to the management of wastewater treatment plants, the commitment of Aguas Andinas is radical:** to transform them into biofactories. This will form the company's main contribution to the Circular Economy by transforming all waste generated into natural resources.

- At present, the same volume of wastewater is voluntarily returned to the river after its treatment, increasing the flows of surface waterways
- As a by-product of the digestion process, biogas is generated, which allows us to power the cogenerators at one of the plants and produce the electrical energy necessary to self-supply part of the internal consumption, with any surplus delivered to the Central Interconnected System (SIC).
- Parallel to the production of electricity or methane gas, thermal energy is also produced via hot water or steam, which is used in the maintenance of the plant's sludge treatment processes.
- Biosolids are the fruit of this sludge treatment. Given their richness in nutrients, more than 43.8% of them are destined for the recovery and fertilization of agricultural estates.

In the case of ESSAL, a specific biosolids recovery program was designed for agricultural uses in the region. More than 43.8% are allocated for the recovery and payment of agricultural land.



***Treatment Plants transform wastewater into clean water, energy and fertilizers for agriculture, probably being one of the main and best examples of Circular Economics.***

# 1. BIOGAS

SDG 7
**G4-EN3**

## 1.1. CO-GENERATION ENERGY PROJECT

The biogas generated at the Mapocho-Trebal wastewater treatment plant is conditioned to be used as fuel for 3 cogeneration engines that produce electricity. In addition, the gases emanating from the combustion of the engines are used to generate thermal energy through the steam.

The electrical energy arising from cogeneration is transformed to be distributed through the plant's main network and/or exported to the feeders of the general grid of the central interconnected system (SIC).

In 2016 the three cogeneration engines produced 45,990,665 kWh of electrical energy. This energy covered 78.44% of the energy needed for the plant's operation.

Additionally, the biogas generated at the La Farfana and Talagante wastewater treatment plants is used in the boilers to heat the biodigesters, with the unused biogas burned using torches.

| Destination | Unit | 2015 | 2016 |
|---|---|---|---|
| Internal consumption | Gigajoules | 128,731 | 357,371[15] |
| City gas manufacture | Gigajoules | 135,263 | 0 |
| Others (torch burning) | Gigajoules | 501,287 | 648,603 |

In 2016 the methanization plant was not operational, therefore no gas was injected into the city grid.

**EN6**
Thanks to the electric cogeneration system of the Mapocho Trebal wastewater plant, energy consumption was reduced by 176,207 GJ. Also, a modification was implemented in the aeration system of the sewage treatment plant that allowed reducing consumption by 14,319 GJ.

[15] TBU: Turbidity measurement units. This figure includes the Biogas destined for boilers and the Biogas for the electric cogeneration.

# 2. BIOSOLIDS MANAGEMENT

**SDG 2 y SDG 13**

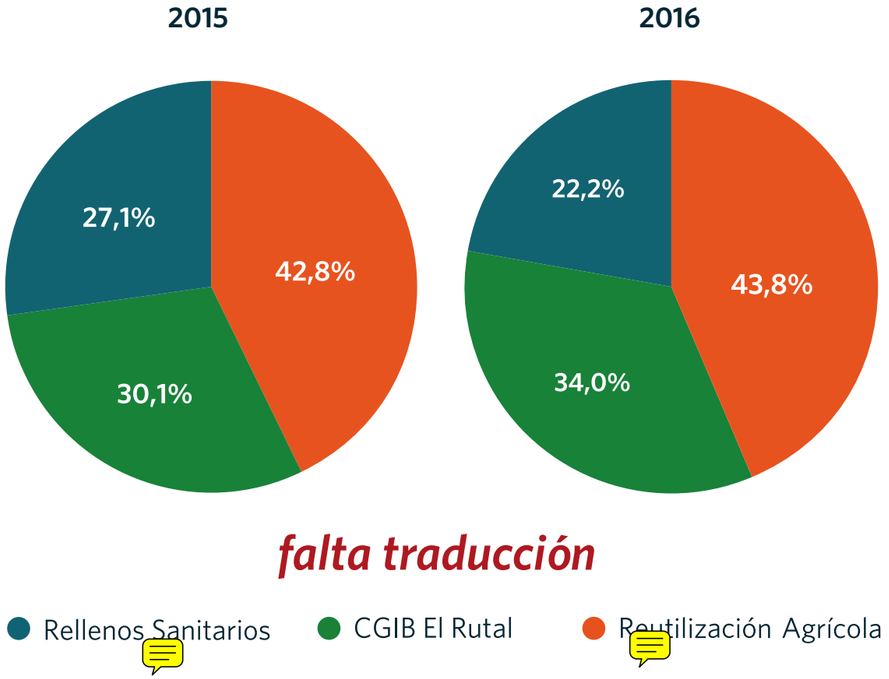
In addition, the sewage treatment process produced a quantity of 303,214 tons of biosolids, a by-product of the purification process, classified as non-hazardous waste. More than 43% of the amount was used for agricultural reuse.

**56%**
**La Farfana**

**35%**
**El Trebal**

**9%**
**Otras Localidades**

**Reuse of waste**




In the case of ESSAL, the biosolids recovery program for agricultural uses in the region consists of agreements with 20 open properties (with an area of more than 2,000 hectares), where during 2016, 29,160 m3 of sludge from the WWTP was used, of the total of 42,245 m3 generated by the company (69%). The remaining 31% was stored in landfills authorized by the health service.

# 3. WATER RECYCLING

**G4-EN 10**

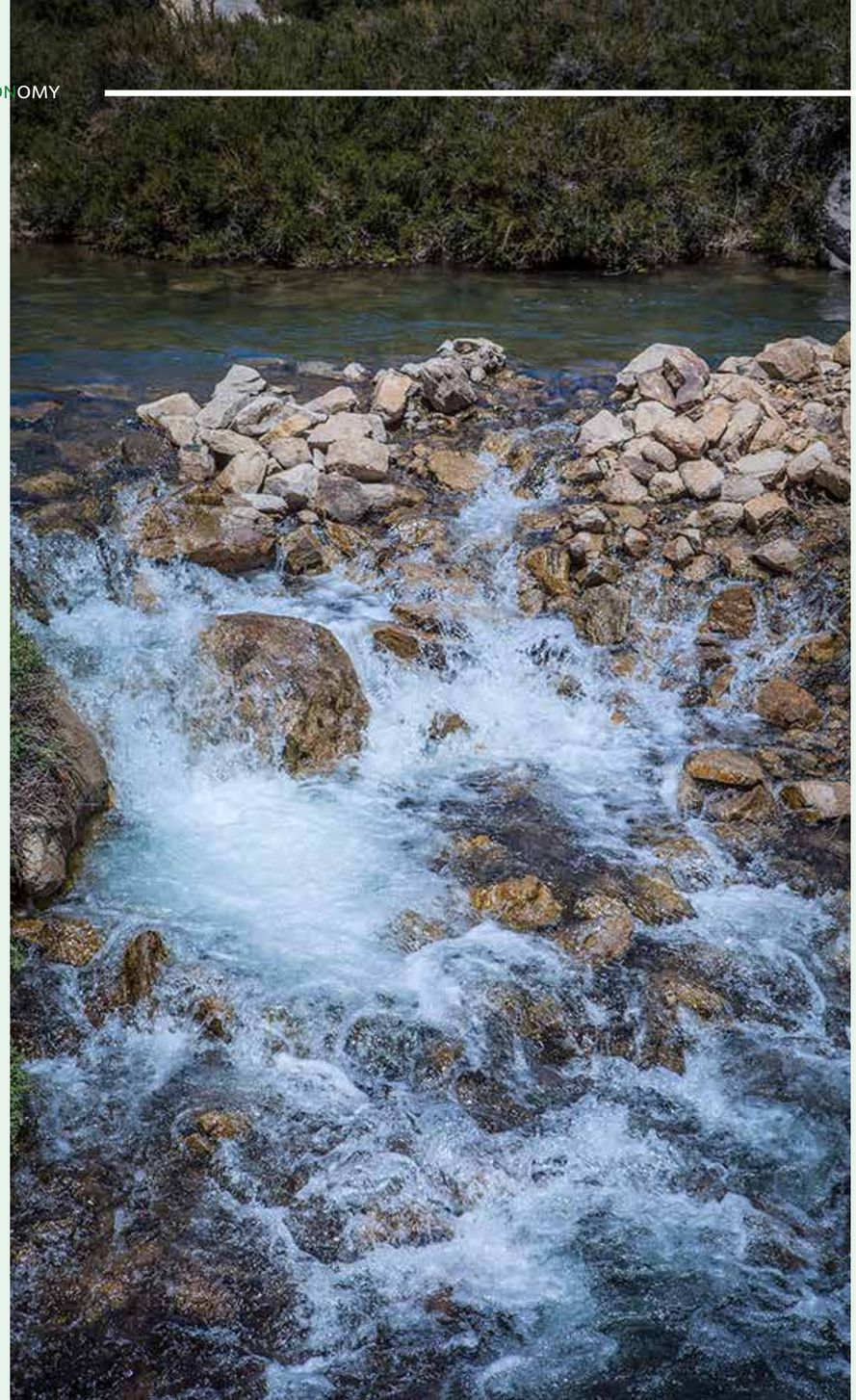
In 2016, 525 million cubic meters of decontaminated and safe water were reintegrated into the system of natural waterways, completing the integral water cycle.

**Volume of treated wastewater**

| | 2014 | 2015 | 2016 |
|---|---|---|---|
| **Total volume of treated water ($m^3$/year)** | 513,485,491 | 514,251,147 | 580,815,398 |
| **Volume of water recycled/ reused ($m^3$/year)** | 969,840 | 965,394 | 993,837 |
| **Percentage of water recycled/reused** | 19% | 19% | 19% |

Of the total wastewater treated in 2016, 19% was reused in the Mapocho Trebal WWTP for tank cleansing, other required cleaning tasks in maintenance areas and irrigation of gardens.

In the case of ESSAL, no water was reused in 2016.



## 3.1 SPILLS

**SDG 6**

**G4-EN24**

In 2016 there were no spills of hazardous substances. In addition, Aguas Andinas does not use discharge points on areas that are protected and/or rich in biodiversity. In the case of ESSAL, during 2016 there was an oil spill at the Muermos wastewater treatment plant.

To contain this spill and prevent further damage to the environment, a company specialized in technical services was hired that controlled the spill and mitigated it with sawdust. About 80 kg. of waste were transported by the same company to a disposal site specialized in waste treatment.

# 4. WASTE MANAGEMENT

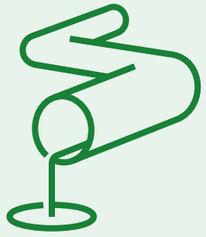
## 4.1 WASTE MANAGEMENT

SDG 11 y SDG 12

**G4-EN 23**

The daily operation of Aguas Andinas generates different by-products, in addition to the sludge and biogas already mentioned. These wastes can be classified as hazardous and non-hazardous, and come from the various activities the company carries out.

In 2016 a Solid Waste Management Plan was developed that is expected to be implemented beginning in 2017. The plan, which incorporates the management of all enclosures of the company, complements efforts already made by the company in the field of waste management, mainly through the management of biosolids. It will focus on the standardization of processes, training of personnel and the design of methodologies to quantify and trace each of the wastes generated. The pilot project will be implemented in the corporate headquarters and in the Paine Wastewater Treatment Plant.



## Aguas Group Waste from WWTP and Maintenance (Does not include ESSAL)

| Total waste generated (without Essal) | WWTP | | | | | | Maintenance | | ACAL | | Plant Operation | | | | | | Corporate Headquarters | | CONSOLIDATED | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | El Trebal | | | | La Farfana | | | | WWTP | | PWTP | | WWTP Loc. | | PWTP | | | | | |
| | 2015 | | 2016 | | | | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | TOTAL | TOTAL |
| | Operation | Construction | Operation | Construction | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| Used oil (kg) | 13,807 | 5,800 | 11,260 | 8,025 | 4,329 | 3,829 | 2.132 | 638 | | | | | | | | | | | 26,068 | 23,752 |
| Oil with refrigerant | 800 | | | | | | | | | | | | | | | | | | 800 | |
| Contaminated grease | | 800 | | | | | 236 | | | | | | | | | | | | 1,036 | |
| Lead battery | 299 | | 50 | | 48 | 30 | 769 | 1.665 | 30 | | | | | | | | 428 | | 1,574 | 1,745 |
| Oil containers | 1,715 | 800 | 1,210 | 370 | 645 | 270 | | | | | | | | | | | | | 3.16 | 1,850 |
| Empty containers of dangerous substances | 1,830 | | 2,131 | 242 | 101 | 416 | 906 | 610 | 84 | | 1,538 | 1,436 | | | | | | | 4,459 | 4,835 |
| Batteries | 12 | | 10 | 3 | | | 7 | 17 | | | | 6 | | | | | 6 | 548 | 25 | 584 |
| Fluorescent tubes | | | 65 | 17 | 164 | 180 | 430 | 331 | | | | | | | | | 320 | 180 | 914 | 773 |
| Material contaminated with hydrocarbons and oils | 682 | 6,070 | 1,140 | 2,200 | 157 | 240 | 1.340 | 50 | | | | | | | | | | | 8,249 | 3,630 |
| Contaminated EPP | | | | | 122 | 170 | 10 | 15 | 225 | | 152 | 189 | | | | | | | 509 | 374 |
| Oil filters | | | | | 235 | 230 | | | | | | | | | | | | | 235 | 230 |
| Solvents | | | | | | 150 | | | | | | | | | | | | | | 150 |
| Aerosols | | | | | 27 | 30 | 43 | 215 | | | | | | | | | | | 70 | 245 |
| Chemical reagents | | | 332 | 2 | 94 | 120 | 115 | | 494 | | 3,716 | 3,290 | | | | | | | 4,419 | 3,744 |
| Acids (DQO) | 150 | | 200 | | 32 | | | | 157 | | 6 | 3 | | | | | | | 345 | 203 |
| DPD chlorine sachets (kg) | | | | | | | | | | | | 31 | | | | | | | | 31 |
| Lead gels | | | | | | | 5 | 1 | | | | | | | | | | | 5 | 1 |
| Toner | 43 | | 50 | 8 | 67 | 90 | | 9 | 13 | | | | | | | | | | 123 | 157 |
| Spills by chemical inputs | | | | | | 440 | | | | | | | 9.030 | | 21,413 | | | | 30,443 | 440 |
| Acid litter sludge (Est. IQ) | | | | | 2,700 | | | | | | | | | | 12,168 | | | | 14,868 | |
| Sands | | | | | | | | | | | | | | | | 8,214 | | | | 8,214 |
| Active coal | 51,370 | | 26,185 | | | | | | | | | | | | | | | | 51,370 | 26,185 |
| Electronic components | | | | | 200 | 494 | | 6.885 | | | | | | | | | | 32 | 200 | 7,411 |
| Subtotal | 70,708 | 13.470 | 42,633 | 10,867 | | | | | | | | | | | | | 754 | 760 | 84,932 | 54,260 |
| Total | 84,178 | | 53,500 | | 8,921 | 6,689 | 5,993 | 10,436 | 1,003 | | 5,412 | 4,955 | 9,030 | | 33,581 | | 754 | 760 | 148,872 | 76,340 |

# 5. SPILLS

**G4-EN22**

| Discharge | Amount ($m^3$) | Planned / Unplanned | Destination | Method of treatment | Water quality | Parameter used |
|---|---|---|---|---|---|---|
| Mapocho-Trebal | 219.352.580 | Planificados | Río Mapocho | Lodos Activados | Aguas depuradas en plantas de aguas servidas | DS 90 |
| Mapocho-Trebal | 7.494.604 | No Planificados | Río Mapocho | sin tratamiento | Agua cruda | by-pass en periodo de lluvia |
| La Farfana | 255.531.000 | Planificados | Río Mapocho | Lodos Activados | Aguas depuradas en plantas de aguas servidas | DS 90 |
| La Farfana | 3.738.864 | No Planificados | Río Mapocho | sin tratamiento | Agua cruda | by-pass en periodo de lluvia |
| La Farfana | 28.548.200 | Planificados | Canalistas | Lodos Activados | Aguas depuradas en plantas de aguas servidas | DS 90 |
| Localidades | 32.873.700 | Planificados | Destino varía según localidad | Varía según planta | Aguas depuradas en plantas de tratamiento de aguas servidas | DS90 |
| Localidades | 278.363 | No Planificados | Destino varía según localidad | sin tratamiento | Agua cruda | by-pass en periodo de lluvia |

The incorporation of rainwater into ESSAL's sewage system is a problem that brings with it a significant operational risk, due to the increase of volumes of water well above those designed for the current infrastructure. This situation creates problematic circumstances for the inhabitants of the Los Lagos and Los Rios Regions, for which ESSAL, through different initiatives, is conducting a proactive search for solutions.

Through communal work tables (as in the case of Panguipulli), effective solutions have been sought together: First, smoke tests have been carried out in the sewage system, where it has been verified that 90% of the detected incidents correspond to rainwater runoffs from private properties. In addition, sewerage filming instruments have been implemented to detect possible structural problems, and the operational processes have been strengthened, with initiatives such as the increase of pre-treatment in the WWTP.

In view of these problematic situations, and especially when the root cause transcends the company's operation, ESSAL has designed a Mixed Water Master Plan, which establishes specific legal, technical and environmental measures as well as economic and administrative measures to respond to more complex cases.

## 5.1 SPILLS

**SDG 6**

**G4-EN24**

In 2016 there were no spills of hazardous substances. In addition, Aguas Andinas does not have discharge points on areas that are protected and/or rich in biodiversity. In the case of ESSAL, during 2016 there was an oil spill at the Muermos wastewater treatment plant. To contain this spill and prevent further damage to the environment, a company specialized in technical services was hired that controlled the spill and mitigated it with sawdust. About 80 kg. of waste were transported by the same company to a disposal site specialized in waste treatment.

# 6. ENERGY EFFICIENCY PLAN

## 6.1 POLICY AND ENERGY EFFICIENCY PLAN

**G4-EN6**

***The Aguas Group's Energy Efficiency Policy was developed and validated within the organization in 2015 and ratified in 2016.***

The Aguas Group, aware of the importance of the environment and the efficient management of resources, maintains a strong commitment to improving energy performance, betting on the adoption of actions to increase energy efficiency and promote more efficient consumption habits.

**To meet this challenge, the Aguas Group is committed to:**

- Encouraging the efficient use of energy and energy savings through the implementation of specific techniques.
- Seeking the implementation of new technologies or the adaptation of existing ones for a more efficient use of energy resources.
- Raising awareness about energy efficiency both among employees and outsiders working in facilities of significant importance.
- Encouraging the use of renewable energy sources as much as possible.
- Supporting the purchase of energy efficient products and services, and designs for improving energy performance.

This commitment will materialize through the implementation of an Energy management system, focused on the needs of the Aguas Group, thus ensuring compliance with commitments through the following:

Continuous improvement of energy performance.

Definition and periodic monitoring of the fulfillment of energy objectives.

Ensure the availability of information and resources needed to achieve the objectives and targets

Compliance with applicable legal requirements and those subscribed by the organization related to the use of energy, consumption and efficiency.

Dissemination at all levels of the organization and periodic review of the Energy Policy.

Making this policy operative involved the development of an Energy Efficiency Plan that contemplates a series of measures to keep energy consumption of the facilities under control and optimize their performance. Its main action areas include strengthening the Energy Management System, with the necessary tasks and procedures to optimize energy performance of the facilities, energy diagnostics, and awareness about these topics within the company.

One of the main milestones of the year in terms of energy efficiency was related to the increase in the scope of the Energy Management System (EMS) at the La Farfana Wastewater Treatment Plant, thus achieving permanent monitoring of about 50% of all of the Aguas Group's energy consumption. In July 2016, the system obtained certification under ISO 50001 for this plant, adding to the recognition obtained in 2015 for the Mapocho-Trebal WWTP.

Another milestone to highlight is the construction of a first microturbine inside the potable water network, to take advantage of a gravitational fall towards a water distribution tank. This facility is expected to start operating in the second half of 2017, providing 0.64 GWh/year of renewable energy.

The main challenges for the next period are linked to implementing measures taken during the energy diagnosis process, developing engineering studies for the implementation of a Biogas revaluation plant at the Talagante Wastewater Treatment Plant and continuing to increase the scope of the energy management system.

***In 2016 the Aguas Group carried out a complete study of 50 facilities to understand their energy performance and identify opportunities to reduce specific energy consumption at each installation.***

## 6.2 ELECTRICAL CARS

With the objective of further reducing the company's environmental impact, a pilot project for the renewal of the vehicle fleet using electric cars was implemented, which generate less emissions and less noise, and with this initiative, make the company pioneers in the country's sanitation sector. These are vans with advanced technology that assisted the company and operate in the customer-facing operations. They have an autonomy of over 150 kilometers per load. This was complemented by investments in the installation of chargers in the corporate building and also in the Lo Prado and Ñuñoa operating centers.

Next year, the incorporation of requiring vehicles with renewable energy in tenders for the fleet renewal will be studied.

## 6.3 ENERGY CONSUMPTION

SDG 7

G4-EN3

### CONSUMO DE ENERGIA

| | Unit of measurement | Aguas Andinas 2015 [16] | Aguas Andinas 2016[17] | ESSAL 2016 |
|---|---|---|---|---|
| **Consumption gas** | gigajoules (GJ) | 56,074 | 48,127 | 24 |
| **Biofuels (biogas)** | gigajoules (GJ) | 1,172,084 | 1,181,349 | 14 |
| **Electricity** | gigajoules (GJ) | 976,447 | 762,957 | 227,495 |
| **Energy Sales** | gigajoules (GJ) | 138,064 | - | - |
| **TOTAL ENERGY CONSUMPTION** | gigajoules (GJ) | 2,066,541 | 1,992,433 | 227,532 |

### FUEL CONSUMPTION

| Non-renewable energy source | Unit of measurement | Aguas Group 2015 | Aguas Group 2016 | ESSAL |
|---|---|---|---|---|
| **Diesel (electric generation)** | gigajoules (GJ) | 14,276 | 6,050 | 7.16 |
| **Diesel (mobile sources)** | gigajoules (GJ) | 35,989 | 37,903 | 14.16 |
| **Gasoline (mobile sources)** | gigajoules (GJ) | 5,809 | 4,174 | 2.18 |
| **Other (indicate type of source)** | gigajoules (GJ) | | | |
| **TOTAL fuel consumption** | **gigajoules (GJ)** | **56,074** | **48,127** | **24** |
| **Other (other type of source)** | miles $m^3$ | 55,814 | 56,255 | 353 |
| **TOTAL fuel consumption** | **gigajoules (GJ)** | **1,172,084** | **1,181,349** | **14** |

In 2016 we managed to inject 45.8 GWh of electricity produced from the plant's biogas, equivalent to 15,500 tons of CO2eq avoided18, fulfilling our commitment to increasing the use of renewable energy in our operations.

[16] Without ESSAL
[17] Without ESSAL

As for the intensity of energy consumption of the Aguas Group (measured as energy consumption (kWh) in proportion to cubic meters of treated water), in 2016 it was possible to reduce the specific consumption of electrical energy by 2% compared to 2015, from 0,488 kWh/m3 to 0,477 kWh/$m^3$.

## CONSUMPTION OF ELECTRICAL ENERGY

| Power Consumption by activity | Unit of consumption | 2015 | 2016 | ESSAL 2016 |
|---|---|---|---|---|
| Production of potable water | KWh/yr | 56,782,282 | 44,414,061 | 34,313,539 |
| | GJ/yr | 204,416 | 159,890 | 123,430 |
| Transportation and distribution | KWh/yr | 51,290,529 | 57,065,802 | 2,063,902 |
| | GJ/yr | 184,646 | 205,436 | 7,424 |
| Buildings | KWh/yr | 4,554,322 | 3,909,268 | 417,235 |
| | GJ/yr | 16,396 | 14,073 | 1,501 |
| Sewerage | KWh/yr | 3,483,059 | 2,337,379 | 13,448,380 |
| | GJ/yr | 12,539 | 8,415 | 48,375 |
| Tratamiento de aguas servidas | KWh/yr | 142,061,659 | 149,051,561 | 13,000,578 |
| | GJ/yr | 511,422 | 536,585 | 46,765 |
| **Wastewater treatment** | **kWh/yr** | **258,171,851** | **256,778,077** | **63,243,634** |
| | **GJ/yr** | **929,419** | **924,400** | **227,495** |

## TOTAL ENERGY CONSUMPTION

| Unit of consumption | Aguas Group 2015 | Aguas Group 2016 | ESSAL 2016 |
|---|---|---|---|
| GJ | 2,019,512 | ~~1,992,433~~ | 227,532 |

# 7. EMISSIONS

## 7.1 EMISSIONS

SDG 13

**G4-EN 15, G4-EN16 y G4-EN17**

Within the framework of its commitment to mitigating environmental impacts, Aguas Andinas has measured its carbon footprint by applying the international GHG protocol-IPCC methodology. In 2016, the company emitted a total of 207,659 tons of CO2 equivalent, down from the previous year by 5.4%. The reduction was mainly due to emissions generated through energy consumption (Scope II) with a drop of 15% over 2015.

### GREENHOUSE GAS EMISSIONS

| | | Direct emissions (Scope 1) | | Indirect emissions (Scope 2) | | Other issues (Scope 3) | |
|---|---|---|---|---|---|---|---|
| **Source of emission** | **Unit of measurement** | **2015** | **2016** | **2015** | **2016** | **2015** | **2016** |
| **Production of potable water** | Ton $CO_2$eq | 732 | 377 | 20,122 | 18,036 | 4,307 | 5,193 |
| **Transport and distribution of water** | Ton $CO_2$eq | 6.100 | 4,461 | 24,507 | 24,583 | 1,506 | 1,270 |
| **Non-productive buildings** | Ton $CO_2$eq | 494 | 591 | 1.744 | 1.552 | 54 | 51 |
| **Sewer** | Ton $CO_2$eq | 1,798 | 1,887 | 495 | 523 | 11 | 11 |
| **Wastewater treatment** | Ton $CO_2$eq | 20,130 | 19,071 | 38,921 | 38,698 | 98,629 | 100,110 |
| **TOTAL** | Ton $CO_2$eq | 29,253 | 26,387 | 85,790 | 83,391 | 106,635 | 100,635 |

### EMISSIONS BY SCOPE

| | **2015** ($tonCO_2$/año) | **2016** ($tonCO_2$/año) | **Var. 2016** (%) |
|---|---|---|---|
| **Direct emissions (Scope 1)** | 29.,253 | ~~29,902~~ ^ | ~~2%~~ ^ |
| **Indirect emissions (Scope 2)** | 85,790 | ~~72,678~~ ^ | ~~15%~~ ^ |
| **Other issues (Scope 3)** | 104,508 | ~~105,079~~ ^ | ~~1%~~ ^ |

**G4-EN19**

The company reduced and avoided emissions due to using biogas in the internal operations (sludge heating and cogenerated energy use: electric energy and heat), as well as for the company's external sales (sales of biogas and electric power).

**EMISSIONS AVOIDED OR REDUCED**

| | 2015 ($tonCO_2$/year) | 2016 ($tonCO_2$/year) |
|---|---|---|
| **Avoided** | 7,676 | 1,132 |
| **Reduced** | 34,277 | 42,279 |

## 7.2 EMISSIONS AND ENERGY INTENSITY

**G4-EN15, G4-EN 18**

The wastewater treatment process is where the largest proportion of emissions is generated, reaching 75% of the total. Therefore, the intensity of emissions are measured at this stage of the water cycle at the two main treatment plants: Mapocho-Trebal and La Farfana. This indicator was reduced in 2016, showing the success of the efficiency and reduction initiatives.

**ENERGY INTENSITY OF THE WASTEWATER TREATMENT PROCESS (MWH/ML)**

| 2015 MWh/ML (millions of liters) | 2016 MWh/ML (millions of liters) |
|---|---|
| ~~0,276~~ | ~~0,273~~ |

**INTENSIDAD ENERGÉTICA - 2016**

| | MAPOCHO | FARFANA | TOTAL |
|---|---|---|---|
| **Total energy consumption (kWh)** | 58,633,322 | 72,516,108 | 131,149,430 |
| **Specific measure of the organization ($m^3$)** | 209,248,440 | 284,115,200 | 493,363,640 |
| **Intensity (kWh / $m^3$)** | 0.28 | 0.26 | 0.27 |

**ENERGY INTENSITY - 2015**

| | | | |
|---|---|---|---|
| **Total energy consumption (kWh)** | 55,980,465 | 73,017,825 | 128,998,290 |
| **Specific measures by the organization ($m^3$)** | 197,552,927 | 288,134,518 | 485,687,445 |
| **Intensity (kWh / $m^3$)** | 0.28 | 0.25 | 0.27 |

Energy intensity, taking into account total energy consumption (internal) and the treated water flow in the Mapocho - Trebal and La Farfana plants, remains constant between 2015 and 2016.

## 7.3 OTHER EMISSIONS

**G4-EN21**

### REAL DATA, HOURS OF OPERATION

| | Ton NOx | | Ton SOx | | Ton COV | | Ton MP | |
|---|---|---|---|---|---|---|---|---|
| **Origin** | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| **Farfana** | 3.97 | 4.37 | 3.67 | 3.88 | 0.05 | 0.06 | 0.39 | 0.23 |
| **Trebal-Mapocho** | 0.43 | 5.38 | 0.16 | 0.61 | S/I | - | S/I | 0.42 |
| **Total** | | 9.75 | | 4.49 | | 0.06 | | 0.65 |

This year there are increases in NOx, SOx and VOC values but with a strong reduction in MP. The increase in the former refers to the fact that emissions from boilers that were not being monitored until 2016 began to be counted, and a new boiler was incorporated.

### DATOS 24H/365 DÍAS

| | Ton NOx | | Ton SOx | | Ton COV | | Ton MP | |
|---|---|---|---|---|---|---|---|---|
| **Origin** | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| **Farfana** | 10.39 | 11.11 | 9.07 | 9.70 | 0.12 | 0.16 | 0.96 | 0.57 |
| **Trebal-Mapocho** | S/I | 5.38 | S/I | 12.28 | S/I | S/I | S/I | 1.04 |
| **Total** | | 16.48 | | 21,98 | | 0,16 | | 1.61 |

## 7.4X REFRIGERANT GASES

**G4-EN20**

During 2016, a total of eight R-22 cylinders (a common refrigerant) were used between Aguas Andinas' Corporate Building (3 cylinders) and the operating rooms (5 cylinders). If one considers an approximate weight of 13.5 kilos for each cylinder, it is equivalent to 9.89 kg. CEC11eq of R-22.


# SOCIAL LEGITIMACY

**Focus:** Shared Value

**Objective:** "We seek to achieve societal approval from the community both internal and external, seeking the joint development of shared value based on relationships of respect, trust and transparency".

# 1. RELATIONSHIP WITH STAKEHOLDERS

**G4-25, G4-27**

There are several channels of communication that allow sharing information and understanding the perceptions and expectations of the main stakeholders, providing a fundamental tool for properly managing the company. The degree of interaction and frequency of the communications vary according to the stakeholder and the channels arranged.

| STAKEHOLDER | COMMUNICATION CHANNEL | MAIN COMMUNICATION TOPICS |
|---|---|---|
| EMPLOYEES | • Daily Wall<br>• Mailings<br>• Internal campaigns<br>• Aqua TV<br>• Institutional Journals and Journals<br>• Work meetings | • Career development and training<br>• Equal opportunities<br>• Good working conditions and communication<br>• Health and security |
| | • Contact Center and web platforms<br>• Business Agencies<br>• Ballots<br>• Surveys of perception and satisfaction | • Quality and continuity of supply<br>• Customer service<br>• Care and claims management channels<br>• Transparency and accuracy in collections |
| | • Investors website<br>• Investor relations managers<br>• Shareholders Meeting | • Profitability<br>• Stability of investment<br>• Corporate Governance Practices<br>• Risk management<br>• Transparency |
| SUPPLIERS AND CONTRACTORS | • Supplier Portal (web platforms)<br>• Relationship with contract administrators<br>• Relationship with risk prevention area | • Transparent and equitable conditions<br>• Timely payment<br>• Development opportunities |
| AUTHORITIES | • Work meetings<br>• Reports | • Regulatory compliance<br>• Collaborative relationships<br>• Contribution to local development |
| NEIGHBORING COMMUNITIES | • Hey Neighbor<br>• Work Groups<br>• Community relations programs | • Impact management<br>• Dialogue and relationship<br>• Local development opportunities |

# 2. MEASUREMENT OF SOCIAL LEGITIMACY

When defining social legitimacy as one of the strategic pillars of Santiago Deserves a 7, there arose the need to define what this concept meant for the company, and in particular measure the current state or baseline of the company's social approval by external and internal actors.

To this end, a project was begun to measure the status of the social license to operate (SLO), which will allow us to know the status quo and also identify the main social risks to which the company is exposed. Through field studies, and applying a methodology based on a model specializing in Social Capital and SLO, quarterly variations in the perception of the inhabitants of the Metropolitan Region concerning the behavior of the company will be understood.

# 3. GOOD NEIGHBOR PROGRAM

**G4-SO1, G4-SO2**

With the results of the diagnosis made through the Good Neighbor Program in 2015, a new model of community management was developed that gives rise to a new form of relationship between Aguas Andinas and its communities, under which the company seeks to maintain "good neighbor" relations, with fluid communications and an efficient work in common, so as to generate relationships of trust and local development.

## 3.1 Work groups

**SDG 3 Y SDG 5**

The groups are formal instances of the monthly relationship between representatives of the company and the communities. Through them, it seeks to establish a channel for ongoing dialogue, early detection of possible problems or discomfort, and promote the development of communities adjacent to the Wastewater Plants.

Working groups have been implemented with representatives of the communities of Rungue, Montenegro, El Trebal, La Farfana, Casas Viejas and Maipú Urbano. As a result of this effort, a concrete methodology of dialogue was established that, in addition to timely revealing differences, has made it possible to establish joint "community-enterprise" projects for local development. Along these lines, and by way of example, Aguas Andinas supported the community of Casas Viejas and the residents of La Farfana in developing a solar lighting project, that was presented to the Fund of the Ministry of Energy.

## 3.2 Hello Neighbor Line

**SDG 3 y SDG6**

Through the free line Aló Vecino (Hello Neighbor), neighbors of the treatment plants in the Metropolitan Region can make complaints about bad odors. These are investigated and answered by the National Environmental Center (CENMA) at the University of Chile, which makes field visits to determine the intensity, origin and source of odors, determining whether these are the responsibility of the company or third parties.

During 2016, 62 calls to the neighboring neighbor were registered and 100% of them were satisfactorily answered.

**Nº OF CALLS BY OPERATING CENTER**

| Center | N° calls | Nº resolutions |
|---|---|---|
| **La Farfana WWTP** | ~~41~~ 41 | 100% |
| **Mapocho-Trebal WWTP** | ~~11~~ 11 | 100% |
| **El Rutal CGIB** | ~~30~~ 30 | 100% |

**600 600 3000**

## 3.3 Breakfasts with societal leaders from neighboring communities in ESSAL

With a view to further strengthening the relationship of trust with client-neighbors and fostering the development of joint projects with organizations already consolidated and recognized by the community, ESSAL designed a breakfast program with representatives of the Neighborhood Unions' of the Neighbors' Boards, consumer groups and relevant actors from different locations from Lanco to Quellón. The breakfasts with social leaders consist of a corporate presentation made by the General Manager of ESSAL and have been well received by the participants. In 2016 the localities and organizations that participated in this activity were: Puerto Montt (Community Union of the Reloncaví Neighbors' Board- Community Union of Town Councils of Rural Neighbors), Osorno (Communal Union of Town Councils - Osorno Consumers Association), Panguipulli (Community Union of Neighbor's Board), and Ancud (Community Union of Neighbors' Board), which together brought together more than 400 neighborhood organizations.

# 4. CONTRIBUTING TO LOCAL DEVELOPMENT

**G4-SO1**

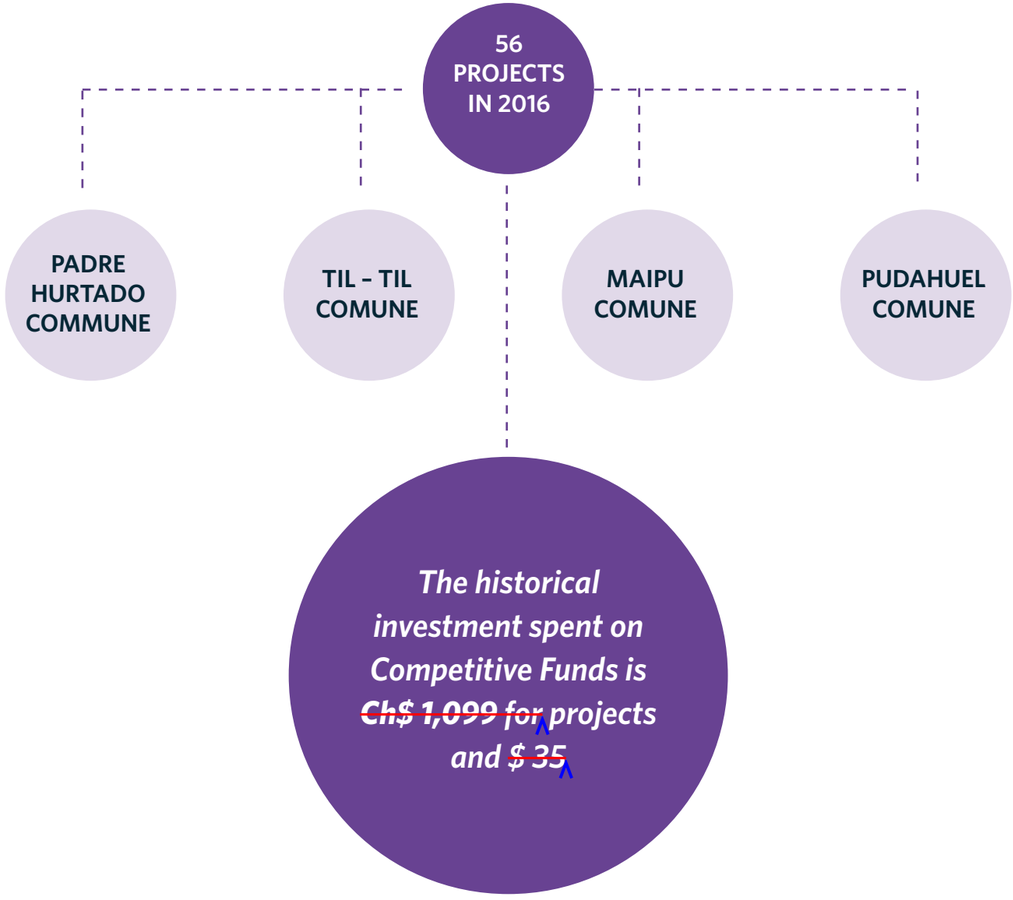
## 4.1 COMPETITIVE FUNDS

**SDG 10**

The competitive funds began in 2006 as a commitment established in the RCA19 of each plant. Once the obligation was extinguished, Aguas Andinas decided to maintain them as voluntary initiatives, for their contribution to the local development of the communities neighboring the facilities (Wastewater Treatment Plants and the El Rutal Biosolids Management Center (communes of Padre Hurtado, Maipú, Pudahuel and Tiltil).

Through this program, economic support is provided for projects developed by neighbors to improve the quality of life of their community. It is governed by the principles of transparency and equity, and those who are interested must pitch their initiatives through a competitive bidding process following publicly-available bases and requirements. In this line, evaluation criteria have been established for selecting those projects that meet the requirements of associativity, sustainability and community development.

Through this initiative, 487 projects from the communes of Til-Til, Padre Hurtado, Maipu and Pudahuel and 44 individuals from the commune of Til-Til have been financed over time.




[19] RCA: Resolución de Calificación Ambiental

## 4.2 PROGRESS PROGRAM - SUPPORT FOR LOCAL DEVELOPMENT

**SDG 8 y SDG9**

As an initiative that promotes social entrepreneurship and innovation, the Avanza program seeks to foster entrepreneurship among neighbors through co-creation and co-responsibility. For this, the project focuses on providing them with tools that allow them to offer services or improve their trade through training, labor practices, mentoring and seed capital. The goal is to gradually incorporate them into the value chain of the company, generating a mutually beneficial dynamic.

**Car wash service**

**Laundry service for uniforms and corporate clothing**

**Bakery, confectionery and food service**

**Clothing repair and embroidery service**

## 4.3 PLUMBING COURSES

**SDG 4 y SDG9**

Another initiative developed by Aguas Andinas to support the residents of the concession area, and particularly those who live in the most vulnerable neighborhoSDG, was the implementation of professional plumbing workshops. The objective of the workshops was to provide them with technical-professional tools, to work as plumbers or installers of gas appliances, in the areas of maintenance and preparation of gas networks and both potable water and sewage for residential use.

***In addition, of the 33 course attendees in 2015, 21 carried out the certification test in installations of gas networks - class 3, regulated by the Superintendency of Electricity and Fuels. In 2016, improvements were made to the materials and the leveling processes to achieve better results in future versions.***

# 5. EDUCATION AND SENSITIZATION TO NEIGHBORING COMMUNITIES

## 5.1 EDUCATIONAL PROGRAMS

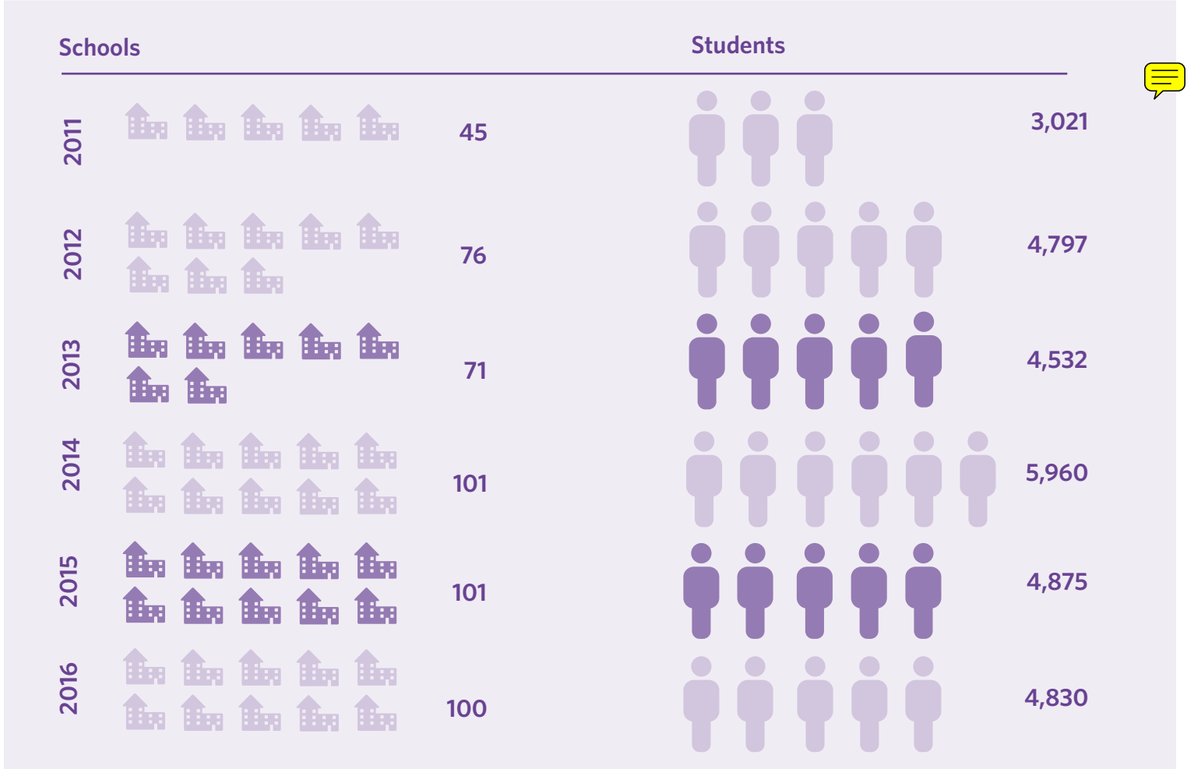
**SDG 4, SDG 6, SDG 12 y SDG 13**

### 5.1.1 GotaGotham

The program, GotaGotham (GothamDrop), which since its inception in 2011 has had the participation of more than 28,000 fifth grade students, has been consolidated into a leading environmental education program, with emphasis on the responsible use of water.

Teachers of environmental sciences and technology receive high-quality educational materials in line with the school curriculum, which aim to encourage their students to take concrete actions in favor of the environment, learning over a period of three months on topics such as the stages of the urban water cycle and natural water cycle, responsible use, and the fundamental role that each plays in caring for the environment.

In addition to delivering materials, the program considers of training teachers, delivering a program guide and monitoring implementation, in order to support them with technical knowledge on the use of the educational tool. Also, educational talks are held in each school for the entire school community and there is a website with the contents of the program and support to the teacher.




The process culminates in a competition of projects related to water care, in four categories: urban water cycle, hydraulic hand, water truck and bottle holder.

In 2016 and as a way to extend the program to all schools in the Metropolitan Region, we worked on developing an online application. Through the platform, teachers and students will be able to download all of the program's material and receive continuous support during implementation. Likewise, and to ensure the correct implementation, the teachers of the schools enrolled in this modality will be able to participate in the training that Aguas Andinas carries out in conjunction with the Lo Barnechea Educational Foundation.

### 5.1.2 Responsible water use program in kindergartens

Aguas Andinas, together with the Lo Barnechea Foundation, developed a program aimed at kindergartens in the Metropolitan Region to create environmental awareness from an early age.

The program addresses issues related to the care of the environment and natural resources, the formation of habits in water care, care of sanitary facilities and the sustainable and efficient use of water resources. The program was implemented in 2016 in 27 kindergartens of various communes of the Metropolitan Region, with the participation of 1,100 children and 28 teachers.

Beginning in 2017 and in order to increase its coverage, this program will also be online and will have the continued support of Aguas Andinas.

***The program was implemented in 2016 in 27 kindergartens of various communes of the Metropolitan Region, with the participation of 1,100 children and 28 teachers.***

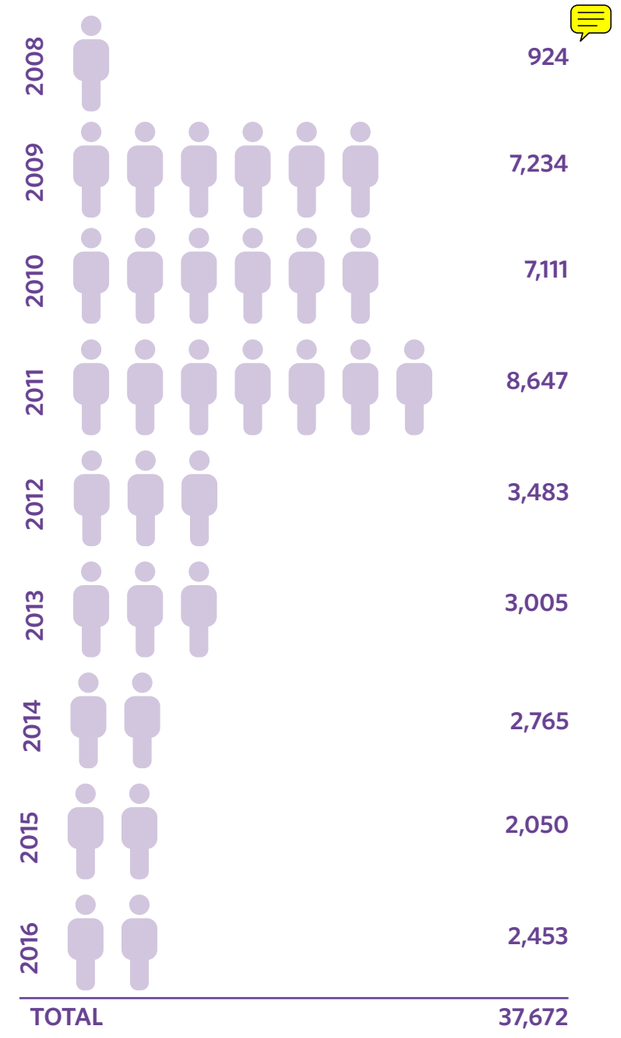
### 5.1.3 Guided tours

With the aim of bringing the school and university community and neighbors closer to the company's work, the program of guided visits to the potable water production plants and treatment plants was implemented more than 10 years ago.

During the visits pedagogical material is shared, linking the contents of the curricular mesh of each level with the experience lived during the visit.

In 2016 we worked on the elaboration of educational guides that will allow the teacher to work with the students on different subjects based on what they learn during the facility visits.

**Students who participated in the guided tours program**



### 5.1.4 Guided visits to ESSAL plants

Since 2013, nearly eight thousand students from the Los Lagos and Los Ríos Regions have been part of one of the region's major environmental education programs. This is the program of educational visits to wastewater treatment plants executed with the support of the Regional Ministerial Secretariat for the Environment of the Los Lagos Region and the sponsorship of the Regional Environmental Education Committee (CREA).

In 2016, 2,203 students visited the wastewater treatment plants and 202 students visited the potable water plants.

Replicating the success of the guided visits of the schools, a plan of visits for social leaders was implemented, with the purpose of bringing the neighbors of the plants to see the facilities and their operation. In 2016 about 150 social leaders visited us, totaling more than 600 since 2013.

### 5.1.5 Water Dome:

In the framework of World Water Day, Aguas Andinas inaugurated the third Water Dome. Placed in Bustamante Park, it was a new instance to raise awareness among children on the importance of water in our lives and promote its responsible consumption.

On this occasion, it was open to the public for almost two weeks (March 28 to April 6) offering guided tours to schools during the morning and for the general public during the afternoons. A total of 2,998 adults and 3,887 children visited the Dome.

**For its part, and in the framework of World Water Day, ESSAL awarded the annual "ESSAL comics" competition on water care in La Paloma Park in Puerto Montt, where an environmental fair was held together with the Environment Department, the Superintendency of Health Services, the respective Municipal Environment Departments, the University of Los Lagos, the Universidad Austral de Chile and the Fundación Senderos de Chile.**

## 5.2 SENSITIZATION CAMPAIGNS

### 5.2.1 Campaign: *#Drinking water does you good*

During the month of December Aguas Andinas launched the campaign #TomarAguaTeHaceBien (Drinking Water Does You Good) with the objective of actively promoting daily water consumption, given the multiple benefits it has for the body. This campaign was communicated through social networks and on the bills.

### 5.2.2 Hydrant Care Campaign

Aguas Andinas, together with the Intendancy of the Metropolitan Region and the Firemen, launched an educational campaign calling on the community, not to open water hydrants and contribute to their care. Preventing misuse of fire hydrants is an ongoing concern for Aguas Andinas. Therefore, the company carries out annual campaigns aimed at avoiding improper use by third parties, without the company's authorization and in contravention of current legislation. The Firefighters provide ongoing collaboration in the work of the caring and protecting hydrants, who periodically report the detected defects resulting from the vandalism by third parties. Unfortunately, and especially in summer, it is common to observe that teenagers, construction companies, truck drivers and villagers open taps without authorization, causing damage and discomfort to the community, obstructing vehicular traffic and violating the safety of their own neighbors. Such action renders the opening mechanism unusable, preventing its use in an emergency, with the consequent risk to human life and property. The damage is exacerbated by the loss of water. A faucet is capable of supplying 50 thousand liters of water in an hour, which is equivalent to the average consumption of 2 families in a month. Another important action in this area has been the construction of Water Plazas in sectors of scarce resources, an initiative developed jointly with municipalities and neighborhood associations. The Water Plazas have games, trees, gardens and a water dispenser as a central element, allowing children, youth and adults to enjoy a better quality of life, as well as providing an entertaining alternative to face the hot days of summer that discourages the illegal opening of hydrants. Currently 34 of these places are in operation.

## 5.3 ESSAL CORPORATE VOLUNTEER PROGRAM

In September 2016, as in every year, the company carried out beach cleanups in the region. The activity is designed jointly with the Directorate General of the Maritime Territory and Merchant Navy of the Navy (Directemar), the Ministry of Environment, and Municipalities. This initiative was attended by 41 employees from different management divisions, who voluntarily visited this activity at the coastal borders of Llanquihue and Puerto Montt (Chinquihue and Tenglo Island), collecting a total of 2.7 tons of garbage.

# 6. AGUAS ANDINAS IN MY NEIGHBORHOOD

**SDG 1 y SDG 6**

In order to fulfill the company's goal to "Work for the city's functioning and provide well-being to its inhabitants," it is necessary to be attentive to the needs of all customers.

Corporate commitment to all of them, particularly those in low-income sectors, is evidenced through the promotion of programs and initiatives specifically designed to meet their needs. It should be noted that approximately 35% of the potable water and sewage services provided by the company are installed and supplied to residential sectors inhabited by families at social risk. With this background in mind, the "Aguas Andinas in my Neighborhood" program was designed and implemented. Its main objective is to promote and encourage responsible water consumption, care of sanitary facilities and the relationship between the company, neighbors and the municipality. The main intervention pillars of the program are:

- Foster the articulation, participation and empowerment of local actors through the transfer of leadership skills and the formation of a participatory network that provides community support to the activities promoted by the Program.
- Educate and sensitize children about the importance of adopting habits and behaviors in line with responsible water consumption through thematic workshops.

In 2016 the Aguas Andinas in my Neighborhood program was reevaluated and adjusted to today's reality, determining that the program's success requires a joint effort between the Municipality, Social Leaders and Aguas Andinas.

Starting this year, the work lines of the program will focus on operational actions, commercial actions, the formation of the social leader school, workshops with children and the plumbers' workshops.

## 6.1 AMIGA ACCOUNT

This consists of a special repricing and debt normalization program made available by Aguas Andinas for the most vulnerable families in the community. This initiative provides payment facilities through a social agreement with a shared footing (with municipal contribution and contribution of the client), refinancing the debt in 36 installments without interest. It also has an expiration period of 8 unpaid installments, sufficient time to generate the customer's habit of payment and facilitate the regularization of the debt, and where the value of the quota corresponds to 25% of the monthly sale. Once the 36 installments have been invoiced, and whenever the customer has paid, at a minimum, up to the 34th quota, the company forgives the difference, leaving the account up to date. To bring this benefit to customers, Aguas Andinas employees, in agreement with the municipalities and neighborhood associations, carry out field operations directly with clients. In addition, letters are sent to the potential beneficiaries of this program, so that they can approach the municipality.

## 6.2 ANDEAN WATERS GIVES YOU A HAND

**SDG 1**

Another solution the company has designed in favor of the most disadvantaged clients is the "Aguas Andinas gives you a hand" agreement. Customers who have unpaid bills can access a payment of 24 monthly installments without interest, each for a value of $2,500, with the rest of their debt being repaid at month 24, if the client pays in a timely manner. Under this initiative, in 2016 a total of 2,572 agreements were made.

| Type of agreement | Agreements | Debt Agreed | Principal Amount Paid |
|---|---|---|---|
| **Andinas te da la mano** | 2,572 | 2,853,361.080 | 38,646,337 |
| **Convenio con cuota variable** | 11,039 | 7,439,527,259 | 365,387,375 |
| **TOTAL** | 13,611 | 10,292,888,339 | 404,033712 |

Para promocionar este beneficio entre los clientes, se realizaron 60 jornadas en terreno, en coordinación con las Juntas de Vecinos y Municipios.

~~Bajo este programa y durante el año 2016, se realizaron un total de 13.611 convenios. En el período se condonó la deuda a 1.837 clientes, por un monto total de $844.941.637. La cantidad de clientes beneficiados en el período disminuyó respecto del año anterior, por haber disminuido el número de clientes con convenio vigente y con cláusula de condonación. No obstante, el monto condonado aumentó, debido a que los clientes beneficiados registraban deudas convenidas por un mayor monto.~~

# 7. RECOGNITION

## ALAS20 AWARD - CORPORATE GOVERNANCE AND SUSTAINABILITY

Aguas Andinas was distinguished by ALAS20 as the leading company in Corporate Governance, also receiving third place in the category of Leading Sustainability Company.

The Sustainable Leadership Agenda (ALAS20) promotes and recognizes those companies, investors and professionals who stand out for their leadership in the environmental, social and corporate governance fields and actively contribute to the sustainable development of Latin America and the development of its capital markets.

## TRANSPARENCY RANKING

The Corporate Transparency Index is an initiative of the consultant firm Inteligencia de Negocios (IdN) which assesses the level of disclosure of information by public limited companies included in the IPSA and IGPA of the Santiago Stock Exchange.

In the 2016 version of the study, Aguas Andinas made a significant leap, jumping from position 35 to position 16 on the general list. In addition, the company was noted for being the company that made the most progress over the year for publicly-traded companies, and the third company that advanced the most in transparent management of sustainability.

## DOW JONES SUSTAINABILITY INDEX

For the second consecutive year, Aguas Andinas was selected to be a component of the Dow Jones Sustainability Indices (DJSI) for Emerging Markets and Chile.

Thanks to its sustainable and coherent behavior, in 2016 Aguas Andinas was again selected to be part of the Dow Jones Sustainability Index of Emerging Markets, an index that monitors the economic, social and environmental performance of the top 10% of each industry globally. At the same time, and for the second consecutive year, the Company was included in the Dow Jones Sustainability Index Chile, an indicator of sustainability developed by the Stock Exchange of Santiago and made up of only 21 companies.

## PROHUMANA

In the 2016 version of the PROHumana ranking, the company was recognized for its third consecutive year for its outstanding performance in the field of sustainability, ranking eighth, obtaining a bronze medal and advancing six places compared to 2015. The PROhumana Ranking of Corporate Sustainability is a tool that recognizes those companies that stand out for their level of integrating the concepts of sustainability in the business model. To do this, it uses two instruments: a comprehensive evaluation of the organization and a survey targeted at employees.

## AWARD AND RESPONSIBLE MARKETING AWARD (RMA)

Aguas Andinas was recognized by the National Association of Advertisers (ANDA), with the Anda Responsible Marketing Award (RMA), in the Environment category, for the Water Dome campaign.

The objective of this award is to recognize and highlight the best initiatives or marketing campaigns focused on the responsibility to the public and the country. The award recognizes the commitment of companies that have carried out marketing actions specifically considering responsibility to users, new generations, care of the physical and cultural environment, and sustainable practices.

## MERCO RANKING OF CORPORATE REPUTATION

Aguas Andinas was ranked first place in the Energy and Distribution category in the seventh version of the MERCO ranking, which highlights the most respected companies in the country. The only sanitation company in the study, it rose from sixth to first place in its category and also advanced in the general ranking, going from position 83 (in 2015) to 54 (2016).

The Merco ranking is based on a reputational evaluation instrument launched in 2000 that uses a multi-stakeholder methodology, composed of different evaluations and information sources. In order to carry out the study, surveys are conducted among company directors, financial analysts, NGOs, trade unions, consumer associations and academics, and citizens in general; further information is requested from companies.

## CUSTOMER PERCEPTION SURVEY ON THE QUALITY OF SERVICE OF SANITATION COMPANIES - SISS

Since 2009, the Superintendency of Sanitation Services has carried out this study with the objective of measuring the degree of customer satisfaction with each concession company. In the latest version of 2015, ESSAL was ranked third in the global ranking, and in the measurement of net satisfaction per company.

# 8. MEMBERSHIPS

**G4-15, G4-16**

Memberships and associations in which Aguas Andinas participates

- United Nations Global Compact.
- National Association of Sanitation Services Companies (ANDESS)
- Inter-American Association of Sanitary and Environmental Engineering (AIDIS)
- Business and Professional Association for the Environment (AEPA)
- Prohumana Foundation
- Operating Committee of Service Companies (COESE)
- Official Spanish Chamber of Commerce Chile
- Parque Cordillera Association of Municipalities
- Acción Empresas: Representative in Chile of the World Business Council for Sustainable Development
- Sociedad de Fomento Fabril (SOFOFA)

# 9. 2015-2020 CUSTOMER STRATEGY

In 2016 the focus on customer service was included in the expansion of the Customer Strategy. This strategy, designed and launched in 2015, has the fundamental objective of strengthening the link with the customer, enhancing sustainability through three fundamental axes: availability and quality of service; service experience, and perception of the benefits.

Within the framework of implementing the Santiago deserves a 7 Plan, the customer strategy initiatives were regrouped and new initiatives were designed to be implemented through 2020, totaling 58 projects underway.

Initiatives being implemented that relate to producing an emotional benefit for users include improvements to the management of claims, the new scheduled cutting procedure and the emergency alternative supply plan.

For its part, the company is making various efforts so that the client perceives the benefit of the service provided by the company, included in the strategy under the category "emotional benefit." Worth highlighting in this initiative are projects related to customer support at home, citizen collaboration efforts and the implementation of a citizen relationship model. In addition, the new concept of commercial agency, also seeks to contribute in this sense.

Finally, 40 strategic initiatives aim to substantially improve the service experience of the company. Included in this category are activities such as the improvement in the * 8000 service lines, the design of a customer-specific mobile application, the self-referral terminals in neighborhoSDG, the proactive warning to customers with significant increases in consumption, hiring a Customer Counsel and redesigning the Contact Center, among others. These add to a series of improvements in the internal processes of information management and customer care.

**9.1 More payment alternatives and better customer attention**

In order to allow the commercial agencies to provide better customer service, in June 2016 the external collection was consolidated. This meant implementing more than 6,892 account payment centers, both online and in-house, giving customers greater convenience and alternatives.

**9.2 Proactive Notice to customers with increased consumption.**

This program seeks to alert customers, before receiving the bill, of a considerable increase in consumption. The aim is that the bill does not constitute a surprise for the client and thus avoids a complaint.

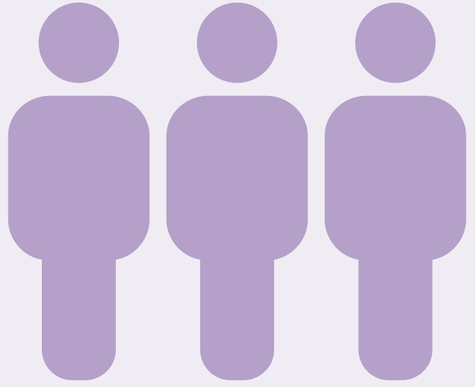
In 2016 pilot operation were made through telephone calls. In 2017, systemic adjustments based on cadastral surveys will be made for the continued use of this method..

## CUSTOMER COUNSEL

In December 2016, the position of Customer Counsel was created to further enhance the dialogue with clients.

Its main functions are promoting dialogue with stakeholders, managing conflicts between the client and the Group's companies and developing recommendations for better customer service.

Its role is to deal with second-instance claims, acting impartially against both parties. Through an agile, personalized and free process, it will seek to deliver binding solutions for the company, and will encourage the organization to stay on the path of continuous improvement in terms of quality of service.



# 10. PERCEPTION AND CUSTOMER SATISFACTION

## 10.1 CUSTOMER EXPERIENCE

Another important change introduced in 2016 and in order to improve the users' experience was the implementation of a new style of customer service called "Homeowners." The main objective is to equip commercial executives with the necessary skills to connect with customers and be perceived as a close, reliable, resilient company that safeguards privacy and treats all its customers in an equitable way.

The project was implemented in three phases. A first diagnostic stage was carried out through a workshop with 75 commercial and backoffice agencies. In an open dialogue process, individual and group opportunities for improvement were identified to fulfill the role of the Homeowners. The second step was the course "Attention as homeowners" where the executives themselves received theoretical and practical training in service quality, the importance of the service attitude, different strategies of care and connection with clients.

The last stage of the project requires the implementation of monitoring and oversight activities, with a program of permanent visits to commercial agencies beginning in December.

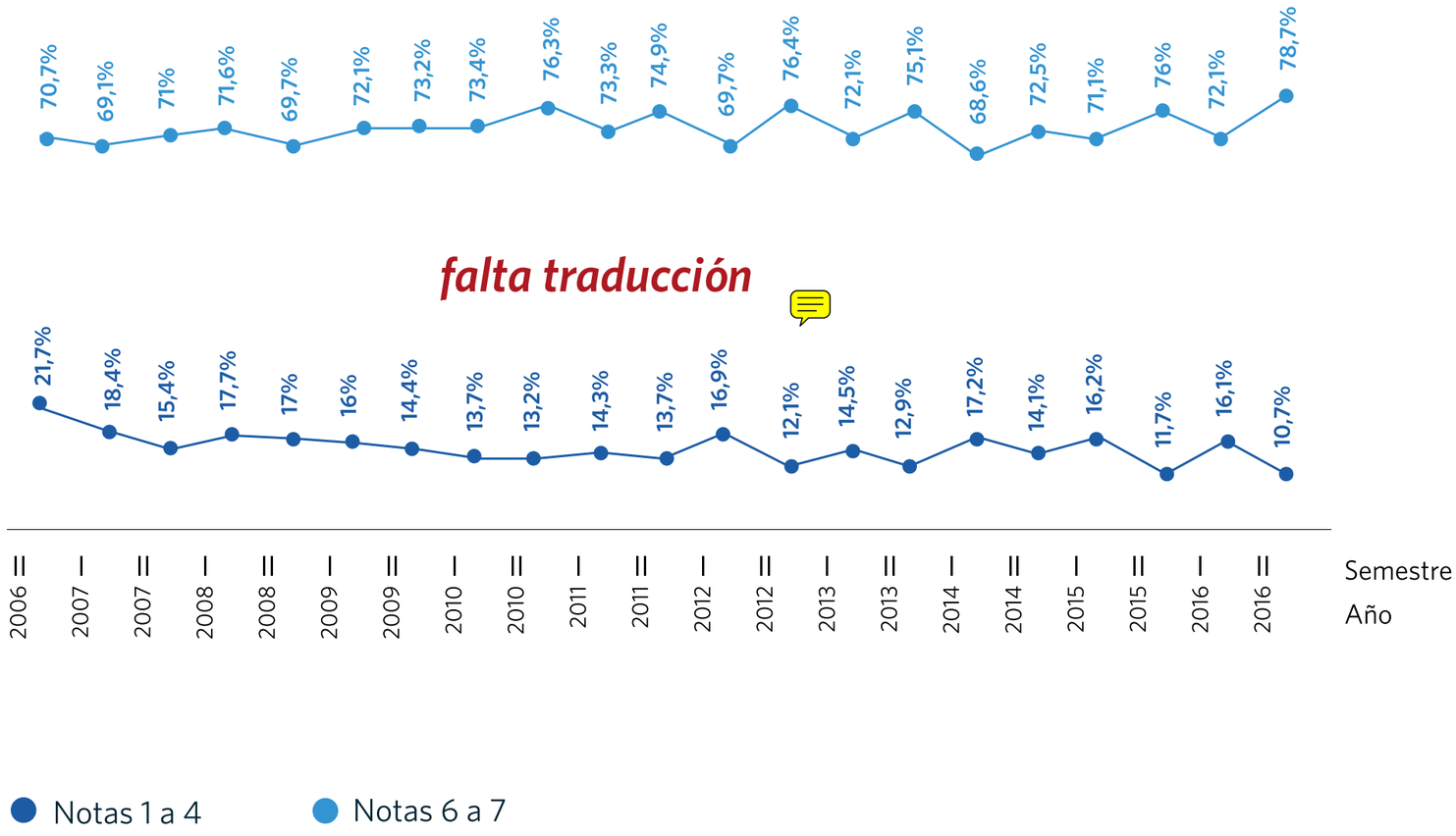
## 10.2 CUSTOMER SATISFACTION

**G4-PR5**

In order to measure the perception of customers regarding the service provided by Aguas Andinas, three tools are used. The results of the quality of service studies carried out by the Superintendency of Sanitation Services (SISS) are also taken into consideration.

### 10.2.1 Customer Satisfaction Study With Requirements – Opina

This consists of a quantitative study applied throughout the year, which measures the satisfaction of customers who have had a requirement (claim or request), which was declared as resolved by the company. It is important to note that only 1.2% of customers present a monthly claim in the company, which means that 98.8% of our clients have not made claims in the same period. In 2016, the percentage of customers who responded with a mark higher than 6 increased by 2.7 percentage points compared to the previous one, a figure that reflects a lot on the efforts the company has made in recent years, in favor of improving customer attention and service.

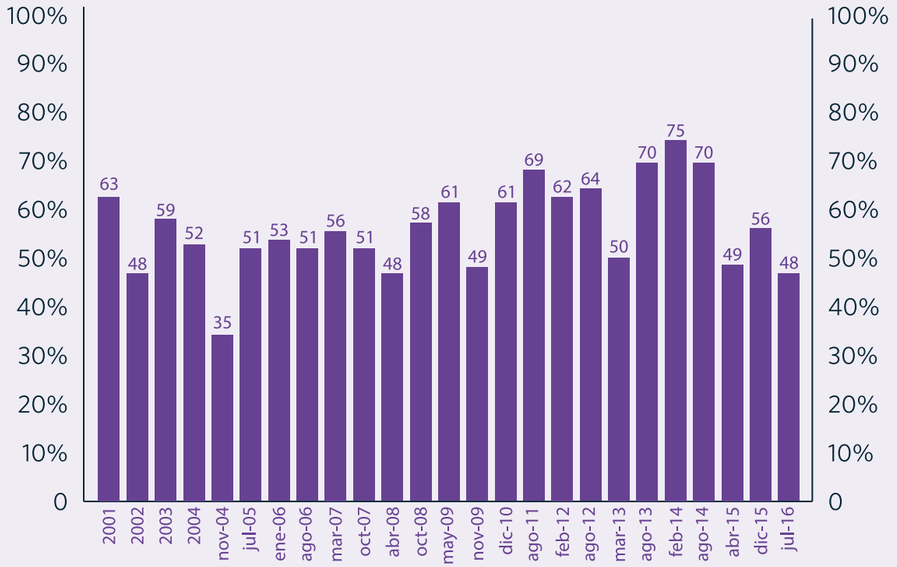


### 10.2.2 Image Study - Adimark

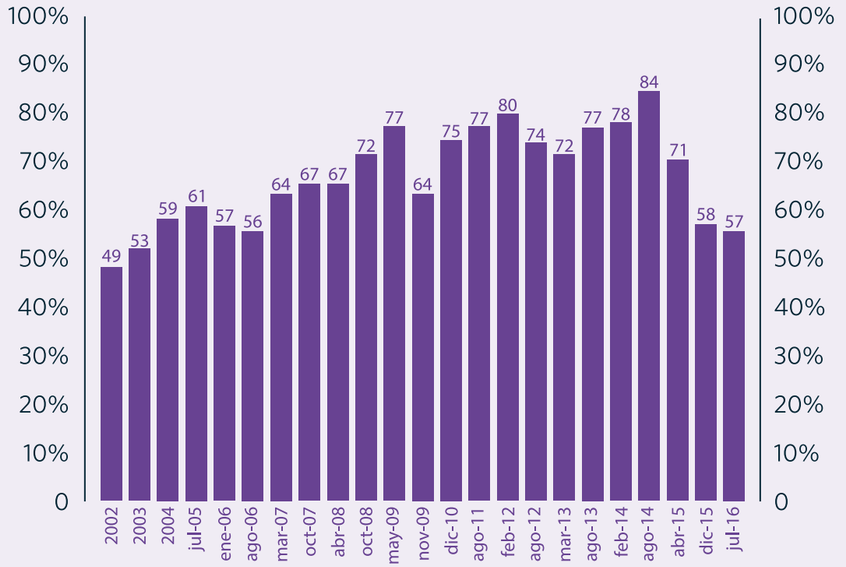
This is a quantitative study that measures the opinion, image and brand personality of the company. It consists of 600 telephone surveys conducted every six months to Aguas Group customers, whether or not they have submitted requirements.

The information in the chart refers to the% of customers who scored 6 or 7 to the question on their general opinion towards Aguas Andinas.

**AGUAS ANDINAS**




**AGUAS CORDILLERA**




Considering that the Adimark survey basically reflects brand perception, since it includes 98.8% of customers who have not made any demands on the company, and who are influenced by political, social, cultural and other factors, we could infer that the fall in the perception by 6 percentage points in relation to 2015 may be due to the massive cut or the rupture of the matrix in Providencia.

**10.2. National Consumer Satisfaction Index of Proficiency**

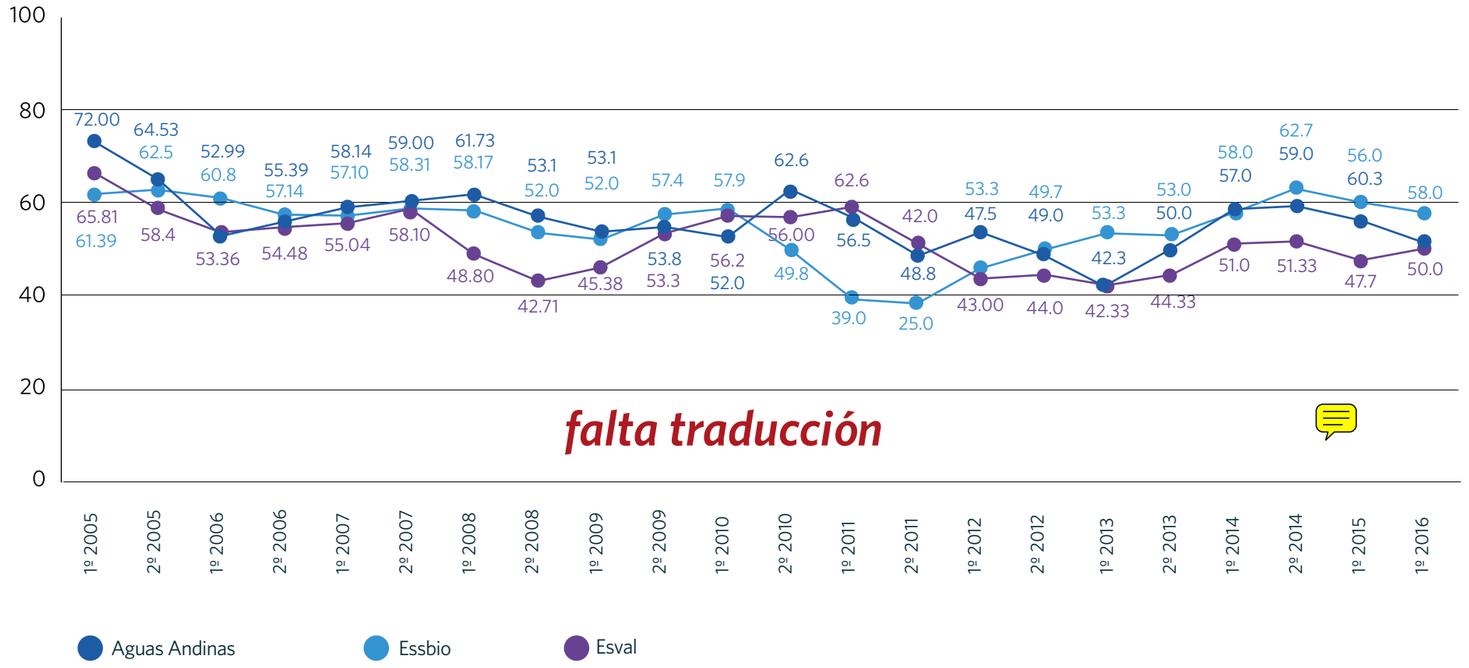
Quantitative study that seeks to reveal customer perception regarding the supply of value they receive from companies in different sectors of the market. This study makes it able to compare Aguas Andinas with other sanitation companies in the country.

In the same survey carried out by PROCALIDAD, ESSAL stands out for achieving a position above the National Satisfaction Index, obtaining 67% of marks with a 6 or 7 and only 9.5% with a grade less than 4.

It should be noted that the results contained in the various surveys have been used as background information to generate the Company's Strategic Plan, Santiago Deserves a 7 (SM7).

Beginning in January 2017, a survey will be implemented that measures the perception of our customers based on the pillars of SM7

**National Consumer Satisfaction Index (net)**




*Figures are approximate

## 10.3 INTERACTION DEMAND MANAGEMENT

For its part, and in a complementary way to the three measurement instruments mentioned, in 2016 a project was implemented to measure the satisfaction of all customer contacts that interact with the company. In this context, a post-care survey (PCS) was implemented, which is done automatically at the end of the telephone call. In the face-to-face care, a post-care survey was also implemented.

## 10.4 SERVICE QUALITY STUDY - SISS

**G4-PR1**
The quality of the service provided by sanitation companies is periodically monitored by the Superintendency of Health Services (SISS), making the results public on an annual basis.

| SISS INDICATORS REGARDING SERVICE QUALITY | 2014 | 2015 | 2016 | Promedio Industria |
|---|---|---|---|---|
| Pressure of potable water service | 0,996 | 0,998 | 0,998 | 0,992 |
| Quality of potable water | 99,8% | 99,9% | 99,8% | 99,15 |
| Continuity of potable water service | 0,999 | 0,999 | 0,997 | 0,995 |
| Continuity of sewage collection service (sewage system) | 0,995 | 0,997 | 0,997 | 0,998 |
| Quality of sewage treatment | 99,8% | 99,2% | 99,0 | 98,7 |
| Accuracy of collection | 0,953 | 0,997 | 0,997 | 0,997 |
| Business response to customer complaints | 0,923 | 0,921 | 0,921 | 0,923 |

~~La información presentada corresponde al promedio del resultado obtenido por Aguas Andinas, Aguas Cordillera, Aguas Manquehue y Essal.~~

~~Los indicadores que se presentan permiten comparar la calidad del servicio entregado por 28 concesionarias, entregando un ranking dentro del cual la posición de cada empresa indica una mayor (más cerca de 1) o menor calidad de servicio (hacia el 0) y no necesariamente un incumplimiento de las normas vigentes.~~

~~Para el caso de los indicadores de calidad de agua y de calidad del servicio de tratamiento de aguas servidas, el indicador representa el % de cumplimiento en todos los atributos de muestreo y calidad del agua potable y, en el caso de aguas servidas, representan el % de cumplimiento de la normativa.~~

## 10.5 CLAIM MANAGEMENT

In 2016, Aguas Andinas received 290,091 customer complaints, of which 36% related to networks and supplies, 34% related to commercial issues and the remaining 30% related to emergencies. This makes it possible to estimate that each month only 1.2% of the clients present a claim to the company.

In the case of ESSAL, 43,623 claims were received during the year, 4.1% less than the previous year. 70% of the complaints related to network issues.

**G4-PR8**

Ensuring the storage and protection of customer information is one of the fundamental objectives of Aguas Andinas' Integral Security Policy. To fulfill this objective, the company has several mechanisms and permanent monitoring systems for all information transport channels, and has carried out specific campaigns to raise awareness of information protection. In addition, in 2015 projects were implemented aiming to safeguard the information of clients, which include initiatives to control and access protection; control server activity; and information protection.

In 2016 there were no reports of leaks of customer information

~~RECLAMOS CERRADOS~~

| | Aguas Andinas | | | | ESSAL | | | ESSAL |
|---|---|---|---|---|---|---|---|---|
| | 2015 | % | 2016 | % | 2015 | % | 2016 | % |
| Networks | 114.314 | 38,38 | 103.670 | 35,74 | 10.785 | 23,72 | 9.886 | 22,66 |
| Commercial | 96.630 | 32,45 | 10.003 | 34,47 | 21.719 | 47,76 | 20.727 | 47,51 |
| Emergencias | 86.849 | 29,16 | 86.418 | 29,79 | 12.967 | 28,52 | 13.010 | 29,82 |
| **TOTAL** | | 297.793 | | 290.091 | | 45.471 | | 43.623 |

~~Este año se utiliza la modalidad de información a la SISS, que considera los requerimientos finalizados y no por fecha de creación, como se hizo en años anteriores. Adicionalmente, se categorizan los reclamos según sean de redes, comerciales o emergencias. Esta categorización se utiliza para mantener coherencia con los datos reportados en años anteriores, ya que la SISS solo informa sobre los reclamos de redes y comerciales, mientras que las emergencias quedan fuera. A pesar de ello, la compañía ha informado las emergencias los últimos años, incorporándolas al interior de la categoría de redes.~~

# DIGITIZATION

**Focus:** Agility

**Goal:** "We aim to use technology to serve the interactivity between customers and the company and achieve more agile and efficient processes."


As established in the pillar of the **"Santiago Deserves a 7"** strategic plan, the migration to processes and digital solutions is one of the strategic priorities of the Aguas Group. In this area, all initiatives that were begun respond to the same ambition: to give a better experience to the client, whether during contact with them or in the provision of services.

# 1. DIGITIZATION IN CUSTOMER CONTACT

Over the year a series of projects were created to bring customers closer to the company through the use of information technologies. All of the initiatives described below were characterized by a search for simplicity, multiuse and self-care.


**www.aguasandinas.cl**

## 1.1 *8000

Considering the high penetration of mobile phone use in the country, and always seeking to facilitate customer contact with the company, in 2016 the short dial *8000 was enabled for cell phones. In this way the user can quickly contact the corporate contact center.

## 1.2 VIRTUAL OFFICE

In 2016, a new virtual agency platform was designed and planned, allowing online transactions such as paying, managing payment agreements, requests, claims, or even displaying their progress status, regardless of the channel they entered (Contact Center, twitter, website or commercial agency). In this system, all the requirements will be integrated, with the consequent advantages for the client (better access and possibility of monitoring) and for the company, for the effective and efficient management of requirements.

The Virtual Office is designed to facilitate navigation, with a simple language and design, seeking to assure the client with an easy, pleasant and resolvable interaction experience, with the requirements being met 24/7 online and giving a response at the moment of attention.

From the same virtual platform, all procedures related to new connections can be made, facilitating the work of real estate agents, designers, installers and clients in general. This office, which will be accessible through the new Aguas Andinas website, will be launched during the first quarter of 2017.

## 1.3 MOBILE APPLICATION

The company's new application for iOS, Android and Windows is in the process of being tested, where subscribed customers will also be able to access all commercial information, pay, sign agreements, enter meter readings by uploading photos and even obtain the coordinates of the nearest point to make a payment.

## 1.4 BIOMETRIC REGISTRY IN SELF - CONSULTATIONS

For those customers in the process of commercial regularization, a new functionality is incorporated: using their own fingerprint on totems of commercial agencies, the user can manage their payment agreement, selecting the credit conditions that best fit, without waiting for customer attention at a module. Over the year more than 10,000 agreements were signed through this method.

## 1.5 SELF-CONSULTATION IN YOUR NEIGHBORHOOD

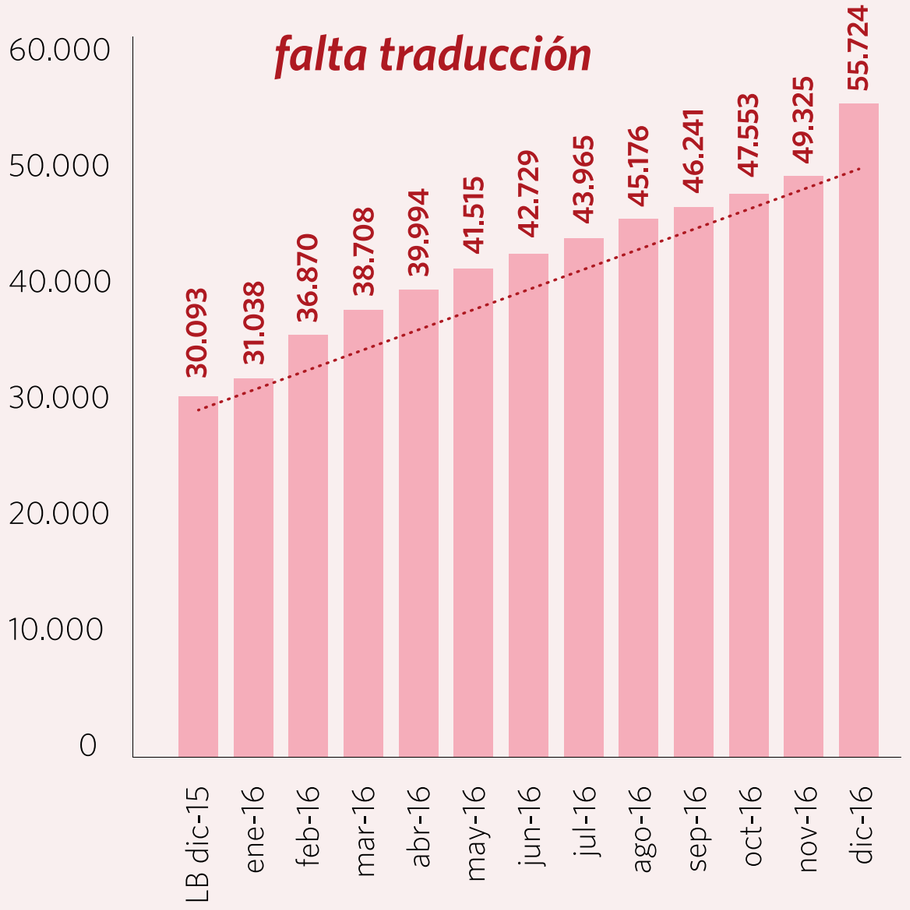
Another channel of communication with clients that is ad portas to be implemented are the self-referential totems. These totems will be located at strategic points of the city, so as to give access to the segment of clients that do not have internet. The design was done under the premise of simple navigation, with large buttons and clear instructions, thus allowing access to people of all ages.

## 1.6 ELECTRONIC BILLING

In 2016, Aguas Andinas continued to promote the migration of customers to the electronic account. This alternative presents benefits to the customer (by ensuring the bill arrives and having a digital back-up), for the company, as it saves costs for printing and transporting documents, and for the planet, due to the lower environmental impact in waste and paper savings.

In order for more and more customers to use this method, campaigns were carried out on social networks and telephone campaigns, surpassing 55,000 clients signed up for electronic billing as of December 2016.

**Evolution Electronic Billing Deliveries**



## 1.7 CUSTOMIZED BILLING

In 2016 changes were made in the design of the customer bill. This initiative seeks to satisfy those customers who require the physical document to pay or have had significant variations in their statements. The customized bill is a good opportunity to educate clients on the responsible use of water and facilities, as well as encourage electronic dispatch and inform them about multiple payment options.

It will start beginning in March 2017.

## 1.8 SENDING MESSAGES TO CUSTOMERS

In 2016 certain pilots of text messages were carried out from different platforms and in different situations, like for example, massive cuts, commercial problems, or increases of consumption. In 2017 and in conjunction with the departure of the virtual agency, it is expected that higher levels of contact will be achieved and will measure the success of the initiative.

## 1.9 CUSTOMER DATAWAREHOUSE

To support the different areas of the company and with the aim of centralizing information in an easily accessible platform, in 2016 the following activities were carried out on the platform:

- Migration from the BO platform to the BO SUITE version 4.2
- Generation of scorecard for initiatives contemplated in SM7
- Generation of the first version of the scorecard for CODIR
- Development of reports to control expense management and personnel indicators.
- Development of reports for PMO (control of investments by projects)
- Development of operational BO reports for Operations Management - Networks and Production
- Development of reports for the area of Process Engineering - Reports of monitoring of Wastewater Treatment Plants
- Development of Operations Management Dashboard with operational management indicators
- Development of SGO reports and adaptations for integration with AGBAR Operational Management System
- Storage setting adjustments for information control management
- Data models for general expenses
- Data models for human resources
- Investment data models
- Budget storage models by version and scenarios.
- Development of data model for SISS reporting.
- Development of conceptual model for roles and profiles in BI
- Development of models to support the tariff process.

# 2. DIGITIZATION IN FIELD WORK

## 2.1 AMR SOLUTIONS - TELELECTURE

This technology, installed mainly in supply points corresponding to green areas, located on the street and exposed to vandalism, and in meters of large consumers, aims to ensure an effective and timely reading of consumption and reinforce the installation to prevent access to third parties. To date, the company has 4,587 meters equipped with AMR technology. By 2017, it is expected to equip this technology with 1,300 strategic meters.

## 2.2 TELECONTROL

In 2016, designs and telecontrol works were carried out in association with the company's investment plans for the development and renovation of its infrastructure.

In order to streamline the continuity of the service, projects were carried out to automate the potable water distribution network, making improvements in Transfer Valves and Regulating Stations, Cutting Valves and Entrances to tanks, Local Automatism Works and Remote Operation.

In order to ensure the service, the existing infrastructure was strengthened by carrying out renovations to the remote control of the Mapocho Wastewater Plant and the Quebrada de San Ramon and Arrayan Potable Water Plants, and telecontrol improvement in the Dosing Systems of the Las Vizcachas complex. Local automation projects were also implemented in Sewerage Plants, Wells and in Regulation Station.

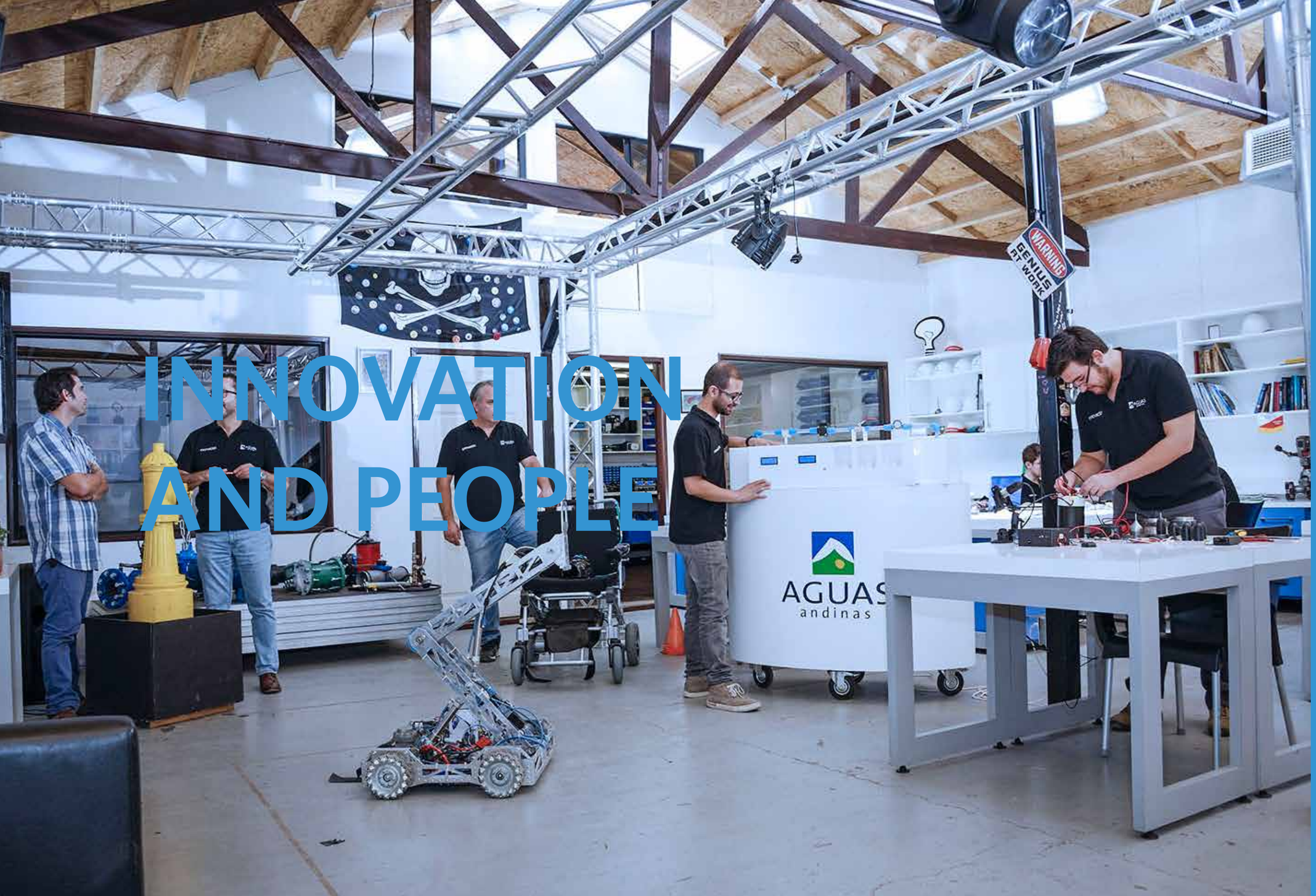
In order to improve the infrastructure to distribute Potable Water, the telecontrol was renewed in four Potable Water Plants (two in Arrayan and two in El Peral), and in wells (Isla de Maipo, Lo Pinto), two tanks (Carbonera in the north, El Trebol in Padre Hurtado) and a pressure regulator in El Peral.

Additionally, telecontrol works were designed for the migration of Chlorine Gas to Sodium Hypochlorite, in order to minimize risks.

## 2.3 GIS DRONES

The GIS project has been a great innovation at ESSAL, both in the way the company captures data in the field and its ease of use in decision making. Considering it is a simple system to handle and is done from a mobile phone, unlike traditional GIS systems, it was named "GIS Drones."

In 2016 an online system was implemented to register and geo-locate tasks relevant to ESSAL in the field (leak detection, water quality sampling, management of riles and biosolids discharge, etc.). In 2017 drone coverage will be increased and relevant business information centralized on the ground, such as the replacement and management of meters and on-site inspection with customers.




# INNOVATION AND PEOPLE

**Focus:** Value creation and adaptation

**Goal:** "Given an external context of continuous change, we seek an agile culture within the company promoting innovative environments. To reach that goal we will promote the welfare of employees and their adaptive capacity for change."

# PEOPLE

Skills management and development is a strategic priority for the organization. This is why, within the People Management division, in 2016 transformations were introduced to its structure, its systems and its processes.

In terms of structure, and as detailed in the chapter "Business Model - Transformation," the Sub-Management of People Development was created, which will focus on Integrated Skills Management. The Head of Services and Personnel Management will be in charge of executing the administrative processes of management, assuring the fulfillment of committed service levels and providing a service of excellence to employees. In addition, the model incorporates the figure of the Personnel Development Consultant, who will be responsible for interacting with the different Management divisions.

Additionally, over the year the processes of selecting, contracting, compensating, training and providing benefits were integrated under a single Skills Management strategy. In addition, and in order to have a comprehensive view of employee performance, competency assessment and variable compensation processes were integrated by individual and collective objectives (DGS and DEO).

All these changes were accompanied by changes in human resources information systems, with the purpose of further automating processes, making them more efficient and at the same time, ensuring the traceability of transactions.[20]

[20] The information presented in this chapter includes companies in the Aguas group, its non-regulated subsidiaries and ESSAL. However, as explained in the chapter "About the Report," for the latter organizations only information related to 2016, the first year of consolidation, is presented.

# 1. LABOR DEMOGRAPHICS

**G4-10**

As of December 31, 2016, the company had a team of 2,029 employees, with 21.3% women. As of December 2016, 97.2% of the workers had an indefinite contract.

## SIZE OF LABOR FORCE BY TYPE OF CONTRACT

| | AGUAS ANDINAS | | | | ESSAL | |
|---|---|---|---|---|---|---|
| | 2015 | | 2016 | | 2016 | |
| **Type of contract** | ♀ | ♂ | ♀ | ♂ | ♀ | ♂ |
| **Indefinite contract** | 254 | 886 | 349 | 1266 | 71 | 288 |
| **Fixed term contract** | 2 | 16 | 9 | 32 | 2 | 12 |
| **Total internal employees** | 256 | 902 | 358 | 1298 | 73 | 300 |

The increase in the total amount presented in the table above is due to the fact that in 2016 the information of the unregulated subsidiaries is included, which was not included in previous reports. In the case of Aguas Andinas, the increase in the total number of employees was 6.4% compared to the end of 2015.

## SIZE OF LABOR FORCE BY TYPE OF COMPANY

| **Filial / Región** | 2015 | | 2016 | |
|---|---|---|---|---|
| | ♀ | ♂ | ♀ | ♂ |
| **Aguas Andinas / RM** | 241 | 795 | 259 | 843 |
| **Aguas Cordillera / RM** | 12 | 93 | 13 | 96 |
| **Aguas Manquehue / RM** | 3 | 14 | 2 | 12 |
| **Non-regulated subsidiaries** | - | - | 84 | 347 |
| **ESSAL** | - | - | 73 | 300 |
| **Total** | 256 | 902 | 431 | 1,598 |



## 1.1 ROTACIÓN[21]

| | | 2015 | | 2016 | |
|---|---|---|---|---|---|
| | | Nº | % | Nº | % |
| Sex | Men | 94 | 7.8 | 174 | 10.5 |
| | Women | 9 | 0.7 | 46 | 2.8 |
| Edad | Under 30 | 103 | 8.5 | 220 | 13.5 |
| | Between 30 and 50 | 60 | 5.0 | 115 | 6.9 |
| | Over 50 | 3 | 0.2 | 7 | 0.4 |
| | Total | 103 | 8.5 | 220 | 13.3 |

**G4-LA1**

In the case of Aguas Andinas, annual turnover increased from 9.6% to 9.8%. On the other hand, in ESSAL the rotation reached 7.5%, a smaller number than the rest of the group, being more significant among men (51%).

In 2016 and as can be seen in the table, 162 people left the organization, of which 48% did so voluntarily.

[21] This table does not include ESSAL data

# 2. GENDER EQUALITY AND WORK LIFE BALANCE

**SDG 5**

After participating in the drafting of the standard in 2015, the company began to work on implementation of the NCh3262, Management Systems - Management of gender equality and work life balance - IGUALA, family and personal. This standard aims to contribute to promoting and establishing best work practices in organizations, related to the reduction of gaps, the incorporation of women and career development of women, as well as contributing to the increase of productivity and competitiveness of organizations through implementing actions that promote equal opportunities between men and women. It is also part of the objective of this Standard to promote actions aimed at reconciling the work and personal environment of the company's employees.

In January 2016, the Board validated the Equality and Reconciliation Policy. It provides the basis for promoting equal opportunities without discrimination on the basis of gender, race, political or religious beliefs or any personal concept that violates the dignity of fundamental rights.

**In April 2016, the first phase of the external audit for certification under NCh3262 was carried out. In May the final phase was accomplished, obtaining with this last milestone the effective certification for the corporate building, one of the four Companies to achieve accreditation.**

***After two and a half years of work and preparation, the company joins the list of companies with NCh3262 certification in Chile.***

In order to monitor the gender equality management system and balance between work, family and personal life, the Equality and Reconciliation Committee was created. The Committee meets on a quarterly basis and is composed of workers from the different levels of the company.

It has a threefold purpose: evaluate the fulfillment of the system's objectives, review and manage all issues related to gender equality and reconciliation within the organization, and promote the continuous improvement of all processes and procedures included in the system. In addition, Aguas Andinas' Management Division of Personnel and Work Environment is in charge of monthly monitoring of the proposed indicators and goals, and informs the committee.

For 2017, a work agenda will be developed that aims to improve the results of the hiring and promotion indicators of women to positions of greater responsibility. In the area of conciliation, a time flexibility pilot will be developed to identify future measures to be implemented in this area

**G4-LA12**

The measures taken in the framework of implementing the NCh3262 have paid off. In 2016, and taking into account the staffing by the Aguas Group22, it determined that the three organizational levels of Aguas Andinas saw the percentage of women increase in terms of their total size. The percentage of women at the executive level increased by 1%, 3% at the leadership level, and 2% in administrative positions.

**Gender Distribution - Aguas Group**

| | 2015 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| | ♂ | | ♀ | | ♂ | | ♀ | |
| CATEGORY | Nº | % | Nº | % | Nº | % | Nº | % |
| Executives | 55 | 87% | 8 | 13% | 61 | 86% | 10 | 14% |
| Leadership | 78 | 74% | 28 | 26% | 72 | 71% | 30 | 29% |
| Professionals | 281 | 69% | 128 | 31% | 296 | 69% | 133 | 31% |
| Technicians | 193 | 78% | 53 | 22% | 205 | 78% | 57 | 22% |
| Administrative | 30 | 45% | 37 | 55% | 29 | 43% | 38 | 57% |
| Operators | 296 | 98% | 6 | 2% | 288 | 98% | 6 | 2% |
| Subtotal | 933 | 78% | 260 | 22% | 951 | 78% | 274 | 22% |
| Total | 1,193 | | | | 1,225 | | | |

[22] Does not consider non-regulated subsidiaries, or ESSAL.

Gender Distribution 2016- Ecoriles, Gestion y Servicios, Anam and ESSAL

| CATEGORY | ♂ Nº | ♂ % | ♀ Nº | ♀ % |
|---|---|---|---|---|
| Executives | 6 | 75% | 2 | 25% |
| Leadership | 11 | 83% | 2 | 17% |
| Professionals | 71 | 62% | 43 | 38% |
| Technicians | 107 | 78% | 31 | 22% |
| Administrative | 6 | 55% | 5 | 45% |
| Operators | 146 | 99% | 1 | 1% |
| Subtotal | 345 | 80% | 84 | 20% |
| Total | | 431 | | |

Dotación consolidada por Género

| CATEGORY | ♂ Nº | ♂ % | ♀ Nº | ♀ % |
|---|---|---|---|---|
| Executives | 72 | 85% | 13 | 15% |
| Leadership | 114 | 73% | 39 | 27% |
| Professionals | 441 | 68% | 213 | 32% |
| Technicians | 361 | 79% | 91 | 21% |
| Administrative | 59 | 47% | 67 | 53% |
| Operators | 551 | 99% | 7 | 1% |
| Subtotal | 1,597 | 79% | 431 | 21% |
| Total | | 2,029 | | |

**Meanwhile, in the Ecoriles, Gestion y Servicios and Anam subsidiaries, 80% of the workers are men.**

**80%**

**G4-LA2**

## MAIN MEASURES THAT PROMOTE WORK FAMILY BALANCE

- Summer timetable on Fridays
- Kindergarten for mothers with children up to 5 years old
- Telecommute pilot project for 7 employees
- La Farfana Sports Venue
- San Gabriel Holiday Complex
- Entertaining week with children of employees

In order to measure the employee assessment of the reconciliation initiatives adopted, a survey was carried out in October to identify potential opportunities for improvement.

**G4-LA3**

In 2016, one worker and twenty-six workers23 made use of the right to parental postnatal leave. The reincorporation of 100% of them during the year is a new manifestation of the valuation employees give to the efforts in terms of work life balance.

[23] Includes ESSAL

## 2.1 EQUAL PAY

**SDG 5**

**G4-LA13, G4-54, G4-55, G4-EC5**

The company's compensation policy defines contracting, promotion and annual evaluation procedures and is applied equally, without discrimination of any kind, whether due to gender or any other distinction.

### SALARY GAP BETWEEN MEN AND WOMEN[23]

| | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|
| CATEGORÍA | Base salary men | Base salary women | % Women salary compared to Men | Base salary men | Base salary women | % Women salary compared to Men |
| **Executives** | 5,736,302 | 4,899,351 | 85% | 5,727,897 | 4,831,438 | 84% |
| **Leadership** | 3,428,602 | 2,866,942 | 84% | 3,398,113 | 2,941,773 | 87% |
| **Professionals** | 2,202,779 | 1,816,850 | 82% | 2,263,315 | 1,897,912 | 84% |
| **Technicians** | 1,404,112 | 1,121,263 | 80% | 1,441,721 | 1,125,505 | 78% |
| **Administrative** | 1,135,505 | 1,350,825 | 119% | 1,157,916 | 1,390,852 | 120% |
| **Operators** | 1,095,921 | 1,038,174 | 95% | 1,133,424 | 1,090,160 | 96% |
| **Total** | **1,812,724** | **1,744,766** | **96%** | **2,520,398** | **2,212,940** | **88%** |

Differences between men's and women's incomes are due to general differences that can not be attributed to gender: seniority or bonuses (area, shifts or working on holidays or company days are usually not performed by women). In the case of ESSAL and in reference to equalizing the salaries of men and women, there is still room to continue working.

### SALARY GAP BETWEEN MEN AND WOMEN IN ESSAL

| | 2016 | | |
|---|---|---|---|
| CATEGORY | Base salary men | Base salary women | % Women salary compared to Men |
| **Executives** | Sin Información | Sin Información | Sin Información |
| **Leadership** | 2,224,057 | 1,639,972 | 73.74% |
| **Professionals** | 1,316,452 | 956,500 | 72.66% |
| **Technicians** | 639,464 | 524,901 | 82.08% |
| **Administrative** | 723,750 | 634,280 | 87.64% |
| **Operators** | 454,299 | 0 | 0,00% |
| **Total** | **1,071,604** | **751,131** | |

The ratio between the compensation of the best paid person in the Group companies and the average compensation of the company is 1.96 times. Meanwhile, the average salary increase in relation to 2015 was 31.6%, while the highest salary increased 3.0%.

[23] Does not include ESSAL

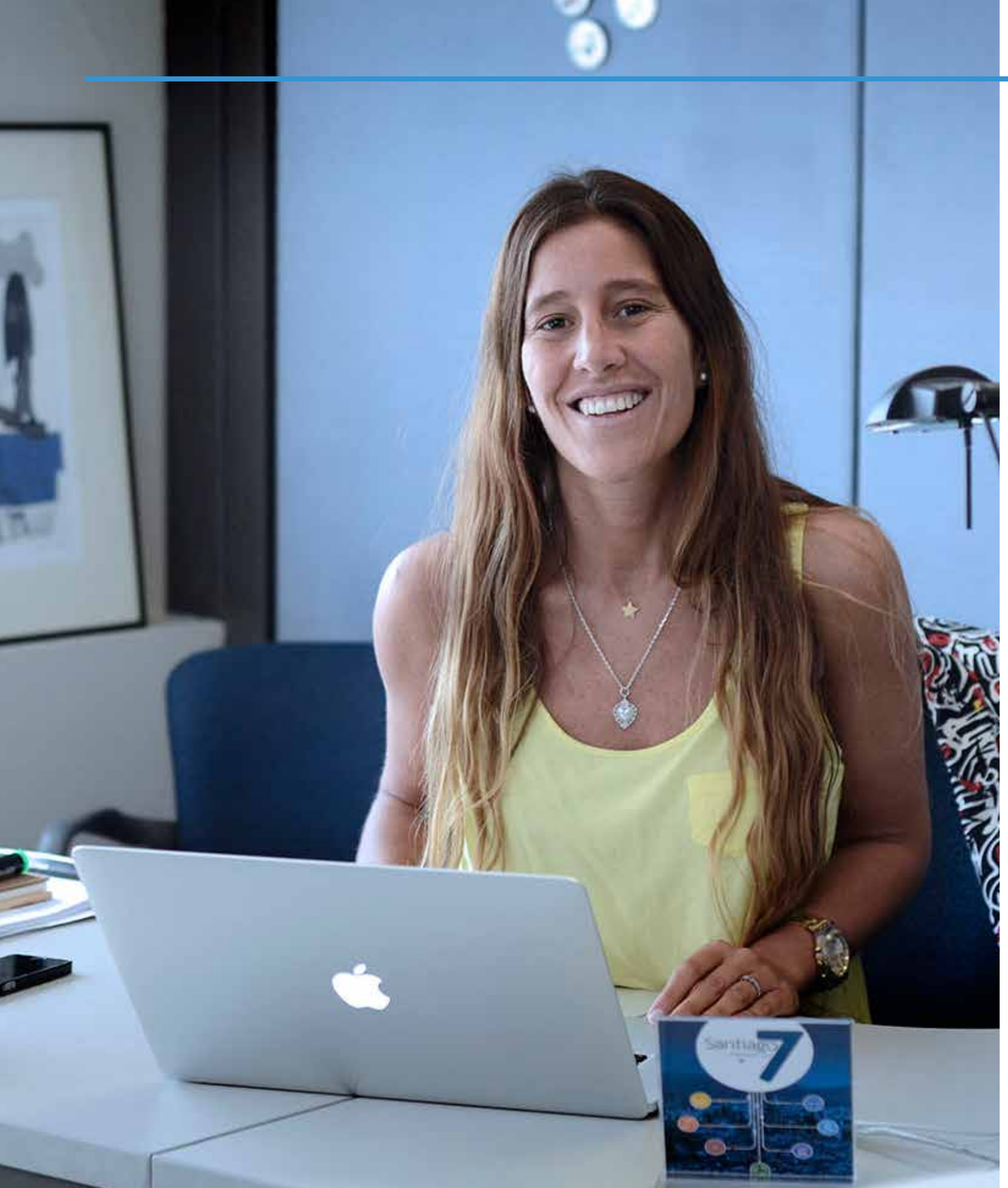
No Information: It was not possible to publish this information for the 2016 report.

## 2.2 PROYECTA PROGRAM

Since 2015, the Proyecta program has been offered to all employees who are close to retirement age (three years before they are eligible for legal retirement). It was designed to promote the quality of life for employees and their families, taking into account the different needs and interests that arise in this stage of life. This program is also offered to those employees who are suffering from crippling health problems.

It consists of an attractive package of monetary and non-monetary benefits, such as fixed incentives and variable incentives, complementary health insurance and an additional year of life insurance, among others.

***In 2016, 8 employees were welcomed out of a total of 18 candidates. At ESSAL 10 employees were welcomed.***



# 3.PERSONNEL DEVELOPMENT

SDG 4

## 3.1 INTEGRATED SKILLS MANAGEMENT

The management and development of Aguas Andinas' human capital is consolidated under a single strategy called "Integrated Skills Management." In it, the processes of recruitment and selection, performance evaluation, development and training, career planning and knowledge management processes are all involved. This strategic initiative seeks to equip workers with the necessary tools to encourage their growth and development, aligning their professional objectives with the company's strategy.


### 3.1.1 Professional Development

G4-LA11

In order to promote the development of its employees, the company annually performs two types of performance evaluations: "SGDCrecer" including top-down evaluations and 360° evaluations for executives, and evaluations using the Assessment Center technique.

The first consists of a "Top Down" evaluation, through which all employees are evaluated for their performance. In addition, 360° evaluations are carried out in this program, which reviews the performance at headquarters. Meanwhile, the *Assessment Center*[24], which applies to professionals with outstanding performance, allows us to more effectively determine the potential of people, and align it with opportunities that may arise based on the company's needs.

In 2016 the company continued to rely on these mechanisms as useful tools for defining the focus on employee development, updating the skills map, and addressing succession plans for key company positions. Thus, the percentage of workers subject to the SGD CRECER evaluation in Aguas Andinas continued to increase.

[24] Only applied to the companies of the Aguas Group

## EMPLOYEES EVALUATED BY SGD CRECER

| | Aguas Andinas | | | Consolidad | | |
|---|---|---|---|---|---|---|
| | Woman | Man | Total | Woman | Man | Total |
| **Total employees Aguas Andinas** | 263 | 912 | 1,175 | 431 | 1,598 | 2,029 |
| **Nº of collaborators evaluated** | 238 | 857 | 1,095 | 412 | 1,551 | 1,963 |
| **% of total collaborators** | 90% | 94% | 93% | 96% | 97% | 97% |

***In 2016 and as a consequence of the above, 66.7% of the vacancies (for positions from headquarters to managers) were filled internally by employees.***

## G4-LA10

Based on the different instruments applied and in order to enhance the career development of the different workers, a series of particular activities were implemented such as:

***Coaching/mentoring program:*** Enhances the performance of the employee through individual or group support with specialists on the subject, such as Community Women, or individual coaching by external consultants. Its objective is to offer advice, information or guidance from a person with more experience and skills. It focuses on career and personal development. In 2016, 10 workers participated in this program.

***Self-development:*** An action plan is prepared where the employee must empower himself/herself through his/her own professional development, under the premise of "learning by doing," delegating more responsibilities according to the competencies identified.

***Cross-cutting projects:*** Employees are invited to participate in multidisciplinary and/or interdepartmental projects. Its aim is to extend networks and expose them to contacts to increase possibilities for mobility.

***Internal Mobility:*** Based on the competencies of each employee, the Management division for Labor and Work Environments incorporates candidates into internal mobility programs.


***Developmental milestones for 2017 will be linked to developing leadership programs for supervisory positions, upgrading critical position succession plans, and updating the skills map based on performance appraisals.***

## 3.2 FORMACIÓN

**SDG 4**

**G4-LA9**

The training plan is prepared each year using a training needs detection process, which is based on specific internal interviews, the results of performance assessment tools and organizational changes.

In 2016, the focus was on training in the development of leadership skills in executives, training in occupational health and safety, and strengthening interpersonal skills.

In addition, specific initiatives aimed at updating employees on technical matters (such as asset management, hydraulic efficiency, and self-maintenance) and on cross-cutting issues such as anti-corruption practices and crime prevention, fundamental rights, sustainable development and circular economy, among others.

In alliance with DUOC UC, specific diploma courses were given for the company's personnel in matters such as operation of potable water and sewage plants, industrial waste management and network management.

In 2016, 22 employees participated in the Diploma in Operation of Potable Water and Sewage Networks.

In 2016, each employee at Aguas Andinas received on average a total of 58 hours of training and 36 hours at subsidiaries. In the Aguas Group, during 2016 an average of $244,829 was invested per worker on training, surpassing 311 million pesos. For its part, in ESSAL the average investment per worker was $219,677 and the total investment was close to 82 million.

### DATOS CONSOLIDADOS DE FORMACIÓN

| | Aguas Andinas | | | Aguas Andinas | | | Filiales | | | ESSAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2015 | | | 2016 | | | 2016 | | | 2016 | | |
| CATEGORÍA | N° of employees | Nº of training hours | Average training hours | N° of employees | Nº of training hours | Average training hours | N° of employees | Nº of training hours | Average training hours | N° of employees | Nº of training hours | Average training hours |
| **Executives** | 63 | 5,723 | 91 | 71 | 4,877 | 69 | 8 | 145 | 18 | 6 | 48 | 8 |
| **Leadership** | 106 | 7,533 | 71 | 103 | 7,756 | 76 | 12 | 969 | 81 | 20 | 1,410 | 71 |
| **Professionals** | 409 | 35,406 | 87 | 429 | 28,253 | 66 | 114 | 7,578 | 66 | 132 | 1,755 | 13 |
| **Technicians** | 246 | 13,249 | 54 | 262 | 13,029 | 50 | 138 | 4,410 | 32 | 45 | 700 | 16 |
| **Administrative** | 67 | 4,363 | 65 | 67 | 2,188 | 33 | 11 | 836 | 76 | 49 | 550 | 11 |
| **Operators** | 302 | 16,108 | 53 | 294 | 15,120 | 51 | 147 | 5,861 | 40 | 121 | 899 | 7 |

### 3.2.1 Continuous Improvement Program

Continuing with the Plan of Excellence initiated in 2012, this year the Continuous Improvement Program was launched with a view to increasing the quality of each of the company's processes, in line with the pillars of Resilience and Digitization.

The first step was the design of a training plan for all employees. In 2016, more than 200 people were trained.

In addition, the Black Belt competency development program was launched, involving 12 professionals, who were trained in an 80-hour course on statistical tools for process analysis and improvement. In parallel, four process improvement projects are underway using Six Sigma methodology.

***Certification of Competencies - ChileValora***

**The National Association of Sanitation Services Companies (ANDESS) was selected to present draft Provisions of Labor Competencies to ChileValora.**

**The nomination to this initiative, of which Aguas Andinas assumed an active role, implies that the Commission of the National System of Certification of Labor Competencies - Chile Valora - will carry out the survey of certain profiles of the sanitation sector (network operators, sewage plant operators, along with a supervisory position) and will officially recognize the labor competencies of employees who achieve certification.**

**The application to Chile Valora was carried out with the support of the National Federation of Sanitation Works Employees, FENATRAOS, and is in the design stage.**

**This great news will bring tangible benefits for certified employees - by increasing their employability, career development and productivity - and for the company, because it improves their productivity and allows them to ensure a better quality standard.**

## 3.3 WATER SCHOOL

**SDG 4**

In May 2016, the Water School began its activities, an instance of knowledge transfer which seeks to provide a solution to the development needs of sanitation employees. Using face-to-face and online methodologies to facilitate the learning experience and its immediate applicability, training will encompass all areas of the integrated water cycle.

In addition to the Masters in Technology and Water Management, which was launched in 2016 for 15 Group professionals in collaboration with the Universidad Politécnica de Catalonia, specialized courses were given in new sector trends (sustainability, circular economy, hydraulic and energy efficiency, among others), training courses for reporters, and specific training and diplomas for supervisors and operators.

**Water School: 2016 Training**

| PROGRAM | DIRECTED AT | MONTH | LENGTH (HOURS) | N° OF CLASSES | N° OF PARTICIPANTS |
|---|---|---|---|---|---|
| Internal reporter training | Internal reporters | July | 16 | 1 | 14 |
| Self-maintenance of hydraulic equipment | Operations | September | 40 | 2 | 34 |
| Customers: sales and development of commercial guidance | Sales and Customer Service | September | 25 | 1 | 17 |
| Network Diploma | Operators | October | 136 | 1 (en curso) | 22 |
| Master's in Technology and Water management | Aguas Group professionals with high potential | September-December | 1.500 | 1 (en curso) | 15 |
| Sustainable Development | Managers, Deputy Managers, Bosses and Engineers | October | 18 | 5 | 92 |
| Circular Economy | Managers, Deputy Managers, Bosses | October | 16 | 2 | 42 |
| Total | | | | | 236 |

### 3.3.1 Launching of the First Masters in Water Technology and Management in Chile

The program, aimed at professionals in the sanitation sector seeks to develop the skills and knowledge necessary to implement strategies in line with water management policies, based on the principles of professional excellence, technological innovation and sustainability.

### 3.3.2 Water School signs agreement with Universidad Adolfo Ibanez

The Suez Group of Spain and the Universidad Adolfo Ibanez (UAI), through its Center for Executive Education (CEE) signed a collaboration agreement to develop executives and professionals of the water industry, implementing various development initiatives such as programs, diplomas and masters open to companies in the sector.

To this end, the Water School will provide expert knowledge of the industry and the necessary technical and technological processes. For its part, the CEE - UAI, with its business orientation, will provide practical and learning methodologies that impact the company, through the different corporate solutions that it offers.

The 18-month program combines face-to-face, online and e-learning content. The methodology includes case studies, as well as technical visits and master classes by national and international experts from the university world and water sector managers. In the 2016 edition it saw participation from 15 professionals.

### 3.3.3 Water School signs agreement with DUOC

The Group and DUOC signed a collaboration agreement to develop operators and supervisors of the water industry.

# 4. ORGANIZATIONAL CLIMATE

## 4.1 ORGANIZATIONAL CLIMATE - GREAT PLACE TO WORK (GPTW)

**SDG 8**

In September 2016, the first measurement of the organizational climate was applied to all employees in the Aguas Group under the GPTW28 methodology. The objective of the initiative was to obtain a clear diagnosis of the working environment within the company, which promotes the generation of changes, improving the commitment and performance of the teams, elevating a good work environment and, above all, employees who are proud and happy to work in the Aguas Group. In the first application of this instrument, 985 responses were received, representing an 81% share. Regarding the evaluation, 61% average satisfaction with the company was obtained.

**During 2017, efforts will focus on transmitting the results to all company employees, designing and implementing cross-cutting improvement actions and action plans focused by area, and continuing to carry out measurements, recognizing the high value that this instrument brings to a good working environment.**

Since 2015 and as established by current regulations, the company measures the level of exposure of its employees to psychosocial risks. This evaluation aims to reduce the incidence and prevalence of problems related to mental health and improve the quality of life of employees. Five dimensions are measured: psychological demands at work, active work and skills development, social support in the company and quality of leadership, compensation, and double presence. The second evaluation, carried out in December 2016, included the participation of 75% of Aguas Group employees. According to the results of this new version, we will work with the local committees of each of the 9 venues, in designing concrete mitigation measures for the dimensions that result in risk.

In the application of the Psychosocial Risk Surveillance Protocol, it was concluded that a large number of the Group's facilities are categorized as high risk, and therefore, the design of specific surveillance programs for each location was required.

Based on the results of the survey conducted in December 2015, and in addition to conducting the organizational climate survey and developing the Ten Commandments of Good Practices, a series of measures were implemented:

- Development of a Social Foundation pilot: Installation of a Social Assistance service in the field to address different topics such as education, housing, health, indebtedness, among others.
- Design and implementation of a quality of life course: The online course seeks to promote reconciliation between family and work, delving into topics such as indebtedness, emotional intelligence, time management and self-care. It saw the participation of 253 employees.

[28] Great Place to Work

*The three pillars of the Aguas Group in terms of risk prevention are zero tolerance to accidents, self-care and correct use of equipment.*

# 5. HEALTH AND SAFETY

**SDG 3 y SDG 8**
**G4-LA5**

In the framework of the company's Integrated Quality, Safety and Environmental Management System, a specific Health and Safety Management System, certified under the OHSAS 18001 standard, was developed and implemented by the Corporate Operations and Safety Management Occupational hazards.

The system consists of a Health and Safety Policy and a Strategic Plan for the Prevention of Occupational Risks (PRL), which has as goals for the period 2015 and 2016:

- Gradual and progressive reduction of frequency indices and severity indices.
- Integration of the prevention function into business activities.
- Minimization of risk in all activities carried out.
- Maintain identified, evaluated and controlled environmental agents of Occupational Health.

**Rosalindo Fuentes Silva Annual Award of the National Security Councild**

**The most important recognition of the National Security Council highlights companies that have excelled by their trajectory, interest and spirit of service in favor of risk prevention and occupational health. This recognition received by Aguas Andinas is delivered for the first time to a company in the sanitation sector. Some of the elements that influenced the award relate to the robustness of the team, innovative initiatives, prevention plans, the formation of operational committees and the improvement of health and safety indicators.**

## 5.1 ACCIDENT INDICATORS

| EMPRESAS | Nº accidents with wasted time | | Nº days lost due to lost time accidents | | Accident rate | | Injury rate | |
|---|---|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 | 2015 | 2016 |
| AGUAS ANDINAS | 10 | 12 | 500 | 299 | 0.94 | 1.10 | 47.0 | 27.4 |
| AGUAS CORDILLERA | 1 | 0 | 4 | 0 | 0.86 | 0.00 | 3.40 | 0.00 |
| AGUAS MANQUEHUE | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL | 11 | 12 | 504 | 299 | 0.90 | 1.00 | 42.0 | 24.6 |
| ESSAL | - | 4 | - | 358 | - | 1.10 | - | 98.7 [25] |

Among the main advances in health and safety in 2016 are the implementation of safety and signaling improvements in all production areas and the development of communication campaigns to publicize the "10 rules that save lives" to all employees. Also, applying focus groups with employees from all venues, the self-assessments of culture in occupational safety and health began, an initiative that will continue next year.

In health and safety training, a training course was given for employees exposed to confined spaces. By 2017, the company has begun to develop safe design standards, that is, technical specifications that will be defined in a multidisciplinary working group, and that will serve as a reference base for the design and planning of all future facilities. In addition, life-saving rules training courses will be replicated and extended to contractors.

The management of risk prevention has the support of the 13 Joint Hygiene and Safety Committees formally constituted for the Metropolitan Region. Conformed by six representatives of employees and six from management, they have the responsibility to make joint agreements, leading to preventing and controlling the labor risks generated in carrying out processes and operations. In the case of ESSAL, there are 4 joint committees, representing a total of 261 employees, or 70% of the total number of employees.

[25] ESSAL's high accident rate is explained by the psychological leave of a worker for more than a year.

## G4-LA7

The qualitative and quantitative assessments that are continuously carried out inside the facilities determined that the main risks an emergency operation could face are related to exposure to chlorine gas and chemicals. Faced with such a risk, management courses were continued and personnel were given specific devices to contain or neutralize leaks or spills. However, it was determined that the risk of exposure to these components is well below the allowable limits established by Supreme Decree 594.

| TYPE OF EMPLOYEE | RISK OR DISEASE WHICH IS EXPOSED |
|---|---|
| Potable Water Plant Operator | Exposure to chlorine gas, confined space work |
| Equipment Maintenance | Exposure to chlorine gas, contact with chemicals, lifting of equipment, intervention with electrified equipment, entry into confined spaces. |
| Potable Water Transport Operator | Exposure to chlorine gas, contact with chemicals, transportation on public roads and confined space entry. |
| Wastewater Treatment Plant Operator | Exposure to biological agents, lifting of equipment and exposure to noise. |
| Maintenance Operator of Wastewater Networks | Impacts for entering confined spaces, street work, exposure to noise |

**3rd place in the National Security Council's Award for videos related to health and safety at work**

**The prize was obtained in recognition of the creativity in the video that was part of the company's Campaign of Occupational Safety and Health. In addition, specific recreational activities were developed for the risks to which the organization is exposed.**

In 2016 management was strengthened by implementing Occupational Health protocols and carrying out occupational examinations for 130 employees. In terms of innovation, a prototype system for entering confined spaces and rescuing employees was tested at wastewater treatment plants.

## 5.2 PREVENTION OF DRUGS AND ALCOHOL

**SDG 3 y SDG 8**

In December 2016, the policy of Prevention of Drugs and Alcohol of the Aguas Group was signed. This document was a milestone in the implementation of a program initiated in 2014 with the support of SENDA26 for the prevention, treatment and rehabilitation of drugs and alcohol.

Through an anonymous and voluntary employee survey, applied in 2015 at eight venues of the company, the initial phase of the certification of SENDA's "Work with Quality of Life" program was started, which seeks to make Aguas Andinas a work space for preventing alcohol and drug use.

In 2016, different activities were carried out that were part of this program's action plan, carrying out internal awareness campaigns and preventive operations in different venues of the company.

For 2017 a new action plan will be developed that will involve parental skills workshops to prevent tobacco and alcohol and other drug use among children of employees.

[26] SENDA: National Service for the Prevention and Rehabilitation of Drugs and Alcohol Consumption

## 5.3 SAFETY AND HEALTH IN CONTRACTING COMPANIES

**SDG 3, SDG 4 y SDG 8**

**G4-LA6**

The year 2016 was the year of consolidating the management model for contractors implemented in 2015. Significant progress was made in the model indicators, thanks to the joint effort of the managers of Aguas Andinas and contractors.

During 2016, a digital platform for overseeing contractors was implemented, with a view to achieving a 100% monitoring of the works and services of the company. The platform incorporates legal compliance controls, as well as the result of field inspection visits where compliance with the Group's standards is also verified. A new committee of contractors is responsible for ensuring the proper implementation of this process and for making decisions, based on the reports issued from the platform.

The Occupational Safety and Health Committee of Business Contractors, led by the Corporate Operations Manager and with the participation of General Managers from 11 contractor companies, continued to meet monthly.

The main event in this area was the holding of the VIII Annual Meeting for Contractor Companies to present the major advances of the contractor management model, along with other themes related to its management. It is a vital commitment for the organization to continue to achieve improvements in this area.

***Over 3,000 field audits were completed, with more than 1,500 observations on Occupational Health and Safety that inspired the corresponding corrective actions. In 2016 no fatal accidents occurred.***

**Health and safety indicators of contractors 2016** [27]

| | 2015[28] | | 2016 | |
|---|---|---|---|---|
| **ITEM** | **Contractor Companies Health and Work Safety Committees** | **Total Permanent Contractor Companies** | **Contractor Companies Health and Work Safety Committeesl** | **Total Permanent Contractor Companies** |
| N° Accidents | 44 | 92 | 29 | 51 |
| N° Hrs Worked | 1,980,755 | 4,528,876 | 1,755,371 | 4,042,246 |
| N° Avg Workers | 871 | 2,082 | 767 | 1.877 |
| N° days lost | 381 | 803 | 527 | 797 |
| Frequency Index | 22 | 20 | 16.52 | 12.62 |
| Severity Index | 0.19 | 0.18 | 0,30 | 0.20 |
| Accident Rate | 5 | 4 | 3,78 | 2.72 |
| Injury Rate | 44 | 39 | 6.,71 | 42.46 |

[27] Without ESSAL

[28] In the 2015 Sustainability Report, permanent contractors, not members of the committee, were reported under this column.

# 6. UNIONIZATION

**SDG 8**
**G4-11, G4-LA4, G4-LA8**

Harmony with the needs and concerns of each employee requires the generation of an atmosphere of respect and trust, and spaces for direct and close dialogue within the company.

In the regulated companies of the Aguas Group, there are six unions representing 1,021 people, equivalent to 83% of the total staff.

At ESSAL, 86% of employees are affiliated with one of the three existing unions in ESSAL.

In June 2016 a collective agreement was signed with the Union of APR employees at ESSAL Valdivia which will have a validity of three years. In December 2016 a Collective Agreement was signed jointly with the unions of sanitation professionals of ESSAL and technical and professional employees of ESSAL, establishing improvements in compensation and educational benefits.

Meanwhile, there are different collective agreements which, among others, include a series of benefits that seek to improve the health and safety conditions of employees both inside and outside the company, through complementary health insurance and solidarity funds that cover the costs not covered by Isapres and supplementary insurance.

In addition, the agreements[29] establish a minimum period of 4 weeks notice to employees and their representatives before the company implements significant operational changes that could substantially affect them.

[29] Does not include ESSAL

% of subscribed employees

## 2015

| COLLECTIVE AGREEMENT | AMOUNT OF SUSCRIBED EMPLOYEES | % OF TOTAL |
|---|---|---|
| UNIONS 1 AND 2 AGUAS ANDINAS | 501 | 43% |
| UNION OF PROFESSIONALS AND TECHNICIANS | 375 | 32% |
| UNION 1 AGUAS CORDILLERA AND MANQUEHUE | 31 | 3% |
| UNION 2 AGUAS CORDILLERA AND MANQUEHUE | 47 | 4% |
| UNION OF WORKERS AND SUPERVISORS AGUAS CORDILLERA AND MANQUEHUE | 41 | 4% |
| COLLECTIVE AGREEMENT ECORILES | -- | -- |
| COLLECTIVE AGREEMENT GESTIÓN Y SERVICIOS | -- | -- |
| COLLECTIVE AGREEMENT ANAM | -- | -- |
| SIPROSAN | -- | -- |
| SIPTESSAL | -- | -- |
| UNION APR VALDIVIA | -- | -- |
| TOTAL | 995 | |

## 2016

| COLLECTIVE AGREEMENT | AMOUNT OF SUSCRIBED EMPLOYEES | % OF TOTAL |
|---|---|---|
| UNIONS 1 AND 2 AGUAS ANDINAS | 526 | 43% |
| UNION OF PROFESSIONALS AND TECHNICIANS | 378 | 31% |
| UNION 1 AGUAS CORDILLERA AND MANQUEHUE | 28 | 2% |
| UNION 2 AGUAS CORDILLERA AND MANQUEHUE | 50 | 4% |
| UNION OF WORKERS AND SUPERVISORS AGUAS CORDILLERA AND MANQUEHUE | 39 | 3% |
| COLLECTIVE AGREEMENT ECORILES | 178 | 41% |
| COLLECTIVE AGREEMENT GESTIÓN Y SERVICIOS | 13 | 3% |
| COLLECTIVE AGREEMENT ANAM | 158 | 37% |
| SIPROSAN | 143 | 38% |
| SIPTESSAL | 127 | 34% |
| UNION APR VALDIVIA | 54 | 14% |
| TOTAL | 1.689 | 83% |

La información de las filiales no reguladas se reporta a partir de 2016

# INNOVATION

Aguas Andinas uses a comprehensive system that addresses key elements to promote innovation and research: processes, culture, people and the generation of spaces.

In terms of research, the Chilean Water Research Corporation, Cetaqua Chile, was created, dedicated to scientific research and the future of water. In terms of innovation, AguasLab was created, two spaces of open innovation, one for the brainstorming stage (to be opened in 2017 in the Innovation Center of Pontífice Universidad Católica); another for the prototyping stage (done in the laboratory implemented at the IF of Recoleta), among other initiatives.

Internally, the company develops the Emerge program, and also participates in projects of Disruptive Innovation (Imagine Program) in which employees of the company participate along with other external innovators.

# 1. CETAQUA: CHILEAN WATER RESEARCH CORPORATION

**SDG 6**

The technological center of water - CETAQUA - opened its doors in 2016 as a non-profit corporation whose main mission is to promote, carry out and disseminate research, technological development and innovation in the integral management of water and the environment. The partners of the corporation are Aguas Andinas, Suez Water Advanced Solutions Chile, Universidad Técnica Federico Santa María and the Higher Council of Scientific Research of Spain (CSIC).

In 2016 the research focuses of the center were the codigestion processes in wastewater treatment plants, the valorization of sludge generated in the treatment of potable water, and research into which factors are the most relevant for affecting the structural degradation of the potable water transportation and distribution network and sewerage networks.

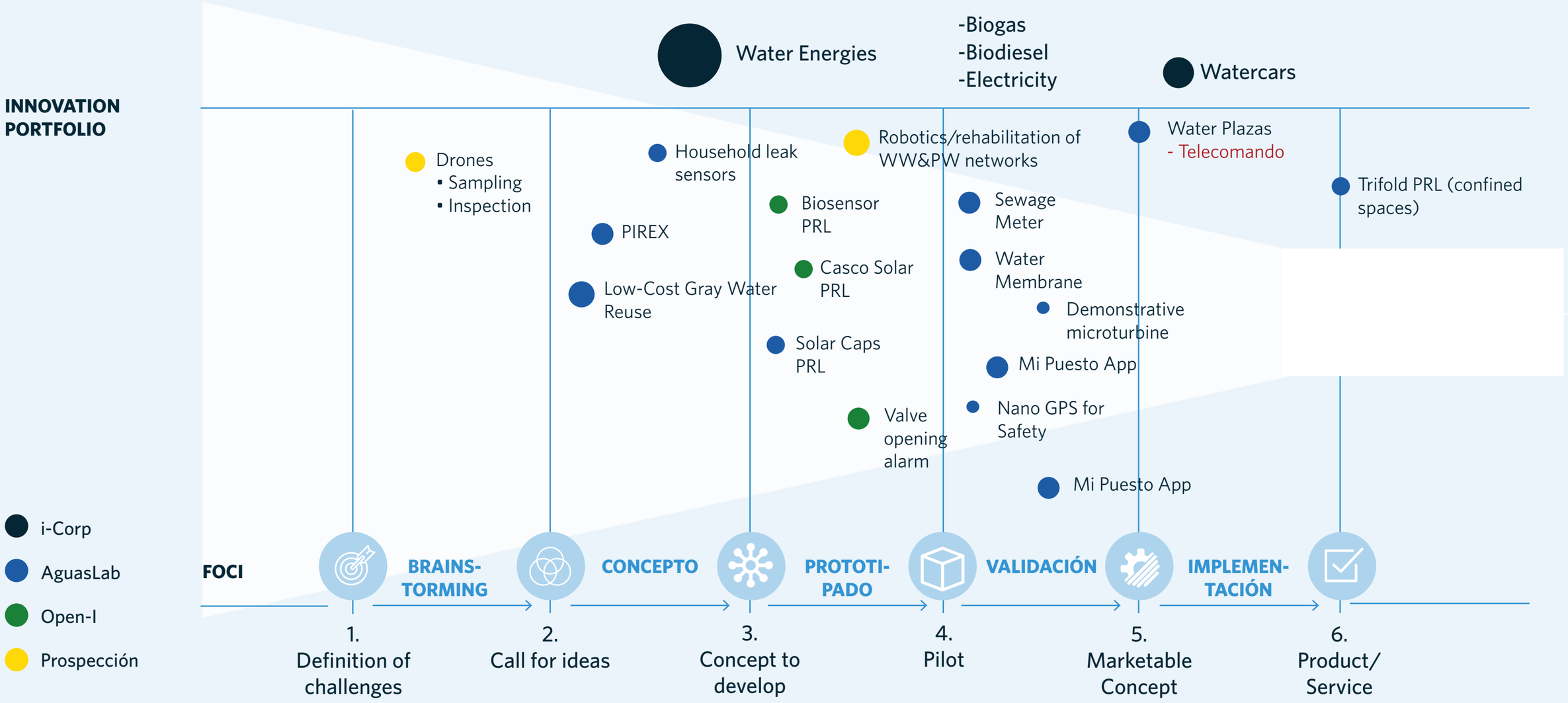
For the execution of these projects, Cetaqua has 4 researchers for the areas of water treatment and water resources management and has signed research collaboration agreements with the Universidad Técnica Federico Santa María and the Pontificia Universidad Católica de Valparaíso.

In 2016 CETAQUA, together with seven universities and three scientific-technological centers, integrated HUBTec Chile, a technology transfer platform that seeks to boost Chilean innovations and positively impact the country's economic and social development, increasing productivity and diversifying the Chilean economy.

The Center is also part of the Research Network on Water Resources, coordinated by the National Council for Innovation for Development (CNID), which brings together more than 25 centers and research groups on water resources in Chile.

CETAQUA CHILE CENTRO TECNOLÓGICO DEL AGUA

## THE COMPOSITION OF THE PROJECT PORTFOLIO IS THE FOLLOWING




For 2017, in terms of innovation, the size of the project portfolio is expected to increase. This continues efforts to build a culture of innovation and consolidate the innovation ecosystem, increasing spaces for interaction and extending collaboration agreements with key players within that ecosystem..

# 2. INNOVATION PROJECTS

SDG 9

## 2.1 INNOVATION MANAGEMENT

In 2016 the Management of Innovation and Development was created with the dual mission of implementing an innovation system that responds to the needs of the company and allows the company to access the ecosystem of innovation present in Chile.

## 2.2 MODELO DE INNOVACIÓN

| | STRATEGY | CULTURE | CAPACITIES | PROCESS |
|---|---|---|---|---|
| ***What is it?*** | It is the definition of the focus on innovation | It is the engine of internal participation and the adequacy of processes and standards | It is the sum of knowledge, technology and strategic assets | Consists of the management of the innovation portfolio |
| ***2016 Advances*** | • Identification of the priorities and areas of innovation under the Rowan Gibson's "4 lenses" methodology, linking a focus with each pillar of the SM7 Plan (see attached figure) | • Training and innovation workshops that addressed the themes of Design Thinking, High Performance Teams and Agile Innovations.<br>• Selection of two employees to participate in the "Imagine Latam" open innovation competition through mixed teams that develop a disruptive project during a 2 week trip that was presented in the Andicom of Colombia.<br>• Carrying out of the first innovation and knowledge fair that made it possible to show the organization the innovation projects carried out by employees in different areas of the company done with external innovators | • Implementation of the AguasLab project, the umbrella under which Aguas Andinas' water strategy is inserted in the national innovation ecosystem to complement internal capabilities with surrounding ones from the academic, start-up, technology-based companies and self-taught entrepreneurs.<br>• Within AguasLab Two verticals were defined, AguasLab - San Joaquín and AguasLab - Recoleta. | • Consolidation of a portfolio of projects that respond to the main challenges of innovation, implementing the creative intelligence model at the ideas generation phase. |

| 7 STRATEGIC PILLARS | BUSINESS MODEL | RESILIENCE | DIGITIZATION | CIRCULAR ECONOMY | SOCIAL LEGITIMACY | INNOVATION AND PEOPLE | WATER AND QUALITY OF LIFE |
|---|---|---|---|---|---|---|---|
| FOCOS DE INNOVACIÓN | FOCUSES OF INNOVATION | ECONOMIC SUSTAINABILITY | CONTINUITY OF SERVICE | AGILITY AND PRODUCTIVITY | RESOURCES EFFICIENCY AND VALUE | CAPABILITIES CULTURE INNOVATION | QUALITY OF LIFE IN SANTIAGO |

## INNOVATION PROJECTS

| | | |
|---|---|---|
| **2.2 LAUNCH OF AGUASLAB RECOLETA, FIRST APPLIED ROBOTICS HUB OF CHILE** | The hub is located in IF Blanco, a collaborative space in the commune of Recoleta, where entrepreneurs from different disciplines interact, coexisting in a context of reciprocal support in the midst of an open and dynamic environment. | AguasLab is an independent center with a focus on implementing ICTs, knowledge management systems and innovation. It was conceived as a space for the creation of new ideas and encounters, with robotics tools applied to the service of Aguas Andinas, people and the city. It has a fab lab equipped with the necessary technology to work on prototypes such as 3D printers, electronic tables, laser cutters and a hydraulic test bench. |
| **2.3 STRATEGIC ALLIANCE: SAN JOAQUÍN AGUASLAB, INNOVATION CENTER UC INNOVATION, AND INDIVIDUAL INNOVATION PROJECTS** | The offices of the UC Innovation Center UC "Anacleto Angellini" of the San Joaquin campus, will house the phases of ideation and conceptualization of the innovation process. It will include a physical space for exclusive use destined to meet the challenges of open innovation and the company's internal innovation. | |
| **2.4 2016 IMAGINE LATAM CHALLENGE** | A team from Aguas Andinas participated in the 2016 Imagine Latam challenge, an initiative developed by the Imagine Creativity Center that seeks to generate solutions to the continent's challenges through disruptive innovation. After two weeks of intense work, Imagine's Dreamers ended their journey through Chile, Peru and Colombia, presenting their projects in the final event at Andicom 2016, the main technological fair in Latin America, in Cartagena de Indias, Colombia. | The jury of experts selected the Aguas Andinas team as winner for the project Andino (PokemonGo taps), consisting of a smartphone application, which through the use of augmented reality, will encourage sports and bring about health benefits through potable water. The winners will exhibit their project at the World Mobile Congress in Barcelona in February 2017. |

# 12º SUSTAINABILITY REPORT OF **AGUAS ANDINAS**

G4-13, G4-17, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-28, G4-29, G4-30, G4-31, G4-32 G4-33, G4-48

For the preparation of the XII sustainability report of Aguas Andinas S.A. We use the methodology proposed by the Reporting Initiative of the Global Reporting Initiative (GRI), in G4 version. Under this standard, the company reports on its economic, social and environmental management during the period from January 1 to December 31, 2016. This report also constitutes the Communication of Progress in compliance with the ten principles of United Nations Global Compact in the areas of human rights, labor standards, environmental protection and the fight against corruption.

## GRI INDEX

On the other hand, this year, for the first time, we wanted to be accountable for the organization's contribution to the United Nations Sustainable Development Goals (SDG). To this end, an initial internal diagnosis was followed by four internal workshops with collaborators, with a view to identifying activities or projects of the company aimed at achieving these objectives. The result of the collaborative work was reflected in this document. Throughout the report, the reader will be able to find references to the SDGs, to the extent that there is a concrete contribution from Aguas Andinas

## ENTITIES COVERED

With great pride, we highlight that in this report, and for the first time, consolidated data on environmental, social and economic management of all the companies that make up the company are presented: Aguas Group (Aguas Andinas, Aguas Cordillera SA, Aguas Manquehue SA), the non-regulated subsidiaries (Ecoriles S.A., Análisis Ambientales S.A. (ANAM), Gestión y Servicios S.A., and Aguas del Maipo S.A.) and the sanitation company ESSAL, which operates in the Los Lagos and Los Ríos Regions. This effort, which was not without difficulties, allowed us to obtain and report on the sustainable management of the group, the first step in consolidating a sustainability information management system. During 2016, there were no significant changes in ownership or location of the company.

## MATERIALITY

In 2016 a process of updating the materiality of the previous period was carried out, using as the main reference the seven pillars of the corporate strategy "Santiago deserves a 7."

To carry out this update the following activities were carried out:

- Interviews with key executives
- •Survey of 71 employees in the framework of the Water School
- Workshop with "Santiago Deserves a 7" teams
- 2016 Press Review
- Analysis of the Sustainability strategy
- Supplier/contractor interviews
- Feedback from DJSI

In this way, the relevant issues for the report were determined. The second step was the classification of the subjects according to the pillar to which they corresponded within the model of "Santiago Deserves a 7." In parallel, in order to comply with the GRI's principle of "completeness", the results of the SDG workshops mentioned above were taken, complementing the relevant themes with concrete actions and projects. The list of material topics was also complemented by the progress being made by each of the teams working on the implementation of the corporate strategy of "Santiago Deserves a 7."

Based on this process, the relevant issues were prioritized according to:

- "Issues of high relevance for the report" - Matters described in detail in this report
- "Issues of medium relevance for the report" - Matters presented in the general report
- "Issues of low relevance for the report" - Matters that are only mentioned in the sustainability report.

The report was reviewed by the corporate managers and by the members of the Board of Aguas Andinas, who gave their approval to the material aspects presented here. This report was prepared under the "comprehensive" GRI compliance option, seeking to provide a complete response to all relevant issues. The external verification of the report was made by pwc Chile.

## HOW IS THIS REPORT DISTRIBUTED?

This document is presented in digital format for distribution to all our stakeholders through personalized e-mails and the corporate website. Also, a printed summary was prepared, which will be distributed at the Shareholders' Meeting and at the working tables with the communities.

## MATERIAL ASPECTS OF HIGH RELEVANCE FOR THE REPORT

| TEMA | REPORT CHAPTER | SCOPE |
|---|---|---|
| Ethics / Anticorruption | Business Model | Internal |
| Transformation Program | Business Model | Internal |
| Good governance / Conflicts of interest | Business Model | Internal |
| Corporate Strategy: Santiago Deserves a 7 | Business Model | Internal |
| Integrated water management | Water and quality of life | Internal |
| Energy Efficiency and Carbon Footprint | Circular Economy | Internal |
| Emergency and Crisis Management | Resilience | Internal |
| Continuity of Service | Resilience | Internal |
| Availability of | Resilience | Internal |
| Effects of climate change on business and operations | Resilience | Internal |
| Community Impact Management | Social Legitimacy | Internal |
| Prohumana Prize | Social Legitimacy | Internal |
| Labor climate and culture | Innovation and people | Internal |
| Water School | Innovation and people | Internal |
| Diversity and equal opportunities | Innovation and people | Internal |

## MATERIAL ASPECTS WITH MEDIUM RELEVANCE FOR THE REPORT

| TEMA | REPORT CHAPTER | SCOPE |
|---|---|---|
| Significant Fines | Business Model | Internal |
| Supplier Development | Business Model | Internal and contractors |
| Protection of natural resources and biodiversity | Water and quality of life | Internal |
| Wastewater Quality | Circular Economy | Internal |
| Biosolids Management | Circular Economy | Internal |
| Infrastructure maintenance and networks | Resilience | Internal |
| Education in rational use of water and management | Social Legitimacy | Internal |
| Relationship with neighboring communities | Social Legitimacy | Internal |
| Customer Satisfaction | Social Legitimacy | Internal |
| Contribution to regional development | Social Legitimacy | Internal |
| Awareness about value of water and responsible use | Social Legitimacy | Internal |
| Technological development and innovation | Innovation and people | Internal |
| Labor Relations | Innovation and people | Internal |
| Health and Safety at Work | Innovation and people | Internal and contractors |
| Skills Development | Innovation and people | Internal |

# CARTA DEL
# VERIFICADOR

# INDICE GRI

| Contenidos básicos generales | Capítulo / Sección | Página |
|---|---|---|
| **Estrategia y analisis** | | |
| G4-1 | Carta del Gerente General | 8 |
| G4-2 | | 15 |
| **Perfil de la organización** | | |
| G4-3 | Perfil de la Empresa | 6 |
| G4-4 | Perfil de la Empresa | 6 |
| G4-5 | Portada | 2 |
| G4-6 | Perfil de la empresa | 6 |
| G4-7 | Propiedad y control de la compañía | 13 |
| G4-8 | Principales Cifras Economicas 2016 | 30 |
| G4-9 | Principales Cifras Economicas 2016 | 30 |
| G4-10 | Demografía Laboral | 114 |
| G4-11 | Sindicalización | 134 |
| G4-12 | Proveedores | 32 |
| G4-13 | Acerca de este reporte | 24/143 |
| G4-14 | Ciclo del agua | 40 |
| G4-15 | Membresias | 97 |
| G4-16 | Membresias | 97 |

| | | |
|---|---|---|
| **Aspectos materiales y cobertura** | | |
| G4-17 | Acerca de este reporte | 143 |
| G4-18 | Acerca de este reporte | 143 |
| G4-19 | Acerca de este reporte | 143 |
| G4-20 | Acerca de este reporte | 143 |
| G4-21 | Acerca de este reporte | 143 |
| G4-22 | Acerca de este reporte | 143 |
| G4-23 | Acerca de este reporte | 143 |
| **Participación de los grupos de interés** | | |
| G4-24 | Planificación Estratégica | 20/24 |
| G4-25 | Relacionamiento con grupos de interés | 83 |
| G4-26 | Relacionamiento con grupos de interés | 83 |
| G4-27 | Relacionamiento con grupos de interés | 83 |
| **Perfil de la memoria** | | |
| G4-28 | Acerca de este reporte | 143 |
| G4-29 | Acerca de este reporte | 143 |
| G4-30 | Acerca de este reporte | 143 |
| G4-31 | Acerca de este reporte | 142 |
| G4-32 | Acerca de este reporte | 143 / 147 |
| G4-33 | Acerca de este reporte | 143 |

| | | |
|---|---|---|
| **Gobierno** | | |
| G4-34 | Composición del Directorio | 14 |
| G4-35 | Estrategia Organizacional | 19 |
| G4-36 | Estrategia Organizacional | 19 |
| G4-37 | Estrategia Organizacional | 19 |
| G4-38 | Composición del Directorio | 14 |
| G4-39 | Composición del Directorio | 14 |
| G4-40 | Composición del Directorio | 14 |
| G4-41 | Auspicios, donaciones y colaboración académica | 18 |
| G4-42 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo/ Estrategia Organizacional | 15 / 19 |
| G4-43 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo/ Estrategia Organizacional | 15 |
| G4-44 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo | 15 |
| G4-45 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo | 15 |
| G4-46 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo | 15 |
| G4-47 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo | 15 |
| G4-48 | Acerca de este reporte | 143 |
| G4-49 | Avances en la implementación de Buenas Prácticas de Gobierno Corporativo/ Creación de la Subgerencia de Compliance Corporativo | 15 /16 |
| G4-50 | Planificación Estratégica | 20 |
| G4-51 | Planificación Estratégica | 20 |
| G4-52 | Planificación Estratégica | 20 |
| G4-53 | Planificación Estratégica | 20 |
| G4-54 | Igualdad de Retribuciones | 119 |
| G4-55 | Igualdad de Retribuciones | 119 |
| **Ética e integridad** | | |
| G4-56 | Sistema de Gestión Ética | 17 |
| G4-57 | Sistema de Gestión Ética | 17 |
| G4-58 | Sistema de Gestión Ética | 17 |

| **Contenidos Básicos Específicos** | | |
|---|---|---|
| ASPECTOS MATERIAL | Información sobre el enfoque de gestión e Indicadores | |
| | Indicador | Página |
| Gestión de la ética y anticorrupción | DMA | 16 |
| | SO4 | 17 |
| | HR3 | 17 |
| **Diversidad e Inclusión** | DMA | 116 |
| | EC6 | 19 |
| | LA1 | 115 |
| | LA12 | 20 |
| | LA13 | 119 |
| | LA2, LA3 | 118 |
| **Ética / Anticorrupción** | **DMA** | **16** |
| | SO4 | 17 |
| | SO6 | 18 |
| **Programa de Transformación** | **DMA** | **26** |
| **Buen gobierno / Conflictos de interés** | **DMA** | **15** |
| **Estrategia Corporativa: Santiago Merece un 7** | **DMA** | **9** |
| | HR2 | 25 |
| **Desempeño Económico** | **DMA** | **31** |
| | EC1 | 31 |
| | EC5 | 119 |
| | EN31 | 47 |
| **Gestión integral del agua** | **DMA** | **40** |
| | EN8, EN9 | 41 |
| | EN23 | 71 |
| | en10 | 70 |
| | EN24 | 73 |

| | | |
|---|---|---|
| **Eficiencia energética y huella de carbono** | **DMA** | **74/79** |
| | EN6 | 74 |
| | EN3 | 77 |
| | EN15,EN16,EN17 | 79 |
| | EN18, EN19 | 80 |
| **Gestión de emergencias y crisis** | **DMA** | **56** |
| **Continuidad del servicio** | **DMA** | **59** |
| **Disponibilidad del recurso** | **DMA** | **61** |
| **Efectos del cambio climático en el negocio y las operaciones** | **DMA** | **53** |
| | EC2 | 53 |
| **Gestión de impactos en la comunidad** | **DMA** | **83** |
| | SO1, SO2 | 84 /85 |
| **Clima laboral y cultura** | **DMA** | **128** |
| **Escuela del Agua** | **DMA** | **126** |
| **Multas significativas** | **DMA** | **38** |
| | LA-16, EN29, SO8, S011,PR2, PR4, PR7, PR8, PR9 | 38 |
| **Desarrollo de proveedores** | **DMA** | **32** |
| | EC9 | 32 |
| | SO9, SO10, HR1, HR4, HR5, HR6 | 33 |
| | LA14, HR10, HR2 | 34 / 35 |
| **Protección de los recursos naturales y la biodiversidad** | **DMA** | **47** |
| | EN11, EN12, EN14, EN21, EN26 | 47 |
| **Calidad de aguas residuales** | **DMA** | **45** |
| | PR1 | 45 |
| **Gestión de biosólidos** | **DMA** | **69** |
| | EN3 | 68 |

| | | |
|---|---|---|
| **Mantención de infraestructura y redes (eficiencia y control de fugas)** | **DMA** | **60** |
| | EC7 | 60 |
| **Educación en el uso racional del agua y gestión de residuos** | **DMA** | **88** |
| **Satisfacción del cliente** | **DMA** | **99** |
| | PR5 | 101 |
| | PR8 | 105 |
| **Aporte al desarrollo regional** | **DMA** | **86** |
| **Concientización sobre el valor del agua y uso responsable** | **DMA** | **88** |
| **Desarrollo tecnológico e innovación** | **DMA** | **137** |
| **Relaciones laborales** | **DMA** | **134** |
| | LA4 | 134 |
| | HR4 | 33 |
| | LA8 | 134 |
| **Salud y seguridad laboral** | **DMA** | **129** |
| | LA5 | 129 |
| | LA6 | 133 |
| | LA7 | 131 |
| **Desarrollo de talentos** | **DMA** | **121** |
| | LA10, LA11 | 122 |
| | LA9 | 124 |
| **Otras emisiones** | **EN21** | **81** |
| | EN20 | 81 |