



ACEA Ato2 Spa

Since 2007 the acquisition of contracts with the municipalities involved has slowed down. This has been caused by local authorities, natural political alternation and internal difficulties within the authorities themselves. Moreover, based on assessments carried out, certain municipalities still have problems relating to the state of treatment plants and lack of authorisation for waste disposal.

In 2009, the company acquired the management of the water systems of the Acquedotto del Peschiera Consortium. Moreover, a transaction agreement was signed in order to define pending relationships. The Consortium is composed of 8 municipalities, 6 of which have already transferred the management of the integrated water services from Acea ATO2 (municipalities of Torrita Tiberina, Nazzano, Filacciano, Ponzano Romano, Fiano Romano and Sant'Oreste), while 2 municipalities (Civitella San Paolo and Capena) have not yet agreed.

The Integrated Water Services of the Municipality of Formello have been acquired as from 1 July 2009. Moreover, a transaction agreement was signed between the Municipality of Formello, Acea ATO2 and Crea Gestioni (that previously managed the regulated water services) in order to define pending relationships.

Fresh Water

ACEA ATO 2 S.p.A. provides the full range of fresh water distribution services including collection and abstraction, as well as retail and wholesale distribution.

Water is abstracted from sources on the basis of long-term concessions.

Ten water sources ? including five sources (Peschiera, Capore, Acqua Marcia, Acquoria and Salone), 4 well fields (Pantano Borghese, Finocchio, Torre Angela and Torre Spaccata) and the Lake Bracciano Aqueduct ? supply approximately 3,000,000 people in Rome and Fiumicino, as well as more than 60 municipalities in the Lazio region, via four aqueducts and a hierarchical system of pressurised pipes.

Three further sources of supply provide non-drinking water used in the sprinkler system of Rome.

In addition, ACEA ATO 2 S.p.A. manages the Simbrivio aqueduct, which supplies water to 54 municipalities and 3 consortia, the Laurentino aqueduct (formerly CASMEZ Lazio Regional Authority), which supplies the municipalities of Pomezia, Ardea and the Campoleone area in the municipality of Lanuvio, the Doganella aqueduct, serving 8 municipalities in the Castelli Romani area, and the distribution of water in 73 municipalities in addition to Rome.

With regard to major disruptions in Rome, the most significant ones are detailed below.

On 11/02/2009, due to a breakdown caused, the 6th syphon in Via dei Monti di Pietralata was taken out of service, with subsequent pressure drops and water shortage in the Africano, Nomentano - Porta Pia, Parioli, Salario and Portonaccio districts. In this occasion, 6.30 m of DN 600 pipes were replaced.

On 20/02/2009, due to a breakdown caused, the DN 450 abstraction pipe in Via di Tor Carbone was taken out of service, with subsequent pressure drops and water shortage in the districts of Vigna Murata, Fonte Meravigliosa, Casale Zola and neighbouring areas. In this occasion, 40 m of DN 450 pipes were replaced.

On 18/04/2009, due to an accidental breakdown, the 3rd syphon was taken out of service, with temporary disruptions in the areas of Villanova, Bagni di Tivoli and Polo Tecnologico.

On 20/06/2009, due to a breakdown caused, the 6th syphon in largo Camesena was taken out of service, with subsequent pressure drops and water shortage in the Portonaccio, Tiburtino, Nomentano, Parioli, Trieste, Salario and Pinciano districts. In this occasion, 5 m of DN 600 pipes were replaced.

On 6/09/2009, there was an unexpected damage to the Nuovo Vergine Aqueduct in the Tiburtina area. Thanks to alternative arrangements, it was possible to restore supply in a short time and in most of the areas involved. Repair works were extremely difficult, due to the depth of the pipes.

Finally, on 15/11/2009, in order to carry out upgrade and repowering works of the city water system, water supply was cut off for two major pipes serving the Ludovisi, Sallustiano and Pinciano districts.

With regard to all breakdowns and works described above, disruptions for the inhabitants were limited, thanks to the high network interconnection.

As regards other municipalities, the following disruptions were reported.

In order to carry out urgent extraordinary maintenance works on the old Simbrivio Aqueduct in Rio, in the municipalities of Olevano Romano, Cave, Genazzano and Bellegra, water supply was cut off for these pipes on 12/02/2009 and 10/03/2009.

On 24/04/2009, the connection between the Nuovo Simbrivio Aqueduct and the Doganella Aqueduct was carried out. This was necessary in order to improve the aqueducts' structure. Water supply was cut off in the Simbrivio aqueduct's section that supplies the Castelli Romani. The municipalities involved by this disruption (with regard to both water shortage and pressure drops) were the following: Albano Laziale, Ariccia, Castel Gandolfo, Genzano, Lariano, Velletri, Marino.

In order to carry out extraordinary maintenance works due to an unexpected breakdown of the DN 500 water pipe on the old Simbrivio Aqueduct, service was cut off on 28/04/2009 and 18/06/2009 in the municipalities of Olevano Romano, Genazzano, Cave, Bellegra (in addition to other municipalities that are not managed by the Company), with a subsequent 40% decrease in the water supply to the users of the old Simbrivio Aqueduct.

In order to operate the new pipe in Via Oberdan, in the municipality of Velletri, on 28/05/2009 water supply was cut off in the neighbouring area. These urgent works allowed to improve water supply services in the municipality of Velletri.

On 23/06/2009, in order to carry out extraordinary maintenance works on the DN 800 Olgiata ? Civitavecchia abstraction pipe, water supply was cut off in one section, with water shortage in most part of the Municipality of Santa Marinella. Moreover, water shortages were recorded for the ACEA ATO 2 users in the Municipality of Civitavecchia.

In order to carry out improvement works on the water system of the municipalities of Cerveteri and Ladispoli, on 19-20/10/2009 and 17/12/2009 water supply was cut off.

As regards water quality, on 06/06/2009 ACEA ATO2 was granted a derogation (marked with a ?d?) or renewal of the derogation (marked with a ?r?) by the Lazio Region until 31/12/2009 (with notice of the Decree issued by the Lazio Region President dated 21/04/2009) for the following parameters and municipalities:

- Arsenic: Albano (r), Ariccia (d), Castel Gandolfo (r), Ciampino (r), Genzano (r), Lanuvio (r), Velletri (d), Cerveteri (d), Tolfa (r), Trevignano Romano (r);

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Fluoride: Albano (r), Ariccia (d), Castel Gandolfo (r), Ciampino (r), Genzano (r), Lanuvio (r), Velletri (d), Cerveteri (d), Tolfa (r), Trevignano Romano (r);

- Vanadium: Ariccia (d), Albano (r), Castel Gandolfo (r), Ciampino (r), Genzano (r), Lanuvio (r), Velletri (d);
- Trihalomethanes: Santa Marinella (derogation requested by the Acquedotto Mignone Consortium).

On 07/07/2009, the Company received the notice of the Decree of the Lazio Region President dated 03/07/2009, according to which derogation was granted to the Municipality of Castelnuovo di Porto (Monte delle Rose) for the values of Arsenic and Fluoride, as requested by the Company on 05/12/2008.

In the meanwhile, on 25/06/2009 ACEA ATO 2 requested a derogation for the municipalities subject to the above-mentioned derogations, that have been granted/requested for the three-year period 2010-2012.

Finally, on 30/12/2009 the Company received the notice of the Decree of the Lazio Region President dated 30/12/2009, in which the above-mentioned terms of derogation set out in the Decrees issued by the Lazio Region are postponed.

The said postponement will be valid until implementation of the Decree of the Ministry for Public Health and the Ministry for the Protection of the Environment, Land and Sea, for the extension (being currently enacted) for 2010 to the parameters set out in Annex I, part B of Legislative Decree no. 31/2001.

Sewerage and waste water treatment

The sewerage service comprises a sewage network of 5,979 km (including approximately 1,953 km of network serving municipalities outside Rome) and more than 300 km of collectors in the municipality of Rome.

ACEA ATO 2 S.p.A. manages the waste water treatment system and pumping stations that serve the network and sewage collectors. Some of them are quite large, with a throughput of more than 10 cubic metres per second, and in some cases they also provide flood protection.

In 2009 the main waste water treatment plants handled 527 million cubic metres, an increase of around 6.8% compared with the previous year.

Sludge, sand and grating production for all managed plants was equal to 152,889 tons, up approximately 8.5% compared to the previous year.

At the end of December 2009, ACEA ATO 2 S.p.A. managed a total of 466 sewage pumping stations, including 158 in the municipality of Rome, and a total of 176 waste water treatment plants, including 35 in the municipality of Rome.

Research and development

In cooperation with LaboratoRI S.p.A., activities were carried out to recover leaks by analysing distribution networks according to the district metering approach set out in Ministerial Decree 99/97.

- Municipality of Grottaferrata: 12 leaks were repaired. Moreover, water pressure and flows were monitored and the results were used to establish the hydraulic balance.

The migration of alphanumeric map data into the GIS system has been finalised and assessed. Moreover, the pipeline network was reconstructed for a total of 56 km. The mathematical model was finally adjusted and used to define the optimal structure of the network for the Colle delle Ginestre district.

- Municipality of Albano: the orthometric values of pressure monitoring points were recorded.

The migration of alphanumeric map data into the GIS system has been carried out. The pipeline network was reconstructed and included into the GIS system for a total of approximately 100 km. 3 leaks were reported during the measurements and promptly repaired.

- Municipality of Monterotondo: an optimal structure was defined for the network of the Monterotondo Scalo district, with subsequent changes to the structure. A total of 10 leaks were reported (which were mostly repaired) for an estimated recovered flow of 5.1 l/s. The alphanumeric map data were migrated into the GIS system. The pipeline network was reconstructed for a total of 83 km, that were partly migrated into the GIS system. The altimetric heights of the Valga delle Rosce Aqueduct were recorded. This aqueduct partly supplies the municipal distribution network.
- Municipality of Castel Madama: based on the results of monitoring data concerning flows and pressures, the simulation mathematical model was finally adjusted and used to define the optimal structure of the network. Moreover, the pipeline network was reconstructed for a total of approximately 30 km and migrated into the GIS system.
- Municipality of Castel Gandolfo: monitoring activities were carried out, according to which the network structure was analysed. Moreover, the orthometric values of pressure monitoring points were recorded. Pipes were mapped and approximately 70 km of network were migrated into the GIS system.
- Municipality of Santa Marinella: leak identification activities were carried out in the area of Via Aurelia Vecchia, that is particularly critical. Measurement activities were also carried out in two different parts of the network, in order to provide useful data to solve specific problems/malfunctions. Measurements were carried out for the network of the Santa Severa district, where step testing was planned, together with some preliminary works in order to optimise leak identification activities.

The orthometric values of pressure monitoring points were recorded. The pipeline network was reconstructed for a total of approximately 100 km, that were fully migrated into the GIS system.

- Municipality of Riano: monitoring activities of water pressure and flows were planned and carried out, in order to define the hydraulic balance of each district identified in the distribution system. The measurement of the orthometric values of monitoring points was carried out and completed. The migration of alphanumeric map data into the GIS system was also carried out. Moreover, the pipeline network was reconstructed for a total of approximately 60 km, that were fully migrated into the GIS system.
- Municipality of Fiano Romano: two assessment campaigns were carried out and reported 6 leaks, equal to an

estimated recoverable flow of 3.7 l/s. The migration of alphanumeric map data into the GIS system was also carried out. The pipeline network was migrated into the GIS system for a total of approximately 50 km.

- Municipality of Cerveteri: the data necessary to carry out a correct and complete mapping and to set out monitoring procedures has been integrated.
- Municipality of Tolfa: measurement activities of pipes were launched to assess and update any information useful in order to map the network. Some points were identified in order to monitor pressures; moreover, interventions have been identified in order to install manometric pressure units.

Other activities

With regard to water resources, in 2009 ACEA ATO2 S.p.A. carried out the following activities.

- Water research: the availability of water resources to the plants (wells) of Fontane Nuove (Sant'Oreste), Matiera (Sacrofano), Val Casale (Fiano Romano), Laurentino and Pescarella (Ardea and Pomezia) has been ascertained by carrying out flow tests; moreover, topographical readings have been carried out in view of the flow tests for the reopening of the Cavallino well field (Pantano Borghese). Therefore, it was established that the flows taken from Matiera and Val Casale cannot be increased, unlike the case of Fontane Nuove and Laurentino. With regard to the Laurentino well field, a relationship was identified between water quality and collected flow.
- Water availability supervision: the project was launched this year and sets out the construction of a water resources monitoring system (with regard to both quantity and quality), which consists of a meteorological network (15 stations), a network of monitoring wells and the telemetering of variables (total springs, total derivatives, total amounts returned to the environment, resources stored in aquifers collected from wells, etc.) with regard to the supply plants of ACEA ATO2. More specifically, this information and part of the measurements transmitted by the current TLC will be stored on a server where ? according to specific calculation algorithms, as well as prearranged balance and graphics procedures ? a periodical review on the situation of available water resources is prepared. In addition, there will be a portal for the transmission of information to the Lazio Region, pursuant to current legislation. A meteorological/climatic database (1951-2009) as well as a hydrologic database (2002-2009) were developed, together with the calculation of parameters and indexes that are necessary to create a ?historical memory? for the system. Moreover, the whole hydraulic balance method for the availability of resources has been developed based on 2009 data acquired from the sensors network (monitoring wells) of the Lazio Region, that has been integrated with measures taken from the TLC of ACEA ATO2.
- Further analyses and researches: a study is under way for the renewal of the Collection Tunnel of the Peschiera sources. Specific measurements have been carried out (Lidar ? LaboratoRI flight for a specific geomorphological mapping). Moreover, final activities have been launched to develop upgrading project solutions. With regard to the ?Mapping of Hydraulic Balance Units? project ? which aims at defining reference areas for the application of hydrogeological balances ? field activities have been completed and the first report was prepared.

- Protected areas: studies are under way for the protected areas of the Gramiccia wells (Fiano Romano), Via dei Pesci well (Grottaferrata), Madonna di Coccio well (Castelgandolfo), Via dei Corsi well (Rocca di Papa), the Doganella well field, Simbrivio water sources, Ceraso water source, Mambrella well (Marcellina), as well as for the update of the Capore protected areas. Currently, all parts referred to geological and hydrogeological documents for the identification of wells? protected areas have been developed. The activities for the Simbrivio, Ceraso and Doganella water sources have been postponed to the following year.

Finally, the following is reported:

- following the Mayors? Conference held on 7 October 2009 ? during which the average tariffs and the related annual tariff increases on each single tariff item have been updated ? 2010 tariffs of the Integrated Water Services for the municipal services transferred to Acea ATO2 S.p.A. in 2003, 2004, 2005, 2006, 2007, 2008 and 2009 have been published on the Regional Official Gazette (BURL) no. 1 on 7 January 2010.
- In compliance with the resolutions taken by the Mayors? Conference on 5 December 2008, the Operator ? based on the criteria and policies of the Technical Operational Secretariat of the ATO2?s Authority ? is completing the simulations to determine the tariff increases that will be necessary following the introduction of the single tariff system. This system, that shall be approved by the next Mayors? Conference, is based on the following criteria:
 - adoption of the tariff system of the Municipality of Rome for the whole Area, that provides for a basic tariff, a reduced tariff and three surpluses for domestic users, as well as a basic tariff and three surpluses for non-domestic users;
 - cancellation of the minimum commitment for domestic users, with a consequent increase in the fixed amount;
 - maintenance of the minimum commitment for non-domestic users.

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