



MUNICIPALITY OF ABANO TERME  
*Calendar Year 2023*



# ENVIRONMENTAL STATEMENT 2022

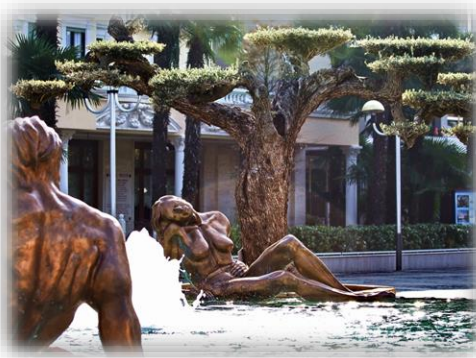
*Released in accordance with the requirements of Regulation (EU) 2018/2026 amending Annex IV of Regulation (EC) No 1221/2009.*

*Updated December 2021*

*Thanks to Giampietro Fioraso for granting the photos contained in this Environmental Declaration*

# The environmental policy of the Municipality of Abano Terme

The Municipality of Abano Terme, in the awareness of its political and institutional responsibilities, has been maintaining since the early 2000s an Environmental Management System in compliance with the international standard ISO 14001 and the European EMAS Regulation, as indication of a constant commitment to the continuous improvement of environmental performances, the health of citizens, the safety of public facilities and the protection of the territory. In order to guarantee the sustainable development of the territory and the promotion of spa tourism, the Administration, with an orientation towards continuous improvement, undertakes actions to comply with legislative requirements, to prevent environmental impacts, to reduce the use of natural resources, to evaluate risks and opportunities and to consider the needs and expectations of the stakeholders of its territory.



As part of the environmental protection of the Aponense territory (the one of Abano Terme), the Administration firmly believes that the active involvement of citizens, students, tourists, associations and economic operators, is an obligatory path to increase awareness, that respect for the environment is the key to success for the welfare of the community and sustainable development. The constant commitment to the improvement of environmental performance and the reduction of impacts by the Municipality also translates into the implementation of an Energy Management System in accordance with the ISO 50001 standard and the adoption of the Sustainable Energy and Climate Action Plan foreseen by the "Covenant of Mayors" initiative.

These are the main thematic areas in which the Administration's commitment is concentrated:

- ✓ **Safeguard the environment** through specific actions aimed at saving energy, protecting water resources, reducing emissions of climate-altering gases and increasing separate waste collection. In this context, interventions are planned for the efficiency of the public lighting network, for the improvement of the energy performance of public buildings and urban waste management, for the improvement of the water cycle also through careful planning in relation to aquatic ecosystems and networks and for the valorization of thermal resources.
- ✓ **To protect the population** through the monitoring of environmental parameters relating to electromagnetic and ionizing emissions, air and surface water quality, the control and reduction of light pollution and the regulation of the use of hazardous substances in agriculture.
- ✓ **To promote the accessibility of the territory** as a continuous improvement in terms of usability of services, public transport and facilities and better traffic and road management. To promote alternative mobility to that of the car; to encourage the slow mobility of pedestrians and cyclists, thanks to the increase in the cycle network and new forms of urban logistics at the service of citizens, tourists, businesses.
- ✓ **To increase the uniqueness of the territory** through actions aimed at enhancing the unique products of the Euganean thermal area, the recovery of buildings and the start of a cultural process capable of restoring value to the founding elements of the territory: water, springs, ancient thermal baths, mud, biodiversity, the Euganean Hills.
- ✓ **Spreading environmental culture** through the planning and implementation of specific environmental education projects aimed at schools and awareness-raising initiatives aimed at local operators. In this context, actions are planned to constantly monitor the contractual requirements of the Municipality's suppliers, in order to stimulate an involvement that translates into correct behavior oriented towards environmental improvement



# The territory of the Municipality of Abano Terme

**Abano Terme** is the most important spa centre in Europe, located in a position at the foot of the Euganean Hills, a group of hills made up of about a hundred different reliefs in shape and height that occupy an area of 180 km<sup>2</sup>.

The Municipality of Abano Terme, located in the Province of Padua in the Veneto Region, borders to the north with the municipalities of Selvazzano Dentro and Padua, to the west with the municipalities of Teolo and Torreglia, to the south with the municipality of Montegrotto Terme and to the east with the municipalities of Albignasego and Maserà di Padova. The total area of the municipal territory extends for a little more than 21 km<sup>2</sup> of which about 2 km<sup>2</sup> fall within the Euganean Hills Regional Park area and 4.2 km<sup>2</sup> are classified as SCI (Site of Community Importance), established under the Habitats Directive 92/43/EEC to protect and restore natural habitats threatened with extinction.

## How can you reach Abano Terme

### IN THE CAR

For those travelling on the A4 Turin - Trieste motorway, the recommended exit is **Padova Ovest**, whether you are coming from Milan or Venice; from here continue along the Tangenziale Ovest (Corso Australia) until the junction of the new link road in the direction of Abano Terme. Those arriving from the A13 Bologna - Padua motorway can exit at the Terme Euganee exit, take the SS Adriatica in the direction of Padua and, at the intersection of Via Catajo and Via Mezzavia, turn left in the direction of Montegrotto Terme; following the road signs after a few kilometers you will reach the spa centre.

### IN TRAIN

The closest train station is Abano Terme, where the Regional trains stop. The Terme Euganee station is in the town of Montegrotto Terme, on the Bologna - Padua line; all the main trains stop there. Equally convenient is the station of Padua, on the line Milan - Venice, where all trains stop. From the station square the buses of the A, AT, ATL, M, T, TL lines to Abano Terme leave every 15 minutes (journey time about 30 minutes). Both train stations have a taxi service.

### IN THE AIR

Even the plane may be the right way to reach Abano Terme. The nearest **airport is Venice (60 km)** where the most important national and international airlines stop off. From here you can get to Abano Terme by taxi, or with the direct bus line Airport - Abano (travel time 1h 30 minutes). Also the international airports of Treviso (70 Km) and Verona (80 Km) are quite close and convenient to reach



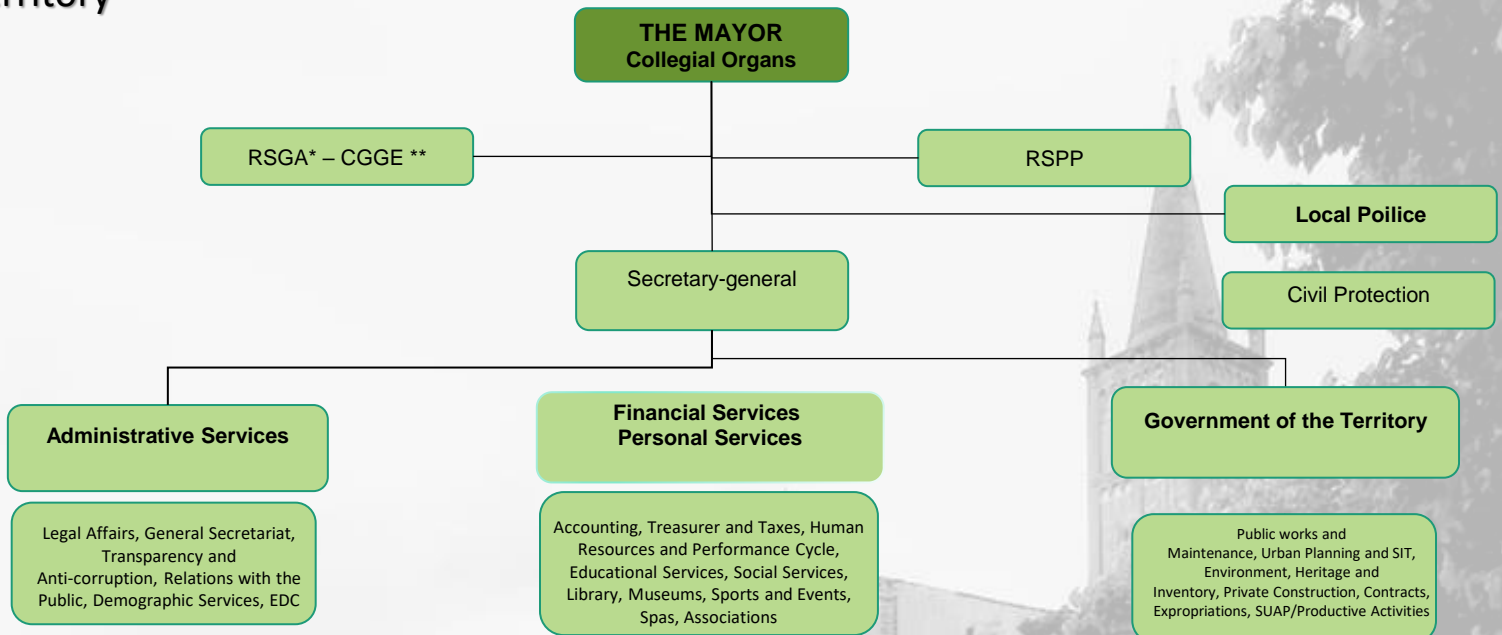
## MUNICIPALITY OF ABANO SPA

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## RESPONSIBLE FOR THE ENVIRONMENTAL MANAGEMENT SYSTEM

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# Services for the citizen, the tourist and the operator who lives and works within the territory



(\*) RSGA= responsible for the environmental management system

(\*\*) CGGE= general energy management coordinator





# Environmental improvement programs

The implementation of an environmental management system according to the EMAS Regulation supports the Administration in defining and pursuing objectives and programs for environmental improvement. This paragraph presents a summary of the commitments kept and those planned for the future.

## 1. REDUCTION OF GREENHOUSE GAS EMISSIONS

Objective	Goal	Activity	Deadline
Implementation of the Covenant of Mayors action plan SEAP	20% reduction in greenhouse gas emissions by 2020	regular monitoring of emissions and the state of implementation of actions defined in the SEAP	Concluded
Development and approval of the Energy and Climate Action Plan (SECAP)	-	Definition and approval of the SECAP	Concluded approved April 2022
Development and certification of an ISO 50001 Energy Management System	Internal audit and completion of system implementation	Implementation of Energy Management System	Concluded
	Certification Audit		Concluded

## 2. CONTROL OF THE PRESENCE OF DANGEROUS SUBSTANCES IN MUNICIPAL STRUCTURES

Objective	Goal	Activity	Deadline
Reduction of the possibility of ozone pollution by replacing all systems and air conditioners that use HCFC gases (R22 for municipal structures)	Replacement of n 2 plants operating with R22 gas	Replacement of systems with priority to those in need of urgent replacement	December 2022
Reduction and monitoring of materials with the presence of asbestos in municipal structures	Reclamation of asbestos present in municipal structures	Control of the state of conservation of materials containing asbestos or present in municipal structures and definition of the reclamation program. (Task performed)	Periodic update
		design for replacement of roof and assignment of works	Concluded
		removal and reclamation of asbestos-containing materials from the municipal warehouse	December 2022

## 3. IMPROVEMENT OF ROADS, SAFETY OF ROADS AND CYCLE PATHS

Objective	Goal	Activity	Deadline
Improvement of traffic and reduction of traffic and air pollution	Increase in the extension of cycle paths	Cycle path on via Flacco (section between via Romana and via 7 f.lli Cervi) – project assignment – assignment of works – execution and conclusion	Dec. 2022
		Cycle path on via Sabbioni (from underpass to via Romana) – project assignment – assignment of works – execution and conclusion	Dec. 2022
		Cycle path on via Flacco (completion) - design, assignment and execution of works	Dec. 2022
		Construction of a cycle path from the roundabout Via Diaz-Romana Aponense to via Sabbioni (private subject) – executive design (about 3 km.) – execution of works	In progress
		Completion of the cycle path on there s. Pio X and Roveri (from via Matteotti to the center of Giarre) – Assignment of works – execution and conclusion	Concluded
Improvement of roads, safety of roads and cycle paths	Securing roads and reducing waiting times at intersections	New roundabout between Via Battisti-S. Lorenzo – exec. design, assignment and execution of works	Concluded
		New roundabout between Via Diaz and Via Puccini – design and execution of works	December 2022



# Environmental improvement programs

## 4. CONTROL OF URBAN DEVELOPMENT OF THE TERRITORY

Objective	Goal	Activity	Deadline
Implementation of the territorial information system	Computerization with the creation of a database that can be consulted online from all offices.	Georeferenced survey of trees and vertical road signs	Concluded
		Processing and returning of tree data	Concluded
		Processing and returning of signage data	Concluded

## 5. ENVIRONMENTAL EDUCATION, COMMUNICATION AND PROMOTION

Objective	Goal	Activity	Deadline
Environmental awareness of stakeholders	Implementation of an annual environmental education project in schools (primary – I and II grade and secondary I degree)	Meetings and theoretical lessons in schools, workshops	Every year (*)
		Distribution of containers for separate waste collection in classrooms	Every year (*)
	Realization of Events on Environmental Theme	Involvement of citizens, through the organization of events (exhibitions, conferences, events) on environmental issues	Every year (*)
		Organization of the exhibition of the works carried out in the environmental education projects of the schools	Every year (*)
	Promotion of EMAS registration	Publication and distribution of the Environmental Declaration also in English	Every year (*)
		Communication and promotion to tourists	Every year (*)
(*) year 2021, 2022, 2023		Positioning in the main municipal parks of adequate signage showing the Environmental Policy, information on EMAS registration and Environmental Declaration	Every year (*)

## 6. INCREASE IN SEPARATE WASTE COLLECTION

Objective	Goal	Activity	Deadline
Increase in separate waste collection	Realization ecocenter for the delivery of waste	assignment for the design and approval of the project	Concluded
		completion of the tender procedure and award of works	Concluded
		execution of works, testing and acquisition of authorizations	Concluded

## 7. RIDUZIONE DELL'INQUINAMENTO LUMINOSO

Objective	Goal	Activity	Deadline
Reduction of electricity consumption and reduction of light pollution	30% riduzione consumo sostituzione apparecchi di 57 impianti	executive design for the redevelopment of public lighting systems	Concluded
	Ulteriore 10% riduzione consumo sostituzione apparecchi di 20 impianti	execution of energy requalification works	Concluded

## 8. REDUCTION OF ENERGY CONSUMPTION

Objective	Goal	Activity	Deadline
Reduction of energy consumption in municipal buildings	20% reduction in total consumption per dec. 2022 compared to pre-intervention	executive design for the energy requalification of the building and systems of 6 school buildings, the municipal library and the Stadio delle Terme	Concluded
		execution of energy requalification works	Dec. 2022

## 9. RATIONALIZATION OF THE BLACK SEWERAGE NETWORK AND IMPROVEMENT OF THE WATER CYCLE

Objective	Goal	Activity	Deadline
Rationalization of the sewerage system and transfer of wastewater to the purifier	Separation of the black and white sewer network in the neighborhood Pinazza	drafting of technical-economic feasibility and executive design for the network separation of the Pinazza district	Concluded
		assignment and execution of works	Dec. 2022
	Flood prevention in implementation of the Water Plan	Assignment for design and assignment of works for via Montegrotto	Concluded
		assignment and execution of works	Dec. 2022



# Environmental improvement programs

## 9. NATURAL IONIZING RADIATION (MEASUREMENTS)

Objective	Goal	Activity	Deadline
Evaluation of changes in natural ionizing radiation (radon gas)	Measurement	request to ARPAV to carry out a measurement and identification campaign of buildings	Concluded
		entrustment, execution of measures (Montirone pavilions – schools V. da Feltre, Busonera, De Amicis and Mago Merlino) and data processing	Concluded

## 10. IMPROVEMENT OF ROAD AND TRAFFIC MANAGEMENT IN THE TERRITORY

Objective	Goal	Activity	Deadline
Reduction of traffic and reduction of air pollution  (* ) year 2021, 2022, 2023	Rationalization of goods delivery in the ZTL area with the use of vehicles with low environmental impact (LPG, methane, hybrids)	Approval of the draft convention	Concluded
		Signing conventions - Issuing of marks and passes	Continuous (*)

## 11. ENVIRONMENTAL CULTURE (REDUCTION OF USE OF PLASTIC PRODUCTS)

Objective	Goal	Activity	Deadline
Raising awareness of the reduction in the use of plastic materials	Reduction of waste produced	Approval of the project "Abano Terme: plastic free city"	Concluded
		Approval of the plan for the reduction of the use of plastic and for conscious use and sustainable management of waste throughout the municipal territory	December 2022
		Elimination of the use of plastic materials in all public events that receive the patronage of the Municipality	Continuous
Implement all the necessary actions aimed at eliminating the use of plastic in all public offices, schools and in events organized by the Municipality			

Below are the main environmental improvement activities achieved during the year 2021:

### Reduction of consumption

Energy requalification interventions of the schools V. da Feltre (roof), De Amicis (roof, windows and thermostatic valves), Pascoli (external coat).

### **Reduction of greenhouse gas emissions (covenant of mayors)**

Planting 285 new trees in via Mazzini and Diaz, Parco San Giuseppe, giardino dei Giusti and parco Chico Mendez, replaced 104 trees previously felled.

The SECAP (Energy and Climate Action Plan) has been approved

### **Increase in separate waste collection**

Completed the construction of the new EcoCentro Comunale (inauguration and opening in September 2021)

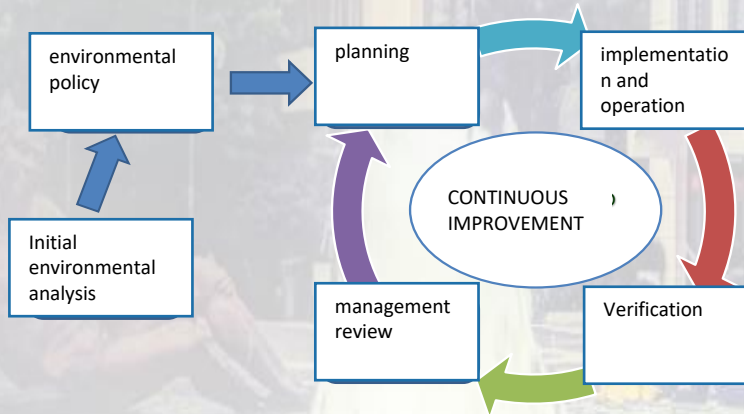
### **Reduction of light pollution: totally concluded**

Completed the replacement of 5,740 LED public lighting fixtures – high energy efficiency, out of a total of 6,749 having a total saving of about 70% of electricity

# The Environmental Management System

## Index

- The use of water and energy resources, the production of waste, transport, direct activity aimed at the provision of services and the execution of public works are actions that have an **environmental impact**. With the aim of measuring and managing it, for several years, the Municipality of Abano Terme has adopted an **Environmental Management System** implemented according to ISO 14001 and EMAS Regulation (EC Regulation no. 1221/2009, EU Regulation 2017/1505, EU Regulation 2018/2026) which represents a fundamental tool to effectively manage environmental aspects in terms of life cycle and to monitor and improve its environmental performance. The control and continuous environmental improvement takes place through:
  - the planning and implementation of an Environmental Management System through which to control and manage the environmental impact generated by its activity;
  - periodic verification of the effectiveness of the System;
  - the participation, involvement and training of personnel in the Environmental Management System;
  - the communication of the goals achieved to all stakeholders.



The **Environmental Declaration** is the tool through which the summary of the data relating to the environmental impacts generated by its activity and the measures that have been taken to control them is communicated to stakeholders. Finally, it presents the planned improvement objectives and the results that are progressively achieved.

PLAN	Planning	establish the objectives and processes necessary to deliver results in accordance with environmental policy
DO	implementation and operation	implement the modified processes
CHECK	verification	monitor and measure processes with respect to environmental policy, objectives, targets, prescriptions and report the results
ACT	management review	consolidate and take actions to continuously improve the performance of the EMS

January	•Water	
February	•Water	
March	•Sewerage and purification	
April	•Electrical energy	
May	•Methane	
June	•Waste	
July	•Waste	
August	•Air	
September	•Transport and mobility	
October	•Asbestos	
November	•Light radiation •Natural ionizing radiation	
December	•Public green •Emergency	

# Environmental aspects and indicators of the Municipality of Abano Terme

The Environmental Management System of the Municipality allows you to have a continuous control over direct and indirect environmental aspects.

Every year the Administration gives a vote to each aspect in order to evaluate the performance achieved, according to the following scale ranging from 1 to 4 and symbolically represented with stars:

**Class 1 (Insufficient):** Action is needed to resolve the situation quickly

**Class 2 (Sufficient):** It is necessary to define improvement programmes or management procedures in relation to the aspect under consideration





**Class 3 (Good):** Operational management and surveillance modes are active for the

**Class 4 (Very good):** The appearance is not significant. Impact does NOT require action.



The environmental aspects considered strategic by the priest of the Administration can be considered as relevant environmental aspects regardless of the results of the application of the sustainability criteria. These aspects are evaluated in consideration of the general strategies of the Administration, environmental policy, the identification of risks and opportunities or particular expressions of interest by citizens or stakeholders. The identification of strategic environmental aspects is to be considered as complementary to the assessment of significance carried out according to the above criteria. Strategic environmental aspects are identified with the letter 'S'.

## Environmental performance assessment – Year 2021

Direct and indirect environmental aspects/impacts	Evaluation and monitoring criteria	Parameters/performance	Evaluation
<b>Waste Production and Management</b> 	Per capita waste production, degree of implementation of separate collection, methods of disposal/recovery/valorisation of waste, control of waste transporters and disposers	Separate waste collection	★★★★★ S
		<b>Water cycle</b> 	Consumption of municipal structures Consumption of school facilities Quality Thermal water consumption Surface water quality Wastewater quality Municipal water discharges (management)
<b>Energy resources</b> 	Temporal trend of consumption divided by type of resource (Electricity, Gas – Methane, etc.), amount of energy consumed in municipal structures and in the territory	Electricity consumption of municipal structures	★★★★★ S
		Consumption of school facilities	★★★★★ S
		Public Lighting Consumption	★★★★★ S
		Methane consumption of municipal structures	★★★ S
		Methane consumption of school facilities	★★★★★ S
<b>Natural Environment and Urbanization</b> 	Extension of green areas (such as Public Green, ...), maintenance, protection and enhancement of areas, tourist pressure on the territory	Public Green Extension	★★★★★ S
		Urbanization Structural interventions	★★★★★ S

# Valutazione delle prestazioni ambientali – Anno 2021

Direct and indirect environmental aspects/impacts	Evaluation and monitoring criteria	Parameters/performance	Evaluation
<b>Air Quality</b> 	Series of environmental survey campaigns for the monitoring of air pollution carried out in collaboration with ARPAV (Regional Agency for Environmental Protection of Veneto).	Surveys carried out in 2016	ARPAV 2021
<b>Transport and Traffic</b> 	Location and extension of cycle paths.	Structural assistance	★★★★★
<b>Asbestos</b> 	Management of any critical issues of municipal structures and on the territory	Municipal structures	★★★★★
		Territory	★★★
<b>Soil and subsoil</b> 	Identification and monitoring of tanks / underground tanks in the municipal area and management methods	Reclamation	★★★★★
<b>Electromagnetic fields</b> 	Number and positioning of mobile phone stations, data relating to the monitoring carried out by ARPAV with programmed measurement campaigns and permanent measurements with mobile control unit by another private company appointed by the Municipality.	Monitoring and interventions	★★★★★
<b>Substances with a potential greenhouse effect and ozone layer</b> 	Monitoring of air conditioning systems in municipal structures and related maintenance and control activities.	Controls and interventions	★★★★★ S
<b>Other local issues (vibration, smell, dust, hazardous substances, etc.)</b> 	Complaints and complaints forwarded to the Municipality, situations that can lead to violations of legal requirements	Dangerous substances (Suppliers and employee training)	★★★★★
		Odors (Reports and interventions)	★★★★★
		Light radiation (controls and interventions)	★★★★★
		Radon	★ S

## Environmental indicators

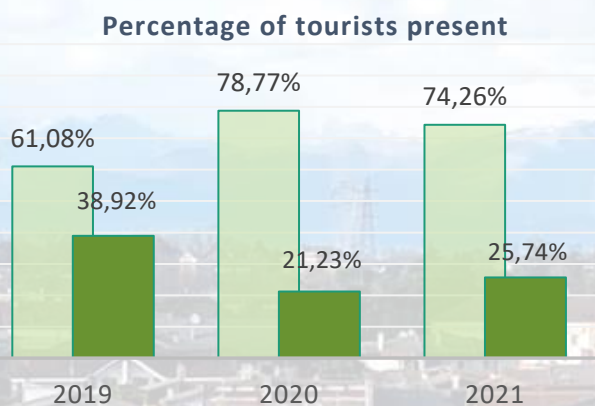
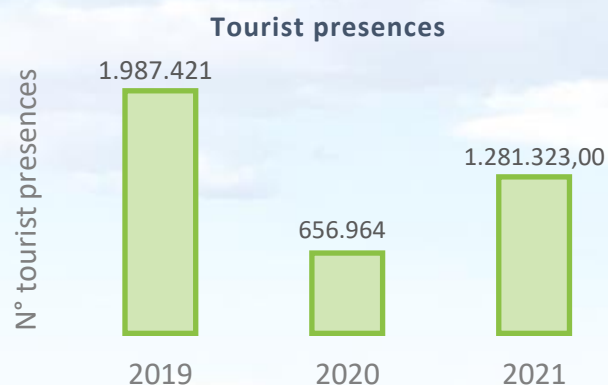
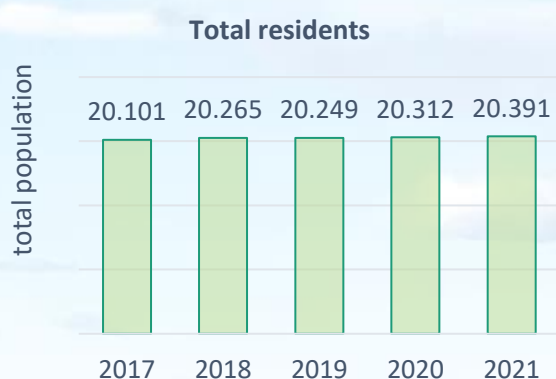
Based on the requirements of the EMAS Regulation, **environmental performance indicators** have been identified aimed at monitoring and reporting environmental performance with a view to clarity and transparency. The **key indicators** cover six environmental matrices (**drinking water, energy efficiency, waste, material efficiency, emissions and biodiversity**). These indicators are listed in Annex 1 while the relevant performance indicators are reported on the following pages dedicated to the various environmental matrices.

# Direct and indirect environmental aspects and performance indicators

In the following months, the main environmental issues are described in relation to which the Municipality of Abano Terme, through the Environmental Management System, carries out control and monitoring. For each theme, in addition to the environmental impact, the methods of control and monitoring and the consequent "performance" achieved are also described.

## Data considered for the calculation of performance indicators

	2019	2020	2021
<b>MUNICIPAL EMPLOYEES</b>	118	115	127
<b>SCHOOL USERS</b>	1.776	1.693	1645
<b>LIGHT POINTS</b>	6.777	6.749	6.657



- % Italian presences on the total
- % foreign presence on the territory

# Drinking water

## DRINKING WATER IN ABANO TERME

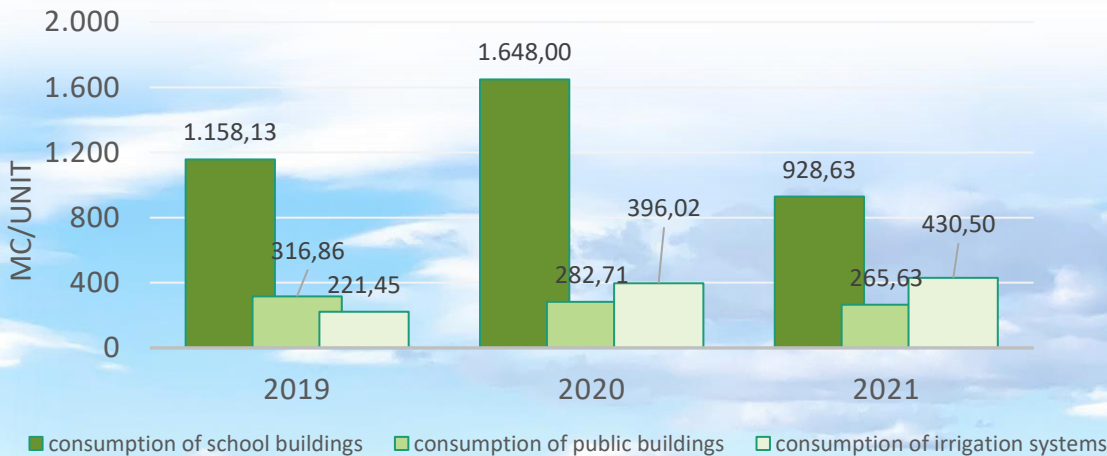
The water supplied in the Municipality of Abano Terme is taken from the naturalistic oasis of Villaverla. The oasis covers an area of about 260,000 square meters located along the line of resurgences where the underground groundwater that comes from the area from the Asiago and Lavarone plateau resurfaces on the surface. The rainwater and snow fallen in these areas infiltrates deep into the rocks and takes about 10 years to arrive and resurface in the oasis of Villaverla. During its journey, the water, which crosses the gravel layers of which the subsoil of the Vicenza foothills is composed, "acquires" the mineral salts that give the characteristic of oligomineral water and is purified becoming drinkable.

### **Drinking water consumption evaluation year 2021 :**

- Consumption in public buildings - slightly decreasing
- Consumption of school buildings – they are decreasing, thanks to a greater timeliness in detecting faults and leaks from the plants
- Consumption of irrigation systems used for park areas and flower beds in the area – they are increasing as the year 2021 was characterized by a particularly hot summer season that required numerous irrigation interventions.

The administration constantly monitors the aspect of drinking water and intervenes promptly when leaks occur at schools or at irrigation systems.

AVERAGE DRINKING WATER CONSUMPTION



January	1
SUN	1
MON	2 1
TUE	3
WED	4
THU	5
FRI	6
SAT	7
SUN	8
MON	9 2
TUE	10
WED	11
THU	12
FRI	13
SAT	14
SUN	15
MON	16 3
TUE	17
WED	18
THU	19
FRI	20
SAT	21
SUN	22
MON	23 4
TUE	24
WED	25
THU	26
FRI	27
SAT	28
SUN	28
MON	30 5
TUE	31

## The quality of drinking water

The territory of the Municipality of Abano Terme was inserted by resolution of the G.R. Veneto n. 2133/2016 "Surveillance plan on the population exposed to perfluoroalkyl substances (PFAS)"; today it does not appear that surveillance activities have been launched on the resident population. During 2021 the Municipality carried out the sampling and analysis of drinking water also for the monitoring of the PFAS, PFOA and PFOS group; all the samples taken and analyzed (Municipal headquarters and G. Pascoli school) were lower than the detection levels.

The monitoring of the quality of water intended for human consumption is carried out daily by the managing body and the results of the analyzes can be consulted on the Website of Acegasapsamga ([www.acegasapsamga.it/attivita\\_servizi/acqua\\_ciclo\\_idrico/qualita\\_controllo/qualita\\_acqua\\_padova](http://www.acegasapsamga.it/attivita_servizi/acqua_ciclo_idrico/qualita_controllo/qualita_acqua_padova)).



## Water houses in the territory

Year 2012: installation of the water house structure of via Previtali

Year 2016: inauguration of the second Water House in Giarre in the green area called "garden of the Liriodendri"

Year 2020: installation of the third water house at Piazza Mercato

Annex I – INDICATORS



n.1 - Environmental indicator –  
Drinking water consumption

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# Thermal baths in Abano Terme

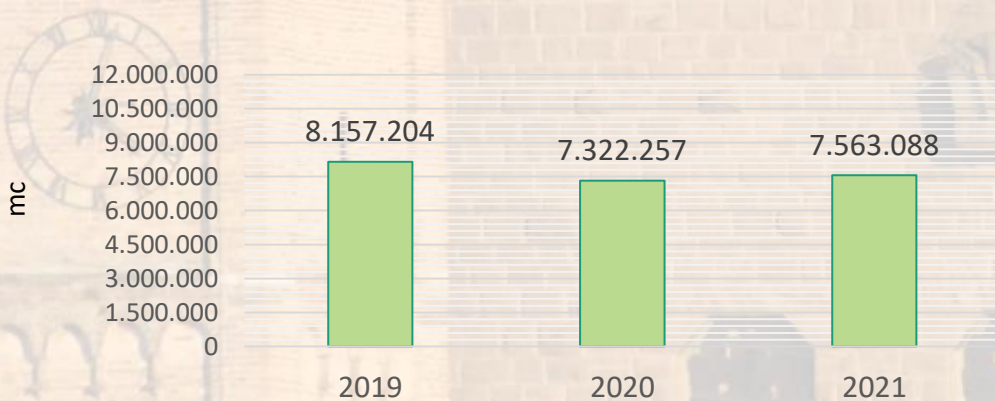
The healing and beneficial properties of the mud and thermal water of the Euganean baths have been known since Roman times.

The hot water that flows naturally in the spa area is the result of a phenomenon of geothermal heating of rainwater fallen, many years before in the area of the Venetian pre-Alps (small dolomites and Lessini mountains). The water that fell in these areas drops to a depth of about 3/4,000 meters. and, along the path that then leads it to rise naturally thanks to a particular geological system present in the area of the Euganean Hills, it is enriched with mineral salts and warms up. **The thermal water is taken at a temperature of about 85 ° and is classified as hyperthermal salt-bromine-iodine type. It is used for healing purposes in balneotherapy and inhalation therapies, it is also used in the maturation of thermal mud which is then used in the treatment of osteo-articular affections and skin alterations thanks to the anti-inflammatory effects characteristic of the thermal mud of Abano Terme.**

## The consumption of thermal water

The data relating to consumption for the year 2021 demonstrates and confirms that thermal water withdrawals are not exclusively linked to tourist presences, but are also closely linked to access to "daily" spa treatments or to therapies or wellness treatments carried out by customers who access the establishment "on the same day" whose presence is not recorded, a phenomenon that has strongly increased in recent years. The data is also closely linked to the maintenance according to the establishment which, regardless of the presence and services provided, carries out withdrawals of thermal water for the maintenance of the pools and the maturation of the sludge. Compared to previous years, due to the pandemic context, it was considered appropriate to indicate the absolute value of extracted thermal water, not relating it to the number of tourist presences in the area. For the year 2021 there was a slight increase in consumption.

EXTRACTED THERMAL WATER



February		2
WED	1	
THU	2	
FRI	3	
SAT	4	
SUN	5	
MON	6	6
TUE	7	
WED	8	
THU	9	
FRI	10	
SAT	11	
SUN	12	
MON	13	7
TUE	14	
WED	15	
THU	16	
FRI	17	
SAT	18	
SUN	19	
MON	20	8
TUE	21	
WED	22	
THU	23	
FRI	24	
SAT	25	
SUN	26	
MON	27	9
TUE	28	



## Surface water quality

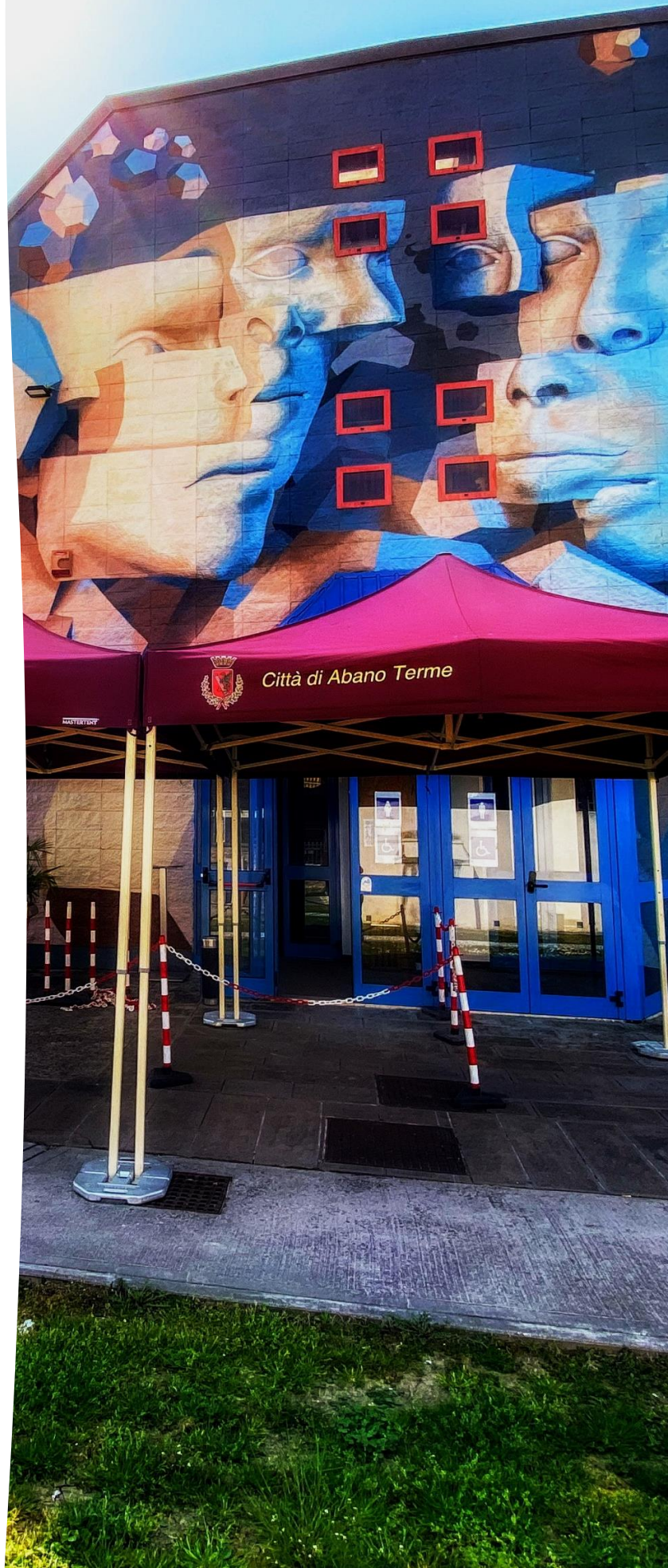
Since 2006 the Municipality every year carries out the monitoring of surface water flowing on the municipal territory, monitoring that is performed by an accredited chemical laboratory and consists in the execution of some samples for the subsequent chemical-bacteriological analysis.

The waterways monitored in 2021 are:

- Fossa Mala drain (upstream and downstream discharge of the sewage treatment plant)
- Scolo Bolzan (via Lazzaretto)
- Scolo Rio Caldo ( via Previtali)

The analyses received do **not reveal any exceedances with respect to the environmental quality standards** provided for by the Environmental Code (table 1/A and 2/B of Legislative Decree 152/06, part III, all 1, par A.2.6). During 2021, the samples taken were analyzed for PFAS – PFOA and PFOS, within the limits set.

In 2022, the monitoring of the environmental quality of surface water will continue.





# Sewerage and purification

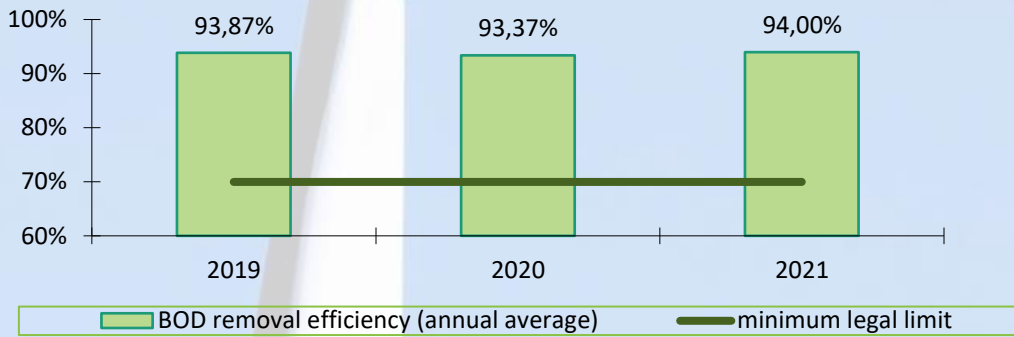


Objective N.9

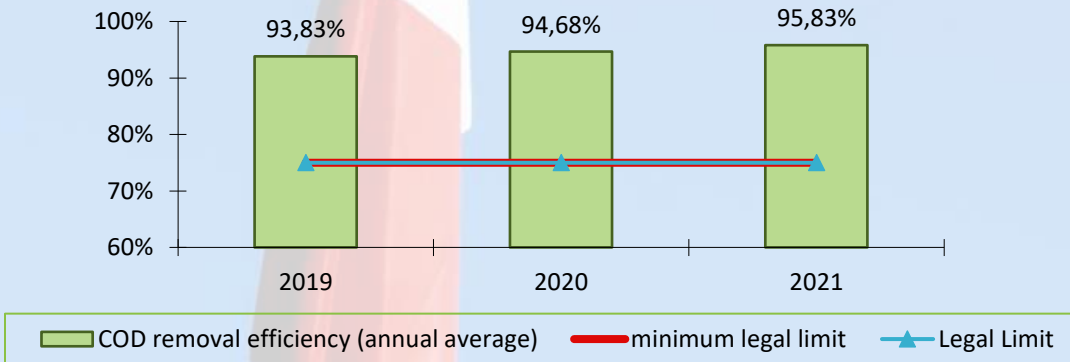
The Municipality is the owner of the purification plant located south-west of the territory, on the border with the municipalities of Torreglia, Teolo and Montegrotto Terme and of the black sewerage network connected to it. Since 2002, the management of these two infrastructures has been entrusted to the company AcegasApsAmga S.p.A., which also provides for technical administrative investigations and the consequent issue of authorizations for public and private discharges into the separate sewerage network. The purification plant is regularly authorized by the Province of Padua with provision no. 3441/DEP/2021 of 19/08/2021 expiring on 18/08/2025.

The data of the Environmental Management System show **excellent levels of purification efficiency of the plant.**

BOD removal efficiency (annual average)



COD removal efficiency (annual average)



Month	Day	Value	
March	3		
	WED	1	
	THU	2	
	FRI	3	
	SAT	4	
	SUN	5	
	MON	6	10
	TUE	7	
	WED	8	
	THU	9	
	FRI	10	
	SAT	11	
	SUN	12	
	MON	13	11
	TUE	14	
	WED	15	
	THU	16	
	FRI	17	
	SAT	18	
	SUN	19	
	MON	20	12
	TUE	21	
	WED	22	
	THU	23	
	FRI	24	
	SAT	25	
	SUN	26	
	MON	27	13
	TUE	28	
	WED	29	
	THU	30	
FRI	31		

**BOD5** Bod5 is one of the parameters through which it is possible to indirectly measure the degree of biodegradable organic pollution of a water discharge.

**COD** Chemical Oxygen Demand: measures the amount of oxygen used for oxidation (Redox) of organic and inorganic substances contained in a water sample following treatment with compounds with a strong oxidizing power (mg/l of O2).

COD, like BOD (Biological Oxygen Demand), is mainly used for estimating the organic content and therefore the potential level of pollution of natural and waste water. A high COD value in a discharge is negative from an environmental point of view: it in fact causes the reduction of dissolved oxygen in the receiving water body, and therefore the reduction of the capacity for self-purification and sustenance of living organisms. (Source: ARPAV)



# Sewerage and purification

## The sewerage network

In 2021, the black sewerage network, connected to the sewage treatment plant, did not increase.

Overall, the separate sewerage network (black, white and thermal) has a length of about 160 km on a territory of 21.75 square kilometers and with a population of 20,249 inhabitants and is divided as follows:

- About 55 km of black sewerage network connected to the purification plant;
- About 74 km of white sewerage (data updated following the surveys for the preparation of the Water Plan);
- About 31 km of white / thermal sewerage.



## Electrical energy



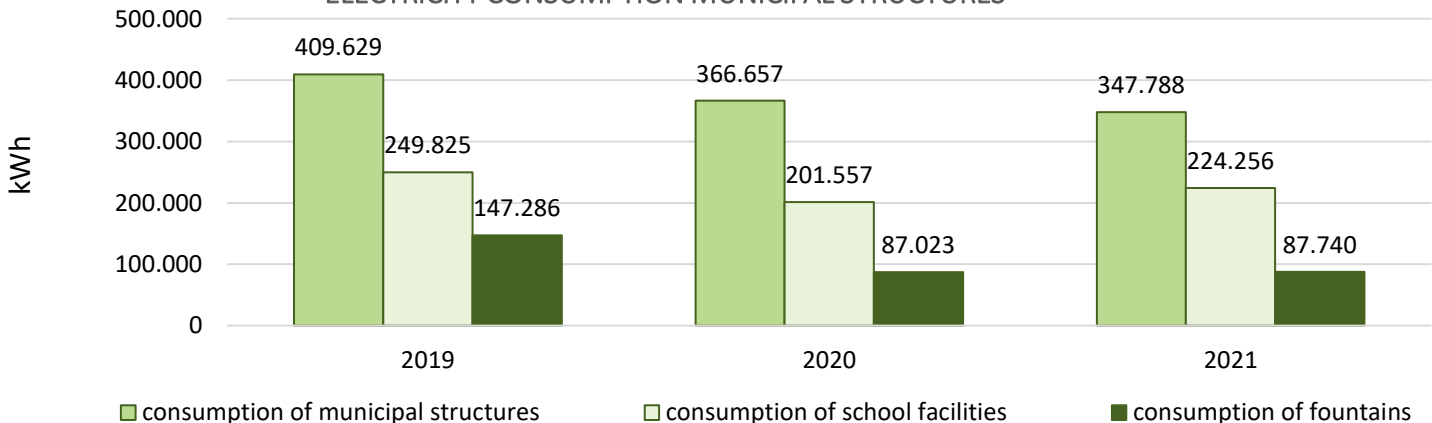
Objective 1, 8

In 2021 all the electricity purchased by the specifications for municipal structures is 100% from renewable sources, as demonstrated by the Certificate issued by the supplier on 25-05-2022 (Prot. 19942) (the purchase of energy for public lighting is not included).

## Electricity consumption of municipal structures

In 2021, electricity consumption recorded a slight reduction for public facilities and an increase for school facilities and fountains. During 2022, replacement interventions with LED lamps are planned in nine municipal buildings (5 schools – 3 sports facilities – municipal warehouse)

ELECTRICITY CONSUMPTION MUNICIPAL STRUCTURES





# Electrical energy



Objective 1, 8

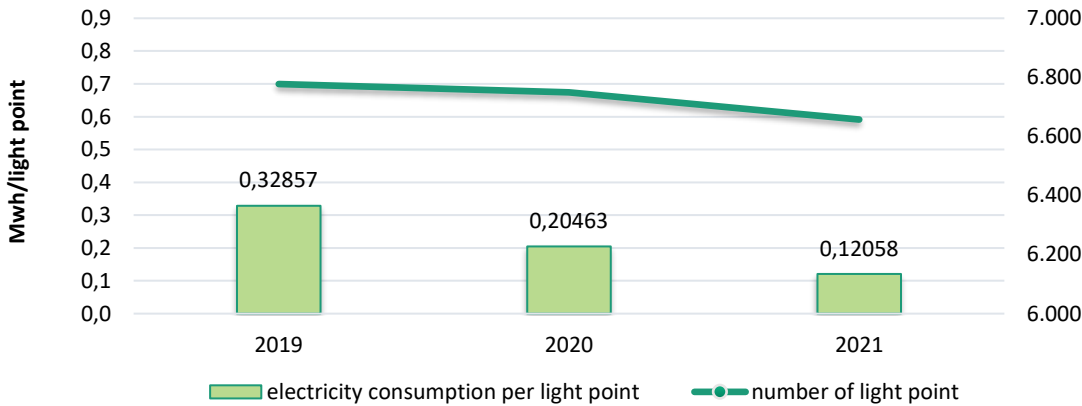
## Public lighting consumption

In 2017 the maintenance and management service of public lighting systems was entrusted through a CONSIP agreement for a duration of 9 years. The service includes, in addition to ordinary maintenance with the supply of electricity, also important interventions of standardization, extraordinary maintenance and energy **requalification of most of the plants**.



*In April 2021, all the works of the 5 excerpts relating to the extraordinary maintenance, adaptation and redevelopment of the plants were completed, intervening on over 85% of the existing equipment. The reduction in consumption that was recorded in 2021 is certainly generated by the interventions carried out. For the 4th excerpt, the Energy Efficiency Certificates were requested and obtained.*

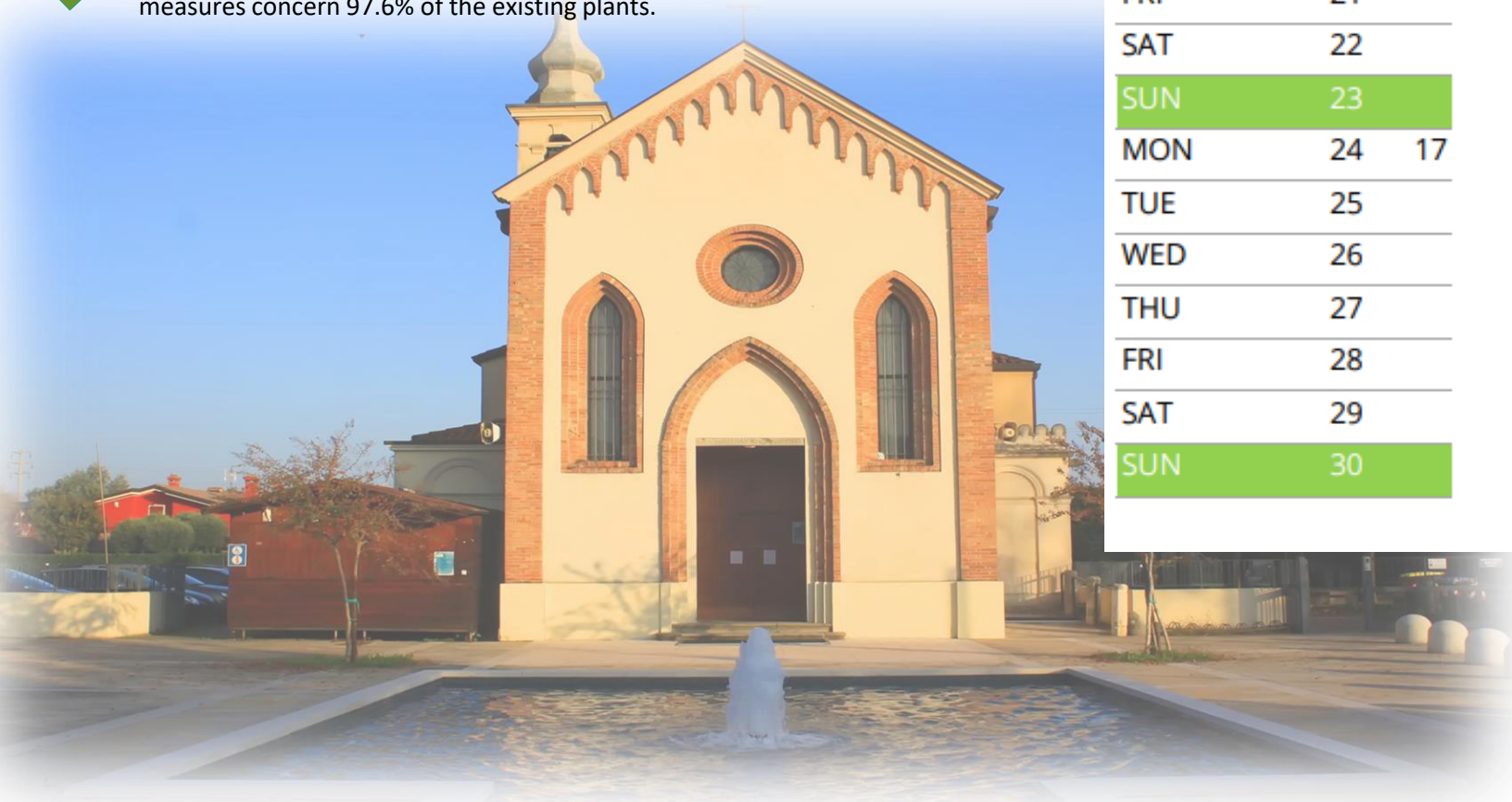
Consumi di Energia Elettrica della Pubblica illuminazione



The reduction in consumption per single light point is testimony to the result of the energy requalification works of public lighting systems; to date, the improvement measures concern 97.6% of the existing plants.



April		4
SAT	1	
SUN	2	
MON	3	14
TUE	4	
WED	5	
THU	6	
FRI	7	
SAT	8	
SUN	9	
MON	10	15
TUE	11	
WED	12	
THU	13	
FRI	14	
SAT	15	
SUN	16	
MON	17	16
TUE	18	
WED	19	
THU	20	
FRI	21	
SAT	22	
SUN	23	
MON	24	17
TUE	25	
WED	26	
THU	27	
FRI	28	
SAT	29	
SUN	30	





# Methane



Objective N.1,8

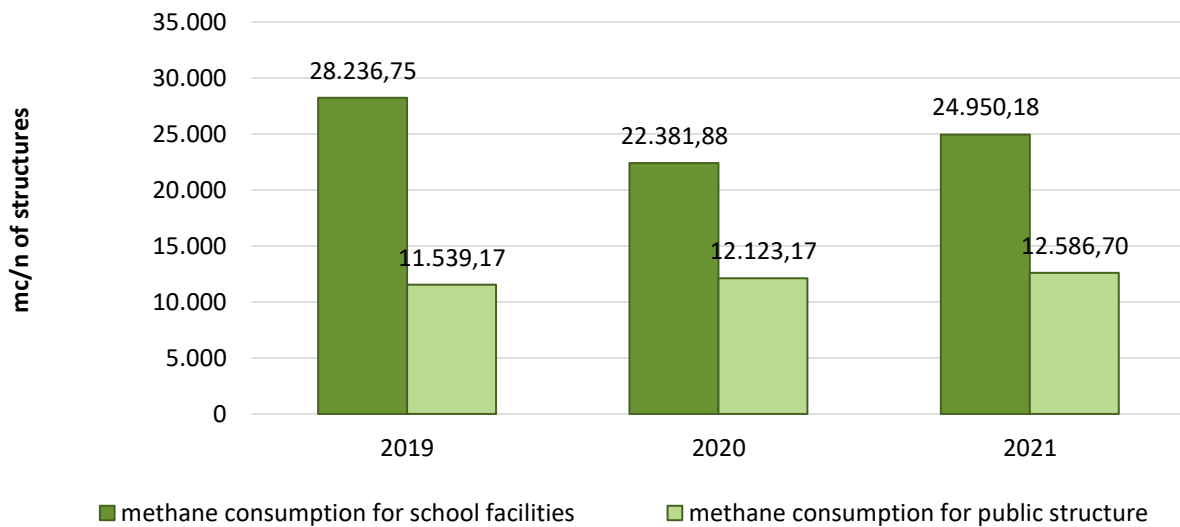
The municipal territory is 99% methanized and only a few dozen users are not reached by the network and therefore methanized as they are burdened by constraints, such as, for example, via Levante Ferrovia and Via Guazzi which, in some sections, are contiguous to the railway line, or via Lungo Argine that runs on the embankment top of the Battaglia Canal.

All municipal structures and buildings including schools are powered by methane and all boilers in the winter period are constantly checked by carrying out regular maintenance, combustion tests and performance checks of the burners. All the systems have been tested by INAIL (formerly ISPESL) and comply with fire prevention requirements.

## Methane consumption for school and municipal facilities

Methane gas consumption recorded a slight increase for public facilities, while for schools, the increase that was recorded compared to the previous year is attributable to the return to class of students. This increase is however lower than the average pre-pandemic consumption and is probably a consequence of the energy efficiency interventions that are being carried out in all school buildings.

AVERAGE METHANE CONSUMPTION MUNICIPAL STRUCTURES



## The initiatives of the Municipality on the saving of energy resources

### SECAP

In 2008, the Municipality joined the Covenant of Mayors (Covenant of Mayors), an initiative launched by the European Commission that involves, voluntarily, public administrations. The Administration has decided to continue this commitment by adhering to the "new" Covenant of Mayors proposed by the European Commission in 2015, which sees the integration of the previous SEAP with the aspects concerning adaptation to climate change and the drafting of the SECAP - Climate Sustainable Energy Action Pact, whose goal is the 40% reduction of CO2 emissions in the territory of the municipality by 2030 by including in the strategies for the mitigation of emissions, policies that increase the resilience of the territory and the community against climate change. The SEAP was approved by resolution of C.C no. 24 of 26/04/2022.

### ISO 50001

Implementation and certification of the energy management system (ISO 50001) aimed at containing energy consumption

May	5
MON	1 18
TUE	2
WED	3
THU	4
FRI	5
SAT	6
SUN	7
MON	8 19
TUE	9
WED	10
THU	11
FRI	12
SAT	13
SUN	14
MON	15 20
TUE	16
WED	17
THU	18
FRI	19
SAT	20
SUN	21
MON	22 21
TUE	23
WED	24
THU	25
FRI	26
SAT	27
SUN	28
MON	29 22
TUE	30
WED	31



## The works of the Municipality on the saving of energy resources

- Renovation of the roof with insulation: Giovanni 23° school (carried out in 2020) – Scuola V. From Feltre and De Amicis (in progress)
- Replacement of windows: Manzoni and Giovanni 23rd school (executed and completed in 2020) - De Amicis schools (executed and completed in 2021)
- Realization of external coat: Pascoli school (executed and completed in 2021) – Manzoni and V. da Feltre school (approved project) Busonera school (in progress)
- Installation of thermostatic valves: Giovanni 23° school (performed in 2020) – De Amicis school (executed and completed in 2021)
- The contract for the concession of the integrated service of conduction and maintenance of the thermal and technological systems of the municipal buildings provides for numerous energy requalification interventions with the replacement of some boilers, the installation of remote management systems and thermostatic valves as well as the evaluation of heating with geothermal probes and waste thermal water of three school buildings.
- Most of the interventions carried out in school buildings and related to energy efficiency have benefited from the incentive of the Thermal Account by the GSE.
- Similarly, the request for an incentive will also be made for new interventions currently in progress or planned.



### **Environmental indicator – Energy efficiency**

For the calculation of the overall indicator, the use of electricity, methane and fuel at the facilities and for the vehicles owned by the Municipality is considered. As for the energy produced from renewable sources, the value is zero, since the only structure that currently uses the thermal energy obtained from the exploitation of thermal waters and on which a photovoltaic system is installed is the Palazzetto dello Sport whose management is entrusted to a private company.





# Waste production and management



Objective N.6

During 2017 the new "waste take-away service, disinfestation and deratization, cleaning of public parks and sidewalks, cleaning of ornamental fountains and refreshment fountains in the municipality of Abano Terme – years 2016-2020" was completely activated (to date extended until 30/06/2022)

The current service provides for the division of the territory into two zones, the "belt" area and the "central" area with different methods of waste delivery.

In the "belt" area (fractions of Giarre, Monterosso, Feriole and other small areas), the service has been active since December 2016 and the "door to door" conferment is planned. All utilities are equipped with five bins: glass, paper and cardboard, plastic packaging and cans, organic and dry non-recyclable wet with annual collection scheduling.

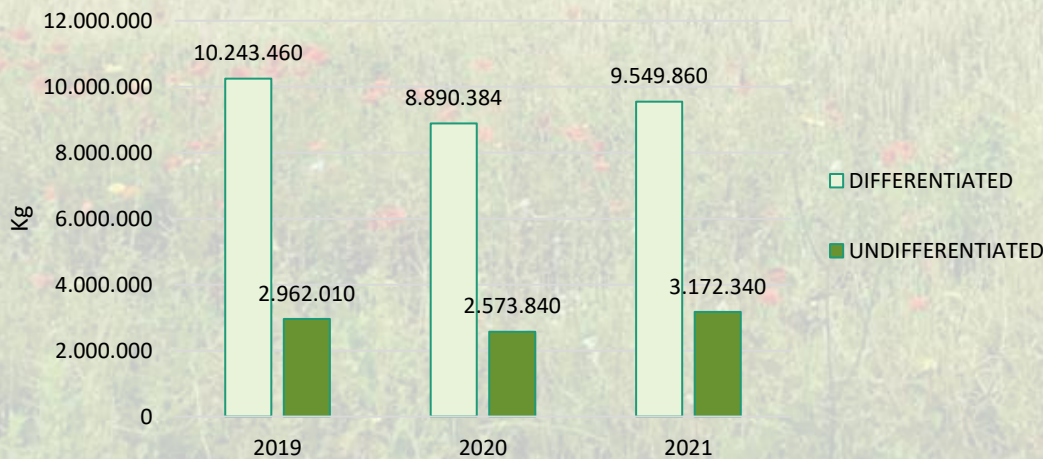
In the "central" area, the most urbanized in the area, about 162 basic ecological islands (IEB) are set up where there are new containers for different types of waste. Users falling into this area have magnetic cards "CartAmbiente" for the conferment of dry waste as the container for this type of waste is equipped with a cap with a slit that can only be opened with cartAmbiente.

### Within the territory there are:

- 4 stations for the transfer of vegetable oil located in: Piazza Mercato, Via S.Pio x, Via dei Tigli, Via Moroni
- 3 stations equipped for the conferment of small WEEE located in: P.zza Mercato, Giarre, Monterosso
- Service with the **Ecoself**: parking according to the calendar available on the website of the Municipality in the following locations: parking of the spa stadium, via Leoncavallo, via S. Pio X
- The **green harvest** is carried out throughout the territory with a "door to door" system on pre-established weekly days and is weekly in the period from 01/03 to 30/11 and monthly in the months of December, January and February.

June		6
THU	1	
FRI	2	
SAT	3	
SUN	4	
MON	5	23
TUE	6	
WED	7	
THU	8	
FRI	9	
SAT	10	
SUN	11	
MON	12	24
TUE	13	
WED	14	
THU	15	
FRI	16	
SAT	17	
SUN	18	
MON	19	25
TUE	20	
WED	21	
THU	22	
FRI	23	
SAT	24	
SUN	25	
MON	26	26
TUE	27	
WED	28	
THU	29	
FRI	30	

## WASTE PRODUCTION





# Waste production and management

WHY DOES EDIBLE OIL POLLUTE AND HOW IS IT REGENERATED?

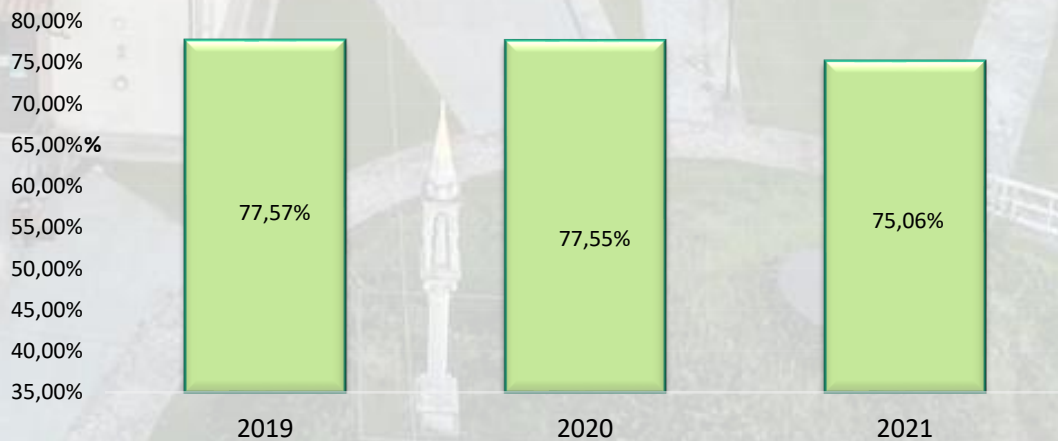
*The damage we cause when we throw the used oil from frying or canned products into the sink is really huge. In the best case this ends up in a sewage treatment plant causing an overload of work. Dispersed in the soil prevents oxygenation and proper intake of nutrients by flora. Today it is possible to regenerate this oil and obtain lubricants with characteristics similar to crude oil, but less polluting. They can be used for operating machines or as components for the production of biodiesel and soap. Italy holds the European record for the regeneration of used oil with a percentage of about 88% of the quantities collected which is equal to about 16% of the total disposed of.*

In addition to the waste collection service, the company AcegasApsAmga also performs:

- the collection of bulky waste at home,
- mechanical street sweeping,
- the cleaning of parks and the emptying of baskets,
- the service of disinfestation and deratization of public areas,
- the micro collection of asbestos-containing materials from domestic users,
- the training and information activity of citizens through the periodic sending of brochures.

Below, we report the percentage of separate collection carried out in the Municipality of Abano Terme (the data considers the results of separate collection both of local users and hotels). The ARPAV data for 2021 are not yet available, for this reason the percentage of separate collection coming from data for the preparation of the mud is reported.

PERCENTAGE OF SEPARATE WASTE COLLECTION (RD) TERRITORY AND HOTELS





# Waste production and management



Objective N.6

## Initiatives in the territory

- The control service carried out by local police officers on the correct delivery of waste continues.
- At the address [www.ilrifiutologo.it](http://www.ilrifiutologo.it) you can download the app that allows you to know, by typing the name of the waste, the exact conferment of each material.
- The works for the construction of the new EcoCentro Comunale in via Colli Euganei have been completed, the structure was inaugurated and opened in September 2021.
- With resolution of the City Council no. 65 of 2019, the proposal to join the Abano Terme initiative was approved: a plastic free city which provides, in addition to the approval of a plan aimed at reducing the use of plastic, for a conscious use and sustainable management of waste, a series of actions to be implemented for the reduction of the use of plastic in offices, municipal structures and schools and in events organized by the Municipality or of which it grants patronage.



July		7
SAT	1	
SUN	2	
MON	3	27
TUE	4	
WED	5	
THU	6	
FRI	7	
SAT	8	
SUN	9	
MON	10	28
TUE	11	
WED	12	
THU	13	
FRI	14	
SAT	15	
SUN	16	
MON	17	29
TUE	18	
WED	19	
THU	20	
FRI	21	
SAT	22	
SUN	23	
MON	24	30
TUE	25	
WED	26	
THU	26	
FRI	28	
SAT	29	
SUN	30	
MON	31	31

### Environmental indicator – Waste and material efficiency

The production of waste from municipal structures, which are transferred to the collection service, is considered not significant as it is attributable solely to the administrative activities carried out in the various structures. Since the territory is affected by a considerable tourist flow, the data relating to the production of waste in the territory have been compared to the number of inhabitants added to the number of tourist presences. Attached are also the data relating to the efficiency of the materials as required by the EMAS regulation: the main material purchased by the Municipality is the paper used by the offices.



*n.4 - Environmental indicator - Material Efficiency*



*n.3 - Environmental indicator – Waste Production*



## Air Quality – Monitoring

In June 2021, the summer campaign to monitor air quality in the territory of the municipality of Abano, carried out by ARPAV, began.

The winter measurement campaign took place in the period from 21/01/2021 to 18/03/2021 and the summer one in the period from 05/05/2021 to 28/06/2021. The final processing of the data has substantially confirmed the critical issues for the overcoming of fine particles (PM10) and ozone.

In 2021, in line with the agreements undertaken at the Zonal Technical Table, the ordinance for the containment of air pollution was issued with actions to be applied progressively depending on the level of pollution that is communicated by ARPAV. In addition to this, the "ecological Sundays" have been organized on a monthly basis, with the prohibition of the circulation of all motor vehicles in the central area (part of the Viale delle Terme and in the ZTL)

### AIR POLLUTION

*It means the presence of solid, liquid, gaseous substances that **alter the natural conditions of the atmosphere, with harmful effects of the human being, on animals and vegetation.** There are two causes: natural (e.g. volcanic eruptions) or anthropogenic.*

*The latter represent, in recent decades, the largest source of air pollution and originate mainly from the use of fossil fuels for the production of electricity and heat. In the Po Valley, air pollution is further aggravated and amplified by the geomorphological conditions of closure of the territory.*





## Substances harmful to the ozone layer and potentially have a greenhouse effect

The Municipality is continuing to gradually replace the old air conditioning systems with new ones that contain gases that have less impact on the environment and has activated a control and maintenance system for the systems installed in municipal buildings that pays particular attention to the detection of any leaks and leaks from the refrigerant circuits. New gases such as R32 have zero ODP (Ozone Elimination Potential) values and a low GWP (Global Warming Potential) index. During 2021, there was a leak of R410A gas from the plant (loss 19.7 Kg) of Ex Casa Maestre (plant subject to FGAS), also the plant operating with R22 gas of the Villa Trevisan Savioli complex was removed replacing it with a new plant operating with R410A gas



*The main gases used in refrigeration plants are hydrocarbon compounds containing chlorine and fluorine, CFCs (ChloroFluoroCarbons) were banned already in the early 90s, HCFCs (HydroChloroFluoroCarbons) have been banned since 2015. Starting from 24 January 2019, the Database was established (Article 16 of Presidential Decree no. 146/2018) For HFCs, a communication to the Database is provided on the collection and storage of information relating to leak control activities as well as the installation, servicing, maintenance, repair and dismantling of equipment containing fluorinated greenhouse gases. The certified company or, in the case of companies not subject to the certification obligation, the certified natural person communicates, electronically, to the Database the information referred to in paragraphs 4, 5 and 7 of Article 16 of Presidential Decree no. 146/2018*

August		8
TUE	1	
WED	2	
THU	3	
FRI	4	
SAT	5	
SUN	6	
MON	7	32
TUE	8	
WED	9	
THU	10	
FRI	11	
SAT	12	
SUN	13	
MON	14	33
TUE	15	
WED	16	
THU	17	
FRI	18	
SAT	19	
SUN	20	
MON	21	34
TUE	22	
WED	23	
THU	24	
FRI	25	
SAT	26	
SUN	27	
MON	28	35
TUE	29	
WED	30	
THU	31	

### Environmental indicator - pollutants

Annex 1 contains data on emissions into the atmosphere attributable to municipal activities: emissions from air conditioning systems, direct emissions into the atmosphere due to the use of fossil fuels for heating and municipal vehicles, as well as indirect emissions deriving from the production of electricity consumed, have been considered. For the year 2021, as well as for previous years, following the stipulation of the new contract starting from August 2017, the electricity purchased for public lighting comes from energetic mix while the energy purchased for public facilities from specifications is 100% green.

Annex I – INDICATORS



**n.5 - Environmental indicator - Pollutant emissions**



## Transport and mobility



Objective 1 , 3, 11

The problem of traffic and mobility in the municipality is very important as it is crucial for the production of noise, air quality, odors and nevertheless energy savings.

Over the years, interventions have been made with the aim of making the transit of vehicles smoother by limiting the allocation with the engine running, in fact many traffic lights have been removed with the insertion of roundabouts and the directions of travel of some roads have been modified.

With the aim of developing synergies with neighboring municipalities in order to broader mobility planning by favoring an alternative to the individual car, encouraging the slow mobility of pedestrians and cyclists, evaluating new forms of urban logistics for the distribution of goods with a view to safeguarding and caring for the environment, the **Urban Plan for Sustainable Mobility (SUMP) of the Municipality of Padua and the Co.Me.Pa** was adopted in February 2020. In this direction also the approval in March of the Cycle Mobility Plan (**Bicipan**). In July 2021 the FIAB – Italian Federation of Environment and Bicycle awarded the Municipality of Abano Terme the recognition "Cycling Municipality – 4th ed. 2021" for its commitment to the promotion and implementation of infrastructures and policies in favor of the bicycle.

### Objectives:

- connect the various public structures (schools, parks, administrative buildings, protected areas, buildings of historical and environmental value, pedestrian and tourist areas);
- identify the various types of routes, in the different activities (daily or tourist) and in the different areas and territorial areas;
- propose an improvement in the efficiency, safety and sustainability of the routes;
- propose connections with other municipalities;
- relate to other means of transport (trains, public buses);
- identify the areas of exchange (velostations, bike-sharing).



The works of completion and safety of the cycle path that connects the hamlet of Giarre with the historic center of Abano (via S. Pio X and via Roveri) have been completed, while the process for the expropriations necessary for the construction of the two sections of the cycle path on via Flacco - via Sabbioni and the authorization process of Ferrovie for the stretch of cycle path on via Romana (between via Diaz and via Levante Ferrovia) is underway.

In 2022 the coloring in red of the cycle paths of the central area and in beige of those in the countryside areas is underway.

The roundabout between Via Santa Maria and Via Ponte della Fabbrica and Via 4 Novembre, Via Prati and Via delle Terme is being studied, while work has begun on the new roundabout between Via Diaz-Puccini.



## Soil and subsoil

In March 2011 the characterization plan of the former landfill in Via Guazzi, an area owned by the Municipality and which was used as a landfill between 1950 and 1960, was approved. During 2019, following the further investigations carried out at the site that made it possible to exclude a state of spread of contamination in the environmental matrices surrounding the area, a Monitoring Plan was drawn up and submitted for approval by the Conference of Services which, at its November meeting, asked for further investigations to determine the degree of mineralization of the waste. This activity was carried out in February 2020 confirming the absence of environmental criticalities and following a new meeting of the Services Conference, with determination no. 388/2020, the proposed Monitoring Plan was approved. At the end of 2021, the Environmental Monitoring service of the former landfill was entrusted and in March the activities began. The monitoring plan has a duration of 5 years.

At the beginning of 2022, the Reclamation Plan with environmental monitoring of an industrial plant was approved, while the monitoring activities of the fuel distribution plant approved in 2020 are underway.



September		9
FRI		1
SAT		2
SUN		3
MON	4	36
TUE		5
WED		6
THU		7
FRI		8
SAT		9
SUN		10
MON	11	37
TUE		12
WED		13
THU		14
FRI		15
SAT		16
SUN		17
MON	18	38
TUE		19
WED		20
THU		21
FRI		22
SAT		23
SUN		24
MON	25	39
TUE		26
WED		27
THU		28
FRI		29
SAT		30



## Dangerous substances

Nei luoghi di lavoro del magazzino e del cimitero sono presenti le schede informative sulle sostanze, le istruzioni per l'uso e i comportamenti che si devono adottare in caso di spandimento accidentale o in caso di contatto con parti del corpo: si tratta comunque di piccoli quantitativi di prodotti utilizzati per interventi di piccola manutenzione (acqua regia e solventi).

### Cleaning in public facilities.

The use of products with the **ECOLABEL** mark is provided for in the normal activity of cleaning and sanitizing the structures of the Municipality. Within the specifications for the cleaning service of municipal structures, in addition to the use of Ecolabel products, products have been provided for that meet the requirements of the CAM (Minimum Environmental Criteria) approved by the Ministry of the Environment with Ministerial Decree 24/05/2012.

The Staff of the Municipality and the Head of the Environmental Management System carry out periodic checks to verify its availability and use in the various municipal offices.

ECOLABEL

*It is the **European environmental certification mark for products and services** (EC Regulation no. 66/2010) that comply with ecological and performance criteria established at European level, using the approach of assessing the impacts of products on the environment during all phases of their life cycle, from the extraction of raw materials, to the manufacturing processes, to the distribution, use and disposal of the product. They consider: energy consumption, air and water pollution, waste production, saving of natural resources, environmental safety and soil protection and limits are set for each one. The use of substances that may be harmful to human health is excluded. (source ISPRA).*





In public facilities

In 2021 the project of reclamation and removal of the asbestos roof of the municipal warehouse was approved, the works were awarded and the reclamation plan is awaited approval by SPISAL. The works are scheduled to be running from June 2022. The new roof will have the predisposition for the installation of photovoltaic panels

In the territory

The presence of asbestos in the municipal area affects all citizens who reside there. The contract for the urban hygiene service signed with AcegasApaAmga S.p.A **provides for the free collection and disposal of slabs and other material containing asbestos up to 30 m2 for a maximum of 30 domestic users per year. During 2021, 27 users used the service.** However, asbestos remains a sensitive and particularly controlled aspect both when the request for removal by private individuals takes place, and when the reporting of situations in the territory that may be detrimental to public safety and environmental pollution is acquired.





## Light radiation



Objective  
N.12

The Regional Law n. 17 of 2009 "Rules for the containment of light pollution, energy saving in outdoor lighting and for the protection of the environment and the activity carried out by astronomical observatories" has established for the Municipality the obligation to equip itself with the lighting plan for the containment of light pollution (PICIL), which was approved by resolution of C.C n. 21 of 20/04/2016. The PICIL has recently been updated by resolution of the C.C n. 13 of 30/04/2021 incorporating the numerous interventions carried out on the public lighting systems following the conclusion of the works planned for the 5 excerpts.

October 10

SUN	1	
MON	2	40
TUE	3	
WED	4	
THU	5	
FRI	6	
SAT	7	
SUN	8	
MON	9	41
TUE	10	
WED	11	
THU	12	
FRI	13	
SAT	14	
SUN	15	
MON	16	42
TUE	17	
WED	18	
THU	19	
FRI	20	
SAT	21	
SUN	22	
MON	23	43
TUE	24	
WED	25	
THU	26	
FRI	27	
SAT	28	
SUN	29	
MON	30	44
TUE	31	



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## Natural ionizing radiation



Objective N.10

Radon is a natural radioactive gas, colorless and odorless, produced by the radioactive decay of radium, generated in turn by the decay of uranium, elements that are present, in varying quantities, everywhere in the earth's crust. The main source of radon input into the environment is soil, along with some building materials and, in some cases, water. Radon escapes from the ground, building materials and water: if it is dispersed in the atmosphere outdoors, indoors it can accumulate, reaching high concentrations. In these situations, when inhaled for a long time, radon is dangerous and is considered the second cause of lung cancer after cigarette smoke. You can protect yourself from Radon by determining how and in what amount you are exposed to the pollutant. (source ARPAV)

In September 2021, the radon gas measurement campaign in some municipal buildings (Montirone pavilions and schools in Monterosso, V. da Feltre, Busonera and De Amicis) ended. The measured values are all below the average annual concentration limit of 300 Bq / sqm with the exception of the Montirone pavilions where the corrective measures to be implemented to reduce the concentration are being studied, to date the two pavilions are not accessible to the public.

# Electromagnetic radiation - antennas

The Municipality of Abano Terme has two important tools for the management of the installation of Radio Base Stations (S.R.B.) of mobile telephony:

**The Antenna Localization Plan** (whose latest update was approved by Resolution of the City Council No. 55 of 27/10/2021)

**Municipal Regulation for the installation and operation of S.R.B. mobile telephony** (approved by the City Council No. 55 of 19/07/2012 and subsequently updated by resolution of C.C. n. 2 of 19/01/2016 and C.C. n. 2 of 19/02/2021).

Both have the purpose of ensuring the correct installation of the plants by minimizing the exposure of the population to electromagnetic fields and the radio electric coverage to mobile operators, as required by the Electronic Communications Code.

During 2021, the campaign of controls that the Municipality carries out to monitor the electromagnetic fields produced by various S.R.B. Three monitoring campaigns were carried out with ARPAV in which data collected can be read in the table below. The "continuous" monitoring by means of a mobile control unit that rotates throughout the municipal territory also remains active; all monitoring data are made available on the Municipality website at <https://www.comune.abanoterme.pd.it/ambiente-2/>.

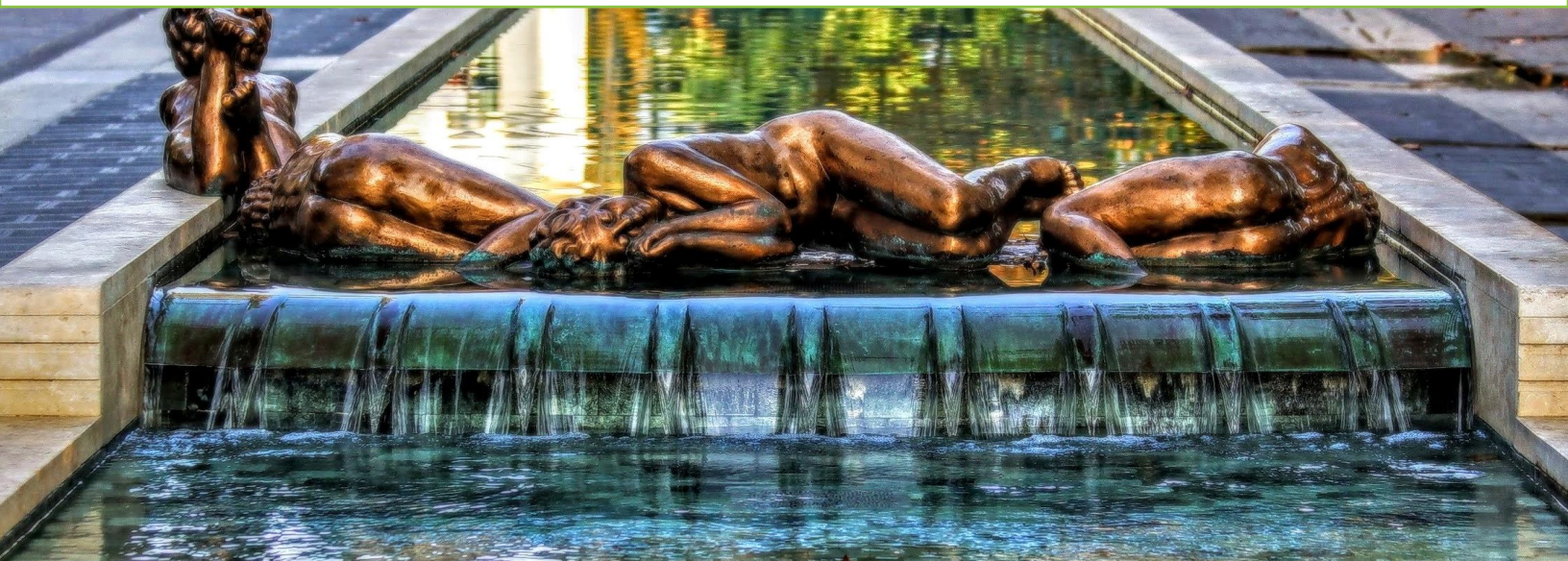
During 2021, in addition to the implementation, on some existing infrastructures, of new plants or the reconfiguration of existing ones, the existing plant in the Municipal Warehouse area was split and during 2022 the plant in the municipal area of via Carabinieri is also planned to be doubled.

**To date, all the surveys carried out on the emissions of electromagnetic fields from mobile phone antennas located in the municipal territory have not shown exceedances of the legal limits.**

## EMF PRODUCED BY S. R.B. LOCATED IN PUBLIC AND PRIVATE SITES

Address	Plants within 350m	Period	Emedium*	E <sub>max</sub> *	Limit lex
Configliacchi Street	TIM e VODAFONE	13/12/2021 – 13/01/2022	0,8	1,0	6 V/m
C. Battisti Street	WINDTRE, ILIAD, TIM e VODAFONE	13/12/2021 – 13/01/2022	1,3	1,9	
Viale delle Terme	WINDTRE, ILIAD, TIM e VODAFONE	15/12/2021 – 13/01/2022	1,1	1,4	

\* Electric field strength (daily average, maximum).



## Natural environment: public green areas

In 2021 the extension of the public green area is equal to 32.92 square meters. per inhabitant, in line with the values reported last year.

In addition to the regulation for the use of plant protection products near inhabited centers and homes approved by resolution of C.C n. 5/2020 whose objective is the progressive reduction of plant protection products used, promoting the spread of more environmentally friendly systems and techniques of use such as integrated or biological pest management, in 2021 with resolution of C.C n. 44 of 17/09/2021 the **green regulation** was approved with the aim of protecting the arboreal heritage, increasing it and promoting the culture of proper maintenance. During the International Ecotechgreen Forum that took place in April 2022, the Municipality was awarded the 2nd prize in the "Forestry Urban Technology" category of the International Design Award Ecology Green Technology for landscape sustainability for the value of the Green Regulation.

In 2021, 285 new trees were planted (via Mazzini, Diaz, San Giuseppe park, Garden of the Righteous, Chico Mendez park) and replaced because they died, another 104 trees. In 2022, 58 new trees are expected to be planted.

On the new plantations in Via Mazzini, an innovative biodegradable hydro-retainer geotextile is being tested, which reduces irrigation consumption by an average of about 50%.

YEAR	2019	2020	2021
Public green for resident (sqm / inhabitant)	31,85	33,04	32,92

## Green Purchases

In accordance with the principles of Green Public Procurement (GPP) and the requirements of the New Procurement Code of 2016, the following are the contracts that comply with the adoption of the Minimum Environmental Criteria (CAM) approved by the Ministry of the Environment:

School meal service (100%)

Municipal office cleaning service (100%)

Pub management service. Lighting and traffic light systems (100%)

Maintenance service for municipal green areas (100%)

Public construction (100%)

Paper (100%)

## Environmental emergencies

In October 2021, following a very intense atmospheric event (storm), some areas of the territory were flooded, in particular the historic and thermal area, causing considerable damage to both public and private real estate assets.

Following the signing in November 2019 of the agreement for the performance of technical activities concerning priority interventions for the hydraulic safety of the Euganean Hills basin, the Consorzio Bonifica Bacchiglione, on the basis of the surveys and modeling of the entire abino of the Euganean Hills, has drawn up the technical and economic feasibility project that provides for the construction of a series of rolling-invaded basins along the consortium drains, to contain weather events and floods. A reservoir is planned in the territory of Abano in Giarre to contain the floods of the Menona drain

During 2021, in four different moments and areas, the Municipal Civil Protection Plan approved by resolution of the CC no. 65 of 29.12.2020 was presented and illustrated to the citizens. In addition, with the resolutions of C.C n. 14 and n. 15 of 05/04/2022, the Civil Protection Statute and the new Volunteer Regulations were respectively approved.

November	11
WED	1
THU	2
FRI	3
SAT	4
SUN	5
MON	6 45
TUE	7
WED	8
THU	9
FRI	10
SAT	11
SUN	12
MON	13 46
TUE	14
WED	15
THU	16
FRI	17
SAT	18
SUN	19
MON	20 47
TUE	21
WED	22
THU	23
FRI	24
SAT	25
SUN	26
MON	27 48
TUE	28
WED	29
THU	30



## Urbanization

The Municipality of Abano Terme has a General Regulatory Plan approved by DGRV no. 4004 of 1999. During 2021, variant no. 63 (.C.C Legislative Decree no. 46 of 27/09/2021 concerning the central area called Abano Civitas was approved and variant no. 61 to the P.R.G. was approved (D.C.C. n. 3 of 19/02/2021) "Green variants for the reclassification of building areas" aimed at the removal of building areas and their urban reclassification without building "

Specific data name	u.d.m.	2019-2021
Extension of urban area (grounds)	ha	506
Limited Traffic Area Extension	km	0
Extension of pedestrian areas	mq	15.000
Extension of the municipal road network	km	131
Extension of the provincial road network	km	8
Extension of the state road network	km	0
Total extension of the road network	km	139
Extension of cycle paths	km	30,3 – 32,58

The PAT (Spatial Planning Plan) was adopted by resolution of C.C no. 62 of 06/12/2021 and with subsequent act of C.C no. 20 of 26/04/2022, the observations received following the period of publication of the spatial planning document were deducted. Preparatory to the adoption of the PAT, resolution G.C no. 131 of 07/09/2021 was approved with the analysis and evaluation of the expressions of interest that were received on the PAT Masterplan (approved in 2020), the Abano Porta Metropolitana Masterplan was also drawn up, approved by D.G.C no. 69 of 11/05/2021, relating to the functional reconversion of the 1st ROC and the Giarre area, subsequently updated with the D.G.C n. 175 of 23/11/2021 concerning the evaluation of the expressions of interest received in reference to the former barracks.

*With resolution of C.C n. 59 of 23/12/2019, the **Municipal Water Plan** was approved as a preparatory tool for the drafting of future urban planning tools and a fundamental tool to identify hydraulic criticalities at local level and consequently direct the urban development of the territory in an appropriate manner.*

### **Environmental indicator - Biodiversity**

Annex I contains some data relating to land use. In particular, we want to highlight the extension of the SPA areas and the area that falls within the Regional Park of the Euganean Hills; the area of land occupied by municipally owned properties and the total urbanized area (data compared to the number of inhabitants) are indicated.



Annex I – INDICATORS

**n.6 - Environmental indicator – Biodiversity**



## The initiatives of the Municipality: environmental education projects

For some years the Municipality of Abano Terme has been offering primary and secondary schools some environmental education projects that address the main environmental issues such as water, biodiversity, waste, light pollution and electromagnetism and air.

During the 2021/2022 school year, activities resumed in all schools and in April 2022 the 5th classes of all municipal primary schools participated in the "Sustainability Festival" involving them in games and workshops on environmental, health and safety issues.



### Abano: 'Municipality friend of bees'



At the end of 2021 Abano Terme became a '**Municipality friend of bees**' by signing the commitment to promote a path that protects the environment and redevelops the territory through the protection of bees and the enhancement of beekeeping.

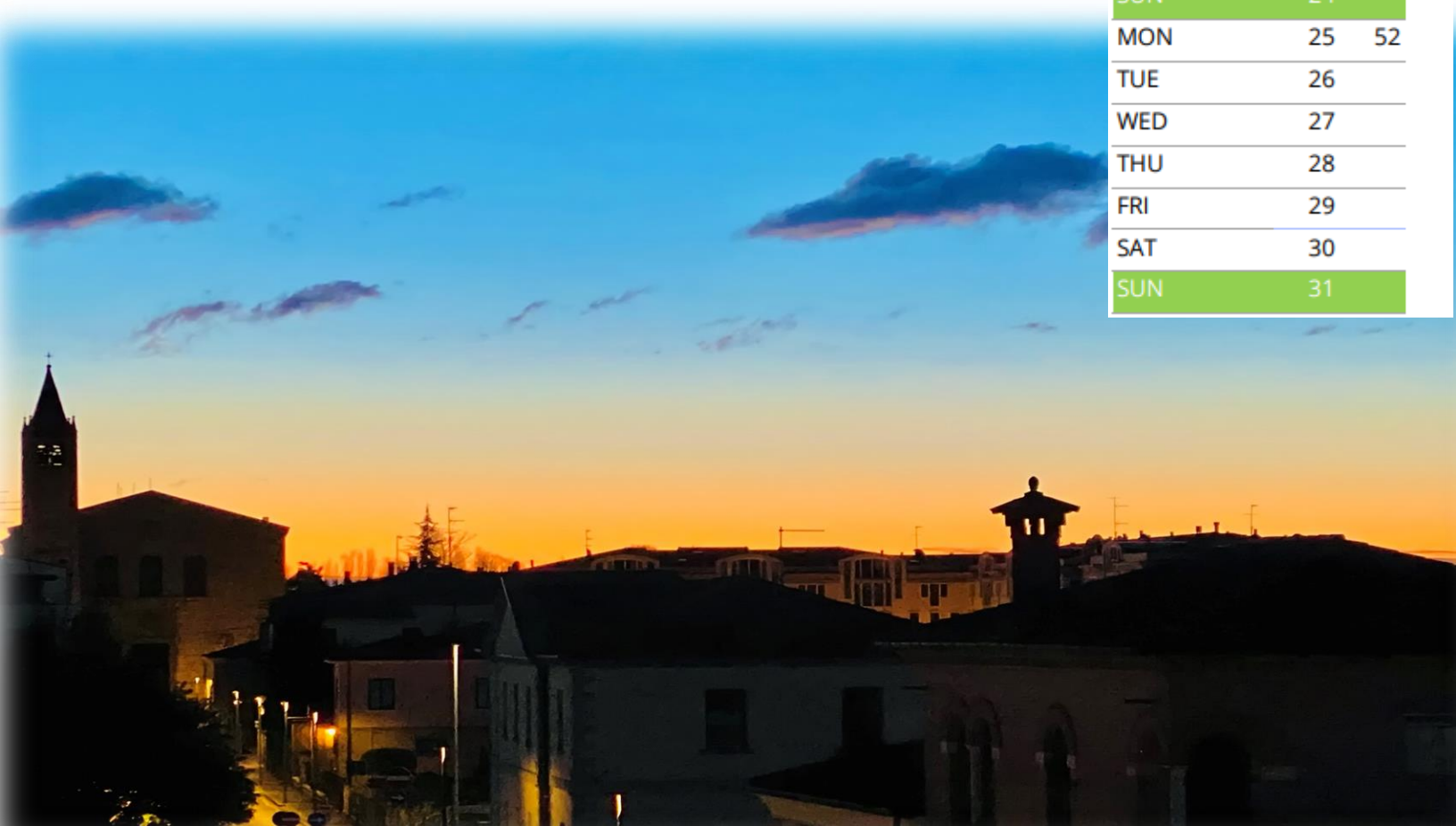
The plan approved by the council provides for the placement of hives in four points of the city to promote pollination in several points of the city. The project aims not only to raise awareness of the population on the subject, through the involvement of schools with educational activities, but also to safeguard bees.

## Sectoral environmental performance indicators

Following the publication in the Official Journal of the European Union of the sectoral reference document on best environmental management practices (EU Decision 2019/61 of 19 December 2018), on sectoral environmental performance indicators and on examples of excellence for public administration, the Administration considered it appropriate to include in the "Register of Environmental Data and Indicators" a special checklist in which all the environmental performance indicators as reported in the document (chapter 4 of Decision 2019/61) and their applicability in the context of Abano Terme was assessed.

To date, some indicators have been identified and taken into account that are being updated and evaluated.

December		12
FRI	1	
SAT	2	
SUN	3	
MON	4	49
TUE	5	
WED	6	
THU	7	
FRI	8	
SAT	9	
SUN	10	
MON	11	50
TUE	12	
WED	13	
THU	14	
FRI	15	
SAT	16	
SUN	17	
MON	18	51
TUE	19	
WED	20	
THU	21	
FRI	22	
SAT	23	
SUN	24	
MON	25	52
TUE	26	
WED	27	
THU	28	
FRI	29	
SAT	30	
SUN	31	





# Annex I – INDICATORS

## N.1 - Environmental indicator – Drinking water consumption

<b>DRINKING WATER</b>				
DATA	YEAR	2019	2020	2021
CONSUMPTION OF STRUCTURES WITH MUNICIPAL STAFF		2.218,00	1.886,00*	1.759,00
IRRIGATION CONSUMPTION		9.301,00	16.237,00	18.942,00
SCHOOL CONSUMPTION		9.265,00	13.184,00	7.429,00
TOTAL CONSUMPTION		20.784,00	31.307,00*	28.130,00
TOTAL CONSUMPTION (mc) / n. Dependents		176,14	273,23*	221,50
CONSUMPTION OF STRUCTURES WITH MUNICIPAL STAFF (mc) / n. Dependents		18,80	16,40*	13,85
SCHOOL CONSUMPTION (mc) / n. School Users		5,22	7,79	4,52

\* Data modified for detected typos.

## N.2 - Environmental indicator – Energy consumption

<b>EFFICIENCY</b>				
DATA		2019	2020	2021
ELECTRICAL ENERGY	CONSUMPTION OF STRUCTURES WITH MUNICIPAL STAFF (GJ)	1.474,66	1.319,97	1.252,04
	CONSUMPTION SCHOOLS (GJ)	899,37	725,61	807,32
	PUBLIC LIGHTING CONSUMPTION (GJ)	8.016,11	4.971,77	2.889,81
	TOTAL CONSUMPTION (GJ)	10.390,14	7.017,34	4.949,17
METHANE	CONSUMPTION OF STRUCTURES WITH MUNICIPAL STAFF (GJ)	2.353,99	2.366,43	2.567,70
	CONSUMPTION SCHOOLS (GJ)	7.680,4	6.087,87	6.786,45
	TOTAL CONSUMPTION (GJ)	10.034,39	8.454,30	6.786,48
FUEL	CONSUMPTION OF MUNICIPAL VEHICLES – DIESEL (GJ)	249,04	290,39	297,02
	CONSUMPTION OF MUNICIPAL VEHICLES – PETROL (GJ)	180,86	139,56	383,41
	CONSUMPTION OF MUNICIPAL VEHICLES – LPG (GJ)	22,65	49,79	52,69
	TOTAL CONSUMPTION (GJ)	447,02	479,73	733,13
	TOTAL ENERGY CONSUMPTION (GJ)	20.817,54	15.951,38	12.468,74
	TOTAL MUNICIPAL STRUCTURAL ENERGY CONSUMPTION (GJ)	3.828,65	3.686,40	1.252,04
	TOTAL SCHOOL ENERGY CONSUMPTION (GJ)	8.579,77	6.813,48	7.593,77
	ENERGY PRODUCED FROM RENEWABLE SOURCES (GJ)	-	-	-
	TOTAL CONSUMPTION (GJ) / n. Dependents	176,88	138,71	98,18
	CONSUMPTION OF STRUCTURES WITH MUNICIPAL STAFF (GJ) / n. Dependents	32,45	32,06	9,86
	SCHOOL CONSUMPTION (GJ) / n. School Users	4,83	4,02	4,62
	PUBLIC LIGHTING CONSUMPTION (GJ) / n. Light Points	1,18	0,74	0,43
	ENERGY PRODUCED FROM RENEWABLE SOURCES (GJ) / n. Dependents	-	-	-

### N.3 - Environmental indicator – Waste Production

DATA	YEAR	2019	2020	2021
TOTAL PRODUCTION OF MUNICIPAL WASTE (Kg)		13.205.470	11.464.224	12.594.468
TOTAL PRODUCTION OF HAZARDOUS WASTE (Kg)		44.228	43.831	33.836
PRODUCTION OF WASTE FROM SEPARATE COLLECTION (Kg)		10.243.460	8.890.384	9.422.128
<b>PRODUCTION RSU (Kg) / (Inhabitants*365gg + Tourist Presences)</b>		<b>1,41</b>	<b>1,42</b>	<b>1,44</b>
<b>PRODUCTION OF HAZARDOUS WASTE (Kg) / (Inhabitants*365gg + Tourist Presences)</b>		<b>0,0047</b>	<b>0,0054</b>	<b>0,0039</b>
<b>WASTE PRODUCTION FROM RD (Kg) / (Inhabitants*365gg + Tourist Presences)</b>		<b>1,09</b>	<b>1,10</b>	<b>1,08</b>

### N.4 - Environmental Indicator - Material Efficiency

DATA	YEAR	2019	2020	2021
PAPER TOTAL PURCHASE (Kg)		3.088,50	2.620,49	2.621,49
<b>TOTAL PAPER CONSUMPTION (Kg) / n. Dependents</b>		<b>26,17</b>	<b>22,79</b>	<b>20,64</b>

### N.5 - Environmental indicator – Emissions

GREENHOUSE GAS EMISSIONS				
DATA	YEAR	2019	2020	2021
EMISSIONS STRUCTURES WITH MUNICIPAL STAFF (tCO <sub>2</sub> eq)		165,13	173,49 *	180,12
SCHOOL EMISSIONS (tCO <sub>2</sub> eq)		538,78	427,07	476,07
PUBLIC LIGHTING EMISSIONS (tCO <sub>2</sub> eq)		1.438,29	892,06	518,50
<b>TOTAL EMISSIONS (tCO<sub>2</sub> eq)</b>		<b>2.177,29</b>	<b>1.514,76*</b>	<b>1.429,11</b>
<b>TOTAL EMISSIONS (tCO<sub>2</sub> eq) / n. Dependents</b>		<b>18,45</b>	<b>13,17*</b>	<b>11,25</b>
<b>TOTAL CONSUMPTION (GJ) (tCO<sub>2</sub> eq) / n. Dependentes</b>		<b>1,40</b>	<b>1,51*</b>	<b>1,42</b>
<b>SCHOOL EMISSIONS (tCO<sub>2</sub> eq) / n. School Users</b>		<b>0,30</b>	<b>0,25</b>	<b>0,29</b>
<b>PUBLIC LIGHTING EMISSIONS (tCO<sub>2</sub> eq) / n. Light Points</b>		<b>0,21</b>	<b>0,13</b>	<b>0,08</b>

\* Data modified for detected typos.

NO <sub>x</sub> EMISSIONS				
DATA	YEAR	2019	2020	2021
EMISSIONS STRUCTURES WITH MUNICIPAL STAFF (kg NO <sub>x</sub> )		60,60	61,92	68,10
SCHOOL EMISSIONS (kg NO <sub>x</sub> )		197,71	156,72	174,70
PUBLIC LIGHTING EMISSIONS (kg NO <sub>x</sub> )		2.872,44	1.781,55	1.035,52
<b>TOTAL EMISSIONS (kg NO<sub>x</sub>)</b>		<b>3.235,64</b>	<b>2.032,99*</b>	<b>1.386,60</b>
<b>TOTAL EMISSIONS (kg NO<sub>x</sub>) / n. Dependents</b>		<b>27,42</b>	<b>17,68*</b>	<b>10,92</b>
<b>EMISSIONS STRUCTURES MUNICIPAL STAFF(kg NO<sub>x</sub>) / n. Dipendenti</b>		<b>0,51</b>	<b>0,56*</b>	<b>0,54</b>
<b>SCHOOL EMISSIONS (kg NO<sub>x</sub>) / n. School Users</b>		<b>0,11</b>	<b>0,09</b>	<b>0,11</b>
<b>PUBLIC LIGHTING EMISSIONS (kg NO<sub>x</sub>) / n. Light Points</b>		<b>0,42</b>	<b>0,26</b>	<b>0,16</b>

\* Data modified for detected typos.

## SO2 EMISSIONS

DATA	2019	2020	2021
EMISSIONS STRUCTURES WITH MUNICIPAL STAFF (kg SO <sub>2</sub> )	365,85	383,32	397,97
SCHOOL EMISSIONS (kg SO <sub>2</sub> )	1.190,40	943,57	1.051,85
PUBLIC LIGHTING EMISSIONS (kg SO <sub>2</sub> )	4.676,06	2.900,20	1.685,72
<b>TOTAL EMISSIONS (kg SO<sub>2</sub>)</b>	<b>6.231,49</b>	<b>4.227,21*</b>	<b>3.135,88</b>
<b>TOTAL EMISSIONS (kg SO<sub>2</sub>) / n. Dependents</b>	<b>52,81</b>	<b>36,76*</b>	<b>24,69</b>
<b>EMISSIONS STRUCTURES WITH MUNICIPAL STAFF(kg SO<sub>2</sub>) / n. Dependents</b>	<b>3,10</b>	<b>3,33*</b>	<b>3,13</b>
<b>SCHOOL EMISSIONS (kg SO<sub>2</sub>) / n. School Users</b>	<b>0,67</b>	<b>0,56</b>	<b>0,64</b>
<b>PUBLIC LIGHTING EMISSIONS (kg SO<sub>2</sub>) / n. Light Points</b>	<b>0,69</b>	<b>0,43</b>	<b>0,25</b>

\* Data modified for detected typos.

## PARTICULATE EMISSIONS

DATA	YEAR	2019	2020	2021
EMISSIONS STRUCTURES WITH MUNICIPAL STAFF (kg PARTICULATE MATTER)		22,23	24,35*	26,25
SCHOOL EMISSIONS (kg PARTICULATE MATTER)		23,35	18,51	20,63
PUBLIC LIGHTING EMISSIONS (kg PARTICULATE MATTER)		859,50	533,08	309,85
<b>TOTAL EMISSIONS (kg PARTICULATE MATTER)</b>		<b>894,12</b>	<b>560,45*</b>	<b>343,26</b>
<b>TOTAL EMISSIONS (kg PARTICULATE MATTER) / n. Dependents</b>		<b>7,57</b>	<b>4,87</b>	<b>2,70</b>
<b>STRUT EMISSIONS WITH MUNICIPAL STAFF (kg PARTICULATE MATTER) / n. Dependents</b>		<b>0,19</b>	<b>0,21*</b>	<b>0,21</b>
<b>SCHOOL EMISSIONS (kg PARTICULATE MATTER) / n. School Users</b>		<b>0,01</b>	<b>0,01</b>	<b>0,01</b>
<b>PUBLIC LIGHTING EMISSIONS (kg PARTICULATE MATTER) / n. Light Points</b>		<b>0,13</b>	<b>0,08</b>	<b>0,05</b>

\* Data modified for detected typos.

## N.6 - Environmental indicator – Biodiversity

### BIODIVERSITY

DATA	YEAR	2019	2020	2021
ENVIRONMENTAL PROTECTION ZONES (SPA)- (smq)		424.100,00	424.100,00	424.100,00
REGIONAL PARK AREA (smq)		2.120.000,00	2.120.000,00	2.120.000,00
AREA COVERED BY MUNICIPAL STRUCTURES(sqm)		23.076,00	23.076,00	23.076,00
URBANIZED AREA (Sedime) (smq)		5.060.000,00	5.060.000,00	5.060.000,00
<b>URBANIZED SUP/INHABITANTS (sqm/inhabitants)</b>		<b>249,69</b>	<b>249,11*</b>	<b>248,15</b>



## Fire prevention in municipal structures

Many of the municipal structures are subject to the issuance of a Fire Prevention Certificate (CPI). In the last 10 years the certification has been acquired for all the municipal buildings concerned and this is constantly updated with any variations that occur. Presidential Decree 151/2011 revised the list of activities subject to fire prevention requirements by introducing, in the case of the Municipality of Abano, new regulated activities. The table below shows the list of municipally owned buildings subject to Fire Prevention and a summary of the state of implementation.

**Table 18. Municipal facilities.**

STRUCTURE		MANAGEMENT		ANTIFIRE		
N.	Denomination	Location	Notes of interest	Activity	Staff	Activities subject to Fire Prevention - DPR 151/2011
1	<b>Villa Bassi Rathgeb</b>	Via Appia Monterosso, 52	provisional municipal seat - uff. secretariat, accounting, treasurer, tributes, protocol, staff, culture, events, sport	directed	directed	Att. 74.2.B (thermal power plant) and att.72.1.C (historical edition) - valid CPI (dec. 2021 expires - for ct and dec. 2028 for historical edition)
2	<b>Municipal Warehouse</b>	Via Montegrotto, 4	warehouse and municipal archive	directed	directed	Att. 70.2.C (warehouse) and att. 34.2.C (archive) - Valid CPI (expires September 2024)
3	<b>Library</b>	Via Matteotti, 71	municipal library	directed	directed	att. 74.1.A (thermal power station) and att. 34.1.B (paper deposit - archive) - Valid CPI (nov. 2023)
4	<b>Pinacoteca e Galleria del Montirone</b>	Via P. d'Abano, 20	gallery for temporary exhibitions and art gallery	directed	directed	att. 72.1.C (historic building open to the public with museum) - SCIA for the purpose of fire safety (expires Feb. 2025)
5	<b>C.R.C. multipurpose room</b>	Via Appia Monterosso, 31	theatre hall, for shows and events or	indirect	indirect	att. 74.1.A (thermal power plant) and att. 65.2.C (public place) - Valid CPI (expires Nov. 2024)
6	<b>Magnolia Tent</b>	Via A. Volta	local for shows and events	directed	directed	att. 65.2.C (public place spectators. - Valid CPI (may expire in May 2025)
7	<b>International Mask Museum</b>	Via Savioli, 2	museum	indirect	indirect	att. 72.1.C (historic building open to the public with museum) - CPI valido (exp. june. 2022)
8	<b>Municipal Stadium of the Baths</b>	Via dello Stadio	Sports	indirect	indirect	att. 74.1.A (thermal power plant) and att. 65.2.C (imp. sports with public) - valid CPI (exp.feb. 2024)
9	<b>Gym of the Giarre</b>	Via dei Tigli	Sports	indirect	indirect	att. 74.1.A (thermal power plant) and att. 65.1.B (gym with public) - valid CPI (exp.jun. 2024)
10	<b>Nursery "Colored Meadows"</b>	Via Prati, 16	municipal nursery	directed	directed	att. 74.1.A (thermal power plant) and att. 67.3.B (school) valid CPI (dec. 2026)
11	<b>Nursery and Nursery School "Monterosso"</b>	Via S. Bartolomeo,	municipal nursery and state kindergarten	indirect	indirect	att. 74.1.A (thermal power plant) - att. 67.1.A (school) Valid CPI (expires Feb. 2025)
12	<b>Primary School "A. Manzoni"</b>	Via IV Novembre, 4	primary school	indirect	indirect	att. 74.1.A (thermal power plant) and att. 67.2.B (school) - Valid CPI (May 2024)
13	<b>Primary School "G. Pascoli"</b>	Via G. Verdi	primary school	indirect	indirect	att. 74.1.A (thermal power plant) and att. 67.2.B (school) - Valid CPI (deadline Jan. 2024)
14	<b>Primary School "Pope John 23rd"</b>	Via Buosonera	primary school	indirect	indirect	att. 74.1.A (thermal power plant) and att. 67.2.B (school) - Valid CPI (expires Feb. 2023)
15	<b>Primary School "F. Busonera"</b>	Via Barbieri	primary school	indirect	indirect	att. 74.1.A (thermal power plant) and att. 67.2.B (school) - Valid CPI (deadline Jan. 2024)
16	<b>Primary School "E. De Amicis"</b>	Via di Tigli	primary school	indirect	indirect	att. 74.1.A (thermal power plant) and att. 67.2.B (school) - Valid CPI (dec. 2022)
17	<b>Secondary School "V. da Feltre"</b>	Via S. Giovanni Bosco, 2	1st grade secondary school	indirect	indirect	att. 74.3.C (thermal power plant) and att. 67.4.C (school) valid CPI (expires 27 June 2026)
18	<b>Arcostruttura Sportiva Istituto "L. B. Alberti"</b>	Via Pillon	Sports	indirect	indirect	att. 74.1.A (thermal power plant) - CPI valid for the Province of Padua (expiry of February 2022) att. 65.1.B (gym with public) - (expires Jul. 2025)
19	<b>Underpass generator set via Stazione/Roveri</b>	via Stazione	generator	directed	directed	att. 49.1.A(generator set) - Valid CPI (April 2023)
20	<b>EcoCenter</b>	via Colli Euganei, 60	During testing and processing SCIA fire compliance			att. 34.1.B (paper deposit quantities between 5,000 and 50,000 kg) and att. 44.1.B (storage of plastic material quantities between 5,000 and 50,000 kg). Valid CPI (September 2026)

## Regulatory references

Adherence to EU Regulation 1221/09 EMAS, requires the administration of the Municipality of Abano Terme to constantly verify the applicable environmental legislation and to guarantee and demonstrate timely compliance with the same. Below is a summary of the main legislative references applicable to the Municipality of Abano Terme and the territory:

**Table 19. legislative references**

<b>Legislative reference</b>	<b>Environmental Aspect</b>
Law no. 36/01, D.M.29 May 2008	Electromagnetic Radiation
Legislative Decree no. 152/2006 and subsequent changes and additions	Management of water resources, Evaluation, defense, protection, management of environmental aspects Principles of sustainable development and protection of the environment and the territory, emissions, V.I.A., V.A.S., I.P.P.C., Waste management, Soil, subsoil and reclamation
D.G.R.V. n. 574 of 11 March 2008	Water Protection Plan. Approval of safeguard rules. Further clarifications - (Article 121 of Legislative Decree no. 152/2006; Articles 19 and 28 of Regional Law 33/1985; Article 82 of Regional Law 11/2001).
Law n. 257/92 D.M. 09/04/1994	Limits on asbestos production and use Regulations and technical methodologies for the application of Law no. 257/92.
D.G.R. 4059/2007 D.M. 02/08/2010	SCI and SPA Veneto Region
P.R.T.R.A. approved by resolution in C.R. n. 57/04 (BUR 130 del 21/12/04) D.G.R.691 13/05/2014	Air quality Combustion of agricultural and forestry plant residues
Legislative Decree 192/2005, Legislative Decree 311/2006, Legislative Decree 115/2008	Energy Saving, Energy Management and Energy Certification
L.R. n.17/2009	Light pollution
Legislative Decree n.63/2008	Cultural and environmental heritage
D.G.R.V. n. 79/02	Interventions to prevent radon gas pollution in living environments
D.G.R.V. n.1845/05 Law n. 221 del 28/12/2015 Legislative decree 116/2020	Waste: separate collection and management
Press release 10/12/2008 Law No 353/2000	Fires
EU Regulation 517/2014 CE Regulation 1005/2009 D.P.R. n. 146 /2018	Fluorinated greenhouse gases potentially damaging the ozone layer
Legislative Decree 334/1999 and subsequent changes and additions Legislative Decree 105/2015	Major Accident Hazard Control
D.P.R. n.151 1st August 2011 DECREE-LAW 31/12/2014, n. 192	Regulation simplifying the rules governing fire prevention procedures
DM 7 agosto 2012	Provisions concerning the procedures for submitting applications concerning fire prevention procedures and the documentation to be attached
Law 98/2013 DM 8 October 2012 n. 161	Regulation governing the use of excavated land and rocks
Legislative Decree 150/2012	Implementation of Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides.
DM 74/2013 D.G.R.V. 726/2014 DM 10/02/2014 D.G.R.V. n.1363 of 28 July 2014 D.G.R.V. n. 2569 of 23 December 2014	Regulation defining the general criteria for the operation, operation, control, maintenance and inspection of heating systems for the winter and summer air conditioning of buildings and for the preparation of hot water for sanitary hygienic uses. CIRCE Regional Cadastre
Presidential Decree 59/2013	Regulation for the discipline of the Single Environmental Authorization
Legislative Decree 50/2016 Decree 10/04/2013	Procurement Code National Action Plan for GPP (PAN GPP)

## Environmental Glossary

<b>Environment</b>	Context in which an organization operates, including air, water, soil, natural resources, flora, fauna, humans and their interrelationships.
<b>Environmental Analysis</b>	A comprehensive initial analysis of the environmental aspects, impacts and performance related to an organisation's activities, products or services;
<b>Environmental aspect</b>	An element of an organisation's activities, products or services that has, or may have, an impact on the environment;
<b>Environmental management system audit</b>	A systematic, documented, periodic and objective assessment of an organisation's environmental performance, management system and environmental protection processes
<b>Environmental Statement</b>	Declaration drawn up by the organization in accordance with the provisions of EC Regulation no. 1221/09 – EMAS.
<b>Environmental impact</b>	Any change in the environment, negative or positive, resulting in whole or in part from the activities, products or services of an organization.
<b>Continuous improvement</b>	Process of improvement of the environmental management system to achieve improvements of all environmental performance in accordance with the company's environmental policy.
<b>Environmental objective</b>	An overall environmental purpose, as quantified as possible, consequent to the environmental policy, which the organization decides to pursue.
<b>Organization</b>	Group, company, company, enterprise, body or institution, or parts or combinations thereof, whether associated or not, public or private, which has its own functional and administrative structure.
<b>Stakeholders</b>	Persons or groups involved in or influenced by an organization's environmental performance.
<b>Environmental performance</b>	The measurable results of an organization's management of its own environmental aspects.
<b>Environmental policy</b>	The general intentions and orientation of an organization with respect to its environmental performance, as formally expressed by top management, including compliance with all relevant regulatory obligations relating to the environment and commitment to continuous improvement of environmental performance. The policy provides a framework for action and for setting environmental objectives and targets.
<b>Pollution prevention</b>	Use of processes, operations, materials and products to avoid, reduce or control pollution which may include recycling, treatment, process modification, control tools, efficient use of resources and replacement of materials. The potential benefits of pollution prevention include reducing negative environmental impacts and improving efficiency and reducing costs. This includes techniques such as: recycling treatment process changes control systems the efficient use of resources the replacement of materials.
<b>Environmental Management System</b>	The part of the overall management system comprising the organisational structure, planning activities, responsibilities, practices, procedures, processes and resources to develop, implement, implement, review and maintain environmental policy and to manage environmental aspects.
<b>Environmental goals</b>	A detailed performance requirement, resulting from environmental objectives, applicable to an organisation or part thereof, which must be set and implemented in order to achieve those objectives.
<b>Environmental performance assessment</b>	A process to facilitate management decisions regarding an organization's environmental performance, through the selection of indicators, the collection and analysis of data, the evaluation of information against environmental performance criteria, reports and reporting, and the periodic review and improvement of that process.

