



acquedotto pugliese

l'acqua, bene comune



acquedotto
pugliese

l'acqua, bene comune

WATER-REUSE TECHNOLOGIES

WASTEWATER TREATMENT PLANT

A sophisticated and highly technological facility where wastewater from our homes, collected through the sewage system, undergoes a biological treatment process to be either reused or safely returned to the natural water cycle.



**AQP manages
185 wastewater
treatment plants**

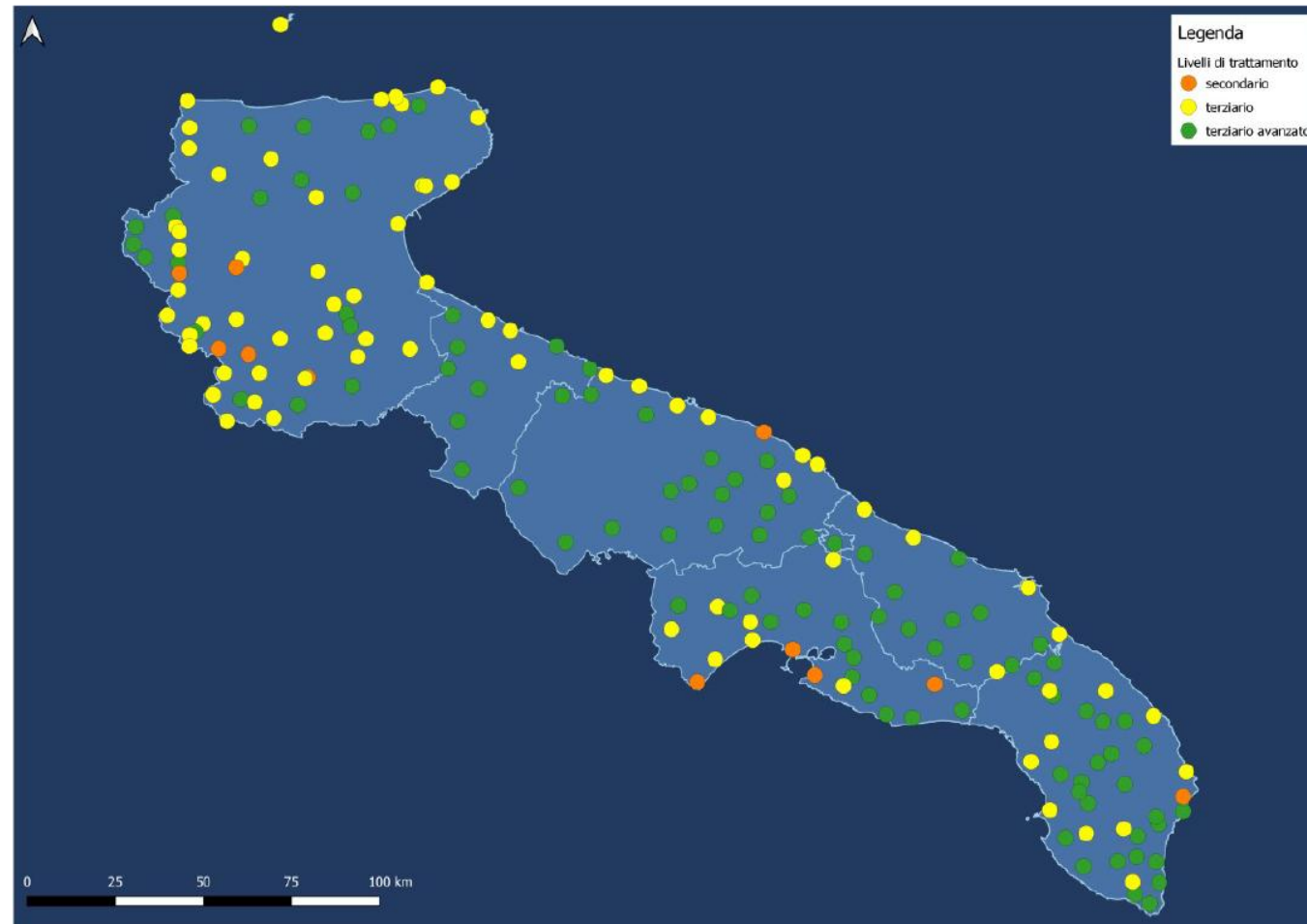
*A treatment
infrastructure among the
largest and most
advanced in Italy, both in
terms of technology and
water quality.*



In these plants, wastewater treatment is exclusively biological: thanks to decomposing microorganisms, the so-called "good bacteria," the natural purification process is replicated in a controlled and accelerated manner within a confined space.

Wastewater treatment plants serve as sanitary safeguards, protecting both the territory and the environment.

AQP manages 185 wastewater treatment plants



- **13 plants** with a capacity of $\leq 2,000$ PE;
- **52 plants** with a capacity between 2,000 and 10,000 PE;
- **110 plants** with a capacity between 10,000 and 100,000 PE;
- **10 plants** with a capacity of $\geq 100,000$ PE.

Since 2008 (ref. Regional Law No. 27/2008), the Puglia Region, with the aim of promoting water reuse for irrigation purposes, has assigned the Integrated Water Service operator the additional responsibility of wastewater refining.

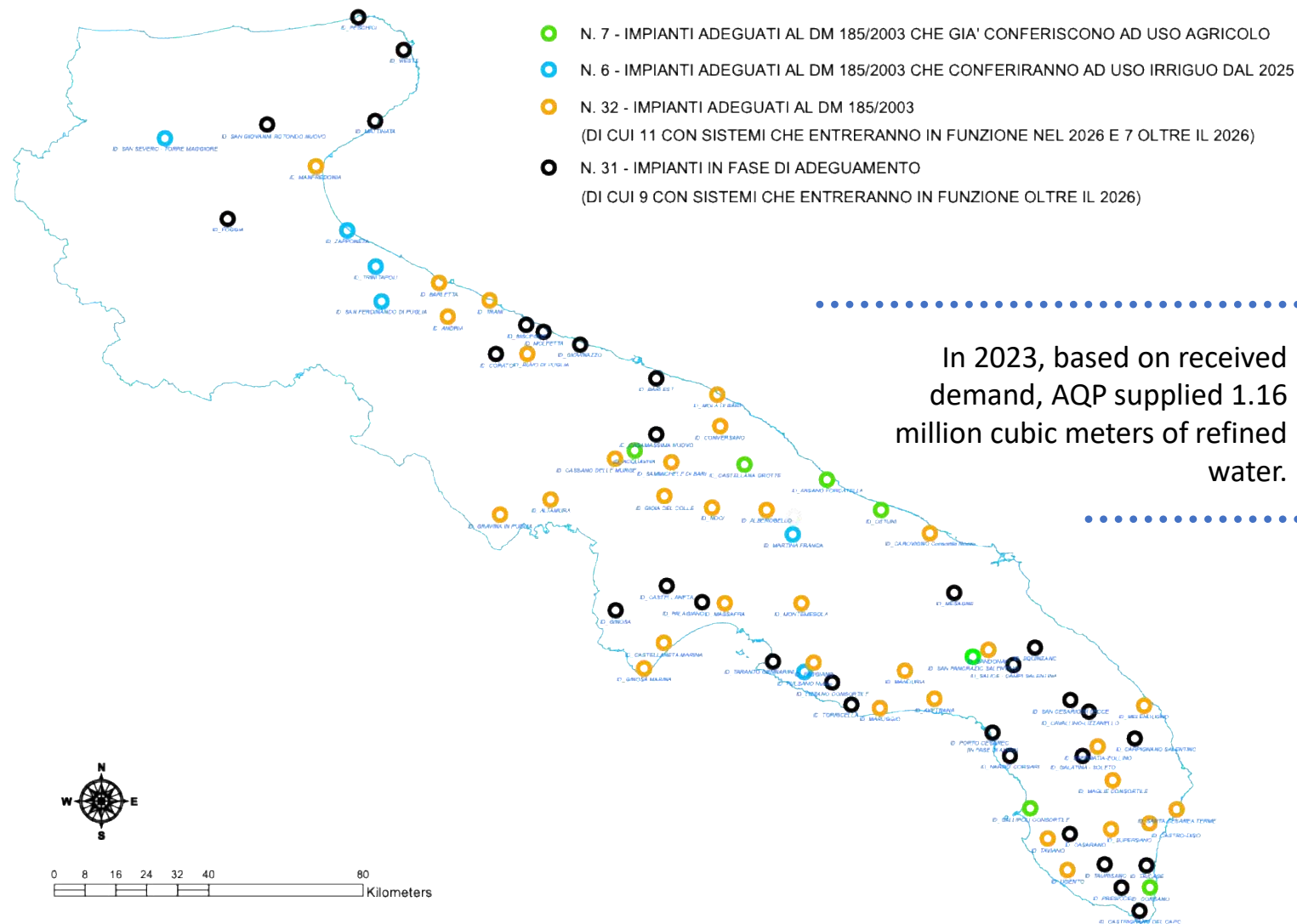
10 plants with secondary treatment

5%

175 plants with tertiary or advanced tertiary treatment

95%

AQP's plan until 2028



In 2023, based on received demand, AQP supplied 1.16 million cubic meters of refined water.

76
**Plants out of
a total 185**

~131
Mmc/y

Reusable resource

Operational plants

Capacity of
~ 11 Mmc/y

Configured plants

Capacity of
~ 57 Mmc/y

Plants with Scheduled Interventions by 2028

Capacity of
~ 63 Mmc/y

REUSE OF REFINED WATER

The 76 planned or completed infrastructure upgrades

7

Operational plants

Capacity of
~ 11 Mmc/y

Provincia	Impianto	Mc/y	Stato
BA	ACQUAVIVA	1.474.600	Operativo
BA	CASTELLANA GROTTA	725.255	Operativo
BR	FASANO FORCATELLA	3.115.640	Operativo
BR	OSTUNI	1.565.850	Operativo
BR	SAN PANCRAZIO SALENTINO	604.440	Operativo
LE	CORSANO	485.085	Operativo
LE	GALLIPOLI CONSORTILE	2.611.210	Operativo

Projected capacity per province by 2028

Bari	19 Mmc/y
BAT	29 Mmc/y
Brindisi	11 Mmc/y
Foggia	25 Mmc/y
Lecce	26 Mmc/y
Taranto	21 Mmc/y

Note: Estimates based on actual volumes treated in 2023. The volumes produced by the Manduria (TA) and Porto Cesareo (LE) plants—both not yet operational in the reference year—will be added to the dataset. Among the seven treatment plants already supplying water for irrigation purposes, mixing occurs only at the Acquaviva facility.

38

Configured plants

Capacity of
~ 57 Mmc/y

Provincia	Impianto	Mc/y	Stato
BA	ALBEROBELLO	424.495	Adeguato
BA	ALTAMURA	4.665.065	Adeguato
BA	CASSANO DELLE MURGE	672.330	Adeguato
BA	CONVERSANO	23.360	Adeguato
BA	GIOIA DEL COLLE	2.190.000	Adeguato
BA	GRAVINA IN PUGLIA	1.915.155	Adeguato
BA	MOLA DI BARI	2.119.190	Adeguato
BA	NOCI	1.457.080	Adeguato
BA	RUVO DI PUGLIA	3.263.830	Adeguato
BA	SAMMICHELE DI BARI	846.435	Adeguato
BAT	ANDRIA	4.908.520	Adeguato
BAT	BARLETTA	4.897.570	Adeguato
BAT	SAN FERDINANDO DI PUGLIA	674.885	Adeguato
BAT	TRANI	2.699.905	Adeguato
BAT	TRINITAPOLI	738.760	Adeguato
BR	CAROVIGNO Consortile Nuovo	2.763.050	Adeguato
BR	SANDONACI	313.900	Adeguato
FG	SAN SEVERO - TORRE MAGGIORE	4.337.295	Adeguato
FG	MANFREDONIA	4.176.330	Adeguato
FG	ZAPPONETA	196.370	Adeguato
LE	CASTRO-DISO	663.570	Adeguato
LE	MAGLIE CONSORTILE	3.124.400	Adeguato
LE	MELENDUGNO	1.308.890	Adeguato
LE	SANTA CESAREA TERME	237.980	Adeguato
LE	STERNATIA-ZOLLINO	107.675	Adeguato
LE	SUPERSANO	540.565	Adeguato
LE	TAVIANO	947.175	Adeguato
LE	UGENTO	590.570	Adeguato
TA	AVETRANA	119.355	Adeguato
TA	CASTELLANETA MARINA	570.860	Adeguato
TA	FAGGIANO	175.930	Adeguato
TA	GINOSA MARINA	459.900	Adeguato
TA	MANDURIA	0 *NB*	Adeguato
TA	MARTINA FRANCA	1.606.000	Adeguato
TA	MARUGGIO	308.790	Adeguato
TA	MASSAFRA	1.691.775	Adeguato
TA	MONTEMESOLA	262.800	Adeguato
TA	PULSANO Nuovo	1.002.655	Adeguato

31

Plants with Scheduled Interventions by 2028

Capacity of
~ 63 Mmc/y

Provincia	Impianto	Mc/y	Fine lavori
BA	BARI EST	365.000	2028
BA	CASAMASSIMA NUOVO	1.048.645	2025
BA	CORATO	3.872.285	2025
BA	GIOVINAZZO	1.140.260	2025
BA	MOLFETTA	4.827.490	2025
BAT	BISCEGLIE	3.020.010	2025
BR	MESAGNE	2.370.675	2028
FG	FOGGIA	13.089.630	2027
FG	MATTINATA	269.005	2025
FG	PESCHICI	259.150	2028
FG	SAN GIOVANNI ROTONDO NUOVO	1.497.230	2028
FG	VIESTE	1.177.855	2028
LE	CARPIGNANO SALENTINO	498.225	2026
LE	CASARANO	3.133.890	2026
LE	CASTRIGNANO DEL CAPO	1.195.010	2026
LE	CAVALLINO-LIZZANELLO	1.281.880	2025
LE	GALATINA - SOLETO	1.511.100	2026
LE	NARDO' CORSARI	1.293.925	2025
LE	PORTO CESAREO	0 *NB*	2025
LE	PRESICCE	477.055	2028
LE	SALICE - CAMPI SALENTINA	1.835.585	2025
LE	SAN CESARIO DI LECCE	1.729.370	2025
LE	SQUINZANO	1.664.035	2028
LE	TAURISANO	302.585	2025
LE	TRICASE	1.035.140	2028
TA	CASTELLANETA	780.370	2025
TA	GINOSA	1.012.510	2028
TA	LIZZANO CONSORTILE	1.281.880	2028
TA	PALAGIANO	874.540	2026
TA	TARANTO GENNARINI	11.408.075	2028
TA	TORRICELLA	190.165	2027

TREATED WASTEWATER: A RESOURCE FOR ENVIRONMENTAL REUSE

MELENDUGNO PHYTOREMEDIATION SYSTEM

The constructed wetland treatment system is fed by water from the wastewater treatment plant serving the municipalities of Melendugno, Calimera, and Martignano.

Wastewater Treatment Plant Capacity

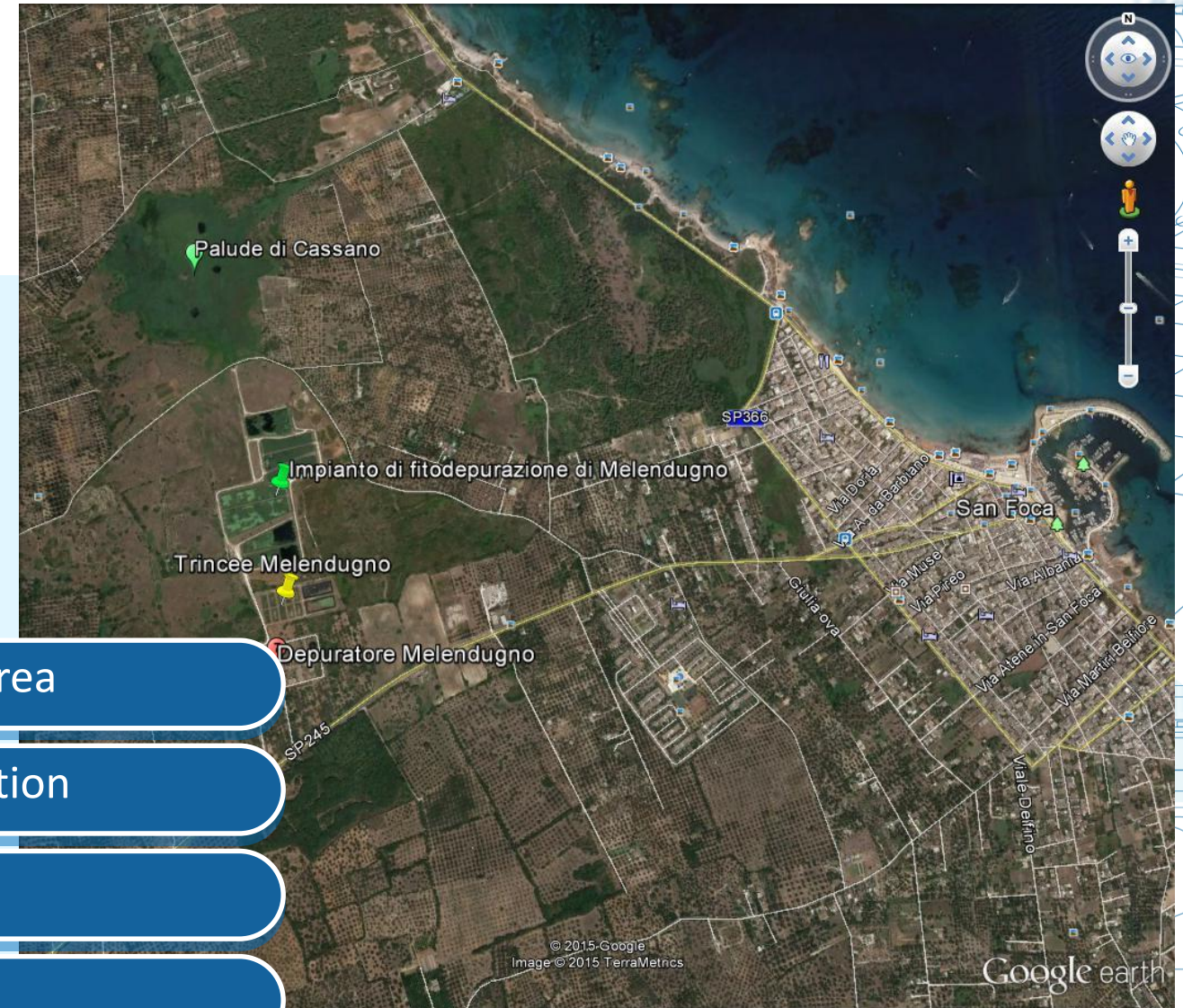
- Population Equivalent **43.500 P.E.**
- Average Daily Flow **9.000 m³/day**
- Peak Flow **600 m³/h**

5.1 ha of water surface within an **8.3 ha** green area

Up to **9,000 m³/day** with no electricity consumption

4 horizontal flow constructed wetland basins

4 lagooning tanks with a 70 cm water depth



TREATED WASTEWATER: A RESOURCE FOR ENVIRONMENTAL REUSE

MELENDUGNO CONSTRUCTED WETLAND – THE FLORA



COMMON DUCKWEED



COMMON REED



BROADLEAF CATTAIL



COMMON RUSH



WHITE WATER LILY

TREATED WASTEWATER: A RESOURCE FOR ENVIRONMENTAL REUSE

MELENDUGNO CONSTRUCTED WETLAND – THE FAUNA



Flamingos



Amphibians



Reptiles



Insects



acquedotto pugliese

l'acqua, bene comune

Acquedotto Pugliese Spa
con Unico Azionista Regione Puglia

Italy - 70121 Bari, Via Cognetti 36

www.aqp.it

