



**The integrated Water System
in the Umbria Region**

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AURI - Autorità Umbra Rifiuti e Idrico

Todi, 24 August 2023

START

WHAT IS THE INTEGRATED WATER SERVICE?

What does the "Integrated Water Service" consist in (as referred in art. 1 of the annex to ARERA Resolution No. 580/2019/R/IDR dated 12/27/2019, regarding "Approval of the water tariff method for the third regulatory period MTI - 3"):

The integrated water service (IWS) encompasses a **set of public services related to the collection, adduction and distribution of water for domestic services, sewage management, and wastewater treatment**. This includes the collection and adduction services that cater to various water uses, as well as purification services for combined domestic and industrial applications. The management of the IWS is expected to adhere to principles of **efficiency, effectiveness, and economy**, while also complying with both national and European Union regulations. It also includes:

- a) the construction of **water and sewage pipelines** branching off from the main network serving one or more users. It encompasses the installation of associated components, network separations, removal of intake points, and the creation of derivation manholes;
- b) the activities of **collection and removal of stormwater and urban drainage** through the operation and maintenance of dedicated infrastructure (**storm sewers**), including the cleaning and maintenance of roadside drains. However, for the purposes of determining fees, where not already included in the IWS as of the date of publication of the above resolution, these activities are to be considered included among the «non-water activities that also use infrastructure of the integrated water service.»
- c) the **performance of ancillary services and services on behalf of users**, such as activation, deactivation and reactivation of supply, change of use, sub-entries, preparation of estimates, one-time readings, inspections and verifications;
- d) the **transport and sale of water by tanker truck** or other road vehicles in case of emergency situations.

HOW IS THE INTEGRATED WATER SERVICE ORGANIZED?

The governance:

The IWS is organized on the basis of «Ambiti Territoriali Ottimali» (ATO), portions of territory whose delimitation is defined by the Regions in accordance with the following principles:

1. coherence of the river basin or sub-basin or contiguous river basins
2. the management is in one hand
3. adequacy of management size, defined on the basis of physical, demographic and technical parameters

For each ATO, there is an «Ente di Governo d'Ambito» (EGA), which is a body also nominated by the Region in which all the municipalities in the ATO are obliged to participate and which exercises the formerly municipalities' competencies in water resource management, including water infrastructure planning.

THE NATIONAL GEOGRAPHY OF THE REFORM



- **12 ATO** of regional size
- **50 ATO** of provincial size

- In **1999** there were **7,822** operators active either as “manager” or as “municipal in-house management”
- In **2017** they went down to **2,100** (with still a large number of “municipal in-house managements”
In **2019** we arrive at **1,981** of which 243 “managers” and 1,738 “municipal in-house managements”

- **Ambito Territoriale Ottimale ATO of regional size**



The managing operators in the ATO:

- in the **territory of the former A.T.I. 1-2**, the service is entrusted to the operator **Umbra Acque S.p.A.** until **12/31/2031**
- in the territory of the former **A.T.I. 3**, the service is entrusted to the operator **Valle Umbra Servizi S.p.A.**, until **12/31/2031**
- in the territory of the former **A.T.I. 4**, the service is entrusted to the operator **Servizio Idrico Integrato S.c.p.a.**, until **12/31/2032**

WATER SERVICE MANAGEMENT IN UMBRIA



- ▶ **Umbra Acque S.p.A. is a single-service operator operating in Sub-Ambiti no. 1 and no. 2.**
- ▶ **Valle Umbra Servizi S.p.A. is a multi-service operator and provides the Integrated Water Service in sub-Area No. 3.**
- ▶ **Servizio Idrico Integrato S.c.p.A. is a single-service consortium company operating in sub-Area No. 4.**

	Umbra Acque	Valle Umbra Servizi	Servizio Idrico Integrato	Total
<i>Resident population served (Inh.)</i>	499.701	218.732	163.508	881.941
<i>Surface (km²)</i>	4.304	1.953	2.201	8.458
<i>Length of the aqueduct network (km)</i>	6.315	2.567	2.838	11.720

An interconnected system

Allows to abandon/limit the use of low quality resources in favour of quality/quantity stable resources

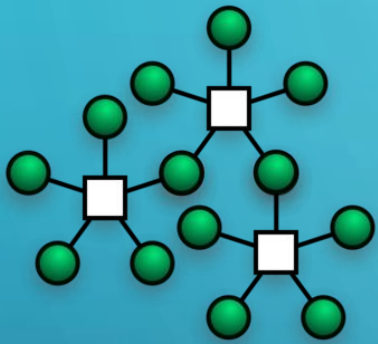
Allows the transfer of flows from one system to another in an emergency, limiting interruptions in the event of a failure

Allows flow rates to be transferred from one system to another, also optimising withdrawals according to availability

Allows to overcome water crises (main water crises of the last 20 years: 2002, 2007, 2012, 2017)



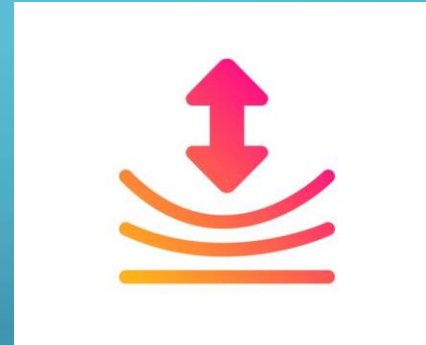
the objectives of the proposed plan...



Interconnection between the
Umbrian water systems

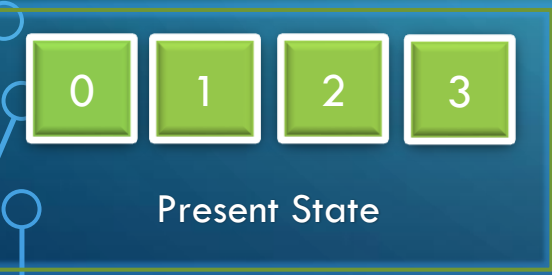
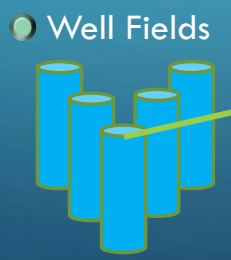
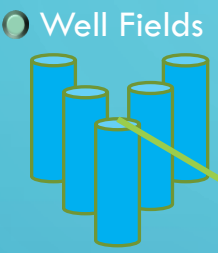


Improvement of
water quality

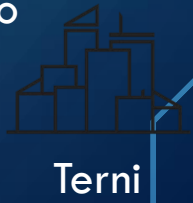
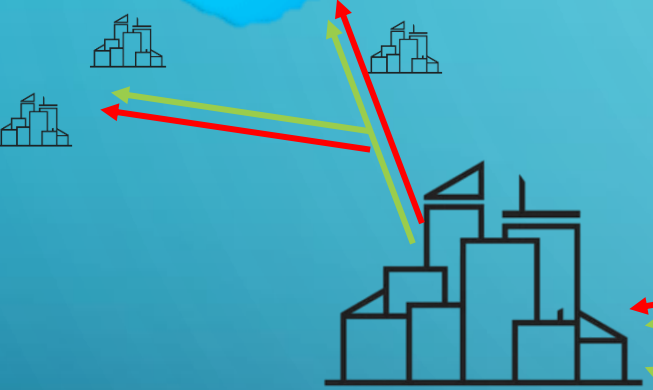
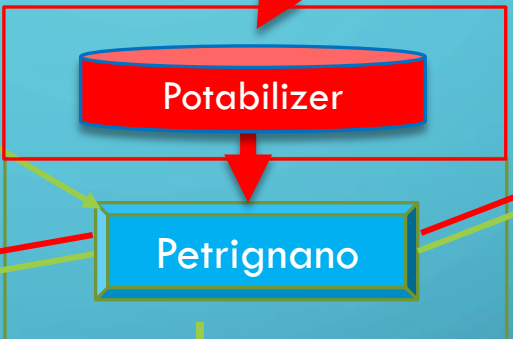


Increasing the
resilience of the
water systems

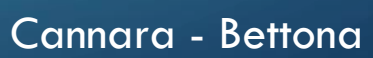
Current state of the water service



THE PLAN: RESILIENT UMBRIA



Project: Lot 1



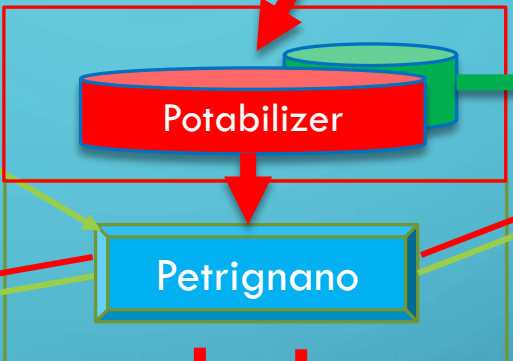
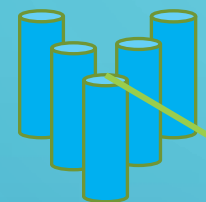
THE PLAN: RESILIENT UMBRIA



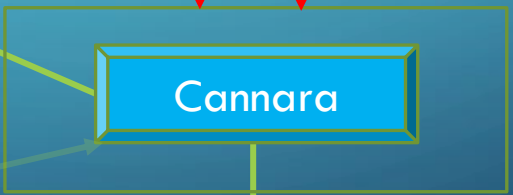
EAUT



Well Fields



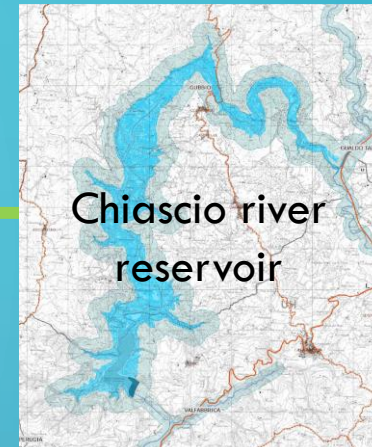
Well Fields



Project: Lot 2



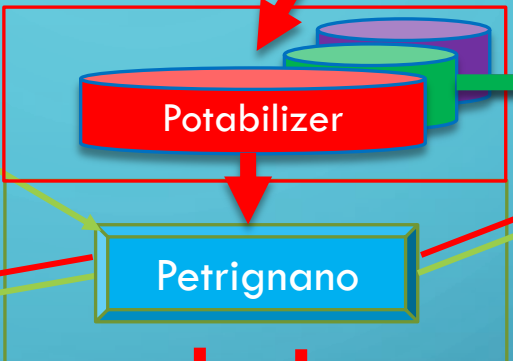
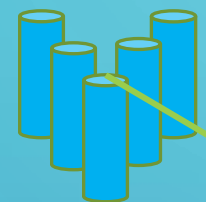
THE PLAN: RESILIENT UMBRIA



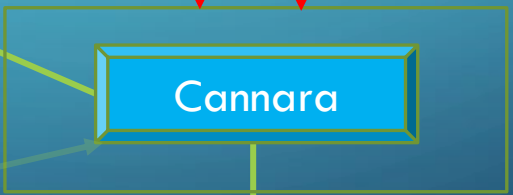
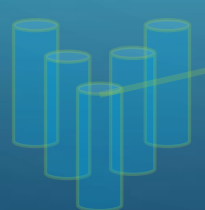
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Well Fields




Well Fields



0 1 2 3

Project: Lot 3

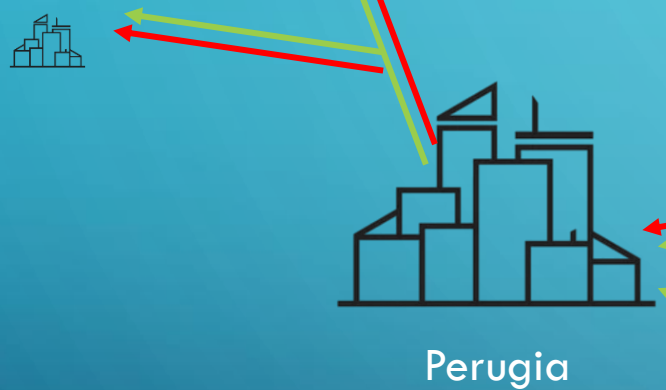


Assisi - Bastia Umbra

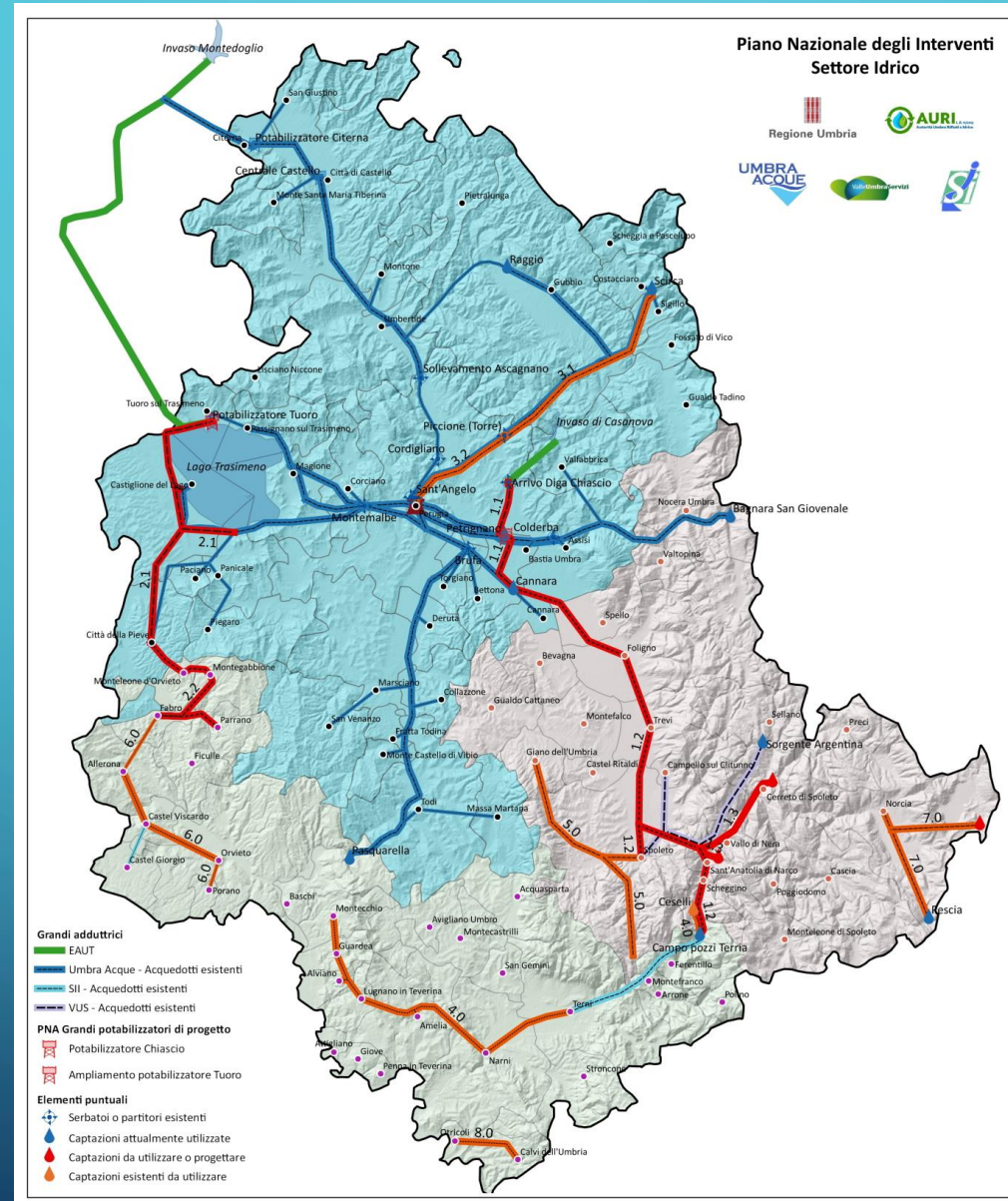
Foligno - Spoleto

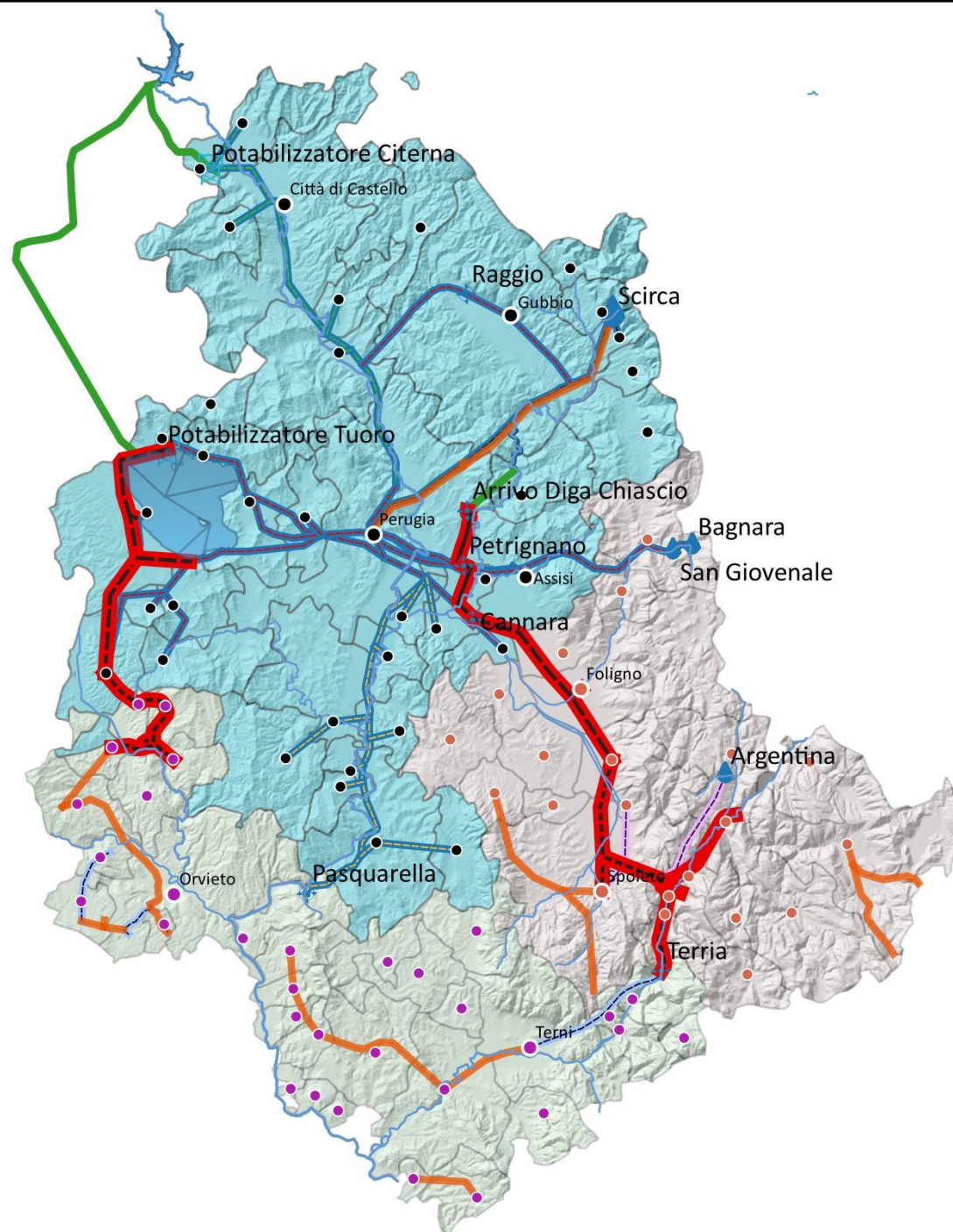
Cannara - Bettona

Terni



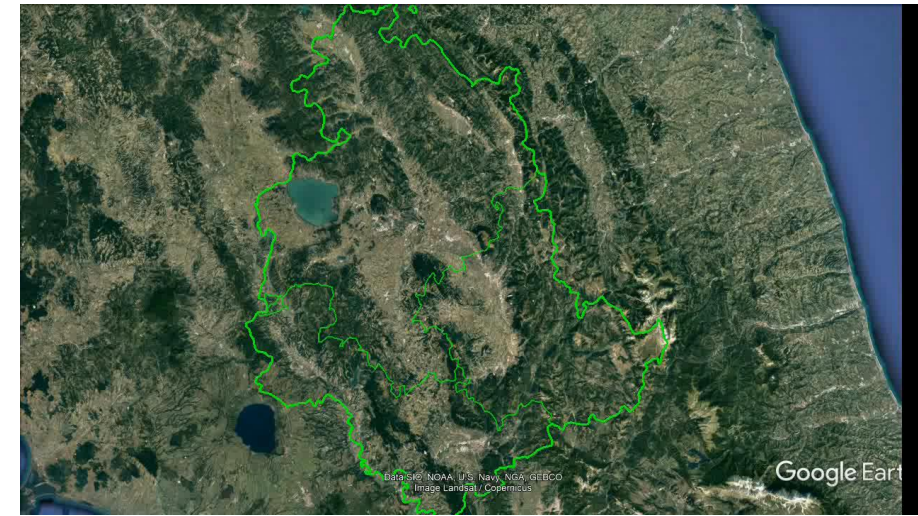
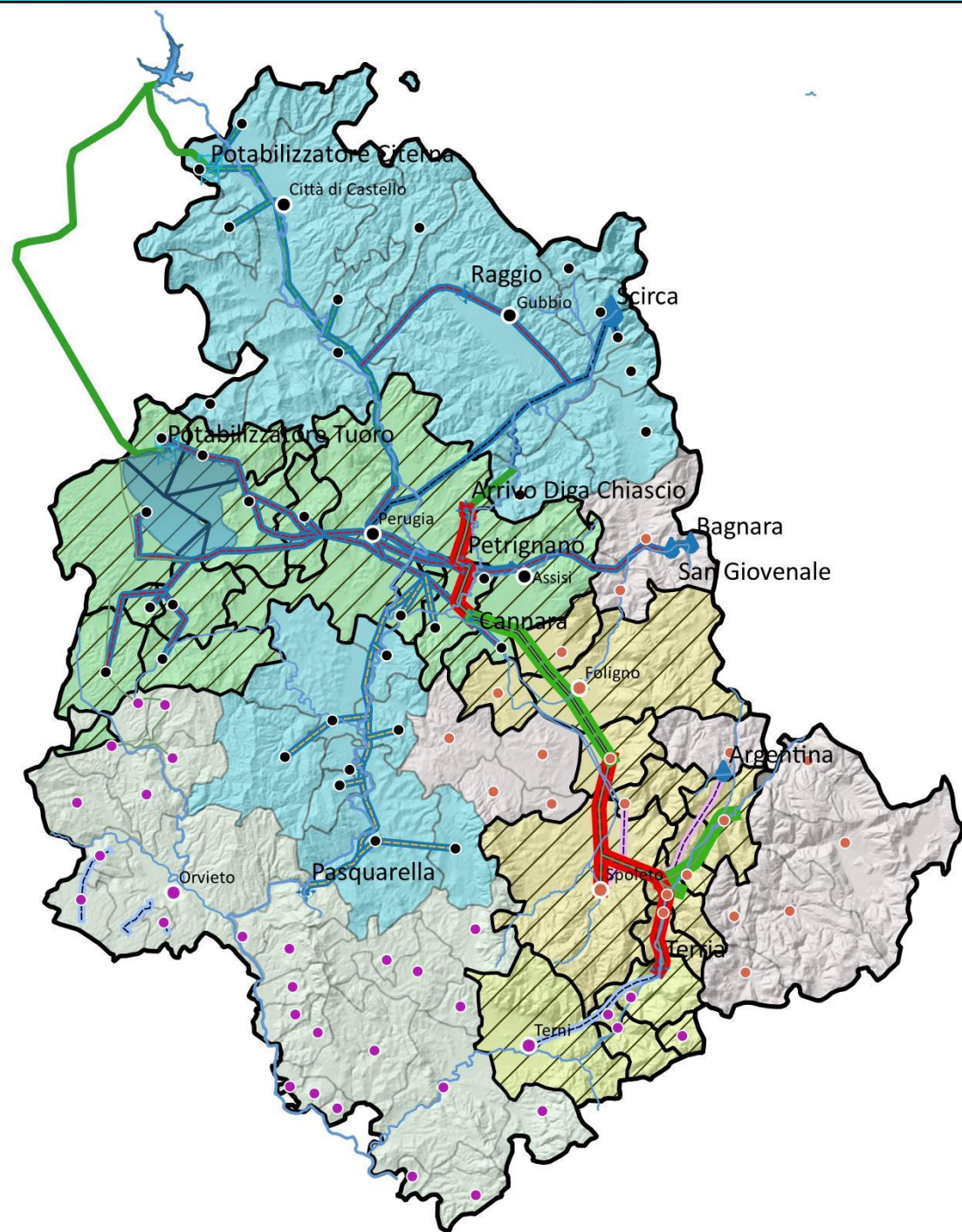
THE PLAN: RESILIENT UMBRIA





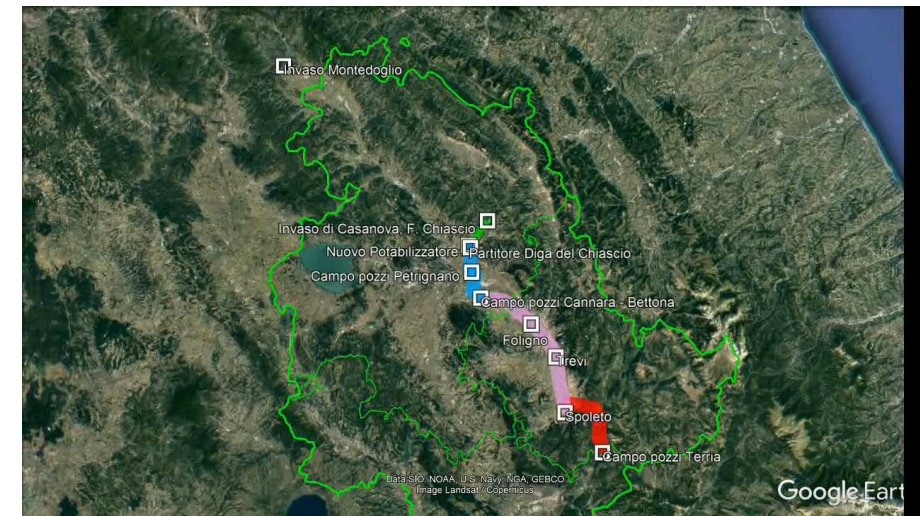
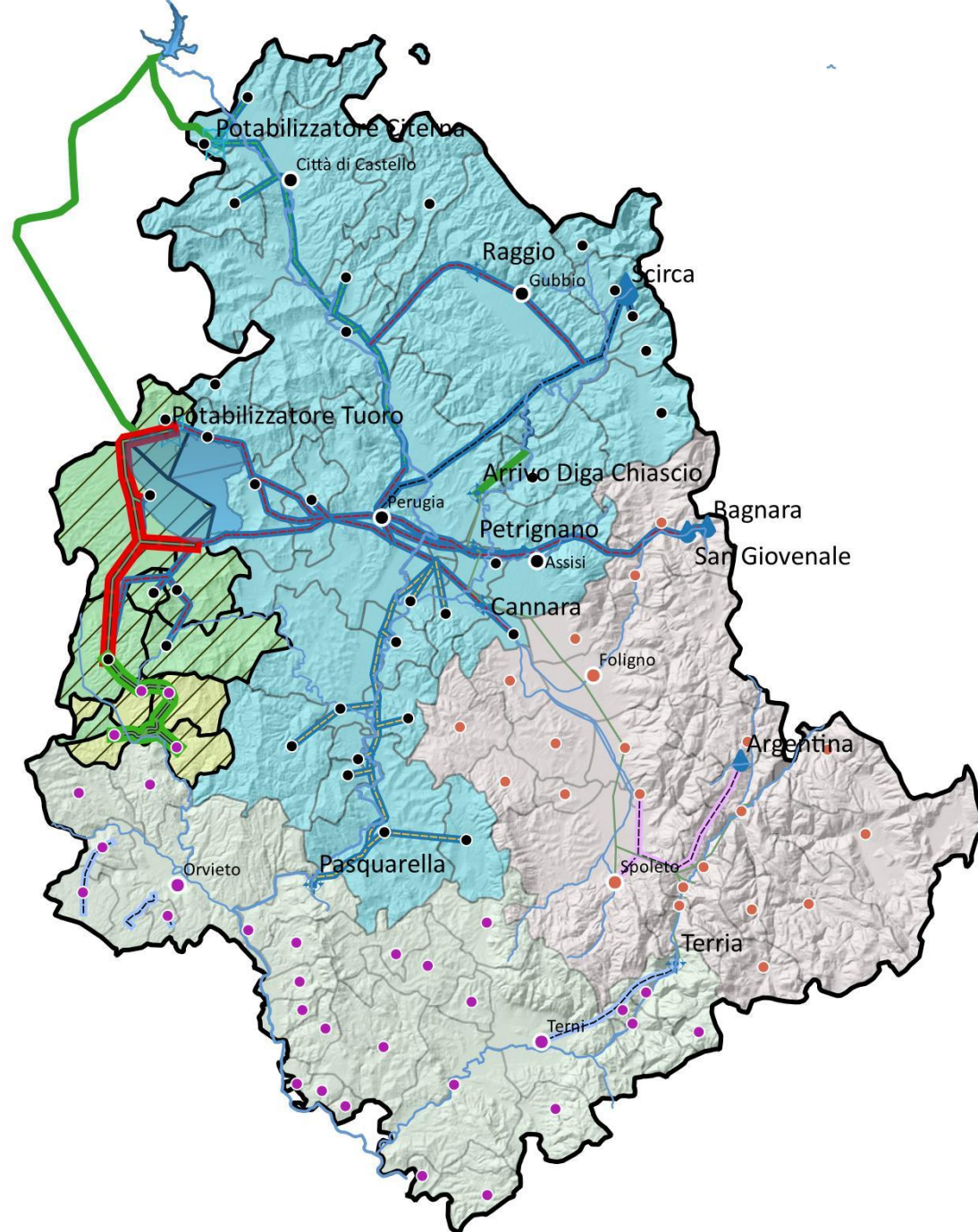
UMBRIA RESILIENTE				
ID	n° Lotto	Intervento	Stima Costo	Attivabile Recovery fund
1	4	Interconnessione della Diga del Chiascio con i principali sistemi idrici regionali	48'000'000 €	NO
	1.1	Collegamento della diga del Chiascio al sistema acquedottistico Perugia-Trasimeno	18'000'000 €	
	1.2	Realizzazione della dorsale dal sistema perugino (Chiascio) al sistema acquedottistico folignate	10'000'000 €	
	1.3	Realizzazione della dorsale dal sistema perugino (Chiascio) al sistema acquedottistico folignate-spoletino e ternano	15'000'000 €	
	1.4	Ridondanza campi pozzi Valnerina	5'000'000 €	
2	2	Interconnessione sistema Montedoglio con Sistema Lago Trasimeno, Montegabbione, Monte Leone Fabro e Parrano	35'000'000 €	SI
	2.1	Interconnessione sistema Montedoglio con Sistema Lago Trasimeno	23'000'000 €	
	2.2	Interconnessione del Sistema Lago Trasimeno con i comuni di Montegabbione, Monte Leone Fabro e Parrano	12'000'000 €	
3	2	Sistema acquedottistico alto Chiascio	24'000'000 €	NO
	3.1	Scirca - Loc. Piccione di Perugia	18'000'000 €	
	3.2	Loc. Piccione di Perugia - Perugia	6'000'000 €	
4	2	Completamento del sistema Ternano-Amerino di cui:	15'000'000 €	SI
	4.1	Collegamento pozzi Scheggino pozzi Terria e completamento interconnessioni con sistema narnese-amerino	6'650'000 €	
	4.2	Completamento acquedotto Cerasola - Morellino - M. Arnata	8'350'000 €	
5	-	Interconnessione Sistema Argentina - Monti Martani	10'000'000 €	SI
6	-	Completamento del sistema Orvietano	10'000'000 €	NO
7	-	Completamento del sistema Nursino	6'000'000 €	NO
8	-	Interconnessione Calvi - Otricoli	3'000'000 €	NO

The two main projects involve connecting the two large reservoirs



Interconnection of the Chiascio dam with the main aqueduct systems

- Lots foreseen: 4
- New potabilizers: 1
- New pipelines: 91 km
- Max. flow rate: 1000 l/s
- Operators involved: 3
- Towns served: 30
- Inh. served: 549,000



Interconnection of the Montedoglio system with the Trasimeno system, Montegabbione, Monteleone, Fabro and Parrano

- Lots foreseen: 2
- Potabilizer expansion
- New pipelines: 65 km
- Flow increase: +100 l/s
- Operators involved: 2
- Towns served: at least 10
- Inh. served: at least 42,600



Antonino Ruggiano (president)

Alessandro Rossignoli (executive director)

AURI - Autorità Umbra Rifiuti e Idrico

www.auriumbria.it

Thanks

Todi, 24 August 2023

END