

EPAL's Experience

in preparing for Security & Safety Issues

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W-SMART 2012 INTERNATIONAL WORKSHOP
Paris & Lille, June, 19-22



PROGRAMME

1. EPAL OVERVIEW

2. SECURITY & SAFETY ISSUES

2.1 PHYSICAL SECURITY

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3. W-SMART PROJECT



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1. EPAL OVERVIEW

EPAL's Mission

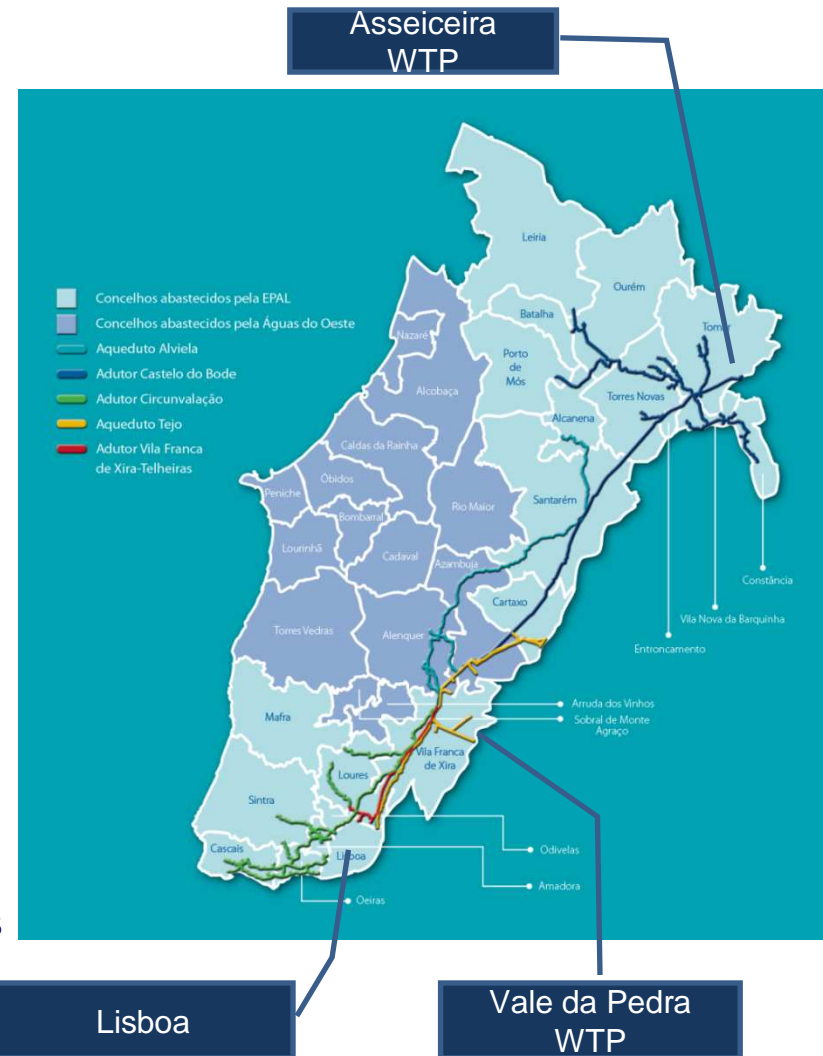
Ensuring continuous supply of safe drinking water during routine and crisis events.

Largest water supplier in Portugal
Water Supplied (10^6 m^3) **210.3**

Maximum Production per day \Leftrightarrow **1 (10^6 m^3)**

Treatment and supply of drinking water to approximately **2.8 million people**

- **520,000 inhabitants** of the city of Lisbon
- **35 Municipalities** to the north of the River Tagus



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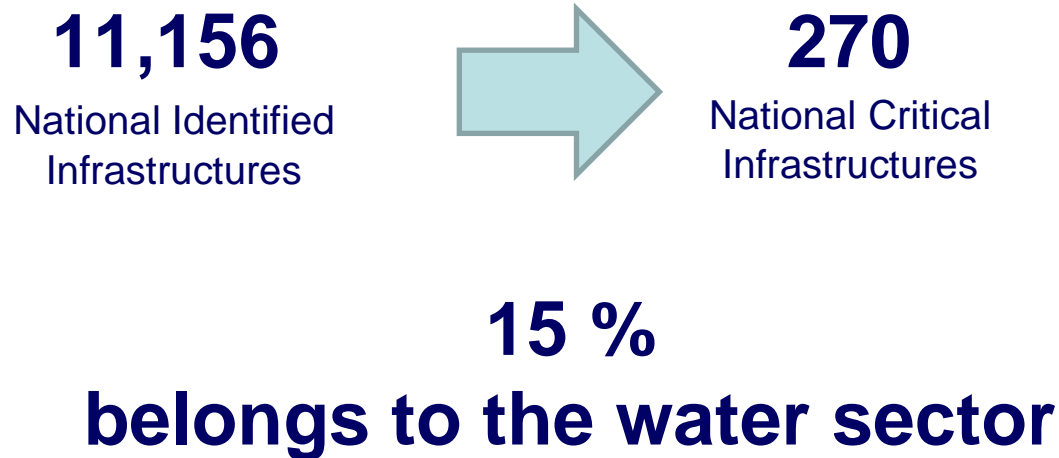
2. SECURITY & SAFETY ISSUES

2.1 PHYSICAL SECURITY

NATIONAL CRITICAL INFRASTRUCTURE – WATER SECTOR

Since 2009, EPAL, with W-SMART's support, has been developing a **Crisis Management Culture** for upgrading **emergency and security preparedness** capabilities.

- Protection of National Critical Infrastructure (Dir. 2008/114/CE)



+ 65 % can be
seriously affected
by the **occurrence**
of **earthquake**

Some have high
potential for
development of
malicious actions

Reference: July 2011, "National Council for Civil and Emergency Planning"

2. SECURITY & SAFETY ISSUES

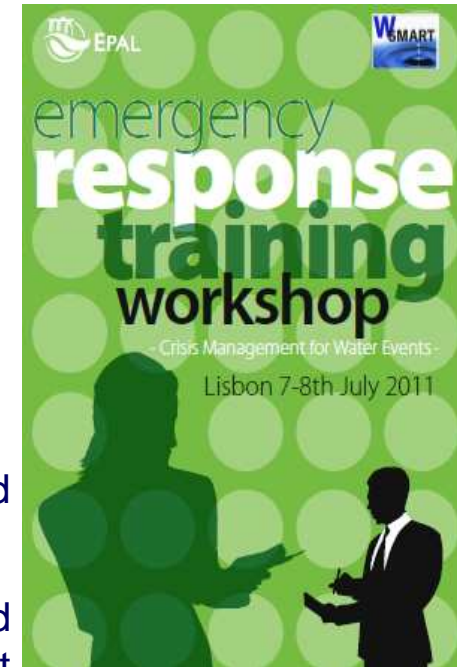
2.1 PHYSICAL SECURITY

NATIONAL CRITICAL INFRASTRUCTURE – WATER SECTOR

July 2011, we did the “**training workshop**” at the levels of both corporation and its subunits – water treatment plant, water quality, water supply, security units ...

Achievement for EPAL

1. **Updating** the emergency **guidelines**, based on feedback;
2. **Testing** the interagency **communication** between the involved external parties;
3. **Creating** a **network** to be jointly established with Municipalities, and Health Authorities around Asseiceira’s WTP, National and District Civil Protection, Home Office Security Entities, Information State Services and other State Entities, ...



July 2011

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2. SECURITY & SAFETY ISSUES

2.1 PHYSICAL SECURITY

PSAT - Association for Security of Technical Assets

- Due to a sharp rise **of metal and copper theft** to later be sold on the black market, it was decided to create the association – **PSAT**;
- In order to face this challenge, the **PSAT** promotes actions and initiatives with the purpose of sensitizing the government to **adjusting the legislation**;
- **PSAT** enables its members to **directly send alarms regarding the occurrences to the Control Room** of the security authorities;
- **Achievements for EPAL:**
 - Creating a **strategic network**
 - **Extending the relationships** between different companies (with critical infrastructure)
 - **Adopting the methodology developed** for response during crisis situation.



2. SECURITY & SAFETY ISSUES

2.1 PHYSICAL SECURITY

“PROCIV V” – National Civil Protection Exercise (November 2011)



This exercise involved 32 external entities **testing concerted response** in national emergency situation.

“XÁVEGA 2012” – Ministry of National Defence – Navy (May 2012)

This exercise tested modes of operation and procedures of the involved entities for **pollution combat of marine environment** due to fuel contamination simulated the response to the collision of two merchant ships, resulting in a **fuel leak off the coast**.



2. SECURITY & SAFETY ISSUES

2.2 WATER QUALITY

WATER SAFETY PLAN

Involvement of stakeholders  helps **Improve Client's Trust**

- Meetings and workshops with environmental and biodiversity organizations;
- Strategies for **improving customer perception** - Guidance leaflets to customers, social networks, posters, newsletters;
- Workshop with Delegates from the **Health Agencies** and with **Municipalities**;
- Visits to Hotels, Hospitals and Medical Clinics with **technical consultations** on equipment, private reservoirs and networks.



2. SECURITY & SAFETY ISSUES

2.2 WATER QUALITY

SECURITY & SAFETY PRACTICES FOR THE QUALITY OF THE PRODUCT

Hygiene Code

To guarantee quality drinking water, EPAL defined a manual for:

1.- Workers and visitors

- Procedures for contact with water;

2.- Materials, Tools, Equipments and Products

- Technical specifications;

3.- Facilities

- Three levels of access, depending on importance of the plant.



EPAL is identifying **growing needs** to assure **security & safety practices**, responding to **emerging regulations** and **rising public concerns**.

2. SECURITY & SAFETY ISSUES

2.3 INFORMATION SECURITY



- Stabilise the methodologies and **policy for information security**;
- Reinforce **access to different strategic information levels**;
- **Improve the resiliency** of our SCADA system, guaranteeing full monitoring;
- In case of failure, EPAL has a **Disaster Recovery System**.
- **Security and Distribution Command and Control Center** to manage all data about security and water infrastructures.



Security Command and Control Center



Distribution Command and Control Center

2. SECURITY & SAFETY ISSUES

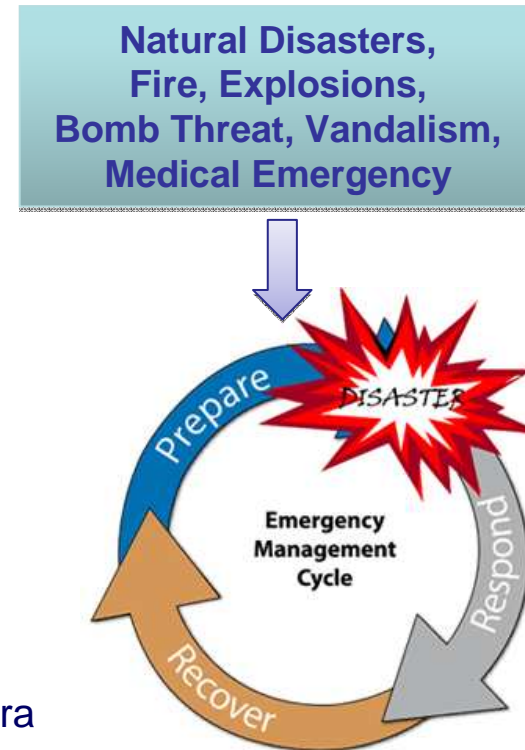
2.4 SAFETY – FOR MORE EFFECTIVE RESPONSE EMERGENCY PLANS

1.- EPAL is developing Emergency Plans for:

- Protection of workers;
- Assurance of the **business continuity** and **sustainable satisfaction** of customers;
- Control environmental sustainability **risks**.

2.- Emergency plans for:

- 2 WTP - Asseiceira and Vale da Pedra
- 2 Captation - Castelo do Bode and Valada Tejo
- 2 Water Distribution Center - Vila Franca de Xira and Amadora
- 23 Chlorination Stations
- 2 Administrative Infrastructures
- 3 Museums



2. SECURITY & SAFETY ISSUES

2.4 SAFETY – FOR MORE EFFECTIVE RESPONSE

SIMULATION – WTP OF ASSEICEIRA (January 2012)

- This exercise was designed to test the optimization of the emergency procedures, test internal communication and give feedback.

1.- Achievements for EPAL:

- Identifying the need to **create/increase a corporate security & safety culture;**
- Improving **vulnerability assessment capabilities** for identified **weak points** during exercise.

2.- Conclusion

EPAL needs:

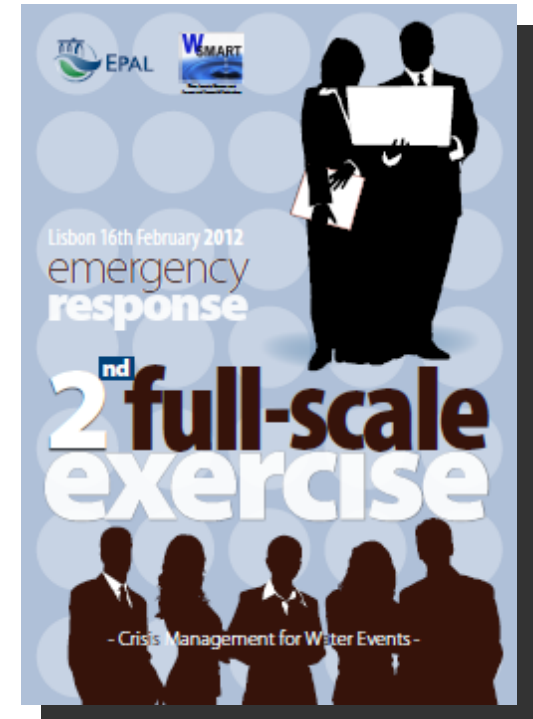
- constant impact monitoring;**
- contingency planning;**
- disaster resiliency programs.**



3. W-SMART PROJECT

HOW W-SMART HELPS US TO IMPROVE

- **Offering best practice** of water crisis management based on the accumulative and diversified experience of W-SMART.
- **Commitment of W-SMART to experience sharing:** it is important for EPAL to consolidate the third level of severity.
- **Oversight Committee Assessment** of Guidelines, Training and Exercises.
- **Alternative supplies** of water should be provided and the **minimum, per person, per day**, until piped supplies are restored.



Next exercise during 2012

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THANK YOU FOR YOUR ATTENTION

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***Under the leadership of EPAL
Lisbon will be the host for the***

*9th
World Water
Congress & Exhibition*

in September 2014

Finding Solutions to Assure the Future

