



European Water Stewardship

**Resource efficiency in integrative context**

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# Water & Biodiversity



- Chemical & Physical Status

- Availability

- Flow



# EWS Background

- The **European Water Stewardship (EWS) system** has been developed within the stakeholder process coordinated by the European Water Partnership (EWP)



- The EWS operates within the context of EU Policy and will ultimately contribute to the current flagship activities of the European Commission to achieve **“Resource Efficiency”** and to prepare the **“European Blueprint”**.



# Aim

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- The EWS system is the **integrative system** for business and agriculture to assess, verify and communicate sustainable water management practices.
- Water Stewardship wants to create **positive incentives to change behavior and practices** regarding water management.

# EWS structure



EWS Standard

+ Glossary  
+ Guideline

Inspection  
and  
Certification

Communication  
Guidelines

# EWS Standard

## 4 Principles

Sustainable Water  
Abstraction

Equitable Water  
Governance

Good Water Status

High Conservation  
Value Areas

# EWS Standard – Biodiversity

## Sustainable Water Abstraction

- Estimate maximum abstraction rates
- Sustain environmental flow
- Define sensitive periods for abstraction

- Eliminate point sources
- Define “Sensitive Areas”
- Responsible use of inputs
- Eutrophication potential

## Good Water Status

## HCV areas

- Safeguard bio diverse ecosystems
- Map HCV areas and identify their protection targets
- Preserve and create habitats: wetlands, retention basins ...

- Integrative water management
- Balanced solutions
- Multifunctional Best Management Practices
- Use of efficient techniques, optimizing soil moisture

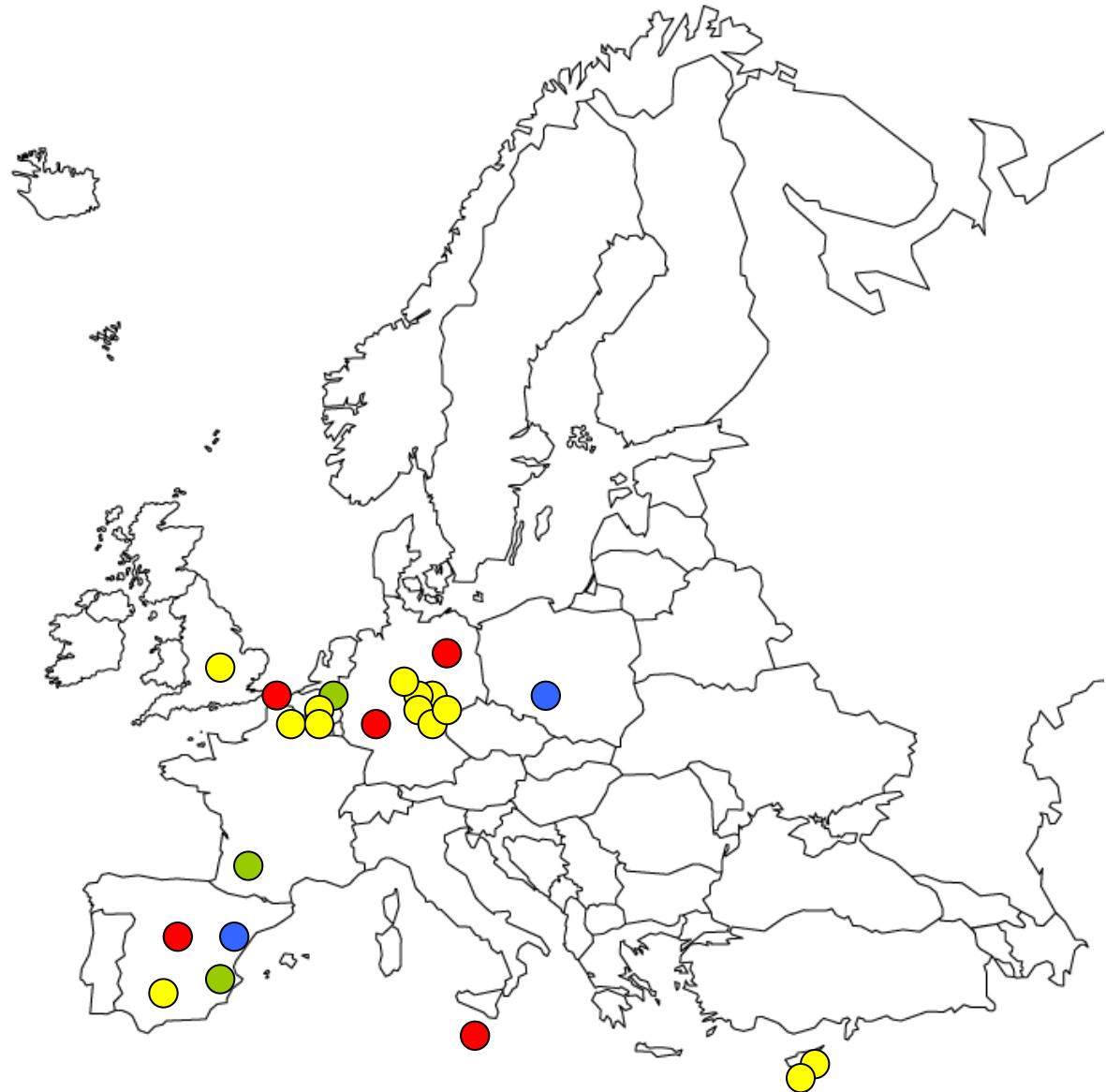
## Good water governance

**Good water management = Protection of biodiversity!**

# EWS Pilot Studies: Current Status

Pilot organizations:

- Industry
- Agriculture
- Golf
- Urban Areas





# Agriculture: Pilot Study 'COFA'

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## Operation

- Cyprus Organic Farmers Association
- Highly water-scarce area
- Water use from dams
- Highly regulated water abstraction regulations from government with water pricing
- Optimized and efficient irrigation system per crop, based on soil moisture and detailed weather forecast data

## Multifunctional measures

- Regional, drought-tolerant plant species (e.g. olive trees, herbs)
- Extensive farming system

# Agriculture: Pilot Study 'COFA'



Weather Station



Soil Moisture Sensor



# Agriculture: Pilot Study 'Allerton Project'

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## **Operation**

- Research farm, Game & Wildlife Conservation Trust
- Investigate environmental stewardship schemes that:
  - Protect biodiversity
  - Improve water management

## **Multifunctional measures**

- Buffer strips
- Integrated pest management
- Retention areas at drainage outlets





# Golf: Pilot Study 'El Plantío'

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## Operation

- Golf course, Southeast Spain
- Highly water-scarce area (abandoned farmland, bare soils, etc.)
- Only use recycled municipal waste water, water harvesting
- Optimized and efficient irrigation system
- Pro-active cooperation with local universities (biodiversity monitoring)

## Multifunctional measures

- Irrigation ponds and buffer strips
- Cultivation of the soil
- Regional, drought-tolerant plant species

### → Observed **impact on biodiversity**:

1990: 42 animal species observed	} 72 new species
2008: 114 animal species observed	







# Industry: Pilot Study 'BASF Ludwigshafen'

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## **Operation**

- Chemical production plant
- Rhine river basin (>1000 km)
- Biodiversity related measures less direct

## **Principle 3: Protection of HCV areas in vicinity of the operation**

- Identify and map HCV areas
- Investigate possible impacts of the operation's water management
- Define protection and restoration goals

## **Potential multifunctional measures for industry**

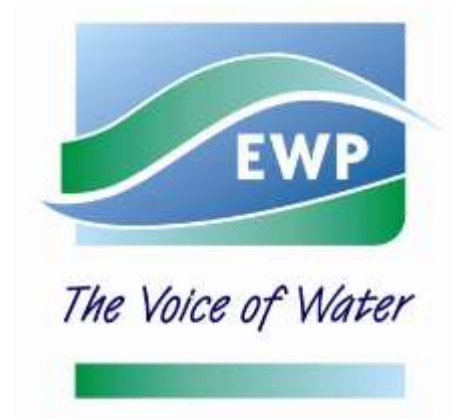
- Constructed wetlands



# EWS launch







Contact and information:

[www.ewp.eu/activities/water-stewardship](http://www.ewp.eu/activities/water-stewardship)

and

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