

European Golf Water Stewardship

Maximising the golf sector's resilience and responsibility

Introduction and Overview

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EUROPEAN GOLF

Water Stewardship and Resilience Roadmap 2026–2035

For the responsible and efficient management of water resources

Purpose of Roadmap

Increase **proactivity, alignment and effectiveness** of golf sector efforts towards water stewardship

Contribute to the **future resilience and success** of the European golf sector

- Provide a **practical resource** that national associations can **adapt or adopt**
- Help **identify gaps in water-related knowledge** and action that require further development
- Support and **strengthen representation to, and collaboration with**, European government and NGOs



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Water Stewardship and Resilience Roadmap 2026–2035

For the responsible and efficient management of water resources

EGA Technical Working Group

Maria Strandberg	Chair
Alessandro de Luca	Head of Italian School of Turf, Italian Golf Federation
Alexandra Almeida	Sustainability Manager, Portuguese Golf Federation
Alexander de Vries	Dutch Golf Federation
Janne Lehto	Federation of European Golf Greenkeepers Associations
Dil Griffiths	Wales Golf
Rony Epelbaum	EGA Sustainability Manager
Robbie Fitzpatrick	GEO Sustainable Golf Foundation
Julien Cabanes	French Golf Federation

Pressure points

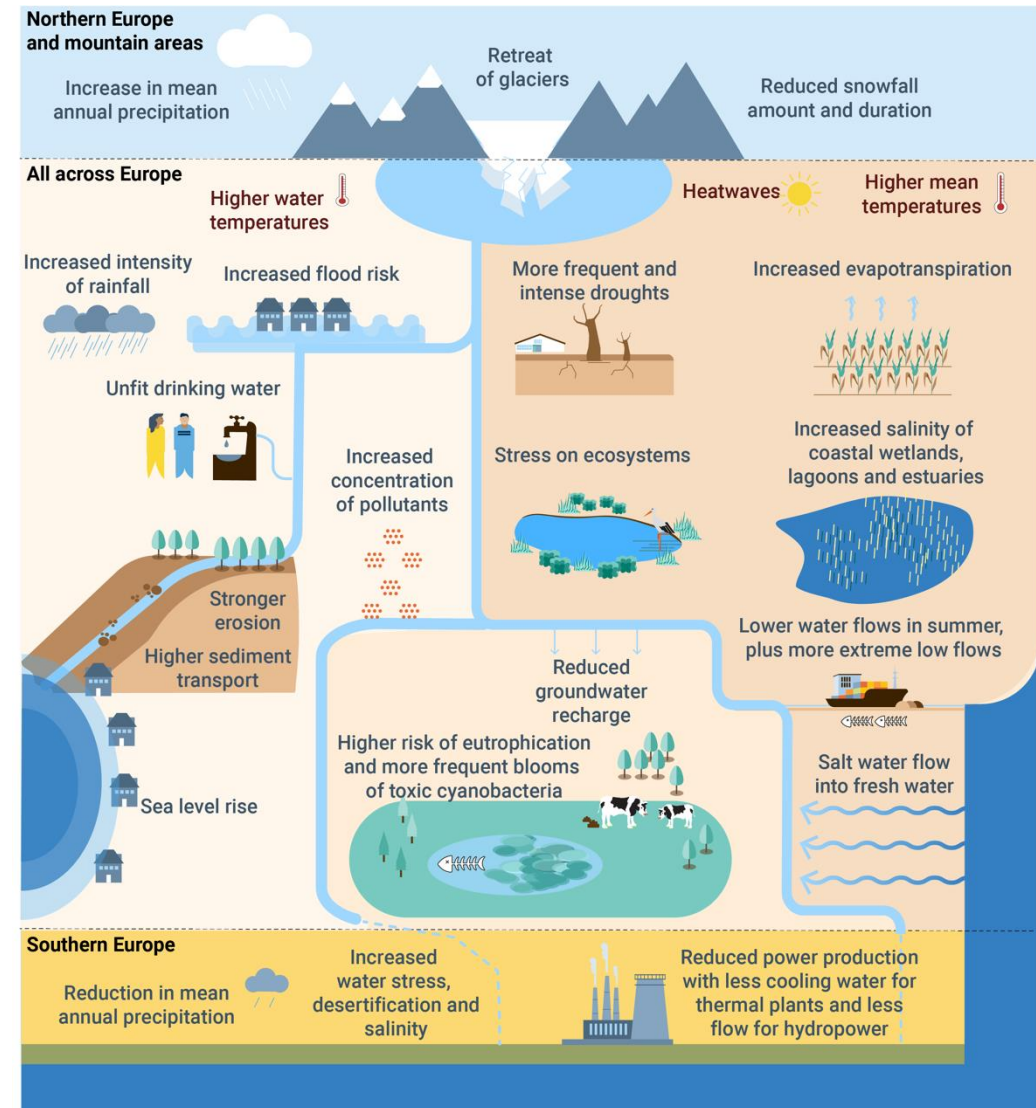
Government Policy
and Regulation

Changing Climate
and Weather Extremes

Increasing Demand
and Competition

Public Awareness
and Expectations

Water resource challenges across Europe United Nations Water



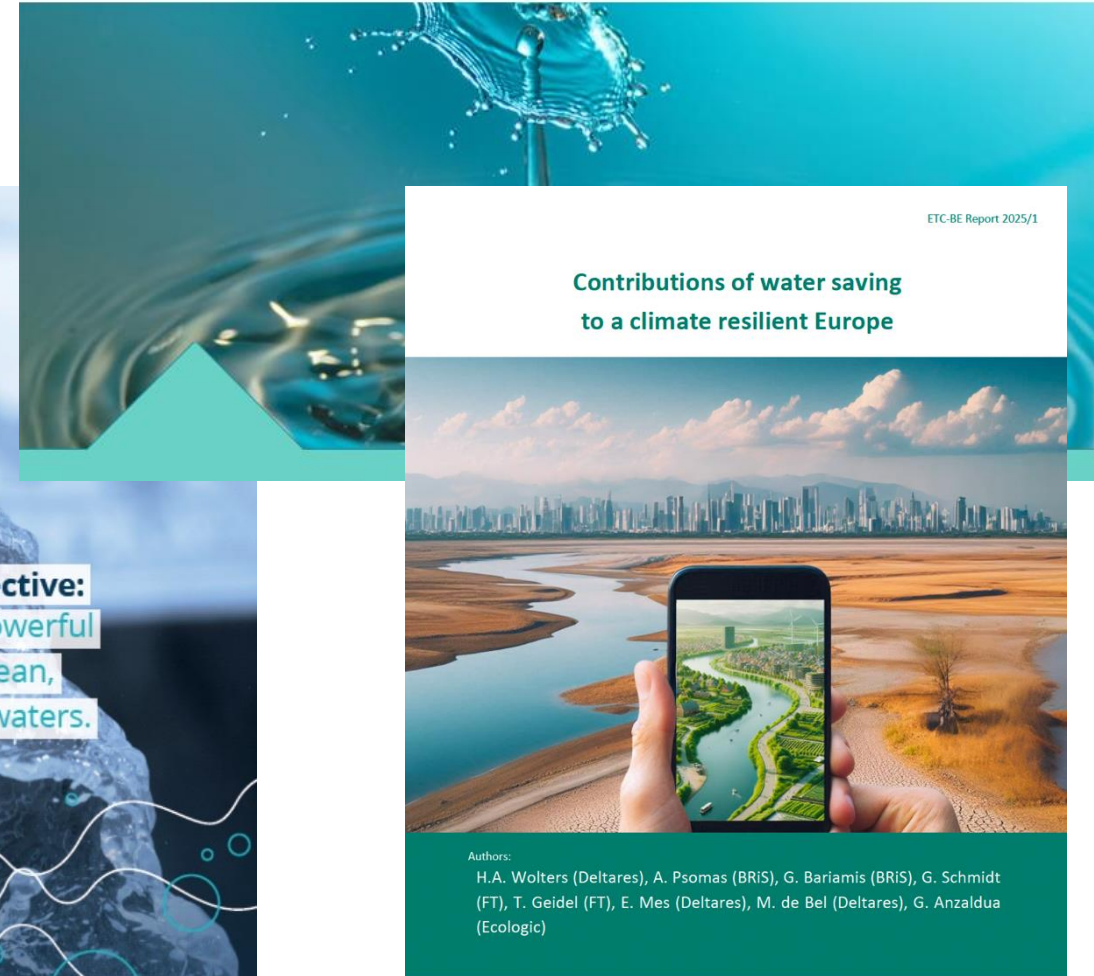
PRESSURE POINT

GOVERNMENT POLICY AND REGULATION

Catchment Demand
Management

Abstraction licensing and
permitting

Metering and pricing



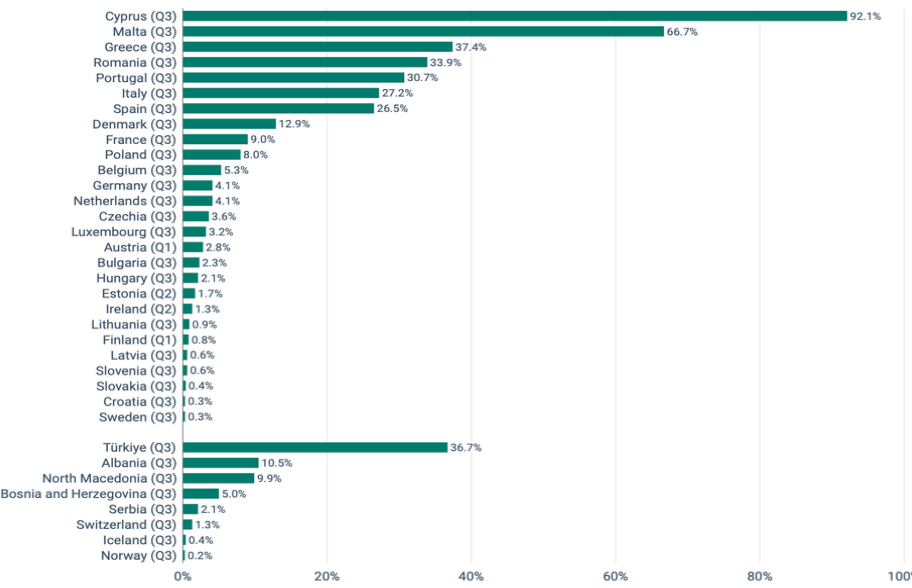
PRESSURE POINT

CHANGING CLIMATE

AND WATER EXTREMES

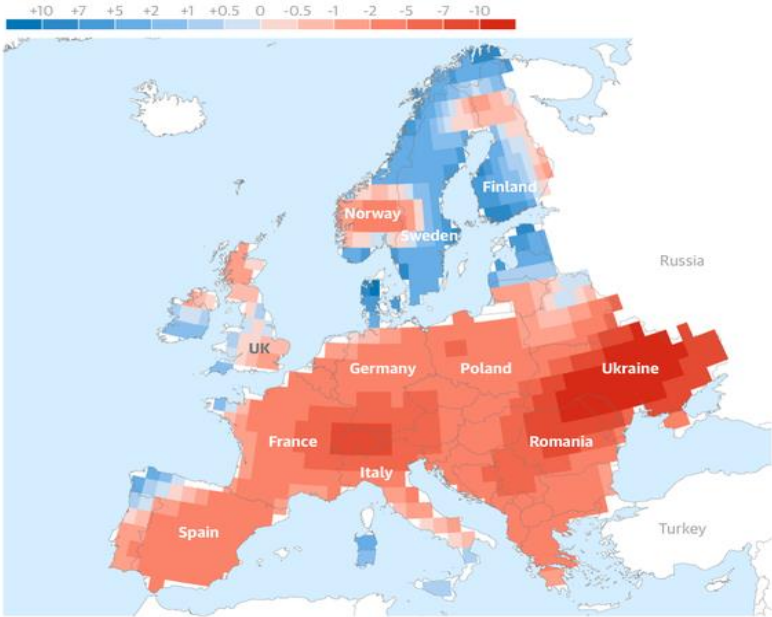
- Increasing air and surface temperatures
- Extremes of wet and dry
- Water deficits and depleting aquifers
- Flooding risks and impacts

Figure 2. Worst seasonal water scarcity conditions for European countries in 2023, measured by the water exploitation index plus (WEI+)

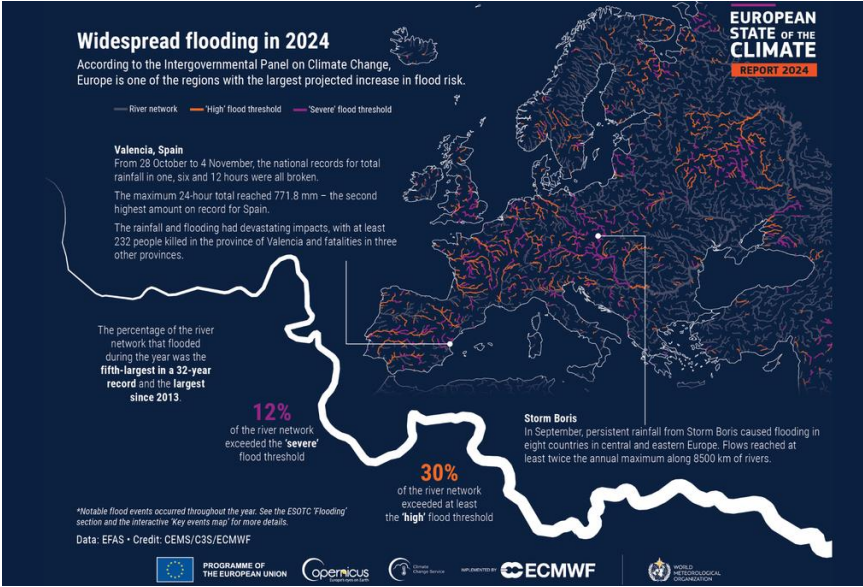


WATER SCARCITY
CONDITIONS IN EUROPE
NOVEMBER 2025

Much of Europe has been getting drier
Change in groundwater storage from Apr 2002 to Dec 2024, mm a year



Guardian graphic. Source: derived from Grace data from the GFZ Helmholtz Centre for Geosciences, Nasa and the University of Texas at Austin

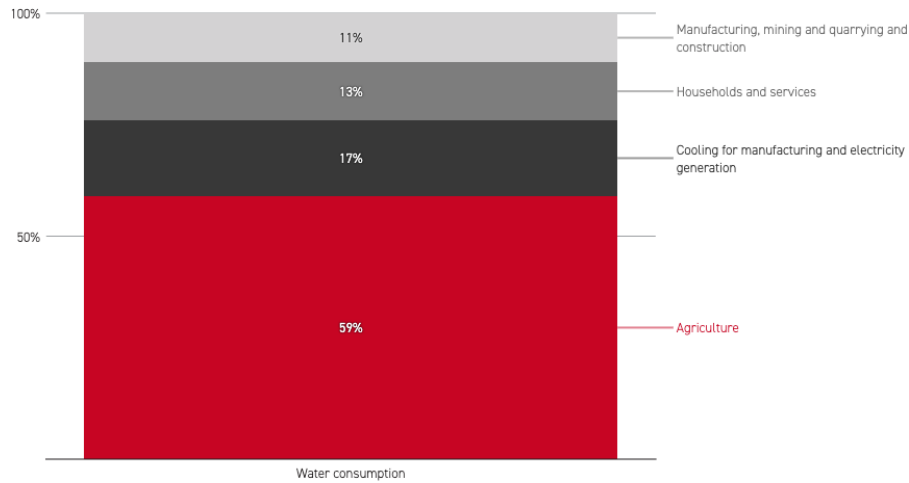


PRESSURE POINTS

INCREASING COMPETITION

Agriculture is EU's largest net water consumer

Net water consumption* in the EU in 2019, in share of total by sector.



*Difference between water abstracted from the source and water returned to the environment.
Source: European Environment Agency
Giovanna Coli/POLITICO

Agricultural irrigation
Population growth and urbanisation
Industrialisation
New water dependent technologies

PUBLIC AWARENESS AND EXPECTATIONS

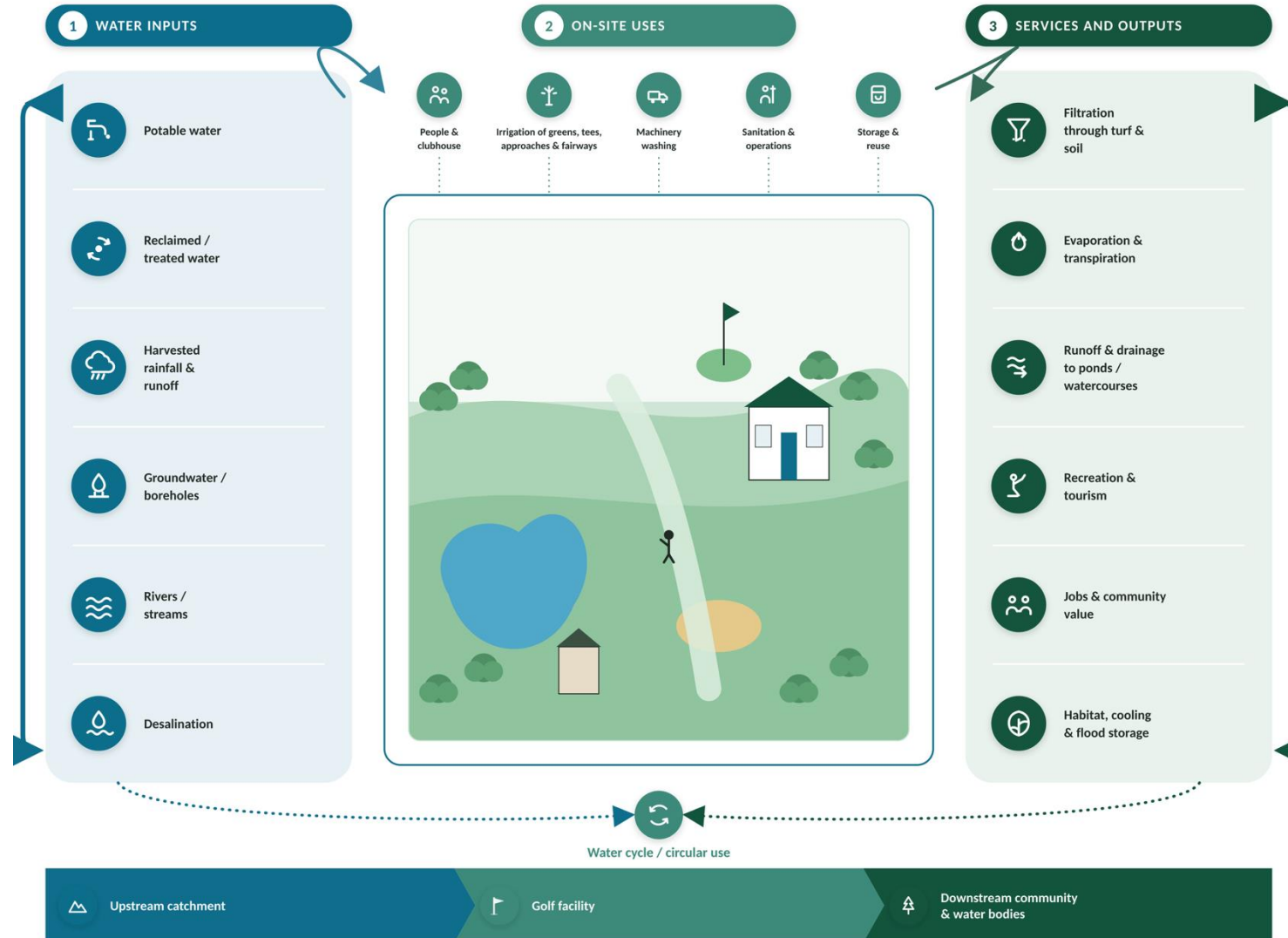
Extinction Rebellion plugs holes on 10 Spanish golf courses in water protest

Activists denounce heavy use of water for 'elitist leisure pursuit' as drought continues in Spain

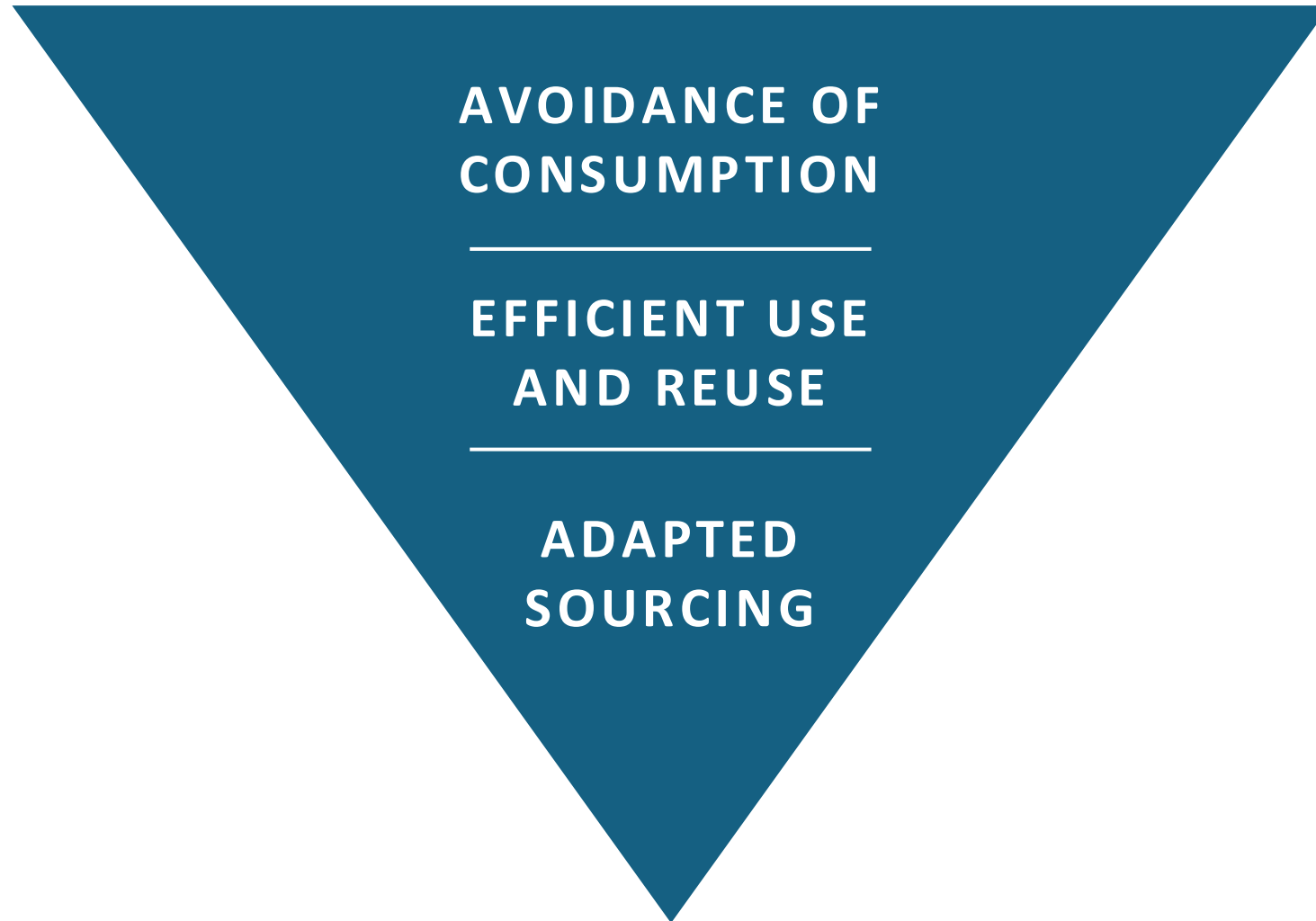


Speed and visibility of information
Heightened concern
Lack of understanding of golf

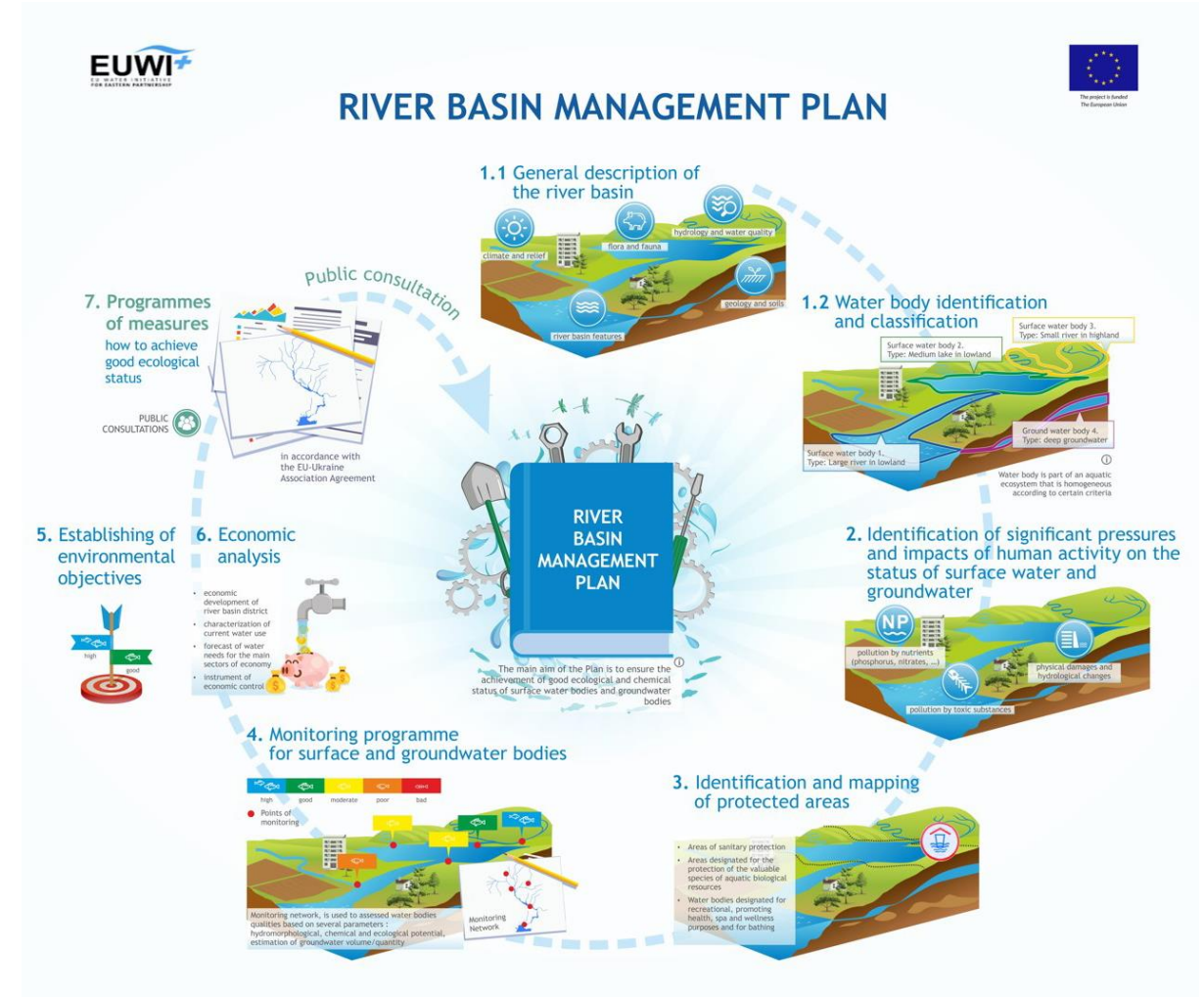
WATER STEWARDSHIP SCOPE



WATER STEWARDSHIP HEIRARCHY



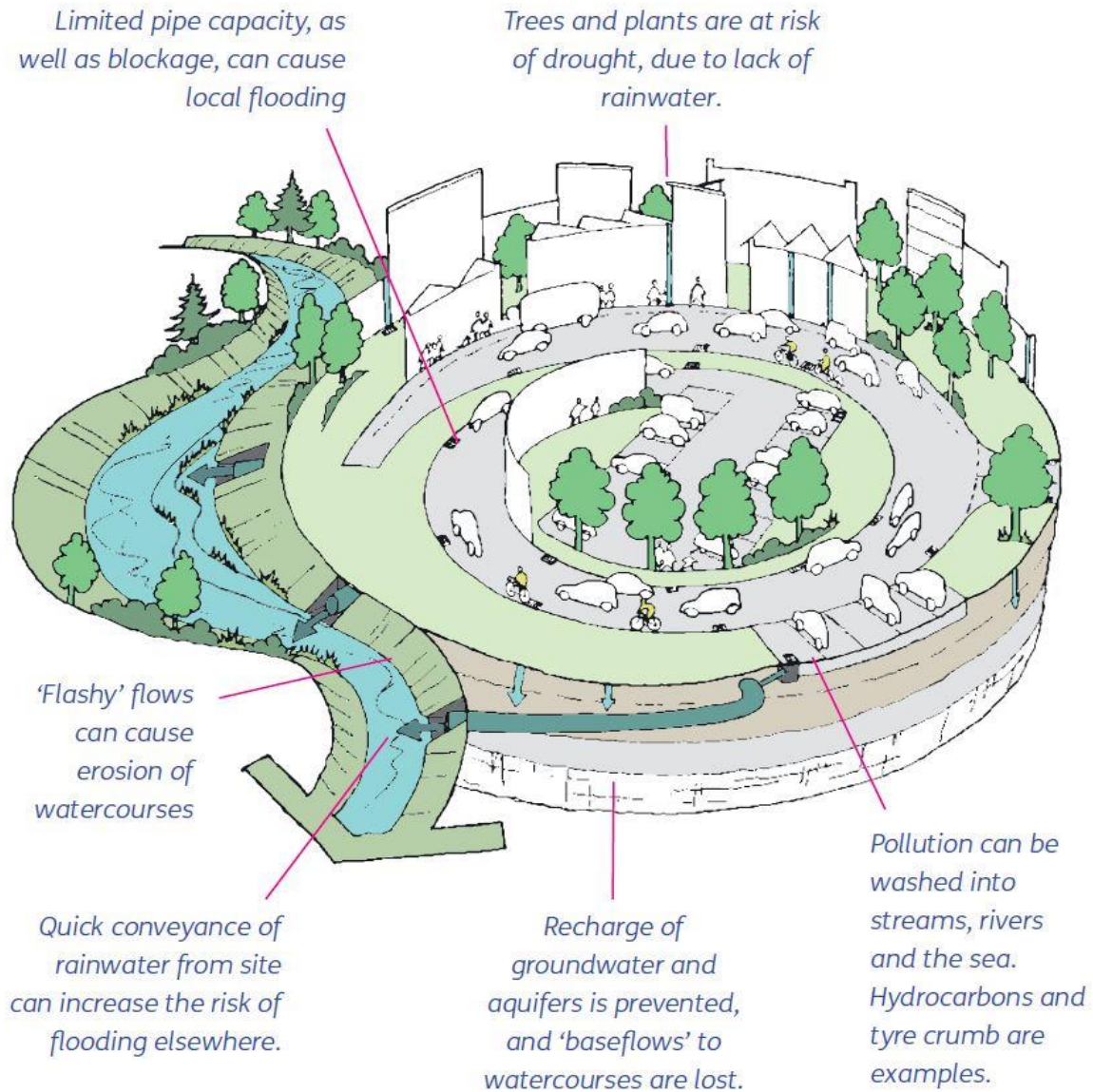
The Critical Role of Catchments



Water-Smart Golfing Landscapes



Nature-Based Solutions



Integrated Technologies



Ten-Point Plan

Focus areas for international, national and local action over the coming decade

- 1 Collaborate with governments and communities
- 2 Minimise consumption and drive efficiency
- 3 Diversify sources
- 4 Adapt landscapes for flooding and drought
- 5 Protect water quality
- 6 Strengthen research and knowledge sharing
- 7 Gathering data and evidence
- 8 Educate greenkeepers and golfers
- 9 Implement new technologies
- 10 Communicate with public

Key Takeaways

Strategic

Pressures are mounting

Climate is adding complexity

Facilities need to be holistic, creative and collaborative

Remember – avoidance, efficiency, sourcing

Key questions for clubs

Is your golfing landscape as water smart as it can be?

Are you maximizing the precision of your irrigation?

Are you building the resilience funds needed in your club?

Who can you collaborate with and what common problems can be solved?