

# Sustainable Water Resources Roundtable

*At Wakulla Springs, Florida*

John Wells, SWRR Co-Chair  
March 6, 2013

# *Sustainable Water Resources Roundtable*



A national collaboration of federal, state, local, corporate, non-profit and academic interests

A committee of the USGS  
Advisory Committee on Water  
Information

# Our Mission

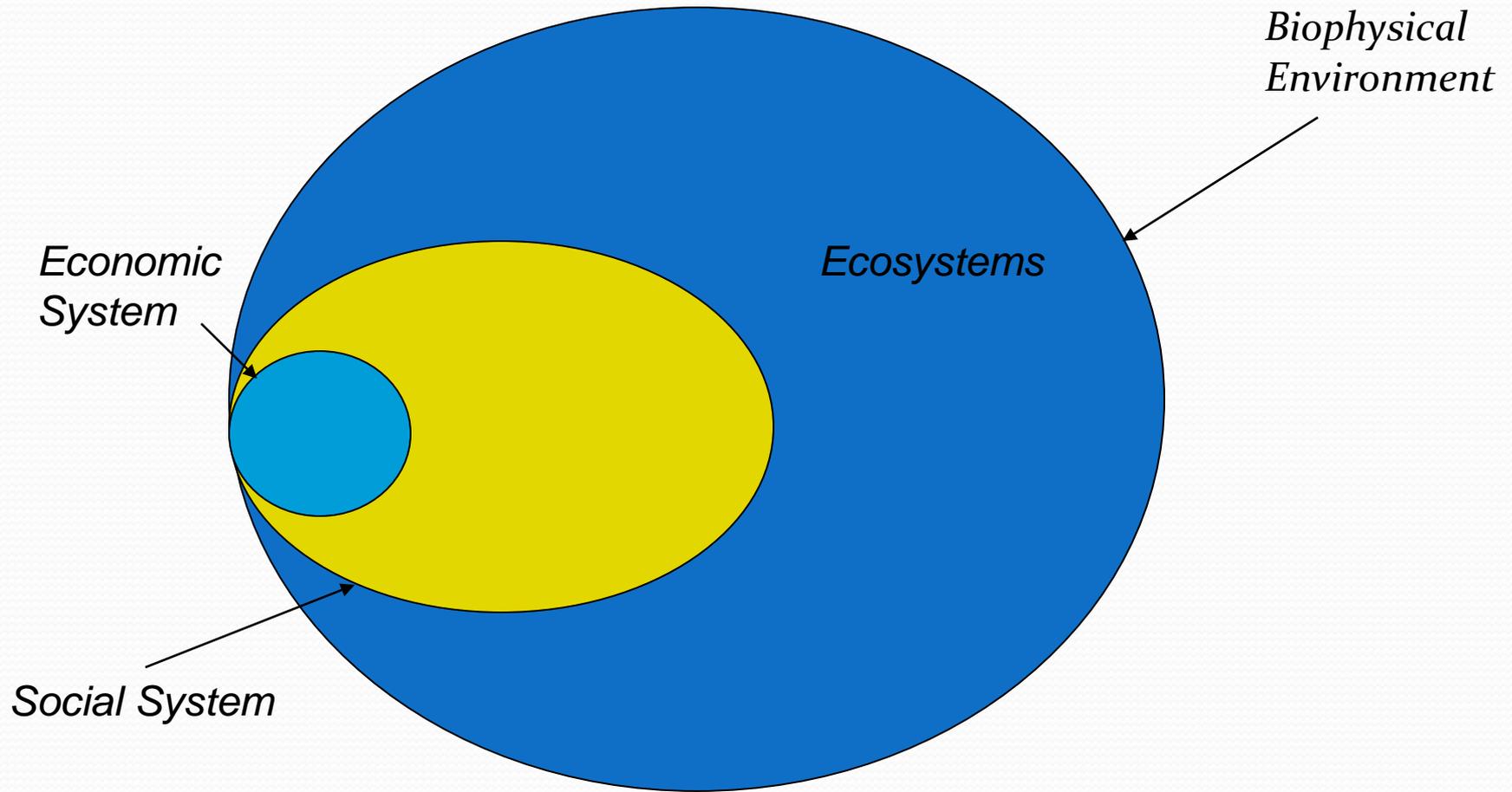
**To promote sustainability of the nation's resources through ...**

- Evaluation of information
- Development & use of indicators
- Targeting of research
- Engagement of people & partners

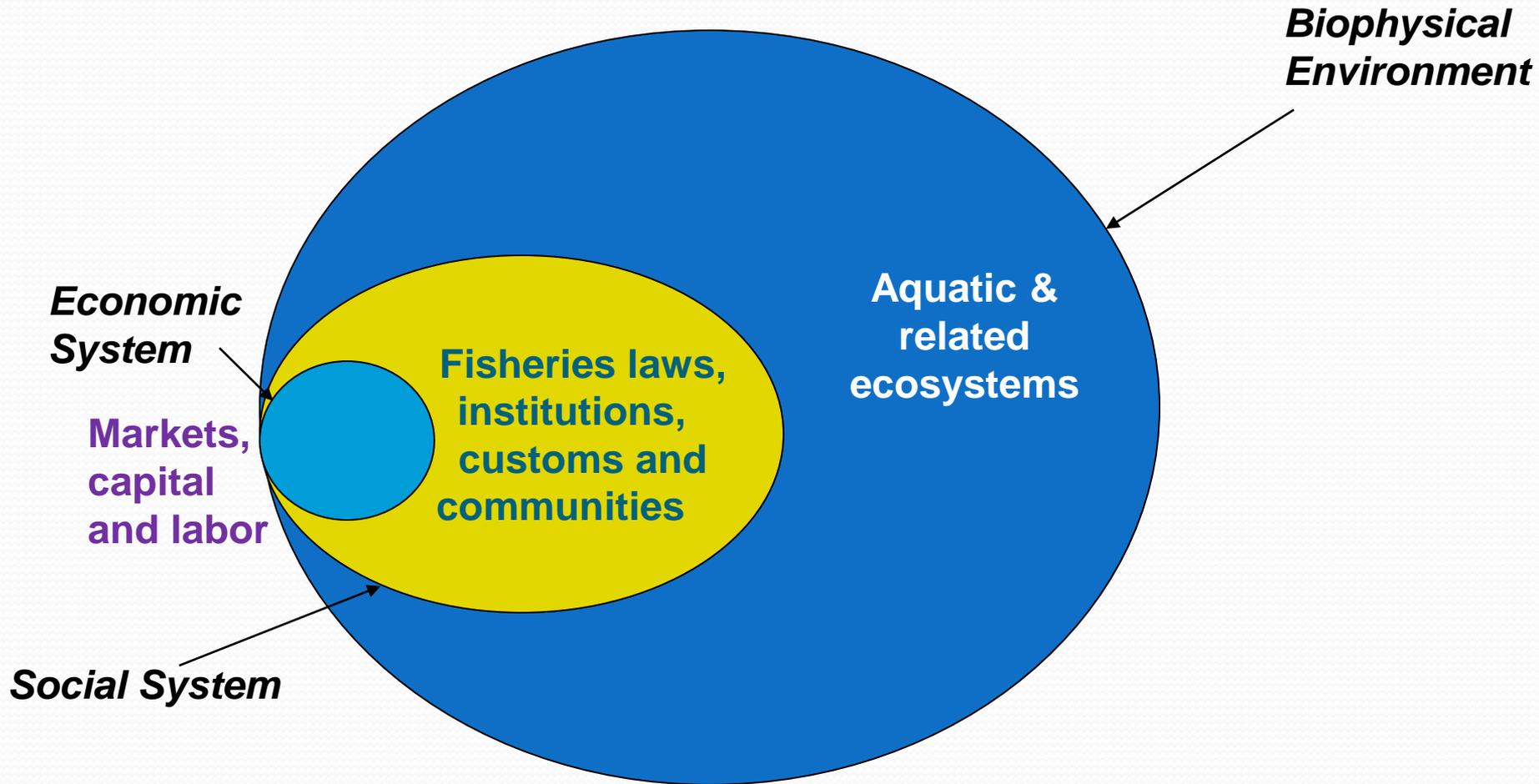
# Outreach

- 650 participants from federal, state and local governments; corporations; nonprofits and academia
- Meetings in California; Colorado; Florida; Maryland; Michigan; Minnesota; Virginia; Washington, D.C.
- Web site <http://acwi.gov/swrr/index.html>
- 2005 Preliminary Report  
[http://acwi.gov/swrr/Rpt\\_Pubs/prelim\\_rpt/index.html](http://acwi.gov/swrr/Rpt_Pubs/prelim_rpt/index.html)
- 2010 SWRR Report  
[http://acwi.gov/swrr/Rpt\\_Pubs/SWRRReportMarch2010.pdf](http://acwi.gov/swrr/Rpt_Pubs/SWRRReportMarch2010.pdf)

# Essential Relationships of Sustainability

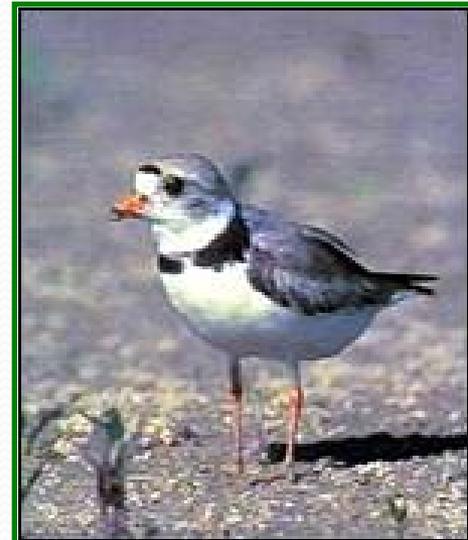


# Essential Relationships of Sustainability with Fisheries

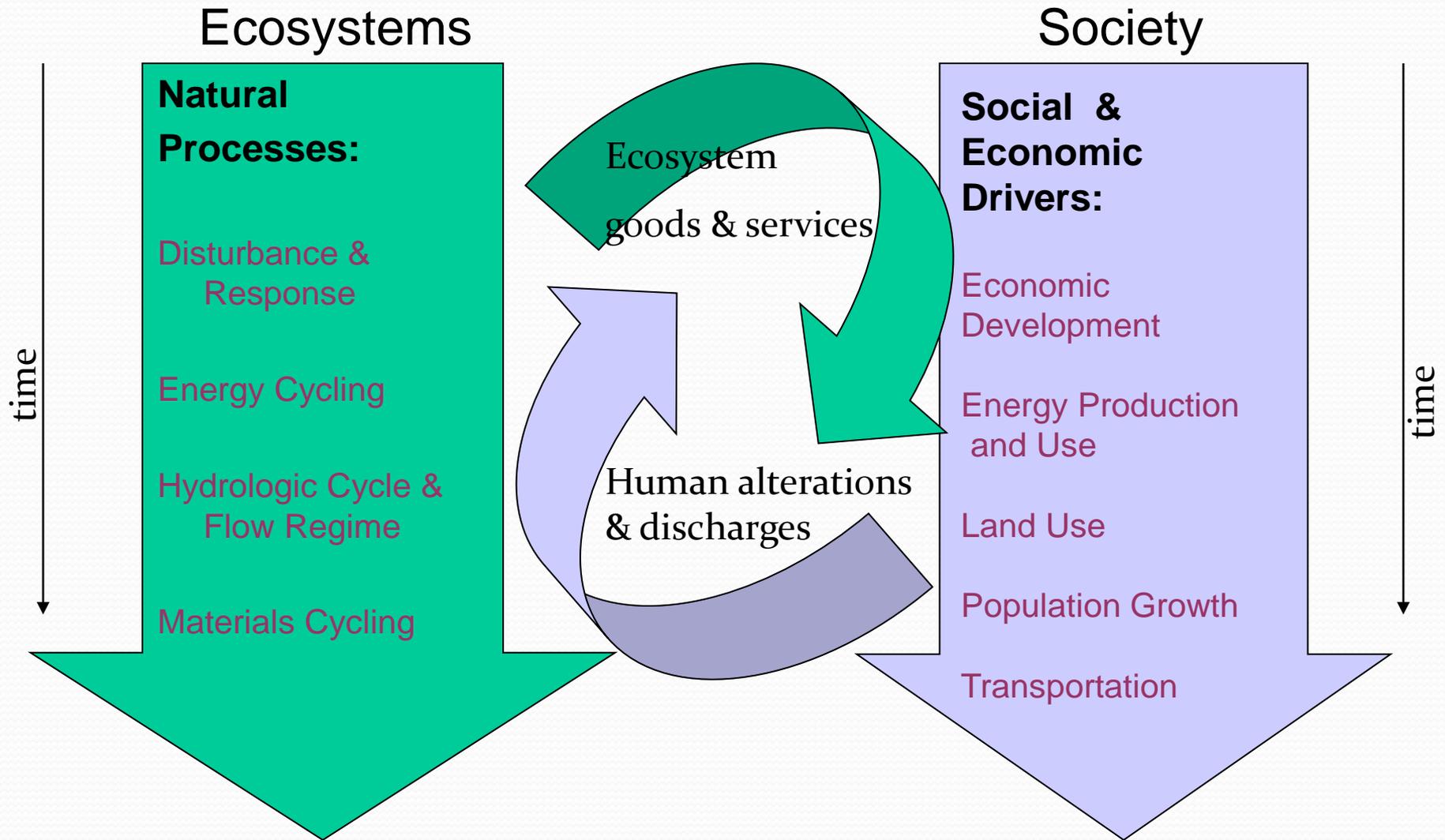


# Capital and System Capacities

- **Capital is the capacity to produce value over time**
- **Environmental, social and economic systems produce value through flows of services, experiences, or goods that meet human and ecosystem needs over time**
- **We achieve sustainability by maintaining capital to meet needs**

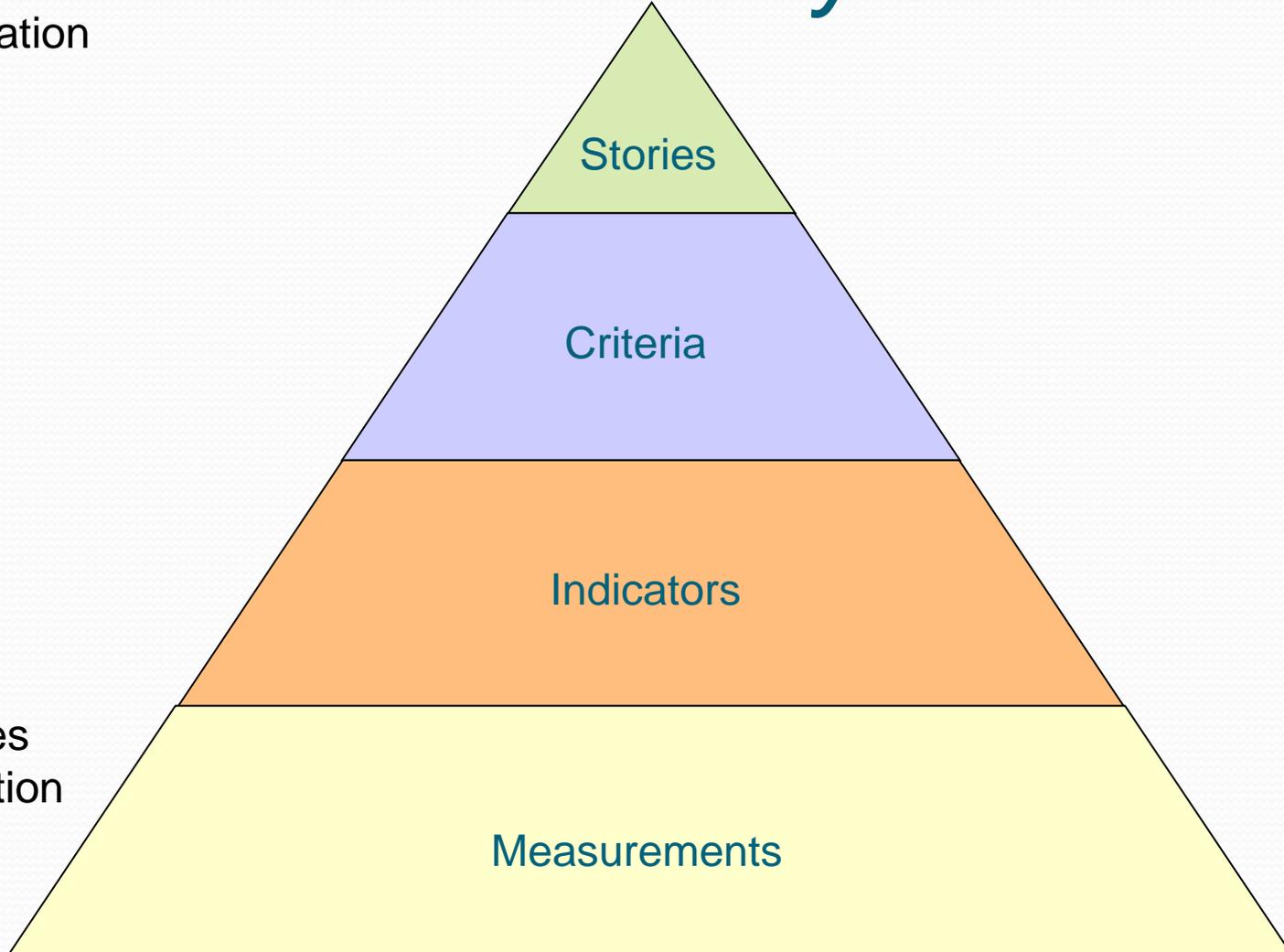


# Ecosystem Processes & Societal Drivers





# *Information Pyramid*



Fewer Pieces  
Of Information



Stories

Criteria

Indicators

Measurements

More Pieces  
Of Information

# Indicators

**Measures that present trends information relevant to water sustainability in a readily understandable way**



# The SWRR Indicator Framework

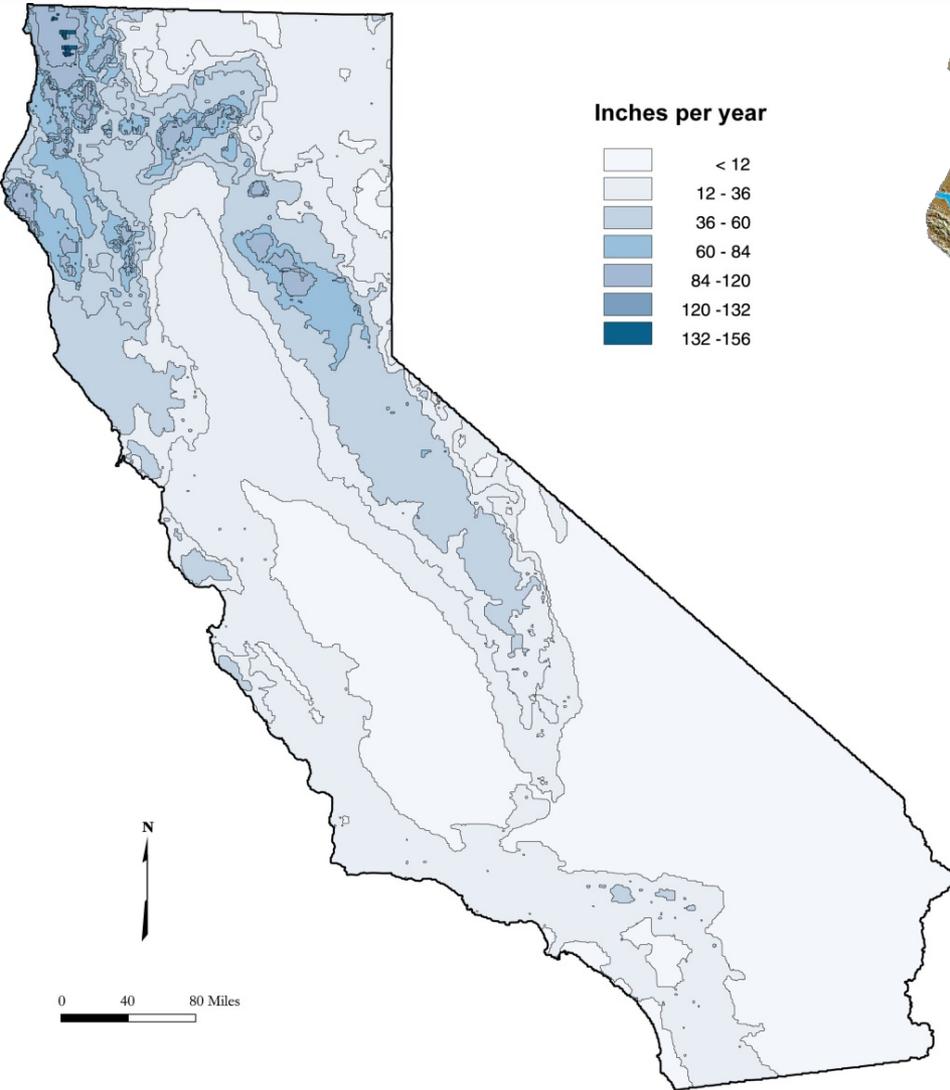
- Water availability
- Water quality
- Human uses and health
- Environmental health
- Infrastructure and institutions

# California Water Plan

## Blueprint for Integrated Water Management & Sustainability

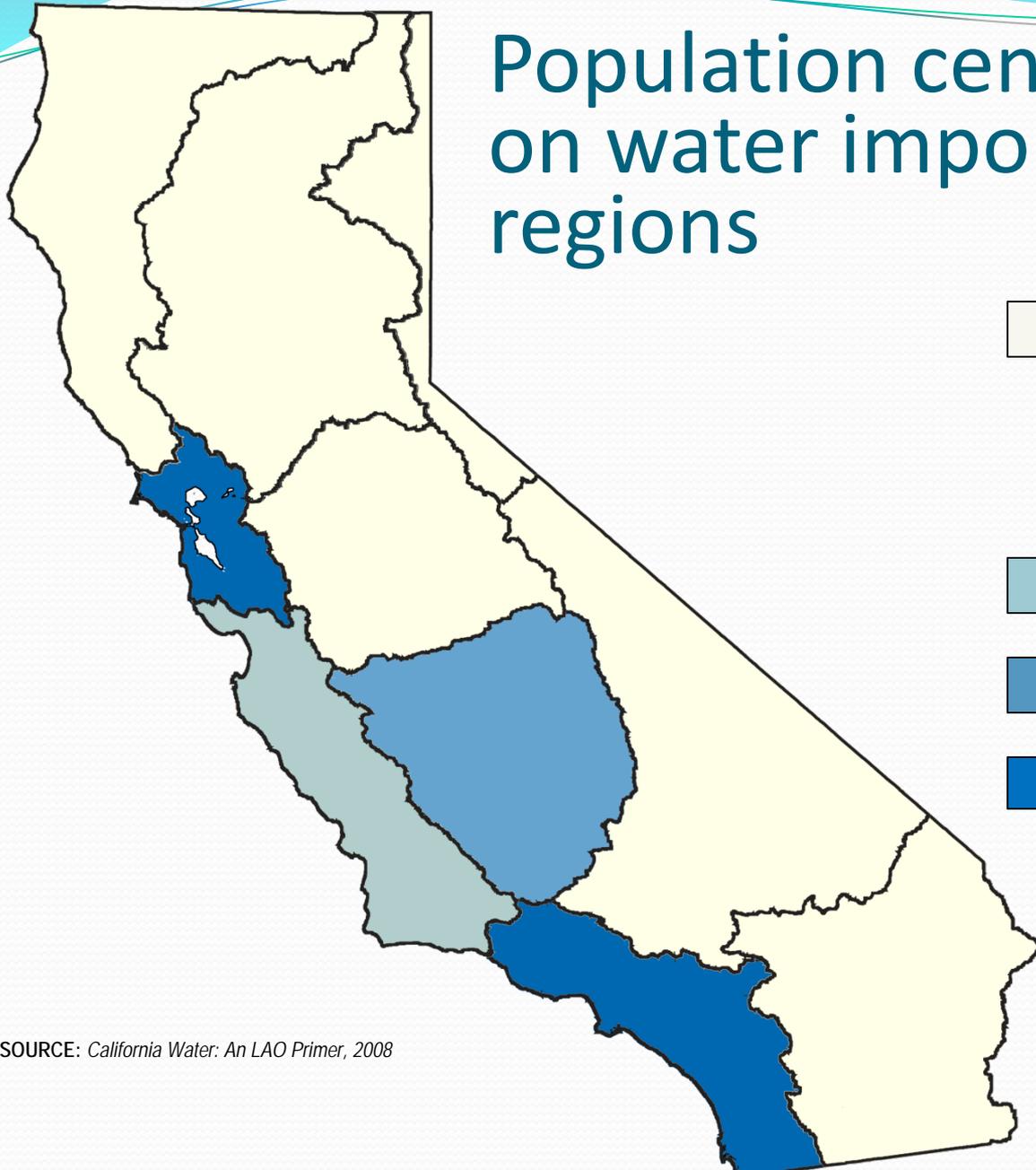


# California Water



Mean annual precipitation in California, 1951 to 1990

# Population centers rely heavily on water imported from other regions



Net Exporters\*

Net Importers

Percent urban & agricultural water use from Imports

Less than 30%

30 to 60%

More than 60%

\* While the Colorado River is a net exporter of water within California, its main source of water is imported from the Upper Colorado Basin

# Imperative to Act

**The *Entire* System –  
water & flood facilities,  
watersheds & ecosystems**

**– has lost resilience and is  
changing in undesirable  
ways.**



# U.S. Army Water Security

- Water management largely compliance-driven
- Less attention directed outward to sustainability of regionally shared water sources
- Long-term water projections currently not factored early into stationing decisions
- Chronic funding constraints means attention to Army-owned and Army-operated infrastructure tends to be reactive
- Long-term investment a challenge

# Army Net Zero

- ENERGY Installation produces as much energy on site as it uses, over the course of a year
- WATER Installation does not deplete ground water and surface water resources in quantity or quality
- WASTE Installation converts waste streams to resource values with zero solid waste to landfill
- INSTALLATION captures and commercializes the resource value and/or enhances the ecological productivity of land, water and air

# International Water Stewardship

- The Alliance for Water Stewardship *International Water Stewardship Standard*
- To support water users in taking appropriate actions to evaluate and improve their impacts on watersheds



# Next Steps for the SWRR

- Continue roundtable outreach
  - Build regional connections
  - Add new private, nonprofit & public sector partners
- Assist agencies in developing programs and in describing the need for programs to collect indicator information
- Develop the SWRR ideas package



# SWRR Ideas Package

- A handbook for sustainable watershed management
- A sustainable watershed index generator
- A framework for indicators in any watershed at any scale by any organization
- An evaluation of water footprint tools to help organizations understand water sustainability
- A web-based inventory of water sustainability indicators to share the best ways to grasp water trends

# Contact Information

## SWRR Co-Chairs

- Rick Swanson, US Forest Service, [rswanson@fs.fed.us](mailto:rswanson@fs.fed.us)
- Robert Wilkinson, Bren School of Environmental Science and Management, University of California, Santa Barbara, [wilkinson@es.ucsb.edu](mailto:wilkinson@es.ucsb.edu)
- John Wells, 651-686-8615, John R. Wells and Associates, [jrwells2411@gmail.com](mailto:jrwells2411@gmail.com)

## SWRR Manager and Facilitator

- David Berry, 703-741-0791, [davidberry@aol.com](mailto:davidberry@aol.com)
- Sustainable Water Resources Roundtable  
<http://acwi.gov/swrr>