

Lessons from Watershed Monitoring: The Southern California Stormwater Monitoring Coalition

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Southern California Coastal Water Research Project

Stormwater Monitoring Coalition

(www.socalsmc.org)

- | **All of the regulatory and regulated urban stormwater agencies in So Cal**
- | **Mission is to provide the unbiased technical information to improve stormwater management**
- | **Collaboratively undertake projects**
 - **Initial project was a 5-year Research Agenda**

SMC Member Agencies

- Ventura Co WPD
- Los Angeles Co FCD
- Orange Co PWD
- Riverside County FCD
- San Bernardino Co FCD
- San Diego Co DEH
- Long Beach City PWD
- Los Angeles City WPD
- CA Dept Transportation
- State Water Resources Control Board
- Regional Water Quality Control Boards
 - Los Angeles
 - Santa Ana
 - San Diego
- US Environmental Protection Agency

The SMC Research Agenda

- | **15 projects that fall into 3 categories**
 - Building an infrastructure for collaboration
 - Mechanisms and processes
 - Receiving water impacts

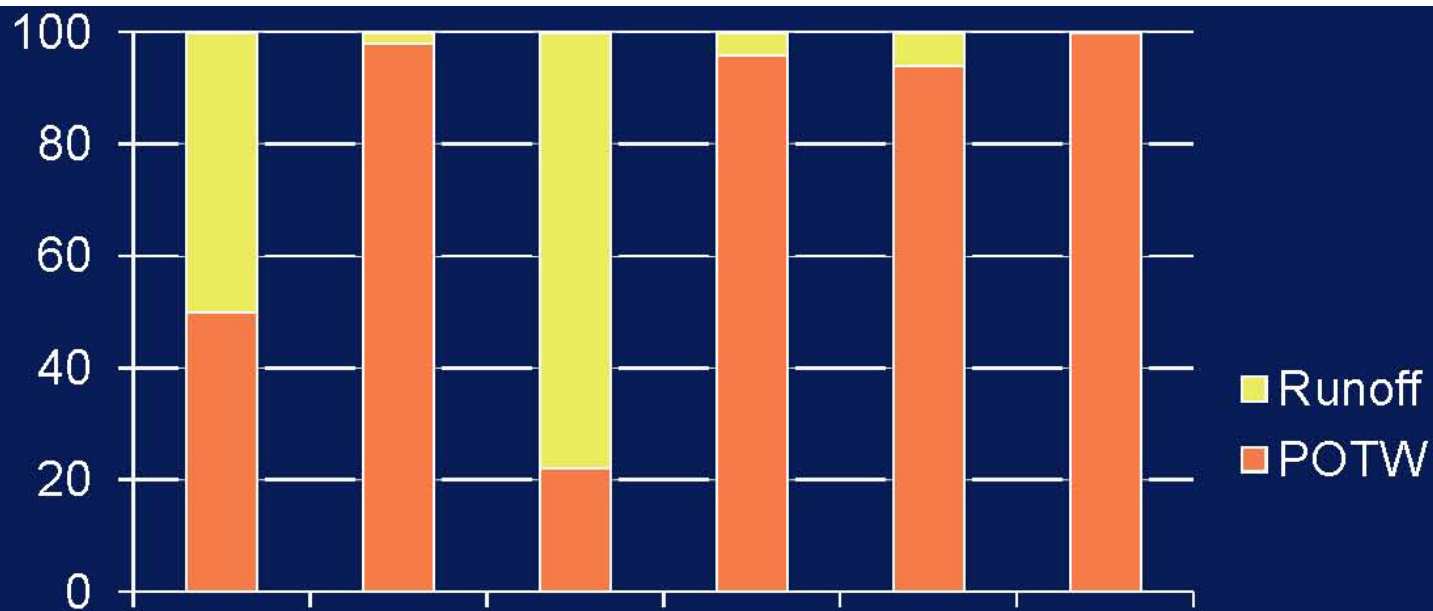
- | **Every project has resulted in some management action**

- | **Provide one example/lesson from each category today**
 - Data integration
 - Hydromodification
 - Regional watershed monitoring

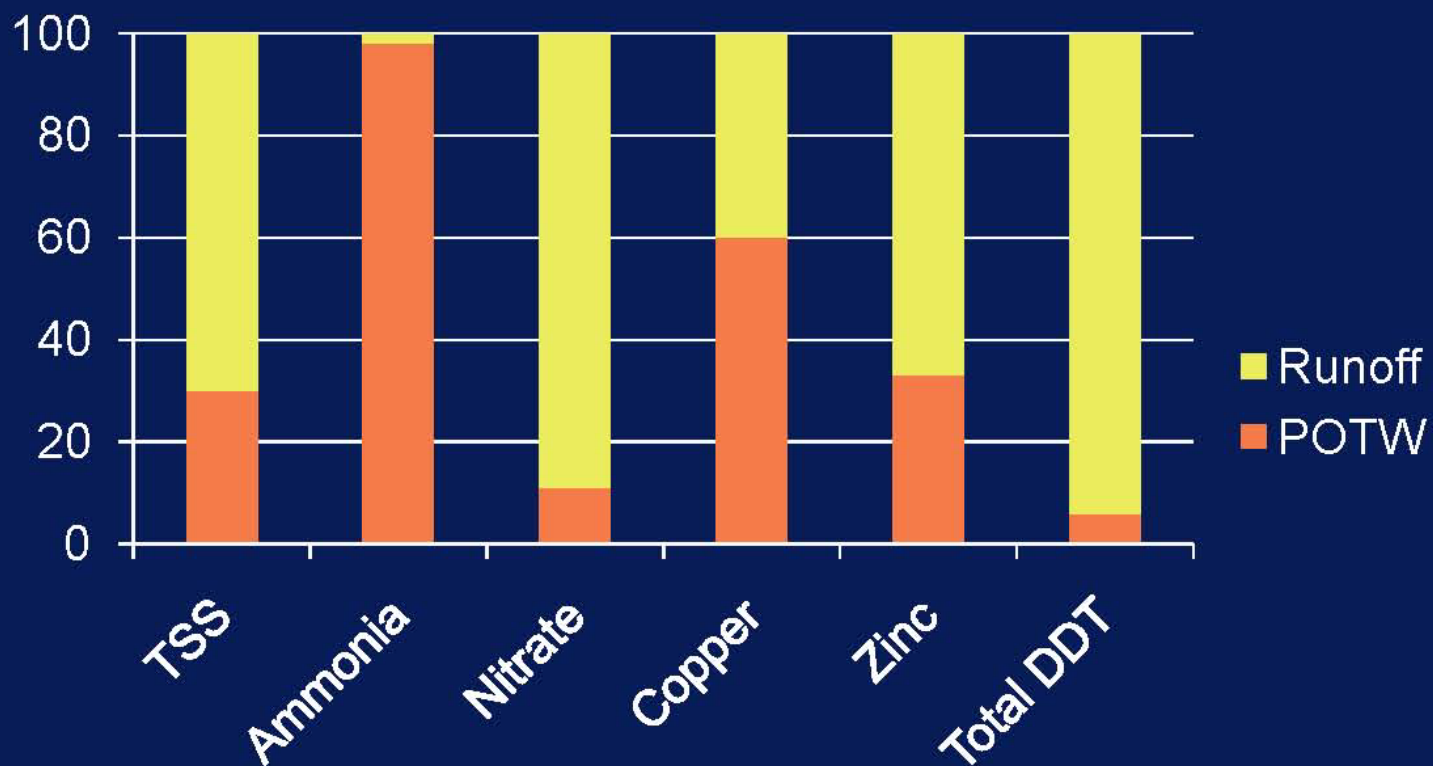
Data Integration for Estimating Loads

- | **Load estimation is an important first step**
 - Helps define how “big” the problem
- | **Over \$31M is spent on monitoring each year in So Cal**
 - A significant portion is NPDES discharge monitoring
- | **SMC goal is collate existing information to help guide new directions**
 - Modeling, source tracking, BMP testing, new constituents

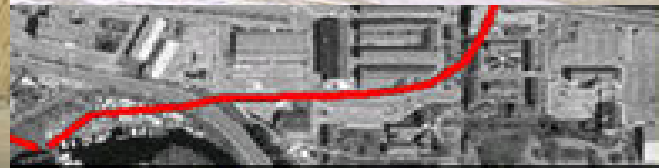
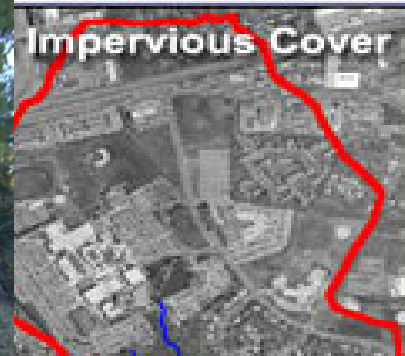
1971 Load (% of total)



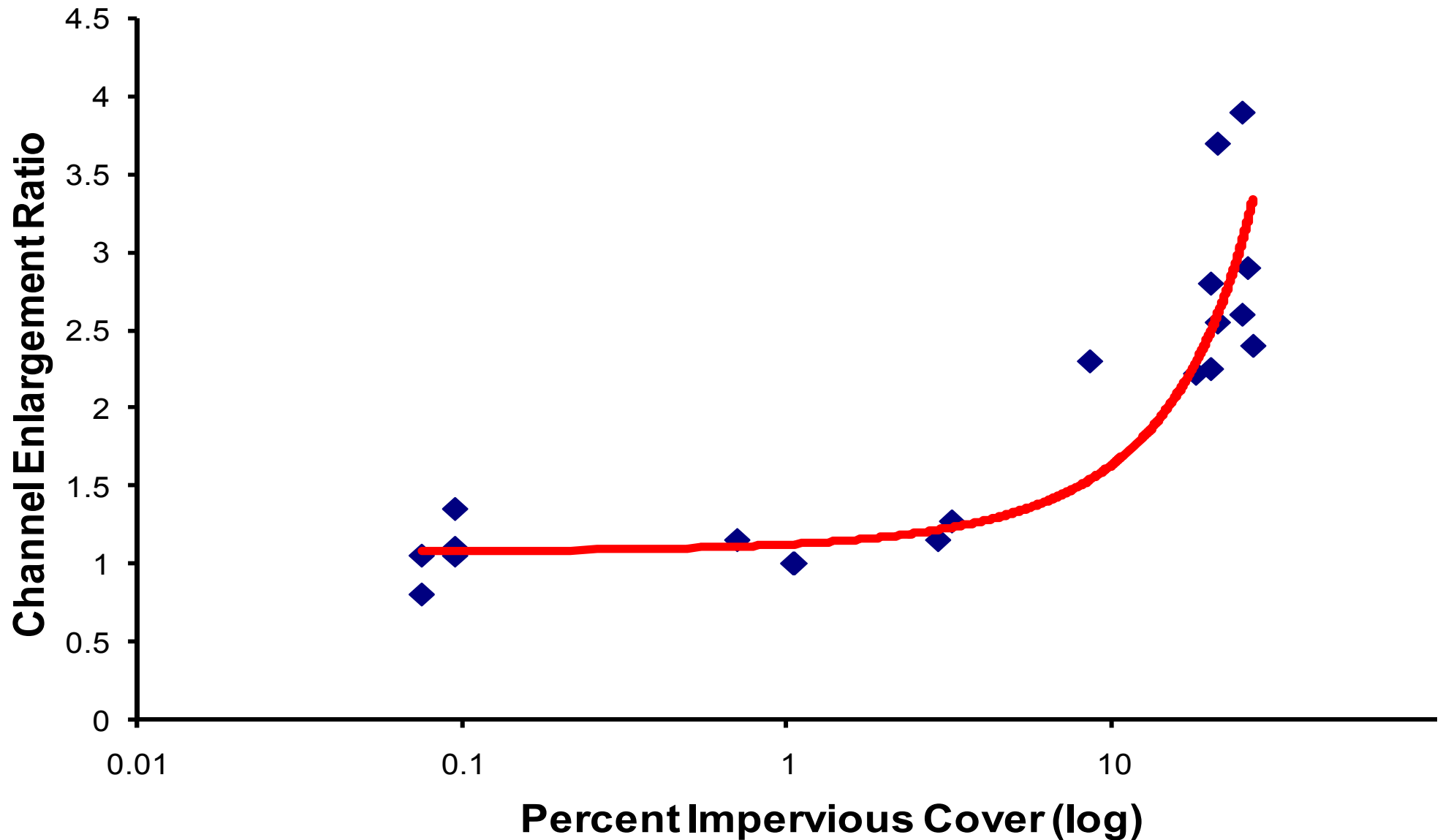
2005 Load (% of total)



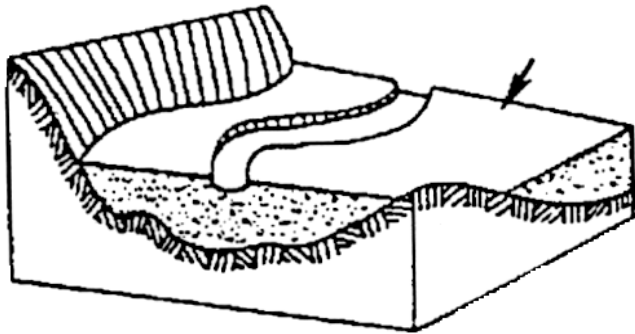
Hydro-modification is A Big Challenge in So Cal



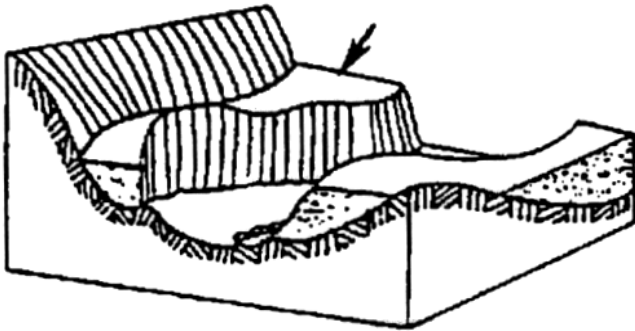
Hydromodification Impacts in Southern California



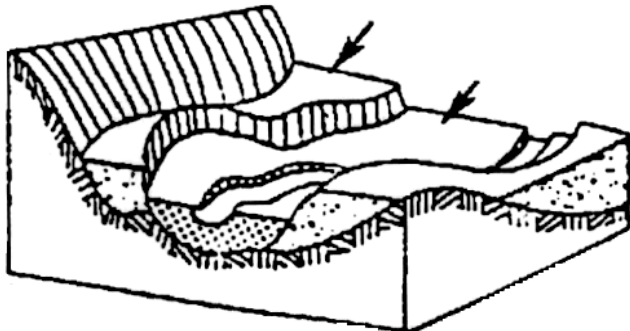
Different Goals for Different Stages



Protect
manage runoff
buffer stream



Restore
stabilize
recontour



Manage for New Condition
alternate stream type

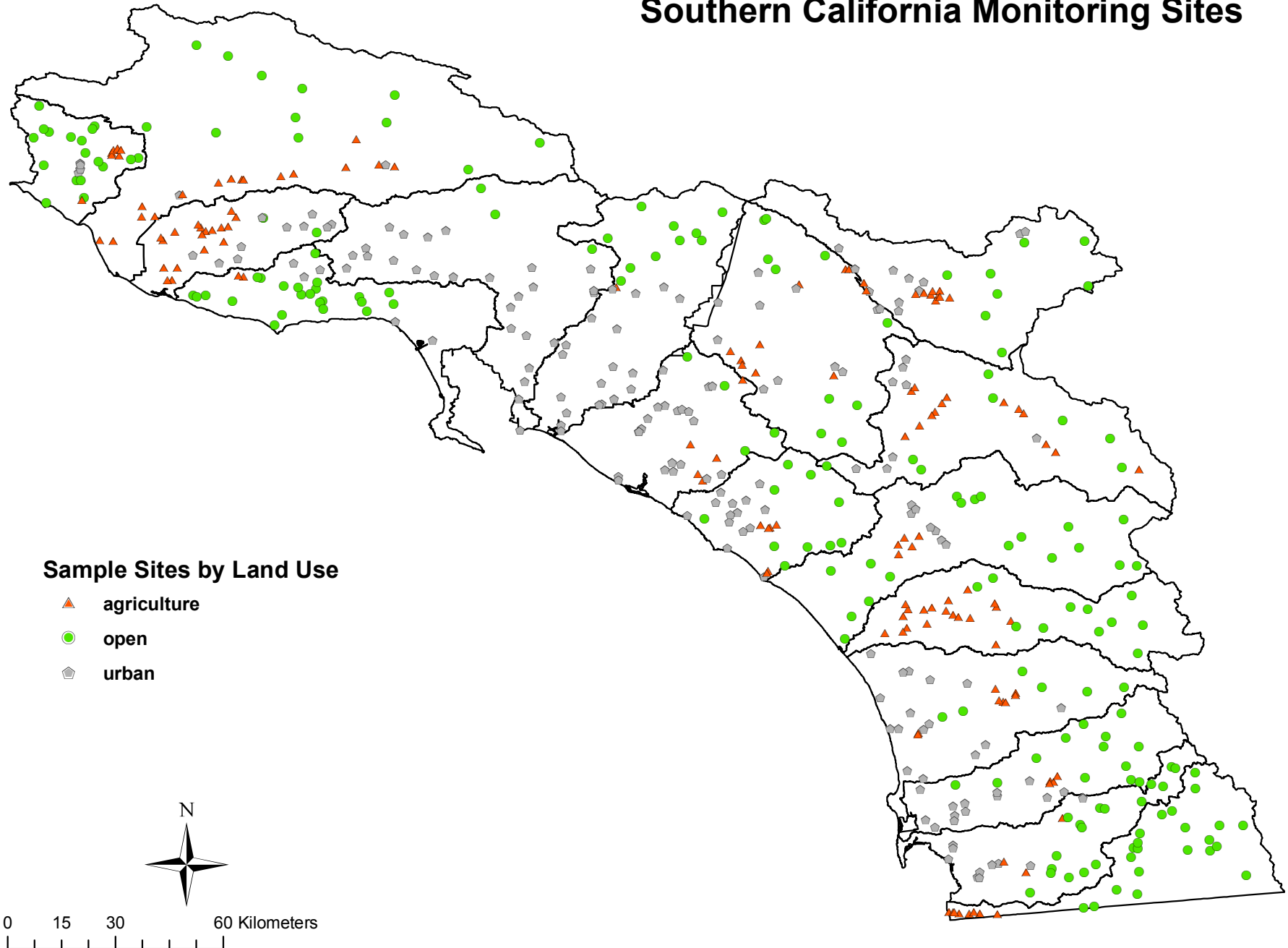
Regionalized Watershed Monitoring Makes Sense

Griffith Park



- | Place your site(s) in context
- | Regional reference condition
- | Help to develop regional assessment tools
- | Improves your agency's capabilities
- | Cost effective

Southern California Monitoring Sites



Biological Integrity

% of stream-miles categorized by
the Southern California
Index of Biotic Integrity

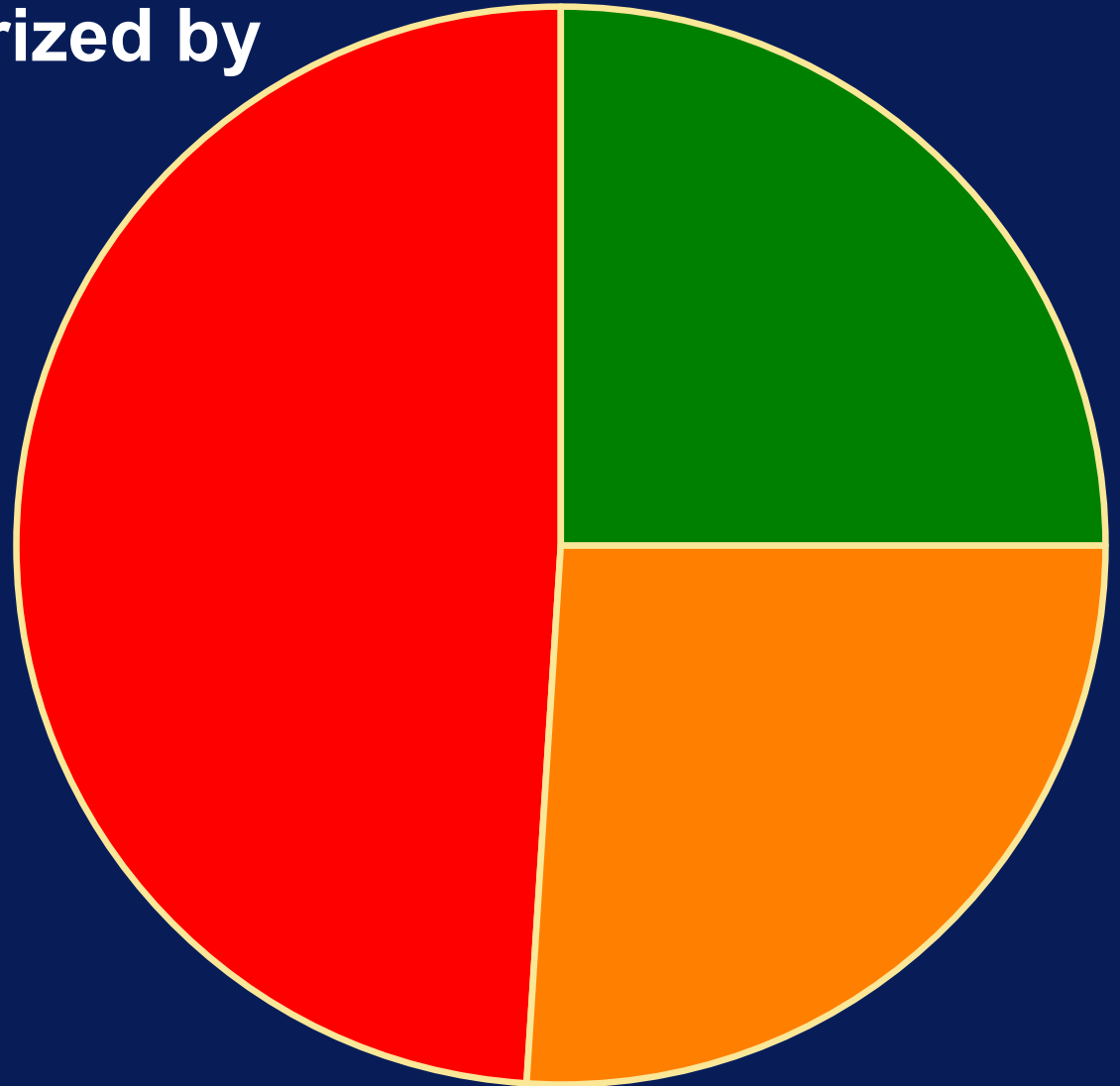


IBI Scored from 0 to 100

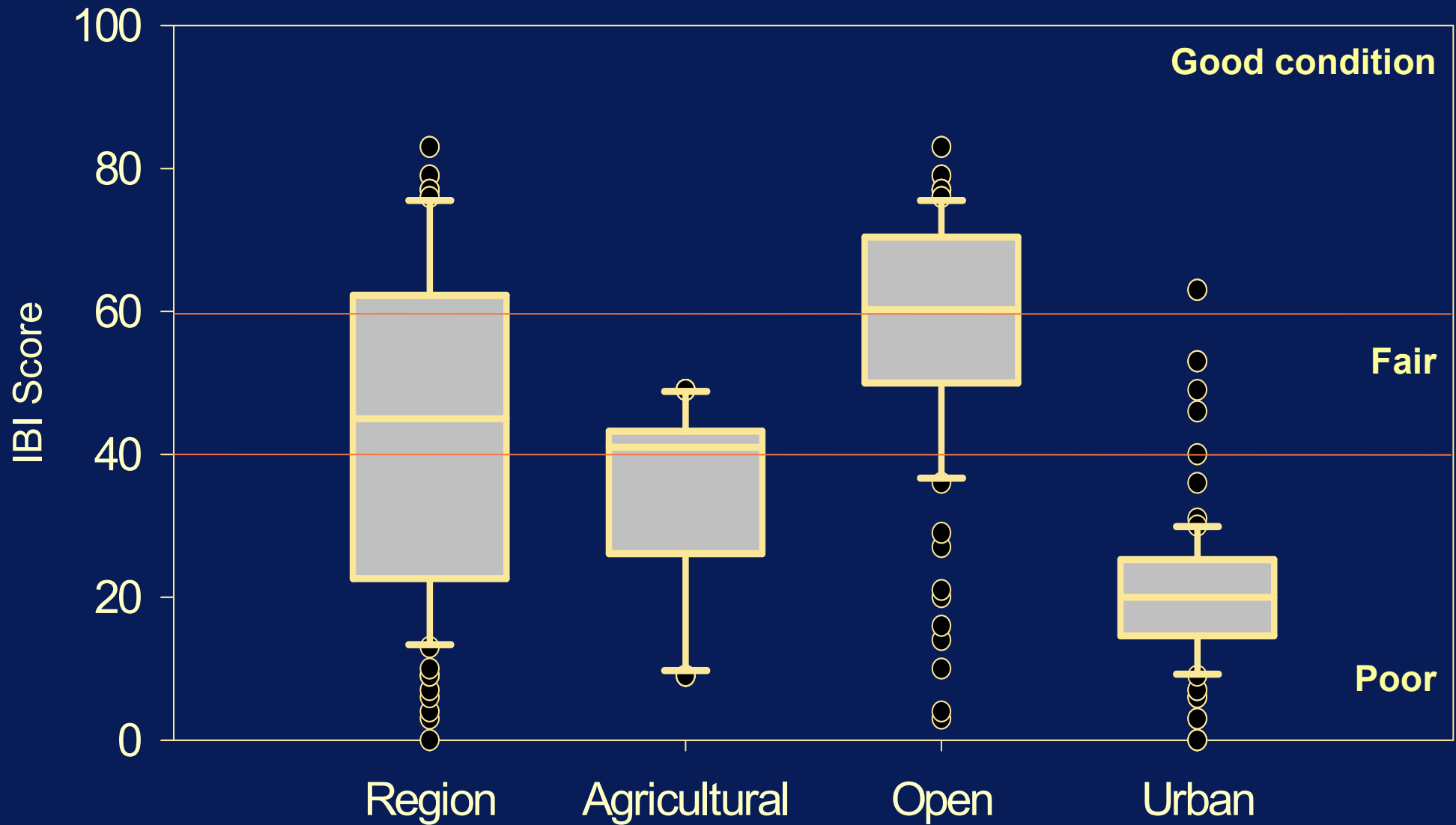
Good: 60-100

Fair: 40-60

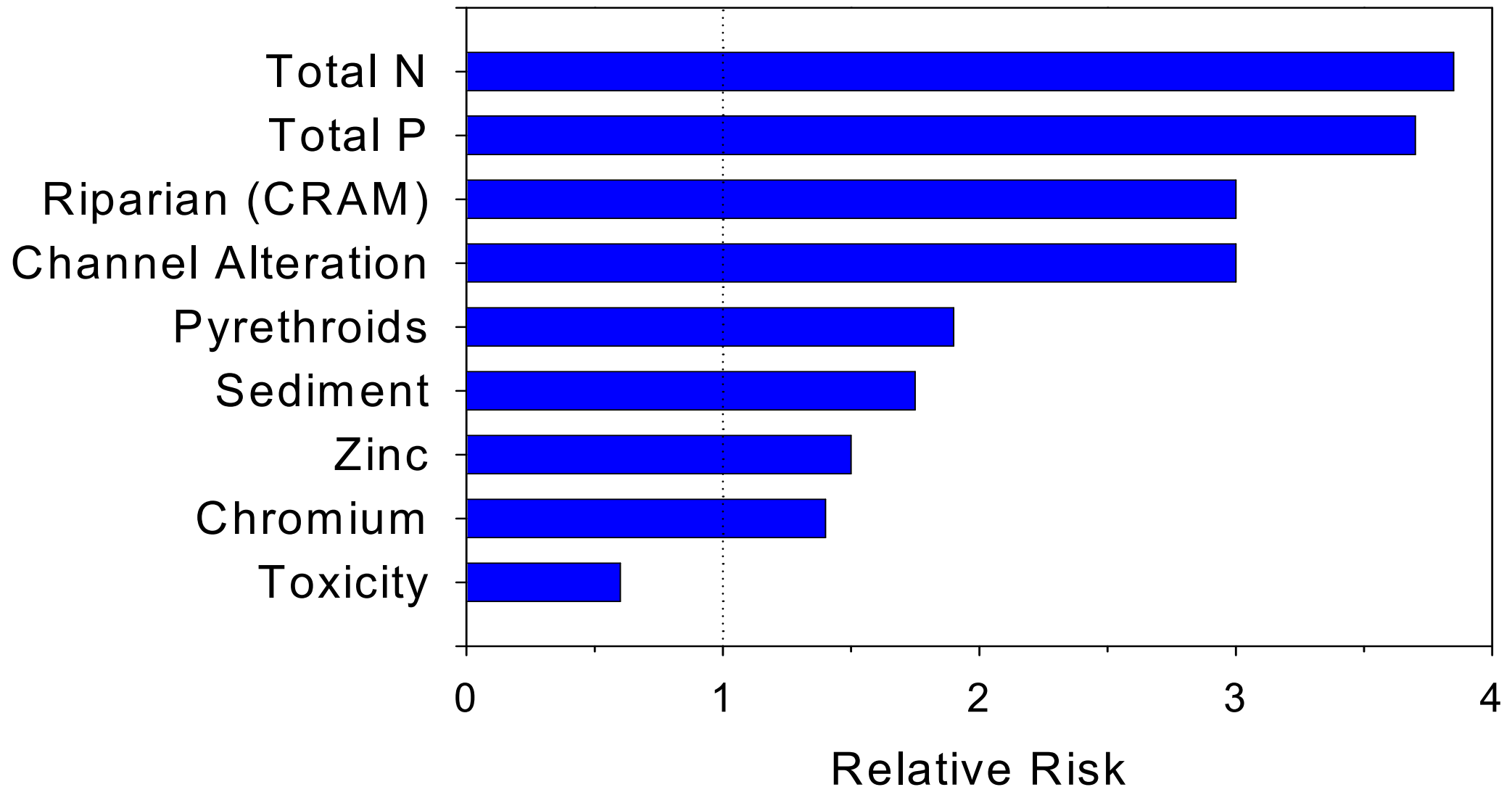
Poor: 0-40



Biological Integrity By Land Use



Biological Stressor Ranking

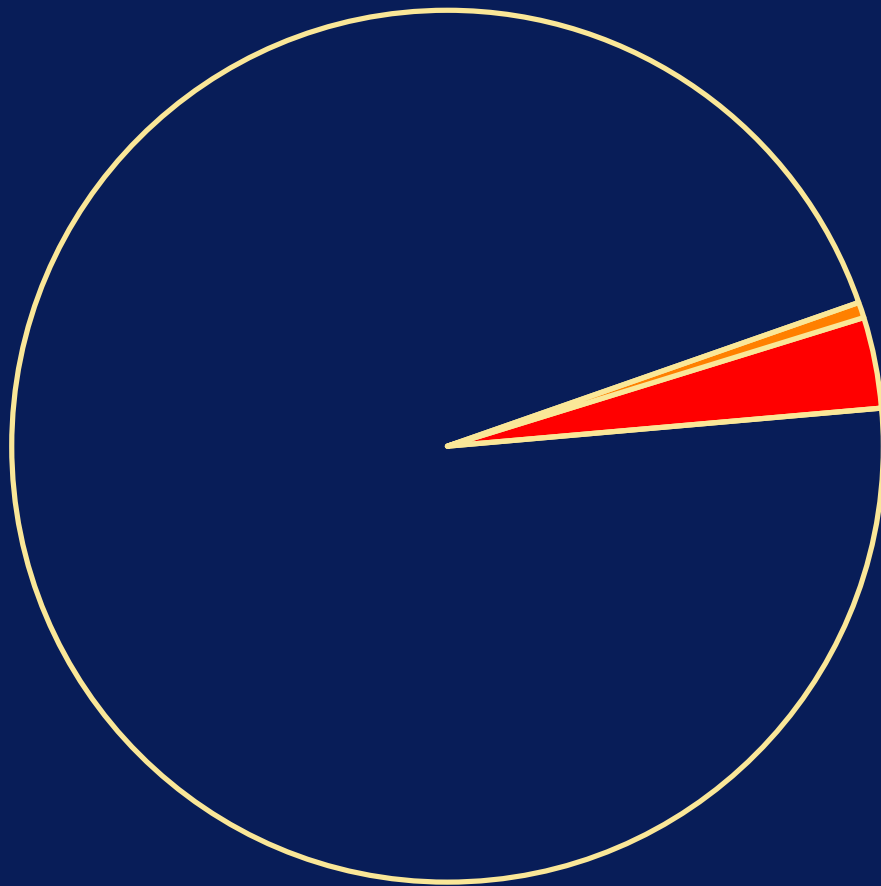


Future Opportunity Exists

- **SMC is preparing a new 5-year Research Agenda**
- **Many of the stormwater issues are not exclusive to So Cal**
- **Frequently partner with non-SMC member agencies**

EXTENT OF WATER CHEMISTRY IMPACTS

Total Copper



4% of stream miles
exceed **chronic** or
acute water quality
criteria

PERCENT OF COMBINED LOAD

