



SONORAN INSTITUTE

# Biological Indicators in the Upper Santa Cruz River Score Card

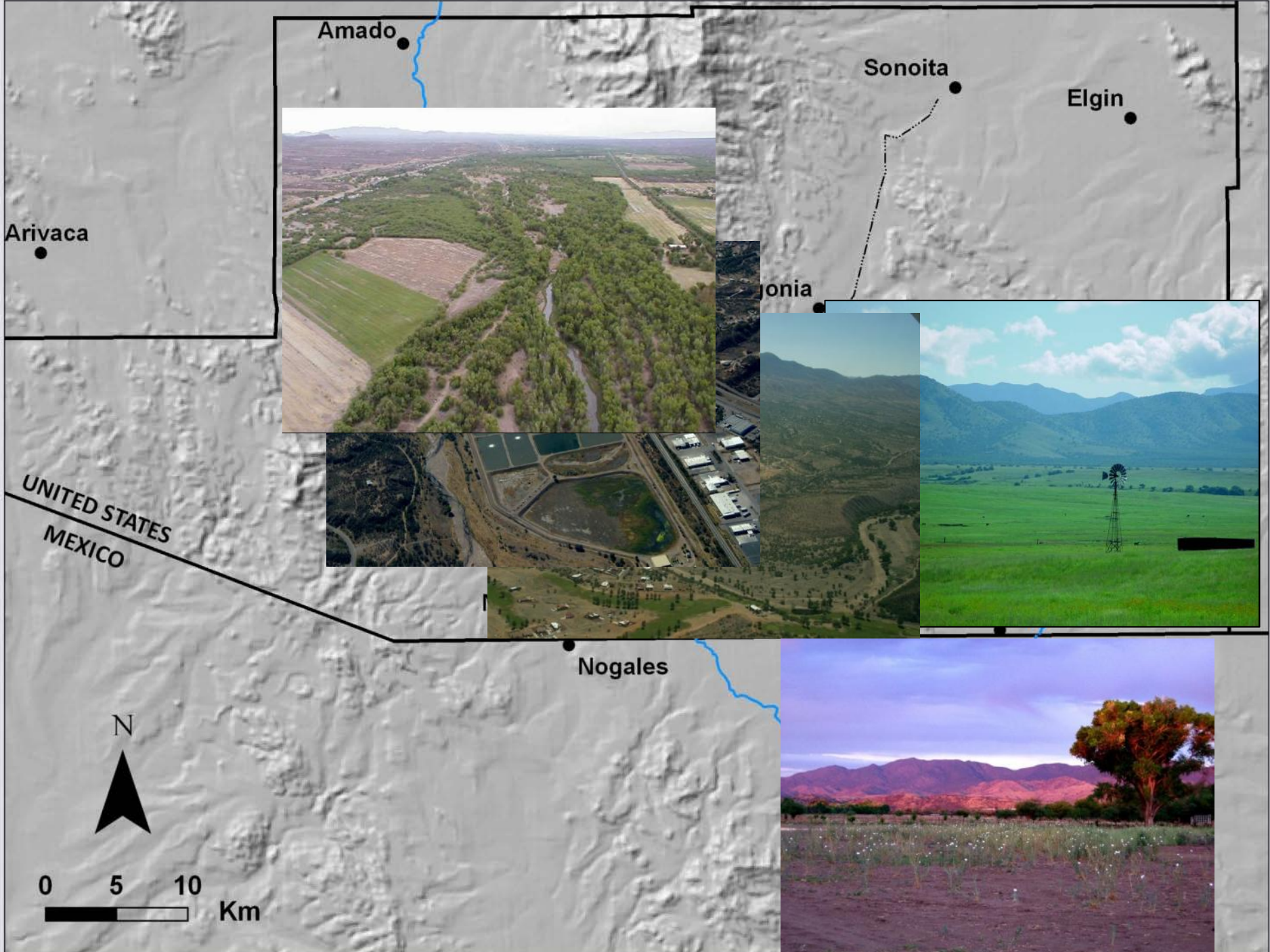
2008 Environmental Information Symposium:  
Transforming Information into Solutions

December 10, 2008  
Phoenix, Arizona

# Overview

- ❖ The Santa Cruz River
- ❖ Santa Cruz score card
- ❖ Bioindicators in score card
- ❖ Bioindicators in other score cards
- ❖ Decision making







# Sonoran Institute's Goal for Community-based Conservation



Promote environmental and economic stability by implementing a variety of conservation strategies that address both ecological and community issues of the Santa Cruz River Watershed.

# Upcoming Publications

## Score Card

- ❖ Annual status of health
- ❖ Geographically detailed
- ❖ Integrates data
- ❖ Educates public & managers
- ❖ Inspires improvements

## State of the Santa Cruz

- ❖ Status and trend over 10 years
  - ❖ Trend of score card indicators
  - ❖ Include additional parameters
- ❖ Integrates ecological data and human activities

# Score Card Development

## Staged Approach

- ❖ Scoping
- ❖ Draft indicators & standards
- ❖ Draft reporting structure
- ❖ Public participation
  - ❖ Science Advisory Council
  - ❖ Project website
  - ❖ Monitoring protocol



# Bioindicator - Fish

- ❖ Number of native species
- ❖ Collaborative monitoring
  - ❖ 4+ agencies & organizations
  - ❖ AZ Game & Fish led fall survey
  - ❖ USFWS surveys
  - ❖ Data sharing



Gila topminnow

# Bioindicator – Macroinvertebrates



- ❖ Baseline data
- ❖ NPS monitoring
  - ❖ 1 effluent site
  - ❖ Data reported to park
- ❖ Sonoran Institute monitoring
  - ❖ 7 potential sites (U.S.)
  - ❖ Working on Mexico sites
  - ❖ Data reported through score card

# Bioindicators in Other Score Cards



# Potential Management & Policy Decisions



Public access to river



Floodplain protection



Infrastructure upgrades



Restoration

# Funding Generously Provided by

- ❖ The Environmental Protection Agency
- ❖ The Giles W. and Elise G. Mead Foundation
- ❖ National Park Service
- ❖ Tohono O'odham Nation

*Thank you*



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