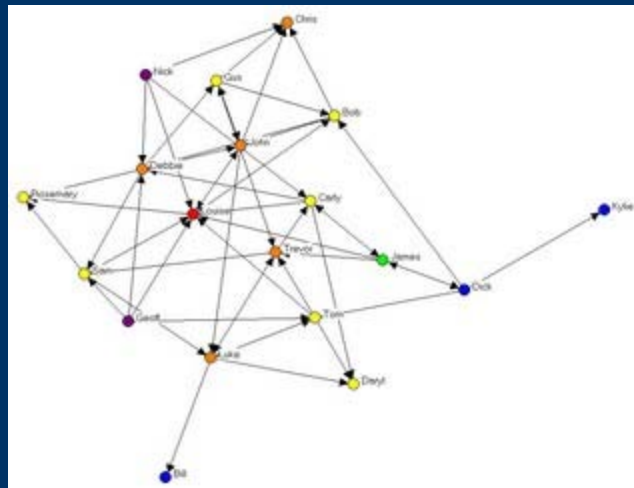


# Social Network Analysis and Evaluation



# What Is Social Network Analysis (SNA)?

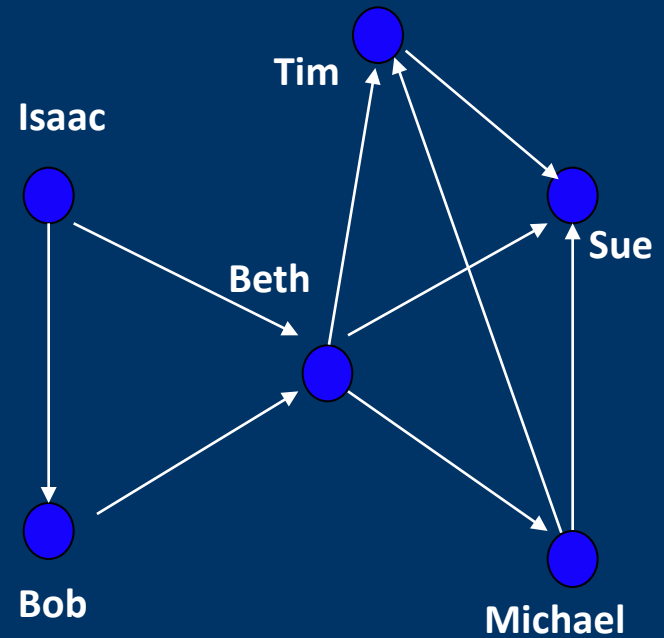
- “Social network analysis is the mapping and measuring of relationships and flows between people, groups, organizations, computers, or other information- and knowledge-processing entities.” *(Valdis Krebs, 2002)*
- Maps the relationships among people in order to identify knowledge flows.
- Provides contrast to the organizational chart.

# What Does SNA Tell Us?

**Relationships are uncovered through questions we ask**

**Network structure is analyzed based on key indicators**

- Direction of information flow
- People who are overly central
- People who are loosely connected and who may be under-utilized
- Divisive subgroups
- Network level of overall connection



- Information or knowledge
- Task flow
- Trust or energy



# Why Use It?

- **Identify individuals playing central roles**
- **Bring in isolated teams or individuals**
- **Detect information bottlenecks**
- **Identify opportunities for improving the flow of knowledge**
- **Accelerate the flow of knowledge and information across functional and organizational boundaries**
- **Improve the effectiveness of formal communication channels**
- **Target opportunities through which increased knowledge flow will have the most impact**
- **Raise awareness of existing informal networks**

# Recognizing What Each Does Best

## “Formal” Characteristics

- Rational
- Hierarchical
- Disciplined
- Clear
- Aligning
- Predictable
- Scalable
- Efficient

## “Informal” Characteristics

- Emotional
- Collaborative
- Spontaneous
- Ambiguous
- Motivating
- Innovative
- Responsive
- Adaptive

# There Are Limitations

**Lack of anonymity is a significant ethical issue**

**Data generated through self report:**

- **Accuracy of informant recall**
- **Potential ambiguity of partnership concepts**
- **Overstatement of connections**

**While describing network links, SNA does not explain why link patterns exist**

**Missing data**

# Lincoln County Conservation Stakeholders Network Study

**Area: 250,000 ha**

**Population: 46,000**

## Goals

Test utility of social network  
analysis for coastal conservation

Identify and engage stakeholders

Allow stakeholders to think of how  
they might enhance their networks





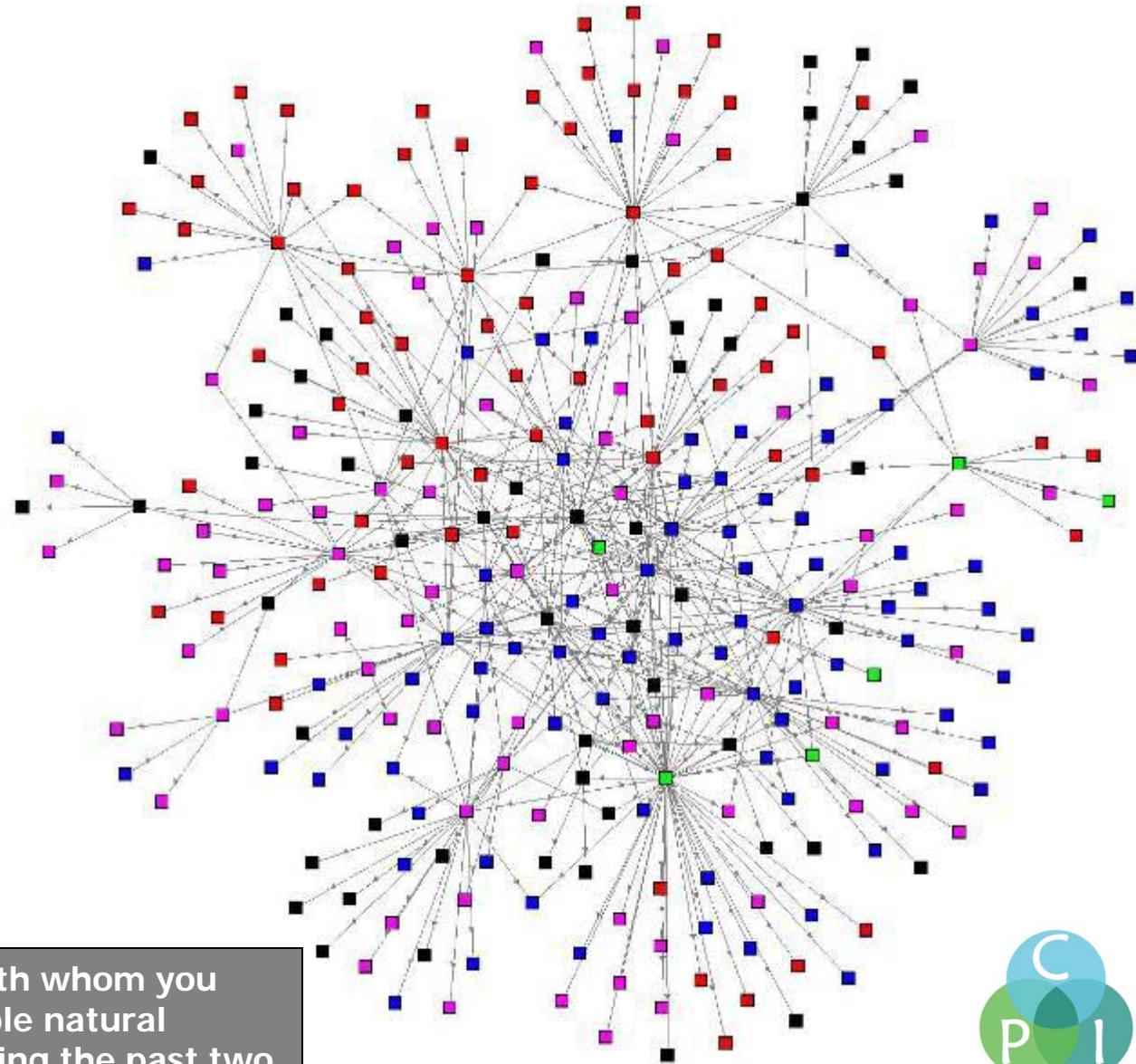
# Survey Questions

- Who are key individuals with whom you have collaborated on sustainable natural resource projects or issues during the past two years.
- Who are most critical to the success of policy initiatives?
- Who do you look to for new or innovative ideas?



**47 respondents named 399 others.  
446 total in network, >1100 ties.**

# Collaboration Network



## Focal Ecosystem

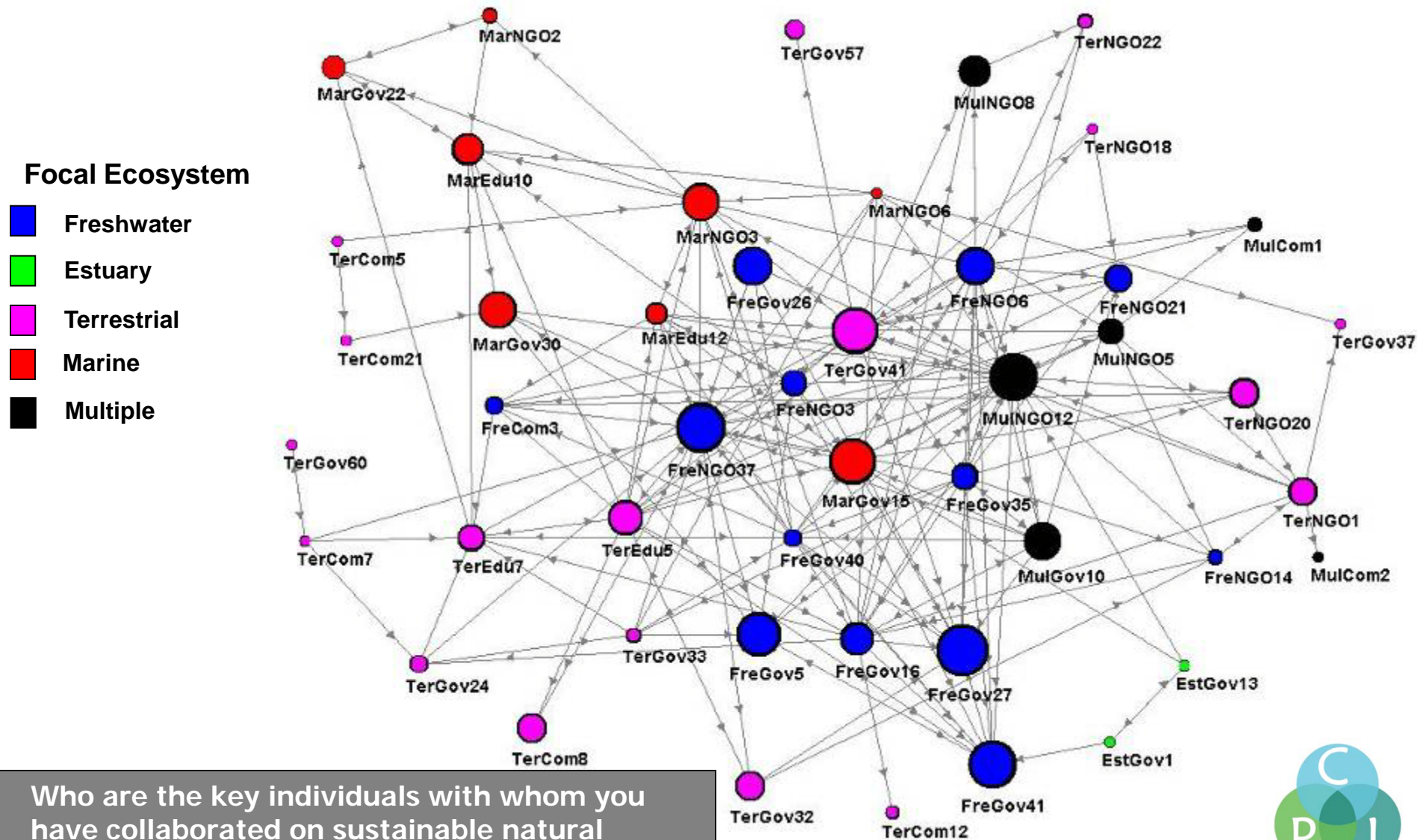
- Freshwater
- Estuary
- Terrestrial
- Marine
- Multiple

Who are the key individuals with whom you have collaborated on sustainable natural resource projects or issues during the past two years?

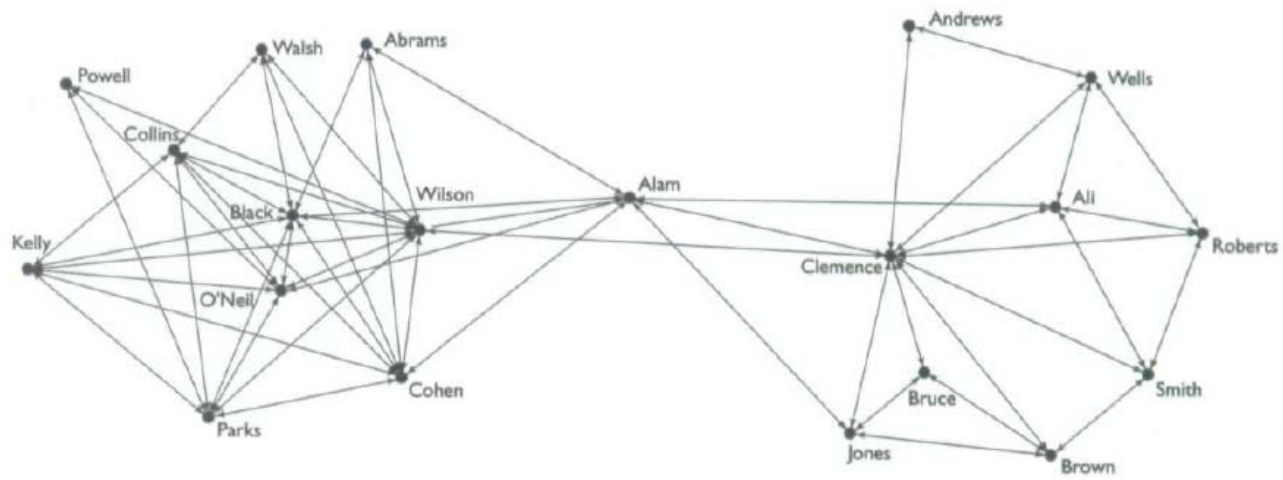


the Conservation  
Planning Institute

# Collaboration Network: In Degree

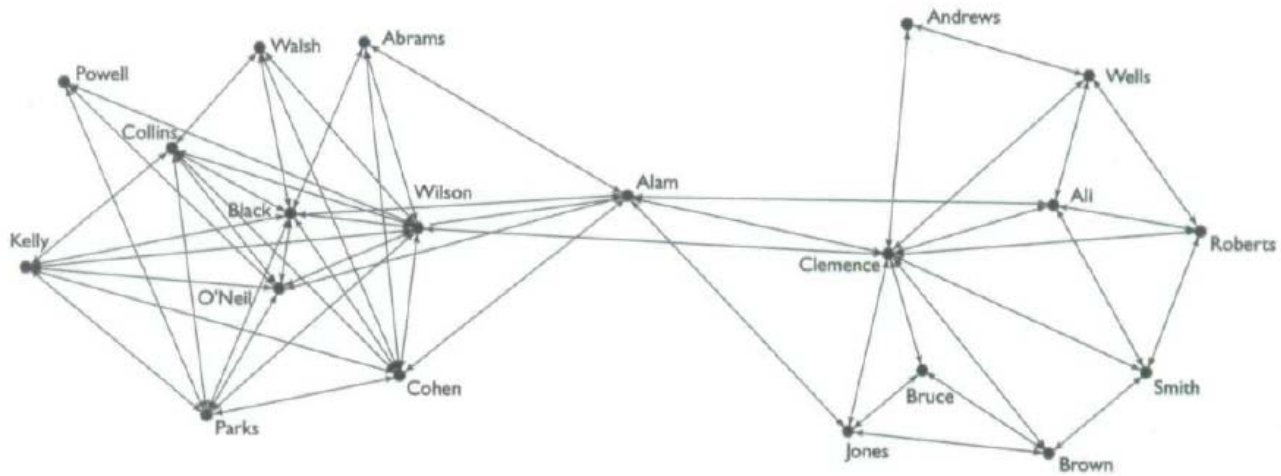


## Pre-Intervention

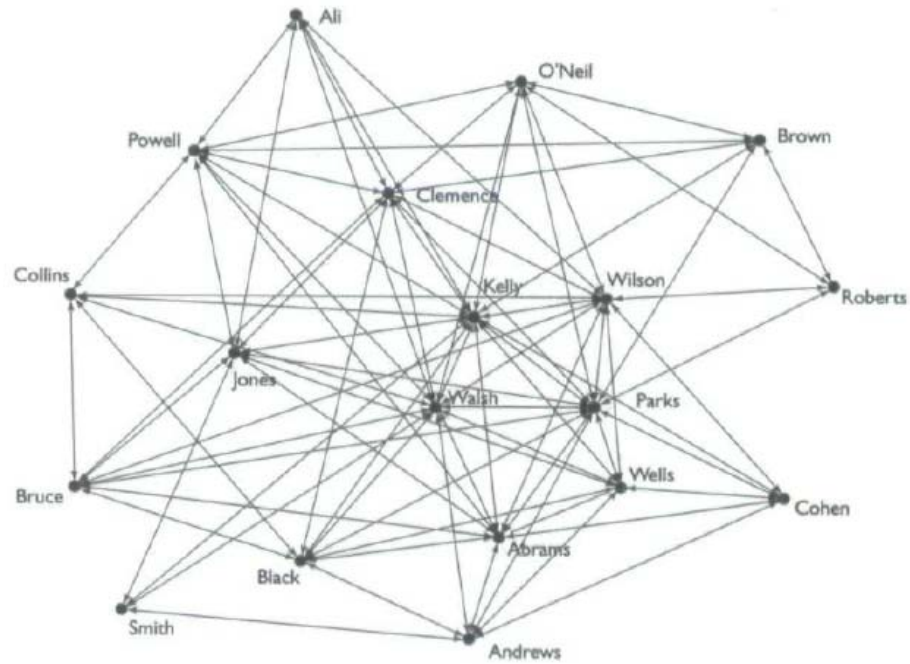


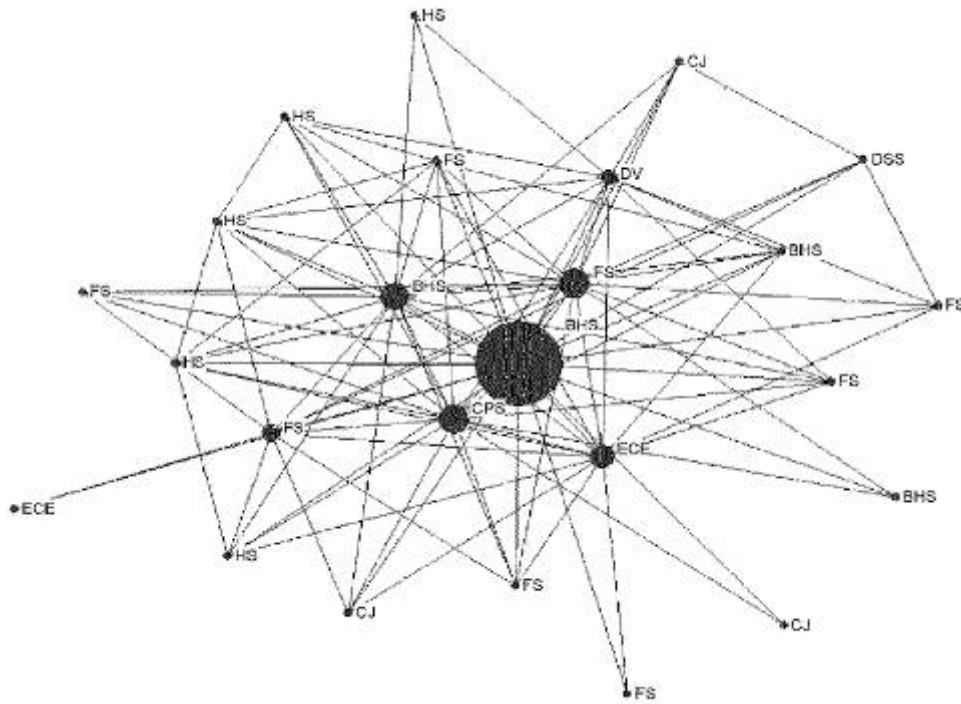


## Pre-Intervention

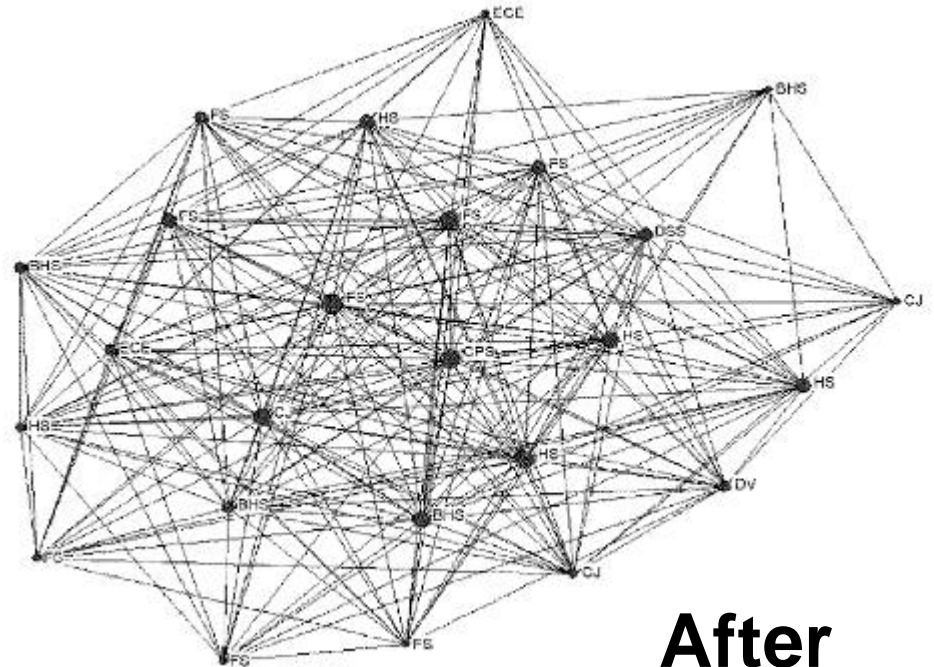


## Post-Intervention (Nine Months Later)





**Before**



**After**

# **Application: Post-hoc Analysis**

**Wisconsin-based Cooperative Conservation Initiative**

**Intention: use CSP as catalyst for coordination**

**Two-year discussion/interaction, then disband**

**Post-mortem: interviews with key actors**

- **several positive outcomes**
- **several functional challenges**
- **increased connections for participants**
- **connections did not expand into organizations**

# **Application: Capacity Assessment**

**Watershed management – water quality restoration & protection**

**Intention: assess “policy” network to enhance capacity**

**Approach: interviews and survey – conservation professionals**

## **Questions**

- **who connecting with water quality stakeholders**
- **what services providing**
- **what service receiving**

**Preliminary Findings: key nodes overloaded; others absent**



**Questions/Comments**