

# Independent Scientific Input for Natural Community Conservation Planning



California  
Department of  
Fish and Game





# NCCP Act

requires independent scientific input on...

- Conservation strategies
- Reserve design principles
- Monitoring and adaptive management
- Data gaps and uncertainties

# Purpose

- ◆ Technical Success
- ◆ Public credibility
- ◆ Legal defensibility





# Key Concepts from the NCCPA

- ◆ Best Available Scientific Information
- ◆ Independent Scientific Input



# Best Available Scientific Information (obtained by scientific method)

- ◆ Valid methodology
- ◆ Quantitative analysis
- ◆ Logical conclusions
- ◆ Proper context
- ◆ Credible references
- ◆ Anonymous peer review

# What is “independent”?

- ◆ Qualified experts who are independent from:
  - Lead agencies
  - Consultants
  - Permitting agencies
  - Stakeholders
  - the collection of preliminary data.



# Independent scientific input for NCCPs is the same, but different...

- ◆ Recognized experts
- ◆ Foundational principles, not terminal review
- ◆ Advice is used by all parties



# Science Advisors

- ◆ Conservation biologists and landscape ecologists
- ◆ Species/habitats experts
- ◆ Experts on ecological processes
- ◆ Balanced range of technically legitimate perspectives







# Mechanics of NCCP Scientific Input

- ◆ Scope of work
- ◆ Professional facilitator
- ◆ Invitation of advisors
- ◆ Lead scientist
- ◆ Two-day workshop (field trip?)
- ◆ Written report
- ◆ Possible other requests for assistance

# Types of Advisor Recommendations

## ◆ “Tools not Rules”

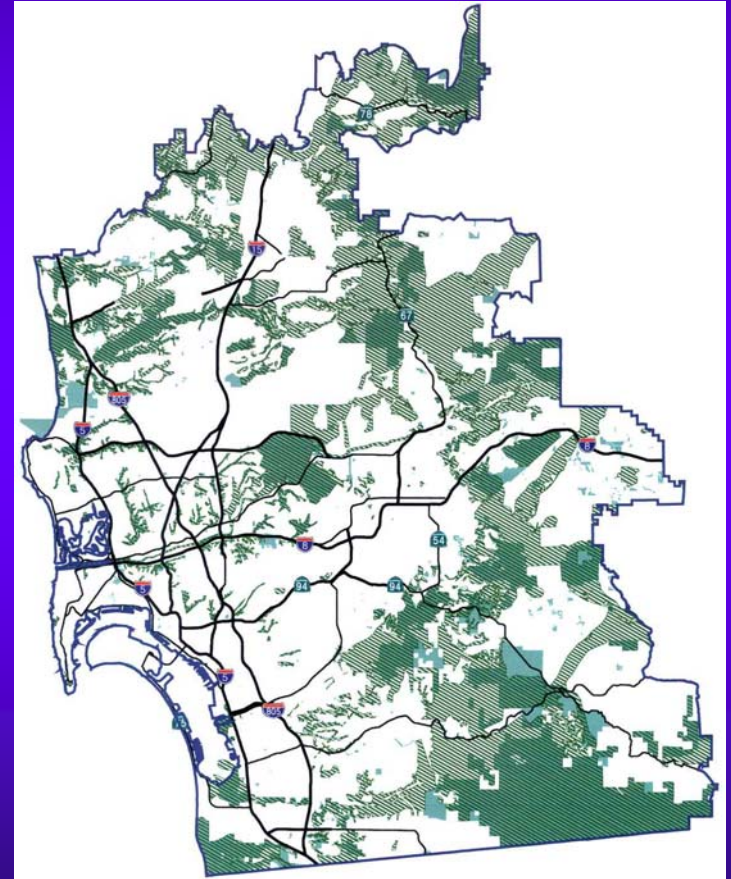
- Conceptual
- Technical
- Applied



# Examples of Useful Advisor Recommendations

## ◆ Conceptual

- Geographic scope of planning area
- Ecosystem models
- Landscape-level conservation principles
- Locally-relevant reserve design principles



San Diego MSCP Reserve

# Examples of Useful Advisor Recommendations (cont'd.)

## ◆ Technical information

- Mapping methodology
- Species and community distributions
- Species-habitat relationships
- Natural disturbance regimes
- Critical ecological processes

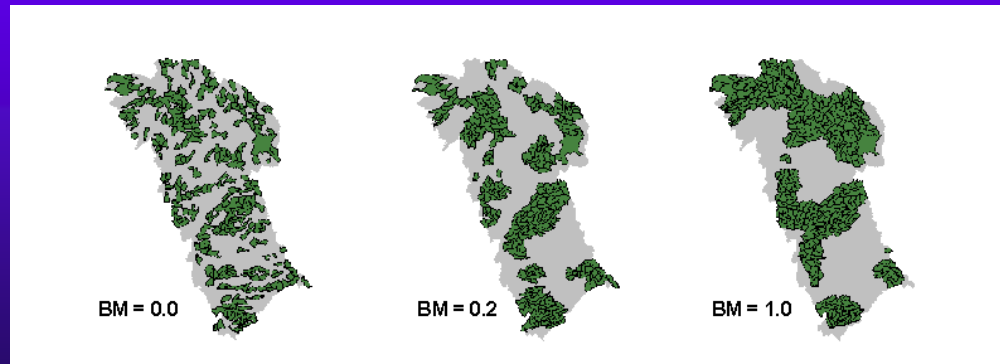


Maintain sand delivery system  
in Coachella Valley

# Examples of Useful Advisor Recommendations (cont'd.)

## ◆ Applications

- Habitat Evaluation Model
- Monitoring program
- Adaptive management
- Levels of risk
- SITES model



# Lessons Learned

- ◆ Scientific input is not free
- ◆ Get scientific advice early
- ◆ Let advisors work in private
- ◆ Focus the advisors with questions
- ◆ Use their advice



# For more information on...

- ◆ NCCP program and plans
- ◆ NCCP science advisor reports
- ◆ Guidance on NCCP science process

[www.dfg.ca.gov/nccp/](http://www.dfg.ca.gov/nccp/)