

THE COLORADO RIVER

Human Development and Competing Environmental Needs

Human Development of the Colorado River

- Water supply for more than 30 million people
- Water for 3.7 million acres of irrigated agriculture
- Hydroelectric power produced for major cities throughout the southwestern U.S.

Colorado River Compact Allocations

Upper Basin – 7.5 MAF

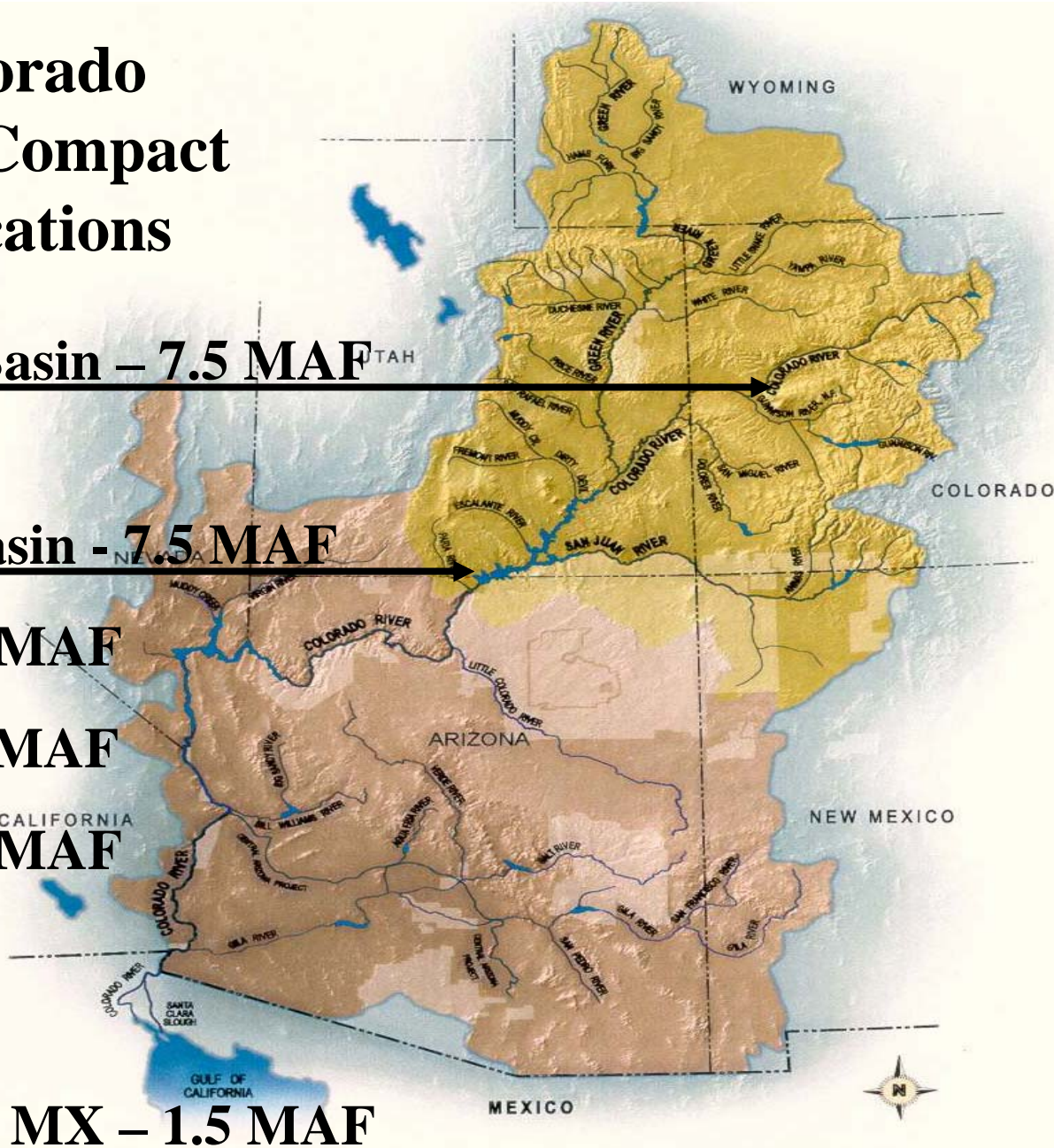
Lower Basin - 7.5 MAF

CA – 4.4 MAF

AZ – 2.8 MAF

NV – 0.3 MAF

MX – 1.5 MAF



Environmental Issues

- Over-allocation
- Channel Forming Processes
 - Backwaters
 - Renewed Riparian Habitat
- Salinity
- Competition and Predation by Non-native Species

Environmental Issues

- Declining populations of native plants and animals
 - Threatened and Endangered Species
 - Southwestern willow flycatcher
 - Yuma clapper rail
 - Colorado pikeminnow
 - Humpback chub
 - Bonytail chub
 - Razorback sucker

Environmental Restoration

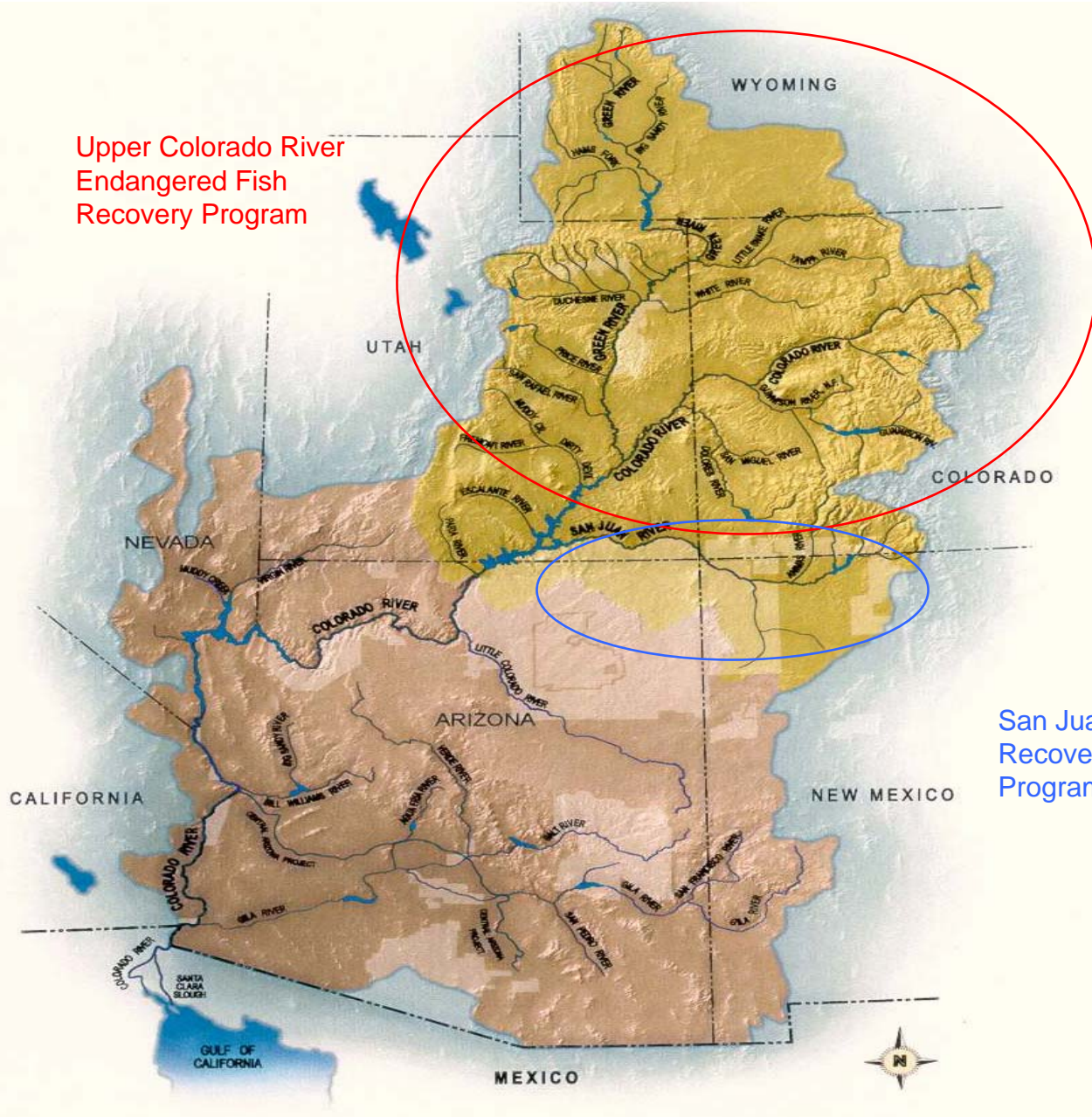
Factors Driving Restoration Efforts:

- Compliance
 - NEPA
 - Endangered Species Act
- Economic Development
- Recreation/Tourism

Environmental Restoration Efforts

- Upper Colorado River Endangered Fish Recovery Program
- Lower Colorado River Multi-Species Conservation Program
- Salton Sea
- Mexican Delta

Upper Colorado River
Endangered Fish
Recovery Program



San Juan Basin
Recovery Implementation
Program

Program Participants/Funding Entities

- Upper Colorado River Program

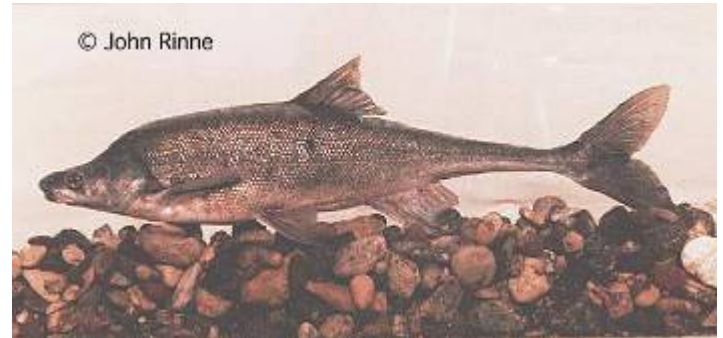
- CREDA
- Land & Water Fund of the Rockies
- State of Colorado
- State of Wyoming
- The Nature Conservancy
- U.S. Fish & Wildlife Service
- WAPA
- Colorado Water Congress
- State of Utah
- National Park Service
- U.S. Bureau of Reclamation
- Utah Water Users Association
- Wyoming Water Association

Program Participants/Funding Entities

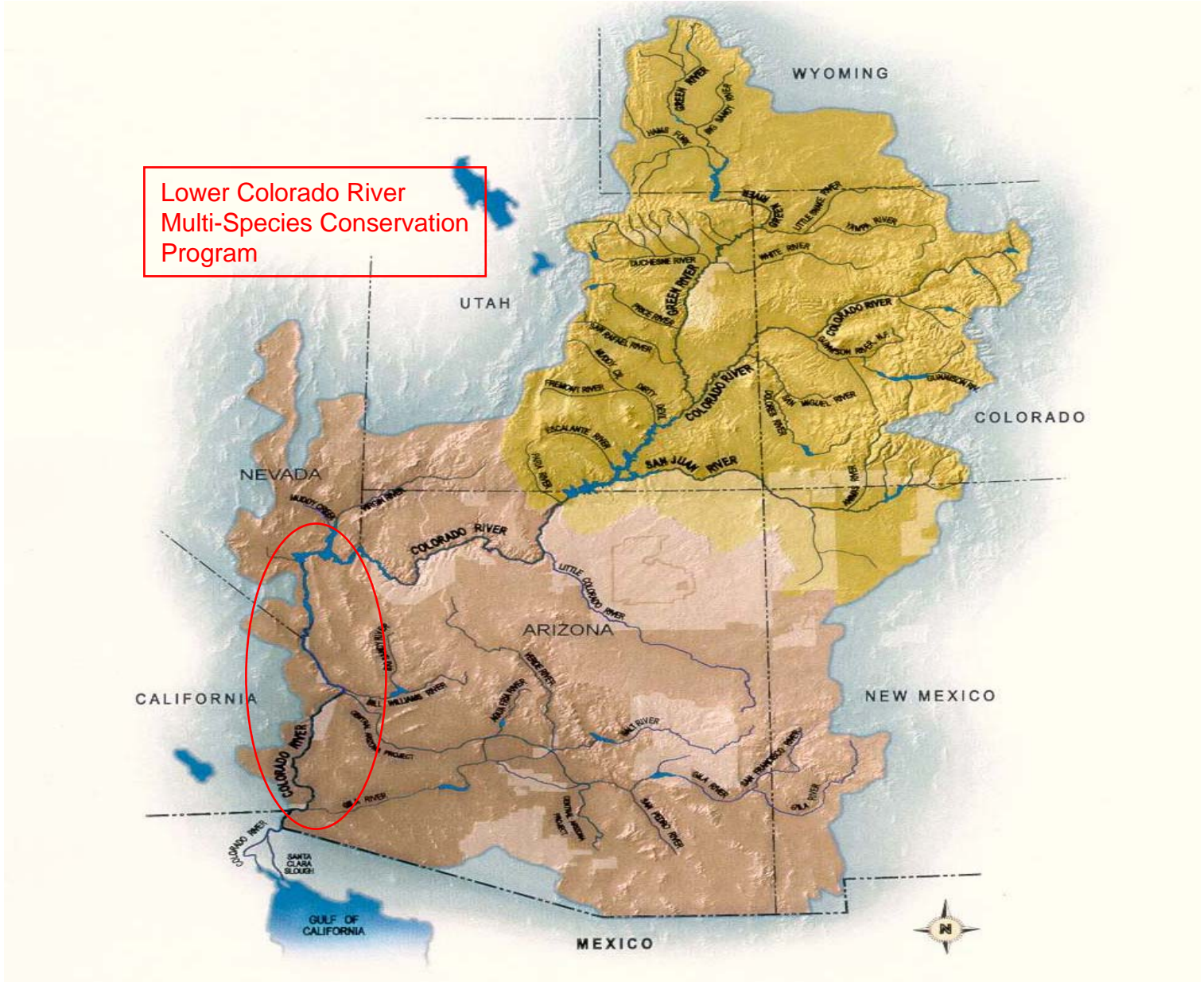
- San Juan River Basin Recovery Implementation Program

- Jicarilla Apache Nation
- Southern Ute Indian Tribe
- State of Colorado
- U.S. Bureau of Indian Affairs
- U.S. Bureau of Land Management
- U.S. Fish & Wildlife Service
- Navajo Nation
- Ute Mountain Ute Tribe
- State of New Mexico
- U.S. Bureau of Reclamation
- Water development interests

Upper Colorado River Endangered Fish Recovery Program



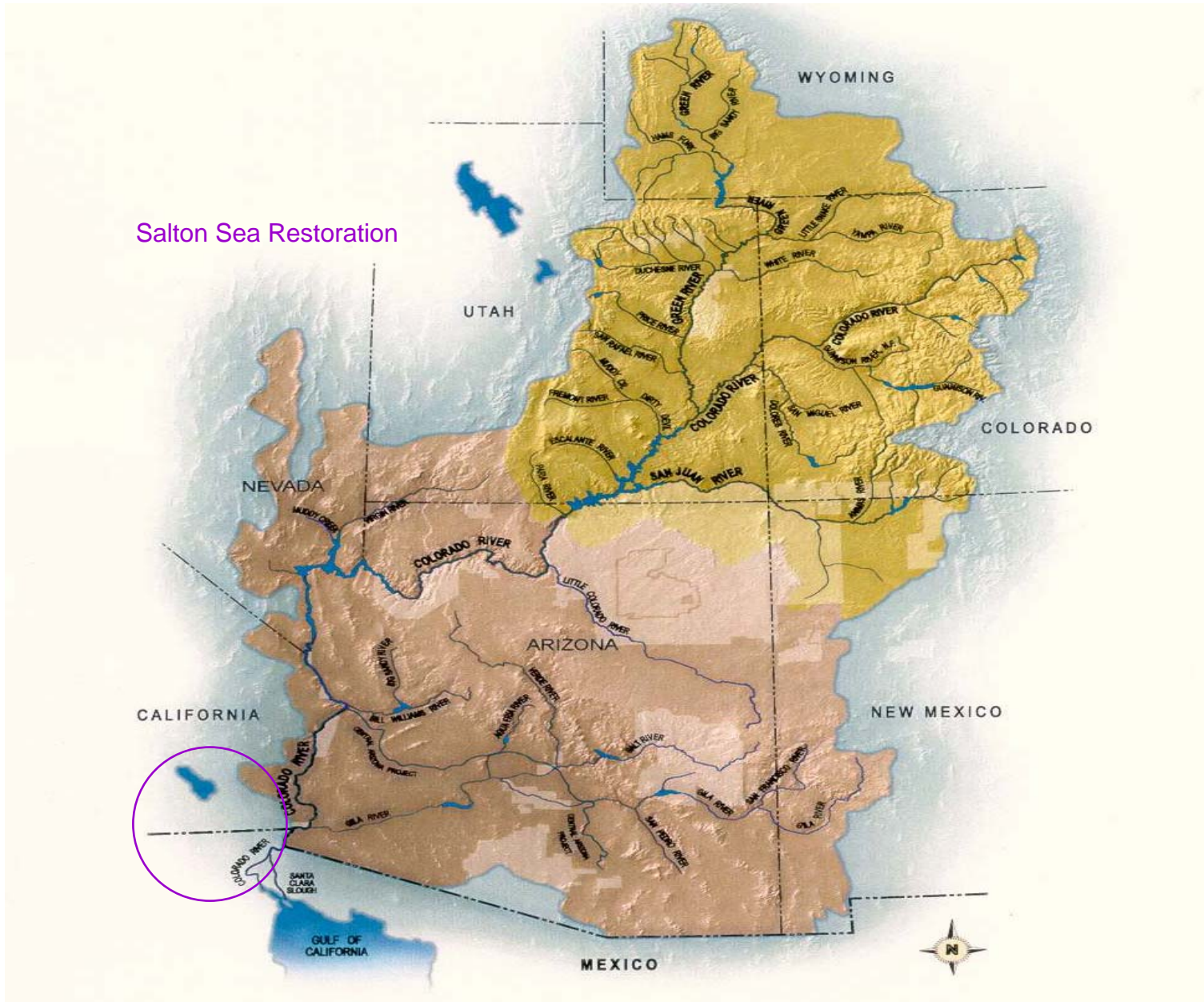
Lower Colorado River
Multi-Species Conservation
Program



MSCP



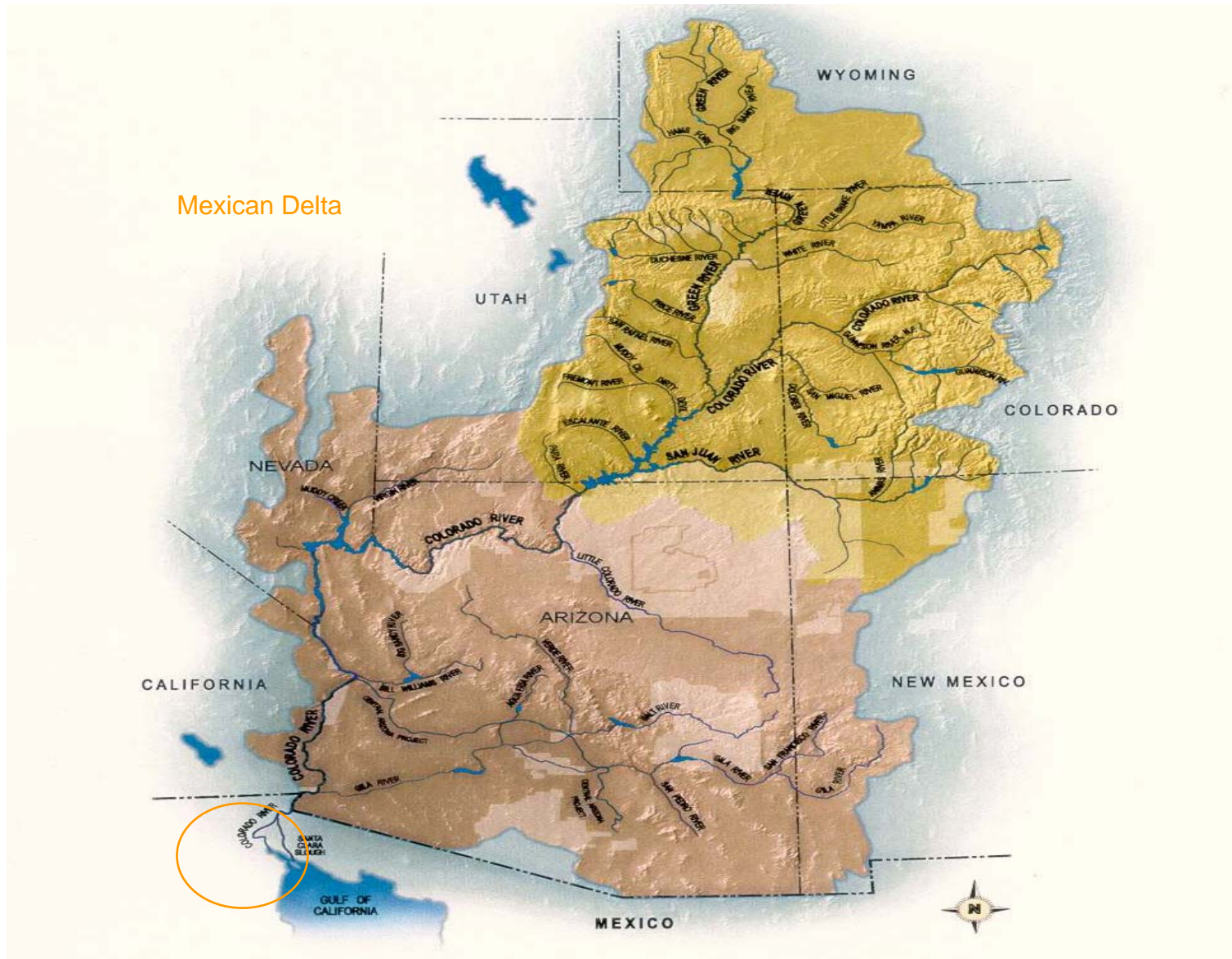
Salton Sea Restoration



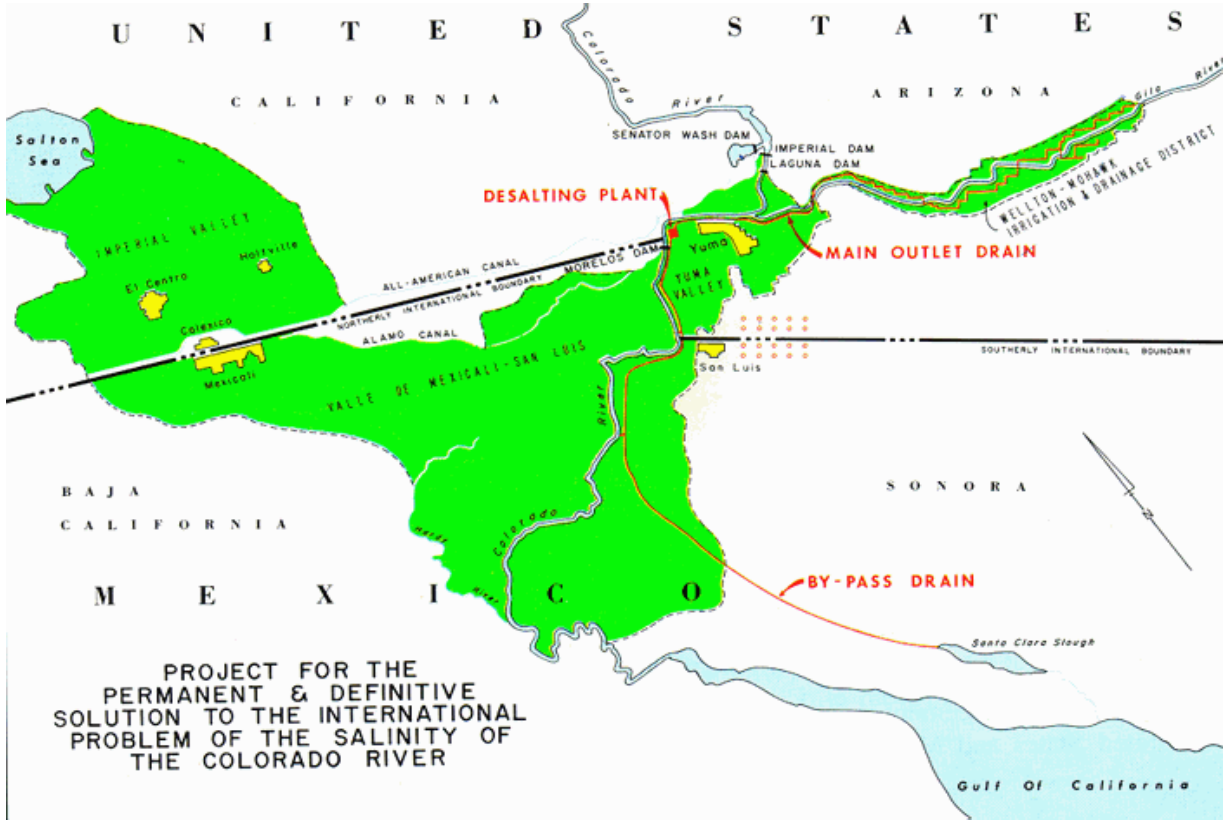
Salton Sea



Mexican Delta



Mexican Delta



Conclusion

- NEPA and the ESA
- Feasibility
- Cost/Benefit

Conclusion

- All restoration programs need WATER and MONEY
- Today restoration must compete with water and power consumers
- Time – Limits options