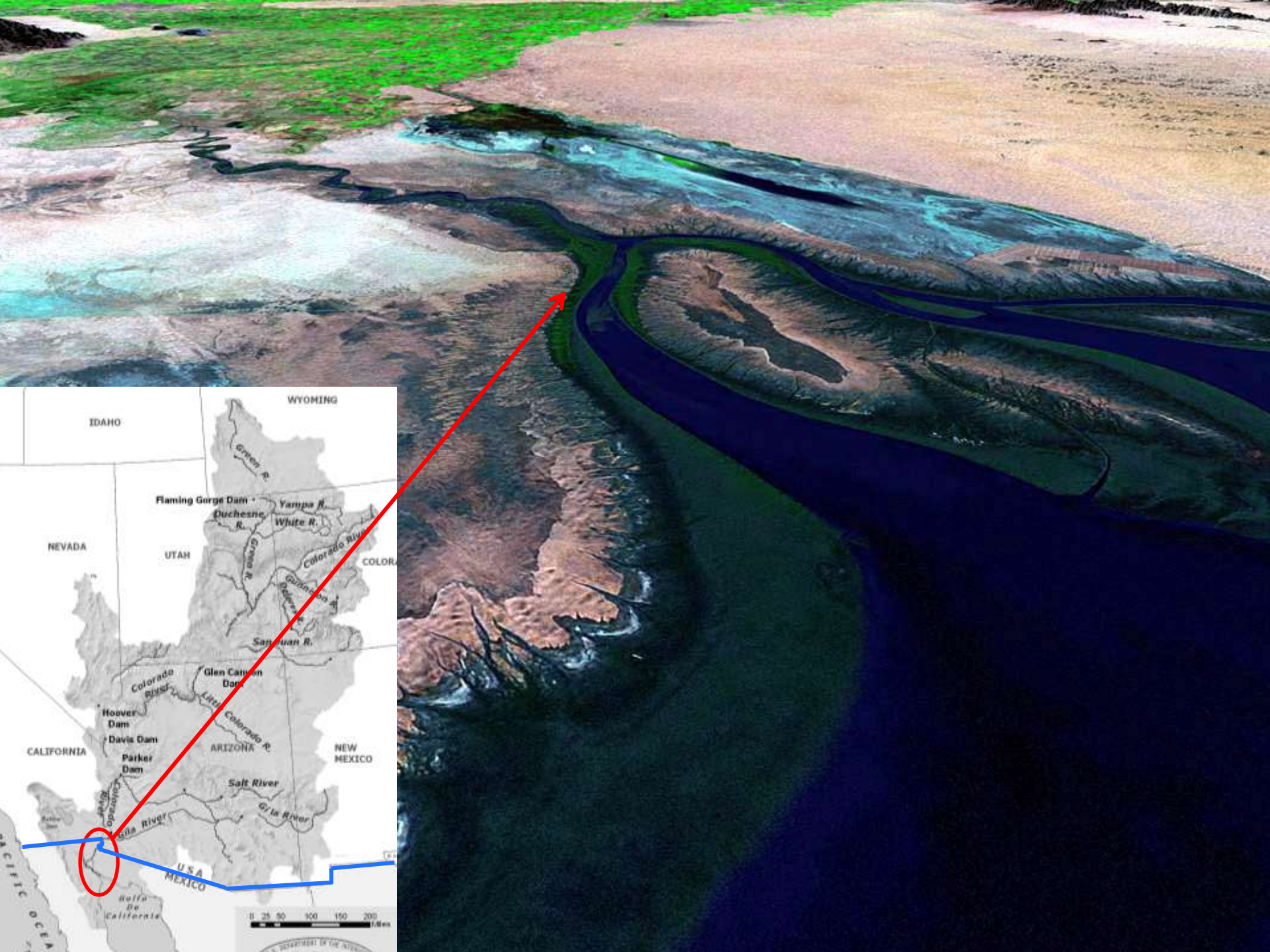


Revitalizing the Colorado River Delta

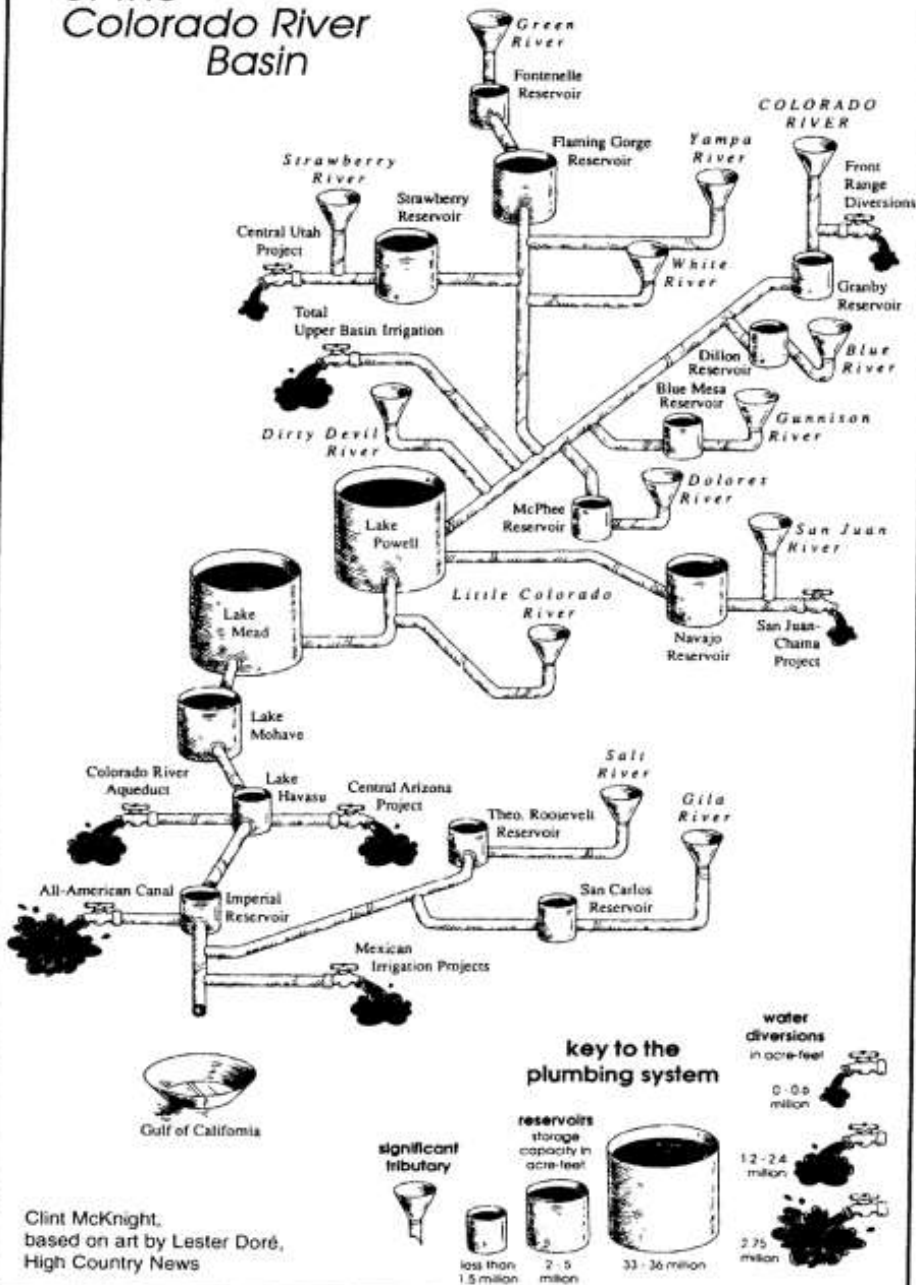
United States – Mexico cooperation results in
environmental flows

Jennifer Pitt, November 5, 2014
Colorado Mesa University





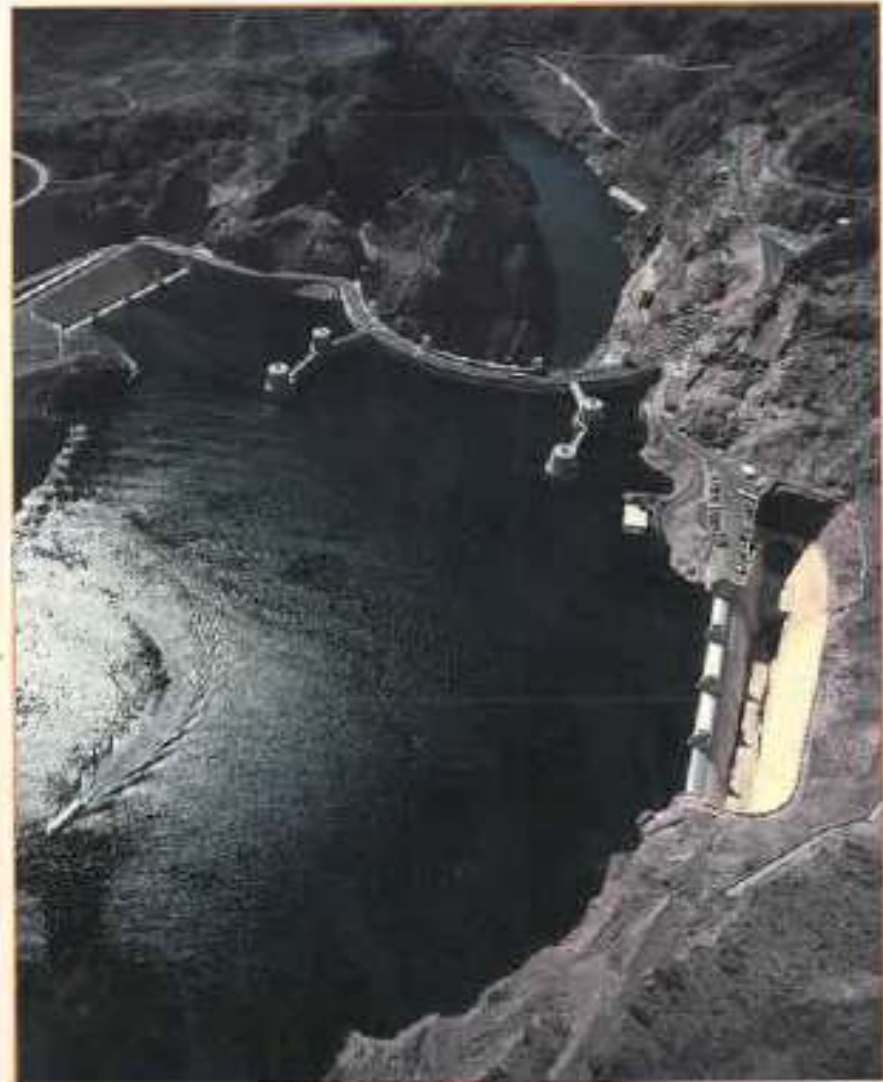
the **plumbing**
of the
Colorado River
Basin



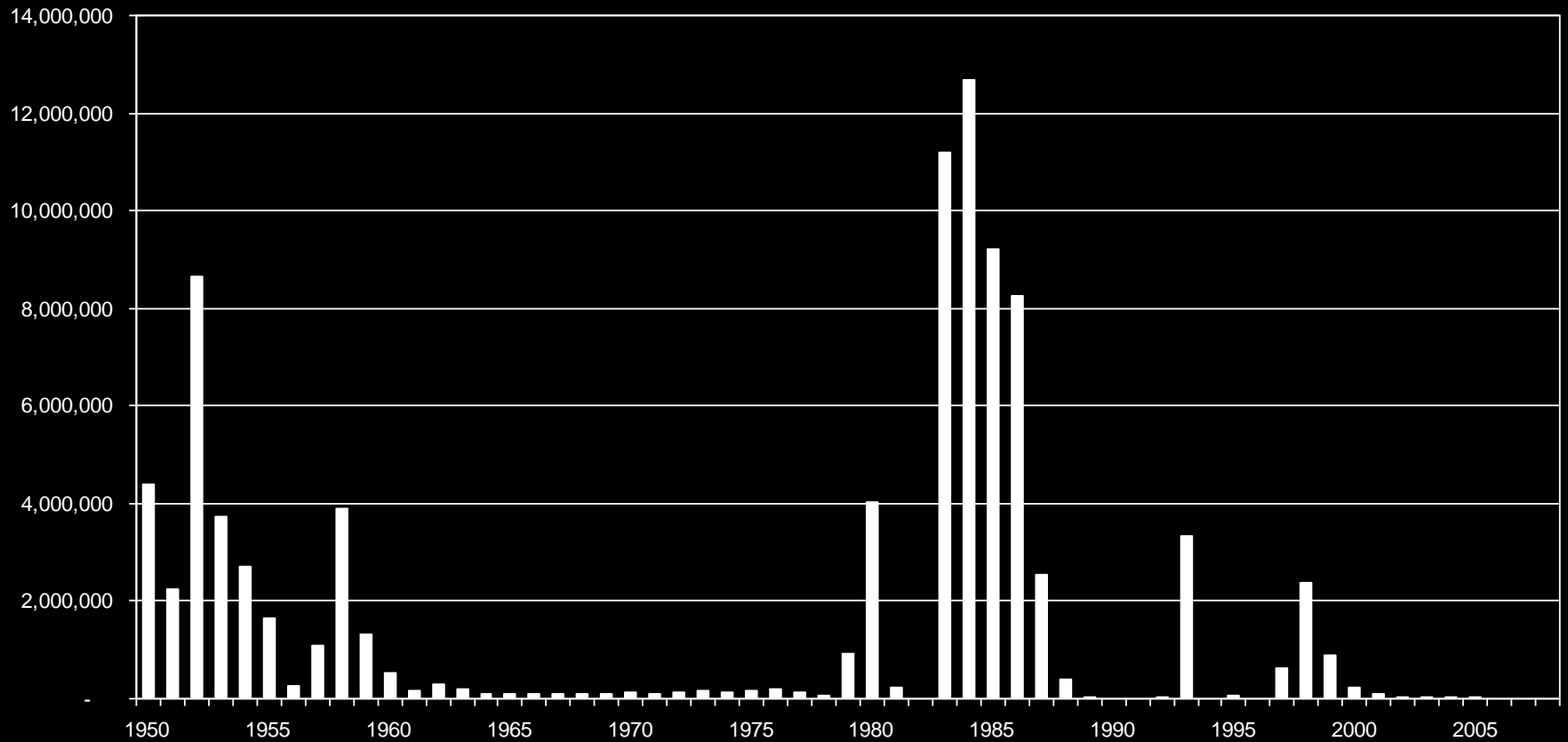
A River No More

The Colorado River and the West

PHILIP L. FRADKIN



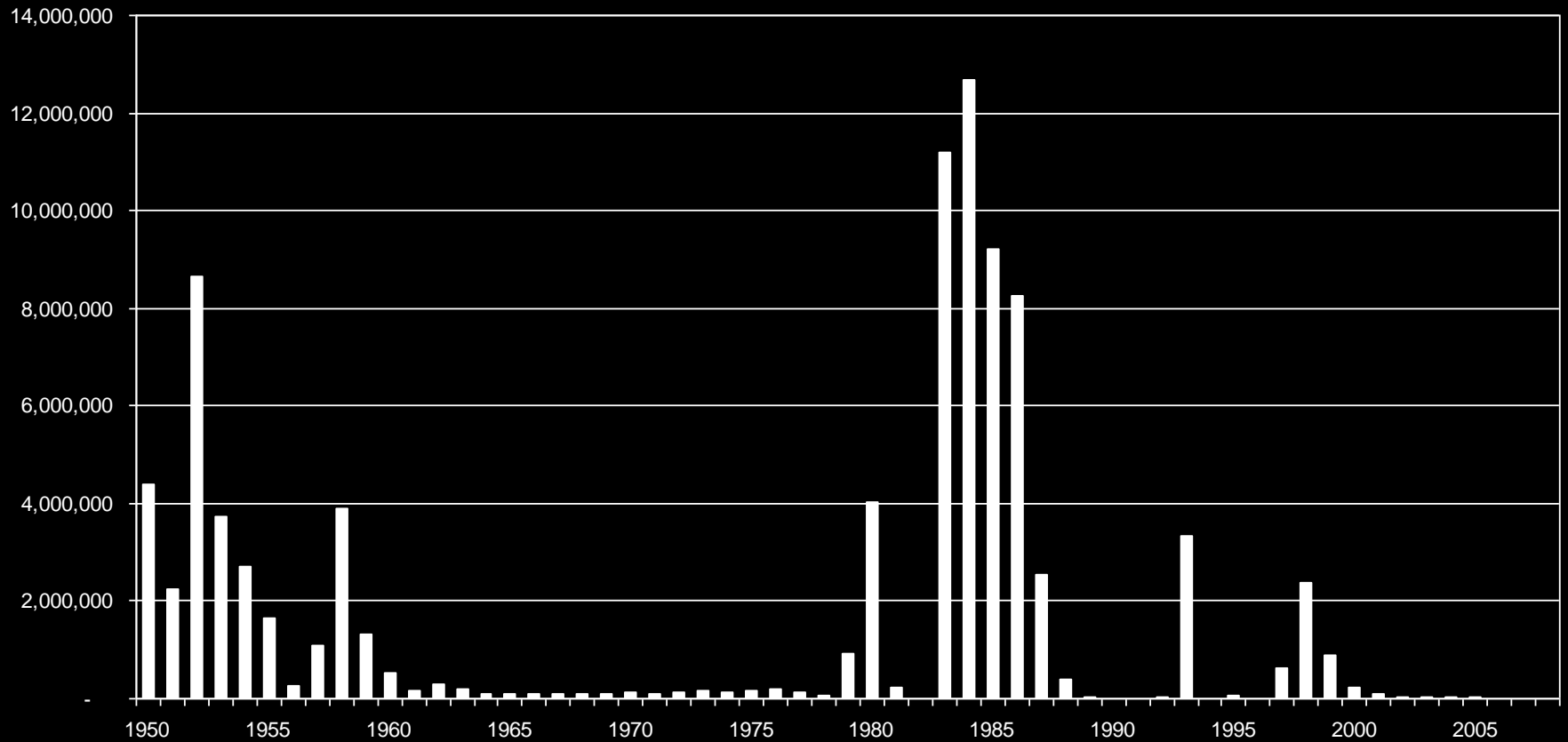
Flows Below Morelos Dam 1950-2008







Flows Below Morelos Dam 1950-2008







Importance of the Colorado Delta

**Biosphere
Reserve**

**UN Man and
the Biosphere**

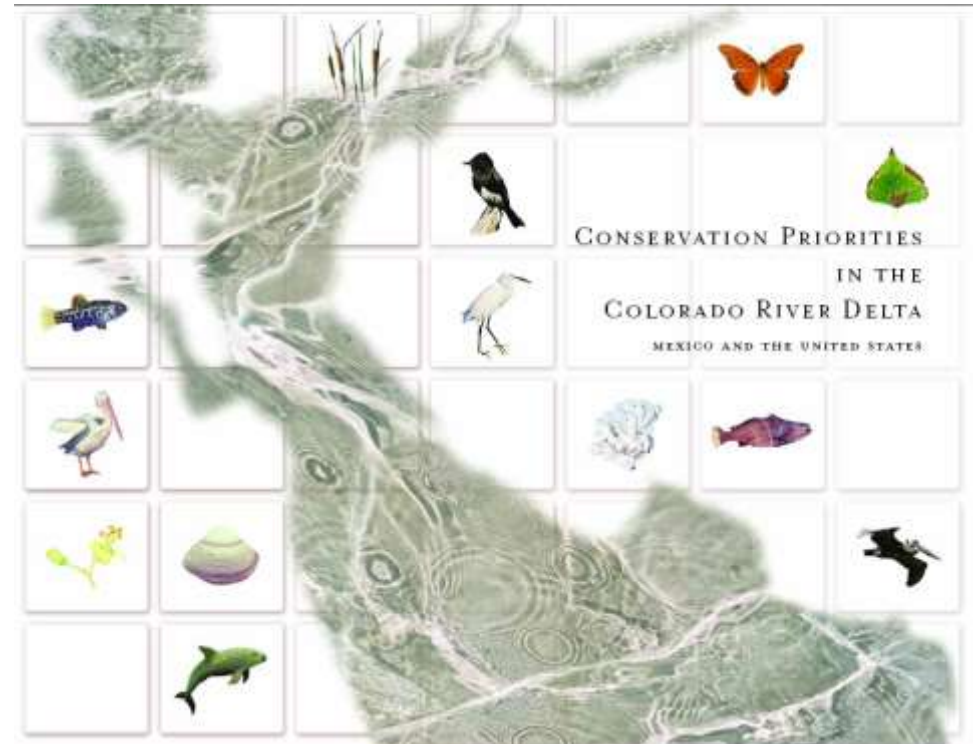
2 Ramsar Sites

**Priority
Wetland in
North America**

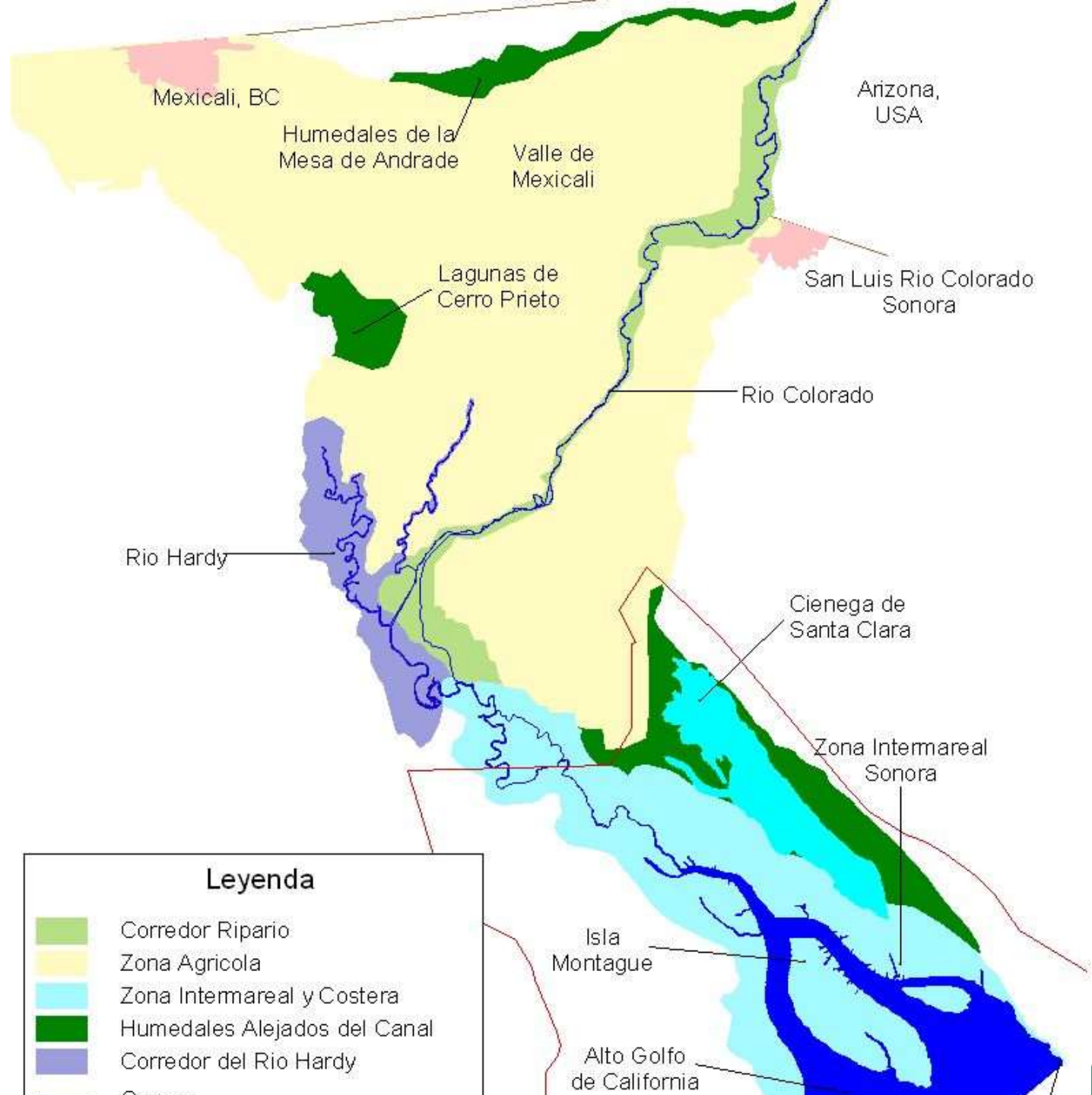
Photo: Francisco Zamora



Making the case for Delta Revitalization



Just add water



Riparian Water Needs (estimated in 1999)

- PULSE FLOW

- 260,000 acre-feet of water delivered at 3500-7000 cfs every 4-5 years
- Purpose is to inundate the floodplain and cause native seeds to germinate, revitalizing habitat

- BASE FLOW

- 32,000 acre-feet of water delivered annually
(later revised to 50,000 acre-feet)
- Purpose is to provide water to sustain existing vegetation and open water to promote food source (insects) for birds

- In total, annual water need estimated at less than 1% of Colorado River historic average flow

Not so easy...

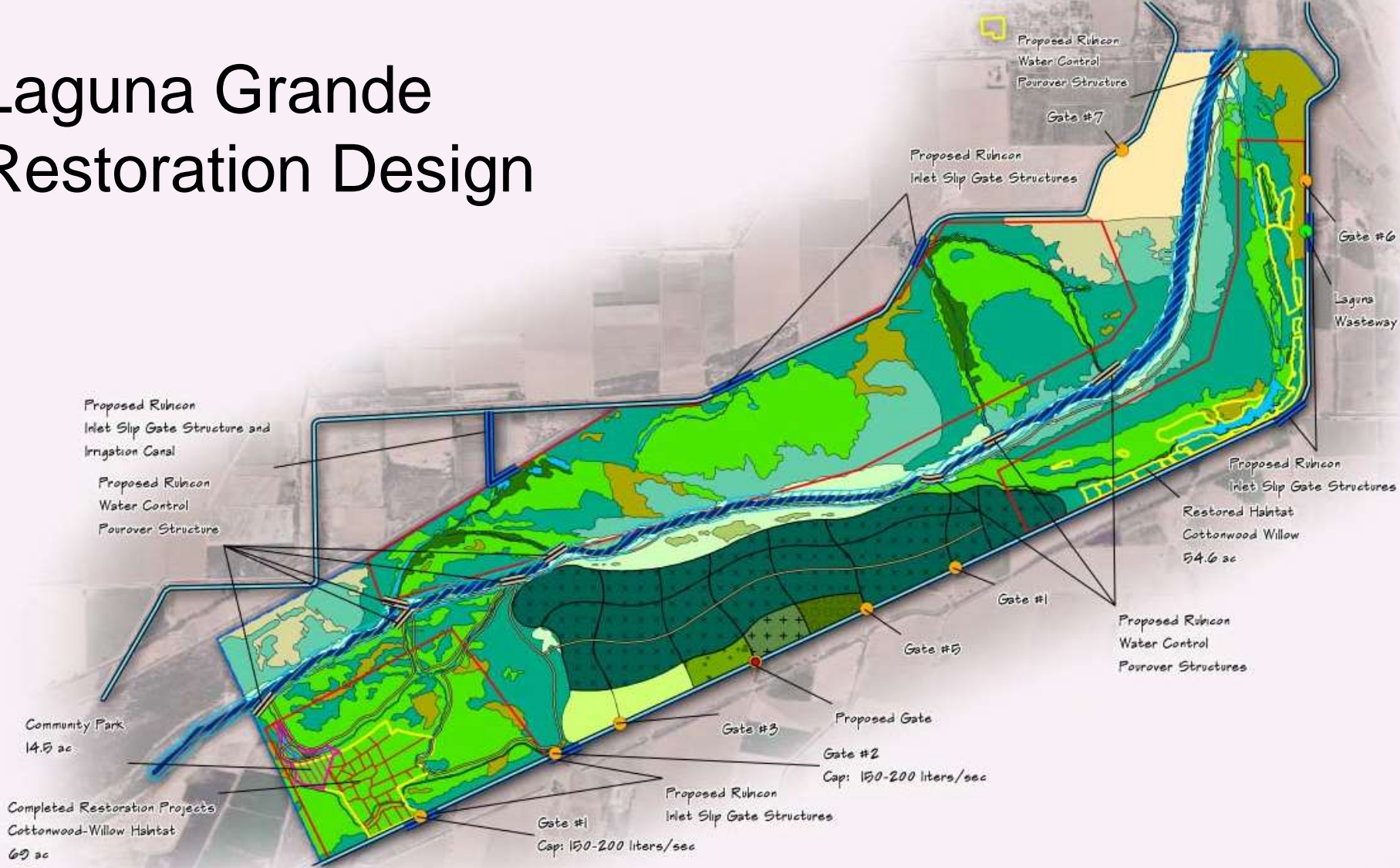
- 2000 - “surplus” for delta
beyond purpose and need
- 2000 - campaign for “one percent for the delta”
but no way to move water across the border
- 2001 - Mexicali delta summit is binational, federally convened
9/11
- 2003 - Defenders v. Norton
finds Treaty trumps ESA
- 2003 - UN Security Council vote to support invasion of Iraq
Mexico does not support
- 2007 - US rulemaking on CO River shortages
unilaterally suggests MX takes shortages too
- 2007 - NGOs bring water managers to the table, US and MX announce “holistic” water management discussions
2008 US and MX lead negotiators die in a tragic plane crash

Colorado River Delta Water Trust

- Based in Mexico, operated under Mexican law
- Voluntary, market-based strategies
- Acquisition of water rights in the Mexicali Valley



Laguna Grande Restoration Design











Minute 319 Environmental Flows

- Pulse Flow

- 105,392 acre-feet
- To be delivered once during the duration of Minute
- Supply is water generated from US-MX joint investment in water conservation in Mexico

- Base Flow

- 52,696 acre-feet
- To be delivered over the term of Minute
- Supply is Colorado River Delta Water Trust (private, established by NGOs)

**“CONSERVATION DOESN'T HAPPEN
WITHOUT PARTNERSHIPS.”**

— INTERIOR SECRETARY SALLY JEWELL



Minute 319 Environmental Flows Team

International Boundary and
Water Commission, United
States and Mexico

U.S. Bureau of Reclamation

SEMARNAT

CONAGUA

CONANP

AZ Department of Water
Resources

Southern Nevada Water
Authority

Colorado Water Conservation
Board

Upper Colorado River
Commission

Colorado River Board of
California


Environmental Defense Fund

Sonoran Institute

Pronatura Noroeste

Colegio de la Frontera Norte

Minute 319 Science

- International Boundary and Water Commission, United States and Mexico
 - U.S. Department of the Interior, Bureau of Reclamation
 - U.S. Geological Survey
 - Comisión Nacional de Áreas Naturales Protegidas
 - Conagua
 - Environmental Defense Fund
 - Sonoran Institute
 - The Nature Conservancy
 - University of Arizona
 - University of Montana
 - Pronatura Noroeste
 - Universidad Autónoma de Baja California
 - Colegio de la Frontera Norte
- 











Outside

MAGAZINE – TELEVISION – ONLINE

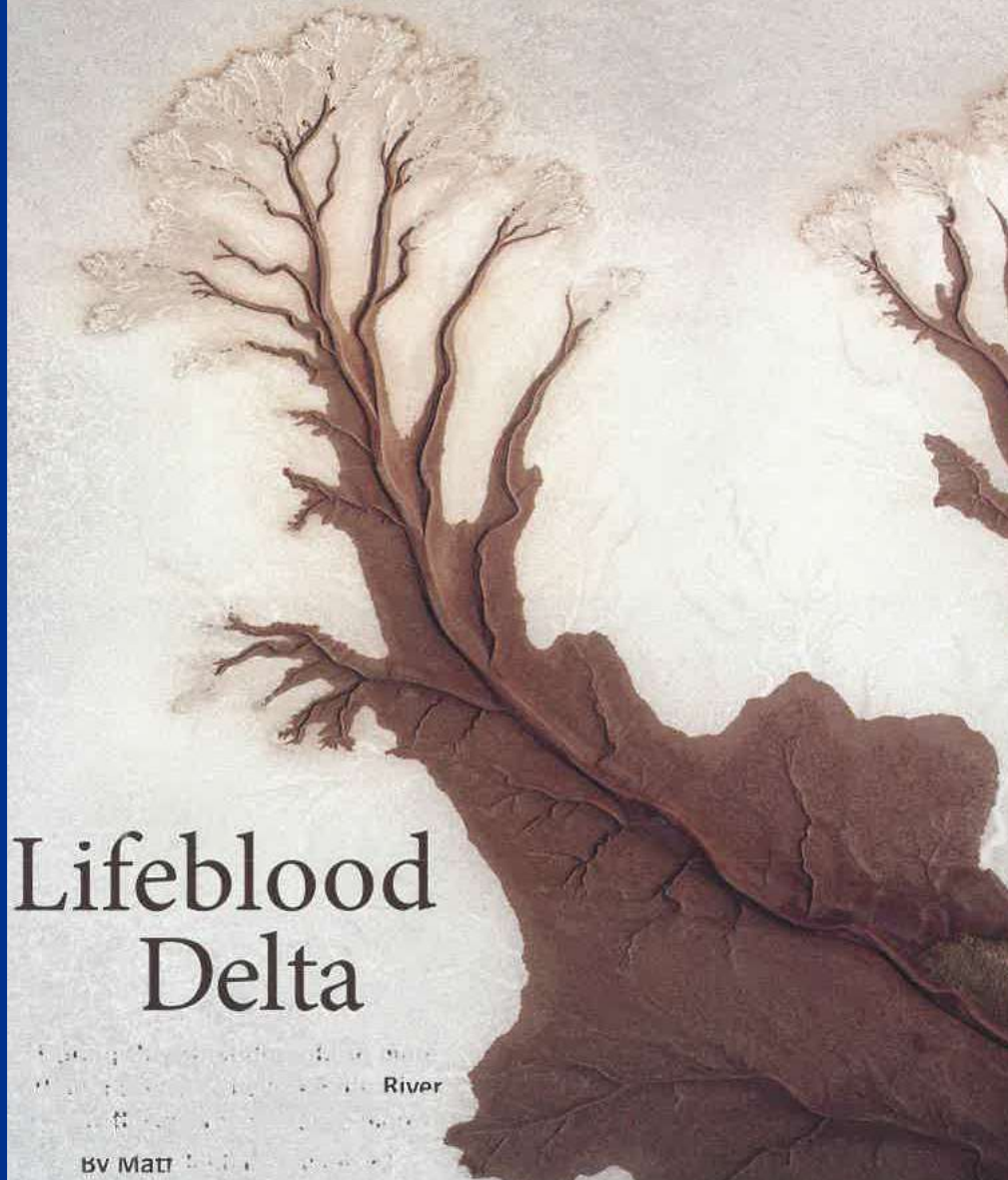


THE RIVER WAS EVERYWHERE & NOWHERE

PHOTOGRAPHS BY PETE MCBRIDE

High Country News

for people who love the outdoors



Lifeblood Delta

By Matt [unreadable]

BY MATT [unreadable]

English Language

Washington Post
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UPI
Reuters
ABC News
National Public Radio
Here and Now
Newser
Huffington Post
Liberty Voice
Salt Lake Tribune
LA Times
Arizona Republic
AZ Public Media
AZ Daily Star
Tucson Sentinel
Las Vegas Review Journal
Vegas Daily Seven
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SFGate
Sacramento Bee
San Jose Mercury News
Imperial Valley Press
Inland News
Yuma Sun
Denver Post
Boulder Weekly
Pagosa Daily Post
Vail Daly
Glenwood Post Independent
Colorado Public Radio
Christian Science Monitor
Miami Herald
Herald Sun
Seattle Post Independent
Texas Tribune
Kansas City Star
Today's News Herald
The Weather Channel
Daily Wildcat
Daily Miner
The Pine Tree

Cornell Chronicle
Enews Park Forest
PRI's The World
KJZZ
WBUR
KAWC
KYMA
LiveScience
Fox News Latino
Gizmodo
National Geographic
Outside Magazine
Canoe & Kayak
High Country News
Nature
Live Science
New Scientist
BNA Americas
Fronteras
Latin Post
Web Pro News
Google Earth Blog
Surfer Today
Broadway World
BWW Travel World

Spanish Language

La Cronica
Tribuna San Luis
La Voz de la Frontera
El Sol de Mexico
El Sol de Tijuana
Zonalider.com
Tribuna
El Financiero
El Mexicano
Noticias MVS
Expresso
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Diario Frontera
El Informante
Zeta de Tijuana

Seminario el Pionero
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**RAISE
THE
RIVER**
RECONNECT THE COLORADO



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OUR MISSION
**JUST ADD WATER
AND LIFE BEGINS.**

Reconnecting the Colorado River and restoring its Delta.

LEARN MORE

