Making Floodplain Restoration "Normal"

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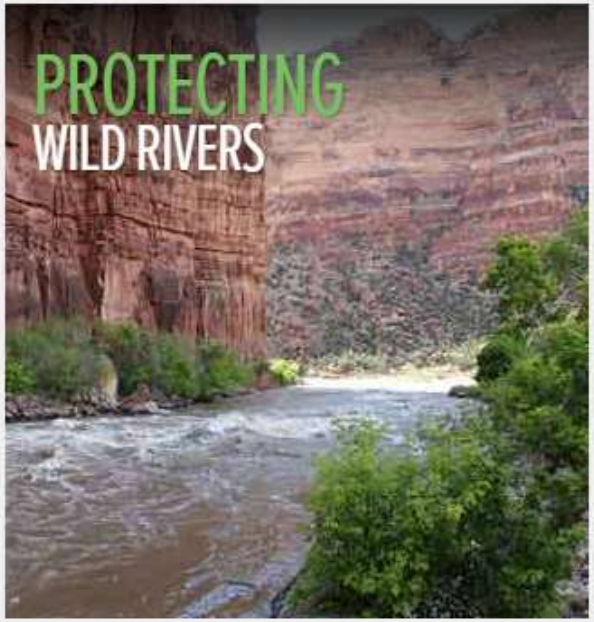
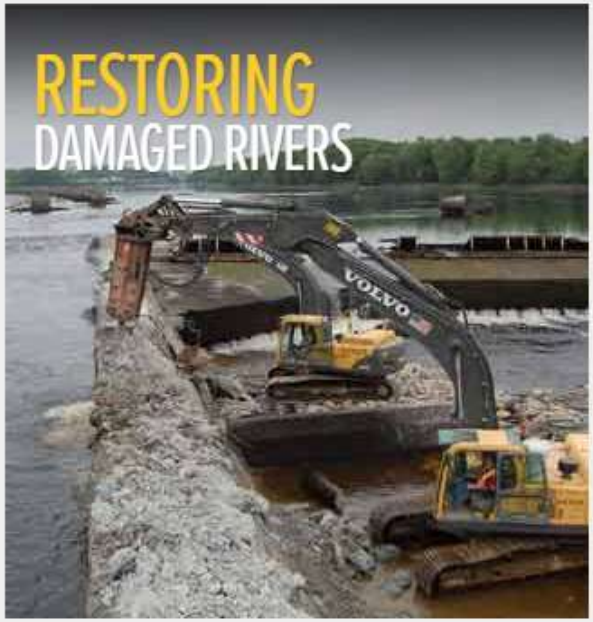
American Rivers

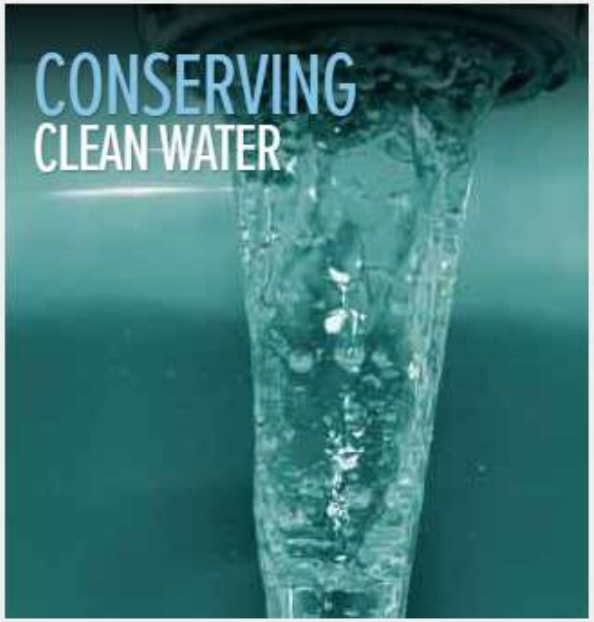
Rivers Connect Us



Ensuring our last wild rivers continue to run free.



Revitalizing rivers by removing dams and restoring floodplains.



Helping communities use water wisely to stretch supplies and protect rivers.

Rivers Flood

Floods drive natural processes and ecosystem functions that sustain rivers and floodplains.

Water Resources

Natural Flood and Erosion Control
- Provides flood storage and conveyance
- Reduces flood velocities
- Reduces peak floods
- Reduces sedimentation

Water Quality Maintenance
- Filters nutrients and impurities from runoff
- Processes organic wastes
- Moderates temperature fluctuations

Groundwater Recharge
- Promotes infiltration and aquifer recharge
- Reduces frequency and duration of low flows

Biologic Resources

Biologic Productivity
- Supports high rate of plant growth
- Maintains biodiversity
- Maintains integrity of ecosystem

Fish and Wildlife Habitats
- Provides breeding and feeding grounds
- Provides and enhances waterfowl habitat
- Protects habitats for rare, threatened or endangered species

Societal Resources

Harvest of Wild and Cultivated Products
- Enhancement of agricultural lands
- Provides sites for aquaculture
- Restores and enhances forest lands

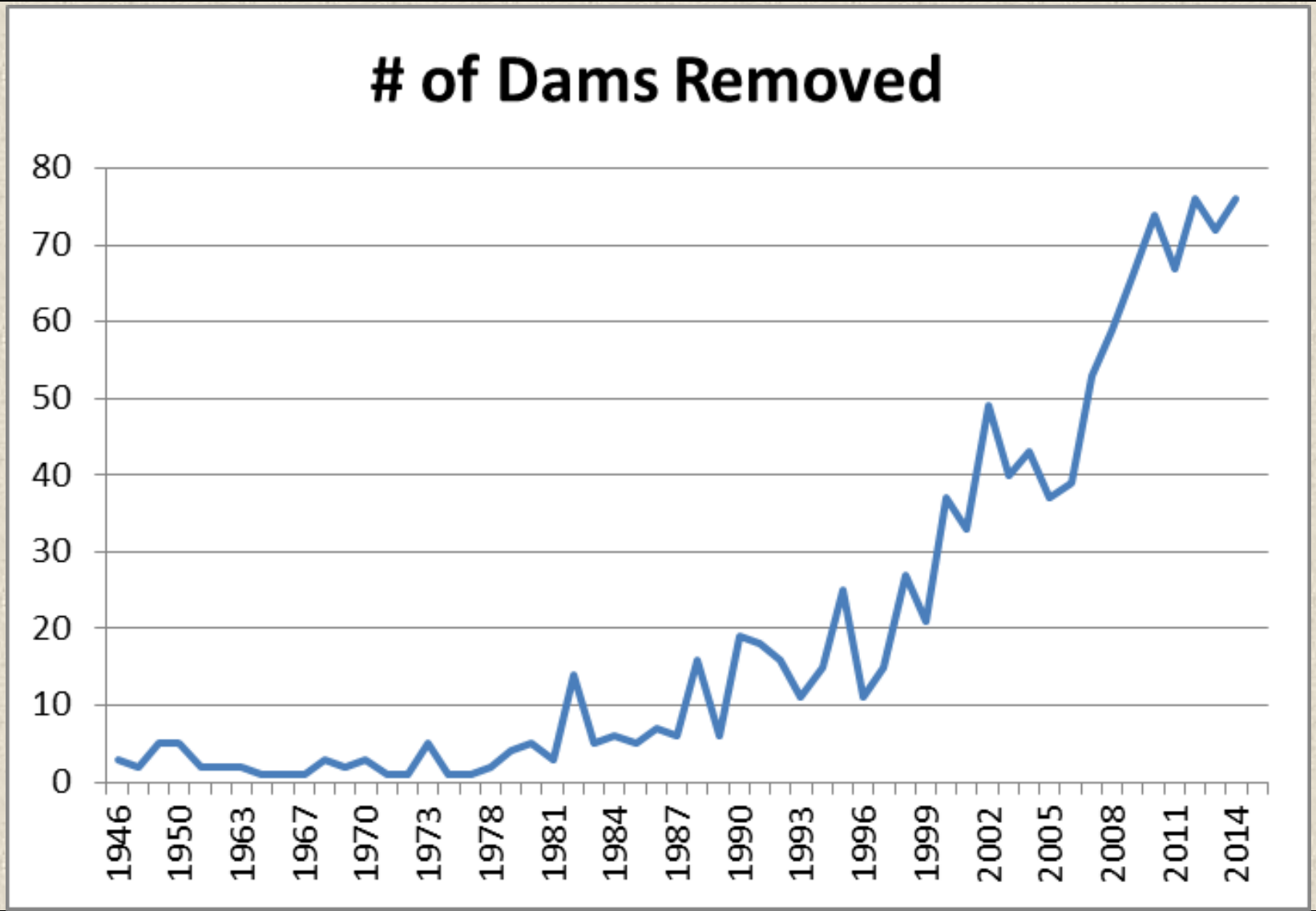
Recreational Opportunities
- Provides areas of active and passive use
- Provides open spaces
- Provides aesthetic pleasure

Areas for Scientific Study/Education
- Cultural resources (historical/archaeological)
- Opportunities for environmental, biological, or other studies

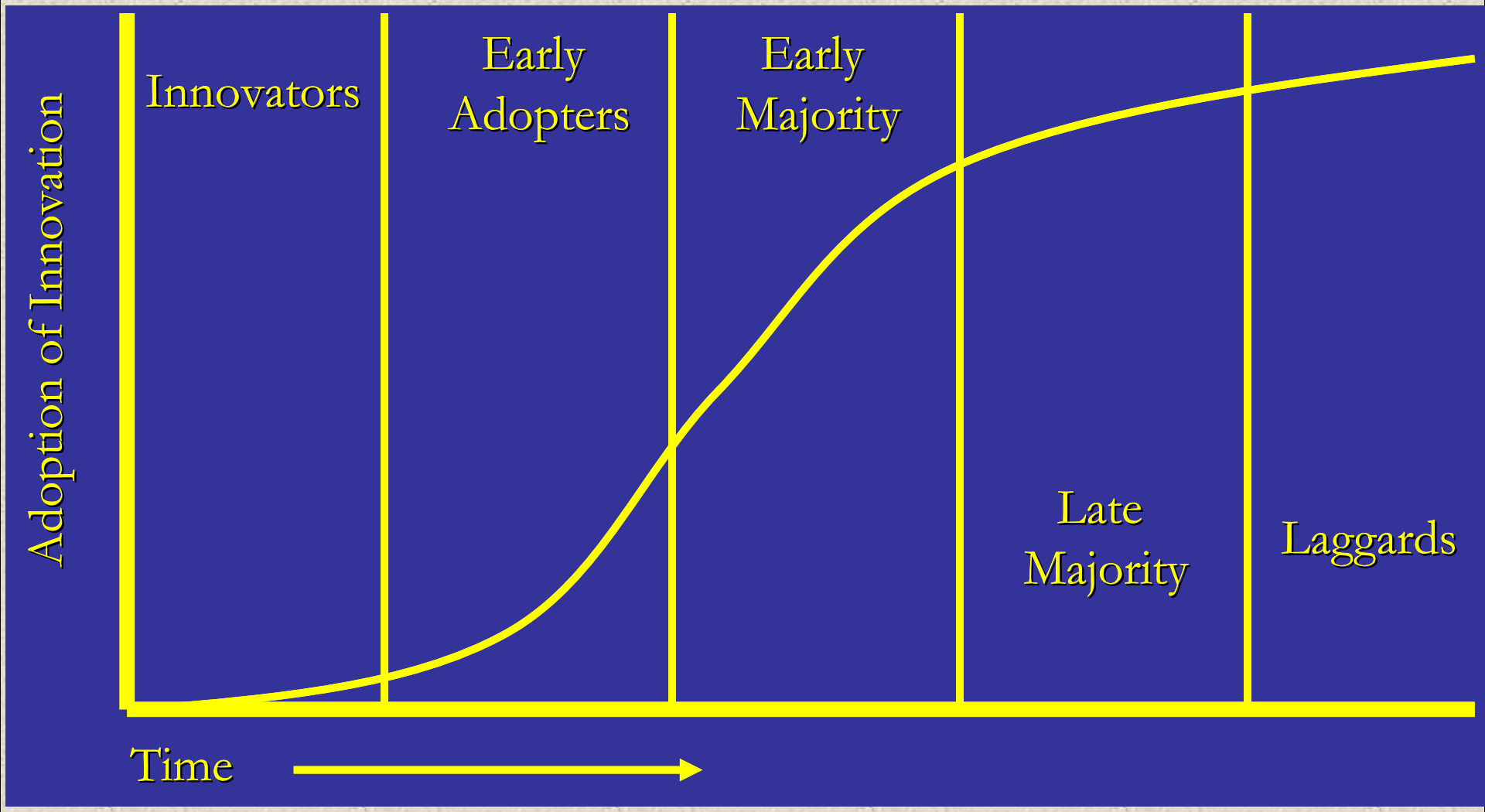
List adapted from The Natural and Beneficial Functions of Floodplains, Report to Congress 2002

Natural and Beneficial Functions of Floodplains

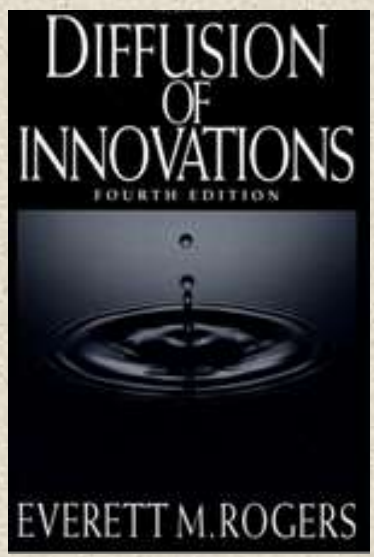
American Rivers has led a national movement to remove dams



Movement building: We followed a deliberate plan based on social marketing principles



Innovation diffusion model indicates that we need to build lots of partners rather than go it alone

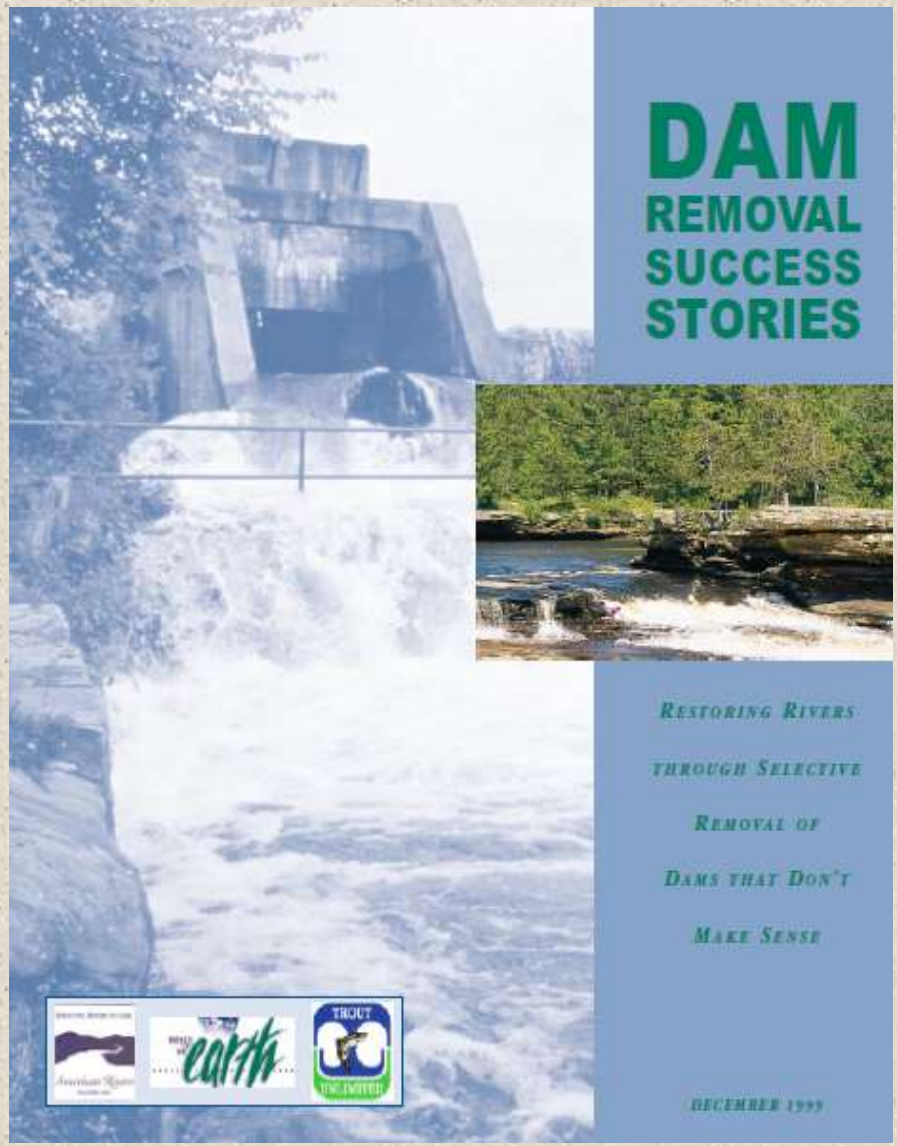


Basic Techniques:

- Make dam removal "normal"
- Deliver message well (use local voices)
- Achieve small commitments to build greater momentum (People believe that they do dam removal)

To make something "normal", show that everyone is doing it

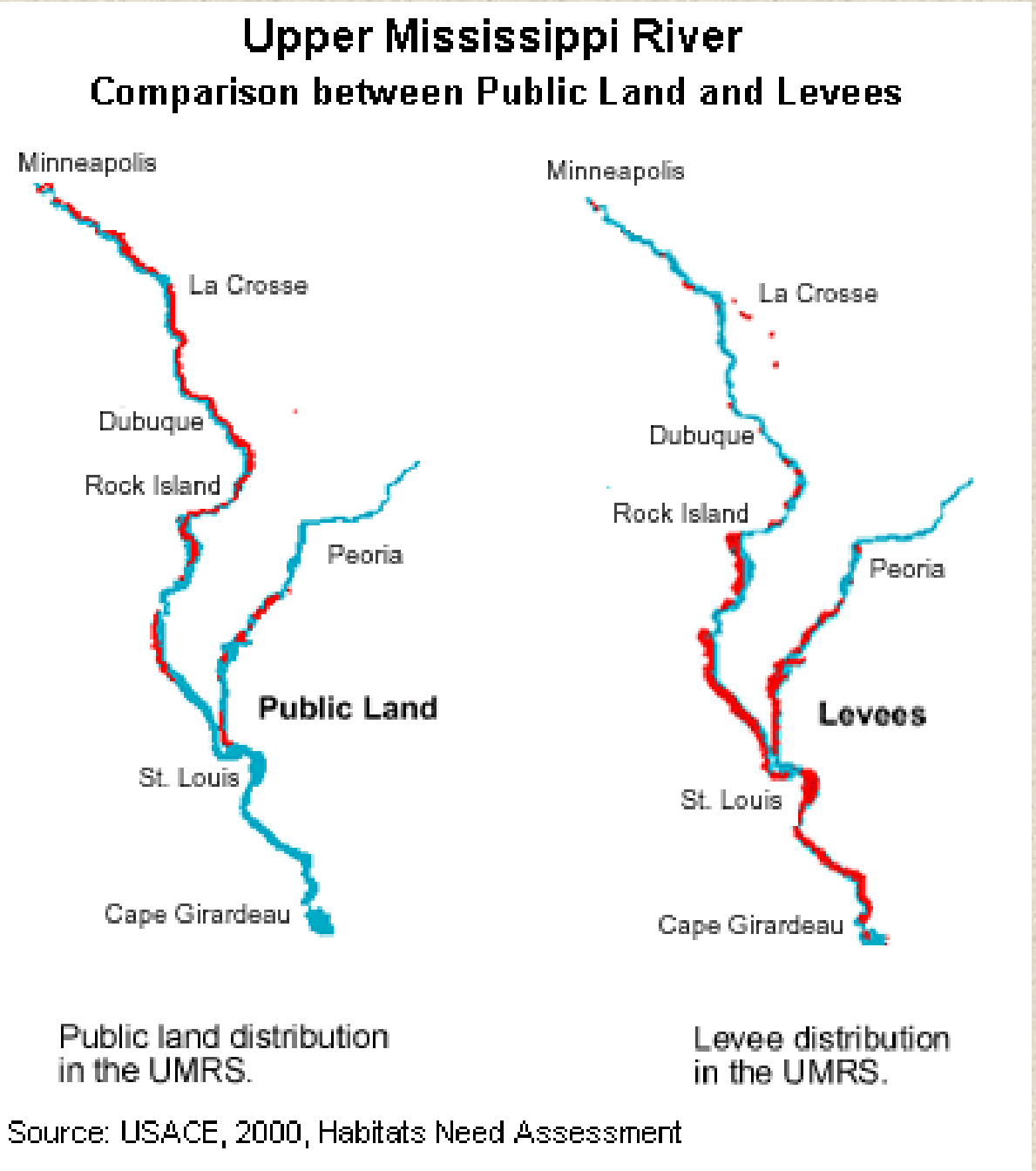
We made dam removal "normal" by publicizing how often it was being done



Make friends and repeat the core message: nag, nudge, and inspire. Give locals the tools to carry the message.

Identify what is preventing hundreds of projects from getting done. Break down those factors.

Building a Floodplain Restoration Movement in the Upper Mississippi River Basin



Distribution of levees on mainstem rivers:

3% North of Lock and Dam 13

50% from Pool 14 through Mel Price

80% in open river

60% of lower 160 miles of IL River

Extent of floodplain disconnection

"Agricultural development in many places relied on installation of measures to improve drainage and reduce inundation of flood-prone lands. Local farmers banded together to construct ditches and channelize streams. In addition, earthen levees were constructed along streams and rivers, often comprising the material dug out of ditches with little to no engineering design, to exclude flood waters and allow crop production on frequently flooded fields. **To this day the amount, location and condition of agricultural levees across the UMRB are poorly documented, although there are nearly 5,000 known drainage districts in Illinois, Iowa, and Wisconsin."**

- *Implementing Nonstructural Solutions for Flood Management in the Upper Mississippi River Basin*, Montgomery and Associates, prepared for American Rivers

Maquoketa River, IA

Millions of acres

State	Bottomland: 100-Year Flood Zone	Cropland in Bottomland[1]
Illinois	2.36	1.20
Iowa	6.95	2.82
Minnesota	2.31	0.34
Wisconsin	2.01	0.58
Total	13.60	4.92

[1] Includes corn, soybeans, winter wheat

Source: Hey et al (2009)

Example sizes of existing floodplain restoration sites:

	Acres
Maquoketa	300
Emiquon	8,000
Lost Mound	10,000
Reno Bottoms	14,500
Mollicy	16,000

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Workshop: Building Capacity for Floodplain Restoration in the Upper Mississippi River Basin

- Organized by:

- Supported by:

- Goal: Lay the groundwork for a regional movement to advance floodplain restoration.
- What changes are needed for more floodplain restoration projects to be implemented in the Upper Mississippi River basin over the next 25 years?

Attendees

- Bluestem Communications
- The Nature Conservancy
- The Wetlands Initiative
- USGS- Upper Midwest Environmental Science Center
- Prairie Rivers Network
- WI DNR
- Blue Heron Associates, LCC
- Association of State Wetland Managers
- Environmental Law & Policy Center
- Nicolet Island Coalition
- Midwest Environmental Advocates
- Mississippi Park Connection
- Iowa Rivers Revival
- Washington University School of Law
- University of Minnesota
- USFWS
- Center for Planning Excellence
- IL State Water Survey
- Upper Miss River Basin Association
- The Conservation Fund
- New Ground, Inc.
- USACE
- Iowa Environmental Council
- Audubon
- Ducks Unlimited

What do we have? What do we need?

What We Heard: Fostering and Providing Leadership

- There is a need for a concerted effort to advance the practice of floodplain restoration in the UMR basin.
- No new coalition- work with existing coalitions
- Need a dedicated leader (with funding!)
- Focus on helping practitioners get projects done.
- Establish topical/watershed/state working groups

Middle Mississippi River Partnership
Your River, Your Lifeline - Get Connected

MISSISSIPPI

Eastern Tallgrass Prairie & Big Rivers
Landscape Conservation Cooperative

MISSISSIPPI RIVER COLLABORATIVE

Uniting people, land and water across 31 states
America's WATERSHED Initiative

Fishers & Farmers Partnership for the Upper Mississippi River Basin

Nicollet Island Coalition

What We Heard: Working With Landowners

- Many different types of landowners- farmers, communities, levee districts, agencies, etc.
- Need to 1) understand needs and motivations and 2) build trust.
- Incentives:
  - Use/improve existing $ incentives within state and federal programs (e.g., NRCS, FEMA, state nutrient strategies)
  - Need to better understand non-$ incentives

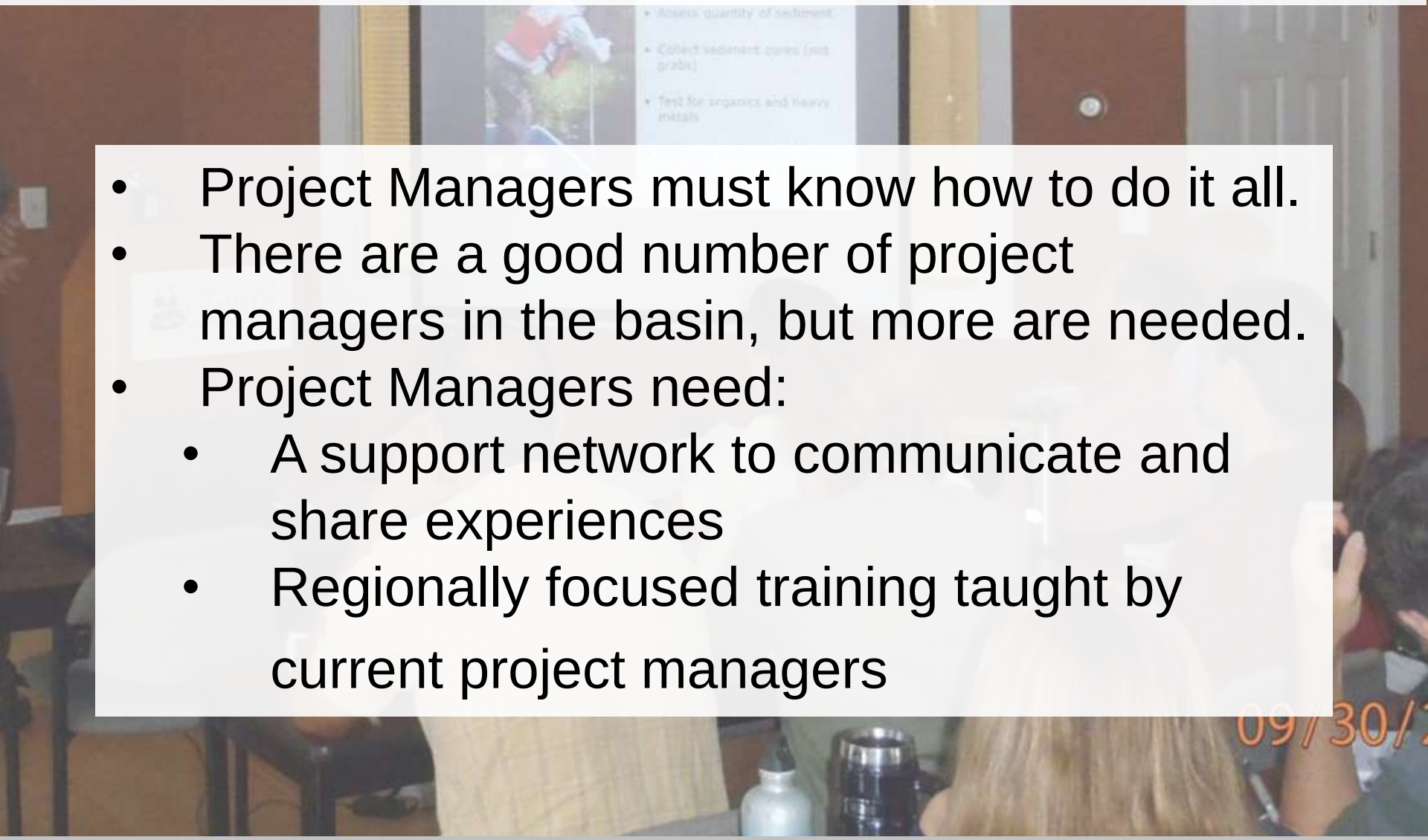
What We Heard: Cultivating Funding

- Use existing sources first
- Direct $$ to projects
  - regional guide
  - track project development and funding opportunities.
  - NGO-agency partnerships
- Reduce funding barriers
- Define the business case for FPR in the region.

What We Heard: Fostering Supportive Policies

- Address policy barriers:
  - Plan/fund multiple-benefit projects
  - Facilitate projects post-disaster;
  - Insurance (flood and crop) encourages floodplain development and cultivation.
  - Increasing the use and availability of agricultural flood easements..
- Educate practitioners/partners on policy issues:
  - levee and drainage district laws
  - local and state policies
  - Multiple-objective watershed planning

What We Heard: Train Project Managers



- Project Managers must know how to do it all.
- There are a good number of project managers in the basin, but more are needed.
- Project Managers need:
  - A support network to communicate and share experiences
  - Regionally focused training taught by current project managers

What We Heard: Building Momentum

- Effective communications on FPR.
  - Improved messaging for region
  - Understand needs of key audiences
  - Messengers that aren't enviros
- Support projects
  - Mechanism to host/distribute tools, messages, case studies
  - Map of completed projects.
  - List of potential projects
- Celebrate successes!

What Comes Next?

YEAR 1:

1) Establish the UMR Floodplain Restoration Collaborative structure
2) Develop a long-term strategic plan, using a theory of change approach.
3) Initiate work on high priority tasks:
   a) Listserv
   b) UMR focused library of FPR info
   c) Identifying existing tools
   d) Recruit additional partners
   e) Common messaging
   f) Integrate/collaborate with existing coalitions

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