

Responses to Climate Change Depend on Our Institutions: The Case of U.S. Flood Control

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Missouri River, 1993



Monmouth Beach, 1991

Social scientists can:

- investigate **incentives**
- identify **institutional barriers** to action,
- and identify **approaches that work**



Rochester, Minnesota

Under climate change scenarios,
infrastructure limits our physical options:

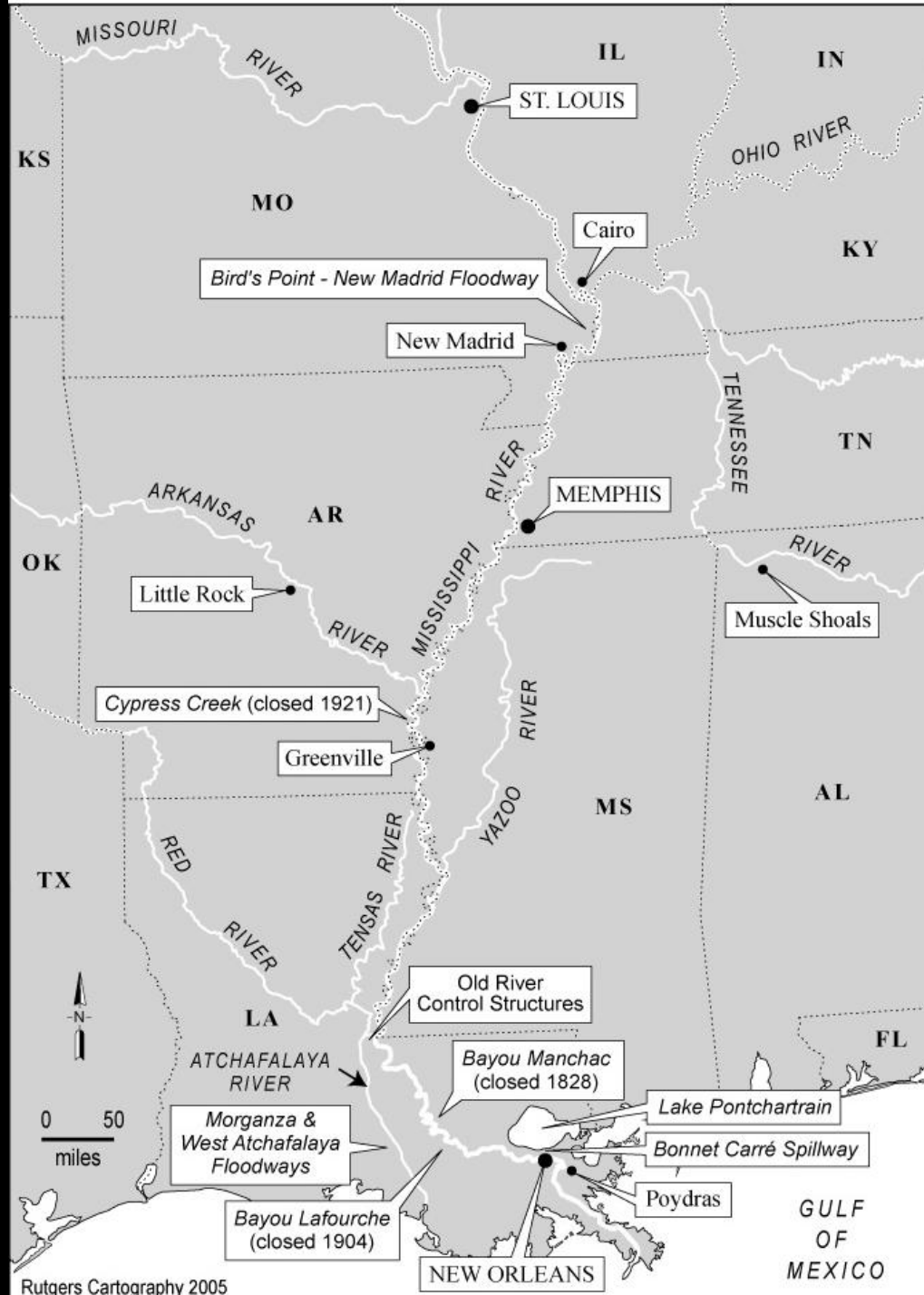
- project designs assume water sources will be replenished
- U.S. flood control and storm-water systems
 - send fresh water quickly to the sea
 - create perverse incentives to build in floodplains

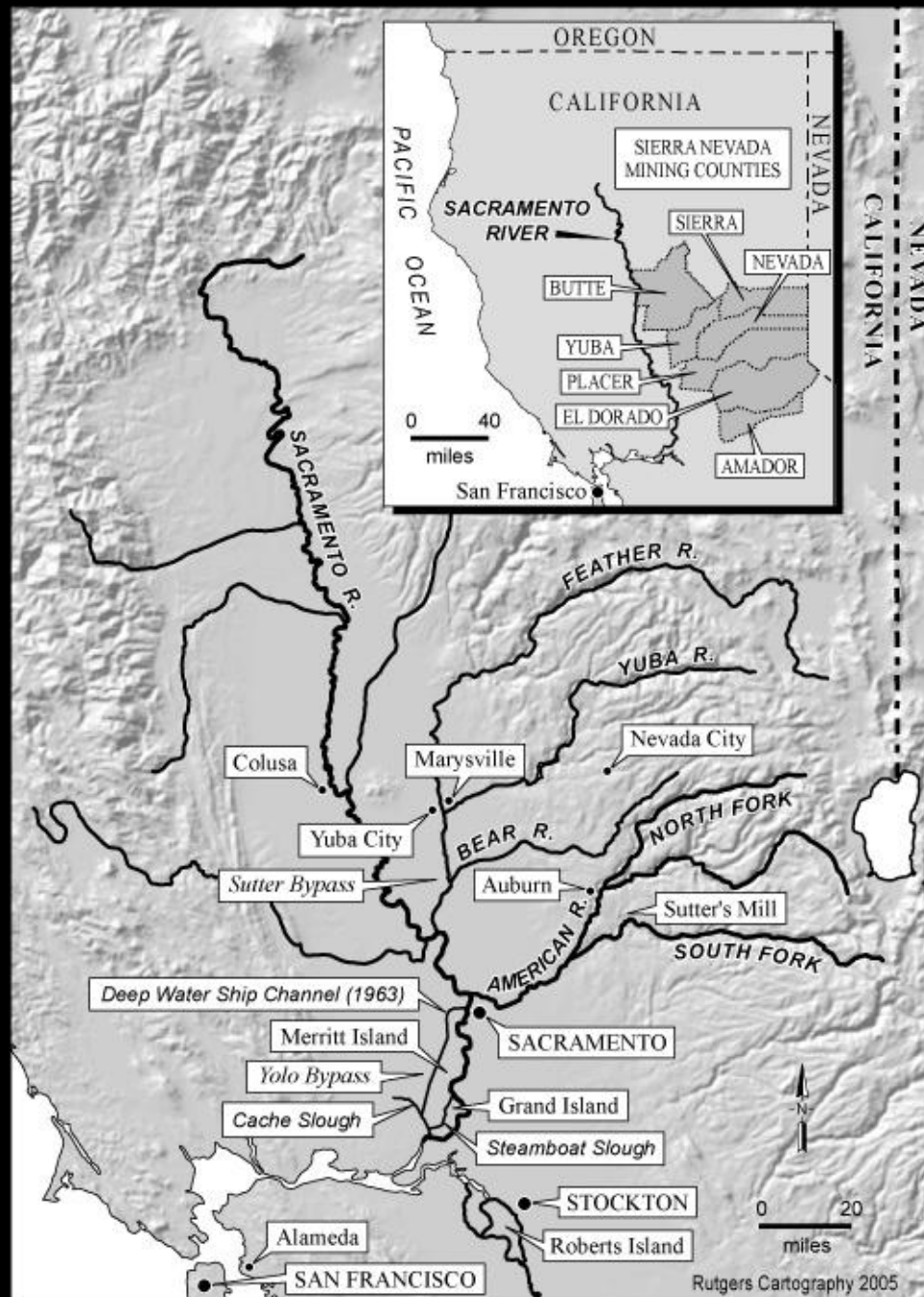
Souris River, Minot, North Dakota



The modern state:

organizes coercive power to control
territory





Seeking development aid in a federal system

Local: organizing base is landowner-run levee districts

State: activists gain levee laws and aid

Regional: organize voting blocs in Congress

National: two regional campaigns merge to promote nation-wide aid



Levees--Red Lake River, Minnesota

Federalism and flood control

- federal government owns the "river"
- 50 state governments own the riverbed
- federal government builds critical levees
- states create levee district laws and facilitate the spending of federal aid
- state governments or local levee districts maintain the levees
- “nonfederal interests” share costs
- contractors do the work

Institutional constraints in U.S. water systems

- control over infrastructure is often decentralized
- strong political support for uncoordinated or even competing systems
- no powerful constituencies for comprehensive resource planning
- project beneficiaries are adept at side-stepping environmental reforms
- however, instances of creative federalism arise