

Interstate River Compacts, Collaboration, and Water Conflicts



Edella Schlager

School of Public Adm & Policy, University of Arizona

Tanya Heikkila,

School of International and Public Affairs, Columbia

University (co-PI)

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Introduction

- Part I: the larger research project
 - The research setting
 - Policy and theory questions
- Part II: water conflicts in river basins governed by interstate compacts
 - Research questions
 - Preliminary look at preliminary data

Part I: What Are Interstate River Compacts?

- Three constitutionally recognized means to allocate water from interstate rivers
 - U.S. Congress allocates
 - U.S. Supreme Court decrees
 - States adopt a compact: states devise and adopt legally enforceable “treaty” (each state legislature and Congress must approve)

Why Study Compacts (water governance in river basins with compacts) ?

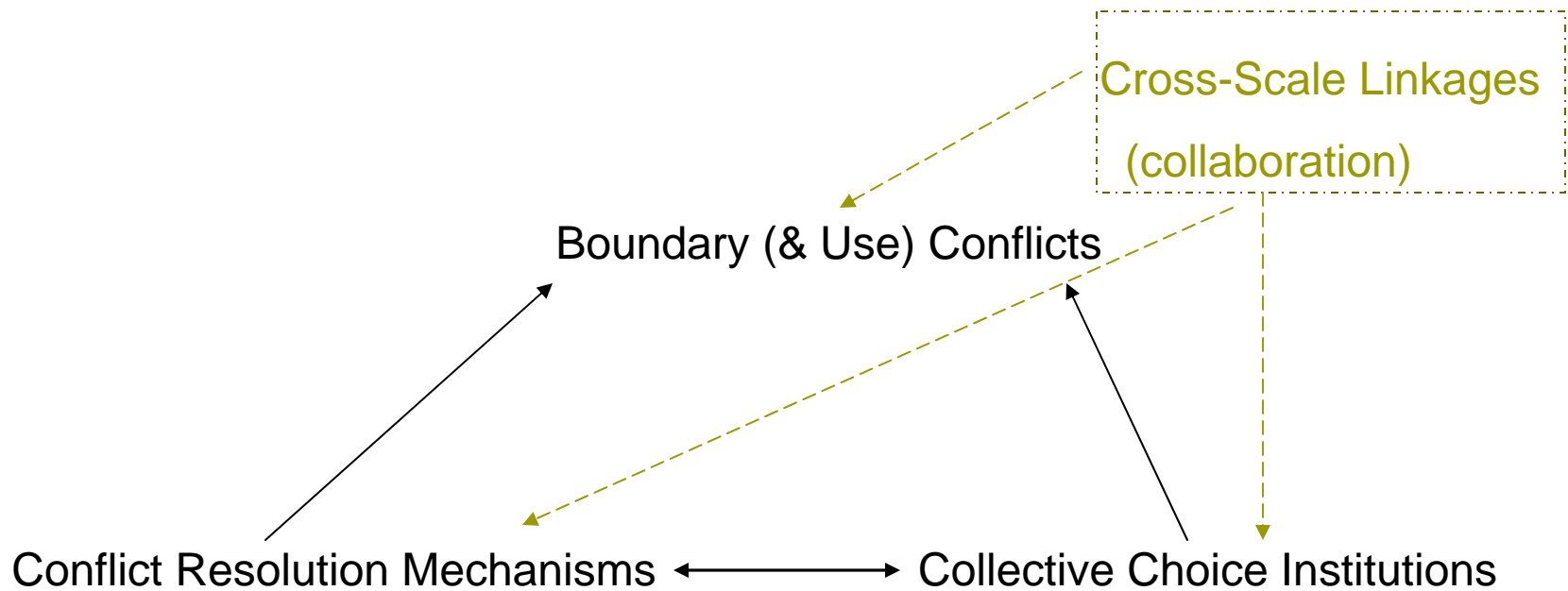
□ Applied Policy

- Eastern U.S.: should states adopt compacts to address water conflicts?
- Western U.S.: how do compacts perform?
- Internationally: transnational river basins with treaties have fewer conflicts, why? (Aaron Wolfe)

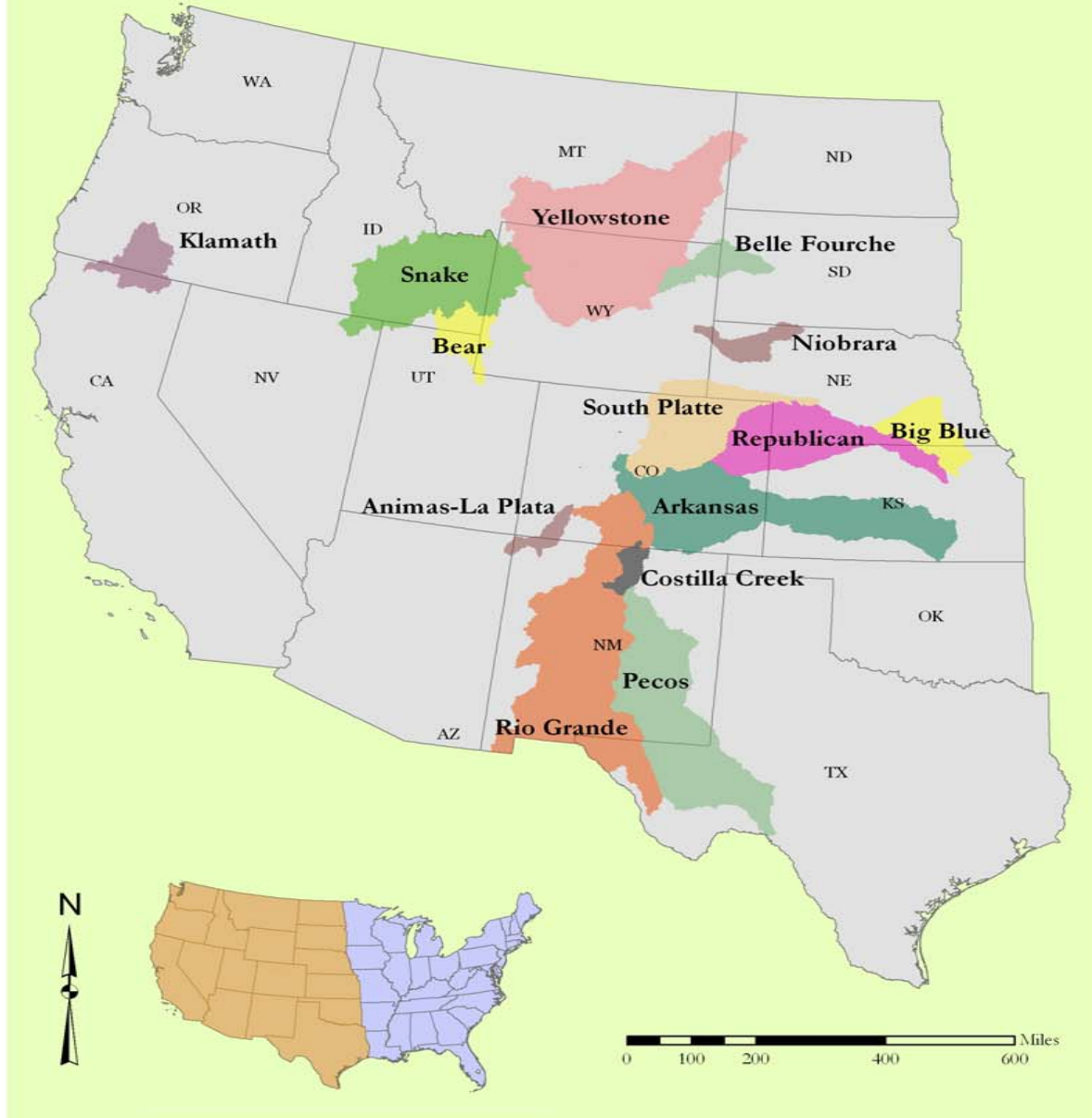
□ Theory

- Good setting to test and develop common pool resource theory
 - Rivers are CPRs; compacts are governing arrangements devised, monitored, and enforced by members
 - Scale up CPR theory from individuals to states – cross-scale linkages
 - Carefully examine and test relationships among some of Ostrom's (1990) design principles

Key Variables

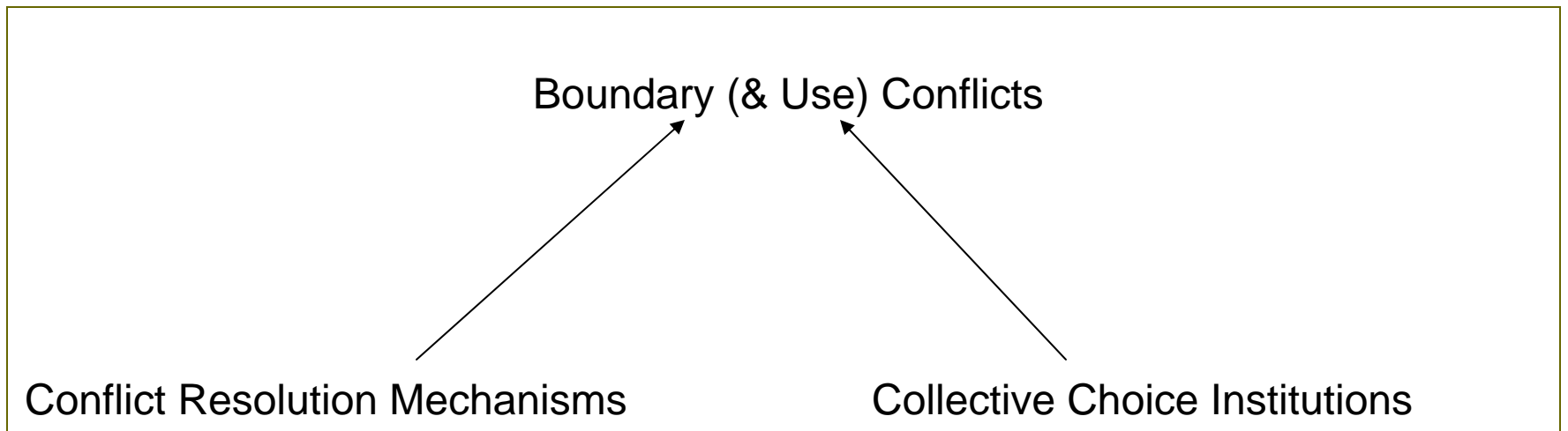


Interstate River Compacts



Map by Dustin Garrick
University of Arizona

Part II: Conflicts and Venues



Compacts: Bear (ID, UT, WY); Snake (ID, WY); Yellowstone (MT, WY, ND); Republican (CO, NE, KS); Rio Grande (CO, NM, TX)

Conflict Defined

- Three categories of conflict
 - Boundary only
 - Use only
 - Boundary and Use

- Coded conflicts involve
 - Multiple states
 - Multiple uses (recreation vs. municipal vs. species)
 - Groundwater and surface water interactions
 - Multiple water legal doctrines
 - Water quality issues
 - Species or habitat protection issues

- Conflict is exhibited in a variety of forums
 - Courts
 - Mediation/Arbitration
 - Negotiations
 - Commissions
 - Administrative agencies
 - Legislatures

Questions/Issues

- ❑ What types of conflicts occur?
- ❑ Association between conflict type and conflict resolution mechanism or collective choice mechanism?
- ❑ How well do conflict resolution mechanisms and collective choice mechanisms perform?
- ❑ Are some types of conflicts more difficult to resolve than others?

Summary Statistics

	Boundary	Use	Boundary & Use	All Conflicts
Conflicts Identified (% of category)	20 (17%)	22 (19%)	73 (64%)	115 (100%)
Resolved (% of category)	15 (75%)	17 (77%)	46 (63%)	78 (68%)
On-Going (% of category)	5 (25%)	5 (23%)	27 (37%)	37 (32%)
Mean yrs / conflict	7.4	5.1	6.3	6.3

Conflict Resolution Forums: By Type of Conflict

	Boundary	Use	Boundary & Use	All conflicts
Courts	15 (75%)	13 (59%)	39 (53%)	67 (58%)
Mediation	7 (35%)	4 (18%)	19 (26%)	30 (26%)
State Negotiation	3 (15%)	1 (5%)	14 (19%)	18 (16%)
Compact Commission	4 (20%)	2 (9%)	13 (18%)	19 (17%)
Federal Agency	5 (25%)	4 (18%)	25 (34%)	34 (30%)
Legislature	6 (30%)	4 (18%)	29 (40%)	39 (34%)
<i>Multiple Forums</i>	14 (70%)	7 (32%)	46 (40%)	67 (58%)

Conflict by Number of Venues

	Boundary Conflicts	Use Conflicts	Boundary & Use Conflict
Single Venue	6 (30%)	12 (54%)	26 (36%)
Two Venues	9 (45%)	6 (27%)	27 (37%)
Three Venues	4 (20%)	0 (0%)	14 (19%)
Four-Five Venues	1 (5%)	1 (4%)	5 (7%)
(Total conflicts)	20 (100%)	19 ^a (85%)	72 ^b (99%)

a: three use conflicts have not been addressed in any type of forum; b: one boundary and use conflict has not been addressed in any type of forum

Conflict by Type of Venue

	Boundary Conflict	Use Conflict	Boundary & Use Conflict
Conflict Resolution Mechanisms	7 (35%)	11 (50%)	22 (30%)
Collective Choice Mechanisms	2 (10%)	4 (18%)	23 (31%)
Conflict resolution & collective choice	11 (55%)	4 (18%)	23 (31%)
(Total Conflicts)	20 (100%)	19 ^a (86%)	68 ^b (92%)

a: three use conflicts have not been addressed in any type of forum;

b: one boundary and use conflict has not been addressed in any type of forum, and three boundary and use conflicts have been addressed in a variety of other types of forums

Conflict Duration (mean years) by Venue

	Boundary Conflict	Use Conflict	Boundary & Use Conflict	Total Mean Years
Conflict Resolution Mechanisms	8.7 (n=7)	5.9 (n=11)	2.6 (n=22)	4.6 (n=40)
Collective Choice Mechanisms	2 (n=2)	4.25 (n=4)	9.7 (n=23)	8.4 (n=29)
Conflict Resolution & Collective Choice	7.5 (n=11)	3 (n=4)	7.6 (n=23)	7.1 (38)
(Total Conflicts)	20	19 ^a	68 ^b	107

a: three use conflicts have not been addressed in any type of forum;

b: one boundary and use conflict has not been addressed in any type of forum, and three boundary and use conflicts have been addressed in a variety of other types of forums

Distributional conflicts: 8.4 mean years (n=43)

Nondistributional conflicts: 5 mean years (n=72)

Conclusion

- ❑ Most common type of conflict is one that involves boundary and use issues
- ❑ In terms of number of venues and duration of conflict appears boundary conflicts may be more challenging than use conflicts
- ❑ Distributional issues appear to be more difficult to resolve
- ❑ Some matching of conflicts to venues
- ❑ Performance of conflict resolution and collective choice venues varies by type of conflict