Crafting Collaborative Governance: Water Resources, California's Delta Plan, and Audited Self-Management in New Zealand

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Summary

Since the 1980s, water governance has increasingly been linked to institutions and laws that engage local actors and closely relate to local ecosystems and catchments. These approaches, referred to as collaborative water governance, encompass new coalitions among governments, their agencies, and institutions of civil society, and are typically held together via guidelines, plans, and nonbinding agreements. This Article offers an empirical look at two examples, Audited Self-Management in New Zealand and California's Delta Plan, asking whether these initiatives promote genuine, effective stakeholder collaboration and how they blend their collaborative elements with traditional legal systems.

I. Introduction

Charles Montesquieu's classic text, *The Spirit of the Laws*, presents an account of law and governance that is acutely related to the physical aspects of countries.[1] Climate and geography, he said, produced different characteristics and forms of government (for example, democratic or despotic).[2] Law should relate to these differences and to the physical aspects of a country, including its climate and the properties of the terrain.[3] Moreover, good governance (at least in a republican sense) depended fundamentally on actions at small local scales, where "the public good is better felt, better known, [and] lies nearer to each citizen."[4]

Montesquieu's image of governance finds strong resonances in modern ecological and democratic ideals that inform how we think about and create arrangements for governing water. Indeed, since the 1980s, the "good governance" of water has increasingly been linked to institutions and laws that engage local actors and closely relate to local ecosystems and catchments.[5]

Stirred by a growing awareness of ecological realities,[6] traditional top-down regulatory approaches have been increasingly spurned, due to a lack of fit between the boundaries of water and political systems.[7] Associated drivers have included the need to circumvent the increasingly rigid and siloed responsibility of centralized governing agencies to better account for and adapt to the

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1. Charles L. Montesquieu, The Spirit of the Laws (Cambridge Univ. Press 1989) (1750); Richard Perry, *Perspectives From the Districts of Water and Power: A Report on Flows*, *in* Joachim Blatter & Helen M. Ingram, Reflections on Water: New Approaches to Transboundary Conflicts and Cooperation 301-03 (2001).
2. *Id.*
3. Montesquieu, *supra* note 1, at 9.
4. *Id.* at 124; Daniel Kemmis & Matthew McKinney, *Collaboration as an Emerging Form of Democracy*, Nat'l Civic Rev. 6-7 (2011).
5. There are competing mentalities and ideals within water governance approaches, not least of which is privatization/neoliberalism. *See* Matthias Finger, *The New Water Paradigm*, *in* David Levy & Peter Newell, The Business of Global Environmental Governance (2005).
6. Eugene Odum, Fundamentals of Ecology (1953).
7. Bradley C. Karkkainen, *Collaborative Ecosystem Governance: Scale, Complexity, and Dynamism*, 21 Va. Envtl. L.J. 189 (2002) [hereinafter Karkkainen, *Collaborative Ecosystem*].

dynamic and integrated nature of water systems. There has also been a concern to better involve civil society in water decisionmaking and to ensure that various stakeholders have a voice in wider democratic processes.[8] These and similar issues have generated a variety of pragmatically grounded, integrated governance approaches that increasingly aim to tackle water problems through collaboration.

These approaches are commonly referred to as collaborative governance or collaborative water governance (CWG). The collaborative governance literature does not stem from a single body of legal theory, but rather is derived from many different sources.[9] Although there is no definitive collaborative governance model per se, the term collaborative governance is increasingly used to refer to policy approaches that encompass some or all of the following characteristics: collaboration; participation; integration; learning and adaptation; and region-based decisionmaking.[10]

CWG seeks to create and govern through new regional jurisdictions matched not to administrative or politically based jurisdictions, but to the spatial and temporal scales of natural water units, such as catchments.[11] Such post-territorial arrangements decentralize sovereign national and subnational arrangements by focusing water governance around new regional jurisdictions. These jurisdictions in turn encompass new coalitions among governments, their agencies, and institutions of civil society that are typically held together via guidelines, plans, and nonbinding agreements that seek to achieve effective joint management of shared water resources.[12]

Much of the focus on CWG has been on designing and implementing these systems of governance on the international and transnational stage.[13] Prominent examples have included regional strategies that encourage cooperation between nation states and civil society stakeholders in collaborative regional efforts to protect various seas, lakes, and aquifers,[14] bilateral and multilateral agreements modelled on the Watercourse Convention,[15] and collaboration under the Water Framework Directive in Europe.[16]

But there has also been increasing interest in comparable domestic CWG initiatives that have emerged in response to a host of threats caused by human action, primarily at the regional or local rather than the international level: challenges such as diffuse water pollution of large rivers and aquatic ecosystems, as well as depletion of water supplies within various nations across the globe.[17] Such problems do not respect traditional domestic boundaries any more than they do international ones. As a result, the governance response necessitates the kind of public-private cooperation and regional focus typical of CWG. Prominent examples include attempts at integrated water resource management,[18] often in the form of water planning and state compacts,[19] as well as recent CWG examples, such as

8. Sherry Arnstein, *A Ladder of Citizen Participation*, 35 Am. Inst. of Planners 216 (1969); Jane Mansbridge, Beyond Adversary Democracy (1983); Jurgen Habermas, *Toward a Theory of Communicative Competence*, 13 Inquiry 360 (1970); Joshua Cohen, *Deliberation and Democratic Legitimacy*, *in* James Bohman & William Rehg, Deliberative Democracy: Essays on Reason and Politics 67 (1997). See also work on social capital, *e.g.*, Robert Putnam, Making Democracy Work: Civic Traditions in Modern Italy (1993); Joshua Coleman, *Social Capital in the Creation of Human Capital*, 94 Am. J. Soc. Sci. 95 (1988).
9. Cameron Holley, *Facilitating Monitoring, Subverting Self-Interest, and Limiting Discretion: Learning From "New" Forms of Accountability in Practice*, 35 Colum. J. Envtl. L. 127 (2010).
10. Gráinne de Búrca et al., *New Modes of Pluralist Global Governance*, 45 N.Y.U. J. Int'l L. & Pol. 45 (2013); Cameron Holley et al., The New Environmental Governance (2011).
11. Karkkainen, *Collaborative Ecosystem*, *supra* note 7.
12. Bradley Karkkainen, *Post-Sovereign Environmental Governance*, 4 Global Envtl. Pol. 72-77 (2004) [hereinafter Karkkainen, *Post-Sovereign*].
13. *Id.*; *see also* Fleur Johns et al., *Law and the Mekong River Basin: A Socio-Legal Research Agenda on the Role of Hard and Soft Law in Regulating Transboundary Water Resources*, 11 Melb. J. L. 1 (2010); Chukwumerije Okereke et al., *Conceptualizing Climate Governance Beyond the International Regime*, 9 Global Envtl. Pol. 58 (2009).
14. *See, e.g.*, The Columbia River Treaty Revisited (Barbara Cosens ed., 2012); Baltic Sea Helsinki Comm'n, About, http://www.helcom.fi/helcom/en_GB/aboutus; Convention on the Protection of the Marine Environment of the Baltic Sea Area (entered into force 18 January 2000) (1992), *available at* http://www.helcom.fi/stc/files/Convention/Conv1108.pdf; Karkkainen, *Collaborative Ecosystem*, *supra* note 7, 192; Bradley Karkkainen, *Marine Ecosystem Management and Post-Sovereign Transboundary Governance*, 6 San Diego Int'l L.J. 113 [hereinafter Karkkainen, *Marine Ecosystem*]; Management of Transboundary Rivers and Lakes (Olli Varis et al. ed., 2008); Politics and Development in a Transboundary Watershed: The Case of the Lower Mekong Basin (Joakim Ojendal et al. eds., 2012).
15. U.N. Convention on the Law of Non-Navigational Uses of International Watercourses (Watercourse Convention), 17 August 2014, *opened for signature* May 21, 1997, U.N.T.S. XXVII 12.
16. Water Framework Directive in Europe, Council Directive 2000/60/EC, 2000 O.J. (L327) 1. *See* Andrea M. Keessen et al., *Transboundary River Basin Management in Europe: Legal Instruments to Comply With European Water Management Obligations in Case of Transboundary Water Pollution and Floods*, 4 Utrecht L. Rev. 35 (2008); David Trubek & Louise Trubek, *New Governance and Legal Regulation: Complementarity, Rivalry, and Transformation*, 13 Colum. J. Eur. L. 540-41 (2006).
17. Xia Yu, *Transboundary Water Pollution Management: Lessons Learned From River Basin Management in China, Europe and the Netherlands,* 7 Utrecht L. Rev. 188-89 (2011); Marie Waschka & Alex W. Gardner, *Using Regulation to Tackle the Challenge of Diffuse Water Pollution and Its Impact on the Great Barrier Reef*, 15 Australasian J. Nat. Resources L. & Pol'y 109 (2012); Pho-Ling Tan et al., *Deliberative Tools for Meeting the Challenges of Water Planning in Australia*, 474 J. Hydrol. 2 (2012); Alejandro E. Camacho, *Can Regulation Evolve? Lessons From a Study in Maladaptive Management*, 55 UCLA L. Rev. 293 (2007); Bradley Karkkainnen, *Toward Ecologically Sustainable Democracy?*, *in* Archon Fung & Erik Olin Wright, Deepening Democracy 217-20 (2003); Karkkainen, *Post-Sovereign*, *supra* note 12.
18. Though a broad and arguably vague concept, Integrated Water Resource Management can be described as a process that promotes the coordinated development and management of water, land, and related resources. This process is usually pursued to achieve economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. Global Water Partnership, Integrated Water Resources Management (2000); Asit Biswas, *Integrated Water Resources Management: Is It Working?*, 24(1) Water Resources Dev. 1, 7 (2008).
19. Basin Futures (Daniel Connell & Quentin R. Grafton eds., 2011); Embracing Watershed Politics (Edella Schlager & William Blomquist

Audited Self-Management (ASM) in New Zealand and the Delta Plan in California, two novel approaches that are the subject of this Article.

It is increasingly important for legal scholars to account for the growing plurality of approaches, such as CWG, that can be used to implement legal and policy norms. Traditionally, lawyers focused on direct regulation and the courts. This approach is arguably restrictive in the kind of actors and institutions it takes to be legally relevant.[20] In particular, it can obscure the array of other important actors and governance approaches (broadly conceived) in public law spheres.[21] Maintaining a robust understanding of law, and water law in particular, will necessitate a broader view of how law and legal regulation interacts and is shaped by new forms of governing.

It is within this context, and with an interest in promoting effective collaborative governance for water problems, that this Article is situated. Despite a growing literature examining CWG,[22] there is a lack of empirical fieldwork to connect governance theory with grounded practice to identify what works, when, and how. This Article offers an empirical examination of ASM in New Zealand and the Delta Plan in California to provide insights and lessons on two pressing issues.

The first issue concerns the fundamental challenge of collaboration. For CWG, it is essential that all parties collaborate and that they do so in a genuine way.[23] The analysis below explores how to craft effective coalitions at different scales and presents a number of practical and policy insights on a range of underexamined issues, including the roles and forms of government intervention and institutional design conditions that might best produce successful collaborative processes; and when and under what conditions collaborations are likely to deliver effective water outcomes.

The second issue examined here has been the subject of vigorous debate at both an applied and theoretical level—namely, whether, to what extent, and in what ways to blend collaborative elements with state-centric governance understandings and practices so as to better govern human impacts on the environment.[24] This is a significant issue because the move to CWG has not resulted in the unicentric vision of state control being abandoned, but rather in the development of approaches that seek to relate top-down and collaborative governance ideals in a variety of ways. Of particular concern on both domestic and international levels has been the specific relationship between traditional "hard" legal rules and "softer," often nonbinding, collaborative approaches to governance.[25]

In this context, the Article evaluates two hypothesized relationships between conventional legal regulation and collaborative governance. The first is the so-called default hybridity relationship, a constructive relationship where both systems remain independent but interact in mutually supporting ways. The second is known as complementarity, where the two approaches are merged into an integrated system.[26] More work is needed to examine the potential scope of these relationships, to identify when they arise, and how constructive relationships between traditional legal regulation and CWG can be fostered, and destructive interactions avoided, so as to achieve good water outcomes.[27]

The Article draws on approximately 40 interviews with key government and nongovernment stakeholders from the Delta Plan and ASM. Part II provides a brief overview of the literature on collaborative governance and legal regulation. Part III examines the CWG programs in practice to identify the conditions under which CWG was able to achieve successful collaborative approaches to manage water problems, and provides recommendations for policy and theory regarding the conditions under which successful collaboration is likely to be achieved in practice. These lessons are grouped under three principal themes: (1) regulatory and other incentives that motivate parties to both come to the table and implement actions; (2) the use of appeals; and (3) building trust. That part also offers insights for collaborative governance jurisprudence and practice regarding the relationship between traditional legal rules and new forms of collaborative governance. Part IV concludes by identifying directions for further research.

II. Literature on CWG and Legal Regulation

The topic of collaboration (and closely related notions of partnerships and networks) has been examined in a diverse array of scholarship, making it important to explain how the term is used in this Article.[28] At the center of CWG's

eds., 2008); Edella Schlager & Tanya Heikkila. *Resolving Water Conflicts: A Comparative Analysis of Interstate River Compacts*, 37(3) Pol'y Stud. J. 367 (2009); Barton H. Thompson Jr., *Water Federalism: Governmental Competition and Conflict Over Western Waters*, *in* Environmental Federalism 175, 214-15 (Terry L. Anderson & Peter J. Hill eds., 1997).

20. Michael Wilkinson, *Three Conceptions of Law: Toward a Jurisprudence of Democratic Experimentalism*, 673 Wis. L. Rev. 693, 715 (2010); John Braithwaite, Regulatory Capitalism: How It Works, Ideas for Making It Work Better (2008).
21. Wilkinson, *supra* note 20, at 715.
22. For examples in Australia, see Lee Godden & Anita Foerster, *Introduction: Institutional Transitions and Water Law Governance*, 22 J. Water L. 53 (2011); Pho-Ling Tan et al., *Continued Challenges in the Policy and Legal Framework for Collaborative Water Planning*, 474 J. Hydrology 84 (2012); Jennifer McKay, *Australian Water Allocation Plans and the Sustainability Objective*, 56 Hydrologicl Sci. J. 615 (2011).
23. Keesen et al., *supra* note 16, at 55.
24. Holley et al., *supra* note 10, at 5.
25. *Id.*; Johns et al., *supra* note 13; de Búrca et al., *supra* note 10.
26. Trubek & Trubek, *supra* note 16; Lisa T. Alexander, *Stakeholder Participation in New Governance: Lessons From Chicago's Public Housing Reform Experiment*, 16 Geo. J. Poverty L. & Pol'y 117, 179-18 (2009).
27. Kenneth Armstrong, *New Governance and the European Union: An Empirical and Conceptual Critique*, *in* Gráinne de Búrca et al., Critical Legal Perspectives on Global Governance (2013); Lisa B. Bingham, *The Next Generation of Administrative Law: Building the Legal Infrastructure for Collaborative Governance*, 2010 Wis. L. Rev. 297 (2010); Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 Tex. L. Rev. 819, 833-34 (2008); *Gráinne de Búrca & Joanne Scott*, *Introduction: New Governance, Law, and Constitutionalism*, *in* Gráinne de Búrca & Joanne Scott, Law and New Governance in the EU and the US (2006).
28. Robert Axelrod, The Evolution of Cooperation (1984); Putnam, *supra* note 8; Roderick A.W. Rhodes, *Understanding Governance: Ten Years On*, 28 Org. Stud. 1243 (2007).

collaborations are consensus processes that seek to move toward some level of agreement and implementation by parties.[29] For present purposes, collaboration can be defined broadly as a process where two or more stakeholders agree to share power and pool knowledge and/or tangible resources (for example, information, money, or labor) to reach agreement and solve a set of shared problems.[30]

Such forms of collaboration are capable of: (1) reducing conflict and increasing cooperation; (2) enhancing democracy and civic engagement; and (3) contributing to a rich understanding of and capacity to solve "wicked" water problems.[31] As a developing field of water governance scholarship, debates continue as to whether and how CWG can deliver on these normative claims.[32] Many in the literature have identified sanguine possibilities for cooperation under certain conditions.[33] For example, alternative dispute resolution approaches claim that successful collaborative agreements are more likely to occur and be implemented where, among other things, trust is built between parties and a process of negotiation, facilitated by a neutral party, is followed to reach consensus outcomes.[34]

Elinor Ostrom's research on the effective and sustainable co-management of common pool resources has likewise identified a range of conditions (such as trust, severe environmental problems, and autonomy from external authorities) associated with an increased likelihood of successful collaboration in common pool resource contexts.[35] In addition to the work of Ostrom and others on collaboration, a range of conditions have been suggested in the CWG literature as necessary or desirable for successful collaboration. Some CWG authors suggest that the existence of external and institutional triggers can open the way to successful collaboration. These include economic and regulatory incentives (for example, "the shadow of the law") that can bring parties to the collaborative table.[36] Others emphasize the need for a strong governmental role, including the use of funding and/or in-kind assistance to offset transaction costs (that is, the personal time, resources, and travel expenses associated with participating in the interactive process).[37]

Another pressing but under-researched issue concerns the extent to which conventional legal rules facilitate rather than frustrate new forms of CWG in practice. This issue has attracted theoretical attention as part of debates concerned with the relation of collaborative forms of governance and traditional hard law[38] (conceived as top-down control, detailed legislative rules, and enforcement by agencies and the courts).[39] Despite the long-standing prominence of this approach to implementing law, CWG has recently emerged as a potential challenger. Often characterized as emerging in response to the limits and failures of traditional approaches, CWG is seen by many as representing an alternative to traditional command-and-control approaches to making, implementing, and enforcing public policy.[40]

Debates have accordingly arisen regarding the interaction and relation of collaborative forms of governance and traditional legal regulation. In this context (although a range of configurations between law and CWG systems are being explored),[41] two significant hybrid relationships have been suggested. Arguably the most constructive, and increasingly embraced,[42] is called default hybridity. The idea is that standard regulatory frameworks may act as a default regime (applicable only in the case of failure to conform to CWG demands), and should be set precisely for the purposes of inducing otherwise reluctant actors to embrace CWG.[43]

Harsh penalty default rules (or indeed other forms of social or economic pressure from third parties)[44] may alter the incentives of actors, making the transaction costs of collaboration preferable to bearing the costs imposed by the default rule.[45] Harsh legal regulation per se can often produce suboptimal outcomes (for example, they are likely to be expensive and plagued by adversarial behavior). However, as a default to the CWG regime, such rules can be used to create incentives for parties to work together, and

29. Karkkainen, *Collaborative Ecosystem*, *supra* note 7, at 240.
30. Barbara Gray, Collaboration: Finding Common Ground for Multiparty Problems 10 (1989); Brian Head, *Participation or Co-Governance? Challenges for Regional Natural Resource Management*, *in* Participation and Governance in Regional Development 137, 146 (Robyn Eversole & John Martin eds., 2005).
31. Holley et al., *supra* note 10; Bradley Karkkainen, *Managing Transboundary Aquatic Ecosystems: Lessons From the Great Lakes*, 19 Pac. McGeorge Global Bus. & Dev. L.J. 209, 212, 228-29 (2006); Cameron Holley & Neil Gunningham, *Natural Resources, New Governance, and Legal Regulation: When Does Collaboration Work?*, 24 N.Z. U. L. Rev. 309, 312-13 (2011).
32. de Búrca et al., *supra* note 10; Holley et al., *supra* note 10.
33. Donald Hornstein, *Complexity Theory, Adaptation, and Administrative* Law, 54 Duke L.J. 913, 951-52 (2005); Karkkainen, *Marine Ecosystem*, *supra* note 14, at 226-33.
34. Lawrence Susskind et al., *Collaborative Planning and Adaptive Management in Glen Canyon: A Cautionary Tale*, 35 Colum. J. Envtl. L. 1, 37-43 (2010); Rosemary O'Leary et al., *Environmental Conflict Resolution*, *in* Robert F. Durant et al., Environmental Governance Reconsidered 338 (2004); Holley & Gunningham, *supra* note 31, at 313-14.
35. Elinor Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action (1990); Elinor Ostrom, *The Danger of Self Evident Truths*, 33 Pol. Sci. & Pol. 33, 39-40 (2000); Holley & Gunningham, *supra* note 31, at 314.
36. Carole Menkel-Meadow, *Getting to "Let's Talk": Comments on Collaborative Environmental Dispute Resolution Processes*, 8 Nev. L.J. 835, 850 (2008); Holley & Gunningham, *supra* note 31, at 314.
37. Kristin Floress et al., *Constraints to Watershed Planning: Group Structure and Process*, 45 J. Am. Water Rights Ass'n 1352-53, (2009); Richard D. Margerum, *Overcoming Locally Based Collaboration Constraints*, 20 Soc'y & Nat. Resources 135, 136 (2007); Holley & Gunningham, *supra* note 31, at 314.
38. Trubek & Trubek, *supra* note 16, at 543; Alexander, *supra* note 26, at 178-84.
39. Trubek & Trubek, *supra* note 16, at 543.
40. Bingham, *supra* note 27, at 300.
41. See generally discussions in Rudiger K.W. Wurzel et al., Environmental Governance in Europe: A Comparative Analysis of the Use of New Environmental Policy Instruments 4-9 (2013); Jeroen van der Heijden, *Voluntary Environmental Governance Arrangements*, 21 Envtl. Pol. 486 (2012).
42. de Búrca & Scott, *supra* note 27, at 9.
43. *Id*; Holley & Gunningham, *supra* note 31, at 315.
44. Neil Gunningham et al., Shades of Green: Business, Regulation, and Environment (2003).
45. Bradley Karkkainen, *Information-Forcing Regulation and Environmental Governance*, *in* de Búrca & Scott, *supra* note 27, at 297-98.

thus foster actions that take advantage of their knowledge, achieve greater buy-in, and more closely approximate an optimum outcome.[46]

The concept of penalty default rules was first explored in contract law and theory, and has generated subsequent interest in the broader regulatory literature within the regulatory enforcement pyramid.[47] However, the role of penalty defaults has received little empirical scrutiny in the particular circumstances of CWG.[48] Early analysis in New Zealand and the United States suggests that there is significant potential for default hybridity to overcome some of the biggest obstacles to implementing law and CWG, and there is considerable merit in further examining the effectiveness of this mechanism in practice.[49]

Beyond default hybridity, a second hypothesized relationship takes the interaction between CWG and legal regulation one step further to suggest a more integrated hybrid combination. This idea advances beyond two ostensibly independent but interacting (or mutually antagonistic) social phenomena.[50] It involves the conscious integration of CWG and traditional law into a single system that seeks to get the best of the old and new approaches.[51] Examples of this so-called complementarity relationship remain rare: The Water Framework Directive in Europe is perhaps the most prominent exemplar. More work is needed to understand the complex dynamics that arise where CWG and traditional legal regulation are yoked together, and to identify when and why such integration succeeds or fails.[52]

The following sections address the challenge of complementarity, the issue of when and whether default hybridity occurs, and the conditions under which collaboration can be successful.

III. Insights From ASM in New Zealand and California's Delta Plan

A. *Cases and Methods*

Two CWG case studies in New Zealand and California were chosen to examine whether, and under what conditions, successful collaboration was achieved. These CWG programs differ in their complexity, focus, and design. ASM in New Zealand, for example, is a relatively straightforward CWG approach involving a limited set of stakeholders (farmers) collaborating with a single regulatory body to improve the quality and quantity of shared local water sources (rivers or aquifers). In contrast, the Delta Plan seeks to improve the management of the California Bay Delta and Suisun Marsh (the Delta) through a wide-ranging collaborative and regulatory effort targeting the actions of federal, state, and local governments and nongovernment actors.

This part draws on 40 interviews[53] with key government and nongovernment stakeholders involved in both cases to examine whether and to what extent the programs were able to achieve successful collaboration in practice. As with most social research, the ethical and confidentiality requirements of the research require preserving the anonymity of specific interviewees, save for a general description of the place and timing of the interview and stakeholder category. Further, as both ASM and the Delta Plan are relatively new initiatives (less than four years old), there is little hard scientific data on the results of these collaborations. Instead, success here is gauged using the respondents' opinions regarding whether the collaborations included relevant stakeholders, and whether these stakeholders were able to combine their capacity, resources, and knowledge in ways that were likely to achieve the programs' stated goal(s), either improving the condition of New Zealand rivers and aquifers (ASM) or providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem (the Delta Plan).

1. ASM and the Resource Management Act

ASM is located in the Canterbury region of New Zealand. The regional council in Canterbury is known as Environment Canterbury (ECan). At the time of the empirical research, the council was managed by commissioners under the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010.[54] ECan has a long history of experimenting with CWG approaches as a complement to their traditional regulatory role. The latter role arises under the Resource

46. Charles Sabel & William Simon, *Accountability Without Sovereignty*, *in* de Búrca & Scott, *supra* note 27, at 408; Holley & Gunningham, *supra* note 31, at 314-15.
47. Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 Yale L.J. 87, 91-93 (1989); Ian Ayres & John Braithwaite, Responsive Regulation: Transcending the Deregulation Debate (1992); Holley & Gunningham, *supra* note 31, at 315.
48. Cameron Holley, *Removing the Thorn From New Governance's Side: Examining the Emergence of Collaboration in Practice and the Roles for Law, Nested Institutions, and Trust*, 40 ELR 10656, 10683-84 (July 2010); de Búrca & Scott, *supra* note 27, at 4; Sabel & Simon, *supra* note 46.
49. Holley & Gunningham, *supra* note 31; *Solomon*, *supra* note 27, at 833-84; Trubek & Trubek, *supra* note 16, at 539, 558, 564; de Búrca & Scott, *supra* note 27, at 4-9.
50. de Búrca & Scott, *supra* note 27, at 9; Trubek & Trubek, *supra* note 16, at 560.
51. de Búrca & Scott, *supra* note 27, at 9-10; Trubek & Trubek, *supra* note 16, at 560.
52. Trubek & Trubek, *supra* note 16; de Búrca & Scott, *supra* note 27, at 9-10.
53. Interviewees were selected to capture some of the main forms of diversity across the types of stakeholders involved, including farmers; state, regional, and local governments; industry associations; and nongovernment organizations (NGOs). Twenty-eight interviews were conducted in New Zealand during 2011-2012. Interviewees came from two ASM collaborative groups that were selected because, among other considerations, they were some of the most information-rich examples of ASM in practice (that is, they were some of the more advanced pilots at the time of research). In the study of the Delta Plan, 12 interviews were conducted in California in 2012. The Delta Plan was chosen because it involved a novel collaborative approach to governing water, and the Delta faced some of the most complex water management problems in the United States.
54. Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 (N.Z.). Like other regional councils, Environment Canterbury (ECan) is a democratically elected government body. However, following a review of its performance, the national government passed this statute that replaced elected representatives with commissioners. Holley & Gunningham, *supra* note 31, at 316-18.

Management Act (RMA) 1991, under which the control and management of natural and physical resources are devolved to regional councils such as ECan.[55] Councils have authority to develop regional policy and plans (and arguably even CWG initiatives) to promote the sustainable management of natural and physical resources and to govern their use, development, and protection.

In addition to the RMA, the Local Government Act (LGA) 2002 provides ECan with a direct mandate for CWG experimentation, requiring ECan to achieve sustainable development (as defined by community outcomes) through government, industry, and community collaboration. These can be used in tandem with the provisions for regulating sustainable management under the RMA.[56]

Within this system, the RMA regulatory framework is still the dominant mode of governance, particularly at the regional and project level. But spurred by their LGA mandate, ECan has also "been developing a model of collaborative community engagement to complement the adversarial effects-based statutory requirements."[57] This collaborative approach increasingly occurs within a nested system of governance. That is, it seeks to involve integrated management both horizontally across all of Canterbury's stakeholders, and vertically from the locality through to the central government. Further, it is designed to address issues at the smallest geographical scale relevant to the water issue (for example, the catchment boundary) and the stakeholders who have an interest in it.[58] One increasingly prominent form of collaboration at a local geographical scale is the ASM approach. This approach is being explored in Canterbury (as well as in national discussions in New Zealand).[59] While ASM can take many different forms,[60] collaboration is an essential arm of its approach. It involves farmers voluntarily coming together to form a collaborative group, typically a formal legal entity such as an irrigation collective, that self-manages and monitors their cumulative water use and environmental effects on the local water system.[61] Through this group, farmers are transferred day-to-day water management and compliance responsibilities under terms and conditions agreed to with ECan.

These conditions include collaboratively setting water quantity and quality goals (in cooperation with non-governmental organizations (NGOs)) for their shared aquifer or catchment; requirements to establish a robust real-time telemetered data monitoring system; management rules; third-party audits of the collective's compliance with these rules; continuous monitoring, reflection, and improvement; and reporting of performance to the regulator. Instead of the individual license requirements and a regulator monitoring actions of individual farmers (as in the traditional system), collaborative groups control the behavior of their members and monitor activities themselves (the self-management aspect), and report to the independent third party and the regulator on achievement of agreed goals (the audit aspect).

While this ASM model is voluntary and approximates a CWG approach, ECan has the capacity to draw on the RMA to harness available regulatory pressure as an incentive to get stakeholders to come to the ASM table and genuinely collaborate.[62] For example, under the conventional regulatory framework of the RMA, when statutory levels of water use or water quality (such as limits for nitrogen) are exceeded because of on-farm actions, ECan can inspect, enforce, and carry out a prosecution or take other disciplinary measures.[63] While ECan still relies substantially on its regulatory powers, persuading farmers to come to the collaborative ASM table (albeit under the shadow of the law) is intended to reduce government compliance costs and encourage continuous improvement.[64] Under this approach, the standard RMA framework acts as something akin to the default hybridity approach, where traditional regulation can be used to encourage collaborators to not only come to the table, but also to implement agreed-upon actions, and in the event of default can be invoked as a means of direct enforcement, including prosecution.[65]

55. Resource Management Act 1991 (N.Z.) §30. *See* Pyar Ali Memon & B.J. Gleeson, *Toward a New Planning Paradigm? Reflections on New Zealand's Resource Management Act*, 22 EPB Plan. & Design 109 (1995); Neil Gunningham, *Innovative Governance and Regulatory Design: Managing Water Resources*, Landscape Res. 22 (2008), *available at* http://www.landcareresearch.co.nz/publications/researchpubs/water_gunningham_LC0708137.pdf; Holley & Gunningham, *supra* note 31, at 316.
56. Local Government Act 2002 (N.Z.) §§10, 14, 77-81, 91 (2002). *See* Kenneth Palmer, *Local Government Law and Resource Management*, 751 N.Z. L. Rev. 752-56 (2004); Bryan Jenkins, Canterbury Strategic Water Study: Briefing Document to Canterbury Mayoral Forum 2 (2007); Local Government Act 2002 (N.Z.) §§10, 14, 76-81, 91, 92 Holley & Gunningham, *supra* note 31, at 317.
57. Bryan Jenkins, *ECan's Approach to Water Management*, Canterbury Public Issues Forum (2008), http://forums.e-democracy.org/groups/canterburyissues; Holley & Gunningham, *supra* note 31, at 317.
58. Canterbury Water, Canterbury Water Management Strategy, Strategic Framework, Canterbury Mayoral Forum (2009), *available at* http://ecan.govt.nz/publications/Plans/cw-canterbury-water-wanagement-strategy-05-11-09.pdf; Holley & Gunningham, *supra* note 31, at 317.
59. For discussions nationally, see Land & Water Forum, *Report of the Land and Water Forum: A Fresh Start for Fresh Water* 26 (2010), *available at* http://www.landandwater.org.nz. In Canterbury, the pursuit of ASM has been spurred by the development of the Canterbury Water Management Strategy, a collaborative governance approach that established vision, principles, and mechanisms for sustainably managing water resources in Canterbury. One key mechanism under the strategy is ASM. *See* Canterbury Water, *supra* note 58, at 34, 43. The Strategy itself is nonbinding, although ECan is required to have regard to its vision and principles in decisionmaking under the Environment Canterbury Act 2010 (N.Z.) §§34, 50, 63.
60. *See* Land & Water Forum, *Third Report of the Land & Water Forum: Managing Water Quality and Allocating Water* 93-94 (2012), *available at* http://www.landandwater.org.nz. *See also* Irrigation N.Z., *Workshop Report: Building Knowledge and Understanding of Audited Self-Management* (2011), *available at* http://www.irrigationnz.co.nz/assets/Uploads/001-INZ-Audited-Self-Management-14-8-11.pdf.
61. Irrigation N.Z., *supra* note 60, at 3-4.
62. Respondents suggested that this potential could also involve the use of other positive incentives and norms (for example, reduced costs to relevant fees or charges). Interview No. NZ2 with farmer, in Canterbury, New Zealand (November 2011-March 2012).
63. Resource Management Act 1991 (N.Z.) (RMA) §30.
64. *Id.*; Canterbury Water, *supra* note 58, at 43. For discussion of a similar approach in Australia, see Cameron Holley & Neil Gunningham, *Environment Improvement Plans: Facilitative Regulation in Practice*, 23 Env't & Plan. L.J. 448 (2006).
65. At the time of research, ECan was exploring how best to roll out the ASM approach, including how to amalgamate consents of individual water users.

How successful was this ASM approach in practice? At the time of research, a number of pilots of ASM were underway in Canterbury and two of the more advanced became the focus of this study. The first, known as ASM1, was a small, local-scale collaboration involving 12 farmers in an existing irrigation scheme that used groundwater pumped into channels for irrigation. The second, known as ASM2, involved over 200 mixed-use irrigators that owned and operated an irrigation scheme, with multiple surface and groundwater consents.

As we will see below, ASM1 was far more successful than ASM2, with the latter struggling to overcome high transaction costs and conflict among numerous interests. Even so, the findings suggest that this CWG approach has the potential to foster good collaborative processes and deliver significant environmental improvements, including improved water efficiency and compliance. The successes and weaknesses of the cases are discussed in turn below.

As with many CWG approaches, the fundamental challenge for ASM was engaging with otherwise reluctant water users who either didn't agree that there was a need to improve water management or viewed the effort involved as costly and antithetical to their economic self-interest. Against this backdrop, two main strategies were successfully employed by ECan to ensure that farmers agreed to cooperate in the two pilots.

The first was the promotion of potential economic benefits that could arise from participating in ASM. The collaborative and self-regulatory nature of ASM was designed to deliver economic efficiencies to farmers. According to ECan, this could include farmers pooling their resources within the cooperative group to enable bulk technology purchases, thus providing savings to each individual. ASM was also promoted as giving farmers greater flexibility to manage and informally trade water among the cooperative members as needed. This was said to enable them to respond to their own needs and environmental conditions without having to predict water needs seasons ahead and then apply through a slow and cumbersome approval process to gain more water. As one interviewee explained: "We can smooth out the bumps by pooling our water . . . letting croppers pump extra around Christmas and dairy farmers extra around winter, you know, getting that bit extra when they really need it."[66]

While the promotion of these potential benefits was important, they typically were not sufficient on their own to motivate people to participate in the scheme. Fortunately, ECan had recourse to a second tool, namely regulation. Indeed, most respondents suggested that farmers engaged in ASM's collaborative approach to avoid the procedures and potential penalties associated with current legal regulation.[67] As a government respondent explained: "Industry are excited because they see ASM as a way to stave off regulation. . . . They would rather their collective does it than ECan driving around their farms and telling them off."[68]

In essence, the default position set by the RMA acted as a penalty default rule that induced farmers to contract out of it and into what they believed was a collaborative regime that better represented their interests. As one farmer bluntly put it: "We wanted to stop compliance officers coming in and trying to make an example of us."[69]

Together, these incentives were sufficient to bring a core group of farmers to the table to begin negotiating targets, develop a plan, and agree to a self-management scheme. Across both cases ECan provided in-kind support such as facilitating negotiations and information provision in an attempt to achieve timely agreement among farmers and NGO stakeholders. Further, while there was no direct funding to support the process, the fact that both pilots were based around existing irrigation schemes appeared to ensure that participants had a base level of preexisting trust and/or reciprocity that made it easier to collaborate and communicate.[70] Even so, ASM2 was far less successful than ASM1 in reaching an agreement on targets and a management approach.

The reason that progress toward an agreement was substantially slower in ASM2 than ASM1 appeared attributable to the scale and size of the different cases. The small scale and limited number of water users in ASM1 kept transaction costs of decisionmaking relatively low. As a result, the group agreed in less than one year to a plan detailing the water targets and responses. By contrast, the 200-odd farmers involved in the ASM2 process substantially exacerbated the challenge of reaching agreement among various interests. As one respondent explained: "It took us a long time to work out what to do . . . . Everyone has a different idea on what ASM means, what the point is and what we should get out of it."[71] As a result, it took over two years for ASM2 to reach even a loose agreement among the stakeholders on the broad

66. Interview No. NZ3 with farmer, in Canterbury, New Zealand (November 2011-March 2012).

67. Note that because ASM was still in a pilot stage at the time of research, the ASM pilots examined here were already an existing cooperative irrigation scheme, that is, they had been collaborating for a number of years. These collectives (as a whole) had been motivated to engage in ASM because they wanted to avoid potential costly procedures/penalties under the RMA, not least as a result of recent RMA amendments that enabled ECan to impose monitoring obligations on consent holders and substantially increased penalties for breaches. *See* Resource Management Act 1991 (N.Z.) §108(3)-(5). Indeed, one particular benefit of ASM in the case study was the review and amalgamation of consent conditions applying to the scheme that farmers believed would ultimately reduce the costs and complexity of complying with the RMA. Respondents also suggested that even in cases where farmers were not in an existing scheme, the RMA would remain an important (if not the most important) driver for people to come to the table and collaborate in other ASM schemes.

68. Interview No. NZ1 with regulator, in Canterbury, New Zealand (November 2011-March 2012).

69. Interview No. NZ8 with farmer, in Canterbury, New Zealand (November 2011-March 2012).

70. Indeed, some respondents believed that ASM would only be suited to situations based around such social networks, as opposed to creating new relationships among actors who shared a single aquifer. As one respondent put it: "Moving beyond existing irrigation schemes is limited. You got to have a shared source of water." Interview No. NZ12 with farmer, in Canterbury, New Zealand (November 2011-March 2012).

71. Interview No. NZ16 with farmer, in Canterbury, New Zealand (November 2011-March 2012).

shape of the ASM process. At the time of research, no final agreement had been reached.

The substantially slower progress in ASM2 meant there were few findings regarding its success in implementation. However, the far greater progress achieved in ASM1 did reveal some important insights on the strengths and weaknesses of the ASM approach. One of the main successes reported by ASM1 respondents was that farmers had genuinely collaborated to implement the agreement and manage the water among them. One key to this success was that the collaborative ASM approach and its real-time database had leveraged significant peer pressure among collective water users to encourage good management and compliance. As one farmer explained: "Every member can go in and see what their neighbors are doing and if they go over their entitlements, we get very angry. . . . It's absolute transparency. The system takes away the risk of abuse."[72]

However, the findings suggested that there were significant limits to ASM's collaborative norms and informal means of social control. Indeed, farmers reported that while they were not afraid to have hard conversations with their neighbors, when it came to truly recalcitrant individuals,[73] they felt that their control was limited: "We aren't policeman, so we don't want to act too aggressively."[74]

While these limits may undo a purely community-driven scheme, in this case, ECan's powers under the RMA ensured that it could enforce regulatory bottom lines where peer pressure failed. According to respondents, the availability of direct or tacit threats of enforcement and loss of water consents under the RMA regulatory framework acted as powerful ongoing incentives to ensure that potentially recalcitrant farmers toed the ASM line. As industry and government respondents respectively explained: "You might get spanked a few times by your peers and if that doesn't work then the regulator takes over," and "The RMA is regulating in the background, and while people are being cooperative and as helping as they can be, we have that ability to say 'okay, we don't want to be your friend now.'"[75]

After one year of operating under the ASM scheme, the results of ASM1 were reportedly very promising. Government respondents reported substantial reductions in their monitoring and compliance costs: "If we [the regulator] had gone and done the work of monitoring, it would have cost 1,000 hours of our time. Now, with the collective group providing the data via telemetry, it might only cost 50 hours."[76] These savings reportedly enabled them to shift some of their already scarce resources to target other pressing water issues.

While it is still too early to be able to measure whether ASM was able to deliver improvements in water efficiency or quality, respondents did report that farmers' buy-in into water management had improved. Because farmers had a greater say over day-to-day decisionmaking regarding water use and allocation, they were considered more likely to be good water stewards. As one farmer explained: "It's shifting minds away from complying with licenses or consents to encouraging ownership of the water, so it's no longer the government's water but it's our water; our group owns it and if an individual takes water he is taking our water."[77]

In summary, the above findings suggest that ASM can foster successful collaborative approaches for managing water systems by engaging relevant stakeholders. This success was attributable to a number of key conditions, including ECan's in-kind support, the small scale and small population involved in ASM1, peer pressure, and the hybrid relationship between traditional regulation and ASM. However, cooperation barriers posed by the larger and complex ASM2 setting limited the success of ASM and appear to reduce its utility, at least in its current form, as a feasible solution to water management applicable to a wide range of water problems.

2. The Delta Plan

In contrast to the relatively small-scale collaborative approach in ASM, the Delta Plan involves a much more complex attempt at achieving collaboration. The Delta is the hub of the California water system and the most valuable estuary and wetland ecosystem on the West Coast of North and South America.[78] Debates on how to manage the Delta's water and land have continued for almost one century.[79] It has remained a fundamentally difficult challenge for California because of the complex and dynamic Delta ecosystems, the long-standing differences between northern and southern California, and conflicts among agricultural, urban, extractive, and environmental interests.[80] Further complicating matters are the fragmented responsibilities of over 200 federal, state, and local agencies sharing disparate and often competing authorities. Indeed, a lack of coherent agency coordination and competing regulatory commands under the federal Clean Water Act (CWA)[81] and Endangered Species Act (ESA)[82] has been a significant management challenge.[83]

72. Interview No. NZ2, *supra* note 62.
73. Respondents suggested that such recalcitrant behavior was likely to be a problem because: "Some farmers are rogues. If there's half a chance to get away with it, they will try. My mate is rogue; he would get up in the middle of the night to open his gate and let the water flow." Interview No. NZ2, *supra* note 62.
74. Interview No. NZ3 with farmer, in Canterbury, New Zealand (November 2011-March 2012).
75. Interview No. NZ11 with industry respondent, in Canterbury, New Zealand (November 2011-March 2012). Interview No. NZ3 with regulator, in Canterbury, New Zealand (November 2011-March 2012).
76. Interview No. NZ1 with regulator, in Canterbury, New Zealand (November 2011-March 2012).
77. Interview No. NZ7, with farmer, in Canterbury, New Zealand (November 2011-March 2012).
78. Cal. Water Code §85002 (2012).
79. Kaveh Madani & Jay R. Lund, *California's Sacramento-San Joaquin Delta Conflict: From Cooperation to Chicken*, J. Water Resources Plan. & Mgmt. 90 (Mar./Apr. 2012).
80. Michael Hanemann & Caitlin Dyckman, *The San Francisco Bay-Delta: A Failure of Decisionmaking Capacity*, 12 Envtl. Sci. & Pol'y 710, 711-12 (2009).
81. 33 U.S.C. §§1251-1387, ELR Stat. FWPCA §§101-607.
82. 16 U.S.C. §§1531-1544, ELR Stat. ESA §§2-18.
83. The Bay Delta Conservation Plan is also an ongoing development in California that is likely to have significant implications for the operation

On the back of this ongoing governance crisis, the Delta Plan represents the most recent iteration of collaborative attempts to manage the Delta.[84] The Delta planning process emerged in 2009 from a five-bill package of legislation.[85] The key legislative instrument of the reform package was the Delta Reform Act,[86] which pursued a "hybrid approach—both regulatory and collaborative."[87] This approach involved the creation of a new, legislatively backed collaborative body: the Delta Stewardship Council (Council).[88]

The new Council was charged with responsibility for developing a comprehensive, legally backed Delta Plan (the Plan) for achieving two coequal goals: providing a more reliable water supply for California; and protecting, restoring, and enhancing the Delta ecosystem.[89] While the Plan itself includes a focus on water users and other nongovernment stakeholders in the Delta, its primary aim is to improve integration among a myriad of government bodies so as to deliver on the coequal goals. This is to be achieved through collaborative and regulatory mechanisms discussed further below.

How successful was the Delta process? After almost three years involving negotiations, numerous public meetings, and thousands of public comments, collaborators reportedly had improved their understanding of each others' interests, built trust, and developed a new Plan for the Delta. As one respondent explained: "The warring parties could agree. . . . It was a significant achievement."[90] Even so, the findings discussed below reveal that the Plan's success appears to be limited by a number of fundamental challenges, including insufficiently harsh default positions to incentivize genuine collaboration, legal challenges to the Plan's validity, and unwillingness of regulators to share power and support the voluntary process.

Given the difficult management history in the Delta, finalizing the Plan was no small feat. A key to success was the leadership of the Council. The Council is composed of seven members who represent different parts of California and offer diverse expertise in fields such as agriculture, science, and the environment. Its members, particularly its chair, were reportedly very assertive in engaging with the community, governments, and other stakeholders to build trust and convince them that cooperative efforts are both possible and preferable from everyone's point of view.[91] As one science respondent put it: "[The Chair] always has time for public input, at the end of any meeting. He has been really good about engaging with them. If you didn't have someone like that, it wouldn't work."[92]

The composition of the Council, with its relatively balanced mix of interests, was also seen to benefit the process and add legitimacy to its trust-building and facilitation efforts. As one industry respondent explained: "Out of everyone, the Council has the most trust. They have a good mix of people, more or less, and they are independent of any other statutory state agency."[93] The improved trust and relationships facilitated by the Council ensured that many, although not all, stakeholders would cooperate successfully in agreeing to the new Delta Plan.

Indeed, in 2013, the Council finalized the plan and its regulatory and nonregulatory recommendations. In terms of regulatory features, the Plan contains 14 regulatory policies that, among other things, require the actions of state and local agencies in the Delta to be consistent with the Plan in areas such as water conservation, restoring habitat, and protecting land.[94] These legal/regulatory features are integrated with mechanisms that much more closely approximate CWG. They included 73 nonenforceable recommendations in the Plan, such as deadlines for actions, encouraging implementation of local plans and integrating priorities, and reporting across agencies to achieve greater cohesion between specific agency missions.[95] Despite the success of producing such a detailed set of integrated actions, respondents suggested that implementation of the Plan was likely to confront significant difficulties.

Two key aspects of the Plan's integrated system were pinpointed. The first relates to one of the primary regulatory policies under the Plan, a policy regulating "covered actions."[96] Covered actions are nonregulatory[97] projects,

of the Delta. For further information, see California Dep't of Fish & Wildlife, Bay Delta Conservation Plan (2014), http://www.dfg.ca.gov/water/bdcp.html; Christian L. Marsh & Peter S. Prows, *California's New Water Legislation: A Bucket of Reform or But a Drop?*, 25 Nat. Resources & Env't 37, 40 (2011).

84. This included the failure of one of the flagships of CWG in the United States, the CALFED Bay-Delta Program. *See* Hanemann & Dyckman, *supra* note 80; Jody Freeman & Daniel A. Farber, *Modular Environmental Regulation*, 54 Duke L.J. 795, 890 (2005).

85. For additional information on the background to the legislation, including the Delta Vision Task Force, see Richard Frank, *A New Dawn for the Sacramento-San Joaquin Delta? Assessing the 2009 California Delta/Water Legislation*, 37 Ecology L. Currents 17, 18 (2010).

86. Sacramento-San Joaquin Delta Reform Act of 2009 (SB-1495), *available at* http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201120120SB1495; *see also* Frank, *supra* note 85. The passing of the legislative package itself was considered by many respondents to be a major success. As one government respondent put it: "I was astonished. For us changes like this are unheard of. The last time California people agreed to approve changes to water was the 1960s." Interview No. Cal1 with regulator respondent, in California (May 2012).

87. Delta Stewardship Council (DSC), The Delta Plan 13 (2013), *available at* http://deltacouncil.ca.gov/sites/default/files/documents/files/DeltaPlan_2013_CHAPTERS_COMBINED.pdf.

88. Cal. Water Code §§85200-85204 (2012).

89. *Id.* at §85054.

90. Interview No. Cal8 with NGO, in California (May 2012).

91. DSC, Delta Council Members (2014), http://deltacouncil.ca.gov/delta-council-members; Carol Rose, *Property as Story Telling*, 2 Yale J. L. & Human. 37, 56 (1990).

92. Interview No. Cal7 with science respondent, in California (May 2012).

93. Interview No. Cal10 with industry respondent, in California (May 2012).

94. *See* DSC, Delta Plan, *supra* note 87, at 18.

95. Consistent with collaborative approaches, the Plan also emphasizes flexibility and an adaptive management approach in order to improve decisionmaking and reduce stakeholder conflict. *See id.* at ES17-ES37, 37.

96. "Covered action" means a plan, program, or project that meets all of the conditions as defined pursuant to Cal. Pub. Res. Code §21065 (2012). *See also* Cal. Water Code §85057.5 (2012).

97. Note that certain actions are exempt from the Council's regulatory authority, primarily regulatory action of a state agency (such as the adoption of a water quality control plan by the California Water Resources Control Board). There remains some uncertainty over the operation of the provisions, with the Council having concurrent jurisdiction over covered actions when that action is also regulated by another state agency. For example, the issuance of a take permit is a regulatory action of a state agency, and therefore is not

plans, or programs undertaken or funded by state or local government agencies, which may affect the Delta and the achievement of the coequal goals.[98] Under the policy, covered actions affecting the Delta must be certified as being consistent with the Plan.[99]

In contrast to how traditional regulation is implemented, the Council does not exercise direct regulatory review and approval authority over covered actions to determine their consistency with the Plan. Instead, embracing a more CWG approach, the Delta Plan relies on the cooperation of agencies to self-certify the consistency of their actions. These bodies have responsibility to decide if an action is a covered action and then, if it is, to submit a certificate to the Council that certifies the action is consistent with the Plan.[100]

Many Council respondents were hopeful that this self-certification process would be a success: "I honestly believe that most state agencies will be honorable and ensure consistency."[101] Even so, aware that self-regulatory approaches can readily succumb to inevitable problems of free riders and noncompliance, the Plan was designed to employ a novel disciplinary and accountability approach. This approach allows "any person"[102] to challenge an agency's self-certification that a covered action is consistent with the Plan.

To do so, an appeal right has been created to the Council itself, which acts as the appellate body and can issue specific written findings. If the covered action is found to be inconsistent, the project may not proceed until it is revised and made consistent with the Plan.[103] Broadly speaking, this appeal process roughly approximates a penalty default design.[104] In theory, the background threat of costs and delays caused by a person exercising their appeal right will, similar to a regulatory penalty default, induce agencies to genuinely cooperate and undertake self-certification measures to ensure consistency with the Plan.[105]

Even so, most respondents expressed significant doubt that the background threat of an appeal would discipline and incentivize positive collaborative action. Certainly, it was recognized that litigating inconsistency would, at minimum, hold up actions and create unwanted costs for agencies. However, a major reported flaw was that the appeals process failed to impose credible regulatory penalties. As one NGO respondent explained: "The Council don't have any authority. They have no ability to fine, to stop or to put people in jail."[106] In the absence of such penalties, respondents believed the regulatory shadow was simply too pale to encourage genuine commitment to the process. On this view, complementarity between traditional legal mechanisms and collaboration was likely to have limited success. As one NGO respondent summed up: "It's good they created a new institution. But it won't fundamentally change behavior, so I guess it just becomes another layer of organization."[107]

The second and perhaps more fundamental limitation of the Plan's integrated system related to the 73 nonregulatory/collaborative recommendations. Many of these were designed to encourage and coordinate action from the state's regulatory bodies.[108] As one respondent from the Council explained: "We can play a role in pushing regulators and that was one of our goals."[109] Based on the findings, some success in delivering on this goal had already been achieved. Indeed, respondents confirmed that the planning process was encouraging greater action by government agencies. As one agency respondent explained: "We tried to set regulatory standards in the past but that stopped for various reasons. Now the standards are more likely to be set because the Delta legislation and the Council have created that momentum to set standards."[110]

Importantly, although the recommendations were nonbinding, the legally backed nature of the Plan also appeared to add a level of normative legitimacy to the Plan's recommendations—both for the regulators and for other parties. As one agency respondent implied: "It is helpful to have the Council and the Plan. We often get grief from farmers, and that can be a political barrier to getting our job done, but now it's easier. We can say, 'well, it's the Council's fault; they told us to do so.'"[111]

Despite the momentum created by the Plan, many respondents were doubtful that relevant actors, particularly California's regulators, would fully cooperate. Three reasons were given for this likelihood of free-riding/defection, each undermining the implementation of the Plan and its efforts to integrate management actions. First, respondents reported that mistrust among various agencies and actors was rife in the water sector, reducing the likelihood that they would willingly cooperate, share power, and implement the Plan. Indeed, despite the efforts of the Council to build trust and promote integration, many respondents believed that a climate of mistrust remained. As one NGO stakeholder confirmed: "It has to do with trust. There is no foundation of trust in the water community."[112]

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a covered action. However, the underlying action requiring the take permit could be a covered action and, if it is, it must be consistent with the Delta Plan's policies. *See* Cal. Water Code §85057.5(b) (2012); DSC, Delta Plan, *supra* note 87, at 50.

98. *See* DSC, Delta Plan, *supra* note 87, at 298.
99. *Id.* at 51-53; Frank, *supra* note 85.
100. According to the Delta Plan, if an agency determines that a proposed action is not a covered action, that determination is not subject to Council regulatory review, but is subject to judicial review as to whether it was reasonable, made in good faith, and is consistent with the Delta Reform Act and relevant provisions of this Plan. *See* DSC, Delta Plan, *supra* note 87, at 50.
101. Interview No. Cal2 with Council respondent, in California (May 2012).
102. This includes any member of the Council or its executive officer.
103. DSC, Delta Plan, *supra* note 87, at 52.
104. Because the Plan was only recently finalized, some confusion still exists over the effect of the appeal right. As one Council respondent put it: "It hasn't been litigated yet so no one knows how it will work." Interview No. Cal3 with Council respondent, in California (May 2012).
105. Bradley C. Karkkainen, *Information Forcing Environmental Regulation*, 33 Fla. St. U. L. Rev. 861, 897-98 (2006).
106. Interview No. Cal8, *supra* note 90.
107. Interview No. Cal4 with NGO, in California (May 2012).
108. Many state regulatory actions may be excluded from the "covered actions" definition. *See supra* note 96.
109. Interview No. Cal2, *supra* note 101.
110. Interview No. Cal6 with regulator, in California (May 2012).
111. Interview No. Cal5 with regulator, in California (May 2012).
112. Interview No. Cal9 with NGO, in California (May 2012).

Second, many regulators reportedly saw the Council as having, at best, only dubious authority. In the eyes of many agencies, this view appeared to undermine the legitimacy of the Delta Plan process. Indeed, many agencies/regulators described the Council as "a funny thing,"[113] which, despite legislative backing, possessed only limited authority and capacity to improve the Delta. As one regulator characterized the Council: "It's an *über* regulatory body that doesn't have any power and only gives recommendations to people to do what they are already doing."[114] This view appeared to lessen the likelihood of genuine cooperation, particularly on key Plan recommendations such as voluntary deadlines for agencies to take regulatory action. As one regulator bluntly stated: "So the Plan has set times for [our regulatory objective] and we are perfectly fine with that. But we have already told them we are not going to meet their time scheduling."[115] In short, while agencies were willing to cooperate, they would do so on their own terms.

Third, many respondents believed actors would defect from the Delta Plan process because of the availability of legal avenues for challenging the Plan itself. The risk of stakeholders invalidating the Plan weighed heavily on respondents' minds: "Everyone will sue the Council when the plan comes out; people are worried."[116] And while not everyone chose to exercise this appeal option immediately following the Plan's release in May 2013, as of this writing, seven separate actions have been filed by coalitions of agencies, organizations, and individuals challenging the validity of the Plan.[117]

Ultimately, even after years of planning, there is still a long way to go before the full impact of the Delta Plan process is felt. Based on the above findings, the innovative integration of traditional regulation and CWG under the Delta Plan appears to have produced some benefits, not the least of which was creating momentum for improved implementation of laws. However, the Plan appears likely to face a number of hurdles in practice, for reasons including the lack of trust, unwillingness of agencies to genuinely share power and support the process, lack of sufficiently harsh default positions to incentivize genuine collaboration, and availability of legal challenges to the Plan's validity. Indeed, despite the Council's leadership, trust-building, and public engagement, defection from the Delta process appears likely to limit implementation success.[118]

B. Analysis of Insights

Any successful collaborative water governance approach will require cooperation, and ASM and the Delta Plan were no exception. Although collective action barriers were a significant obstacle for these CWG approaches, the findings confirm that under the appropriate conditions, effective collaboration is possible. The findings make clear that it is a gross oversimplification to rely on "tragedy of the commons" arguments to conclude that cooperative solutions within CWG are impossible.[119]

Indeed, ASM and the Delta Plan had considerable success in fostering processes that engaged stakeholders and achieved some positive outcomes. ASM was successful in enabling ECan and a range of nongovernment stakeholders to come together at a local scale to reach agreement and implement actions to manage shared water sources. Similarly, the Council facilitated a new web of cooperation and interpenetration through its Delta Plan collaborative arrangements.[120] The findings suggested that what encouraged this success were several key conditions, including incentives to engender interest from key stakeholders, government in-kind support to reduce transaction costs, and trust-building via negotiation and consultation decisionmaking.

Nevertheless, it is also clear that achieving successful collaboration was far from easy. Realizing collaboration is both time- and resource-intensive, particularly at larger scales and involving numerous stakeholders. These barriers can make successful collaboration more difficult to achieve, as we saw in the ASM2 case. The success of the Delta Plan was also qualified by a host of weaknesses and difficulties in securing key stakeholders' support for the implementation process. In particular, the lack of sufficiently harsh disincentives, the absence of trust, fissures between its collaborative approach and traditional statutory programs, and the availability of appeal mechanisms all appeared likely to stymie productive working relationships.

What broader lessons can be gleaned from this study? While there are inherent dangers in generalizing from this type of research,[121] nevertheless a number of insights can be drawn from the findings across the contexts and institutional arrangements of the two programs. They suggest some key lessons with regard to the conditions that increase the likelihood of successful CWG. These lessons can be grouped under three themes: (1) regulatory and other incentives that motivate parties to both come to the table and implement actions; (2) the use of appeals; and (3) building trust. For each, the findings provide important lessons for CWG theory and for policymakers in water contexts.

In terms of the first theme, the findings provided insights into the use of incentives to increase the likelihood of successful collaboration.[122] It is widely acknowledged in the regulatory literature that the strategic use of govern-

113. Interview No. Cal6, *supra* note 110.
114. *Id.*
115. Interview No. Cal5, *supra* note 111.
116. Interview No. Cal3, *supra* note 104.
117. DSC, Delta Plan Litigation (2014), http://www.deltacouncil.ca.gov/delta-plan-litigation.
118. Robert Kagan, *Political and Legal Obstacles to Collaborative Ecosystem Planning*, 24 Ecology L.Q. 871, 875 (1997).
119. Karkkainen, *Collaborative Ecosystem*, *supra* note 7, at 231, 233.
120. Karkkainen, *Post-Sovereign*, *supra* note 12.
121. In particular, the findings offer only a snapshot of these evolving processes. Time is, in fact, a vital issue from the perspective of successful collaborative approaches, as many of the impacts of governance efforts are only experienced over the longer term. *See* J.B. Ruhl, *The Pardy-Ruhl Dialogue on Ecosystem Management, Part IV: Narrowing and Sharpening the Questions*, 24 Pace Envtl. L. Rev. 25 (2007).
122. Karkkainen, *Marine Ecosystem*, *supra* note 14, at 241.

ment authority or funding (or even harnessing pressure from third parties) can be an effective spur to cooperation and affirmative self-regulatory behavior.[123] A key question for CWG in terms of incentives is: What is likely to shift the cost-benefit calculation of stakeholders?

The findings revealed that economic benefits are important to successful collaboration (as was the case in encouraging farmers in ASM to engage in actions). Another significant incentive may be harnessing peer pressure, as the findings in ASM also confirmed.[124] However, as we saw, even in small, close-knit communities where such pressures may be expected to work most effectively, there were limits to the ability of stakeholders to get their more recalcitrant peers to take action.

Instead, governmental authority in the form of the RMA was necessary to induce cooperation from a number of farmers. Such pressure, and in particular the threat of legal action, seems to be an essential underpinning to softer inducements, and fundamentally important in many CWG initiatives in inducing reluctant stakeholders to collaborate and implement actions (commonly referred to as "bargaining in the shadow of the law").[125] This was evident from the findings in ASM1, and to a lesser extent from the appeal right in the Delta Plan, where success in securing and enforcing implementation relied significantly on the existence of regulatory incentives.

Turning to the second key lesson, relating to appeals, the findings from the Delta Plan revealed that effective implementation may be undermined where statutes provide avenues for challenging the collaborative process itself. There are very good democratic and accountability reasons why legislatures may want to allow collaborative processes to be subject to court challenges. However, to the extent policymakers seek to rely on collaborative approaches to water issues, the chances of cooperative implementation may be increased by changes in statutes that currently encourage reliance on adversarial legalism over collaboration.[126]

The third set of lessons concerns building trust. The programs confirmed that negotiations, properly supported by in-kind government assistance, generally built trust and encouraged ownership. This can be a time-consuming process, particularly in larger settings involving numerous individuals such as in ASM2. Further, such trust-building and buy-in cannot be relied upon exclusively to secure commitments and implementation from all parties.[127] As we saw in the Delta Plan study, policy designers anticipated trust-building and voluntary buy-in would lead to successful implementation of recommended actions. In practice, such optimism seems to have been misplaced, with reluctant participants appearing likely to evade commitments made in negotiations, and stymieing the extent of integration and environmental improvements. This finding suggests the desirability, and probably the necessity, of providing appositely designed regulatory or other incentives to persuade otherwise reluctant parties (such as regulators) to deliver on their commitments. Some concrete options for incentivizing regulators are raised further below in the discussion of CWG's relationship to traditional legal regulation.

Beyond the policy recommendations, the findings contribute significantly to the literature regarding CWG's interaction with "the law"[128] by providing empirical insights into the relationship between traditional legal regulation and the emerging trend of CWG. The research explored two hypothesized relationships, namely default hybridity and complementarity. Turning first to default hybridity, according to this hypothesis, law plays an "action-forcing" role, and is used to induce people to contract out of standard regulatory frameworks and into CWG approaches.[129] Did it do so in practice? At a descriptive level, the ASM program appeared to best approximate the conditions contemplated by default hybridity, relying heavily as it did on the RMA's regulatory framework to induce farmers to engage and take on the monitoring and management of their water use.

Like ASM, the Delta Plan also involved something akin to a default hybridity approach. However, here, it was the background threat of an interested person exercising a right of appeal. As we saw, the findings suggested the consequences of the appeal right were insufficiently menacing to compel reluctant agencies to genuinely engage in the certification process. By implication, an important normative lesson from the findings is that where traditional legal regulation is used as a default for CWG (be it in the form of existing frameworks, as in ASM, or in novel appeal processes, such as those found in the Delta Plan), it will need to be tailored to offer sufficiently harsh default positions to induce the desired participants to take affirmative actions that they are otherwise disinclined to pursue.[130] The benefits of such a design were suggested in the ASM case, where respondents reported that the RMA was sufficiently harsh to compel otherwise recalcitrant stakeholders to accord by ASM's collaborative rules, thus significantly increasing the likelihood of environmental improvements.

To many, this finding and the success of hybrids will appear obvious and, in very broad terms, consistent with underlying principles of the shadow of the law and the regulatory pyramid.[131] However, such conclusions on the benefits that arise from hybridity, and how best to achieve them, remain important within the legal literature, where CWG is often seen as an alternative rather than a supplement to legal regulation.[132]

123. *Id.* at 229.
124. Edella Schlager, *Common Pool Resource Theory*, *in* Durant et al., *supra* note 34, at 145, 154-55.
125. Karkkainen, *Collaborative Ecosystem*, *supra* note 7, at 229.
126. Kagan, *supra* note 118, at 875.
127. O'Leary et al., *supra* note 34, at 337.
128. de Búrca & Scott, *supra* note 27, at 3-10.
129. *Id.* at 9; Holley & Gunningham, *supra* note 31, at 333.
130. Karkkainen, *supra* note 45, at 298.
131. *See, e.g.*, Ayres & Braithwaite, *supra* note 47; Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 Yale L.J. 950 (1979).
132. Bingham, *supra* note 27; Holley & Gunningham, *supra* note 31, at 332-33.

With respect to the second relationship between law and CWG, namely complementarity, an integrated system of law and collaboration was an express goal of the Delta program.[133] In an effort to close any gap between regulation and collaboration, the Delta program conferred legal backing on collaborative arrangements (both the Council and its Plan). Based on the findings, this legal backing appeared to confer some level of perceived credibility and legitimacy on the Delta's CWG approach, with regulators acknowledging that the Plan and its legal-backed Council had already begun to motivate regulators to take action.[134] The normative lesson here appears to be that imbuing cooperative approaches with legal backing can ensure a level of formal statutory legitimacy, and enhance the likelihood of regulatory agencies supporting such processes in the delivery of successful implementation. Similar conclusions have been drawn in Australian studies, which argue that legal backing to collaborative bodies can improve relationships between conventional legislative tools and CWG.[135]

At the same time, the findings from the Delta Plan suggest that even with legal backing, there is clearly no guarantee that CWG arrangements would be any better-equipped at ensuring cooperation among government stakeholders. As we saw, even with a legally backed process, regulators believed that the Council lacked the authority of traditional statist institutions. As such, the findings suggested that, when push came to shove, agencies were likely to maintain their own agendas rather than genuinely embrace the collaborative Delta process.

Why was this the case? One explanation may be that regulatory agencies have operated for many years within a context in which they saw themselves as monopolizing governance. In this world view, their focus is on formal state law and implementation through control. In contrast, CWG plays down hierarchy and emphasizes softer social norms in a variety of diverse and informal settings.[136] For some regulators, such nonhierarchical, multi-actor governance appears incompatible with their world view of conventional notions of state governance. Possibly, they do not understand the new collaborative process, or they think they will lose out in such a process, or they believe it does not fit their vision of how public outcomes should be achieved.[137] The paradox, however, is that regulatory agencies' capacity to control and govern may actually be extended by engaging in cooperation to enlist the capabilities of other actors.[138]

At a normative level, overcoming agency resistance to CWG will require legislatures to better use law so that agencies' post-delegation implementation of their regulatory mandates remains supportive of CWG.[139] At least three options are available to legislatures. First, as law and control remain the language of agencies, changing culture may require central governments to specifically legislate that each agency *must* collaborate.[140] Second, short of direct command, legislatures could look toward statutory adjustment of discretionary windows.[141] This could involve setting performance goals for regulators that are likely to be achieved through the integration of their statutory programs with CWG. As we saw in ASM, ECan embraced collaborative approaches, in part because they had a legislative foundation for CWG under the LGA. Third, legislatures could alternatively look to use the law to impose other incentives or default punishments, such as a reduction of funds, if regulators fail to engage constructively with CWG.

IV. Conclusion

Water and its governance involve a complex array of causes, conflicts, and actors, often operating at different levels (local, state, national), whose agendas may not be linked with one another, or may be at cross-purposes or in actual conflict with one another.[142] These features, combined with its disrespect for ecologically arbitrary, human-defined borders, make water one of the most confounding governance challenges of our time.

Recognizing this, lawmakers are increasingly sidelining traditional top-down regulatory approaches and pursuing arguably more-credible collaborative water governance solutions. The CWG approach seeks to achieve water management rules and outcomes through governance processes involving cooperation among different government agencies and communities, and across different geographic scales and regulatory regimes.[143] However, it is still unclear whether and how CWG can be effectively implemented to achieve its goals.

This Article empirically evaluated the collaborative success of CWG and its interaction with traditional legal regulation in California and New Zealand. It argued that CWG can be successful, but is likely to face substantial challenges, including extensive time and resource costs as well as the problem of free-riding and defection. Drawing on the strengths and weaknesses of ASM and the Delta Plan, the Article identified a range of mechanisms and conditions that, together or separately, appear likely to overcome such impediments and to produce successful

133. *Id.*; Trubek & Trubek, *supra* note 16, at 543; Alexander, *supra* note 26, at 178-84.
134. Tabatha Wallington et al., *Reflections on the Legitimacy of Regional Environmental Governance: Lessons From Australia's Experiment in Natural Resource Management*, 10 J. Envtl. Pol'y & Plan. 1, 13 (2008).
135. Susan A. Moore & Susan F. Rockloff, *Organizing Regionally for Natural Resource Management in Australia: Reflections on Agency and Government*, 8 J. Envtl. Pol'y & Plan. 259 (2006).
136. Wilkinson, *supra* note 20, at 693.
137. Trubek & Trubek, *supra* note 16, at 563-64.
138. Braithwaite, *supra* note 20.
139. Miranda Yaver, *Bureaucratic Noncompliance in the United States: The Case of the EPA* (2014), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2255056.
140. Bingham, *supra* note 27, at 344; Fiona Haines & David Gurney, *The Shadows of the Law: Contemporary Approaches to Regulation and the Problem of Regulatory Conflict*, 24 L. & Pol'y 353 (2003).
141. Yaver, *supra* note 139.
142. Carl Folke, *Social Ecological Systems and Adaptive Governance of the Commons*, 22 Ecological Res. 14 (2007).
143. Michael Lockwood et al., *Governance Principles for Natural Resource Management*, 23 Soc'y & Nat. Resources 1 (2010).

collaboration. These included economic and regulatory incentives that motivate parties to both come to the table and implement actions; building trust through negotiated process; pursuing greater harmony between collaborative processes and adversarial appeal options (for example, by limiting the latter); providing legal backing to CWG agreements; and utilizing legislative powers to shape and constrain the actions of agencies.

Empirical research discussed above has shed some important light on key issues in collaborative governance jurisprudence—namely, how traditional legal regulation and CWG can mutually support or inhibit the delivery of good water outcomes. As we have seen, default-hybrid relationships with traditional law are constructive to the success of CWG. In contrast, explicit attempts to integrate CWG confronted significant challenges in implementation, not least of which was resistance from regulatory agencies. Attempts to achieve complementarity appear more likely to succeed where CWG arrangements are backed by legislative powers that compel, contain, or incentivize government agencies to integrate their statutory programs with CWG.

The effectiveness of these and other uses of the law to complement CWG warrant further exploration. A number of significant issues require further inquiry by legal and governance scholars. Their inquiry could include both descriptive and normative work on default hybridity and CWG's relationship with traditional law.[144] For example, are there settings or circumstances where default rules are politically or legally unlikely or even impossible?[145] If so, what other forms of social pressures can secure similar action-forcing incentives?[146] And to what extent do various hybrid approaches that seek to integrate different modes of governance hold out the best hope for implementation? Is it, in fact, more desirable and/or feasible to abandon integrated solutions and instead create new innovative ways to solve public problems and ensure democratic input and accountability?[147]

Moreover, scholars could examine additional institutional examples of CWG in practice to better identify and understand the constructive and destructive roles that legal regulation may play in different contexts.[148] Hopefully, this Article has generated interest in a more-detailed inquiry into better understanding the opportunities and obstacles to solving water problems through CWG.

144. Trubek & Trubek, *supra* note 16, at 564.
145. Orly Lobel, *Governing Occupational Safety in the United States*, *in* de Búrca & Scott, *supra* note 27.
146. *See* Wilkinson, *supra* note 20; Lisa Alexander, *Reflections on Success and Failure in New Governance and the Role of the Lawyer*, 737 Wis. L. Rev. 745-46 (2010); Bingham, *supra* note 27; Gunningham et al., *supra* note 44.
147. Sabel & Simon, *supra* note 46; David Trubek & Louise Trubek, *The World Turned Upside Down: Reflections on New Governance and the Transformation of Law*, 719 Wis. L. Rev. 725 (2010); Holley & Gunningham, *supra* note 31, at 336.
148. Trubek & Trubek, *supra* note 16, at 56.