Collaboration as paradox: the case of the Patuxent River, MD nutrient control strategy

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COLLABORATION AS PARADOX:
THE CASE OF THE PATUXENT RIVER, MD
NUTRIENT CONTROL STRATEGY

by

Morris Bidjerano

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Collaboration has increasingly emerged in recent years as a new paradigm in public management. This collaborative trend, however, has contradicted the longstanding American political tradition of conflictual contestation of competing interests and adversarial legalism. Consequently, it has presented public managers with the challenge of dealing in reality with the “tensions between alternative forms of management practice” (Huxham and Vangen 2005, 245). In most accounts, watershed management has recently become a particularly active arena for that clash of opposing collaborative and conflictual managerial practices.

Thus, adopting Connelly, Zhang, and Faerman’s (2008) paradoxical approach to collaboration, the current study has sought to explore this “simultaneous presence of contradictory, even mutually exclusive elements” (Cameron and Quinn 1988, 2) in the research setting of environmental regulation, in general, and pollution control through watershed management, in particular. Conceptually, the study draws on Quinn et al.’s (2003) Competing Values Framework of Organizational Effectiveness and Faerman and Quinn’s (1985) model of positive and negative zones in the distribution of the Competing Values. A renowned case of collaborative environmental action—the Patuxent River, Maryland Nutrient Control Strategy—has provided the empirical context for the study.

The dissertation has outlined a number of theoretical and practical implications. By extending the logic of the “paradoxical thinking” about collaboration to the realm of the strategic interaction of collaboration with conflict, the current research suggests conceptual possibilities for: incorporation of this aspect into Quinn et al.’s (2003) Competing Values Framework; related expansion of Faerman and Quinn’s (1985)
“zoning” model; and reconsideration of Thomas’ (1976) classification of approaches to conflict management. Practically, the study demonstrates the descriptive, terminological, rhetorical, cognitive and managerial utility of the use of the \textit{paradoxical approach} for practitioners and underscores the viability of the simultaneous execution of seemingly contradictory and opposite, yet ultimately complementary, strategies such as conflict and collaboration.
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CHAPTER ONE: PROBLEM STATEMENT

Collaboration has emerged in recent years as a public administration trend of utmost importance (Mandell 2001; O’Leary, Gerard, and Bingham 2006). “If the 20th century was the era of the administrative state,” Koontz and Thomas (2006) assert, “then the 21st century may be the era of the collaborative state” (p. 111). Quite understandably, collaboration has consequently become a focal point of one of the fastest growing (at the moment) and most attractive areas of research and theory development in public administration (McGuire 2006).

This collaborative trend, however, seems to have gone against the grain of the American political tradition of conflictual contestation of competing interests and adversarial legalism (Kagan 1991) that, notwithstanding recent criticism, has retained its relevancy in our contemporary practice of governance. Consequently, it has presented public managers with the challenge of dealing in reality with the simultaneous influence of two equally important, yet opposing managerial tendencies. Theoretically, with the notable exception of Connelly, Zhang, and Faerman’s (2008) paradoxical approach to collaboration, the current literature on the subject appears lacking in its conceptual apparatus to adequately capture this aspect of the competing values of rival strategic choices.

In that regard, the paradoxical approach to collaboration, adopted by Connelly, Zhang, and Faerman (2008), has been perceived as holding considerable potential for correcting some of those conceptual deficiencies (O’Leary and Bingham 2007). At the core of this paradoxical approach, which draws on Quinn et al.’s (2003) Competing
Values Framework of Organizational Effectiveness, is the notion that mutually exclusive phenomena can coexist in any organizational or inter-organizational setting, and managers should accordingly accept this reality as inevitable and learn to embrace it, rather than reject it.

Since the approach is in its nascence, the purpose of this dissertation is to contribute to the further development of this line of thinking about collaboration in public administration. Environmental policy, in general, and pollution control through watershed management, in particular, provides the research setting for the study, as this is the policy area, which, arguably, has contained the most pronounced paradoxical interaction of collaboration with conflict in recent years (Weber 1998; Lubell 2004; Imperial 2005; Sabatier 2005).

The research involves analysis and interpretive account of the paradoxical features of collaboration as identified in an empirical case study of an authentic, collaboratively-crafted policy initiative—the Patuxent River, Maryland Nutrient Control Strategy. Nationally recognized as a landmark case in collaborative “environmental action” (Hodge 1987, 5) and “environmental management policy in the U.S.” (D’Elia 1995, 164), the Patuxent River policy initiative has nevertheless featured intense scientific controversy, litigation, stakeholder conflict and contestation on the local, state and federal levels of governance. Therefore, the case has been deemed particularly appropriate to provide an empirical context for exploring the paradoxical concurrent interplay of both collaborative and conflictual elements present in the process of public policymaking and management.
This chapter introduces briefly the historical arguments for conflict and collaboration, respectively, in the context of the recent developments in Environmental Regulation and Pollution Control in the US. It then presents the domain of Water Pollution Control in the framework of Watershed Management as the selected research setting for the study. It then outlines, in more general terms, the research questions of the study and describes its potential contribution.

ENVIRONMENTAL REGULATION AND POLLUTION CONTROL

The Case for Conflict

In Weber’s account (1998), “The historical case for conflict in American pollution control politics is a credible one” (p. 5). Indeed, there is hardly a policy area to better represent the conflictual, confrontational character of the American system of governance than environmental policy in general and pollution control in particular. As noted by Vogel (1996), “Probably no other area of public policy so clearly illustrates the strength and persistence of the adversarial relationship between business and government in the United States as environmental regulation” (p. 11). In fact, Kagan’s (1991) coinage of the term adversarial legalism—“a particular way of articulating and implementing public policies—one that invites, exacerbates, and extends legal conflict” (p. 387)—is based on an environmental case in Oakland, CA. As argued by Kagan (1991), adversarial legalism has established itself as the predominant mode of public policymaking and management in the USA, stemming, primarily from a political structure that has increasingly fragmented and restricted governmental authority. No governmental body has sufficient discretionary authority to create and enforce definitive compromises among contending political interests and values. Instead, policymaking power is parceled out to many agencies and confined by complex legal
prescriptions whose proper observance is subject to judicial review, often at the behest of private citizens and organizations. In this legal structure, advocates of particular views have strong incentives to resort to adversarial legal weapons, if only to increase their bargaining power (p. 370).

Not surprisingly, in that political and legal environment, “bitter, adversarial relations between stakeholders are the norm, whether in terms of business versus environmentalists, business versus government, environmentalists versus government, federal versus state interests…, or congressional attitudes toward the bureaucracy” (Weber 1998, xiv).

The development of this adversarial relationship can be traced back to the stormy 1960s when anti-governmental protests and civic activism fueled, according to Cooper, Bryer, and Meek (2006), the resurgent environmental movement, along with the civil rights movement, the anti-Vietnam War movement, the student movement, the women’s movement, and the community organization movement. In Cooper, Bryer, and Meek’s (2006) words,

The adversarial or conflict-based approach to engaging government typified much of the civic engagement action and theory during the 1960s and 1970s… The dominant view of civic engagement during this era was that power was a zero-sum game. For the citizenry to have more power, government would have to have less. It was assumed that government would never willingly relinquish power, so aggressive adversarial advocacy was believed to be necessary (p. 78)

The environmentalists were even more hostile to business, whom they blamed for polluting and destroying the environment. As Weber (1998) points out, “Environmentalists were apt to portray their industrial adversaries as evil incarnate, while industry characterized environmentalists as zealots in the thrall of some romanticist notion of the preindustrial society” (p. 5).
On the governmental side, Weber (1998) reminds us, the newly established Environmental Protection Agency, born out of the growing societal concern for the health of the environment and carrying both the popular sentiment and the legal mandate “to punish evil corporate polluters” (p. 6), had its employees wear “Born to Regulate” t-shirts “as a symbol of their commitment to ‘hard-core’ regulatory policies” (p. 6).

The environmentalists, however, have remained highly suspicious of the relationship between business and government. As Vogel (1996) explains it,

They successfully argued that unless an elaborate set of legal restrictions was placed on the decisions of both the newly-established regulatory agencies as well as on business, the latter would soon ‘capture’ the former just as they appeared to have done so many times in the past. For American environmentalists, ‘cooperation’ [between business and government] was equivalent to ‘cooptation’; the effectiveness of the ‘new’ regulation was to be measured by the extent to which it met with resistance from industry (p. 88).

Therefore, Vogel (1996) concludes, “making government and business into adversaries was not an unfortunate by-product of effective environmental regulation; for many it was considered the very definition of ‘effectiveness’” (p. 88). Here, Vogel (1996) reaffirms the thesis of the conflictual “built-in” elements that characterize politics and policymaking in America. Considerations of legitimacy and fairness—equal commitment to representing competing interests in a pluralist democratic society—“in a sense, require conflict between business and government” (Vogel 1996, 89). “For all the obvious advantages,” Vogel (1996) concludes, “of a regulatory system based on ‘good faith’ rather than mutual distrust, the former may simply be incompatible with our commitment to both interest group and economic competition…Instead of constantly bemoaning the lack of cooperation between business and government, we should occasionally reflect on some of its virtues” (pp. 89-90).
The same logic undergirds numerous environmental groups’ critiques of the practice of initiating collaborative, consensus-based local forums. “A new dogma is emerging as a challenge to us,” states Sierra Club Chairman Mike McCloskey,

It embodies the proposition that the best way for the public to determine how to manage its interest in the environment is through collaboration among stakeholders, not through normal governmental processes ... such processes tend to de-legitimate conflict as a way of dealing with issues and of mobilizing support ... Too much time spent in stakeholder processes may produce the result of demobilizing and disarming our side (cited in Jones 1996, 2).

In the words of Steve Kelly, Director of the Friends of the Wild Swan and the Montana Ecosystems Defense Council, the collaboration forums are “awash with happy talk” and constitute “the biggest sham that's ever been promoted” (cited in Jones 1996, 3). “When you crawl into bed with the enemy, you become the enemy,” Kelly maintains. “What really hurts is that, before, we could always identify who the enemy was... When you disguise the wolf in sheep's clothing, it's very difficult to generate opposition” (cited in Jones 1996, 3). McCloskey concurs: “Industry thinks its odds are better in these forums. It is ready to train its experts in mastering this process. It believes it can dominate them over time and relieve itself of the burden of tough national rules” (cited in Jones 1996, 2).

Similarly, other critics characterize voluntary collaborative programs as public relations ploys designed to relax the strict environmental oversight over firms (Steinzor 1998).

According to Weber (1998), the fear expressed by national environmental advocates is a palpable one. As he notes,

Today’s collaborative forums are reminiscent of the time when mining, logging, grazing, water development, and other economic interests controlled congressional committees, government agencies, and ultimately public policy outcomes which tended to reflect industry’s own narrow, private interests, and which frequently excluded environmental protection from consideration” (p. xii).
Thus, the issue of “collaboration as cooptation” looms large in the environmental movement’s debate over the use of appropriate strategies for policymaking and management. In January 2003, for example, the Sacramento-based Center for Collaborative Policy convened a special meeting of its practitioner network to discuss the concerns raised by environmental activists and citizens across the political spectrum about the potential cooptation of collaborative processes. A summary of “specific cooptation-related issues” that were found “to have credibility among some constituencies,” was included in the Center’s April 2003 newsletter:

- Participants in collaborative processes might feel pressured to support or agree to decisions that favor the view of the majority, or the most “powerful” interests.
- Collaboratives can tend to draw upon moderate participants who are predisposed to work together, excluding or marginalizing “trouble-makers.”
- Collaboration could be a way to legitimize selective representation of the public by powerful interest groups; it might not provide much recourse for the unorganized public.
- Collaboration could be used as a smokescreen for pushing the implementation of a pre-determined project or policy.
- Participating in collaboratives might dissipate the resources and dilute the voice of interest groups that potentially could make a bigger impact by pursuing other strategies.
- Collaboration could take public policy decisions away from public officials and dilute their accountability to their constituencies (p. 1).

Similarly, the Family Water Alliance’s *Green Ribbon Report* from April 2002 discusses some of the procedural flaws of the collaborative, consensus building exercises:

In the consensus process there is a predetermined objective in mind and that objective can only be reached when all objections are eliminated. The program is advertised as open and welcomes anyone to participate. But if someone should voice objection or there is disagreement, the trained facilitator or leader minimizes the participant by making the participant look foolish, uneducated, or unreasonable. Participants who disagree are quickly labeled as "troublemakers", "extremists", "narrow-minded" or "stupid". The hope is to exclude all objectors from the entire process (p. 4).
Along the same lines, McCloskey contends that, with consensus, “Only the lowest common denominator ideas survive the process” (cited in Jones 1996, 2). In his critique of the final report on the initiative “The Enterprise for the Environment” (E4E), issued in 1998, Coglianese (1999) argues that consensus building “does not ensure better decisions” (p. 31), “does not save time” (p. 31), and even “does not reduce conflict” (p. 32). Pointing to specific real life examples from the practice of environmental policymaking in the USA, Coglianese (1999) concludes that “reaching a consensus on policy language does not mean that serious conflict will not persist” (p. 32). “Ironically,” Coglianese (1999) continues, consensus-based processes can also add new sources of conflict that do not exist with other methods of policymaking. Conflicts emerge over who will participate in the consensus-based negotiations. If the negotiations lead to a consensus, conflicts emerge over the meaning of the agreement or the extent to which the final policy decision complies with that agreement. Consensus processes can also raise expectations about the amount of control organizations have over the policy decisions, and these heightened expectations may make it harder for organizational representatives, or their principals, to overlook unfavorable aspects of the final policy. None of these additional sources of conflict arise outside the context of negotiated processes (p. 32).

Moreover, Coglianese (1999) finds it troublesome that “in viewing conflict as a problem and consensus as a solution,” public managers tend to focus their attention on building “a consensus among those inside the policy loop,” rather than on serving “the overall public interest” by tackling the “substantive problems facing the environment” (p. 32). In his opinion piece “Collaboration Has Its Limits,” McCloskey (1996) also touches on the potential danger of evading national rule-making and management decisions in favor of local consensus groups with limited representativeness. In the Family Water Alliance’s assessment from 2002, “The collaborative consensus process is designed to take the public policymaking function away from elected officials and place
it in the hands of professional bureaucrats, while giving the appearance of broad public input into the decision making process” (p. 4).

In summary, Weber (1998) offers the following succinct analysis of the collaboration-critical perspective presented above: “Not only is conflict preferred and ubiquitous, given the prevalence of conflict, collaboration is unlikely to succeed. Moreover, eschewing conflict for cooperation is un-American precisely because it is dangerous for democracy” (pp. xii-xiii). Collaborative arrangements are perceived to have an adverse effect on the American democracy, Weber (1998) explains, because [t]hey may not be accountable, given their propensity to produce policy outcomes benefitting the few at the expense of the many. Accordingly, collaboration is dangerous for democracy because it leads to agency capture and special-interest government, the co-optation of public policy goals, and the failure to protect fundamental rights and other policy values important to a democratic society (pp. xiv-xv).

Intergovernmental relations in the area of environmental policy and pollution control seem no less perplexing. Scheberle (2003) notes, for example, that when Congress passed the series of important environmental laws, such as the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act in the 1970s, “Senator Muskie and other congressional architects embraced the notion of cooperative federalism” (p. 2, emphasis added). Cooperative federalism, Shafritz and Russell (1997) explain, “is the notion that the national, state, and local governments are cooperating, interacting agents, jointly working to solve common problems, rather than conflicting, sometimes hostile competitors, pursuing similar or, more likely, conflicting ends” (p. 157). The strict environmental regulations were the “stick,” while the federal financial assistance (grants-in-aid) was the “carrot” of cooperative federalism.
However, as the cost of environmental protection skyrocketed, analysts began to argue that the federal-state relationships appeared more coercive than cooperative. “Coercive federalisms,” Scheberle (2003) writes, “occurs when the federal government reduces or holds constant intergovernmental fiscal incentives while simultaneously increasing regulatory demands in an effort to achieve national policy goals” (p. 3, emphasis added). Scheberle (2003) concludes that this is the state of affairs that “aptly describes the first twenty years of national environmental programs” (p. 4). Similarly, Wright (1988) characterizes the intergovernmental relations in that period (1970s-1980s) as calculative, confrontational federalism.

In truth, the subsequent period involving devolution of policy responsibilities from federal to state and local government partly reversed the preceding centralizing trend in American federalism, “particularly pronounced in environmental policy … as pollution became a national issue in American politics and policy” (Abel and Stephan 2000, 615). Contrary to commonly held assumptions, however, it reportedly did not bring a higher collaborative spirit or increased overall citizen participation. In their study, entitled “The Limits of Civic Environmentalism,” Abel and Stephan (2000) contend that devolved environmental responsibilities do not automatically translate into greater participatory opportunities. The authors’ case studies and interviews show that often the power devolved “away from the central government” (p. 625) is transferred to “local elites (technical or otherwise)” (p. 619) at the expense of the citizenry at large.

The Case for Collaboration

In an address delivered to the Environmental Law Institute in October 1995, William Ruckelshaus, former Environmental Protection Agency Administrator, stated
unequivocally that the environmental regulation system in the United States was “broken, severely broken, broken beyond the hope of any easy repair” (cited in Coglianese 1999, 25) due to the excessive conflict present in the policy process. In Weber’s (1998) analysis,

The preference for detailed, top-down, one-size-fits-all solutions reduces program adaptability to changing conditions and forces industry to pay premium compliance rates. Participant behavior typically and quickly degenerates into vitriolic rhetoric, maximum resistance, and the use of tactics designed to quash or delay victories by one’s adversaries. More often than not, the end result is a policy process characterized by conflict, litigation, and delay (p. 18).

Indeed, according to Kagan (1991), the adversarial legalism that pervades the public policymaking and management process in America, “breeds legal deadlock and socially harmful inertia” (p. 377), and “causes (or threatens) enormous dispute-resolving costs and procedural delays, which in turn distort policy outcomes” (p. 369).

That is why, in recent years, scholars have been increasingly calling for “an alternative, less litigious ways of solving social problems, making public policy, and resolving disputes…; for an administrative process based more on informal discussion and debate, a search for shared values, a spirit of compromise and cooperation” (Kagan 1991, p. 398). As noted by Jones (1996), environmentalists have begun to believe that “the legal and legislative solutions that carried the cause for 30 years are proving too fragile in today's surreal political climate” (p. 3) and to “see collaboration as an effective, lasting and civilized way to solve problems” (p. 5). Don Snow, with a decade long experience in mediation as executive director of the Montana-based Northern Lights Institute, declared bluntly: “I mean, how many lawsuits can we file? If you want to save the environment, roll up your sleeves and get working with people who care about that
land as much as you do, but who may have different values than you do” (cited in Jones 1996, 4).

Expressing doubt in the capacity of the federal government to govern successfully the myriad of environmental issues in the West, Daniel Kemmis, the mayor of Missoula, Montana, for example, argued that the various local stakeholders should start “working hard to find a common ground” and take “control of their own land” (cited in Jones 1996, 1). Seth Diamond, wildlife program manager of the Intermountain Forest Industry Association, also based in Missoula, claimed that some national environmental organizations, such the Sierra Club, among others, were deliberately “fostering and operating in a climate of hostility and polarization” in order to generate resources for their causes (cited in Jones 1996, 3).

In contrast, Diamond’s work to recover the grizzly bear, in collaboration with the National Wildlife Federation, the Defenders of Wildlife, and other regional timber and recreation groups, envisioned “creating an environment where people aren't hostile” (Jones 1996, 3). “Our plan will minimize that, because the people closest to the problem have the best chance of creating creative, flexible solutions to the situation,” declared Diamond (cited in Jones 1996, 3).

Indeed, as Koontz and his colleagues (2004) have found, “In a wide range of settings, governmental agencies have come to recognize the importance of integrating community knowledge, skills, values, and views into environmental decision making and management” (p. 20). Advocates of citizens’ involvement in the process believe that the adoption of a more collaborative approach would “assist in the development of rich pools
of knowledge that draw from diverse sources and provide a framework for interdisciplinary learning and problem solving” (Wondollek and Yaffee 2000, 18).

Similarly, Hardy and Phillips (1998) argue that “through the pooling of expertise and resources, collaboration can solve intractable problems in ways that confrontation or competition cannot” (p. 217). Other analysts contend that “if communities have sufficient technical information and the capacity to absorb that information, they will craft solutions that are environmentally superior to the one-size-fits-all prescriptions generated by conventional regulatory processes” (Layzer 2002, 194).

Thus, in the context of environmental policy making, collaboration has been increasingly viewed as “a potential remedy to many of the pathologies of existing regulations, which have led to costly conflict and left many environmental problems unresolved” (Lubell 2004, p. 341). In Weber’s (1998) observation, “Collaboration is occurring in American politics despite the significant obstacles posed by an adversarial political culture, a fragmented interest group system, and an open political system. Moreover, collaboration is appearing where we would least expect it—in the most combative of all regulatory arenas—pollution control politics” (p. 256).

**RESEARCH SETTING**

One area, in which particular efforts have been made to implement new collaborative approaches as a replacement for long existing conflictual, adversarial relationships is water pollution control in the context of watershed management. In fact, as Lubell (2004) notes, the last decades have marked “the emergence of collaborative watershed management as a new paradigm in environmental policy” (p. 341).
Similarly, in their review of the history of water resource management in the United States, Sabatier, Weible and Ficker (2005) characterize the last two decades as “the watershed collaboration era.” The authors outline chronologically several major periods (“eras”) of water management, based on the following five criteria: (1) the geographic scope of management; (2) the mixture of public and private authority in making water management decisions; (3) the principal actors participating in water management decisions; (4) the extent to which the decision process is consultative as opposed to collaborative; and (5) the principal purposes or goals of water management. Thus, based on those criteria, Sabatier, Weible and Ficker (2005) delineate the following five historic periods: (1) the Manifest Destiny Era (pre-1890); (2) the Progressive Era (1890-1924); (3) the Federal/New Deal Era (1925-1964); (4) the Environmental Era (1965-1986); and (5) the Watershed Collaboration Era (1987-present).

Even though water policy has been long perceived as being in a state of “a perpetual crisis” (Scholz and Stiftel 2005, vii), analysts have noted “the increasing complexity and conflict in water resource issues” (Sabatier et al. 2005) over the last 20 years. “The water conflicts familiar to the arid Western states,” Scholz and Stiftel (2005) observe, “are increasingly commonplace even in the water-rich East” (p. vii). Sabatier and his colleagues (2005) emphasize the “increased competition for limited fresh water resources among agriculture, urban and industrial users, recreationists and fisheries” (p. 3). Of perhaps greater concern, as Scholz and Stiftel (2005) note, is the fact that “New conflicts extend beyond the statutory authority, competence, geographical jurisdictions, and political constituencies of highly specialized water authorities” (p. vii).
The intensification of conflict and the general dissatisfaction with the capacity of
traditional approaches to resolve water conflicts, as well as “the requirement under the
Clean Water Act for watershed-based restoration of water quality through the Total
Maximum Daily Load process,” have prompted what has been characterized as “a quiet
revolution… in water management institutions” (Sabatier et al. 2005, 3). According to
Sabatier and his colleagues (2005), “This represents a shift from a top-down, agency-
dominated approach with some provisions for public comment to a much more
collaborative bottom-up approach involving negotiations and problem solving among a
variety of governmental and nongovernmental stakeholders” (p. 4).

The new holistic, collaborative, consensual approach focuses on all sources of
pollutants in a given watershed, irrespective of formal political boundaries (among states
and counties) and jurisdictions (agencies with a narrowly specified legal mandate).
Indeed, as Imperial (2005) maintains, “Watersheds provide an excellent policy subsystem
for examining collaborative processes” (p. 283). Imperial (2005) elaborates that,

Watersheds span political, geographic, and ideological boundaries. The
policies and programs governing watersheds are specialized by medium
(e.g., air, water, soil, land use, etc.), geographic location (e.g., wetlands,
coastal zone, tidal waters, agricultural land, forest land, etc.), statute, or
function (e.g., permitting, enforcing, educating the public, installing best
management practices, issuing grants, etc.). The corresponding
institutional fragmentation limits any organization’s ability to accomplish
its mission by acting alone and creates numerous opportunities for joint
action (p. 283).

It appears that a remarkable constellation of factors—(1) intensified conflicts in
managing water resources; (2) effectiveness and legitimacy issues associated with the
traditional approaches to solving those conflicts; (3) contextual complexity and
situational specifics that have often discredited the virtue of the top-down universalistic
“one-size-fits-all” type of a policy design; (4) legal mandates for water quality planning
under the Total Maximum Daily Load provisions of the Clean Water Act; and (5) the use of watersheds as hydrographic units of policymaking and management that span political boundaries (county and state lines) and administrative jurisdictions (various natural resource management agencies)—has made watershed management a uniquely suitable context for both practically implementing and scholarly exploring the phenomenon of collaboration.

Thus, watershed management has been accordingly identified as the content policy area most appropriate to serve as the research setting for the current dissertation study. As previously stated, the purpose of the research is to map the emergent collaborative trend against the traditionally-prevalent conflictual, adversarial approach to public policymaking and management through the use of Connelly, Zhang, and Faerman’s (2008) paradoxical approach to collaboration and Quinn et al.’s (2003) Competing Values Framework of Organizational Effectiveness.

RESEARCH QUESTIONS

As mentioned above, the paradoxical interplay of collaboration with conflictual strategies in the case of the Patuxent River water quality improvement initiative is in the primary research focus of the current study. Qualitative studies typically feature an “emergent design” (Krathwohl and Smith 2005) and research questions tend to get formulated anew in the process of data collection and analysis that usually is carried out recursively. Still, at a more general level, three main preliminary questions have been contrived to focus the attention and organize thinking at the commencement of the study.
First, since the study involves contrasting collaboration and conflict as strategic orientations to environmental policymaking and management, there is a need to differentiate between the two approaches in order to elucidate the intended subsequent comparison.

**Research Question One:** What characteristics does collaboration, as a distinctive orientation to environmental policymaking and management, exhibit in the Patuxent River case?

Implicit in contrasting the two approaches is a focus on the results produced through their respective adoption.

**Research Question Two:** Which approach to policymaking and management—collaborative or conflictual—is more effective in producing positive policy effects in the Patuxent River case?

The third main general question builds on the previous two and echoes the topic of the central debate in the current literature on collaboration.

**Research Question Three:** Is collaboration an alternative to conflict (adversarial legalism) as an approach to public policymaking and management? Given the features of the theoretical frameworks utilized in the analysis of the data and the specifics of watershed management as the selected research setting, the study also addresses a number of additional “subquestions” (Creswell 1998) at a lower level of abstraction. Those research subquestions—some more concrete and descriptive, and some more general and analytical—can be presented as clustered into three main groups: (1) Case specific descriptive questions; (2) Collaboration-related descriptive and analytical questions; and (3) Conflict- and Collaboration-related descriptive, analytical and interpretive questions. The questions of the first category address the “who” and “what” empirical aspects of the Patuxent River case—key actors, issues, events,
activities, policy frames, roles, and context-specific elements. The questions from the second group focus on the special features of collaboration—incentives; resources; issues, such as accountability and legitimacy; advantages; and limitations. The questions from the third cluster are aimed at capturing, in a comparative fashion, the paradoxical manifestations of collaboration and conflict and at interpreting their strategic interaction.

As already mentioned, the study uses the case of the Patuxent River, Maryland Nutrient Control Strategy as an empirical context for addressing the research questions. The rationale for the selection of both the single case study research design and the particular case of water pollution control within the framework of watershed management as the research setting for the study are presented in greater detail in the third chapter.

CONTRIBUTION OF THE STUDY
Conceptually, the dissertation study aims at contributing to the development of the emergent paradoxical approach to collaboration (Connelly, Zhang, and Faerman 2008) by extending the application of the Competing Values Framework of Organizational Effectiveness (Quinn et al. 2003) to the paradoxical manifestations’ aspect of juxtaposed collaborative and conflictual strategies in public policymaking and management. The study is also expected to bring the added value of dispelling some naïve and overly optimistic assumptions of collaboration, currently prevalent in the public administration literature, as a “self-organizing” or “self-enacting” enterprise (Robinson 2006; Rhodes and Murray 2007) and as a voluntary strategy that presents a total alternative to or a negation of conflict and competition in politics and public governance (Imperial 2005).
Empirically, the dissertation adds to the rich database of cases and examples of collaborative public management in the literature (McGuire 2006; O’Leary, Gerard, and Bingham 2006) by examining and analyzing a nationally acclaimed water pollution control policy initiative (Hodge 1987; D’Elia 1995). With regard to the Patuxent River case, in particular, even though a number of published articles have covered in great detail its scientific aspects (D’Elia 1995; D’Elia et al. 2003), and some elements from the case have been also incorporated in a larger review of the environmental problems in the Chesapeake Bay (Horton 2003), the policy and managerial dimensions of the case have never been fully explored despite the abundance of available records and documentation.

Practically, the exploration of the “paradoxical nature of collaboration” (Connelly, Zhang, and Faerman 2008) can potentially prove useful to practitioners and public managers in the sense of revealing unrealized tensions, hidden traps, and unimagined challenges in the process of designing and implementing collaborative ventures. Borrowing from Weber (1998), the study fully subscribes to the pursuit of the stated overarching goal of such a research… to produce information and models capable of helping national, state, and local governments to assess and prescribe regulatory arrangements that can help them achieve greater efficiency and effectiveness in environmental protection programs, yet without compromising environmental quality or democratic accountability” (p. 264).

**CHAPTER SUMMARY**

This chapter has highlighted the main arguments in favor of conflict and collaboration, respectively, in the pursuit of Environmental Regulation and Pollution Control in the US.
It has also described what makes the domain of watershed management a particularly suitable research setting for the study. Remaining at a higher level of abstraction, the chapter has next introduced the main research questions of the study. Finally, the potential contribution of the study has been discussed as well.

The next sections follow the conventional format of dissertations (Krathwohl and Smith 2005), with Chapter Two presenting a review of selected topics within the literature on collaboration, as well as the concept of paradox and the theoretical models subsequently employed in the data analysis. Chapter Three is reserved for a discussion on the methods used in the selection of the research design, the concrete empirical case, the data sources and the type of data analysis for the study.
CHAPTER TWO: LITERATURE REVIEW

In Chapter One, the purpose of the study was presented, in more general terms, on the basis of an argument for the need to apply and further develop conceptually Connelly, Zhang, and Faerman’s (2008) paradoxical approach to collaboration. This chapter introduces in greater depth the concepts and the theoretical models that were used in the data analytical stage of the dissertation project.

The literature review starts with a brief survey of the various definitions of collaboration, currently available in the literature. Special emphasis is placed on several selected definitions that are expected to have some bearing on the case analysis. This is followed by introduction of the concept of paradox, its typology and usage as a conceptual framework. The role of paradox is subsequently traced in Quinn et al.’s (2003) Competing Values Framework of Organizational Effectiveness and Faerman and Quinn’s (1985) model of positive and negative zones of those values distribution that will be instrumental in the analysis of the research findings. The chapter concludes with a comparative review of the competing drivers of collaboration and conflict.

COLLABORATION

A Concept on the Rise

When I’m asked what is new and important in contemporary public management, my answer is collaboration.

George Frederickson (2008)

As noted in Chapter One, collaboration has emerged in recent years as an important trend in public administration (Mandell 2001; O’Leary, Gerard, and Bingham
2006). The traditional top-down, command and control, hierarchical approach, characteristic of modern public administration, has shifted to a collaborative, bottom-up approach involving negotiations among a variety of societal stakeholders (Sabatier et al. 2005). Indeed, the growing complexity of contemporary social issues, dispersed expertise to address them, technological innovations, administrative fragmentation, and overlapping jurisdictions, among other factors, appear to have rendered collaborative arrangements indispensable to our present-day practice of governance (McGuire 2006).

Naturally, theory and research in the discipline of public administration have followed suit, placing a “distinct focus” (Thomson, Perry, and Miller 2009, 23) on the topic of collaboration and building a growing body of literature on the subject. In Kelman’s (2007) account,

The topics of organizing collaboration across government agencies (“connect the dots”) and between government organizations and private ones (“network government,” “collaborative governance”) are now among the most-discussed questions involving the performance of public institutions and achievement of public purposes (p. 45).

Thus, the collaboration imperative to work across administrative boundaries, described vividly by Kettl (2006) and the quest for what Huxham and Vangen (2005) have labeled a collaborative advantage seem to have come to prominence in the present-day analysis of interorganizational and intergovernmental relations. As noted by Hudson and his colleagues (1999), “Collaboration now tends to be seen as a virtue in both the public and private sectors” (p. 239). Assessing the democratic merits of collaborative public management, Leach (2006) contends that indeed, “scholars of public administration have put forth many arguments about the value of collaborative public management and its implications for democracy” (p. 100). “Collaborative public management is becoming the

More skeptical voices have been also heard in the collaboration scholarly community, however. Agranoff (2006), for example, advises practitioners that they might encounter collaborative costs along with collaborative benefits. Therefore, Connelly, Zhang, and Faerman (2008) argue, collaboration in the public sector presents a basic paradox in the sense that it appears both appealing (in view of potential benefits) and unappealing (in view of potential costs) to participants. Similarly, Huxham and Vangen (2005) acknowledge that collaborative advantage is usually accompanied by what they call collaborative inertia. Therefore they warn against hastily adopting the otherwise advantageous collaborative approach. In his insightful analysis, Bardach (1998) admits that he does not want “to oversell the benefits of interagency collaboration” (p. 17). He cautions that,

Collaboration should be valued only if it produces better organizational performance or lower costs than can be had without it. We should not be impressed by the idea of collaboration per se… The political struggle to develop collaborative capacity can be time consuming and divisive. But even if no such struggle were to ensue, the benefits of collaboration are necessarily limited (p. 17).

In the same critical spirit, Bryson, Crosby, and Stone (2006) argue against the wisdom of the commonly held assumption that “collaboration is the Holy Grail of solutions and always best” (p. 45). “Often government and foundations insist the funding recipients collaborate,” the authors observe, “even if they have little evidence that it will work” (p. 45). Koontz and Thomas (2006) share the same evidence-based approach. “Collaboration is not a panacea,” they state. “It is a choice that policy makers and public managers should make based on evidence about expected outcomes” (p. 111). The instrumental,
purposive character of collaboration looms large in Koontz and Thomas’ (2006) view, which admittedly treats collaboration “not as an end itself but as a means to an end” (p. 116). Raab and Milward’s (2003) critical approach appears even more dramatic. By investigating instances when collaboration is used for criminal and immoral ends, Raab and Milward (2003) try to reveal dark undertones of collaboration and “make the case that collaboration is not always for laudable purposes” (p. 415).

**Definitions of Collaboration**

It appears that despite its widespread appeal (or supposedly because of it), collaboration “has remained conceptually elusive” (Hudson et al. 1999, 236). Huxham’s (2003), for example, observes that “a characteristic of research in inter-organizational collaboration is the wide variety of… paradigms, theoretical perspectives and sectoral focuses from which the subject is tackled” and that “the complexity of perspectives can be baffling” (p. 402).

Currently, the voluminous literature on collaboration allows for “a wide range of theoretical perspectives” to provide “an equally wide variety of definitions and understandings of the meaning of collaboration” (Thomson, Perry, and Miller 2009, 23). According to O’Leary and Bingham (2007),

The collaborative public management literature uses a variety of sound bites to describe the importance of this phenomenon to our field. Sometimes, scholars talk about the public manager’s “toolkit” or “strategies.” Sometimes, they talk about collaborative public management as an “option” or a “choice.” Sometimes, they refer to it as a “model” or a “structure” within which managers find themselves (p. 3).

**Collaboration as a multiorganizational arrangement.** In their capacity as editors of the special issue of the *Public Administration Review* on Collaborative Public Management,

Collaborative public management is a concept that describes the process of facilitating and operating in multiorganizational arrangements to solve problems that cannot be solved or easily solved by single organizations. Collaborative means to co-labor, to cooperate to achieve common goals, working across boundaries in multisector relationships (p. 7).

Indeed, in terms of popularity, descriptive clarity and citation frequency, Agranoff and McGuire’s (2003) conceptualization of collaborations as a “process of facilitating and operating in multiorganizational arrangements to solve problems that cannot be solved, or solved easily, by single organizations” (p. 4) seems to have set the definitional standard for the field in the last several years. Arguably, the banner was previously held by Bardach (1998), according to whom “Interagency collaboration is defined as activities by agencies intended to increase public value by having the agencies working together rather than separately” (p. 17). A number of more applied, practitioner-oriented publications, such as the IBM Center for the Business of Government Collaboration Series, for example, have retained the essence of Bardach’s (1998) definition in their treatment of collaboration (Imperial 2004).

Collaboration as a form of public participation. Influential as Agranoff and McGuire’s (2003) definition might have been, it has not remained unchallenged in recent years. Cooper, Bryer, and Meek’s (2006) citizens-centered approach, for example, indicative of the theoretical diversity and terminological cacophony in the field of collaboration research (Huxham 2003), claims to expand on the idea of the collaborative management process as presented by Agranoff and McGuire (2003) by incorporating an emphasis on the role of the public and recognition of the value of citizenship. Indeed, it appears that the conspicuous emphasis on the interorganizational aspects of collaboration has left
relatively unexplored “the role of the public in collaborative management processes” (Cooper, Bryer, and Meek 2006, 76). Arguing for a citizen-centered collaborative public management, Cooper, Bryer, and Meek (2006) try to correct for this perceived deficit and shift the focus of the collaboration research community to the interactions between public administrators and citizens in collaborative enterprises. Analyzing the evolution of public administration-citizen interaction, Vigoda (2002) places collaboration on a continuum from “coerciveness” through “delegation” and “responsiveness” to “collaboration” and “citizenry coerciveness” on the other end of the spectrum.

**Figure 2.1:** An Evolutionary Continuum of Public Administration—Citizens Interaction (Vigoda 2002, 531).

Compared to “responsiveness to citizens as clients,” which according to Vigoda (2002) defines modern public administration, collaboration is deemed “a more active, bidirectional act of participation, involvement and unification of forces…” (p. 527). In Vigoda’s (2002) account, “enhanced collaboration and partnership among governance
and public administration agencies, citizens, and other social players such as the media, academia, and the private and third sectors” will be at the core of “the next generation of public administration” (p. 527).

Reporting on the results from ten case studies of environmental assessment and decision making, Webler and Tuler (2006) present four types of public participation that have emerged from their research: “Science-Centered Stakeholder Consultation, Egalitarian Deliberation, Efficient Cooperation, and Informed Collaboration” (p. 699). In Webler and Tuler’s (2006) explanation, the collaborative perspective “envisions an ends-oriented process that makes progress on the central problems” (p. 713). While the distinctions among the four perspectives are not entirely clear, the important point is that the authors seem to supply the conceptual link missing in previous definitions—collaboration is considered a form of public participation.

Collaboration as a strategy. Among the plethora of thematical approaches to defining collaboration found in the literature, the biggest cluster of themes seems to revolve around the elements of instrumentality and purposiveness ingrained in strategies of various kinds. Thus, Imperial (2005) characterizes collaboration as “a strategy to improve the governance of interorganizational networks” (p. 282, emphasis added). Similarly, Hardy and Phillips (1998) view collaboration as one among several possible strategies of engagement, “used by organizations as they try to manage the interorganizational domain in which they operate” (p. 217). Perceived as goal-oriented, collaboration is recommended as “a strategy for getting things done” by Imperial (2004, p. 13, emphasis added).
Borrowing from Thomas (1976), Quinn and his colleagues (2003) define collaboration as a *conflict management strategy* that is compared against four other approaches to conflict resolution (avoidance, competition, compromise, and accommodation) in terms of “assertiveness” and “cooperativeness” (pp. 93-95). In the same conflict resolution conceptual domain, King and Stivers (1998) present their understanding of collaboration as a strategy far superior than compromise. Drawing on Mary Parker Follet’s (1995) original notion of integration, they claim that while “compromise assumes that everyone has to give up something in order to reach closure” (p. 83), collaboration strives to integrate and improve on all existing perspectives. “This is what we call collaboration,” King and Stivers (1998) explain, “In a collaborative model, no point of view is privileged over the others. All come to the table as equals, working together to allow their orders to emerge from the situation” (p. 83).

Thomas’ (1976) seminal conflict management framework has been adopted by another team of scholars (Larsson et al. 1998) and used in the context of interorganizational learning. In that modified version of the model, the five behavior modes of avoidance, competition, compromise, accommodation, and collaboration stand for individual *interorganizational learning strategies*, dimensionalized in terms of “receptivity” and “transparency,” ranging from “low” to ‘high.’ According to Larsson and his colleagues (1998), “transparency represents the cooperativeness of disclosing knowledge to the other organization and receptivity corresponds to the assertiveness of absorbing the disclosed knowledge” (p. 289). Thus collaboration is portrayed as a highly receptive and highly transparent *interorganizational learning strategy*. 
Koontz and Thomas (2006) emphasize that “The decision to collaborate (or not) and to encourage collaboration (or not) represents a strategic choice by public officials to achieve specific goals” (p. 112). In the same vein, collaboration is seen as a valuable policy tool in the public manager’s toolkit (O’Leary and Bingham 2007). For example, collaboration presents “an alternative to regulation for solving environmental problems” (Lubell 2004, 341).

Not surprisingly, the purposiveness assigned to collaboration (in definitions of collaboration as a purposive action) appears closely aligned with its conceptualization as a strategy. In Thomson and Perry’s (2006) words, “Organizations collaborate because they intend to achieve a particular purpose” (p. 25). Indeed, as described in the literature, collaboration has been applied with the intention to “increase public value” (Bardach 1998, 17); enhance citizens’ capacity for self-governance (Fung and Wright 2001); seek “collaborative advantage” (Huxham 2003, 403); “improve watershed governance” (Imperial 2005, 283); achieve common goals and work across boundaries in multisector relationships (Henton et al. 2006); “manage boundaries in American administration” (Kettl 2006, 10); “produce social outcomes including trust, legitimacy and social capital” (Koontz and Thomas 2006, 117); and “create new organizational and social structures” (Thomson, Perry, and Miller 2009, 23). Additionally, Imperial (2004) lists five rationales for using collaboration as a governance strategy, including exercising self-interest, acquiring resources, responding to political pressure, reacting to institutional forces, reducing transaction costs, and promoting democratic values.

Collaboration as a solution. Among the plethora of rationales, however, it seems that solving problems/providing solutions has remained in the literature as a particularly
accentuated purpose of collaboration. In Agranoff and McGuire’s (2003) definition, “Collaboration is a purposive relationship designed to solve a problem by creating or discovering a solution within a given set of constraints (e.g., knowledge, time, money, competition, and conventional wisdom)” (p. 4). This treatment of collaboration could be traced back, of course, to Gray’s (1989) classic book, Collaborating: Finding Common Ground for Multiparty Problems, in which she explicitly and pointedly characterizes collaboration as “a process for solving the complex problems we face as a society” (p. xvii), as “a method for solving interorganizational problems” (p. xviii), and, as “a viable strategy” (xviii) for providing solutions to managerial problems of organizational interdependence.

More recently, Hardy and Phillips (1998) have observed that “many writers advocate interorganizational collaboration as a solution to a range of organizational and intersectoral problems” and that “collaborative strategies have been attracting increasing attention as a means to address problems that range from deregulation, to globalization, to sustainable development” (p. 217). Mandell and Steelman (2003) concur, stating in their review of emerging interorganizational arrangements that, “In recent years, collaborations, partnerships, and networks have evolved as interorganizational innovations to address multifaceted social and environmental problems” (p. 198). Agranoff and McGuire’s (2003) previously noted classic definition also regards collaboration as a “process of facilitating and operating in multiorganizational arrangements to solve problems that cannot be solved or solved easily by single organizations” (p. 4).
In a similar fashion, Crosby and Bryson (2005) assert “that collaboration occurs in the midrange of how organizations work on public problems” (pp. 17–18). Collaboration is to be employed, in Bryson, Crosby, and Stone’s (2006) opinion, “to tackle tough social problems and achieve beneficial community outcomes” (p. 44). Imperial (2004) advises public managers to use collaboration to “solve problems, reach agreement, undertake joint actions, share resources such as information, money, or staff” (p. 13). Placed in the context of environmental policy making, collaboration is viewed by Lubell (2004) as “a potential remedy to many of the pathologies of existing regulations” (p. 341). Explaining the distinction behind collaboration as a conflict management strategy, Quinn and his colleagues (2003) write that “by creatively engaging the problem” through collaboration, “a solution can be generated that makes everyone a winner and everyone better off” (p. 93).

**Collaboration as a self-organizing enterprise.** A contrasting perspective to the one presenting collaboration as an intentional, strategic, purposive action has been also advanced (and criticized accordingly) in the literature. It can be labeled “collaboration—a self-organizing enterprise.” Rhodes and Murray’s (2007), for example, apply a Complex Adaptive System framework to examine the collaborative making process in the context of six cases of urban regeneration in Ireland and report finding evidence of self-organizing emergent elements in at least three of the six cases studied. Such an approach, however, has met strong skepticism and criticism in the collaboration field. In a blatantly sarcastic tone, Robinson (2006) blasts “the literature’s foundational myth of collaboration as being born from the sea foam spontaneously organizing in response to policy needs” (p. 596). In his mind, this view “may be accurate at times, but it is only accurate in a
limited number of cases” (p. 596). “A realistic view of collaborative management,“ Robinson (2006) argues, “requires attention to the deep uncertainties about collaborative enterprises and a willingness to move past the simplistic notion of collaborative enterprises as self-enacting (or self-organizing)” (p. 595). Robinson expands that “the political origins of some networks also draw into question the vision of collaboration as a voluntary collection of participants focused on a singular goal” (p. 596). Hardy and Phillips (1998) can also be enlisted in the contravening choir with their statement that,

The social nature of the interorganizational domain provides an opportunity for more powerful stakeholders to influence its definition and development in ways that afford them the most advantage. These power dynamics may mean that interactions that appear to be collaborative, in fact, mask defensive maneuvers to maintain the status quo” (p. 220).

The verdict seems to be rendered by Thomson and Perry (2006): “Collaborations are not self-administering enterprises. Organizations collaborate because they intend to achieve a particular purpose” (p. 25).

Collaboration as a process. The claim to the emerging, evolutionary character of collaboration, however, features prominently in another, “process-oriented,” type of definitions. In fact, Huxham and Vangen’s (2005) observe that the portrayal of collaboration as a process represents one of the main approaches to its conceptualization in the literature (to which, they admit, they do not subscribe entirely). Indeed, “[a] process-oriented definition of collaboration,” Thomson and Perry (2006) argue, “must take into account the nonlinear and emergent nature of collaboration, suggesting that collaboration evolves as parties interact over time” (p. 22). Similarly, Imperial (2004) contends that “Collaboration tends to be a trial and error process in which public managers become engaged in new activities once they learn how to work together. Thus,
there is often an evolutionary dimension in which the outcomes of one collaborative
effort (e.g., trust) create inputs that facilitate subsequent activities” (p. 13).

In the same vein of “process-oriented” categorization, it is worth reiterating
Agranoff and McGuire’s (2003) “classic” definition of collaboration as a “concept that
describes the process of facilitating and operating in multiorganizational arrangements to
solve problems that cannot be solved, or solved easily, by single organizations” (p. 4)
Thomson, Perry, and Miller (2009) also stress the process component of collaboration:
“Interorganizational collaboration is a term used by scholars and practitioners to describe
a process that can emerge as organizations interact with one another to create new
organizational and social structures” (p. 23, emphasis added). Building on a presentation
given by them at the 2006 Conference on Collaborative Public Management, sponsored
by the Maxwell School of Syracuse University, Thomson, Perry, and Miller (2009) offer
another more detailed definition that combines interaction and process elements:
“Collaboration is a process in which autonomous or semi-autonomous actors interact
through formal and informal negotiation, jointly creating rules and structures governing
their relationships and ways to act or decide on the issues that brought them together; it is
a process involving shared norms and mutually beneficial interactions” (p. 25, emphasis
collaboration suggests that collaboration occurs over time as organizations interact
formally and informally through repetitive sequences of negotiation, development of
commitments, and execution of those commitments” (p. 21, emphasis added).

In general, scholars have described the collaboration process either in terms of
“process characteristics (such as consensus, participation, and accountability)” (Koontz
and Thomas 2006, 118) or “a continuum of stages” (Thomson and Perry 2006, 21). In the realm of the first approach, Thomson and Perry (2006), for example, argue for the necessity to “look inside the ‘black box’ of collaboration processes” (p. 20), where they find the five procedural dimensions already mentioned earlier: governance, administration, organizational autonomy, mutuality, and norms. Bryson, Crosby, and Stone (2006) focus in turn on six “aspects of process within collaborations: forging initial agreements, building leadership, building legitimacy, building trust, managing conflict, and planning” (p. 46, emphasis added).

The application of the second, stages (or phases), approach has been also confirmed (and even mildly criticized) in Huxham and Vangen’s (2005) review of the literature on collaboration. Thus, while examining six cases of urban regeneration in Ireland, mentioned above, Rhodes and Murray (2007) have identified four persistent stages in the process of collaboration, irrespective of the order of their occurrence across the cases: “(1) identifying the problem; (2) creating agents; (3) agreeing and approving the solution; and (4) acting and delivering in the context the approved/agreed solution” (p. 11). Against the backdrop of a collaborative initiative between city departments and private contractors in the City of Indianapolis, Rubin and Rubin (2007) build a conceptual model that involves five developmental stages of collaboration: the impetus stage, the initiation stage, the implementation stage, the integration stage, and the institutionalization stage.

Similarly, Bingham and O’Leary (2006) find the meaning of collaboration embedded in the particular context of the process of policy making at its various stages:

Collaboration is likely to take a different form and have different outcomes upstream in the process (identifying a policy problem and
identifying possible approaches to solving it) compared to midstream in the policy process (identifying public preferences among possible choices, choosing among the possible approaches, and implementing policy). Collaboration may take still other forms and produce yet another set of outcomes when we look at downstream uses of collaboration to enforce policy. Context helps shape both process and outcome (p. 166).

Collaboration as a function of... A number of definitions of collaboration gravitate around the cause of identifying factors contributing to the success or failure of collaborative enterprises. Faerman, McCaffrey, and Van Slyke’s (2001) study is particularly notable in this respect. Steeped in the policy context of public-private collaboration in regulating financial market innovation, the study identifies four main determinants of successful outcomes of collaborative processes: (1) initial dispositions toward collaboration; (2) leadership; (3) issues and incentives; and (4) number and variety of groups. Focusing on the idea of achieving a well-functioning “citizen-centered collaborative public management,” Cooper, Bryer, and Meek (2006) outline six factors, which have proved critical in their analysis for the success of the endeavor: (1) government trust in citizens; (2) citizen efficacy; (3) citizen trust in government; (4) citizen competence; (5) government responsiveness; and (6) government legitimacy.

As recent empirical research on collaborative networks have drawn “into question the vision of collaboration as a voluntary collection of participants focused on a singular goal” (Robinson 2006, 596), scholars have begun to pay greater attention to issues of power, inequality, and conflict as factors affecting the performance and the sustainability of collaboratives. In the words of Imperial (2004), for example, “Power and politics are critical because participants generally have to be convinced to voluntarily work together” (p. 13). Similarly, Huxham and Vangen (2005) maintain that successful collaborative
management requires manipulation, playing organizational politics, and “collaborative thuggery” (p. 222), as they call it.

The issue of trust as a success-inducing factor holds a special place in this category of definitions of collaboration. According to Agranoff and McGuire (2001), “trust is required as public and nonpublic organizations attempt to redefine their usual legal-based (hierarchical, contractual) relationships…In the absence of the legal charter, it is commonly accepted that people join, remain, and work together because of some element of trust” (p. 312). Sabatier and his colleagues (2005) concur that “the issue of trust is particularly important to the actions of collaborative processes” (p. 8). This tremendously popular refrain in the literature is echoed by Keast, Brown, and Mandell (2007), who assert that “developing collaborative ways of working depends on establishing a high degree of trust among members…” (p. 25). Indeed, “trust is often defined as a sine qua non (from Latin: an essential element, an indispensable condition) of successful collaboration” (Hudson et al. 1999, 248, reference added).

Conceding that “many have argued that trust is essential for successful collaboration,” Huxham and Vangen (2005, p. 153) disclose, however, that their empirical research of collaborative enterprises has uncovered a strikingly different picture. The interviews conducted with practitioners have showed that “people talk about their experiences as if trust is a rare commodity” (p. 153). The authors explain that “rather than describing situations in which collaborative actions are underpinned by trust, people tell us about misuse of power, hostility between members and about collaborative situations generally characterized by suspicion and mistrust” (p. 153). Therefore, Huxham and Vangen (2005) conclude, “it would appear that there is a gap between the
common wisdom that trust is necessary for collaboration to be successful and common practice, which suggests that trust is frequently weak (if not lacking altogether), and suspicion is rife” (p. 153). In another study, Huxham (2003) elaborates that,

While the existence of trusting relationships between partners probably would be an ideal situation, the common practice appears to be that suspicion, rather than trust, between partners is commonly the starting point. Often partners do not have the luxury to choose others to work with. Either imposed (e.g. government) policy dictates who the partners must be or the pragmatics of the situation dictate that partners are needed where trust is weak (p. 408).

Along the same line of reasoning, Smith (2009) adds that, “Since public managers are often engaged in collaborations with stakeholders of varied and often conflicting interests (i.e., developers and environmental organizations), it is difficult to encapsulate each disparate interest into the interests of the government and thus unlikely that trust alone will suffice in garnering cooperation between stakeholders” (p. 8).

Furthermore, in the realm of trust-skeptical empirical findings, Cook, Hardin, and Levi (2005) have discovered that interorganizational collaboration is actually possible even in the face of a total absence of trust. They have concluded that reliable institutional mechanisms, rather than trust, could prove the necessary “cohesion factor” (Agranoff and McGuire 2001, 311), the “glue” that would hold the collaborative structure together. Drawing insights from Cook, Hardin, and Levi’s (2005) work, Smith (2009) tests a similar, institutionally-focused proposition in the context of a county open-space policy and finds that not trust, but institutional arrangements—“county form of government, along with rules governing debt accumulation and administrative commitment” (p. 1)—have determined the increase in countywide collaboration on that particular policy issue.

In yet another policy context—the creation of multi-actor Habitat Conservation Plans to protect endangered species—Raymond (2006) “explores the hypothesis that trust
is overrated as a cause of cooperation” (p. 37). His analysis of two case studies suggests that institutional support and political leadership could be considered the critical contributing factors to collaborative success without reliance on building trust (and social capital) among the parties involved.

**PARADOX**

Paradoxes are nothing but trouble. They violate the most elementary principle of logic: Something cannot be two different things at once. Two contradictory interpretations cannot both be true. A paradox is just such an impossible situation, and political life is full of them.

Deborah Stone (1997, p. 1)

**Definitions**

Over the last two decades paradox has attracted increasing conceptual and methodological interest, especially in the area of organizational and management studies (Cameron 1986; Quinn and Cameron 1988; Hardy 1994; Connelly, Zhang, and Faerman 2008). As contemporary social theory has been generally found “biased toward consistency” (Poole and Van De Ven 1989, 563), “the simultaneous presence of incongruent and contradictory patterns,” Cameron and Quinn (1988) assert, “is seldom explained or even acknowledged” (p. 2). Paradox, in this sense, has shown potential as a theoretical framework that can help scholars address adequately those perceived deficiencies in research and theory building.

In truth, paradox, as a concept, has a long and distinguished history in philosophy, formal logic, linguistics and rhetoric. For centuries, famous puzzles such as *Achilles and the Tortoise* and *The Liar*, among many others, have consistently presented great minds such as Aristotle, Zeno, Bertrand Russell, Galileo and Wittgenstein with issues of
truthfulness of statements and logical inferences (Clark 2002). From Greek *paradoxon* and Latin *paradoxum* (*para* – “beyond, contrary to” and *doxa* – “opinion”), the term *paradox* literally denotates something “incredible, contrary to expectations,“ an apparent contradiction.

In social sciences, Lewis (2000) observes, “Most often, researchers use paradox to describe conflicting demands, opposing perspectives or seemingly illogical findings” (p. 760). Richard Wollheim’s (1962) *Paradox of Democracy*, for example, deals with problems of ordering political preferences and conflict in political obligations. In reference to the contemporary public service reforms, in general, and the New Public Management movement, in particular, Hood and Peters (2004) define paradox “as outcomes and developments that were unexpected, unintended, or contrary to received belief, particularly but not only in the form of unanticipated negative side and reverse effects” (p. 269). In common parlance, paradox has been applied to “interesting and thought-provoking contradictions of all sorts,” usually designating “something which grabs our attention, a puzzle needing a solution” (Poole and Van De Ven 1989, 563). Indeed, in Handy’s (1994) acknowledgement, “Paradox has almost become the cliché of our time” (p. x).

The analysis in the current dissertation, however, has been informed by a narrower, more specialized and focused conceptualization of paradox, advanced most recently in the domain of organizational studies, that defines paradox as “an observation in which two apparently contradictory elements are seen as present or operating at the same time” (Quinn and Cameron 1988, 290). In that view, “paradoxes become apparent
through self- or social reflection or interaction that reveals the seemingly absurd and irrational coexistence of opposites” (Lewis 2000, 761).

Types of Paradox

Borrowing from Bateson (1972) and Jung (1977) respectively, Harmon (1995) distinguishes between, what he calls *schismogenic* and *antinomial* paradoxes. In his account, paradoxes of the first type “may be used to describe sets of opposing or contradictory virtues, values, and principles whose individual elements have become split off from one another, and in which one side or element has been comprehended or chosen to the exclusion of the other, ostensibly in the interest of logical consistency and the pursuit of a purpose” (p. 76). This schismogenic thinking, characteristic of rationalist Western societies, according to Harmon, allegedly puts a “premium on purposiveness,” while exhibiting “inability to comprehend the inevitability of opposition and contradiction” (p. 76). In Quinn’s (1988) words, this rational-deductive approach rests on the assumption that “contradictions must be circumvented or crushed” (p. 27). In this sense, “paradox should be regarded as a problem to be solved or at least avoided,” Harmon (1995, 74) concludes.

In contrast, Harmon (1995) categorizes paradoxes of the second, antinomial, type as embodiment of “the notion that opposition and contradiction are inevitable features of human existence” (pp. 76-77). Drawing on Jung’s (1977) use of *antinomy* to “describe the complementarity of inner opposites—for example, of good and evil” (p. 74), Harmon (1995) maintains that “antinomial paradoxes, therefore, can only be struggled with rather than solved, and attempts to avoid them will inevitably backfire” (p. 77).
Charles Handy (1994), one of the recognized gurus of contemporary management thought, takes a similar approach to dealing with paradoxes. In his book, *The Age of Paradox*, he writes:

Paradigm I now see to be inevitable, endemic, and perpetual. The more turbulent the times, the more complex the world, the more paradoxes there are... Paradoxes are like the weather, something to be lived with, not solved, the worst aspects mitigated, the best enjoyed and used as clues to the way forward. Paradox has to be accepted, coped with, and made sense of, in life, in work, in the community, and among nations (pp. 12-13, emphasis in original).

In the same vein, Cameron and Quinn (1988) introduce the concept of “Janusian thinking” as a psychological paradox, identified by Rothenburg (1979) in the course of his investigation of the accomplishments of highly creative persons, such as Mozart, Einstein and Picasso. “Janusian thinking” occurs, Cameron and Quinn (1988) explain, “when two contradictory thoughts are held to be true simultaneously” (p. 4). The authors cite from Rothenburg (1979) that,

In Janusian thinking, two or more opposites or antitheses are conceived simultaneously, either as existing side by side, or as equally operative, valid, or true. In an apparent defiance of logic or of physical possibility, the creative person consciously formulates the simultaneous operation of antithetical elements and develops those into integrated entities and creations. It is a leap that transcends ordinary logic. What emerges is no mere combination or blending of elements: the conception does not only contain different elements, it contains opposing and antagonistic elements, which are understood as coexistent. (p. 55).

**Paradox and the Competing Values Framework**

The type of antinomial, “Janusian thinking” described above—the acceptance and embrace of “the simultaneous presence of contradictory, even mutually exclusive elements” (Cameron and Quinn 1988, 2)—has provided the conceptual fuel for the development of what has been named the *Competing Values Framework* of
organizational effectiveness. The framework, which has been widely used in organizational studies (Rohrbaugh 1981; Quinn and Rohrbaugh 1983; Quinn 1984, 1988; Quinn and Cameron 1988; Hooijberg and Petrock 1993; Quinn et al. 2003), aims at integrating into a larger model the four major managerial models that have emerged and evolved historically over the course of the last century—rational goal, internal process, human relations, and open system. The four models and their corresponding organizational effectiveness criteria are situated along two dimensions—internal/external orientation and orientation toward flexibility/control in organizations.

**Figure 2.2:** Competing Values Framework: Effectiveness Criteria (Quinn et al. 2003, 16)


Thus, it becomes apparent from the figure above that in exhibiting the full conceivable spectrum of organizational needs and managerial imperatives, the framework juxtaposes
the characteristics of the managerial models, while placing them in a position of direct
competition for leadership attention, resources and measures of success (organizational
effectiveness). In Quinn and his colleagues’ (2003) explanation,

The competing values framework is built around the notion of paradox. It assumes that organizations need to be simultaneously adaptable/flexible and stable/controlled; that in order to perform effectively, they need to focus simultaneously on their external environments and competitive position and on their internal environments and the people and work processes. As a conceptual model, the framework itself suggests that we tend to think of roles on opposite sides of the axes as antithetical (p. 349).

Therefore, Quinn and his colleagues (2003) conclude, any “either-or decisions” are to be abandoned in favor of “both-and assumptions, where contrasting behaviors could be needed at the same time” (p. 11). This is exactly what constitutes, according to the authors, the essence of “paradoxical thinking”—“thinking that transcends the contradictions and recognizes that two seemingly opposite conditions can simultaneously be true” (p. 349).

One additional conceptual element, which brings greater clarity to the rationale behind this paradoxical approach while expanding on the dimensionality of the Competing Values Framework, is the notion of a positive and negative zone, developed originally by Faerman and Quinn (1985) in the context of organizational effectiveness. As shown in Figure 2.3, the competing values of organizational effectiveness are situated, in addition to the four quadrants already introduced above, in three concentric circles. The middle circle contains the competing values in their actual positive mode. The inner circle and the outer circles are viewed as negative zones. While the inner circle represents the deficiency, the lack of, or the underdevelopment of the values, the outer circle captures the aspect of those values in excessive, extreme, superfluous advancement. In Quinn and his colleagues’ (2003) explanation, in the outer circle “each set of positive
values is ‘pushed’ until it becomes negative” (p. 20) and “the reader can see what happens if a set of positive values is inflated by ignoring or negating the opposite set of positive values” (p. 21).

In Figure 2.3, the value of innovation is mapped out across the circles above to exemplify the transformative changes it undergoes in the different zones. In the inner zone, the value is unclear, underdeveloped. The value acquires a positive status in the middle circle, where it is associated with positive change and adaptation to challenging new conditions. Continuously excessive emphasis on innovation, however, drives the value into the negative zone of the outer circle, where it is transformed into “disastrous experimentation.”

**Figure 2.3:** Negative Zone in Organizational Effectiveness (Quinn et al. 2003, 21)

The potential for achieving such a disastrously negative result while pursuing (to an extreme) an otherwise totally positive value, illustrates the necessity for a contra-balancing action in the opposite direction. In the case of innovation, this opposing driver is represented by the competing value of stability/control. Note that an exclusive pursuit of stability and continuity also brings about negative effects such as “habitual perpetuation” and “ironbound tradition” that require in turn the corrective force of the competing value of innovation.

This insightful conceptualization embodies Aristotle’s ([350 BC] 1990) ethical ideal of a mean or intermediacy in developing and exercising moral virtues. In Nicomachean Ethics, Aristotle develops the idea of the moral virtue as “a mean between two vices, one of excess and the other of defect” (p. 111). According to Aristotle, when “determining the choice of actions and emotions,” “the vices either fall short of or exceed what is right,” while “virtue ascertains and adopts the mean,” which marks the “point of excellence” (p. 95). For example, in Aristotle’s terms, a man who observes the mean in confidence is courageous; a man who exceeds in confidence is rash, while a man deficient in confidence is a coward. Thus, it becomes “a hard task to be good, for it is hard to find the middle point in anything” (p. 111).

The logic of “zoning” in the development of the Competing Values corresponds conceptually to the principles of dialectics (Hegel 1812; Engels [1883] 1960) as well, especially to “the law of the opposites” and “the law of negation.” These principles, first developed by the Greek philosopher Heraclitus and codified by Hegel, have been reformulated by Marx and Engels as laws of dialectical materialism: (1) Law of Opposites—everything in the nature is made of opposing forces (contradictions); (2) Law
of Transformation—quantitative development leads to qualitative changes (turning points, leaps); and, (3) Law of Negation—everything contains its own negation. Negation of the negation leads to a cycle of thesis, antithesis, and synthesis (Engels [1883] 1960).

More recently, Northcutt and McCoy (2004) have boldly tried to offer, for research analytical purposes, a similar synthesis of the laws of dialectics in the form of the following syllogism: “A good thing, when taken to the extreme, becomes a bad thing; the opposite of a bad thing is a good thing, therefore… a good thing has as its opposite another good thing” (p. 14).

Paradox, Collaboration and Conflict

As mentioned in the previous section, borrowing from Thomas (1976), Quinn and his colleagues (2003) define collaboration as a conflict management strategy that is compared against four other approaches to conflict resolution (avoidance, competition, compromise, and accommodation) in terms of “assertiveness” and “cooperativeness” (pp. 93-95). Connelly, Zhang, and Faerman (2008), who utilize the same framework in their work, elaborate that all five approaches involve simultaneously, but to a different degree, the two main properties, presented as conceptual dimensions: “caring about one’s own interest and goals (assertiveness) and caring about other parties’ interest and goals (cooperativeness)” (p. 25). Thus collaboration, situated in the upper right corner on the two dimensional scale, appears simultaneously as the most assertive and most cooperative strategy (see Figure 2.4).
In truth, Quinn and his colleagues (2003) suggest that conflict is not only inevitable but it should not always be viewed as harmful and that “a certain amount of conflict is to be encouraged to allow new ideas to surface and to create positive forces for innovation and change” (p. 95). Still, the superiority of the collaborative approach, especially in the long run, is strongly emphasized. Moreover, collaboration is categorized as a “solution-oriented strategy” (p. 95). The apparent implication is that by default, conflict creates problems that are “resolvable” through collaboration.

Of course, such a treatment of collaboration is conceptually solid and has enjoyed strong empirical support. It seems, however, that the logic of the “paradoxical thinking,” recommended by Quinn and his colleagues (2003), has not been consistently applied to this partial managerial aspect of the Competing Values Framework. While the five conflict management approaches—competing, collaborating, compromising, avoiding, and accommodating—have been matched, drawing on Thomas’ (1977) work, against
“appropriate situations” (p. 94) for the purpose of finding a good fit between a strategy to be applied and situational characteristics, the proposed method does not allow conceptually for the hypothetical simultaneous execution of two opposing strategies in the same situation. Conceivably, collaboration and competition, for example, can both be adopted strategically at the same time despite their mutually exclusive elements, thus creating a paradox, which is at the center of the Competing Values Framework.

Connelly, Zhang and Faerman (2008) seem to agree with such a point of view, arguing that the “forces” of conflict and collaboration should not necessarily be viewed “as either-or propositions” (p. 9), which, incidentally, is the underlying assumption of the classic Prisoner’s Dilemma model in game theory (Rapoport 1966, 1970, 1974; Shubik 1984). O’Leary and Bingham (2007), for example, see an “important public management paradox” in the fact that “collaboration may wield conflict” (p. 6). While in Axelrod’s (1997) account, “Another form of cooperation occurs when people organize themselves into groups to compete with each other. This is clearly an example of collaboration in the interest of competition” (p. 7).

Indeed, a number of authors have identified empirically such a simultaneous presence of collaboration and conflict/competition. In their studies of interorganizational relations and interorganizational service delivery systems, respectively, Distefano (1984) and Alter (1990) contend that conflict should be accepted as unavoidable and that conflict and collaboration exhibit different dynamics that can occur simultaneously (Quoted in Hudson et al. 1999, 240). Using examples from the United Kingdom’s refugee system in an attempt “to move the discussion beyond the simple dichotomy of collaboration and conflict” (p. 226), Hardy and Philips (1998) argue that “the creative and synergetic
outcomes, which many writers associate with cooperation, may also follow from conflictual interorganizational relationships” (p. 218) that have been found to develop concomitantly.

Reviewing inter-agency collaborative activities in the public sector, Hudson and his colleagues (1999) also support the thesis that, in reality, “collaboration and conflict can co-exist in an inter-organizational relationship” (p. 243). Similarly, in their examination of privatization initiatives in the City of Indianapolis, Rubin and Rubin (2007) report on a partnership between a labor union and management that has encouraged “both cooperation and competition between city departments and their represented employees with outside private contractors” (p. 192). Tracing the evolution of mechanisms that promote cooperation against the backdrop of a case study of a regional rail project in Los Angeles County, Callahan (2007) concludes that “conflict is built into regional agencies by political design” (p. 293) but the participants in the project would still share “a vision of governance in which regional cooperation would emerge out of the collision with competing political constituencies” (p. 290).

CONFLICT AND COLLABORATION

General Drivers of Conflict

There is almost a virtual consensus among political scientists today that conflict and competition are embedded in the constitutional structure of the American political system (Farmer 2003). The institution of two fundamental principles—federalism, or the division of power between the national government and the state governments, and the separation of powers among the different branches of government on both national and
State level—have carved deep cleavages in the American system, whose bridging presents a perennial governing challenge for politicians, policy makers and public managers alike. According to Kettl (2005), “The Constitution’s long shadow over American democracy is one of boundaries: of what each branch of government is empowered to do, of powers reserved to state governments, and, most important, on the limits of governmental power enshrined in the Bill of Rights” (p. 6). Designed to prevent absolutism, and concentration of power and tyranny, those constitutional divisions in essence embody the founding fathers’ vision of human nature. In Madison’s ([1788] 1961) words,

Ambition must be made to counteract ambition. The interest of the man must be connected with the constitutional rights of the place. It may be a reflection on human nature that such devices should be necessary to control the abuses of government. But what is government itself but the greatest of all reflections on human nature? If men were angels, no government would be necessary (p. 322).

Accepting the inevitability of conflict among self-serving interest groups or “factions” as they called them, the framers intended to pursue a “policy of supplying, by opposite and rival interests, the defect of better motives…” (Madison [1788] 1961, 322). This insight is considered “the main stem of our political tradition” (Siegel 2008, 1). Indeed, in Kettl’s (2005) account, “The American separation of powers approach is less a way of building fences around governmental institutions than of structuring the political conflict between them” (p. 6).

Additionally, the principle of checks and balances, which grants shared, overlapping authority and responsibility to the otherwise “separated” powers (branches of government) and the phenomenon of divided government—when one party holds the
Presidency while the other controls the Congress (Fiorina et al. 2005)—exacerbates the conflictual, competitive character of the political system.

The prevailing political culture among the American citizenry of suspicion and distrust of public authority is considered another source of tension in the system of governance. In his insightful analysis of the cultural geography of the United States, Zelinsky (1973) notes that,

Imbued with the notion of the sovereignty of the individual, the American generally regards government as a necessary nuisance at best and thinks that government best which governs least. The overtones of the epithet “politician” have always been unflattering. Fear and suspicion of authority run deep, and the more remote the seat of power, the sharper the antagonism toward it (p. 45).

This attitude pervades significant aspects of the relationship between business and government as well, which, according to Vogel (1996), is characterized in a profound way by what he calls an adversary culture. In his words, “Distrust and suspicion of public authority have been a recurrent feature of American business ideology since at least the 1840s” (p. 10). In Vogel’s (1996) explanation, “Our adversarial regulatory system is the counterpart of a highly competitive economic system: the conflict-ridden relationship between business and government in the United States is the political counterpart of the highly competitive relationships that exist within the American business community” (p. 90).

In a more general sense, this is viewed in light of the American political tradition, whose key elements, according to Vogel (1996) involve “the importance of individual initiative, the fear of public authority, the value of increased political competition, an uneasiness with majoritarian democracy, the fascination with the law and legal procedures, and the emphasis on voluntary organizations” (p. 149). Additionally, Vogel
(1996) points to the historic roots of what he calls “a *judicial model of state authority*” (p. 150, emphasis added), to which the various interest groups in the American society subscribe:

The common-law system, like the market system to which it is historically related, emphasizes the virtue of competition: both systems assume that the interests of all are best served when relatively equal forces are engaged in an adversary relationship. More critically, both emphasize the role of the state in providing the arena of conflict, not in determining how it should be resolved (p. 150).

Therefore, the currently predominant mode of public policymaking and management that Kagan (1991) labels *adversarial legalism* could be seen as a corollary of the factors described above. In his study of the Port of Oakland dredging project, Kagan (1991) argues that, “Compared to other economically advanced democracies, the United States is uniquely prone to adversarial, legalistic modes of policy formulation and implementation, shaped by the prospects of judicial review” (p. 369).

This conflictual approach is further fueled, especially in the last three decades, by the mainstream media, which has become an important factor in public governance. In a rare journalistic statement, Evan Thomas (2008) of *Newsweek* admits: “Is the mainstream press unbiased? No, but we are not ideological. What we really thrive on is conflict… The press’ *real* bias is for conflict” (p. 1, emphasis in original). In an interview, given in January 2008, Jon Meacham of the same magazine confirms that indeed the media is conflict-driven because conflicts are inherently interesting; hence the martial imagery and stylistics in titles and headlines: “X vs. Y,” “The War over This,” “The Battle for That,” The Fight to,” and so on.

To recapitulate, the American system of governance carries a distinctive “built-in” structural and cultural bias towards conflict/competition. As a consequence, it is only
logical to expect that any individual or institutional agents of public policymaking and management in that environmental context would carry “initial dispositions,” to borrow a term from Faerman, McCaffrey, and Van Slyke’s (2001) four-factor model of collaboration, against collaboration and in favor of conflict/competition.

**General Drivers of Collaboration**

It is commonly acknowledged nowadays that *societal change* in general, as Agranoff and McGuire (2003) have noted, is the primary driver of collaboration. The extreme diversity in the world, dispersed power, and the necessity to de-differentiate tasks are among the factors stressed by the scholars as causes of collaboration. Thomson and Perry (2006) specify that “*Devolution, rapid technological change, scarce resources, and rising organizational interdependencies* are driving increasing levels of collaboration” (p. 20, emphasis added).

Similarly, Imperial (2005) points to current institutional factors such as *shared power, fragmentation, dispersed capacity for solving policy problems* and the fact that “few organizations accomplish their missions by acting alone” (p. 282) as sources of the impetus to engage in collaboration. Admitting that, traditionally, “Americans have always focused on boundaries” and that this is nowhere more evident than in the way “they have structured their governments” (p. 11), Kettl (2006) argues that at present “we are facing a growing set of inescapable issues, that the agencies charged with managing these problems have boundaries that do not fit the problems well, and that the mismatch of boundaries and problems is causing growing performance problems” (p. 13). Therefore, Kettl (2006) concludes, the use of collaboration is imperative.
In contrast to the predominant view of the American political system as competitive and conflict-prone, Agranoff and McGuire (2003) have argued that “American federalism is perhaps the most enduring model of collaborative problem resolution” (p. 34, emphasis added). This is in line with the stand taken by other political analysts in the past, such as Morton Grodzins (1966), for example, who famously used the marble-cake federalism metaphor to show the joint activities and shared responsibilities of federal, state and local officials, thus emphasizing the essentially collaborative nature of the American system. In Grodzins’ (1960) words, “federal-state-local collaboration is a characteristic mode of action” since “any governmental activity is almost certain to involve the influence, if not the formal administration, of all three planes of the federal system” (pp. 266-67).

Similarly, Farmer (2003) argues that “In terms of public policymaking, separation of powers and checks and balances makes (sic) it almost impossible to make public policy unless a great deal of interaction and cooperation between (sic) the three branches of government takes place” (p. 11). In the same vein, Scheberle (1997) specifies that, “Indeed, the proliferation of federal grants-in-aid beginning in the Great Depression and finding full flower in the Great Society programs of the Johnson Administration in the 1960s has compelled national and state governmental actors to work cooperatively to solve public problems” (p. 12).

Examining possible rationale behind collaborative ventures in terms of what they call “bases for collaborative advantage,” Huxham and Vangen (2005) outline in turn the following main reasons for collaboration: access to resources [“organizations often collaborate if they are unable to achieve their objectives with their own resources” (p. 5)];
shared risk [“organizations collaborate simply because the consequences of failure on a project are too high for them to risk taking it on alone” (p. 5)]; efficiency; co-ordination and seamlessness; learning; and, the moral imperative – there is no other way:

This rests on the belief that the really important issues facing society – poverty, crime, drug abuse, conflict, health promotion, economic development and so on – cannot be tackled by any organization acting alone. These issues have ramifications for so many aspects of the society that they are inherently multi-organizational… Collaboration is thus essential if there is to be any hope of alleviating them (p. 7).

Focusing on cross-sector collaboration, Bryson, Crosby, and Stone (2006) discuss several, both more general and more immediate, reasons for its occurrence. “The first is simply that we live in a shared-power world in which many groups and organizations are involved in, affected by, or have some partial responsibility to act on public challenges” (p. 44), the authors maintain. The second one, in their opinion, refers to “a long-standing critique of the effectiveness of government when it acts on its own” (p. 44). Additionally, increased environmental complexity, competitive and institutional pressures are named by Bryson, Crosby, and Stone (2006) as being potentially responsible for bringing about collaborative endeavors. More specifically, the scholars point to sector failure [“single-sector efforts to solve a public problem are tried first and found wanting before cross-sector efforts are attempted” (p. 46)] as an often “overlooked precondition for collaboration” (p. 45).

Koontz and Thomas (2006) also see the primary causes of collaboration in the rapidly changing social conditions, “including changing expectations about citizens’ roles in policy making” (p. 112). As noted by Sabatier and his colleagues (2005), the traditional paradigm of policymaking has created “problems of legitimacy because citizens perceive decisions as being made by far–off, faceless bureaucrats with little
knowledge of or concern for how those decisions affect local conditions” (p. 5). In contrast, collaboration, by virtue of its inclusiveness, “broadens the base of support, making it hard for die-hard opponents to overturn agreements” (Gordon and Coppock 1997, 44).

With the increased popularity in recent years of the new economics of organization, which deems the reduction of transaction costs (Coase 1937) a primary consideration in the selection of institutional arrangements, scholars have began to see participants’ “anticipation of lower transaction costs” (Weber 1998, 17) as a main motive to engage in collaboration (vis-à-vis other alternatives). In Weber’s (1998) words, “Traditional hierarchy-based, command-and-control regulatory arrangements are costly to negotiate and specify, information costly to gather and verify, and monitoring and enforcement costly and uncertain” (p. 18). In the case of the Port of Oakland dredging project, Kagan (1991) explicitly draws attention to the “enormous dispute-resolving costs” (p. 369), associated with adversarial legalism as a mode of public policymaking. In their study of public-private collaboration in regulating financial market innovation, Faerman, McCaffrey, and Van Slyke (2001) also point out that “cooperation develops more easily… when the number of parties is small enough that they can reach and enforce agreements at reasonable cost” (p. 377).

**CHAPTER SUMMARY**

This chapter has presented important conceptualizations of collaboration, found in the literature, that have a direct bearing on the data analysis in this study. In particular, special emphasis has been placed on those definitions that present collaboration as: a
multiorganizational arrangement; a form of public participation; a strategy/purposive action; a solution; a self-organizing enterprise; a process; and, a function of certain “success” factors.

Subsequently, the concept of paradox has been introduced, in its capacity as a core element in Quinn et al.’s (2003) Competing Values Framework of Organizational Effectiveness and Faerman and Quinn’s (1985) model of the positive and negative zones of those values distribution. Lastly, the competing drivers of collaboration and conflict have been discussed with the purpose of elucidating for the reader the theoretical grounding of their conceptual juxtaposition. The next chapter, Chapter Three, details the research methods of the study.
CHAPTER THREE: RESEARCH METHODS

This chapter consists of five sections that discuss the methodological issues associated with the conduct of the current research. The first section presents the case study method as the research design for the study and the rationale for its selection. The second section outlines the arguments for the selection of the particular empirical case. The third section explains the data collection strategy for archival records and media accounts of the Patuxent River case. This is followed in the fourth section by a brief presentation of the interpretive data analytical approach utilized in the study for analyzing the collected data. The fifth section contains a short review of the generally accepted criteria for evaluating qualitative research designs.

Research Design

Arguably, the case study approach is the method of choice in the current research literature on collaborative environmental management, including collaborative watershed management, in particular (Lewicki, Gray, and Elliott 2003; Koontz et al. 2004; Imperial 2005; Sabatier et al. 2005; Scholz and Stiftel 2005; ). It appears that the characteristics of the case study method—an in-depth study of instances of a phenomenon in its natural context (Gall, Gall, and Borg 2003) in order to gain a greater understanding of its nature—make it uniquely suited for this topical research. As Yin (1990) has argued, case studies are the preferred research design “when a ‘how’ or ‘why’ question is being asked about a contemporary set of events, over which the investigator has little or no control” (p. 20).
Indeed, in their review of qualitative research articles in the public administration literature, Brower, Abolafia, and Carr (2000) confirm that, “Scholars find that the individual case or setting is the most convenient locus of study when their research goal is to acquire a contextually rich understanding of some phenomenon of interest” (p. 371). As noted by Berg, “The scientific benefit of the case study method lies in its ability to open the way for discoveries” (p. 217).

In truth, some authors have criticized the dominance of case studies in the field of collaborative watershed management, arguing for the timeliness of moving research from the “context of discovery” to the “context of verification” through the use of more rigorous quantitative techniques for “testing propositions developed from one or more bodies of theory” (Sabatier et al. 2005, 13). Still, the relevance and the usefulness of case studies in identifying, describing and categorizing the various factors that play a role in the successes and failures of collaborative ventures remain undisputed. In Barzelay’s (1993) assessment, “The single case study is an extremely valuable method of social science research when used for the purpose of analyzing how people frame and solve problems” (p. 305).

Thus, considerations of relevance, “goodness of fit” with the established research standards in the literature on the topic, and suitability with respect to the general purpose of the current study—to explore, analyze and interpret the paradoxical manifestations of collaboration in the context of the Patuxent River, Maryland water quality improvement policy initiative—have informed the choice of a research design. First, the topic of collaboration, as conceived in this study, requires exploration and a detailed view in a natural setting of its occurrence (Creswell 1998). Second, the nature of the research
questions, focused predominantly on the what and how aspects of the collaboration
phenomenon (Yin 1990), matches nicely the descriptive and exploratory orientation of
the case study design. Third, the long tradition of using case studies in public
administration is expected to make “audiences receptive” (Creswell 1998, 18) to the
findings of the dissertation.

Accordingly, the dissertation could be characterized as both an exploratory (Yin
2003) and an instrumental (Stake 1995) case study. Additionally, as the study focuses
exclusively on the adoption of the Nutrient Control Strategy for Patuxent as a unit of
analysis among the myriad of activities and program initiatives within the case in the
time period between 1977 and 1984, it can as well be categorized as an embedded case
study (Yin 2003).

In Stake’s (1995) categorization, intrinsic case studies become a focus of research
because of their uniqueness and intrinsic value. They are not necessarily related to a more
general class of cases. In contrast, instrumental case studies, as suggested by their name,
are used instrumentally “to provide insight into some issue or to refine some theoretical
explanation” (Berg 1998, 216). In collective or multiple case studies, Stake 2006)
explains, “The individual cases share a common characteristic or condition” (p. 4) and
“are somehow categorically bound together” (p. 6).

Thus, intrinsically interesting as the Patuxent River initiative truly is in its own
right, it is viewed, for the purpose of the current study, as a particular instance of the
phenomenon of collaborative management and therefore analyzed through those lenses.
More specifically, the continuous, simultaneous, paradoxical interplay of both
collaborative and adversarial strategies is the primary research focus of the study.
Case Selection

Several considerations in terms of *purposive sampling* (Creswell 1998) have led to the selection of the case of the Patuxent River, Maryland Nutrient Control Strategy. In Creswell’s account (1998), “In choosing what case to study, an array of possibilities for *purposeful sampling* is available. I prefer to select cases that show different perspectives on the problem, process, or event I want to portray, but I also may select ordinary cases, accessible cases, or unusual cases” (p. 62, emphasis in original). Similarly, Gerring (2007) outlines nine *purposive case-selection* procedures associated with a distinct case study type: typical, diverse, extreme, deviant, influential, crucial, pathway, most-similar, and most-different. According to Eisenhardt (1989), “The cases may be chosen to replicate previous cases or extend emergent theory, or they may be chosen to fill theoretical categories and provide examples of polar types” (p. 537).

Thus, the thematic orientation of the project calls for a case that, first, prominently featured collaboration in public policy and management. At the same time, the set goal of exploring paradoxical manifestations of collaboration requires a possibility for applying “different perspectives on the problem” (Creswell 1998, 62). In addition, the case should preferably be of a broader scope and contain elements amenable to typification in view of desirable future generalizability and transferability of findings. The Patuxent River case has been found to fit perfectly this profile.

The Patuxent River policy initiative has received national recognition as a landmark case in collaborative “environmental action” (Hodge 1987, 5) and “environmental management policy in the U.S.” (D’Elia 1995, 164). Yet, the process has involved multiple stakeholders, jurisdictional confusion, scientific controversies, and
dramatic, back-and-forth, shifts, between adversarial litigation and collaborative work, prompting Tom Horton (2003) to label it an “eco-thriller” (p. 72). Patuxent has admittedly become both a “symbol of a perceived decline in environmental quality” (D’Elia, Boynton and Sanders 2003, 172) in the largest U.S. estuary—the Chesapeake Bay—and a model for crafting an intergovernmental, bay-wide restoration policy to address the problem (Horton 2005). Patuxent River today is reportedly “one of the most monitored and modeled rivers of its size in the world” (PRC 2000), thanks to the local policy initiative that emerged in the 1970s and traveled a “long and winding road” (Hodge 1987, 5) thereafter. In its entirety, the Patuxent River case seems to capture in miniature the complexities and intricacies of the process of policy formation and management in the U.S.

Second, prime consideration has been given to the argument that “The last two decades have witnessed the emergence of collaborative watershed management as a new paradigm in environmental policy” (Lubell 2004, 341). Indeed, in Imperial’s (2005) account, watersheds, as hydrographic units that “span political, geographic, and ideological boundaries,”—“provide an excellent policy subsystem for examining collaborative processes” (p. 283) by virtue of their jurisdictional fragmentation and institutional interdependence. In this sense, the Patuxent River case, which revolves around initiatives specifically focused on the river’s watershed, seems to provide a particularly suitable empirical context for exploring collaboration in public policymaking and management.

Finally, the issue of accessibility, as another important criterion for the selection of cases (Creswell 1998) and for sampling (Bryman 2001), is weighed against other
alternatives for choosing a research setting for the current study. I have had the fortune to be introduced directly to the case by one of the principal scientists involved in it. The guidance received in identifying the most reliable sources of information on the case has been perceived not just as a matter of convenience but also as a contributing factor in ensuring the quality of the case study research.

**Data Collection**

The case method of study requires collection of a substantial amount of data to ensure an in-depth study of the case selected as representative of the phenomenon under consideration (Gall, Gall, and Borg 2003). The Patuxent River policy initiative is particularly well documented. Numerous technical reports and administrative records, policy memos and briefs, newsletters, executive orders, legislative drafts, minutes from meetings and consultations, press releases from governmental agencies and environmental advocacy groups, and court decisions are publicly accessible.

Additionally, the controversy over the causes and the proposed measures to control water pollution in the Patuxent was covered extensively in the media at the time. Interviews with virtually all of the main participants in the case, such as the Governor of Maryland, Harry Hughes; County Commissioner, later State Senator, Bernie Fowler; the Secretary of the Maryland Department of Natural Resources, James Coulter; the Head of the Office of Environmental Programs, William Eichbaum; and, Dr. Donald Heinle of the Chesapeake Biological Laboratory, can be found published in local, regional and national newspapers. Finally, a number of scholarly articles and monograms, containing both
subjectively reflective and objectively analytical perspectives, have been subsequently published.

Therefore, given the abundance of material on the case, and in view of other constraints with respect to other types of data collection and considerations of feasibility and manageability of the dissertation, the study finds it justifiable to rely exclusively on public archival records as data sources. More specifically, this study avoids individual interviews because, it is argued, if interviews were to be conducted, the current uneven availability of the participants from that time period for interviewing would likely lead to a biased view of the case. Using public archives generally avoids getting just one side of the story.

In addition, as valuable as interviews generally are in the tradition of qualitative research, there are certain recognized limitations to the use of interviews in historical studies of policy decision making. As noted by Pralle (2006), “The chief among these is that participants often create post hoc rationalizations for their actions; people may imply that their strategies were more consciously crafted than was the case, or they may ascribe to themselves more noble motives than perhaps they deserve” (p. 10). In contrast, primary documents, if available, can provide “a firsthand, insider look at the strategic considerations of the various players, in ‘real time’ rather than after the fact” (Pralle 2006, 10). Finally, the nature of the data used and their availability in the public domain allow for any ethical issues concerning the use of human subjects to be addressed.

The retrieval of public archival records has involved field work at the library of the Chesapeake Biological Laboratory, Center for Environmental Studies, University of Maryland and the archives of the Calvert Marine Museum, Solomons, Maryland.
Artifacts from the exhibits hosted by the Calvert Marine Museum and the Solomons’ Oyster House have been also examined to help gain insight into the history of the region, local cultural values, business practices and attitudes towards the river.

The documents retrieved—both published and unpublished—have been classified as primary (original materials), secondary (records about the primary documents), and auxiliary (supplementary materials that provide background information); and arranged chronologically along the timeline of the events. Secondary documents also include media accounts of the controversy over the Patuxent River policy initiative from the late 1970s and the early 1980s. These documents have been used to facilitate the reconstruction of key events in the case, to gauge the “public mood” at the time, in Kingdon’s (2003) terms, and to identify the effectiveness and the influence of the competing problem definitions and policy frames existing at the time.

Auxiliary documents have been considered of no lesser importance as they are to be seen as objective, independent verification of the reported need for and the urgency of the initiated policy action. In this sense, measurements of changes in such variables as population, land use, sewage treatment plant effluent discharges, and annual catch of fin fish, crabs and oysters in the Patuxent have been used to corroborate the facts found in the primary documents directly related to the policymaking process.

The data collection process was discontinued when the designated sources were deemed exhausted or at the point of “diminishing returns” of further data gathering (Gall, Gall and Borg 2003). Additionally, “theoretical saturation” (Strauss and Corbin 1998) of the concepts of collaboration and conflict has been sought as another important indicator of data sufficiency.
Data Analysis

As mentioned above, the study features an embedded analysis (Yin 2003) in the sense that it focuses on the adoption of the Nutrient Control Strategy for the Patuxent during the period 1977 to 1984 as the unit of analysis within the broader case of the Patuxent River water quality improvement initiative, which spans the last three decades.

Yin (2003) argues for the importance of having a “general analytical strategy” for data analysis prior to the commencement of the case study project. He defines three such main analytical strategies: “relying on theoretical propositions,” “thinking about rival propositions,” and “developing a case description” (p. 114). The current study employs a combination of those three general strategies.

In the best tradition of the case study research, the dissertation has sought out first a “thick description” (Geertz 1973) of the situation and the context (Merriam 1988) of the policy initiative. Key events and major developments in the case have been traced back, arranged and, eventually, narrated chronologically as a realist tale (Van Maanen 1988), followed by an up-close, detailed representation of a few critical incidents (Creswell 1998). The data has been subsequently subjected to a thematic analysis to identify, categorize and cluster together the central themes, the most salient characteristics of the case in relation to the general topic of collaboration.

The study has strived, however, to go beyond a mere description of the case. As the main analytical thrust involves an interpretive mode (Lejano 2006; Yanow 2000), one of the primary goals has been to discern the various policy frames brought to bear on the issue of the Patuxent River water quality improvement and the meaning they carry for the actors involved in the case. As noted by Lejano (2006), the interpretive type of analysis
“understands the policy process as a contest over what policy means” (p. 12). Similarly, Yanow (2000) maintains that “The central question for interpretive policy analysts is, How is the policy issue being framed by the various parties to the debate?” (p. 11). In Lejano’s (2006) account, “In an interpretive world, policies are narratives that are crafted by storytellers. Groups or individuals may see different things in a situation, and a policy now becomes a question of whose understanding is influential in the policy process” (p. 12).

In the same vein, Schön and Rein (1994) argue that public policy analysis has been mistakenly preoccupied with problem solving while ignoring the equally important issue of problem framing. In their words, “In order to reflect on the conflicting frames that underline policy controversies, we must become aware of our frames, which is to say that we must construct them, either from the texts of debates and speeches or from the decisions, laws, regulations, and routines that make up policy practice” (p. 34).

Thus, once identified and constructed, the policy frames in the case have been related to the strategies employed for their advancement by the various parties involved in the policy controversy over the Patuxent. It is in this strategic context that collaboration, as an alternative to the currently predominant adversarial, conflictual approach to policymaking and management, is explored within the theoretical framework of the Competing Values of Organizational Effectiveness (Quinn et al. 2003). Consequently, any collaborative and rival conflictual activities detected in the data have been mapped against the Competing Values Framework of Organizational Effectiveness in its “zoning” variant (Faerman and Quinn 1985).
The final interpretive phase does not conclude, however, with the typical, for case research reports, “lessons learned” section (Lincoln and Guba 1985). In the real spirit of Lincoln and Guba’s (1985) naturalistic inquiry, I find it presumptuous on the part of the researcher to package the research findings as “lessons” and to issue a declaration on the status of learning, especially in the realm of public affairs. What is to be learned, who has to do the learning and whether the “lessons” have been learned at all are not simple questions that carry, besides the obvious empirical ambiguity, particular normative connotations, and so requires a tale of a different genre (Van Maanen 1988). Pointing to potential contributions to the existing literature on the subject of collaboration and to implications for the practice of public management and policymaking should suffice, in my mind, as a closing message. Whether there are any lessons to be learned will be left up to the readers of the study to conclude.

**Evaluative Criteria**

Cognizant of “the methodological ferment occurring in contemporary qualitative-interpretive methods” (Schwartz-Shea 2006, 109), the study strives to follow Brower, Abolafia, and Carr’s (2000) “Assessment guidelines for qualitative studies” (p. 391). Adapted for the discipline of public administration from Golden-Biddle and Locke’s (1993) ethnographic account in the wake of the original Lincoln and Guba’s (1985) alternative methodological criteria for evaluation of qualitative research, these guidelines put an emphasis on the pursuit of *authenticity, plausibility, and criticality* in qualitative studies.
In Naturalistic Inquiry, which has become a “classic” in the qualitative methodology literature, Lincoln and Guba (1985) propose evaluative criteria that parallel the traditional positivist research standards. Thus, *internal validity, external validity, reliability, and objectivity* are substituted, respectively, with *credibility, transferability, dependability, and confirmability*, where the new terms are deemed more appropriate for qualitative studies and designed to ensure their *trustworthiness*. Ultimately, the operationalization of those new standards involves a number of specific techniques, such as *prolonged engagement, triangulation, peer debriefing, negative case analysis, member checks, reflexive journal, thick description, and audit*, among others.

In examining these procedures, Creswell (1998) recommends that “qualitative researchers engage in at least two of them in any given study” (p. 203). In the same vein, Schwartz-Shea (2006) advocates *research procedures transparency* and Yin (2003) argues for *maintaining a chain of evidence*. As explained by Yin (2003), the purpose is to make it possible for an external observer “to follow the deviation of any evidence, ranging from initial research questions to ultimate case study conclusions” (p. 105).

While this study has sought to utilize, in the spirit of its espoused *interpretive* methodological orientation, several of the aforementioned techniques, such as providing a *thick description*, asking for *member checks*, and maintaining a *chain of evidence*, a few considerations have steered the dissertation to following more closely Brower, Abolafia, and Carr’s (2000) assessment guidelines for qualitative studies. First, those guidelines’ reference to *authenticity* and *plausibility* as evaluative criteria is supported by similar argumentation, aimed at ensuring transparent and convincing qualitative research, and

Second, the addition of the criticality standard seems especially relevant to the intricate, convoluted research domain of politics, management and administration. It seeks to account for power differentials, to provide an analysis of both the bright side and the dark side, the frontstage and the backstage activities, to incorporate alternative perspectives, and to “legitimize counternormative themes” (Brower, Abolafia, and Carr 2000, 382).

Third, and lastly, the criticality criterion corresponds well to the paradoxical conceptual approach of the current study in the sense that it calls for the “exercise of critical judgment,” for reexamination of “taken-for-granted assumptions” and for the creation of “opportunities for alternative perspectives and actions” (Brower, Abolafia, and Carr 2000, 382). As noted by Brower and his colleagues (2000), “Our field is rife with paradoxes, contradictions, and conflicts within what we otherwise tend to depict as ordered systems of meaning” (p. 382).

One final note seems in order in response to criticisms raised against the presumably low generalizability (external validity) of the single case study design chosen for this research. Sabatier and his colleagues (2005), for example, complain that,

Studies of collaborative processes involving data collected systematically from numerous participants potentially have high internal validity (sic). But, if they involve only one or two partnerships or processes, their results cannot generalize to cases in different settings. For example, if the case studied involves relatively low conflict, the results may not be generalizable to situations involving high conflict (p. 12).

Drawing on Lincoln and Guba’s (1985) work, Schwartz-Shea (2006) argues that “such thinking about the criterion of generalizability misunderstands the research process and
the use of research findings” (p. 109). Case studies are actually credited with the capacity to “expand and generalize theories (analytical generalizations) and not to enumerate frequencies (statistical generalizations)” (Yin 1990, 21). As noted by Yin (1990), “Case studies, like experiments, are generalizable to theoretical propositions not to populations or universes” (p. 21).

Referring to the qualitative research practice of critical psychologists, Ercikan and Roth (2006) point out the substantially different treatment of the concept of generalizability in those “epistemic communities” (Knorr Cetina 1999):

Grounded in Russian psychology of the Vygotsky-Leontiev lineage, critical psychologists conceive of cultural-historical phenomena… in terms of the unity of quantity and quality, which leads to the notion of the \textit{concrete universal}. Thus each observation (case) is understood to constitute a concrete realization of a possibility that exists at the collective level (population). Each observation therefore is simultaneously particular and universal, concrete and abstract, or specific and general (Ercikan and Roth 2006, 15, emphasis in original).

The current study subscribes to this line of reasoning with regards to the criterion of generalizability. As for Sabatier et al.’s (2005) aspiration to generalize findings from one case of collaboration to cases in different settings, the issue is to be handled in terms of Lincoln and Guba’s (1985) alternative \textit{transferability} criterion, where it remains incumbent on the readers of the study to decide on the plausibility of transferring those findings from one situation to another, based on the researcher-provided “thick, rich description” and analytical rigor.

\textbf{CHAPTER SUMMARY}

This chapter has discussed the methodological issues associated with the conduct of the current research on the paradoxical processes of collaborative policymaking and
management in the case of the Patuxent River, Maryland water quality improvement initiative. The chapter has explained the rationale for the selection of both the case study method as research design for the study and the particular case of the Patuxent River initiative, and also specified the data collection strategy for archival records and media accounts of the case, as well as the analytical approach to interpreting the retrieved data. A brief presentation of the evaluative criteria for qualitative research, to which the current study strives to adhere to, has also been offered in the chapter.

Cognizant of the emergence of collaboration as an increasingly important trend in public administration, this study aims at contributing to the growing literature on the subject by adopting and expanding Connelly, Zhang, and Faerman’s (2008) *paradoxical approach* to collaboration. The relevancy and the usefulness of that conceptualization seems fully warranted by the practical challenges faced by public managers in their everyday dealings with two opposing governing drivers—the traditional adversarial, conflictual dictum and the nascent collaborative “game” (Weber 1998). In most accounts, watershed management has recently become a particularly active arena for that clash of managerial tendencies (Weber 1998; Lubell 2004; Imperial 2005; Sabatier 2005); hence its choice as a research setting for the study.

Moreover, a renowned, yet not fully explored, case of collaborative environmental action (Hodge 1987) in watershed management—the Patuxent River, Maryland water quality improvement initiative—has presented an opportunity to provide an empirical context for the research. Following the established, rather qualitative, mode of inquiry in the literature on environmental pollution control, in general, and watershed management, in particular, the project uses a case study research design and an
interpretive analysis for its investigative purposes. Conceptually, the analysis draws as well on Quinn et al.’s (2003) model of the Competing Values Framework of Organizational Effectiveness and Faerman and Quinn’s (1985) notion of positive and negative zones of those values distribution. The historical nature of the case and the availability and accessibility of public documents and media accounts of the case have provided justification for the use of archival records as the sole source of data. The study envisions potential for a definite conceptual contribution to the literature on collaboration and for clear managerial practical implications.

In the next chapter, Chapter Four, the background of the case of the Patuxent River, Maryland water quality improvement initiative is first introduced, followed by a detailed account (a “thick, rich description”) of the case development in the period from 1977 to 1984.
CHAPTER FOUR: THE PATUXENT RIVER CASE

This chapter introduces the case of the Patuxent River, Maryland Nutrient Control Strategy. The first section sets the stage for the depiction of this water quality improvement initiative by providing some background information on the geographical location of the Patuxent River watershed, the governance structure, and the emerging environmental issues, both nationally and locally, in the temporal context of the 1970s. The second section presents a detailed account (a “thick, rich description”) of the case in the form of a realist tale (Van Maanen 1988) that unfolds both chronologically and thematically. The third section focuses more specifically on the Charette conference as a critical event in the case. The last section presents various progress indicators in the aftermath of the case and cites evidence of actual and perceived improvements in the water condition of the Patuxent.

The Setting

Figure 4.1: Map of the Chesapeake Bay and the Patuxent River Watershed
The Patuxent River runs through the middle of the Baltimore/ Washington D.C. corridor, through Southern Maryland, and into the Chesapeake Bay. It is the largest river in Maryland whose watershed is completely within the State…With trout streams and water supply reservoirs in its upper reaches, a tidal freshwater stretch in its middle, and a large estuary in its lower portion, the Patuxent is often considered the Chesapeake Bay in miniature. It has been the proving ground for many of the Chesapeake Bay Program’s initiatives.

Patuxent River Commission (2000, 1)

Situated between two major metropolitan centers—Washington, DC and Baltimore—the Patuxent basin is overseen administratively by seven counties—Howard, Montgomery, Prince George’s and Anne Arundel in the North, and Calvert, Charles and St. Mary’s in the Southern portion. Additionally, the U.S. Environmental Protection Agency (EPA) at the federal level, several municipalities and various State and regional planning agencies all carry out specific jurisdictional duties in the watershed. Furthermore, several major federal installations such as Fort George Meade, the Patuxent Naval Air Test Center, the Patuxent Wildlife Research Center and the US Department of Agriculture’s facilities at Beltsville are also located within the watershed (Halka 1981).

The Patuxent has been characterized as “the lifeblood of rural Southern Maryland, providing a way of life for generations of watermen.” In the late 1970s, however, the seven counties in the river basin experienced very rapid growth, with a population increase in Howard County of 227% over the previous 20 years and even the rural Southern Maryland counties experiencing intense development pressure. Population in the Patuxent basin went from 560,000 in 1950 to over 1.9 million in 1980, causing a dramatic (eleven-fold) increase in sewage treatment plant effluent discharge into the river (Bunker and Hodge 1982).
While, for most of the twentieth century, “federal governance of water has been dominated by growth and development-oriented projects” (Scholz and Stiftel 2005, 2), the ecological state of the United States’ waters gained nationwide momentum as a policy issue in the 1970s. “Can we afford clean water? Senator Edmund Muskie (D-Maine) asked rhetorically from the Senate floor. “Can we afford rivers and lakes and streams and oceans which continue to make possible life on this planet?... Those questions were never asked as we destroyed the waters of our nation, and they deserve no answers as we finally move to restore and renew them” (cited in Tyler 1981, A-10).

In 1972, Congress passed The Federal Water Pollution Control Act (amended subsequently as the Clean Water Act of 1977), setting an ambitious national goal for water pollution policy: “attainment of fishable and swimmable waters by July 1, 1983 and elimination of all discharges of pollutants into navigable waters by 1985” (Portney and Stavins 2000, 174). The act required public participation in all regulatory and planning activities carried out under its provisions. Ensuring water quality also became one of the focal regulatory areas of the newly created Environmental Protection Agency (EPA), which was charged with the responsibility to develop “a system of technology-based effluent standards” (Portney and Stavins 2000, 174) as a means for achieving the federal policy goals. A generous federal grant program ($3 to $4 billion a year), administered by EPA, was launched in the same year to help thousands of local communities across the country construct new and upgrade existing public wastewater treatment facilities.7

Almost a decade later, the Washington Post would publish, as part of a five-part series entitled, “Dirty Water—A Federal Failure,” the following characterization of the
grants program, given by the EPA’s Assistant Administrator for Water and Waste Management from 1977 to 1979, Thomas Jorling:

[The grants program] is a microcosm of a lot of federal programs that are put together to serve many masters. In the Senate, the goal was environmental protection; in the House, it was public works, where pork-barrel enthusiasm added pressures to fund plants of questionable priority in favored congressional districts. To the states and municipalities, the goal was control of growth and progress, for where the sewer lines go in America, so go the new subdivisions and shopping centers… (Tyler 1981, A8).

Reportedly, EPA was under pressure “to get the money out the door” (Tyler 1981, A2) to municipalities, while failing to set and enforce appropriate limits for various pollutants. According to Jorling, “while Congress was willing to spend $3 billion to $4 billion a year for sewer plant construction, it consistently refused to spend a few million extra for adequate numbers of program supervisors, auditors and investigators” (Tyler 1981, A8).

Around the same time, the first clear, scientific indicators of deterioration in the condition of the Patuxent began to attract increasing attention (Heinle 1980), and there was a growing public perception locally of diminished water clarity, disappearing seagrass, and decreasing oyster and fish harvest (Wentzel and Shultz 1977). In March, 1973, the Patuxent River Committee, which comprised 46 people, representing 19 agencies and departments at the state and local level of government, concluded a comprehensive yearlong inspection of 24 sites along the river. The following were among the bleak conclusions reached by the Committee:

1. At least a decade of intensive development in the watershed has choked the River to the point of becoming useless.
2. Dumping, landfill activities and urban type encroachment on the River have severely damaged both the scenic and water qualities of the River in a dozen of locations.
3. Sewage treatment facilities are obviously overloaded and causing pollution problems today. The continuing development of the watershed with increased sewage discharge loads in the River is not a bright picture
based on current treatment plant problems and technology (Patuxent River Watershed Committee 1973, pp. 8-9).

Comparing fish collections from 1966-67 and 1977, Tsai and Golembiewski (1979) of the University of Maryland Center for Environmental and Estuarine Studies found that “substantial changes in the species composition, species diversity, and structure of the fish communities occurred in the sections of the river receiving sewage effluents from the Savage and Patuxent-Crofton Sewage Treatment Plants” (p. 39).10 “The rockfish don’t come up the river like they used to,” complained Adolph Welch, a Benedict waterman for 30 years. “The oysters are dying and the crabs and clams are going” (cited in Wentzel 1977, B1).

By most estimates, between 1968 and 1978, the oyster harvest dropped from 230,000 bushels a year to 50,000 bushels a year (Boyd 1979a, A-1). As a result, the majority of the Patuxent fishermen had “to put their nets in storage.”11 J.C. Lore & Sons of Solomons, one of the largest and most successful packing seafood companies in Southern Maryland, founded in 1888, with daily shipments of fresh Patuxent River seafood to destinations such as New York, Chicago, Cincinnati and St. Louis, began experiencing dramatic decline in operations and was finally forced to close in 1978, “falling victim to the Chesapeake Bay’s troubled oyster industry.”12

The Patuxent River Controversy

The year 1977 stands out in the historical annals and the collective memory of the local community in the Patuxent River basin, as it marked dramatic escalation of the growing scientific, political and legal controversy over the issue of the river water quality condition. The Board of Commissioners of the three Southern Maryland Counties
(Calvert, Charles and St. Mary’s) led by Commissioner, later State Senator, C. Bernard (“Bernie”) Fowler, filed in October of 1977 a lawsuit against EPA to halt expansion of the Savage Sewage Treatment Plant on Patuxent in Howard County until an Environmental Impact Statement had been prepared.

The rapidly developing Howard County had applied for federal assistance under the grants program to upgrade and expand its main wastewater treatment facility in Savage, MD. The expectation was that the new capacity of the plant would make it possible for the county to add about 12,000 more new homes and businesses (Boyd 1980b). The plan envisioned implementation of phosphorus controls for advanced water treatment as recommended by EPA and the State. In April 1977, EPA approved the plan without requiring an Environmental Impact Statement, declaring, in accordance with the National Environmental Policy Act provisions, that the expansion would not “significantly” affect the environment (Lemaire 1982).

In the south, however, public concerns were on the rise over the poor water quality of the river and declining fisheries. “Is there a future for the polluted and much-abused 110 miles of Patuxent River—aside from becoming one of America’s largest open sewers?” asked Donald Hirzel in a July 31, 1976 article in The Washington Star. In June 1977, The Baltimore Evening Sun ran a five-part series on the Patuxent River, authored by Michael Wentzel and Michael Shultz. “Patuxent: more waste than water” drew a dramatically grim picture of the river condition:

The Patuxent River… is fast becoming Maryland’s sewer. Steeped with sewage and laced with chlorine, the Patuxent is a conduit for the toxic wastes of suburban growth. With its aquatic grasses scoured away by sediments and suffocated by lack of oxygen in the water, the river has no nursery for young fish and no hiding place for shedding crabs. The fish population - a barometer of the river’s life – has changed as well. Some
traditional “clean water” fish, like small mouth bass, are gone from the river, while others have been drawn downstream, away from their spawning grounds, by sewage and its toxic, chlorine compounds… (p. B1).

The State officials “seemed oblivious that any change was occurring” (D’Elia 2003, 176).

James Coulter, the Secretary of the Maryland Department of Natural Resources (the primary State agency that was in charge of all water quality issues in the Bay), was maintaining that the Chesapeake Bay was actually in a great condition. In his closing remarks at a Maryland-Virginia Bi-State Conference on the Chesapeake Bay, held in April 1977, Coulter argued vigorously against “pointless alarm and confusion” (p. 286).

He stated:

> We have been told we should be alarmed over toxic substances; we should be alarmed over environmental degradation resulting from non-point sources; alarmed over the failure of oysters; alarmed over the disappearance of submerged vegetation. As a participant in this conference, I was pleased with the intelligent, energetic and vital debate of sensitive issues, but not with the tendency of some individuals to alarm us unduly with suggestions of crises and impending doom (Coulter 1977, 286).

In his view, if there were any “dead zones” found in the Patuxent River (areas of low concentrations of dissolved oxygen), they were to be attributed to the natural intrusion of Bay waters in the river estuary (Coulter 1977).

In light of the position taken by the lead state agency, the southern counties found themselves compelled to take the initiative. They were determined to convince the counties up north to either cease growing and building new plants, or somehow find a way to apply a new technology and clean the nutrients they were adding through sewage.

Bernie Fowler, Chairman of the Tri-County Council’s Environmental Affairs and Natural Resources Subcommittee, sent an emotional plea to the Council members, insisting that the group must either write an epitaph for the Patuxent or take legal action to turn the tide
of degradation (Schust 1977). “Our goals to upgrade the Patuxent should be shared by all Marylanders,” Fowler was declaring at that time.

We want the old days, which were truly the good old days, to return. Time is of great importance. Voices like mine, all too soon, will be heard no more. The helpless cry of the waterman will become silent as that hearty breed slowly disappears. There will be no memory bank retained in our modern computers to project the productivity of the Patuxent River, as in the past... Today we have a choice. We can leave a legacy to our children of a beautiful, but dead river that was poisoned by the people it tried so hard to serve. Or we can commit ourselves to letting the river suffer not one moment more. The clams are gone. I am optimistic enough to believe that the future can include their return rather than the disappearance of still more of our treasured marine life (cited in Deats 1979, A-14).

On April 27, 1977, at a public meeting within the framework of the “Forum on the Patuxent River” series, sponsored by the Coastal Zone Unit of the Energy and Coastal Zone Administration, Bernie Fowler delivered another powerful address. Acknowledging that “In deciding what will do, we have to keep in mind that there are many interests involved in the future use of the Patuxent and these interests are frequently at odds,” the Chairman of the Calvert County Board of Commissioners left no doubt as to the direction and the intensity of the southern counties’ intended actions in dealing with the problem:

We can resort to the protection of our individual rights, if all else fails, by seeking relief from the courts. I have the same right and you have the same right as a citizen of Maryland who lives at the headwaters of the Patuxent and above the pollution sources, to the use of a pollution free river. Our rights are as valuable and as important as those of a developer in Howard County. If reasoned, cooperative efforts do not produce the desired results, I find no criticism of those who seek the assistance of the courts, and in fact have recommended to my fellow members of the Tri-County Council that such action be initiated immediately.15

Deeply concerned with the deteriorating condition of the river, the Tri-County Council invited Dr. Donald Heinle of the Chesapeake Biological Laboratory to speak at one of their special meetings on the problem. As it turned out, the local scientific community had been already grappling with the problem. Sharing similar concerns, a number of
scientists had recently formed a public service, ad hoc committee, called the “Patuxent River Technical Advisory Group” to advise the State on water quality and pollution control issues (Bunker and Hodge 1982). Dr. Heinle chaired the Advisory Group.

Technological advances in the late 1960s to early 1970s had induced development of the first really good scientific measurements of nutrient enrichment and water turbidity and allowed for environmental studies to be conducted in a more synoptic way, looking over the entire Patuxent, both geographically and seasonally. Through the use of those measures, Dr. Heinle and his colleagues at the Chesapeake Biological Lab were able to identify notable changes in some river water parameters. Comparing historical data on the conditions of the river, collected since the 1930s and preserved in the library attic of the Chesapeake Biological Lab, Dr. Heinle and Dr. D’Elia ran a time series analysis that covered the period from the mid-1930s to the mid-1970s. It contained plotted levels of dissolved oxygen and showed a clear trend that the river was becoming increasingly more turbid and nutrient rich, especially in its lower estuary (Heinle 1980).

In his capacity as Chair of the Patuxent River Technical Advisory Group, Dr. Heinle brought the results of his latest measurements to the attention of Secretary Coulter. In a letter to Secretary Coulter, Dr. Heinle delicately but firmly rejected the natural saline water flow hypothesis, defended by Coulter, advancing instead the nutrient enrichment argument.

Yet, another critical scientific piece of the puzzle over the worsening Patuxent had been presented by a theory developed in a 1972 publication by Ryther and Dunstan that nitrogen, rather than phosphorus, which was the predominant belief at the time, was the critical “limiting nutrient” in coastal areas. In other words, nitrogen was the primary
fertilizer of water plants (algae), contributing to their growth to such an extent that their density could prevent oysters from feeding effectively upon them. Moreover, the algae would then settle and accumulate in deep waters, die in the absence of any light and, in the process of dying, consume all the oxygen in the waters (D’Elia 1987).

While Dr. Heinle and his colleagues were familiar with these important advances in their field of studies and considered the nitrogen hypothesis very plausible, funding to directly examine it in greater detail for the Patuxent River was lacking initially. Instead, the scientists had to use indirect evidence to support their contention (i.e., examination of N:P ratios and nutrient concentrations) (D’Elia et al. 2003). If Ryther and Dunstan’s theory was correct, however, the associated policy implications would have been huge since existing pollution control strategies at that time were targeting exclusively the discharge of phosphorus at the expense of nitrogen, left largely ignored.

Accordingly, this preferential approach was already turning into one of the most contentious issues in the approval of the State Water Quality Management Plan for the Patuxent River Basin. The plan had been released in a draft form in October 1974 and was taken to public hearings in January and February 1975. In a letter to William Sloan of the Maryland Environmental Service from November 14, 1975, Dr. Heinle commented on the draft Patuxent River Basin Plan and supported the argument for the need for nitrogen removal with evidence from several recent scientific studies. The revised version of the plan, however, released in April 1976, once again envisioned deferral of effluent limitations on nitrogen. Acknowledging that “various studies have indicated the need for the reduction of nitrogen to the limits of technology,” the Water Resources Administration at the Maryland Department of Natural Resources, in its “Letter of
Transmittal” from April 21, 1976, stated that “it is recommended in the interest of better utilization of available Federal and State construction grant monies to defer the limitations of Total Nitrogen until 1985.” Two new public hearings on the revised draft of the Patuxent River Basin Water Quality Management Plan were held in June and December 1976.

In February 1977, the Board of Commissioners of St. Mary’s County, with the help of the Director of the Environmental Health Division of the St. Mary’s County Health Department, Walter Raum, prepared a “Position paper” on the Patuxent, in which they questioned the technological soundness of the State plan for the River and the adequacy of resources allocated toward its development. The paper pointed to the omission of non-point sources of pollution in the plan, as well as to the need for more studies on the nutrient dynamics of the lower portion of the River, where nitrogen was believed to be the greater limiting factor.

In April 1977, the Governor of Maryland, Marvin Mandel, created the Patuxent River Watershed Advisory Committee, which was “charged to review and evaluate past work done on the Patuxent and make recommendations to the Governor within twelve months.”¹⁹ The Committee was chaired by Senator Arthur Dorman and included the Secretary of the Department of Natural Resources, James Coulter; the Secretary of the Department of Health and Mental Hygiene, Dr. Neil Solomon; the Secretary of the Department of State Planning, Vladimir Wahbe; representatives from each of the seven counties, the regional Planning Council, the Maryland National Capital Park and Planning Commission, the Tri-County Council, the Washington Suburban Sanitary Commission, and the Washington Council of Governments.
At the same time, the Coastal Zone Unit of the Energy and Coastal Zone Administration sponsored the series of public meetings, “Forum on the Patuxent River,” mentioned above (the meetings were held on four consecutive Wednesdays in April and May, 1977—April 13, 20, 27, and May 4, 1977).\textsuperscript{20} Reportedly, the series was organized in cooperation with the Planning Division of the Water Resources Administration and co-sponsored by the following organizations:

- Anne Arundel County Coastal Commission
- Chesapeake Bay Yacht Clubs’ Association
- Citizen’s Council for Clean Potomac
- Cold Water Coalition
- Izaak Walton League
- Maryland Conservation Council
- Maryland Watermen’s Association
- Patuxent River Citizen’s Association
- Patuxent River Civic Association
- Patuxent River Public Advisory Council
- Potomac River Citizen’s Association
- Prince George’s County Civic Federation
- Sierra Club, Potomac Chapter
- Southern Maryland Citizens Advisory Committee to the Coastal Zone Management Program
- Triadelphia Environmental Association

As noted in the annals of the meetings,

The intent of the Forum was to provide an opportunity for rational discussion of the river: what is known about it, what the current planning process is, what alternative management proposals are viable, and what the role of the citizen is. An effort was made to balance the format of each meeting with a number of points of view, including those of citizens, special interests, the academic institutions and government. One of the purposes of the series was to clarify problem areas by means of discussion of data relating to issues that developed during the planning process. Many of these issues remain unresolved in the citizens’ minds. The series was designed as a forum where experts in the fields relating to the issues could present their views and discuss them with other experts and the public at large.\textsuperscript{21}

At the forum, Howard Wilson of the Water Resources Administration defended the State focus on phosphorus removal. He explained that the decision had been based on
“a mathematical model, calibrated to simulate the natural transport and cleansing functions of the Patuxent River,” as well as on “state of the art techniques in removing both nitrogen and phosphorus at major treatment facilities and evaluate which nutrient control strategy would afford the greatest control of ultimate phytoplankton populations.”

Pointing to the dramatic increase of sewage discharge in the Patuxent River, Dr. Heinle presented in response research data, which, in his opinion, suggested that “phosphorus is the most likely limiting nutrient in the upper estuary but that nitrogen is the major limiting nutrient in the lower estuary…” “The sewage treatment strategy of phosphorus removal,” Dr. Heinle concluded, “should have little effect on the lower estuary where major changes have occurred.”

While the “Forum on the Patuxent River” was still in session, discussing the conflictual issues that had arisen during the drafting and amending of the Patuxent River Basin Water Quality Management Plan, the Water Resources Administration submitted to the EPA for approval its latest revised version of the plan. In a letter to the EPA Acting Regional Administrator, Dr. Alvin Morris, dated April 29, 1977, the Director of the Water Resources Administration, Herbert Sachs, noted that “the most significant change made in the basin plan is the recommendation of effluent limitations on Total Phosphorus” and asked that EPA “give favorable consideration to the plan so that [the state water resources administration] may implement projects urgently needed to improve the quality of the waters in the Patuxent basin area.”

The response of the Southern Counties was swift. “We don’t know how far we will get into peaceful negotiations,” declared Bernie Fowler. “We would prefer not to go
to court, but we will explore all legal methods to stop what is happening to the river” (cited in Wentzel 1977, B1). Thus, drawing on Dr. Heinle’s approach, which was endorsed by the Patuxent River Technical Advisory Group, Bernie Fowler led again the Tri-County Council in a second lawsuit filed in March of 1978 against the EPA, the State of Maryland and the upper River counties. The purpose of the suit, as noted by Bunker and Hodge (1982) of the Tri-County Council, was to:

Challenge the adequacy of the existing Patuxent River Basin Water Quality Management Plan, which was approved by EPA. This plan advocated phosphorus control as the preferred advanced wastewater treatment method for controlling eutrophication in the Patuxent. However, the County Commissioners felt that those water quality standards were outdated and maintained that nitrogen control was also necessary to control eutrophication of the lower River… The central issue in this was nitrogen vs. phosphorus removal (p. 4).

Dr. Heinle’s suggestion to introduce nitrogen control in wastewater treatment, corroborated meanwhile by the findings from another study, conducted independently at the same time by Drs. Mihursky and Boynton (1978) of the Chesapeake Biological Laboratory, “met with considerable resistance from both the Department of Natural Resources and the EPA, which were at the time committed to phosphorus removal nationwide” (D’Elia 2003, 177). Secretary Coulter was furious. In a letter of refusal to speak at the first annual Patuxent River Appreciation Days festival, held in October 1978, on the grounds of the Calvert Marine Museum, he wrote: “The reputation of the Patuxent River is unjustly tarnished by lawsuits and loose talk.” EPA, which, according to D’Elia and Sanders (1987), “is a regulatory agency first, and a research agency second,” insisted on the use of standard methods, “oriented to legal requirements and historical comparability, but not to state-of-the-art analytical considerations” (p. 433). Moreover, EPA maintained that phosphorus removal was “the most cost-effective control for
solving the problem” (D’Elia 1987, 432). As Tom Horton (2003), the premier journalistic voice on the issue of the environment in the Chesapeake Bay, put it, “Though the EPA’s and Maryland’s resistance is couched in arguments over chemistry, the real issue is money. If they agreed to do with sewage what the scientists say is necessary, the costs, using conventional chemical treatment methods, could run into the billions” (p. 74). To the scientists’ frustration, the obvious conclusion was that, indeed, “the underlying factor driving policy towards phosphorus removal was lower cost” (D’Elia et al. 2003, 177).

In early 1979, the scientists from the Chesapeake Biological Lab, who were supporting the legal clash of the Tri-County Council Commissioners with the State and EPA on the issue of nitrogen removal, submitted written testimonies in court. As reported by Boyd (1980a), in the course of the year, “some of the points Southern Maryland tried to make in those lawsuits were acknowledged by state and federal authorities” (p. A5). In July, 1979, EPA publicly admitted to the deficiencies of the existing Patuxent River Water Quality Basin Plan, which envisioned a “single nutrient” (phosphorus) strategy to control eutrophication (Lemaire 1982) and sent it back to the Department of Natural Resources for revision. Later that year, EPA placed a hold on federal funding for expansion of sewage plants on the Patuxent River (Boyd 1980a). In an October 30, 1979 letter to the EPA Region III Water Division Director, Greene Jones, Secretary James Coulter vented his utmost disappointment with the position taken by EPA. “I am troubled by your statement,” wrote Coulter,

that… EPA currently would not be in a position to provide construction grant funding for phosphorus removal facilities at Patuxent River sewage treatment plants. As you well know, my office is under heavy attack from civic leaders and citizens alike for not going all the way and ordering the removal of nitrogen as well as phosphorus. I was painfully aware of the fact that under EPA’s advanced waste treatment review policy, current
information is insufficient to justify the expense of nitrogen removal… Therefore, it comes as an unwelcome shock to learn that EPA does not have sufficient justification to approve phosphorus removal.26

In July, 1980, the U.S. District Court ruled in favor of the Southern Maryland counties and ordered EPA to prepare an Environmental Impact Statement on the Savage Sewage Treatment Plant. In October, 1980, the U.S. District Court came up again with a favorable ruling on the second lawsuit, brought by the Southern Maryland counties and ordered Maryland and EPA “to prepare a new water quality plan for the Patuxent, including a revised nutrient control strategy…, which was scientifically defensible and publicly acceptable” (Hodge 1987, 8). The State and the U.S. Department of Justice agreed on a court-imposed deadline (January 15, 1982) for submission of the new Nutrient Control Strategy to EPA for approval.

The outcomes of the lawsuits did not go unnoticed in neighboring jurisdictions. A panel discussion, “The Patuxent Litigation: Implications for the Potomac,” was promptly convened in the same month, October 1980, with political, administrative, scientific and citizen representation from Maryland, Pennsylvania, West Virginia, Virginia, and the District of Colombia.27 The legal battle caught the attention of the press as well, and The Baltimore Sun, The Washington Post, and many local newspapers covered its development quite frequently in that period. It was, however, an event on the political spectrum that “attracted statewide media attention” (Boyd 1980a, A5) and was later regarded as “one of the turning points” on “the long and winding road to a clean Patuxent” (Hodge 1987, 5). That symbolic event was the boat tour of the lower portion of the Patuxent River, taken by the newly elected Governor of Maryland, Harry Hughes, on December 6, 1979.
In 1977, Governor Mandel was forced out of office in a scandal over mail fraud and racketeering and the Lieutenant Governor Blair Lee III was appointed Acting Governor. But in the 1978 elections, Harry Hughes, a State Senator and a strong advocate for the Chesapeake Bay, defeated Blair Lee III and won the election in the largest landslide in state history to become the 57th Governor of Maryland (Hughes and Frece 2006).

Upon coming into office in January 1979, Harry Hughes was almost immediately confronted with the controversy over the Patuxent River situation. In a letter to him dated February 6, 1979, David S. Fleischaker, the attorney representing the Tri-County Council in their lawsuits against the State and EPA, spelled out the Commissioners’ concerns and the legal actions undertaken to address those concerns. The Governor was persuaded to tour the lower portion of the Patuxent and “take a first-hand look at the environmental stress the river was experiencing” (Hodge 1987, 5).

On December 6, 1979, the Governor made the tour of the lower River, from Benedict to Solomons, aboard a Chesapeake Biological Laboratory boat, accompanied by elected officials from the Southern Maryland counties, agency representatives, scientists, fishermen and environmental activists. Hodge (1987) summarizes the experience: “The River was dying, and that fact was revealed dramatically as the dredges aboard the research vessel were emptied on the deck and the former abundance of the river was revealed to contain few vital signs. The Governor’s response to what he saw was immediate” (p. 5). At the end of the tour, Governor Hughes addressed the group of 40 people on board of the boat, stating, “I came down here with an open and uninformed mind. It’s certainly obvious to me that something is wrong here and that something has to
be done… The key to solving the problem is to get everybody working together on it (Frye 1980, 44). “As with many things in government, the key to solutions is going to lie in cooperation,” Governor Hughes added. “We have a common purpose here at the local and state level” (cited in Boyd 1979c, A-1). “There is no reason why state and local governments can’t get together to solve these problems,” Hughes stressed. “I pledge my support to make this river what it once was” (cited in Gauthier 1979, A-1). “From that moment,” Hodge (1987) confirms, “the Governor was committed to the campaign to save the Patuxent, and orders to his cabinet to take action soon followed” (p. 5).

The general perception was that “a big step” in the right direction was made and that “groups and government agencies that [had] been at odds over how to tackle the problem were just now starting to pull together” (Deats 1979, A-1). In Deats’ (1979) account, many thought that “the Tri-County lawsuit against EPA was the trigger to this coming together” (A-1). On behalf of the Patuxent River Public Advisory Council, Merilyn Reeves expressed her hope that this time the State government would get it right, as far as the environmental health of the Patuxent was concerned.

We are pleased that the Patuxent River is now receiving attention from the Governor and the Lieutenant Governor and hope this time there is an aggressive follow-through. The work and recommendations of the 1977 Governor’s Committee was ignored. Members of the Patuxent Advisory Council have seen first-hand an incredible amount of state mis-management of research, monitoring, enforcement, and planning. We have seen water samples collected at public expense and then discarded before being analyzed. We are tired of seeing Patuxent problems assigned to inexperienced planners who are reassigned just as soon as they grasp the significance and the scope of the issues. We know that there is inadequate or nonexistent enforcement of wastewater treatment plant standards; simple plant deficiencies remain uncorrected for years. Chlorine is required by health officials when all it does is cover up bad treatment and cause downstream pollution problems… (cited in Deats 1979, A-14).
In response, one of Governor’s first acts was to deal with his “controversial secretary of natural resources, James Coulter, who had scorned any complaints” about the river condition and “had enraged many in the tri-county area” (Frye 1980, 44). The Governor issued an executive order that removed water quality control from the Maryland Department of Natural Resources and assigned it to a newly created Office of Environmental Programs within the Department of Health and Mental Hygiene (Riley 1980). In April 1980, Governor Hughes informed the Tri-County Council for Southern Maryland that he had asked the Secretary of the Department of Health and Mental Hygiene “to give special attention to the Patuxent River and to prepare alternative strategies associated with major policy issues involved” (Hodge 1987, 8).

In June 1980, after an extensive national search, an ambitious young lawyer, William Eichbaum, was chosen as Head of the Office of Environmental Programs to spearhead the action (Horton 1980). In a *Baltimore Sun* article from May 16, 1980, Tom Horton introduced the new secretary to the public, emphasizing his strong credentials in enforcement of environmental regulations. In the words of D’Elia, Boynton and Sanders (2003), “The reorganization was a pivotal event and the selection of Eichbaum had a profound effect on the future of sewage treatment decision making for this river and estuary and ultimately, we think, on national policy” (p. 177).

Meanwhile, State legislators were also moving ahead on the Patuxent River problem. During the 1980 legislative session, the Maryland General Assembly passed Senate Bill 1047, known as *The Patuxent River Watershed Act*, which set the stage for the preparation of a policy plan for the Patuxent River watershed and created the Patuxent River Commission “as a central focus to deal with problems within the Patuxent River
Basin” (Hodge 1987, 8). The act was partly a result of the work of the Patuxent River Watershed Advisory Committee, chaired by Senator Dorman (Halka 1981). The newly established Commission under the Senate Bill was composed of 10 members—one from each of the seven counties bordering the Patuxent River and the heads of the Departments of State Planning, Natural Resources and Health and Mental Hygiene as ex-officio members (Mitchell 1981). All future plans on the Patuxent had to be approved by at least five of the seven voting members of the Commission. As noted by Bunker and Hodge (1982), “The Patuxent River Commission was to play a pivotal role in the development of a nutrient strategy” (p. 5).

Resolving the nitrogen vs. phosphorus control controversy that was at the core of the new nutrient strategy, however, proved a hard nut to crack for the State. Even though the administrative reorganization initiated by Governor Hughes had transferred the authority over water quality control from the Department of Natural Resources to the newly established Office of Environmental Programs, the new department was staffed basically with the same employees—”primarily sanitary engineers familiar with Patuxent water quality issues and with biases towards the phosphorus removal position adopted by the Department of Natural Resources” (D’Elia et al. 2003, 177). In contrast, academic scientists—mainly marine biologists, affiliated with the Chesapeake Biological Laboratory and the Center for Environmental and Estuarine Studies at the University of Maryland—were convinced that the effect of nitrogen should not be ignored, regardless of any higher cost considerations. On the contrary—in a letter to Bill Eichbaum, the head of the Office of Environmental Programs, the scientists from the Patuxent River Technical Advisory Group insisted that the “State’s proposed phosphorus removal, which
would cost as much as $200 million over the next 20 years, would do little or nothing to help the lower river” (Horton 1981, C1).

To settle the controversy, the Office of Environmental Programs, in coordination with EPA, commissioned an independent research company, HydroQual, Inc., to develop a computer model “for assessing the water quality impacts of various nutrient strategies” (Bunker and Hodge 1982, 5). The Patuxent River Technical Advisory Group supported the study initially but when the “HydroQual Report” was released in November 1980, it also recommended phosphorus removal as the preferred nutrient control strategy (HydroQual 1980). The Technical Advisory Group sharply disagreed, criticizing HydroQual models for lack of conceptual understanding and analytical flaws. In D’Elia, Boynton and Sanders’ (2003) assessment,

With the advent of powerful computers and simulation software, numerical modeling of water bodies gained considerable credibility and attention in the early 1970s. The newness of this space-age technology, as well as the apparent unambiguity and decisiveness of the results produced by models, led many policymakers to accept the results without question. By present standards, the computers used and... the models developed were unsophisticated relative to the task. Even more significant though...none of the conceptual scientific issues [the causes of declining water] were close to resolution in the 1970s, and they were not incorporated into the computer models of the day. The result was that the computer models were seriously flawed and incapable of providing adequate projections of water quality under different management alternatives (p. 176).

Thus, the controversy continued. Bunker and Hodge (1982) attest to the difficulty of the situation and the sense of urgency experienced by the policymakers after the release of the report:

At this point, the State found itself in a real bind. The model that the scientific community thought would settle this nutrient control controversy only caused more controversy. The lack of a nutrient strategy was holding up the drafting of a basin wide water quality plan and if a plan wasn’t developed within a few months, the federal government was threatening to withdraw its construction grant money for building and upgrading sewage
treatment plants on the River. In addition, most of the discharge permits for sewage treatment plants on the Patuxent had expired and could not be renewed until a nutrient control strategy was drafted (p. 6).

Bill Eichbaum complained, “My problem is that the theories that say remove nitrogen and the river will be healthy are no more provable than my consultants’ report that says remove phosphorus.” Realizing the extent of the controversy and cognizant of the legal implications and the political overlay, Eichbaum decided to tour the basin and talk to all parties involved. “Scientists do not have all of the answers as to how it works,“ Eichbaum was quoted regarding the nutrient problem (Boyd 1981a, A1). The Tri-County Council for Southern Maryland, the Northern counties, scientists, local public officials and citizen groups were all given a chance to share with him their point of view on the issue of cleaning the Patuxent.

With Eichbaum in attendance, an environmental seminar organized by the Tri-County Council was held on October 28, 1981 and attended by more than 100 public officials from State and local agencies, elected county commissioners and State legislators from Southern Maryland, scientists, content-area experts, and citizens. Moderated by Commissioner Bernie Fowler and Senator James Simpson, the seminar provided the community with a collegial forum for an open, substantive and highly informative exchange of ideas and views on alternative nutrient control strategies for the Patuxent. “Spraying sewage on land and other methods of evaporating or allowing sewage water to trickle into the ground,” for example, were advanced as “practical alternatives to dumping sewage in the rivers” (Boyd 1981a, A-7). Delegate John Parlett (D-St. Mary’s, Charles) stated, “The sewage plant systems are failing miserably and the impending cuts in federal sewage funds can be an opportunity to make something right that is presently wrong.”
Once Eichbaum heard from all stakeholders, he set about finding a way to reconcile the opposing points of view and arrive at an agreed upon nutrient control strategy. He decided to organize a meeting, sponsored by the Department of Health and Mental Hygiene, of all key parties involved in the Patuxent conflict (Bunker and Hodge, 1982). Faced with the prospect of losing $29 million in federal funds for wastewater treatment past the court imposed deadline of January 15, 1982, Eichbaum called the conference “a charette” (“a final, intensive effort to finish a project, esp. an architectural design project, before a deadline”).

The Charette proved to be successful. Acknowledging the positive outcome of the conference, before earmarking $252,000 in additional funding for the fiscal 1983 year towards the revitalization of the Patuxent, Governor Hughes stated:

I am extremely pleased an agreement has been reached, which will end the deadlock over plans to improve the water quality of the Patuxent. Early in my administration, I toured the river and pledged my support for a more effective program to improve this important watershed. This agreement is a major step in fulfilling that pledge.

Based on the plan developed at the conference and in compliance with the Federal Court mandate, the Office of Environmental Programs prepared and submitted to the EPA on January 14, 1982 a final Nutrient Control Strategy for the Patuxent River Basin. The strategy became the essence of the new Water Quality Management Plan for the Patuxent River Basin, drafted by the Patuxent River Commission and opened for public comment in the spring of 1982 (Lemaire 1982). Subsequently, the plan was signed by Governor Hughes in June 1983 and approved by EPA in October of the same year, making the State’s newly redefined commitment to nutrient control official (Ismail 1984a). The plan set strict standards for nutrient discharges and required that the Department of Health and Mental Hygiene use them when issuing sewage treatment permits and authorizing
increases in the plants’ capacities. In June 1983, Governor Hughes, Virginia Governor Charles Robb and Pennsylvania Governor Richard Thornburg met to discuss the water quality issues in the Chesapeake Bay and coordinate their states’ pollution control programs. The Patuxent cleanup effort was brought up as a policy and management model for the entire Bay (Buehler 1983).

In a May 16, 1983 letter to John Brugnigham, then acting general manager of the Washington Suburban Sanitary Commission, which operated the two largest wastewater treatment plants on the Patuxent—the Western Branch in Prince George’s County and Parkway in Montgomery County—Governor Hughes wrote:

The time has come to move forward with implementation without waiting for ironclad scientific proof on the controlling influence of nitrogen on the river. I would like to point out that current work of EPA pursuant to the Chesapeake Bay Program demonstrates the increasingly dominant impact of nitrogen in the Bay system. We believe that actions taken now to pursue a dual-nutrient strategy for the major plants in the river offer an excellent opportunity to pilot test the merits of such a strategy (cited in Landau 1988, A-8).

A “microcosm” experiment on nutrient enrichment, conducted in 1983 and 1984 by Chris D’Elia and James Sanders at the Benedict Estuarine Research Laboratory—a satellite of the Academy of Natural Sciences in Philadelphia—established unequivocally that nitrogen was the real culprit for algal growth in the Patuxent estuary, especially in the summer months of the year (Ismail 1984b). Yet, the State health department’s top official in charge of permits for sewage treatment plants, Arcadio Sincero (1984), made the “the fallacy of requiring removal of nitrogen for eutrophication control” (p. 1) a central theme of his speech, delivered on June 28, 1984 at a convention of wastewater engineers in Ocean City. Apparently, the familiar pecuniary considerations persisted and it was not until Virginia Tech Professor Clifford Randall’s pioneering work with the technologically
innovative and much cheaper biological nutrient removal method, that the State and EPA would finally, in 1985, give a green light to the implementation of the Patuxent Nutrient Control Strategy. In the words of Chris D’Elia, “Cliff provided the economic and technological key that allowed the scientific truth to be accepted” (cited in Horton 2003, 75). The controversy, however, was far from over.

In June 1985 the Maryland Health Department issued a permit for Howard’s County Little Patuxent River plant at Savage with imposition of limits on phosphorus, but not on nitrogen discharge. A number of environmental and watermen’s groups, led by William Johnston, challenged the decision during the department’s hearing process, but when their voice remained unheard, they took to the courts. “We are not trying to be obstructionists,” pointed out R. Graydon Ripley, president of the Davidsonville Area Civic Association. “The plant should operate. We’re just saying it should operate in the best way” (cited in Cottman 1984, 1). In September 1986, the circuit court ruled in favor of the civic groups, ordering the State to modify the permit to prevent increase in nitrogen discharge (Ismail 1986). “It’s nice to know the interested public is not helpless before the law, that it’s not just a matter of politics,” said William Johnston, who argued the case (cited in Meyer 1986, C6).

When, in 1987, Maryland’s congressional delegation asked the EPA to free up $10 million for use in removing nitrogen, EPA refused. According to its guidelines, the funds were designated for general water quality issues but could not be used specifically for nitrogen removal. In Tom Horton’s (1984) analysis, the technical explanation for “EPA’s seeming schizophrenia” (p. 5D) could be based on the fact that there was not a set limit on discharge of nitrogen in the pertinent section of the Clean Water Act
regulating sewage treatment plants. In a May 8, 1987 address, published in *Calvert Independent*, Bernie Fowler noted that “the strategy of the Patuxent River Commission and the Chesapeake Bay Commission has been to ask EPA to designate the Patuxent River as a national Nitrogen Removal Site. This would make the Patuxent a pilot project for intensive nitrogen removal” (p. A-4).

When a coalition of civic groups (the Maryland Watermen’s Association, the Holland Cliff Shores Citizen Association of Calvert County, the Davidsonville Area Civic Association in Anne Arundel County, the St. Mary’s County Watermen’s Association, the Potomac River Association, the Prince Frederick Association for Historic Preservation, and the Maryland Conservation Council) sued EPA in 1987, seeking a federal court injunction against expansion of the two Prince George’s County’s wastewater treatment plants in the absence of installed nitrogen removal technology, the State intervened, promising to fund the project in any case (Ismail 1987). “We have an opportunity to show our commitment to cleaning up the Patuxent,” declared Maryland Governor William D. Schaefer (cited in Barnes 1987, C-1). Subsequently, EPA gave verbal assurances of its matching contribution, but when, in the following year, the first denitrification project at the Western Branch wastewater treatment plant in Prince George’s County, considered “one of the corner-stones of the initial phase of the nutrient strategy” (Associated Press 1988), was about to be launched, EPA rendered it not cost effective and again withheld the $10 million in grant money. After the Maryland Department of the Environment prepared a detailed account of the project and proved its cost-effectiveness, EPA finally reversed course and released the award.
Bernie Fowler, who had successfully run in 1983 for an open seat in the Maryland General Assembly on a platform of being a “guardian of natural resources” (Wan 2006, B-1) and who had become by then the major local crusader for nitrogen removal, declared: “Needless to say, we are delighted and are most encouraged that EPA has now officially recognized how important removing nitrogen from wastewater is to the Patuxent River and the Bay” (cited in Conover 1988, 1). In 2004, 16 years later, EPA eventually introduced a proposal “to limit pollution from sewage treatment plants that feed into the Chesapeake Bay, turning to strict regulation in an attempt to end massive ‘dead zones’ in the water.” Reductions in the output of both nitrogen and phosphorus of the 368 large sewage plants in the Chesapeake watershed were finally under serious consideration.

In 1988, Bernie Fowler, who as a State Senator, had already actively helped the passage (May 1984) of the Patuxent River Watershed Policy Plan, sponsored a new bill, which mandated the removal of both nitrogen and phosphorus from the Patuxent. The proposed legislation required the existing sewage treatment plants to reduce the amount of nitrogen discharge into the Patuxent by 40 percent and established penalties for noncompliance. The bill was signed into law by the new Governor of Maryland, William Donald Schaefer, despite pressure from metropolitan counties affected by the measures to veto it. At the signing ceremony in May 1988, Bernie Fowler, the chief proponent of the bill, referred to it as “his crowning achievement since entering public life” (Landau 1988b, 1).

In 1989, Senator Barbara A. Mikulski (D-MD) introduced a provision calling for the designation of the Patuxent River as a national demonstration site for pollution
management and control. In 1990, the US Congress approved the measure, which was signed into law by President Bush (Patuxent River Commission 1995). “This is a great victory for the Patuxent, and a testament to the outstanding work being done by state, local and federal agencies to clean up this important Maryland waterway,” declared Senator Mikulski. “For over 10 years, state and local officials have worked together to reduce pollution in the Patuxent. Senator Bernie Fowler got the ball rolling when he set a goal of restoring the river to the clarity and quality it had in the early 1950’s.”

Today, after several revisions and amendments developed over the last two decades, the *Patuxent Nutrient Control Strategy*, crafted at the landmark 1981 Charette, is still in use on the banks of the River and citizens continue to take a special interest in monitoring the progress of the water cleanup (Horton 2005, Wan 2006).

**The Charette**

The Charette proved a turning point in the Patuxent River case. Reportedly, it became “a remarkable event in the environmental history of the Patuxent, and of the Chesapeake itself” (D’Elia et al. 2003, 177). As mentioned above, the State was facing a Federal Court mandate to submit a nutrient control strategy by January 15, 1982, or else lose $29 million in federal funding for wastewater treatment. However, given the vastly divergent views of the various stakeholders on the causes of the deteriorating water quality in the River and the corrective measures to be taken in that regard, all the efforts of William Eichbaum’s Office of Environmental Programs to draft an agreed upon State strategy stalemated.
In the advent of what could be characterized as “crunch time” for policy action, Eichbaum decided to organize a conference/workshop on the Nutrient Control Strategy with representatives of all parties involved in the Patuxent River controversy (Bunker and Hodge, 1982). In a letter dated November 13, 1981, he explained that,

The objective of the meeting is to bring together many of the individuals who have a stake in the future of the Patuxent River for an intensive discussion on the Draft Nutrient Control Strategy. I recognize that there are differences of opinion on the approach that the state should take in improving the quality of the water in the river. It is my hope that by the conclusion of the meeting we will reach consensus on a mutually acceptable program for the Patuxent.\footnote{44}

A Boston consulting firm, Clark-McGlennon Associates, which specialized in environmental conflict resolution, was awarded a contract to facilitate the work at the conference and “help the parties involved to identify inventive ways to work out a solution” (Horton 1981b, B10). The idea was that people would spend the time during the planned three-day retreat together, get to know each other, eat together, and work on a program to address the controversial issue, undisturbed by factors from the outside world. “The aim was to find non-litigatory solutions, in the jargon, ‘win-win’ decisions,” declared John McGlennon, a president and co-founder of the company.\footnote{45}

Thus, a secluded convent in Marriottsville, MD (The Marriottsville Spiritual Center) was chosen as a site for the retreat in perfect isolation. The conference—a three-day session “of closed discussion and negotiation in a professionally mediated format” (D’Elia et al. 2003, 177)—was held from December 2 to 4, 1981 and became known as “The Patuxent Charette” or “The Marriottsville Accord” (Rymer 1981, A6). It involved about 40 participants, selected through a series of preliminary interviews conducted by Clark-McGlennon Associates in the preceding months of October and November (Horton
1981b, B10). As noted in the *Report on the Patuxent River Pre-Charette Technical Meeting* from November 1981, “The interviews were conducted to familiarize the Clark-McGlennon Associates mediators with the parties involved in the Patuxent River Nutrient Control Strategy controversy—their roles, positions, and interests—as part of the ‘conflict assessment’ portion of the mediation process” (p. 1). The final list of invitees to the conference included the County Executive, Council President or Chairman of Commissioners from Charles, St. Mary’s, Calvert, Anne Arundel, Howard, Montgomery, and Prince George’s Counties; representatives from each County’s Legislative Delegation; the members of the Patuxent River Commission; a representative from EPA Region III Administration—Water Division and Municipal Technology Branch; representatives from the Corps of Engineers attachment to Ft. Meade; scientists from the Chesapeake Biological Laboratory, the Benedict Estuarine Research Laboratory, the Johns Hopkins University’s Chesapeake Bay Institute, the Smithsonian Chesapeake Bay Center, and the Philadelphia Academy of Sciences; State administrators from the Maryland Departments of Natural Resources, State Planning, and Environmental Planning; watermen; and citizens (Bunker and Hodge, 1982).

The designers of the conference also formed a Charette Steering Committee, which included Chris D’Elia of the Chesapeake Biological Laboratory, Bernard Fowler from Calvert County, Ruth Keeton from Howard County, Merilyn Reeves as a representative of the Public Advisory Committee on Patuxent, Bob McGarry of the Washington Suburban Sanitary Commission, and William Eichbaum. The committee worked collaboratively with Clark-McGlennon Associates on participant selection, the
proposed agenda for the Charette, and the materials that had to be compiled and sent to each participant prior to the meeting.\textsuperscript{46}

The Charette Steering Committee issued a statement, emphasizing that, “For the charette to be successful, it is essential for all participants to be able to speak freely, frankly and openly. Participants must be free from fear of attack or fear that statements made during the workshop might be used adversely at some later date.” \textsuperscript{47} Towards the achievement of that goal, the Charette Steering Committee drafted the following protocols:

1. Decisions will be made by consensus.
2. No statements made during the charette will be used in present or future judicial or administrative proceedings.
3. Personal attacks or prejudicial statements will not be condoned.
4. Decisions will be based on information that is available now.
5. The proceedings will not be recorded.\textsuperscript{48}

Additionally, as part of their preliminary organizational work, Peter Clark and John McGlennon, principals of the mediators’ firm, convened a technical meeting on November 12, 1981 at the Smithsonian Institute, Chesapeake Bay Center for Environmental Studies, aimed at addressing the major technical issues underlying the Nutrient Control Strategy prior to the actual commencement of the Charette. In a letter to the scientists, engineers and environmental specialists from state offices, selected for participation in the technical deliberations, Peter Clark wrote:

We invite the technicians and regulators to explore their differences—hidden assumptions, contradictory data, missing economic or regulatory constraints—before we begin the charette…The objective of the sessions will be to bring a unified picture of the technical issues to the policymakers and to agree on how to cope with uncertainty about the response of biological systems to changes in the state’s nutrient control strategy. The information developed at these meetings will be forwarded to all participants invited to the charette in December.\textsuperscript{49}
Expanding on the rationale behind the initiated preliminary meeting and the intended focus of the proposed deliberations, Peter Clark explained that,

As a result of speaking with most of the people on the list, plus others affected by or involved in developing the draft nutrient control strategy, we feel we should focus the debate over how to define the most critical or limiting technical problems. In addition, we have uncovered a divergence of opinion over the appropriate timing and the choice of policy elements to include in the nutrient control strategy. Changes would involve tradeoffs between economics (utilization of federal funds already earmarked for application in the Patuxent River Basin) and the environment (potential commitment to an uncertain or irreversible strategy for managing the impacts on the natural environment)… Decision-making under uncertainty can be driven to discussion of only the most polarized alternatives as long as scientific debate over the underlying models continues in the policy councils.  

Peter Clark reiterated their commitment to reaching “an agreement as expeditiously as possible” on what “will be the impacts and what remains in doubt about the likely results of alternative elements in the nutrient control strategy.” During the meeting, the 18 selected scientists and engineers discussed a wide range of issues—problem definition; public perceptions of the river condition; indicators of water quality (chlorophyll “a,” turbidity, and dissolved oxygen); historic levels of those indicators; spatial distribution; point source and non-point source control measures. The final report issued on the results of the meeting indicated that “Final agreement was achieved by general group consensus.” However, the “Wall Minutes of the Technical Minutes” revealed remaining “areas of disagreements,” such as the “duration and impacts of storm events on Chl in Upper River” and “Year 2000 P loads,” for example, which were again found dependent on the assumption of “what nutrient is limiting.”

Reportedly, the first two days of talks at the Charette proved tense. Exposed to presentations of conflicting scientific testimonies, the participants remained in disagreement on the required course of action (Boyd 1981b). Officials from the Northern
 Counties, “who had instituted state-of-the-art chemical phosphorus removal, insisted that they had done their part already and that they should not be expected to do more” (D’Elia et al. 2003, 178). The Tri-County Council for Southern Maryland, on the other hand, led by Bernie Fowler, was adamant that only nitrogen removal could bring improvement in the water quality of the lower portion of the Patuxent. It was Bernie Fowler’s common sense approach that was finally able to get all the participants on board in the third day of the meeting. In reminiscing about his experience as a crabber and fisherman in the 1950s, Bernie Fowler put forward the “reasonable and simply understood goal” of “returning the river to the clarity, quality and shellfish productivity that it had in the early 1950s.” “The generations who will follow us deserve no less. Time is running out. We must act now,” Fowler appealed to the participants in the conference.55

Eventually, the breakthrough in the negotiations between the opposing camps resulted in an agreed upon action plan that contained specific recommendations, goals for the reduction of the amount of both phosphorus and nitrogen going into the river and indicators to measure progress towards achievement of each goal. The policies embedded in the adopted nutrient control strategy had to be implemented over the course of five years, followed by a two-year period of intensive monitoring and research on the strategy’s effect in water quality improvement. Suboptimal results would lead to modifications to the strategy to ensure attainment of the goals set and, ultimately, of restoring the Patuxent to its condition in the 1950s.

In Boyd’s (1981b) words, upon the conference’s closing, “the reaction of the Southern Marylanders, who participated in the seminar bordered on euphoric” (p. A2). Bernie Fowler characterized the agreement as “the most monumental accomplishment in
the history of my involvement with the river.” An editorial in the *Enterprise* from December 9, 1981 captured the triumphant mood in the Patuxent southern communities:

Suddenly, after decades of neglect, the Patuxent is on the verge of becoming a model for the rest of the country. There have been bright spots before in Southern Maryland’s struggle to focus attention on the problems of the Patuxent. Two expensive court battles ended in decisions that signaled that Southern Maryland had to be taken seriously. But the agreement hammered out during a three-day seminar last week eclipsed anything that has come before. Virtually every water quality issue important to Southern Maryland is now going to become state policy. And if the new cleanup measures don’t go far enough, the agreement calls for more stringent measures in the future (p. 1).

**Progress Indicators in the Aftermath of the Case**

When in May 1984, the Anne Arundel County Executive James Lighthizer and County Council Chair-woman Virginia Clagett toured the Patuxent on a fact-finding trip, they found the river in “sad shape” (Thomson 1984, 1). Similarly, Rick Boyd, a staff reporter for the *Calvert County Recorder*, who had covered extensively the Patuxent River case, undertook in the same year a canoe trip along the river and tried to compare its condition to the condition he found during his first 1979 journey. He shared his findings and impressions of the river in a series of six articles that appeared in October, 1984 in the *Calvert County Recorder* under the title “Exploring the Patuxent Five Years Later.” “Five years ago,” wrote Boyd, I hiked, canoed and sailed the 110-mile length of the Patuxent River at a time when Southern Maryland was screaming in court about the official neglect of the river that cuts through the heart of Maryland. The river was filthy and dying and the state’s plan at that time was to continue to use it as the convenient end of sewer pipeline for the residential development upstream… The visible evidence of the biological death of a beautiful river on that trip was forceful and the visible evidence was only a hint of the complex problems of the Patuxent. Like someone who has seen a friend die in a traffic accident and can’t understand why drunk driving isn’t immediately stopped, after a week on the river I was unable to understand how it could be neglected (p. A-7).
Given that “the Chesapeake Bay is now labeled a national treasure,” Boyd noted, and the Patuxent itself “has been hailed as a model laboratory for clean-up efforts throughout the Bay and elsewhere,” the obvious question, “Has the river changed?” was in order. So, the observant journalist presented his newly gathered impressions of the river water quality.

It would be hard to say the Patuxent is any cleaner now than it was five years ago. Some people think there will be a measurable improvement in water quality in the next few years as sewer water is treated more thoroughly, but it hasn’t shown up yet… The biggest difference is that now the river’s problems are no longer officially ignored (p. A-7).

On October 28, 1985, the Office of Environmental Programs issued a report on the *Implementation Status of the Charette Recommendations*. It found that, overall, the recommendations have been incorporated into the official State documents (the Patuxent 208 Water Quality Management Plan and the Patuxent Policy Plan) and have been adopted as departmental and State policies. Yet, the 11 members of the Patuxent River Commission also felt somewhat disappointed when they took in the fall of 1985 an all-day boat trip along the river “to see how things have changed.” In Pressley’s (1985) account, while some officials were encouraged to see “more fish and oysters along the lower river,” most thought that “the only real progress in returning the 110-mile river to its water-quality level of 30 years ago has been made on paper” (p. 1). Constance Lieder, the chairperson of the Patuxent River Commission and secretary of Maryland’s Department of State Planning expressed the concern of the commissioners: “If you ever had a place where there has been a consensus on the need for cleanup, it’s been the Patuxent. But the bottom line is that almost nothing has been implemented” (cited in Pressley 1985, 1).

Indeed, in 1986, a report issued by the State Office of Environmental Programs found that, “although the state and participating counties had shown tremendous
dedication to the project, technological and financial barriers still existed and were complicated by the population growth in the region.” In a speech at the second annual Patuxent River Discovery Day, held in May 1986, Governor Hughes reflected on the efforts made by his administration to clean up the river. “Now as I near the end of my second term… I can see that we have done much but we’ve got much more to do… The hard part will be to sustain the momentum, sustain our vision of what a healthy Patuxent River and Chesapeake Bay would mean to our children,” Hughes said. “The Patuxent experience taught us something else. The cooperation among several jurisdictions on the Patuxent has acted as a forerunner for effectively involving four states and the federal government to clean up and protect the Chesapeake Bay” (cited in Mitchell 1986, A-1).

In their annual report from July 1988—Chesapeake Bay Program Agreement Commitment Report: Baywide Nutrient Reduction Strategy—the Chesapeake Executive Council presented evidence of substantial reductions in phosphorus discharges in the Chesapeake Bay, in general, and in the Potomac and the Patuxent River, in particular. The Council cited seven municipal dischargers with improved treatment in the Patuxent basin—Bowie City Sewage Treatment Plant (STP), Patuxent-Anne Arundel Co., USA HQ Fort Meade STP, Parkway, Western Branch, Maryland City Wastewater Treat, and MD Correctional Institution-Dorsey Run. However, only two of those—Patuxent-Anne Arundel Co. and Dorsey Run—had new nitrogen-removing technologies installed. As a result, the overall increase of nitrogen loads from point sources during the period from 1985 to 1988 period was 8 percent.

In 1988, Senator Bernie Fowler authored and introduced a nitrogen reduction bill because, in his words,
At the completion of a five-year plan period to reduce the nitrogen and phosphorus in the river, there was no sewage treatment plant in compliance with the lowered nitrogen levels and only one plant in compliance with the lowered phosphorus levels. There was a need for legislation to take away any flexibility from government regulating agencies which allowed extra time to come into compliance with set standards (cited in Sedlock 1988, 1).

Frustrated that the commitments made in the 1981 Charette agreement by the State, the seven counties bordering the Patuxent River and the Washington Suburban Sanitary Commission had not been lived up to, Bernie Fowler presented vigorously his rationale for the introduction of the new legislation:

The bill simply puts into the force of law those elements that were agreed to through a consensus in 1981 during the process that we refer to as a charette in Howard County. We at that time agreed to cease and desist with litigation providing certain things were done. That’s what we all agreed to… So here we are in 1988, and while there is progress being made, we have still not resolved those agreements, and those commitments were supposed to be made within five years with two-year monitoring period. It has been seven years, and Parkway [the Parkway treatment plant in Montgomery County] is now saying we can’t do it because we don’t have the money. That was not a part of the money, that was not a part of the negotiations, that was not a part or element of the resolution in 1981 (cited in Landau 1988, A-1).

A commitment was made to us in 1981, and when we walked away from the courts, we understood this was going to happen, and it hasn’t. So that’s the reason for the bill (cited in Landau 1988, A-8).

Bernie Fowler’s contentions were corroborated by the findings of the Patuxent Estuary Water Quality Monitoring Program, established in January 1983 by the Office of Environmental Programs as a “long-term monitoring effort” to:

1. Document existing water quality conditions in the tidal portions of the Patuxent;
2. Provide the necessary data to evaluate the historical and future trends in water quality; and
3. Provide the basic data necessary to understand the processes acting to control water quality and the management actions which can be taken to improve conditions in the estuary (Maryland Department of the Environment 1989, 1.1).
In accordance with the program’s guidelines, the Office of Environmental Programs, later transformed into the Maryland Department of the Environment, was collecting water quality data on a semi-monthly basis at 14 stations in the Patuxent Estuary and reporting the findings in its annual assessments (Office of Environmental Programs 1984, 1985, 1986; Maryland Department of the Environment 1987, 1989). The *Patuxent Estuary Water Quality Assessment* report, issued in 1989 by the Maryland Department of the Environment, summarized the results of the department-run Patuxent Estuary Water Quality Monitoring Program for the years 1983-1987. Analyses of the data, examined in terms of nutrients, chlorophyll ‘a’ and dissolved oxygen concentrations, showed that,

The upper Patuxent Estuary exhibits the highest nutrient concentrations. The regions around Nottingham and Broomes Island experience water quality problems of high algal concentrations and low dissolved oxygen values, respectively. The most obvious trend in water quality is the decline in phosphorus concentrations in the upper estuary… (p. ii).

The report concluded that,

At this time, the phosphorus reductions goals as stated in the Patuxent Nutrient Control Strategy have been met, and this progress is reflected in the observed decrease in phosphorus concentrations in the estuary. The nitrogen removal goal is anticipated to be met in 1991 with the completion of nitrogen removal facilities at the Western Branch sewage treatment plant (p. ii).

Similarly, in their third biennial monitoring report from 1989, the Chesapeake Bay Program’s Monitoring Subcommittee stated that “Maryland has made considerable progress in implementing the goals of the Patuxent Strategy” (p. 18). Reportedly, the State program of phosphorus removal from point sources and the statewide ban on phosphate detergents, introduced in December, 1985, had dramatically lowered the inputs of phosphorus from wastewater treatment plants—from 12,000 lbs/day in 1980 and 8,500 lbs/day in 1985 to 3,000 lbs/day in 1988. Thus, the report found that “the goal for
phosphorus removal, as stated in the Patuxent Nutrient Control Strategy, has been met” (p. 19). However, it was noted that “although the results of phosphorus reduction are clearly visible in the upper estuary, the lower areas do not show similar recovery” (p. 18). The report concludes that “nitrogen and phosphorus concentrations must be reduced further to maintain the goals of the strategy and to accomplish the desired improvements of water quality in the Patuxent estuary” (p. 19).

Additionally, data, collected by the U.S. Environmental Protection Agency, showed that “in 1987, the median summer Secchi depth [the depth to which sunlight is able to penetrate through the water] was 1.9 m while two years later the median summer Secchi depth had decreased to 1.1 m” (Stankelis, Naylor, and Boynton 2003, 191). Much less scientific than the Secchi depth measurement, but a very “human,” common sense approach to gauging the cleanliness of the water, named the “Sneaker Index,” was employed by Bernie Fowler, who initiated in 1988 an annual public “wade-in” event.

Thus, “in an effort to emphasize the importance of working together to clean up our waterways,” each year since 1988, on the second Sunday of June, hundreds of people—from highly ranked government officials to ordinary citizens—walk together, hand-in-hand into the Patuxent at Broome’s Island to test the transparency of the water in the river. In reminiscence of his experience as a crabber and fisherman in the 1950s and 1960s, Bernie Fowler, wearing overalls and white sneakers, wades out as far as he can while still being able to see his sneakers through the water. Then he measures the water line on his overalls.
In Powledge’s (1995) account, “The idea is that when he was a boy, Bernie Fowler could walk into the river until the water was up to his chin, and it was so clear and unspoiled that he could still see his feet. So each spring he repeats the walk as a symbolic effort to see if the water is becoming cleaner” (p. 83). “It’s a layman’s way of checking the river’s health at a given time each year,” points out Fowler. We have professionals, scientists, using technical equipment and giving us reports, but this a simple, folksy way each year to see if there’s been an improvement” (cited in Ismail 1988, A-1, A-9). “The wade-in isn’t a scientific measurement,” Fowler stresses, “but it does bring into focus the fact that a lot of people are very interested in the Patuxent River” (cited in Powledge 1995, 83-84). “The idea is that we’ll send a message,” Fowler elaborates,

We’re not looking for thousands of people to come here and wade in; that’s not the idea. This is not a political promotion. We’re just trying to get the message out to all Marylanders that time is not on our side. We can’t wait forever to clean up our waterways. We can’t just continue to say, well, ‘Save the Bay, and clean up the Patuxent River and all the rest of the nice tributaries.’ It’s costly. It’s expensive, very expensive, and it’s going to take time. But it’s going to take people like you, who are willing to shoulder the burden and be missionaries. And wherever you go, you prick the conscience of everybody, all over the State of Maryland, Virginia, and Pennsylvania… (cited in Powledge 1995, 86).

“I’m not overwhelmed with the progress we’ve made,” Fowler declared in 1995, “but I do feel that we have turned the corner on the Patuxent River, in large measure” (cited in Powledge 1995, 83). In 2004, Congressman Steny Hoyer, one of the regular participants in the wade-in tradition and the Master of Ceremonies for the event that year, who had secured more than $25 million in federal funding for various projects to improve the environmental health of the Patuxent, reaffirmed the continuing community’s commitment to clean up the river. “A decade later, we have made some progress,” Hoyer noted, “but we must recommit ourselves to the goal that one day Bernie will wade in to
his chest and see his toes.” Indeed, the water clarity has shown stable improvement over the course of the last two decades (27.5 inches in 2006 compared to 10 inches in 1988, as shown in the figure below); yet, the local community is still in pursuit of restoring the water quality to its 1960s level (57 inches).

**Figure 4.2:** Bernie Fowler’s “Sneaker Index”

![Bernie Fowler's Sneaker Index](image)

Ever a feisty warrior, Bernie Fowler announced in his 2005 wade-in address that “he would again sue the state and/or the federal government for not taking strong enough steps to clean up its rivers and the Chesapeake Bay if pollution is not slowed” (Yeatman 2006, A-1). In 2006, Fowler renewed his vow:

I told you if there was no significant progress made that I would rally to raise funds to seek recourse in the court. I didn’t renege on that. As I speak there is a very large, very solid environmental organization with a whole battery of attorneys that have been working literally months, going over file after file of all the legal documents from when we sued back in 1978. They are looking at two areas that may very well be the kind of thing you hang your hat on to go back into court (cited in Norris 2006, A-1).
“I am not kidding you on this,” Fowler concluded. “This is coming from the heart. We will not relent, we will not surrender, we will not slow down until the river is brought back to the status we knew in 1950” (cited in Norris 2006, A-1).

CHAPTER SUMMARY

This chapter has presented the case of the Patuxent River, Maryland Nutrient Control Strategy. The first section briefly introduced the geographical, jurisdictional and temporal context of the case. The second section provided a detailed account of the case, while the third section focused on one of the case turning points—the Charette conference. Lastly, the progress made in cleaning up the Patuxent in the aftermath of the Nutrient Control Strategy’s adoption was explored in the fourth section. The next chapter, Chapter Five, proceeds with data analysis of the case.
CHAPTER FIVE: DATA ANALYSIS

This chapter presents the data analysis of the Patuxent River case. The first section introduces the major findings from the study; these findings have been developed inductively and extracted thematically from the case description in Chapter Four and from additional archival data. On the basis of those findings, the second section directly addresses the main research questions of the study.

FINDINGS

The findings of the current study with regards to collaboration and conflict have been examined through the lens of *paradox*, which is viewed here as the “simultaneous presence of incongruent and contradictory patterns” (Cameron and Quinn 1988, 2). Noting that collaboration is often advanced, in both academic and practitioner literatures as not only a fresher, more effective and promising replacement of conflict, but also its opposite, this study uses the notion of paradox to examine the co-existence of collaboration with conflict in the Patuxent River case. Thus, while, in theory, the very employment of collaboration presumes the absence, resolution or transcendence of conflict (Thomas 1976), the Patuxent case appears to present a paradoxical situation, in which collaboration occurs despite the presence of acute conflict. Moreover, collaboration “fails” to “resolve” or completely eliminate conflict in this setting; yet, it still continues to operate successfully, while defined by the underlying conflict. Paradoxically, the two processes of conflict and collaboration do not cancel each other in the case; they do not “compromise,” “trade off” or reach a middle ground. Rather, they
have been found to run continuously and concurrently as opposing and antagonistic, yet complementary, in a sense, policy strategies.

Thus, as the primary research focus of the current study aims to capture the paradoxical manifestations of collaboration as an arguably alternative orientation to environmental policymaking and management, identifying the specific collaborative characteristics in the context of the Patuxent River case has been deemed an essential first step in the data analysis. The contrasting conflictual activities have been used as a comparison in an attempt to distill, if possible, the really unique, definitive features of collaboration. The findings are based on the detailed account of the case presented in Chapter Four, as well as on the review of some additional archival materials that were intentionally not included in the case description in Chapter Four to avoid potential redundancy. Some concepts from the review of literature on the subject have been used to achieve greater descriptive clarity; however, at this stage of the analysis, they have not been “forced” upon the findings, with the exception of paradox, which has been continuously employed as a “sensitizing concept” (Van den Hoonoord 1997) in guiding the analytical and interpretive process.

**Institutional and Jurisdictional Fragmentation**

The extreme institutional and jurisdictional fragmentation in the Patuxent River watershed appears as a factor in both the conflictual and collaborative interactions in which the actors in the case find themselves. The seven counties sharing the river basin and several municipalities, such as Bowie City, at the local level; the various agencies, such as the Department of Natural Resources, the Office of Environmental Programs, the
Sewage Permits Division within the Department of Health and Mental Hygiene, and the Department of State Planning, at the state level; and EPA at the federal level all carry out jurisdictional duties in terms of managing the river water quality.

Chris D’Elia, in a July 18, 1980 letter to the Associate Director of Water Quality Research at EPA, Walter Sanders, referred to this situation as the classic “textbook” jurisdictional problem in water quality management. As observed by Imperial (2005), in this area of public management “the institutional fragmentation limits any organization’s ability to accomplish its mission by acting alone and creates numerous opportunities for joint action” (p. 283). Similarly, Hastings (1986) has noted in relation to the Patuxent cleanup effort that “No one agency has control or clear responsibility to reduce pollution” (p. C1). County councils and municipalities have direct managerial responsibilities in terms of water resources and land use, planning and zoning but they have limited discretionary authority and lack legislative power. The State, on the other hand, has full legislative and administrative prerogatives on water quality issues but federal legislation and EPA can still preempt state statutes.

The Federal Water Pollution Control Act Amendments of 1972, for example, requires EPA “to establish minimum requirements for State participation in various areas of water pollution control, such as: issuing permits to discharge pollutants under the National Pollution Discharge Elimination System, (Section 402); establishing standards for water quality (Sections 303, 303h), and effluent limitations (section 301); and defining basin plans (Section 303e).” EPA is thus authorized to issue an enforcement order or take over a State program in cases of numerous violations. Additionally, the
federal government, through EPA, provides funding to cover the costs (up to 75%) of sewage treatment plants.

Thus, this web of shared authority and responsibility, embedded in a legal and fiscal structure of interdependence, necessitates collaboration if anything related to water pollution control is to be achieved at all. Moreover, shared authority and responsibility is reflected in certain legal statutes, such as the Natural Resources Article of the Annotated Code of Maryland, Subtitle 13, for example, which explicitly requires cooperation of authorities in any planning activities in the Patuxent River Watershed. This point is furthermore illustrated by the requirement for “Continuing Planning Process for Water Quality Management,” pursuant to section 303(e) of the Federal Water Pollution Control Act of 1972. In the early 1970s, the State agencies with primary managerial responsibilities for planning water quality management were the Department of State Planning (land use planning, population projection), the Environmental Health Administration of the Department of Health and Mental Hygiene (health policy, planning, monitoring and supervision of sewage treatment operations), the Water Resources Administration of the Department of Natural Resources (industrial pollution control, water quality standards, and discharge permits), and the Program Planning and Evaluation division within the Department of Natural Resources. Additionally, the planning department of each of the seven counties and the three regional planning agencies that operated in the Patuxent River Basin—The Maryland National Capital Park and Planning Commission, the Tri-County Council for Southern Maryland, and the Regional Planning Council—were all obligated to provide an input into the area-wide planning process.
The actual activities in the Patuxent River case, even prior to the commencement of the work on the Patuxent Nutrient Control Strategy, corroborates the impression of a collaborative imperative (Kettl 2006) in the face of agency and jurisdictional fragmentation and provides evidence of favorable initial dispositions towards collaboration (Faerman, McCaffrey, and Van Slyke 2001) based on previous positive experience. The Patuxent Technical Task Force, assembled in 1968 by Governor Spiro T. Agnew, consisted of technical personnel from:

- The State Planning Department
- The Department of Forests and Parks
- The Department of Game and Island Fish
- The Department of Health
- The Department of Water Resources
- The Department of Chesapeake Bay Affairs
- The Maryland National Capital Park and Planning Commission
- The Regional Planning Council
- The State Road Commission
- The Tri-County Council for Southern Maryland
- The Washington Suburban Sanitary Commission
- The Metropolitan Washington Council of Governments
- The Maryland Geological Survey
- Fort George G. Meade
- The Chesapeake Biological Laboratory

The report *The Patuxent River—Maryland’s Asset, Maryland’s Responsibility*, issued in July 1968, represented a collaborative effort between this State Task Force and the Federal Water Pollution Control Administration. In a letter to Governor Agnew from November 1968, the Chairman of the Governor’s Patuxent River Watershed Advisory Committee, John Parran, acknowledged the “splendid cooperation and help” received “from various Federal, State and local governmental agencies constituting the Patuxent Technical Task Force.” Similarly, as noted in the Patuxent River Watershed Committee’s report, *The State of the River*, released in March 1973, the Committee,
which had met regularly since January 1970 to study, inspect, and exchange information on the conditions of the water resources in the watershed, drew membership from 19 State and County agencies (mentioned in Chapter 4 and listed in the endnotes on pp. 195-96). In 1979, Governor Hughes stressed the “common purpose we have here at the local and state level” (cited in Boyd 1979d, A-1). Ultimately, in 1989, when the Patuxent River was designated as a national demonstration site for pollution management and control, Senator Barbara Mikulski (D-MD) underscored “the coordinated effort” exerted by state and local officials, who “have worked together for over 10 years to reduce pollution in the Patuxent.”

Be that as it may, the same multiplicity of agencies involved in the water quality issues appeared (on numerous occasions) conducive to confrontational interactions when alignment of administrative interests, legal mandates and managerial commitments was difficult to achieve. Thus, in 1979, EPA placed a hold, to Secretary Coulter’s greatest frustration, on funding for wastewater treatment in the amount of $29 million until the State came up with a revised and agreed upon Water Quality Management Plan. In 1985, EPA refused to release $10 million in grant money, abandoning previous assurances of support for the State efforts to remove nitrogen from effluent discharges. In 1977, the Board of Commissioners of St. Mary’s County contested the technological soundness of the State plan for the Patuxent. In the same year, the Tri-County Council for Southern Maryland sued EPA for its failure to require an Environmental Impact Statement for the expansion of the Savage Sewage Treatment Plant on Patuxent. In 1979, the Tri-County Commissioners challenged again in court the adequacy of the Patuxent River Basin Water Quality Management Plan, adopted by the State and approved by EPA. In Hodge’s...
(1987) account, the Patuxent River case “demonstrated that through determined and united efforts, responsive and effective local government officials could challenge existing federal and state policies, and bring about remarkable changes” (p. 5).

**Issue Complexity**

Besides the jurisdictional fragmentation, the nature of the issues at hand in watershed management seems to reinforce both collaborative and conflictual attitudes. On the one hand, the existential condition of sharing a river basin in distress, presupposes, requires and necessitates collaboration. A general content analysis of the archival documents on the case show “the appeal to collaboration” theme distinctly pronounced through terms and phases such as “common,” “united,” “working together,” “agreeing on,” “consensus,” “concerted effort,” and so on. The motto of the Tri-County Council for Southern Maryland, for example, “Working Together to Build One of America’s Great Communities,” is indicative of this thematical cluster. “Our goals to upgrade the Patuxent should be shared by all Marylanders,” the Tri-County Council’s chairman, Bernie Fowler, declared in 1979 (cited in Deats 1979b, A-14). Reporting on the results from the Charette conference, Representative Tom Rymer (D-Calvert) wrote in the December 9, 1981 issue of *Calvert Independent* that “The ‘Marriottsville Accord,’ as some have called it,… is definitely the beginning of a truly concerted effort on the part of state and local governments, in cooperation with citizens living in the river basin, to work in earnest for the improvement of our very special river” (p. A-6).

In his January 14, 1982 letter, accompanying the final State *Nutrient Control Strategy for the Patuxent River Basin*, William Eichbaum emphasized that “the
development of nutrient loads river-wide and the allocation of nutrient loads to various wastewater treatment plant facilities can only be implemented with a spirit of cooperation and support.” The *Calvert County Recorder* from August 17, 1984 announced on its editorial page: “Communities unite to clean river” (p. A-4). Constance Lieder, chairperson of the Patuxent River Commission and secretary of Maryland’s Department of State Planning, noted that “If you ever had a place where there has been a consensus on the need for cleanup, it’s been the Patuxent” (cited in Pressley 1985, 1).

On the other hand, the recognition of the diverse uses of the Patuxent River expanded considerably the circle of stakeholders, which resulted in the formation of camps of actors with increasingly disparate interests. In his address at the 1977 *Forum on the Patuxent River*, Fowler pointed out:

In deciding what we will do, we have to keep in mind that there are many interests involved in the future use of the Patuxent and these interests are frequently at odds. For example, there is the need for sewage treatment facilities at Solomons as opposed to a desire to put no more effluent into the river. There is the region’s desire to preserve agricultural land while at the same time trying to reduce the amount of stream pollution due to agricultural or non-point sources. I think of our need for conservation of energy and development of additional energy sources, and at the same time consider the effects on recreational and economic interests of increasing the water temperature of the river (p. 12).

Fowler recognized that “It’s a complex problem, and it has many costs” (cited in Deats 1979b, A-14). “With so many people and groups involved, solutions proposed are varied,” noted Hastings (1986, C1). Thus, “where the fate or destiny of the Patuxent is in the hands of one state and seven counties—with urban upstream users discharging effluents into its waters and rural downstream users valuing its waters for recreation and seafood” (Hodge 1987, 5), the acute conflict between the opposing camps erupted on several occasions, including the 1977 lawsuit filed by the Tri-County Council for
Southern Maryland against the Northern Counties. Or, as Tom Wisner (1986) has put it into his poem, “We ought to sue those upper counties for the junk they’re sending down” (cited in Horton 1986, 3E). Indeed, as had been agreed at the Charette conference, the State’s water pollution control strategy was seen “by many—both critics and supporters—as one of the most classic and extreme attempts anywhere to reconcile the use of waterway both as a sewer for development and a richly productive fishery” (Horton’s 1981a, C1).

**Scientific Uncertainty**

The complexity of controlling water pollution has been increased to a great extent by the existing *scientific uncertainty* as to the actual culprits for the deteriorating water conditions in the river. The controversy over which element—phosphorus or nitrogen—was the “limiting factor” in nutrient enrichment dominated the process of crafting, adopting and implementing the official State Nutrient Control Strategy for the Patuxent. Numerous studies (Mihursky and Boyton 1978; Heinle 1980), computer modeling efforts (HydroQual 1980), “microcosm” experiments (D’Elia and Sanders 1986), technical seminars and symposia (“Forum on the Patuxent River” in 1977; Tri-County Council’s environmental seminar in 1981; technical meeting at the Smithsonian Institute in 1981) focused on dealing with that scientific uncertainty. Considerations of geographical differences—fresh water in the upper portions of the River and saline water in its estuarine part—and established seasonal variations in the summer vs. the winter months brought added complexity to the issue. Even the invention of the new biological method
of nitrogen removal by the Virginia Tech Professor, Clifford Randall, was surrounded by uncertainty in terms of its effectiveness and applicability.

In any case, there is no doubt that the need for technical expertise made the involvement of scientists a critical element of the Patuxent River case. Collaboration was sought from scientists affiliated with the Chesapeake Biological Laboratory of the University of Maryland, the Benedict Estuarine Research Laboratory of the Academy of Natural Sciences in Philadelphia, the John Hopkins University’s Chesapeake Bay Institute, and the Smithsonian Chesapeake Bay Center, among many others. The existing “knowledge pool” was a tremendous asset and helped unequivocally raise the quality of the Nutrient Control Strategy for the Patuxent, which was adopted as an official State policy, later became a model for the entire Chesapeake Bay and even received national recognition.

However, similar to the problem with the institutional fragmentation, discussed above, the involvement of such a great number of experts from various scientific fields (ranging from marine biology to sanitary engineering) made discord more likely in light of the existing differences in professional opinions. As noted by Hastings in the “Science” section of the Daily Press on August 24, 1986, “With so many people and groups involved solutions proposed are varied” (p. C1). Moreover, the scientists’ expectations that reducing the scientific uncertainty would lead to a corresponding reduction in the associated policy and managerial uncertainty proved somewhat misdirected. Legal mandates (in the case of EPA) and fiscal considerations (the estimated higher cost of nitrogen removal from effluents), in particular, weighed heavily on the decisionmaking process in the case.
Public Participation

The very active participation of the public in the Patuxent River case introduces another dimension to the collaborative/conflictual dichotomy explored thus far. The involvement of numerous civic and environmental groups (the Public Advisory Council, the League of Women Voters of Maryland, the Maryland Watermen’s Association, the Holland Cliff Shores Citizen Association, the Davidsonville Area Civic Association, the St. Mary’s County Watermen’s Association, the Potomac River Association, the Prince Frederick Association for Historic Preservation, the Maryland Conservation Council, etc.) generally enhanced the collaborative mode of the process of policymaking and implementation. As the *Calvert County Recorder* editorial from August 17, 1984 stressed, “Government efforts, alone, will not help restore natural resources. People have to get involved” (p. A-4). Moreover, the 1972 Federal Water Pollution Control Act required public participation in all regulatory and planning activities carried out under its provisions. The analogous Maryland statutes and regulations contained similar requirements for public hearings.69

Public participation in this case, however, went beyond conventional commenting on governmental proposals and attending public hearings. Citizens were active participants in seminars, meetings, and community forums as partners in the collaborative planning process. The 1977 *Forum on the Patuxent River*, for example, was designed, to provide an opportunity for rational discussion of the river: what is known about it, what the current planning process is, what alternative management proposals are viable, and what the role of the citizen is. An effort was made to balance the format of each meeting with a number of points of view, including those of citizens, special interests, the academic institutions and government.70
Representatives of watermen, civic and environmental organizations accompanied Governor Hughes on his tour of the Patuxent in December of 1979, which was considered a turning point in the case. Merilyn Reeves and William Johnston of the Public Advisory Council, Fran Flannigan of the Citizens Program for Chesapeake Bay, and Robert Brown of St. Mary’s Watermen’s Association took part in the Charette conference on equal terms with governmental officials and scientists, setting forth the final Nutrient Control Strategy for the State. “I feel damn good about this—no one has ever done it this way before,” said Merilyn Reeves at the closing of the conference (cited in Struck 1981, B2).

Not surprisingly, yet still paradoxically, the pursuit of the noble goals of ensuring inclusiveness and public representativeness in the policymaking process opened additional venues for confrontation, obstructionism and adversarial interaction. For the first time, civic organizations and even individual citizens were granted “legal standing” by the 1972 Federal Water Pollution Control Act, and thus were empowered to challenge governmental programs and policies that might adversely affect their interests. As Johnston’s (1974) review of federal laws and regulation on the subject notes,

Any person or persons having an interest that is or may be adversely affected may bring a civil action against any person or government agency allegedly in violation of an effluent standard or an order of EPA concerning such standard, or against EPA where there is alleged failure to perform any duty or act which is not discretionary under the law. The federal district courts have jurisdiction in all cases (p. 3).

The civic organizations involved in the Patuxent case made very effective use of this power. In 1985, three associations sued the Maryland Health Department over the sewage treatment permit issued for Howard County’s Little Patuxent River plant at Savage. Two years later, in 1987, a coalition of environmental and civic groups challenged
successfully in court EPA’s policy on requiring installation of nitrogen removal
technology when planning for expansion of the wastewater treatment plants in Prince
George’s County. “We are not trying to be obstructionists,” pointed out the president of
the Davidsonville Area Civic Association, a plaintiff in the lawsuit. “The plant should
operate. We’re just saying it should operate in the best way” (cited in Cottman 1984, 1).

Public participation, however, cannot be equated entirely with environmental
advocacy. In 1984, for example, the Howard County Citizens Association, an umbrella
group of citizens’ organizations around the county, opposed the State’s Patuxent River
Plan, which focused on land management. Defending new town development and
farmers’ interests in land use, they effectively pressured the County Council to vote
against it. As a result, Howard County, along with Prince George’s County, failed to
endorse the plan and remained outside the local governments’ agreement.72 In that sense,
public participation has been observed in both collaborative and confrontational modes
over the course of the events in the case.

Strategic Use

The adoption of both collaborative and conflictual approaches has shown
purposiveness, deliberation and strategic intent. Nothing accidental, spontaneous, or self-
emerging has been found in the rationale for their respective selection. Conflict was
launched to “challenge existing federal and state policies, and bring about remarkable
changes” (Hodge’s 1987, p. 5). Collaboration was sought as a solution to the policy
stalemate reached on the issue of water quality in the Patuxent. Preferences for the usage
of either strategy have shifted over time, depending on the specific circumstances of the
moment. However, it seems that the possibility for pursuing both options has remained open during the process of policymaking and implementation.

The work of the Patuxent Technical Task Force and the Patuxent River Watershed Committee from the late 1960s and early 1970s, cited above, had arguably showed a spirit of collaboration among local, state and federal governmental officials in addressing the problem of diminishing water quality in the Patuxent River. “We don’t know how far we will get into peaceful negotiations,” Bernie Fowler said of his early efforts to work together with the Northern Counties and the State towards cleaning the river. “We would prefer not to go to court, but we will explore all legal methods to stop what is happening to the river” (cited in Wentzel 1977, B2). “If reasoned, cooperative efforts do not produce the desired results,” warned Fowler, “I find no criticism of those who seek the assistance of the courts.” Later, reflecting on the actions taken, he stressed that “We began in good faith in 1970. We tried to be cordial, we tried to be friendly, but we made a move (taking the matter successfully to U.S. District Court) in desperation” (cited in Ismail 1988a, A-2). However, Fowler never considered litigation “the final act.” “If something is not done,” he pointed out in 1979, “in five years there won’t be the opportunity to do anything” (cited in Boyd 1979a, A-12).

David Fleischaker, the environmental attorney retained by the Tri-County Council for Southern Maryland, concurred. “It’s important to keep the remedy of court action in proper perspective,” he advised the County Commissioners. “No single suit is going to clean up the river. Court action should be viewed as one of the many tools available to the counties. Before filing suit, I recommend giving the state and federal officials an
opportunity to reply to specific recommendations. If the response is inadequate, then to
the Courthouse.”

By most accounts, the Governor Hughes’ tour on the Patuxent in 1979 was one of
the turning points in the case (Hodge 1987) and marked a shift from conflictual to
collaborative approach. At the end of the tour, the Governor promised “cooperation” in
addressing the problems that in the past had led the Southern Maryland counties to
challenge State policies on the river in court. “I pledge to you as governor of this state
that we’re going to take this approach from now on,” Hughes declared (cited in Boyd
1979d, A-1). “The key to the solutions of these problems is going to lie in cooperation,”
the Governor stressed. “There is no reason in the world why state and local governments
can’t get together to solve these problems” (cited in Gauthier 1979b, A-1).

The Charette conference in 1981 represents a culmination of the newly favored
“cooperative strategy,” which “resolved scientific and political conflicts” (Hodge 1987,
8). The consulting firm, Clark-McGlennon Associates, which specialized in
environmental conflict resolution, was contracted by the State to facilitate the work at the
conference and “help the parties involved to identify inventive ways to work out a
solution” (Horton 1981b, B10). Reportedly, the final agreement reached at the summit
“resolved some long-standing disputes that have stymied a concerted effort to improve
the water quality of the Patuxent” (Struck 1981, B1).

In 1988, however, Bernie Fowler reverted to the confrontational strategy,
authoring and introducing into the State Senate a nitrogen reduction bill, which
envisioned stiff civil penalties for not compliance with set effluent standards. Frustrated
that the commitments made in the 1981 Charette agreement have not been lived up to, Bernie Fowler declared:

   The bill simply puts into the force of law those elements that were agreed to through a consensus in 1981 during the process that we refer to as a charette in Howard County. We at that time agreed to cease and desist with litigation providing certain things were done. That’s what we all agreed to… (cited in Landau 1988, A-1).

Subsequently, he has threatened several times (as recently as 2006) to have recourse to the courts. The recurrent use of litigation in the case underscores the strategic use of what in the literature has been referred to as *venue shopping*—“the activities of advocacy groups who seek out a decision setting where they can air their grievances with current policy and present alternative policy proposals” (Pralle 2006, 26)—in the context of *conflict expansion*. Conversely, the effort made at the Charette conference to “find non-litigatory solutions, in the jargon, ‘win-win’ decisions,” (cited in Horton 1981, B10) as the president of the consulting firm Clark-McGlennon Associates has put it, shows collaboration in its *conflict containment* strategic use. Bernie Fowler’s nitrogen reduction bill also presents an example of *conflict expansion* (Pralle 2006) as it sought to expand the jurisdiction of the State legislature over the oversight and enforcement of effluent standards—an area previously reserved for regulatory agencies (Ismail 1988b).

   Along the same lines of strategic intent, the protagonists of water pollution control sought to “expand” the conflict over the Patuxent River, framing it in broader terms and placing it in a state, regional, and even national context. As already quoted above, in 1979 Bernie Fowler declared that “Our goals to upgrade the Patuxent should be shared by all Marylanders” (cited in Deats 1979b, A-14). “The Patuxent River is not just of local concern and not just regional concern but of state concern,” said Governor Hughes after the tour of the river in 1979 (cited in Gauthier 1979b, A-1). “It’s not so
much that we in Southern Maryland are totally concerned with just the Patuxent River. Such is not the case,“ Fowler insisted. “We are very concerned about the entire Chesapeake Bay, and this is the acid test. This is the acid test of whether we are really going to do what we are supposed to do and show good faith and clean up the Patuxent River” (cited in Landau 1988a, A-8).

Similarly, Joseph Mihursky, a scientist from the Chesapeake Biological Laboratory, claimed that the State cleanup efforts on the Patuxent “could serve as a prototype for the entire Chesapeake Bay system” (cited in Buehler 1983, A-1). “It’s a perfect system to experiment on,” explained Mihursky, “because it runs north-south, like the bay, it has the same kind of salt and fresh water interaction, it’s entirely in Maryland, and it’s subjected to a variety of uses—industrial, farming and housing.” When in the mid 1980s, EPA continued to be reluctant to change its policies on nitrogen removal, Bernie Fowler wrote in the July 8, 1987 issue of the Calvert Independent that “The strategy of the Patuxent River Commission and the Chesapeake Bay Commission has been to ask EPA to designate the Patuxent River as a National Nitrogen Removal Site. This would make the Patuxent a pilot project for intensive nitrogen removal.”

At the same time, the success of the collaborative effort at the Charette conference was attempted to be replicated regionally at the interstate level. When Governor Hughes, Virginia Governor Charles Robb and Pennsylvania Governor Richard Thornburg met in 1983 to discuss the water quality issues in the Chesapeake Bay and coordinate their states’ pollution control programs with EPA, the Patuxent cleanup effort was brought up as a policy and management model for the entire Bay (Buehler 1983). Several years later, Governor Hughes’ asserted that, “The cooperation among several jurisdictions on the
Patuxent has acted as a forerunner for effectively involving four states and the federal government to clean up and protect the Chesapeake Bay” (cited in Mitchell 1986, A-1).

Later, Senator Barbara A. Mikulski (D-MD) introduced a provision calling on EPA to designate the Patuxent River as a national demonstration site for pollution management and control. The measure was approved by the US Congress in 1990 and signed into law by President Bush (Patuxent River Commission 1995). Thus, the national recognition, received by the Patuxent River as “a model for water quality management, and a natural laboratory for testing the effectiveness of strategies to improve water quality in the Chesapeake Bay and other estuary systems”76 seemingly provided evidence that the expansion strategies of both the conflictual and the collaborative approaches were successful.

**Multiple Domains**

As different policy domains, sometimes identified in the literature by the labels bureaucratic politics, cloakroom politics, chief executive politics, courtroom politics, and living room politics (Van Horn, Baumer, and Gormley 1992),77 have been credited with the capacity to provide different venues for policymaking in accordance with their principles of selection and carrying capacities (Hilgartner and Bosk 1988), the initiatives of both collaborative and conflictual type have been observed unfolding interdependently in all of these domains in the Patuxent case. Thus, the lawsuits, filed by the Tri-County Council for Southern Maryland, introduced in the policy domain of courtroom politics the problem of the inadequate Water Quality Management Plan for the Patuxent River Basin and the lack of an Environmental Impact Statement for the expansion of the Savage
wastewater treatment plant. Subsequently, the court’s decisions in favor of the Southern Maryland Counties and the imposed deadline on the Office of Environmental Programs for submission of a final nutrient control strategy had a profound effect on the development of the Patuxent policy.

Parallel to the legal course of action, and partially under its direct influence, there were substantive developments in the other policy domains as well. In the bureaucratic politics domain, the opposition to the water cleaning policy initiatives, coming from the Department of Natural Resources, was effectively neutralized. The newly created Office of Environmental Programs took over control on water quality matters; organized the Charette conference, ensuring representation of all key parties involved in the issue of the Patuxent; and eventually finalized a nutrient control strategy for the river. Meanwhile, the Department of State Planning prepared the Patuxent River Watershed Policy Plan and the Patuxent River Commission revised the Water Quality Management Plan for the Patuxent River Basin.

In the chief executive politics domain, Governor Hughes pledged his support to the cause of cleaning the Patuxent after the historic tour of the river. He initiated an administrative reorganization, sponsored the Charette conference and ensured funding for the revitalization of the Patuxent. The Patuxent policy initiative was then used as a model for the Chesapeake Bay during the meeting of the Governors of Maryland, Virginia and Pennsylvania. In the cloakroom politics domain, the Maryland General Assembly passed the Patuxent River Watershed Act and established the Patuxent River Commission with representatives from all seven counties in the basin and the major State agencies, dealing with environmental issues. Later, it approved legislation for the adoption of the Patuxent
River Watershed Policy Plan and for setting strict limits on effluents (the so-called “Bernie Fowler bill” under its sponsor’s name).

Meanwhile, in the living room politics domain, public opinion was indeed galvanized (Van Horn, Baumer, and Gormley 1992). The media steered the public conscience with headlines such as “Patuxent: More Waste than Water,” “Patuxent—Maryland’s Sewer,” “Patuxent Pollution Ignored for Decades,” (Wentzel 1977), and “Terminal Neglect Threatens Life of Patuxent River” (Gauthier 1979). Subsequently, the local newspaper reporters followed closely the controversy over the proposed measures to improve the worsening condition of the water in the river and duly informed the public of any major developments in the policy debate.78 Also, as pointed out above, citizen groups and scientists became deeply involved in the policymaking process.

Two important observations can be made on the basis of this evidence. First, the application of either a conflictual or collaborative strategy naturally corresponds to the principles of selection (“the rules of the game”) of the policymaking venue chosen. The courtroom politics domain, for example, entails adversarial relationships and appropriate legalistic framing of issues in terms of rights’ violations. Indeed, in a 1977 address to the Forum on the Patuxent River event, Bernie Fowler invoked exactly this type of rhetoric:

We can resort to the protection of our individual rights, if all else fails, by seeking relief from the courts. I have the same right and you have the same right as a citizen of Maryland who lives at the headwaters of the Patuxent and above the pollution sources, to the use of a pollution free river. Our rights are as valuable and as important as those of a developer in Howard County.79

Second, as the emergence of the Patuxent River Nutrient Control Strategy has been observed in the same time period in all of the policy domains described above, it appears that collaboration and conflict follow a simultaneous rather than a sequential
pattern, as a more cursory look at the chronology of the case would suggest. For example, at the time when the tour of the Patuxent that Governor Hughes made with Southern Maryland officials in December of 1979 served as one of the best examples of collaborative work in the chief executive domain, the Tri-County Commissioners were engaged in litigation with the State and EPA.

**Leadership**

The parallel developments in the multiple policy domains discussed above could be seen as well through the prism of leadership. As Blaine Griffith, the manager of Prince George’s County’s Jug Bay Park, complained in the early stages of the process, “The problem with this river is that it has no real champion. No champion with the power to make things happen. There are people who care, but no one with the power to protect it: to say, ‘Damn it, clean this up’” (cited in Wentzel 1977, B2). Soon after that, the cause of cleaning up the Patuxent found its real champion in Bernie Fowler, who pursued relentlessly, through litigation, legislation and even symbolic community initiatives, the goal of bringing the river back to its condition from the 1950s. In each of the policy domains, however, there were key people who played a critical leadership role.

In the chief executive domain, Governor Hughes was instrumental in committing the State to the cause of improving the river water condition. In the bureaucratic politics domain, the appointment of William Eichbaum as Assistant Secretary for Environmental Programs proved crucial, as he took a completely different approach from his predecessor, initiated the Charette conference and finalized the Nutrient Control Strategy for the Patuxent that had been a point of contention for a long time. In 1984, he did not
hesitate to issue record high civil penalties against the City of Bowie and First Maryland Utilities for violations of federal and state discharge permits at the Bowie and Marlboro Meadows Sewage Treatment Plants, respectively (Ismail 1984b; Valentine 1984). On the other end of the spectrum, James Coulter, Secretary of the Department of Natural Resources, became a symbol of the State’s intransigence and was considered the major stumbling block to changes in the policymaking and management of the Patuxent.

In the cloakroom politics domain, Senator Arthur Dorman (D-Prince George’s), who introduced the Patuxent River Commission bill, and later, Senator Bernie Fowler, who authored the nitrogen removal bill, were the main protagonists of the Patuxent issue. The environmental attorneys William Johnston and David Fleischaker represented the voice of legal reason in defense of the cause in the courtroom politics domain. In the living room domain, Merilyn Reeves became the face of the engaged, competent and energetic citizenry (Ritchle 1980); while Heinle, D’Elia, Boynton and Mihursky of the University of Maryland Chesapeake Biological Laboratory had a major influence on the scientific aspects of the State nutrient control policymaking. Tom Horton and Richard Boyd were perhaps the most active and environmentally conscious reporters, who covered the case extensively in the local media at that time.

While leadership proved a critical factor in the case, there is not clear evidence if the use of collaboration or conflict was contingent on it. Bernie Fowler, for example, was a pivotal player, who created a bandwagon effect—attracting followers and building a coalition of supporters (Pralle 2006)—in expanding the conflict with the State and the EPA, and at the same time, inspired the local community to work together towards cleaning the Patuxent. Rather, the difference made through leadership could be seen in
light of the progress achieved in restoring the river’s ecology, irrespective of the type of strategy, collaborative or conflictual, applied towards that end.

**Symbolic Events**

As mentioned above, the media coverage of the case—in the *living room* policy domain—proved extremely important. Arguably, in our contemporary information society, nothing can be granted the status of a public problem worth addressing unless it has received attention from the media. In that sense, media accounts of the case have provided a powerful mirror, in which the reflections of the symbolic developments of the case could be analyzed. First, the vivid descriptions of the “dying river” (Wentzel 1977; Gauthier 1979) that had previously ensured the livelihood of thousands of people in the region and was allegedly “killed” by State and federal neglect created a powerful imagery and drew public attention to the deteriorating water quality of the Patuxent.

Second, the media became fascinated with the legal battle between the local “David” (the Tri-County Council for Southern Maryland) and the state/federal “Goliath.” As Schattschneider (1960, 1) has insightfully noted, “Nothing attracts a crowd so quickly as a fight. Nothing is so contagious” (p. 1). The headlines certainly reflected that perception of a “fight” on the front of the environment: “Counties Gearing For River Fight” (Schust 1977b); “Counties Win Round in Patuxent Battle” (Schust 1979); “Battle Just Began on Patuxent River” (Hoxie 1981); “Patuxent Pollution Showdown Coming” (Boyd 1981a); “State Gets Outside Help in Patuxent River Battle” (Horton 1981b); and so on. Reportedly, the lawsuits and their coverage in the media with the “glare of hostile
publicity” (Boyd 1979b, A-1) awakened public opinion and drew political support for the water quality improvement drive.

Certainly collaboration, as a strategy, also had its hallmarks. Governor Hughes’ trip down the river in December 1979 sent a powerful message to the community: we all, state and local officials, scientists, citizens, and watermen are “in the same boat”; we all share and care about the fate of the Patuxent. The Charette conference was another triumph for the collaborative strategy, especially against the backdrop of the preceding animosity, disputes and controversies. The newspapers declared “Patuxent Victory” and hailed the “breakthrough” results of the “Marriottsville Accord” (Rymer 1981). Gary Hodge, executive director of the Tri-County Council announced: “On the basis of the commitments made at the charette… the Southern Maryland counties laid down their swords” (cited in Ismail 1988a, A-2).

Additionally, highly publicized initiatives, such the annual Patuxent River Appreciation Days Festival that was organized for the first time in 1978 (Deats 1979a) and the annual Bernie Fowler “wade-in” event, which at present continues to measure unscientifically but compellingly the clarity of the water in the river, have embodied the collaborative spirit and the common purpose of the community. In an article “America: faith in what is to come” by Peter Costigan, a November 1985 issue of the Australian newspaper, The Herald, featured the “Honor the Patuxent River Weekend” in Solomons, describing the river “being cleaned and honored, Fourth of July style, because local communities recognized the need and decided to do something themselves” (cited in Wise 1986, A-1).
**Policy Effects**

The collaborative and conflictual strategies used in the case had differential but perhaps equally important policy effects. The lawsuits filed in 1977-1978 by the Tri-County Council for Southern Maryland against EPA and the State of Maryland served as a symbolic “focusing event” (Kingdon 2003) in the case. The courtroom-dramatized controversy created institutional tension, attracted the interest of the media and called for immediate policy measures. The court imposed deadline (January 15, 1982) for adoption of a nutrient control strategy brought a sense of urgency to the policymaking process. The lawsuits gave legitimacy to the claims of the South Marylanders; they showed that the people in the rural lower portion of the river had to be taken seriously. The legal clash was even credited with sparking the interest in cleaning the Chesapeake Bay.

Paradoxically, the litigation, which admittedly “led to very acrimonious relationships among the regulatory agencies, citizen advocacy organizations, the southern Maryland counties, and the scientific community“ (D’Elia, Boynton, and Sanders 2003, 177), seemed to have reinforced, rather than discouraged subsequent collaboration. As Deats’ (1979b) report on the 1979 Governor’s tour of the river has revealed, “Groups and government agencies that have been at odds over how to tackle the problem [of the ‘dying Patuxent River’] are just now starting to pull together. Many think the Tri-County lawsuit against EPA was the trigger to this coming together” (p. A-1).

The remarkable collaborative work done at the Charette conference enabled finalizing the State Nutrient Control Strategy for the Patuxent. For the first time, “a consensus was reached on nutrient inputs for a tributary based on desired water quality outcomes and defined nutrient inputs” (D’Elia, Boynton, and Sanders 2003, 177). The
decision to establish “carrying capacity” for the river set a State policy precedent. In
Struck’s (1981) account,

The effect of this is ultimately to limit, for the first time in Maryland, the amount of sewage that a river can receive, since it is neither possible nor feasible to remove all the nitrogen and phosphorus from sewage. The philosophy here and in most of the nation has been to assume that if sewage degradation in a river occurs, the problem can be solved by higher technology sewage treatment, rather than by limiting the amount of sewage. This has often worked on paper and failed in real-world plant operation (p. B2).

The establishment of the Total Maximum Daily Load approach, currently “mandated through the Chesapeake Bay and the U.S.” (D’Elia, Boynton, and Sanders 2003, 177), was also a direct implication of this reconceptualization of the river’s “carrying capacity” problem. The Nutrient Control Strategy drafted at the charette became the essence of the new Water Quality Management Plan for the Patuxent River Basin. The plan set strict standards for nutrient discharges and required that the Department of Health and Mental Hygiene use them when issuing sewage treatment permits and authorizing increases in the plants’ capacities. It was approved by EPA, endorsed by the State legislature and signed into law by Governor Hughes. A report issued by the Office of Environmental Programs in October of 1985—Implementation Status of the Charette Recommendations—confirmed that indeed, the recommendations had been incorporated into the official State documents pertaining to the Patuxent (the Patuxent 208 Water Quality Management Plan and the Patuxent Policy Plan) and had been adopted as departmental and State policies.

The publicity of the Tri-County lawsuits against the State of Maryland and EPA and the subsequent success of the conflict-resolution summit in changing and vitalizing the State’s water pollution control policy put the Patuxent experience in the regional and
even national spotlight as an example of inter-jurisdictional collaboration and
reconciliation between the goals of population growth and environmental conservation.
As referenced above, in the late 1980s, the Patuxent River received national recognition
as “a model for water quality management, and a natural laboratory for testing the
effectiveness of strategies to improve water quality in the Chesapeake Bay and other
estuary systems.”

Yet, the actual environmental condition of the river remained a major concern
throughout the 1980s. “Fact-finding” tours of the river, taken by the Patuxent River
Commission, scientists, environmentalists and journalists, showed little improvement in
water clarity. Some Commissioners complained, for example, that “the only real progress
in returning the 110-mile river to its water-quality level of 30 years ago has been made on
paper” and that “almost nothing has been implemented” (Pressley 1985, 1). In that sense,
the perception that “the river’s problems are no longer officially ignored” (Boyd 1984, A-
7) appears as the immediately felt policy effect. In truth, some of the scientists involved
in the case pointed out that,

The public and public officials must learn to accept that rapid solutions to
environmental problems are rarely available. It can take as long or longer
to solve an environmental problem as it took to cause it, and even then,
given scientific uncertainties and other environmental changes that may be
occurring (e.g., sea-level-rise), solutions may be elusive (D’Elia, Boynton,
and Sanders 2003, 183).

Still, dissatisfaction with the pace of progress in the river cleanup seemed to have
surfaced in this period. But it did not appear to have the results of the collaboration
approach compromised. On the contrary, the commitments made at the Charette
conference gave legitimacy to and justified a renewed emphasis on the use of the
conflictual strategy. Civil penalties assessed on wastewater treatment facilities, lawsuits
brought by civic organizations against the State for relaxing the requirements for nutrient limitations and for discharge permits’ violations, legislative initiatives for tougher bills (“with teeth”) gave impetus to the Patuxent policymaking. Thus, reporting “considerable progress in implementing the goals of the Patuxent Strategy,” subsequent EPA studies, surveys conducted in the framework of the Patuxent Estuary Water Quality Monitoring Program and under the purview of the Chesapeake Bay Program’s Monitoring Subcommittee, have revealed a mixed picture and recommended further reduction in nutrient enrichment. As of 2003, the assessment is that, “[w]hile it is premature to conclude that the N-removal strategy for the Patuxent has been successful in reversing the damage of four decades of excessive nutrient enrichment, it does appear that for the present, further degradation has abated” (D’Elia, Boynton, and Sanders 2003, 183).

Cost

Financial considerations have been found at the center of the policy discourse on the Patuxent. Yet, it is hard to put a precise price tag on either of the two strategies. In the domain of the adversarial approach, the lawsuits filed against EPA and the State cost the taxpayers of the three Southern Counties around $160,000 (Boyd 1983). There were procedural delays, associated with the requested revisions of the State Patuxent River Water Quality Management Plan, additional public hearings scheduled, new technical studies commissioned (the HydroQual study) and federal funds for improvement of wastewater treatment facilities temporarily withheld. Additionally, sewer operators, such as the Bowie Sewage Treatment Plant and First Maryland Utilities were fined in the amount of $25,000 and $200,000, respectively (Ismail 1984b; Valentine 1984).
Yet, there were transactional costs incurred by the collaborative approach as well. The contract with the facilitators of the Charette conference, Clark-McGlennon Associates, cost the State tax payers $31,000 (Horton 1981b). The State also sponsored the organization of the summit and covered the expenses of all participants for a three-day stay at the Marriottsville Spiritual Center. The preliminary technical meeting, held at the Smithsonian Institute, was similarly dealt with financially by the State government. Additionally, the State would naturally pick up the tab for the “fact-finding” tours of the Patuxent, taken by Governor Hughes and the Patuxent River Commissioners; the “Forum on the Patuxent” type of environmental seminars; the community events, such as the Patuxent River Appreciation Days Festival; and the water quality assessment and monitoring programs.

The actual issue of cost, however, could be put into the proper perspective, if it is seen through the prism of the nitrogen-phosphorus controversy. Granted the defense of the nitrogen-removal option was associated with the conflictual strategy (which is true for the most part, with the exception of the Charette conference when nitrogen received recognition as a problem), then the demarcation line between the collaborative and conflictual strategy in terms of costs becomes somewhat clearer. As some of the scientists, involved in the policymaking process, have acknowledged, “Cost is always an issue, and ultimately the public must determine if the cost to undertake a scientifically sound remediation program is practical” (D’Elia, Boynton, and Sanders 2003, 183). Since EPA maintained at the time that phosphorus removal was “the most cost-effective control for solving the problem” (D’Elia 1987, 432), it was concluded, much to the frustration of the scientists affiliated with the Chesapeake Biological Laboratory at the University of
Maryland, that “the underlying factor driving policy towards phosphorus removal was lower cost” (D’Elia, Boynton, and Sanders 2003, 177). In their words,

Fear of the costs of implementing nitrogen removal on the Patuxent and loss of federal matching funds led policy makers at the time to conclude, despite substantial scientific evidence to the contrary, that a less expensive phosphorus removal strategy could be forced to work” (D’Elia, Boynton, and Sanders 2003, 183).

In Hastings’ (1986) view, “[t]his could be penny wise and pound foolish” (p. C1). Indeed, in the assessment of the scientists from the Patuxent River Technical Advisory Group, “The State’s proposed phosphorus removal, which would cost as much as $200 million over the next 20 years, would do little or nothing to help the lower river” (cited in Horton 1981a, C2). Moreover, as noted by Horton (1981a), if the State plan is wrong in its assumptions and prognosis, “then the plan may have wasted far more than money. It may have killed the Patuxent River” (p. C1).

Still, the same objections regarding the cost-effectiveness of nitrogen removal were given full consideration at federal level, informing EPA’s 1987 decision to withhold a $10 million grant for the technological modernization of the Western Branch wastewater treatment plant in Prince George’s County—a grant, otherwise designated for water quality improvement projects on the Patuxent. The monies were eventually released after the State proved the cost-effectiveness of the project and committed $18 million for nitrogen removal in cost sharing with the federal government.

**RESEARCH QUESTIONS**

The inductive identification, thematical clustering and conceptual description of the research findings in the previous section have laid the groundwork for addressing directly
the main research questions set at the commencement of the study with the goal of uncovering certain paradoxical manifestations of the phenomenon of collaboration.

**Research Question One**

Research Question One asks: What characteristics does collaboration, as a distinctive orientation to environmental policymaking and management, exhibit in the Patuxent River case? Collaboration, broadly understood, is clearly present in the case. It can be characterized as a *multiorganizational arrangement* as EPA at the federal level; numerous State agencies, such as the Maryland Departments of Natural Resources and State Planning, among others; and local government organizations, such as the Tri-County Council for Southern Maryland provide the backbone of the collaborative effort. However, the active involvement of a number of scientific centers, such as the Chesapeake Biological Laboratory at the University of Maryland; citizen associations, such as the Public Advisory Council; and professional advocacy groups, such as the Maryland Watermen’s Association, brings a distinctive *public participatory* element to the collaborative enterprise. While the increased number of participants has brought certain procedural complications, it has definitely enhanced both the quality and the legitimacy of the final product of the endeavor— the Nutrient Control Strategy for the Patuxent.

Collaboration emerges as a deliberative, purposive, *strategic, goal-oriented* approach taken by the stakeholders in the case in their attempt to come up with an agreed-upon nutrient control strategy for the Patuxent. Collaboration is relied upon as a way to *resolve a conflict*, created by disparate stakeholder interests and perceptions as to
the proper use of the river. It is sought as a solution to the policy stalemate reached on the issue of water quality in the Patuxent. The collaborative strategy is simultaneously pursued in multiple policy domains (jurisdictional venues) and symbolically expanded in scope and level of authority—from local, to state, regional and national level.

As a process, collaboration evolves in the case, reverting to confrontation on several occasions. In that sense, it does show emergent, nonlinear features, as neither previously formed favorable dispositions towards collaborative work, nor subsequent successful activities were able to determine unequivocally its trajectory. The collaborative process was marked by several “turning points,” or “symbolic events,” which have exemplified its nature and enhanced its pace. The exercise of leadership proved crucial at those “critical junctures.”

Contrastingly, the importance of the issue of trust remains somewhat ambiguous. While there are clear efforts in the direction of “trust-building” among the various parties involved in the collaborative enterprise, disparity of interests (e.g., development vs. conservation), legal mandates and fiscal considerations seem to have played a greater role. Similarly, the jurisdictional fragmentation in the Patuxent River watershed, the complexity of the issue of restoring the water quality in the river and the scientific uncertainty about the actual culprit of the water nutrient enrichment have all been seen as major contributing factors to initiating and sustaining the collaborative effort in the case. However, contextual causality could be ascribed with absolutely certainty only to the factor of institutional pressure resulting from a judicial mandate. The court-imposed deadline for submission of a finalized, agreed-upon nutrient control strategy compelled the parties involved to work together towards the achievement of that goal.
In that sense, contrasting collaboration to conflict as an alternative approach adopted in the Patuxent River case has proved particularly useful and informative. The observed *jurisdictional fragmentation, issue complexity* and *scientific uncertainty*, for example, engendered conflict as well as collaboration. The expansion of *public participation* in the process, involving more citizen groups and scientific centers, enhanced collaboration and improved the quality of the decisionmaking but, at the same time, it multiplied the potential points of controversy and disagreement. The exercise of *leadership* was instrumental in accelerating the collaborative endeavor but it has also been at the helm of the adversarial, litigious, confrontational approach. Conflict, just like collaboration, has been used *purposefully, strategically* towards the achievement of particular goals. If collaboration is needed to reconcile the existing differences and unite the community behind a comprehensive water pollution control policy, conflict is relied upon to challenge the status quo and bring about a positive policy change. Like collaboration, conflict has been also pursued in *multiple policy domains* and subjected to a *strategy of expansion*, with a change of jurisdictional venues and symbolic widening of scope and significance from local, to regional and national level.

To recapitulate, in the Patuxent River case, collaboration has been clearly and positively associated with a number of factors, which, important as they are, cannot be considered uniquely characteristic of it in an analytical sense since they have exhibited similar association with conflict—a strategy diametrically opposite to collaboration. Such a seemingly surprising observation leads to the formulation of the first paradox of collaboration, as manifested in the case: collaboration can occur in a context ostensibly
conducive to conflict. Or, to put it differently, collaboration can be positively influenced by the same factors, associated with the occurrence of conflict.

The analysis of the interplay of various factors in the case allows for the formulation of a second, related paradox: collaboration can be caused by its opposite—conflict. More specifically, there are circumstances under which the application of adversarial legalism as a manifestation of conflictual orientation to policymaking can lead to the adoption of the opposite collaborative approach.

**Research Question Two**

Implicit in contrasting the collaborative and conflictual approaches is a focus on the results produced through their respective adoption in the Patuxent River case. Thus, Research Question Two asks: Which approach to policymaking and management—collaborative or conflictual—is more effective in producing positive policy effects in the Patuxent River case? As described in greater detail in the previous section, it appears that the two contrasting approaches used in the case have had differential but equally important policy effects. Naturally set in a more “destructive” mode, the conflictual strategy from the 1970s “jolted” the system, producing a definitive claim-making, policy-changing and agenda-setting effect. Its subsequent reuse in the 1980s also brought important consequences in terms of institutionalization, implementation and administration (enforcement) of the nutrient enrichment control policy for the Patuxent.

The adoption of the collaborative strategy created in turn a policy-setting, legitimacy-gaining and commitment-affirming policy effect in a more “constructive sense.” Both strategies “galvanized” the public opinion and mobilized political support.
In terms of policy-constituting activities, the collaborative effort produced a conflict-resolution conference, numerous meetings, seminars, community forums, “fact-finding” tours of the river, research studies, technical consultations, joint inspections, community events and festivals, and so on. On its part, the conflictual approach turned public, administrative and legislative hearings, court proceedings, court testimonies, permit violations and civil penalties assessments, among others.

In terms of policy relevant documents, created and adopted, collaboration engendered strategies, plans, agreements, reports, research and monitoring programs; while conflict fueled court rulings, injunctions, environmental impact statements, plan drafts’ revisions, facilities inspections, civil penalties acts, discharge permit amendments, and so on. Legislative acts and bills have been developed and introduced through the use of both collaboration and conflict. Both strategies have incurred similar transactional, procedural costs, with the conflictual strategy pursuing what was generally considered at the time the more expensive policy option—the introduction of nitrogen removal from effluent discharge. However, the accumulated scientific evidence of nitrogen’s effect on nutrient enrichment and the subsequent launch of Clifford Randall’s much cheaper biological nutrient removal method might have very well altered the cost-benefit policy equation.

As for any actual changes in the environmental conditions, a number of reasons have rendered the comparison between the differential policy effects of the two strategies practically impossible. First, as already explained, collaboration and conflict seem to have affected, to a different degree, distinct aspects of the policymaking process (agenda-
setting, policy-setting, policy implementation), whose disintegration for comparative purposes would be meaningless.

Second, collaboration and conflict have been used, both simultaneously and sequentially, in the same time period, which makes it futile to try coming up with separate summative policy evaluations. Third, by most scientific accounts, it takes nature a long time—as long as or even longer—to recover from decades of continuous abuse (as it is the case with the Patuxent) and thus prove in practice the positive effects of any environmental policies. Where all things equal, restoration and recovery would then be evident if the effective course of action had been chosen. Unfortunately, for the Patuxent, as in many environmental issues, change continues apace from population growth, changing land use, etc. This change may counteract and mask any progress that did occur.

Therefore, as the strategies of collaboration and conflict have been found to be intricately intertwined in the Patuxent River case, the current verdict that the trend toward further rapid deterioration of the river ecology has been brought to a halt, even if the water quality has not been significantly improved yet, is necessarily to be rendered for the combined effect of the two strategies, resulting from the paradoxical synergism of their co-occurrence. Such an assessment makes it possible to see a third paradoxical manifestation of collaboration—the effects of collaboration can be just as important as those of its antagonistic conflictual approach. Along the same line of reasoning, it also entails the answer to the third related research question.
Research Question Three

Echoing the central debate in the current literature on collaboration, Research Question Three asks: Is collaboration an alternative to conflict (adversarial legalism) as an approach to public policymaking and management? It seems that the comparison of the two approaches as presented above in response to the first two research questions justifies the framing of this third question in strictly instrumental terms, stripped of any axiological overtones—is collaboration an intrinsic value or a societal virtue, desirable in its own right. From this frame of reference, certainly steeped in the political context of a free democratic society, collaboration appears to complement rather than eliminate conflict; it certainly presents a viable and potent alternative approach to public policymaking and management but is not an absolute alternative to conflict. Moreover, the multiplicity of existing domains, which provide venues for policymaking activities, necessitates corresponding strategic complexity. For example, if the intention is not to eliminate completely the courts as an institution in our system of governance, confrontational attitudes seem the appropriate tactics, matching “the principles of selection” and the “rules of the game” in this particular jurisdictional perimeter.

To reiterate, the two approaches, not as indicators, in a normative sense, of any particular “cooperativeness” or “selfishness” but as goal-oriented, strategic, purposive behaviors of the stakeholders involved in the Patuxent River case seem to have proven the value of their coexistence in the managerial “toolbox,” even if at its opposite sides. While collaboration has been instrumental in setting the State Nutrient Control Policy, conflict, occasionally in the mode of adversarial legalism, has challenged the status quo and compelled changes to local, state and even federal policies and practices. Thus, the
claim that has begun to take shape in responding to the third research question can be framed as the final paradox identified in the Patuxent case: collaboration can coexist with, instead of eliminate conflict, and even be reinforced by it.

CHAPTER SUMMARY

This chapter has presented the data analysis of the Patuxent River case. The first section introduced the major findings from the study. On the basis of those findings, the second section addressed directly the main research questions of the study. The next chapter, Chapter Six, examines the theoretical and practical implications of the current research, describes its perceived limitations and outlines future areas of research.
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions and the recommendations of the dissertation. The first section compares the findings of the current research to previous studies and discusses its implications for theory development. The envisioned practical relevance of the study in the context of environmental pollution control, in general, and watershed management, in particular, is the subject of the second section. The third section discusses some of the perceived limitations of the study. Areas of future research are outlined in the fourth section. The chapter ends with a concluding section that presents a brief final summary of the dissertation.

IMPLICATIONS OF RESEARCH FOR THEORY

The Concept of Collaboration

Exploring an array of collaborative activities in the empirical context of the Patuxent River case, the current study has confirmed that the recent attention received by collaboration in the literature as an increasingly important approach to public administration and management (O’Leary, Gerard, and Bingham 2006; Frederickson 2008; Thomson, Perry, and Miller 2009) is warranted. The study has identified a number of factors that have indeed rendered the use of collaboration in the case indispensable (McGuire 2006). In contrast to Sabatier et al. (2005), however, the findings show that the shift observed by the authors from the traditional top-down, command-and-control approach, characteristic of modern public administration, to one that is more bottom-up oriented and involves negotiations among a variety of stakeholders, is not always
determinate or irreversible. Moreover, it appears that the bottom-up approach can assume both a collaborative and a conflictual, confrontational character, depending on specific circumstances and strategic objectives.

The characteristics of collaboration identified in the study closely correspond to the way collaboration is conventionally defined in the literature. It appears, first, as a *multiorganizational arrangement* (Agranoff and McGuire 2003) and second, as a *form of public participation* (Vigoda 2002; Webler and Tuler 2006). While the collaborative enterprise in the Patuxent case cannot be assigned the *citizens-centered* status, recommended by Cooper, Bryer and Meek (2006), it can certainly be described as *citizens-enhanced*.

In agreement with its treatment in the literature as a *strategy of engagement* (Hardy and Phillips 1998), a *governance strategy* (Imperial 2005) or a *strategic choice* (Koontz and Thomas 2006), collaboration emerges as a *strategic* approach taken by the stakeholders in the case. In their attempt to develop collaboratively an agreed-upon nutrient control strategy for the Patuxent, the participants in the initiative reveal the deliberative, *purposive* (Agranoff and McGuire 2003; Thomson and Perry 2006), *goal oriented* (Koontz and Thomas 2006) character of collaboration. Similarly, the unprecedented success of the Charette conference demonstrated the value of collaboration as a *policy tool* in the public manager’s toolkit (O’Leary and Bingham 2007) “to reach an agreement” or “to get things done” (Imperial 2004, p.13). By the same token, the evidence in favor of the strategic, goal-oriented use of collaboration in the Patuxent case seems to buttress the refutation of the alternative portrayal of collaboration.
in the literature as a self-organizing, self-enacting, or self-administering enterprise (Hardy and Phillips 1998; Robinson 2006; Thomson and Perry 2006).

The Patuxent case does display, however, emerging, evolutionary collaborative features in the aspect of the manifestation of collaboration as a process. In Huxham and Vangen’s (2005) analysis, the representation of collaboration as a process, either in terms of “process characteristics” (Koontz and Thomas 2006) or “a continuum of stages” (Thomson and Perry 2006), constitutes one of the main approaches to its exploration in the literature. Thus, the four stages outlined by Rhodes and Murray (2007) in their study of urban regeneration in Ireland—(1) identifying the problem; (2) creating agents; (3) agreeing to and approving the solution; and (4) acting and delivering in the context of the approved/agreed solution—can be detected in the Patuxent case as well. Additionally, the way collaboration unfolds in the Patuxent case appears also conducive to demarcation of the five developmental stages conceptualized by Rubin and Rubin (2007) in their examination of the collaborative interactions between city departments and private contractors in the City of Indianapolis—impetus stage, initiation stage, implementation stage, integration stage, and institutionalization stage. Most notably, the current study confirms Imperial’s (2004) contention that “Collaboration tends to be a trial and error process” (p. 13) and Thomson and Perry’s (2006) observation of “the nonlinear and emergent nature of collaboration” (p. 22) as a process. Collaboration does evolve in the Patuxent River case, reverting recursively to confrontational moves and progressing in leaps, marked by several “turning points” and “critical events.”

In the spirit of the problem-solving orientation of collaboration, described in the literature by Gray (1989), Agranoff and McGuire (2003), Mandell and Steelman (2003),
Imperial (2004), and Crosby and Bryson (2005), among others, collaboration has been sought in the case as a solution to the policy stalemate reached on the issue of water quality in the Patuxent. In the same vein, viewed as one of Thomas’ (1976) approaches to conflict management, the collaborative effort in the case has been directed towards the resolution of the conflict, created by the disparate stakeholder interests in the river. In this particular aspect, however, the findings of the study seem to suggest that conflict and collaboration, when transferred from an interorganizational setting to a larger policy context, can be situated into a broader conceptual framework that adequately reflects the situational complexity of our contemporary policymaking practice. Thomas’ (1976) categorization of collaboration as a “solution-oriented strategy” (Quinn et al. 2003, 95) in the context of conflict management implies that conflict constitutes the problem that needs to be resolved.

Certainly, such an interpretation finds empirical support in the study, as one of the emblematic collaborative events—the Charette conference—was convened exactly as a “conflict-resolution” summit, facilitated by professional mediators of environmental conflicts. A different vantage point in the analysis, however, has revealed that the deteriorating ecological condition of the Patuxent is the “real” problem in the case. Therefore, “conflict,” in the mode of adversarial litigation initiated by the Tri-County Council for Southern Maryland to correct for the deficiencies of the State Water Quality Management Plan for the Patuxent, is to be counted on the side of the “solution,” not the “problem.” This conclusion conforms to Quinn et al.’s (2003) suggestion that conflict should not always be viewed as harmful and that “conflict is to be encouraged to allow new ideas to surface and to create positive forces for innovation and change” (p. 95).
Moreover, such reconceptualization coincides with the treatment of conflict as a viable and useful strategy in environmental advocacy and agenda setting policy activities found in the broader political science literature (Pralle 2006).

In the same vein, the relevancy of the distinction, suggested by the findings of the current study, between the normative, axiological aspects of collaboration, on the one side, and the purposive, instrumentally-rational aspects, on the other, corresponds to the cautionary signals given by a number of authors in the literature on collaboration. Bardach (1998), for example, has warned that “we should not be impressed by the idea of collaboration per se” and that “collaboration should be valued only if it produces better organizational performance or lower costs than can be had without it“ (p. 17). Similarly, Bryson, Crosby, and Stone (2006) have argued against the wisdom of the commonly held assumption that “collaboration is the Holy Grail of solutions and always best” (p. 45). Finally, Koontz and Thomas (2006) have advised to treat collaboration “not as an end itself but as a means to an end” (p. 116), claiming that “collaboration is not a panacea” (p. 111). The analysis of the data from the Patuxent case has similarly shown that collaboration has not been regarded by the various stakeholders as a societal moral virtue worth pursuing at any cost. Rather, the axiological overtones of the initiative are to be associated with the rationale of “turning the tide” of attention paid to water pollution in the river basin and both collaboration and conflict are to be assessed in terms of their strategic contribution towards the achievement of that goal.

As pointed out in the literature review in Chapter Two, a considerable number of previous research studies have been devoted to the identification of factors contributing to the success or failure of collaborative enterprises. Although not focused specifically on
that issue, the analysis in the current study has detected a number of elements that played an important role in influencing the collaborative effort in the Patuxent case. For example, some of the research findings correspond to the main determinants of successful collaborative outcomes, identified by Faerman, McCaffrey, and Van Slyke (2001) in their study of public-private collaboration in regulating financial market innovation: (1) initial dispositions toward collaboration; (2) leadership; (3) issues and incentives; and (4) number and variety of groups. However, the current research, partly due to its methodological design as a case study, has not been able to either confirm or disconfirm the applicability of the conceptual model in a more definitive sense. The complexity of and the uncertainties pertaining to the issue at hand, for example; the exercise of leadership at critical junctures in the case; and the number and variety of groups involved in the process of policymaking have been associated with the observed acceleration of both the collaborative and conflictual approaches taken in the case.

The issue of trust as a success-inducing factor holds a special place in the conceptualization of collaboration in the literature. As noted in Chapter Two, “trust is often defined as a sine qua non (from Latin: an essential element, an indispensable condition) of successful collaboration” (Hudson et al. 1999, 248). The current study has indeed uncovered evidence of certain “trust-building” efforts as a precursor to successful collaborative activities in the Patuxent case—the design of the Charette conference as a three-day, business-like recess and the selection of the isolated Marriottsville Spiritual Center to host the event were aimed at getting the contending parties to meet face to face, establish personal connections, get to better know each other, socialize outside of the
critical focus of the media, and gain each other’s trust so that they could work together and eventually agree on the final version of the State Nutrient Control Strategy.

The issue of trust, however, does not seem to feature prominently into the bigger picture of the environmental initiative at hand. Given the existing disparity of interests—development in the Northern Counties vs. water restoration and fishery in the Southern Counties of the Patuxent River basin—the case has found greater empirical support for Smith’s (2009) proposition that, “Since public managers are often engaged in collaborations with stakeholders of varied and often conflicting interests… it is… unlikely that trust alone will suffice in garnering cooperation between stakeholders” (p. 8). Additionally, the policy developments in the case have been in line with Huxham’s (2003) observation that “often partners do not have the luxury to choose others to work with. Either imposed (e.g. government) policy dictates who the partners must be or the pragmatics of the situation dictate that partners are needed where trust is weak” (p. 408). Moreover, ostensibly in validation of Cook, Hardin, and Levi’s (2005) “radical” proposition that collaboration is even possible in the face of a total absence of trust, Merilyn Reeves’ Public Advisory Council, for example, became an active collaborator in the Patuxent initiative despite its total mistrust of the previous State government’s handling of water management issues.

To recapitulate, the conceptual implication of the ambiguity resulting from the current study with regards to the importance of the issue of trust in collaboration is that trust should not be considered an indispensible, defining characteristic of collaboration. Admittedly, trust should certainly remain “an important component to understand
collaborative relationships” (Smith 2009, 8); yet, it should be given the proper status of a correlate, not an intrinsic property, of collaboration.

In the same realm of trust-skepticism, the collaborative scale in the Patuxent case has registered the presence of some other “forces” that have been identified in the literature as reliable substitutes for trust in its capacity as collaboration’s “cohesion factor” (Agranoff and McGuire 2001). As recent empirical research has challenged “the vision of collaboration as a voluntary collection of participants focused on a singular goal” (Robinson 2006, 596), issues such as power, politics, political and institutional pressures have attracted increasing scholarly attention as factors in prompting and sustaining successful collaborative ventures. As noted in Chapter Two, Imperial (2004), for example, maintains that “Power and politics are critical because participants generally have to be convinced to voluntarily work together” (p. 13). Similarly, Huxham and Vangen (2005) have argued that successful collaborative management requires “playing organizational politics.” Governor Hughes’ administrative reorganization—the transfer of power from the Department of Natural Resources to the newly created Office of Environmental Programs and the removal of Secretary Coulter from the helm of water pollution control management—support this line of reasoning in the literature.

Additionally, Smith’s (2009) emphasis on the importance of institutional arrangements for ensuring successful collaboration, such as the county form of government, for example, has found a good illustration in the leading role played in the case by the Tri-County Council for Southern Maryland and its chairman, County Commissioner Bernie Fowler. Finally, the Patuxent case has also presented evidence in favor of Imperial’s (2004) claim that collaboration is used successfully as a “governance
strategy” in response to political pressure and as a reaction to institutional forces. Governor Hughes’ commitment to support the cleanup of the Patuxent River, Bernie Fowler’s legislative initiatives and the judicial mandate for submission, within a specific timeframe, of a finalized, agreed upon nutrient control strategy that ultimately prompted the convening of the emblematic collaborative Charette conference appear as compelling examples in that sense.

Drivers of Conflict and Collaboration

The findings of the current study reflect most of the general ideas found in the literature regarding the drivers of conflict and collaboration in our contemporary system of governance. The fundamental principles of federalism, separation of powers, and checks and balances have all played out in the Patuxent case, making it traditionally, but not extraordinarily, conflict-prone. The lawsuits filed by the Tri-County Council for Southern Maryland against EPA and the State of Maryland have exemplified what Vogel (1996) has referred to as a “judicial model of state authority,” which assumes “that the interests of all are best served when relatively equal forces are engaged in an adversary relationship” and which emphasizes “the role of the state in providing the arena of conflict” (p. 150). This is certainly seen in line with the original intent of the framers of the American constitutional system to pursue a “policy of supplying, by opposite and rival interests, the defect of better motives” (Madison [1788] 1961, 322), considered “the main stem of our political tradition” (Siegel 2008, 1).

In the same vein, the court actions in the case have exhibited one of the key elements, in Vogel’s (1996) account, of the American political tradition—a “fascination
with the law and legal procedures” (p. 149). Furthermore, the legal clash has confirmed, at least partially, the conceptual diagnosis of adversarial legalism, given to the American process of public policymaking and management by Kagan (1991).

While the analysis in the study has positively registered the systemic, structural “built-in” bias towards conflict/competition, a related cultural bias was not detected. For example, the criticism of the State government’s handling of the water pollution control issues, expressed by the Public Advisory Council and its chair, Merilyn Reeves, targeted the actions of one particular administration (that of Governor Mandel), one particular State department (the Department of Natural Resources), and even one particular governmental official (Secretary James Coulter); it was not symptomatic of any citizen distrust and suspicion of public authority in a more general sense, as described in the literature by Zelinsky (1973) and Vogel (1996), among others. On the contrary, governmental actions were very much relied upon, prospectively, to adequately address the complex environmental problem of the suffering Patuxent River. Moreover, the confrontational, adversarial approach applied in the courtroom was selected as a last resort; it was not the option for which the stakeholders in the case had a preference or to which they were naturally predisposed. In this sense, the current analysis cautions against deriving theoretical propositions about characteristics, such as initial dispositions towards collaboration (Faerman, McCaffrey, and Van Slyke 2001), for example, from general national cultural studies (Zelinsky 1973; Thompson, Ellis and Wildavsky 1990; Vogel 1996) and applying them to specific individual instances of collaborative enterprises.83

There is little doubt, however, that conflict in the Patuxent case was partly fueled by the “professional cultural bias” (Thomas 2008) of the media. The coverage in both the
national (*The Washington Post*) and the local (*Calvert County Recorder*) press not only reflected, but also actively created, the perception of a dramatic collision, of a epochal “battle” on the front of the environment, where the very survival of the Patuxent River and the well-being of the community living in its basin were at stake. Such a finding should not come as a surprise if compared to some of the classic assumptions made in the political science literature. In Schattschneider’s (1960) account, for example,

> Nothing attracts a crowd so quickly as a fight. Nothing is so contagious. Parliamentary debates, jury trials, town meetings, political campaigns, strikes, hearings, all have about them the exciting qualities of a fight; all produce dramatic spectacles that are almost irresistibly fascinating to people. At the root of all politics is the universal language of conflict. The central political fact in a free society is the tremendous contagiousness of conflict” (pp. 1-2).

Consequently, some calibration of the measure and the type of attention conflict should receive in research on collaborative ventures might be one possible implication of this insight for collaboration scholars. It seems that, given its attractiveness, ubiquity and inevitability, conflict should not be treated as a nuisance at best or an evil alternative to collaboration at worst; rather, it needs to be appropriately incorporated into theoretical models that capture adequately the situational complexity of human behavior.

As for the actual drivers of collaboration, the current study has found, in full agreement with previous research, that *jurisdictional fragmentation, shared authority,* and *dispersed capacity for solving policy problems* (Imperial 2005; Huxham and Vangen 2005), as well as *technological change* and *organizational interdependencies* (Thomson and Perry 2006) provide a strong impetus to engage in collaborative ventures. Additionally, in parallel with the “environmental complexity,” emphasized by Bryson, Crosby, and Stone (2006), the study has shown that *scientific uncertainty, issue*
complexity and dispersed knowledge (technical expertise) for addressing complex social problems appear to have rendered collaborative arrangements indispensable to our present-day practice of governance (McGuire 2006).

In the same vein, Kettl’s (2006) contention, cited at length in Chapter Two, that “we are facing a growing set of inescapable issues, that the agencies charged with managing these problems have boundaries that do not fit the problems well, and that the mismatch of boundaries and problems is causing growing performance problems” (p. 13), has rung absolutely true in the context of the Patuxent River odyssey. The Counties’ Health and Planning Departments, the State Water Resources Administration in the Department of Natural Resources, and even EPA, have proved unable to address adequately the complex problem of water pollution in the river, while working within their organizational boundaries. Therefore, it appears that collaboration, in the sense of working multiorganizationally, across administrative boundaries, has become imperative indeed (Huxham and Vangen 2005; Kettl 2006).

Additionally, the initial deficiencies in the State Water Quality Management Plan for the Patuxent River Basin reflect a narrow, bureaucratic basis for its development. The need to address this legitimacy problem (Sabatier et al. 2005), deepened by the “changing expectations about citizens’ roles in policy making” (Koontz and Thomas 2006, 112), has also motivated the initiation of a different, collaborative design of public policymaking. As noted in the literature by Gordon and Coppock (1997), collaboration “broadens the base of support, making it hard for die-hard opponents to overturn agreements” (p. 44).

Finally, cost has also been viewed as a stimulus for collaboration in the Patuxent case, in correspondence with the reduction of the transaction costs motive discussed in
the literature by Weber (1998) and Imperial (2004). The threat of losing $29 million in federal funding for expansion and improvement of wastewater treatment facilities has proved powerful enough to make the various stakeholders sit around the negotiation table and work out an agreement on the nutrient control strategy. However, in contrast with the assumptions of the critics of the adversarial legalistic approach to public policymaking (Kagan 1991), the court-associated dispute-resolving costs do not seem to have had a deferring or an abating effect on the use of the conflictual strategy in the Patuxent case. Moreover, the anticipated higher costs of regulation, information gathering, monitoring and enforcement (Weber 1998) have been readily accepted by environmentally conscious participants in the case. In this sense, as noted in Chapter Five, the evidence from the case grants only one factor—that of institutional pressure (Imperial 2005; Bryson, Crosby, and Stone 2006)—the ability to claim unequivocally contextual causality as the analysis has shown a direct link between the court rulings in the case and the collaborative workings at the Charette conference.

Paradoxically, most of the factors listed above have seemingly exhibited dual effects in their simultaneous promotion of both collaboration and conflict. Perplexing as it might appear, this finding corresponds to certain postulates in the literature in relation to the American federalist system of governance. As pointed out in Chapter Two, contrary to the predominant view of the American political system as competitive and conflict-prone, Agranoff and McGuire (2003), for example, see American federalism as “perhaps the most enduring model of collaborative problem resolution” (p. 34). Previously, this view was defended by Morton Grodzins (1966)—his famous use of the marble-cake federalism metaphor illustrated the joint activities and shared

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responsibilities of federal, state and local officials, emphasizing the essentially collaborative nature of the American system. In Grodzins’ (1960) words, “federal-state-local collaboration is a characteristic mode of action” since “any governmental activity is almost certain to involve the influence, if not the formal administration, of all three planes of the federal system” (pp. 266-67). Along the same line of reasoning, the fundamental principles of separation of powers and checks and balances mentioned above as sources of political conflict have also been regarded as contributing factors to initiating and sustaining collaborative public policymaking (Farmer 2003).

Therefore, the findings from the study, corroborated by established, even if opposing, conceptual approaches in the literature, could be again interpreted in terms of their implications for theoretical integration of conflict and collaboration. If the American system of governance appears characteristically conflictual/competitive and collaborative at the same time, our conceptual apparatus should be designed to adequately capture this paradoxical aspect of contradictory governing impulses.

Paradox

In Policy Paradox, Deborah Stone (1997) argues that political life is full of paradoxes—impossible situations, contradictory interpretations, logical violations, phenomena that just seem to be “two different things at once” (p. 1). The analysis of the Patuxent River case has revealed several such paradoxical variations. In line with the conceptualization of paradox advanced most notably in the domain of organizational studies, the current analysis finds paradox in the interplay of collaboration and conflict, as “two apparently contradictory elements… seen as present or operating at the same
time” (Quinn and Cameron 1988, 290). Exemplifying one of Lewis’ (2000) overarching characteristics of paradox, a number of paradoxical, simultaneously collaborative and conflictual, manifestations have become apparent through interpretive reflection “that reveals the seemingly absurd and irrational coexistence of opposites” (p. 761).

According to Weible and Sabatier (2009), “almost the entire literature on collaborative versus adversarial processes is dominated by case studies of either a collaborative process or an adversarial process, but rarely both” (p. 195). There have been a few exceptions though and the findings of the current study with regards to the established simultaneous presence of collaboration and conflict in the Patuxent River case correspond to previous empirical research in that category, such as Alter’s (1990) research on interorganizational service delivery systems, Hardy and Philips’ (1998) study of the United Kingdom’s refugee system, Rubin and Rubin’s (2007) examination of privatization initiatives in the City of Indianapolis, and Callahan’s (2007) investigation of a regional rail project in Los Angeles County. While reviewing inter-agency collaborative activities in the public sector, Hudson et al. (1999) have also argued that, in reality, “collaboration and conflict can co-exist in an inter-organizational relationship” (p. 243).

Thus, in their support of this paradoxical co-existence of collaboration and conflict, the findings from the Patuxent case seem to fit conceptually into the Competing Values Framework model, which embraces “the simultaneous presence of contradictory, even mutually exclusive elements” (Cameron and Quinn 1988, 2) and has been widely used in organizational studies (Rohrbaugh 1981; Quinn and Rohrbaugh 1983; Quinn 1984, 1988; Quinn and Cameron 1988; Hooijberg and Petrock 1993; Quinn et al. 2003). As explained in greater detail in Chapter Two, Quinn et al. (2003) maintain that, “The

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The competing values framework is built around the notion of paradox. It assumes that organizations need to be simultaneously adaptable/flexible and stable/controlled…” (p. 349). Therefore, the authors claim inclination to abandon any “either-or decisions” in favor of “both-and assumptions, where contrasting behaviors could be needed at the same time” (p. 11). In Quinn et al.’s (2003) account, this is exactly what constitutes the essence of “paradoxical thinking”—“thinking that transcends the contradictions and recognizes that two seemingly opposite conditions can simultaneously be true” (p. 349).

However, as noted in the first section of this chapter, the findings from the current study apparently contradict Thomas’ (1976) conceptual scheme of conflict management strategies, which is used by Quinn et al. (2003). Drawing on Thomas’ (1977) work, the five approaches to conflict management in that scheme—competing, collaborating, compromising, avoiding, and accommodating—are matched by Quinn et al. (2003) against “appropriate situations” (p. 94) for the purpose of finding a good fit between the strategy to be applied and situational characteristics. In this sense, the method does not appear to allow conceptually for the hypothetical simultaneous execution of two opposing strategies in the same situation.

The analysis of the Patuxent case, however, has shown exactly that—collaboration and competition can both be adopted strategically at the same time despite their mutually exclusive elements, thus creating a paradox, which is actually at the center of the Competing Values Framework. Therefore, the current study seems to imply a possibility for some reconceptualization of this aspect of the model. Moreover, as Connelly, Zhang, and Faerman (2008) also incorporate Thomas’ (1976) original conflict management scheme in their exploration of the “The Paradoxical Nature of
Collaboration,” while agreeing that the “forces” of conflict and collaboration should not necessarily be viewed “as either-or propositions” (p. 9), the Patuxent case suggests a potential for extending the logic of the “paradoxical thinking” about collaboration to the realm of the strategic interaction of collaboration with conflict.

One conceptual distinction seems in order though to further clarify the type of “paradoxical thinking” to which the current discussion is specifically referring. The analysis of the Patuxent case does not imply application of the term *paradox* in its traditional social scientific designation as “illogical findings” (Lewis 2000), or “unexpected, unintended outcomes and developments” (Hood and Peters 2004). Rather, it appears that the pattern of collaborative/conflictual interplay in the case embodies the essence of Cameron and Quinn’s (1988) notion of *Janusian thinking*, derived from the psychological research of Rothenburg (1979). As described in Chapter Two, Rothenburg (1979) explains that “In Janusian thinking, two or more opposites or antitheses are conceived simultaneously, either as existing side by side, or as equally operative, valid, or true” (p. 55). To reiterate, the distinction with the more conventional use of paradox is considered an important one because the political and policymaking practice regularly involves balancing acts, “tradeoffs” between “opposing perspectives” or “conflicting demands” (Lewis 2000)—between “costs” and “benefits,” “work” and “family,” “industrial development” and “environmental conservation,” to name a few. A “balanced budget,” for example, would seek to find the point of equilibrium between revenues and expenditures. Policy proposals are usually designed as compromises among competing interests of various constituencies.
Contrastingly, with Janusian thinking, “what emerges is no mere combination or blending of elements: the conception does not only contain different elements, it contains opposing and antagonistic elements, which are understood as coexistent” (Rothenburg 1979, 55). Thus, the analysis in the Patuxent case has arrived at the following two contradictory conclusions that, paradoxically, appear simultaneously true: (1) The American system of governance is conflict-prone; (2) The American system of governance is collaboration-focused. In reference to collaboration in particular, Gardner and Shaffer (2004), for example, cite “an older definition from World War II,” expressed by the phrase “working with the enemy” (p. 81). Another historical example that epitomizes this type of paradox has been recently brought to light in Doris Goodwin’s (2005) book Team of Rivals. Apparently, the political genius of Abraham Lincoln included ensuring the collaboration of his most formidable opponents by appointing them as members of his cabinet.

To recapitulate, several implications for theory development have emerged throughout the analysis of the Patuxent River case. First, as contemporary social theory has been generally found “biased toward consistency” (Poole and Van De Ven 1989, 563), while “the simultaneous presence of incongruent and contradictory patterns is seldom explained or even acknowledged” (Cameron and Quinn 1988, 2), the study seems to probe a relatively unexplored terrain by introducing collaboration and conflict as such contradictory, simultaneously operating, patterns. Moreover, as noted above, the literature has been found “dominated by case studies of either a collaborative process or an adversarial process, but rarely both” (Weible and Sabatier 2009, 195). Additionally, as some of the best known scholars in the field, such as Huxham and Vangen (2005), for
example, have sought to develop “a practice-oriented theory of tensions” (p. 245) in
collaborative management, the collaboration-conflict juxtaposition seems to exemplify
the sources of some of those tensions.

Second, the current study shows the relevancy and the applicability of the concept
of “paradox” and the Competing Values Framework (Quinn et al. 2003), which is “built
around the notion of paradox” (p. 349), to the examination of collaboration in
policymaking and management. In light of Huxham and Vangen’s (2005) attempt to
identify tensions in collaborative management, the paradoxical framework reveals a
potential to successfully capture some of those tensions. In this sense, the study appears
to justify the conceptual and methodological interest enjoyed by paradox in the last two
decades, especially in the area of organizational and management studies (Cameron 1986;
Quinn and Cameron 1988; Hardy 1994; Connelly, Zhang, and Faerman 2008).

Third, the study has suggested a possibility for conceptual integration of Thomas’
Competing Values Framework in the aspect of the collaboration-conflict interaction.
Fourth, Faerman and Quinn’s (1985) conceptual model of positive and negative zones in
the distribution of the Competing Values, developed originally in the context of
organizational effectiveness, appears to have similar potential to successfully track the
transformative changes and the interaction of collaboration with conflict in the realm of
public policymaking and management. This is the subject of the next subsection.
“Zoning Development” of Conflict and Collaboration

The answers to the main research questions in the study, provided in Chapter Five, allow for the application of Faerman and Quinn’s (1985) conceptual model, which introduces a positive and negative zone of distribution of the competing values of organizational effectiveness (Quinn et al. 2003). The model is shown in Figure 6.1.

**Figure 6.1: Positive and Negative Zones in Organizational Effectiveness** (Faerman and Quinn 1985)

As explained in Chapter Two, in addition to the four quadrants of the original Competing Values Framework, the values are situated in three concentric circles. The middle circle contains the competing values in the positive mode of their optimal development. The inner circle and the outer circles are viewed as negative zones. While the inner circle marks the deficiency, the lack of, or the underdevelopment of the values, in the outer circle “each set of positive values is ‘pushed’ until it becomes negative” (Quinn et al.
2003, 20), thus representing the excessive, extreme advancement of those values. In order to avoid reaching this outer negative zone, the corrective force of the competing value, driving in the opposing direction is required.

If the logic behind the model is applied to collaboration and conflict, it appears that their “zoning distribution” captures accurately the paradoxical interaction between them as competing values of the strategic approach to environmental policymaking and management adopted in the Patuxent River case. The idea is presented in Figure 6.2.

**Figure 6.2:** Collaboration and Conflict as Competing Values in Their Respective Zones

In Figure 6.2, collaboration and conflict are mapped out across the circles, similarly to the original example with the values of *innovation* and *stability/control*, discussed in Chapter Two, to illustrate the transformative changes they undergo in the different zones. In the inner zone, the values are unclear, underdeveloped. The value of collaboration acquires a positive status in the middle circle, where it is associated with greater
“effectiveness,” “sophistication” in decisionmaking, “legitimacy” and positive “change.”
Continuously excessive emphasis on collaboration, however, as a sole strategy, drives the value into the negative zone of the outer circle, where it results into “cooptation,” “loss of accountability” and “betrayal of principles.”

The real possibility of achieving such negative outcomes, while pursuing (to an extreme) the otherwise totally positive value of collaboration, demonstrates the necessity for a counterbalancing action in the opposite direction. This opposing driver is represented by the competing value of conflict, whose own exclusive pursuit brings about in turn negative effects such as “procedural delays,” “high costs,” and “acrimonious relationships.” The intriguing element in this comparison is that both the collaborative and conflictual strategies can bring in their positive zones “effectiveness,” “legitimacy,” and “change.” The logic of “zoning” in the development of collaboration and conflict as contradictory and opposing, yet simultaneously interdependent and complementary strategies corresponds conceptually to Aristotle’s ([350 BC] 1990) ethical ideals of a mean or intermediacy in developing and exercising moral virtues and to the first two principles of dialectics (Hegel 1812; Engels [1883] 1960), discussed in Chapter Two.

**IMPLICATIONS OF RESEARCH FOR POLICY AND PRACTICE**

**Environmental Regulation and Pollution Control**

In light of the findings of the current study, the paradoxical framework seems to be similarly applicable to the policy arguments against the respective practical use of collaboration and conflict in environmental regulation that were reviewed in Chapter One. On the one hand, the study shows the credibility of the claims of the conflictual,
confrontational nature of the American policymaking process in the area of environmental regulation in general and pollution control in particular (Kagan 1991; Vogel 1996; Weber 1998). The Patuxent River case has vividly illustrated the *adversarial legalism* phenomenon (Kagan 1991), stemming from a political structure, in which “policymaking power is parceled out to many agencies and confined by complex legal prescriptions whose proper observance is subject to judicial review, often at the behest of private citizens and organizations.” (p. 370).

On the other hand, the celebrated successes of collaboration in the case has confirmed Weber’s (1998) observation that, “Collaboration is occurring in American politics despite the significant obstacles posed by an adversarial political culture, a fragmented interest group system, and an open political system. Moreover, collaboration is appearing where we would least expect it—in the most combative of all regulatory arenas—pollution control politics” (p. 256). Furthermore, the findings of the study appear to refute some of the critiques, raised by environmental activists, of the practice of initiating collaborative, consensus-based local forums that have revolved around the perceived threat of “cooptation” of collaborative processes (Center for Collaborative Policy 2003). The research did not find any evidence that “collaboratives tend to draw upon moderate participants who are predisposed to work together, excluding or marginalizing ‘trouble-makers’” (Center for Collaborative Policy 2003, 1). On the contrary, the biggest “trouble-makers” in the Patuxent River case—Bernie Fowler, Merilyn Reeves, Don Heinle, Chris D’Elia, and James Coulter, among others—were actively involved in the collaborative work; their participation was considered essential to the representativeness and the legitimacy of the process.
Additionally, the work on the nutrient control strategy was a genuine policy constituting activity. It was in no way a “sham,” “awash with happy talk” (Jones 1996, 3) or “a smokescreen for pushing the implementation of a pre-determined project or policy” (Center for Collaborative Policy 2003, 1). Even though the consensus process followed at the Charette conference had indeed the finalization of a nutrient control strategy as a “predetermined objective,” that objective was not reached through “elimination of all objections” (Family Water Alliance 2002). The final agreement of the conference recognized for the first time the importance of controlling nitrogen in wastewater, which had constituted one of the main objections to the existing State Water Quality Management Plan for the Patuxent River Basin. In this sense, it contradicts McCloskey’s assertion that, with consensus, “Only the lowest common denominator ideas survive the process” (cited in Jones 1996, 2).

Also, collaboration did not “take public policy decisions away from public officials and dilute their accountability to their constituencies” (Center for Collaborative Policy 2003, 1). In fact, the collaborative endeavors enhanced the status and strengthened the accountability channels between the public and the elected public officials involved at both the local and state level of government. The leadership responsibilities assumed by Commissioner, later Senator, Bernie Fowler, and Governor Hughes, were a prime example in that respect.

Finally, the various stakeholders’ involvement into the collaborative enterprise did not “dissipate the resources and dilute the voice of interest groups that potentially could make a bigger impact by pursuing other strategies” (Center for Collaborative Policy 2003, 1). Collaboration was not used as a public relations ploy designed to relax
the strict environmental oversight (Steinzor 1998); it did not “de-legitimize conflict as a way of dealing with issues and of mobilizing support” (Jones 1996, 2). The pursued collaborative strategy in the case successfully complemented but did not eliminate the concomitant pursuit of a strong confrontational legal action.

In this sense, despite contradicting Coglianese’s (1999) claim that consensus building “does not ensure better decisions” (p. 31), the current study finds support for his argument that “reaching a consensus on policy language does not mean that serious conflict will not persist” (p. 32). Moreover, the analysis shares Coglianese’s (1999) concern that “in viewing conflict as a problem and consensus as a solution,” public managers tend to focus their attention on building “a consensus among those inside the policy loop,” rather than on serving “the overall public interest” by tackling the “substantive problems facing the environment” (p. 32). This corresponds to the conclusions drawn in the previous section with regards to the utility of conflict and collaboration and the need for their rearrangement as strategies in Thomas’ (1976) conflict management classification.

In the same vein, since “bitter, adversarial relations between stakeholders are the norm” in America (Weber 1998, xiv), the water pollution control initiative did not get derailed by conflict in the Patuxent case. To recall Vogel’s (1996) explanation, reviewed in Chapter One, considerations of legitimacy and fairness—equal commitment to representing competing interests in a pluralist democratic society—“in a sense, require conflict” (p. 89). Thus, in contrast to Kagan’s (1991) otherwise compelling argument that adversarial legalism “causes (or threatens) enormous dispute-resolving costs and procedural delays, which in turn distort policy outcomes” (p. 369), the study seems to
corroborate Vogel’s (1996) observation that, for many environmentally-conscious stakeholders, this turn of events is “considered the very definition of ‘effectiveness’” (p. 88). The halt placed by the litigation in the Patuxent case on the expansion of wastewater treatment facilities in the river basin without issuing of an Environmental Impact Statement by EPA and without proper consideration of the effect of nitrogen on nutrient enrichment was considered absolutely justified and environmentally beneficial. The lawsuits filed by a coalition of civic, environmental and watermen groups against the State for improper issuing of sewage treatment permits was another instance of fully warranted “procedural delays.” This suggests, once again, in light of potential positive reassessment of the role of conflict as a strategy employed in public policymaking, that the critiques of adversarial legalism have to be given another, more practical and policy-specific, look and weighed on a case-by-case basis.

Be that as it may, a number of policy arguments from the literature in favor of collaboration have certainly been found to be on solid ground in the Patuxent case as well. The revealed apparent deficiencies in the EPA’s existing policies for water pollution control support Weber’s (1998) analysis that “The preference for detailed, top-down, one-size-fits-all solutions reduces program adaptability to changing conditions” (p. 18). Correspondingly, the active participation of various local civic groups, such as the Public Advisory Council, for example, has provided unequivocally support for Layzer’s (2002) claim that “if communities have sufficient technical information and the capacity to absorb that information, they will craft solutions that are environmentally superior to the one-size-fits-all prescriptions generated by conventional regulatory processes” (p. 194); it has also underscored the growing governmental recognition of “the importance of
integrating community knowledge, skills, values, and views into environmental decision making and management” (Koontz et al. 2004, 20).

Furthermore, the outstanding contributions of the scientists involved in the case highlights Hardy and Phillips’ (1998) point that “through the pooling of expertise and resources, collaboration can solve intractable problems in ways that confrontation or competition cannot” (p. 217). Finally, the participants in the case have showed awareness of the limitations of the “litigious ways of solving social problems, making public policy, and resolving disputes” (Kagan 1991, 398) and have turned to litigation as a last resort. In this sense, the study corresponds to Jones’ (1996) observation that environmentalists have begun to believe that “the legal and legislative solutions that carried the cause for 30 years are proving too fragile in today’s surreal political climate” (p. 3) and to “see collaboration as an effective, lasting and civilized way to solve problems” (p. 5).

To recapitulate, the Patuxent case has shown the need for both conflict and collaboration in environmental regulation and pollution control. Thus, it simultaneously supports Weber’s (1998) conclusion that “conflict is preferred and ubiquitous” and contradicts his claim that “given the prevalence of conflict, collaboration is unlikely to succeed” (p. xii). The analysis has demonstrated that, in the context of environmental policymaking, collaboration can be viewed indeed as “a potential remedy to many of the pathologies of existing regulations, which have led to costly conflict and left many environmental problems unresolved” (Lubell 2004, p. 341).

Yet, paradoxically, the study implies that collaboration cannot operate effectively as an absolute “alternative to regulation for solving environmental problems” (Lubell 2004, 341). As Koontz and Thomas (2006) have stressed, “Collaboration is not a
panacea” (p. 111) and should not be applied as “the new dogma” (Jones 1996, 2) in environmental management. In practical terms, strategies such as deregulation, self-regulation, and incentives-based policy tools can effectively modify command-and-control approaches but might prove limited in totally replacing “hard-core” regulatory policies and strict oversight. The recent spectacular collapse of the banking system in the US and the Bernard Madoff’s Ponzi scheme are prime examples of that. To quote from Vogel (1996),

For all the obvious advantages of a regulatory system based on ‘good faith’ rather than mutual distrust, the former may simply be incompatible with our commitment to both interest group and economic competition… Instead of constantly bemoaning the lack of cooperation between business and government, we should occasionally reflect on some of its virtues” (pp. 89-90).

Watershed Management

As pointed out in Chapter One, water pollution control in the context of watershed management has emerged as a policy area in which particular efforts have been made to implement new collaborative approaches as a replacement for long existing conflictual, adversarial relationships. Compared against Sabatier, Weible and Ficker’s (2005) chronological outline of major periods (“eras”) in water resource management, the Patuxent River case can be characterized as a historical example of the “Environmental Era (1965-1986)” and a precursor of the “Watershed Collaboration Era (1987-present).” The study fully concurs with Sabatier et al.’s (2005) diagnosis of “increasing complexity and conflict in water resource issues” as reflected in the “increased competition for limited fresh water resources among agriculture, urban and industrial users, recreationists and fisheries” (p. 3). Similar to Scholz and Stiftel’s (2005) analysis, the study reveals that
those “new conflicts extend beyond the statutory authority, competence, geographical jurisdictions, and political constituencies of highly specialized water authorities” (p. vii).

Related to this notion, the Patuxent River case has confirmed Imperial’s (2005) claim that “Watersheds provide an excellent policy subsystem for examining collaborative processes” (p. 283). As noted by Imperial (2005), “Watersheds span political, geographic, and ideological boundaries… The corresponding institutional fragmentation limits any organization’s ability to accomplish its mission by acting alone and creates numerous opportunities for joint action” (p. 283). Situated in this type of fragmented jurisdictional and institutional context, the Patuxent River case has clearly illustrated what Sabatier et al. (2005) have described as “a shift from a top-down, agency-dominated approach with some provisions for public comment to a much more collaborative bottom-up approach involving negotiations and problem solving among a variety of governmental and nongovernmental stakeholders” (p. 4). In that sense, the case has fully justified the selection of the domain of watershed management as the research setting for the current study on collaboration.

The problems of extreme jurisdictional fragmentation, organizational interdependency and complexity of the issue of curbing water pollution, however, have shown a bi-directional effect in the Patuxent case—they have been found conducive to both collaboration and conflict. To put it differently, the same conditions of watershed management that have been considered favorable to collaboration have been found detrimental to collaboration as well. According to Sabatier, Weible and Ficker (2005), for example, one of the most salient features of the collaborative watershed approaches is the
“use of a hydrographic watershed as the jurisdictional boundary rather than county or state lines” (p. 23). As noted by Pralle (2006), however,

Promoters of watershed-level management argue that political jurisdictions—such as counties, states, and even nations—are inappropriate for managing natural resources. They encourage new institutional structures that transfer power to stakeholders within watershed boundaries, arguing that watersheds embody more natural decision-making units for allocating and managing resources. But political scientists point out that there is no such thing as ‘natural’ boundaries, that defining boundaries is a supremely political act. Boundaries that define the reach of management activities determine who and what matters (p. 21).

The purely watershed-related content in the Patuxent case inevitably intersects with a complex regulatory, political, legal and fiscal environment. The institutional players find themselves embedded in the concrete watershed context with considerable “baggage” in terms of mandates, regulations, statutes, standards, established policies and available resources. For example, despite the preponderance of scientific evidence about the effect of nitrogen on nutrient enrichment in the Patuxent, EPA was reluctant to implement nitrogen control in wastewater treatment because it was not legally mandated by the Clean Water Act to do so; as a federal agency, EPA was constrained in its ability to ignore considerations of the larger political context in favor of the specific, with respect to the watershed, local concerns. In that sense, the current study signals some caution against an uncritical agreement with Lubell’s (2004) possibly premature embrace of “the emergence of collaborative watershed management as a new paradigm in environmental policy” (p. 341).

Paradoxes

The discussion in the previous two sections has outlined several envisioned paradoxical implications for policymaking and managerial practice. First, collaboration is
possible and is occurring despite a fragmented, adversarial political and legal system (Kagan 1991) and adversarial political culture (Weber 1998). Second, adversarial litigation (Kagan 1991) might prove ultimately beneficial despite increased transaction costs and procedural delays caused by it. Third, collaboration can be an effective and advantageous strategy despite being perceived by some as “un-American” and “dangerous for democracy” (Weber 1998, xii-xiii). Fourth, despite being considered “a potential remedy to many of the pathologies of existing regulations” (Lubell 2004, p. 341), collaboration cannot be completely regarded as “an alternative to regulation for solving environmental problems” (Lubell 2004, 341). And fifth, conflict and collaboration appear to necessitate each other as interdependent, complementary approaches to environmental regulation and pollution control and can potentially work in concert rather than in opposition.

Why use paradox as a theoretical framework for revealing and conveying those practical implications? First, paradox provides descriptive and terminological accuracy. Statements by Weber (1998), frequently cited in the preceding discussion, that “collaboration is occurring in American politics despite the significant obstacles posed by an adversarial political culture, a fragmented interest group system, and an open political system,” and that “collaboration is appearing where we would least expect it—in the most combative of all regulatory arenas—pollution control politics” (p. 256), appear truly paradoxical. The observation made in the current study that the American system of governance is simultaneously conflict-prone and collaborative presents another genuine paradox. Huxham and Vangen’s (2005) claim that successful collaborative management requires manipulation, playing organizational politics, and “collaborative thuggery” (p. 184).
222) seem similarly paradoxical. Thus, the paradoxical framework appears best suited conceptually to capture the essence of those contradictions.

Second, the term *paradox* serves particular *rhetorical* purposes. As pointed out by Poole and Van De Ven (1989), paradox has been applied in common parlance to “interesting and thought-provoking contradictions of all sorts,” usually designating “something which grabs our attention, a puzzle…” (p. 563). Thus, the “paradoxical narrative,” adopted in the current study, can transcend the triviality of issues for public managers, focus their attention, capture their imagination and challenge them to grasp the nature of conflicting demands and contradictions in their professional surroundings, “for paradox has always been part of life” (Handy 1994, 18). As Charles Handy (1994) argues in his book, *The Age of Paradox*, “The more turbulent the times, the more complex the world, the more paradoxes there are…” (p. 12).

This leads to the related, third function of paradox, envisaged in the aspect of *cognition*. In their book, *Paradoxical Thinking*, Fletcher and Olwyler (1997) provide an assurance that “Paradoxical thinking works” (p. x). “We discovered,” write the authors, “that *individuals are always paradoxical when they are performing at their best*” (p. x, emphasis in original). Fletcher and Olwyler (1997) maintain that in their practice as managerial consultants, they “could enable clients to achieve much better and more satisfying results by taking an openly paradoxical approach” (p. x). Similar to the analytical potential of the analogous concept of “tensions,” Huxham and Vangen (2005) envisage “that the utility for practitioners would come largely from the process of deconstructing” (p. 246). Thus, the Patuxent River case underscores likewise the need for managers to develop critical reasoning skills in uncovering hidden assumptions and
deconstructing preconceived notions, while recognizing and comprehending the “tensions between alternative forms of management practice” (Huxham and Vangen 2005, 245).

Along the same line of reasoning, the fourth practical, managerial implication of the use of paradox as a frame of reference emerges in addressing the question, “How should managers deal with paradox?” As noted in Chapter Two, Handy (1994) argues in *The Age of Paradox* that,

Paradox I now see to be inevitable, endemic, and perpetual. Paradoxes are like the weather, something to be lived with, not solved, the worst aspects mitigated, the best enjoyed and used as clues to the way forward. Paradox has to be *accepted*, coped with, and made sense of… (pp. 12-13, emphasis in original).

Similarly, Harmon (1995) views paradoxes as embodiment of “the notion that opposition and contradiction are inevitable features of human existence” (pp. 76-77). Therefore, Harmon (1995) concludes, “paradoxes can only be struggled with rather than solved, and attempts to avoid them will inevitably backfire” (p. 77). However, the typical rationalistic thinking in Western societies— unable “to comprehend the inevitability of opposition and contradiction” (Harmon 1995, 76) and “biased toward consistency” (Poole and Van De Ven 1989, 563)—assumes that “contradictions must be circumvented or crushed” (Quinn’s 1988, 27).

In that sense, research such as the current study on the Patuxent River initiative “highlights the practical need to accept that tensions imply multiple dilemmas and that coping with these is an important aspect of the ‘reality’ of managerial life” (Huxham and Vangen 2005, 245). The concept of paradox “has the potential to shift practitioners’ thinking away from the search for illusive magical prescriptions,” (Huxham and Vangen 2005, 245) and towards managerial resolutions that acknowledge “the simultaneous presence of incongruent and contradictory patterns” (Cameron and Quinn 1988, 2). In
parallel with the rationale behind Johnston’s (1996) concept of “polarity management,”
this “paradoxical approach” aims to break up the conventionally rigid managerial mindset
consisting of “either-or,” “give-and-take,” “quid pro quo” (from Latin: something for
something, one thing for another\textsuperscript{85}), and “tradeoff” ideas and allow for the simultaneous
pursuit of seemingly contradictory but ultimately complementary strategies.

LIMITATIONS

The current research, conducted for the purposes of exploring the Patuxent River case,
must be understood in the context of its limitations. First, \textit{triangulation} has been among
the procedures proposed by Lincoln and Guba (1985) to ensure \textit{credibility} of qualitative
studies. In her recent review of the literature on the subject, Schwartz-Shea (2006) notes
that,

\begin{quote}
Qualitative methods texts now routinely distinguish among several types
of triangulation, including multiple data sources (persons, times, places),
multiple methods of access (observation, interviews, documents—this is
the most commonly understood meaning), multiple researchers (such as
teams of ethnographers studying a single site), and even multiple theories
or paradigms in a single research project (p. 102).
\end{quote}

This study has indeed sought to retrieve data from multiple places in the field, in addition
to the conventional university and public libraries: the Chesapeake Biological Laboratory
at the Center for Environmental Studies, University of Maryland; the archives of the
Calvert Marine Museum in Solomons, Maryland; and the Solomons’ Oyster House.
However, the study has not been able to utilize triangulation in its most common, as
pointed out by Schwartz-Shea (2006), the “multiple methods of access to data” form.
While considerations of data accessibility, relevance, time constraints associated with
historical studies, and project feasibility have provided justification for relying solely on
documents, archival records and media accounts as the sources of data, there is of course recognition of the value of diversifying the methods of data collection and awareness of the potential for acquiring a richer pool of data, if interviews and observation were included in the researcher’s repertoire.

Second, other generally acknowledged potential limitations of the use of archival data are the possibility for data omission, archives’ lack of systematic data inclusion (Bryman 2001), and a built-in bias in earlier publications and existing reviews and analyses of original documents. As noted by Yin (2004),

> Case study investigators who rely on documentation as a source of evidence need to appreciate the differences in perspectives, if not ideologies, represented by the authors of the various types of documents… Whatever the source, you should be wary of the original authors’ perspectives, as the authors produced the documents for reasons other than later serving as part of your case study (p. 156).

The third challenge the study has encountered concerns the distinction between outputs and outcomes as measures of collaboration. In a recent article, published in the *Public Administration Review* special issue on “Collaborative Public Management,” Koontz and Thomas (2006) argue that “The literature on collaborative environmental management primarily focuses on process” (p. 112), while “the success of collaborative environmental management should be measured primarily in terms of environmental outcomes” (p. 113). “We cannot make claims about the environmental impacts of collaboration,” Koontz and Thomas (2006) maintain, “without data that measures (sic) changes in environmental conditions” (p. 114). The authors are convinced that policy outputs, such as plans, projects, management practices, and policies are more easily measured than actual environmental parameters and, therefore, more readily used in the literature. Thus, Koontz et al. (2004) conclude that “Because of long time horizons,
multiple scales, and complex interactions among ecosystem components, measuring causal relationships in environmental quality represents perhaps the greatest challenge in evaluating collaborative environmental management” (p. 27).

The current study is not an exception in this sense. While the data about the environmental conditions that predate the initiation of the Patuxent River initiative have unquestionably demonstrated the need for a new policy and a new watershed management plan, the scientific data reviewed in the aftermath of the adoption of the Patuxent River Nutrient Control Strategy have been limited in producing a clear picture on the direct effect of the new policy on the quality of the water in the river. Instead, the study has relied on more indirect measures of collaboration, such as those cited by Koontz and Thomas (2006)—“agreements reached,” “changes to public policy” adopted, and “programs implemented.”

Fourth, to keep the research project manageable, the current study has focused on the water pollution control aspect of the water quality improvement initiative and the watershed management plan for the Patuxent River and, more specifically, on point sources of pollution (discharges from factories and municipal sewage systems). Yet, as noted by Freeman (2000), nonpoint sources, “such as storm water runoff, cropland erosion, and runoff from construction sites, pastures, feed lots, and woodlands are also major sources of pollution in many water bodies” (p. 178). Additionally, air emissions also affect water quality. Leaving those environmental aspects unexplored has arguably sharpened the focus of the case study, but it has understandably limited the scope of the research.
A related exclusion, imposed on the study, constitutes a fifth limitation of the current research. Following Davies and Mazurek’s (1998) approach, the study is cognizant of the interconnections among water pollution control on the one hand and population policy, agricultural policy, transportation policy, and energy policy, on the other. Nevertheless, considerations of research focus and availability of data have narrowed the scope of the study to the aspects of the case mentioned above, while ignoring, perhaps regrettably, but necessarily, the ramifications of the adopted water pollution control measures for the wider policy system.

**AREAS FOR FUTURE RESEARCH**

Utilizing conceptually Connelly, Zhang, and Faerman’s (2008) *paradoxical approach* to collaboration, the current study has marked the further development of this line of thinking about collaboration in public administration as a potential area for future research. The concept of *paradox* and the *Competing Values Framework* (Quinn et al. 2003), which is “built around the notion of paradox” (p. 349), have been widely used in organizational studies. Yet, their application in the broader context of policy and public management studies is in its nascence. Moreover, as Huxham and Vangen (2005), considered among the premier scholars in the field, have sought to develop “a practice-oriented theory of tensions” (p. 245) in collaborative management, the paradoxical approach appears to hold certain promise in its ability to address a conceptually fruitful terrain.

More specifically, the current study established the paradoxical co-existence of collaboration and conflict as an example of a “simultaneous presence of contradictory,
even mutually exclusive elements” (Cameron and Quinn 1988, 2), suggesting the possibility for future extension of the Competing Values Framework (Quinn et al. 2003) in that aspect and reconceptualization of Thomas’ (1976) classification of approaches to conflict management. Furthermore, Faerman and Quinn’s (1985) conceptual model of *positive* and *negative* zones in the distribution of the Competing Values is viewed as containing similar potential to be fine-tuned in future studies in order to track successfully the transformative changes and identify the specific values assumed by collaboration and conflict in their interaction across the zones.

Additionally, noting Weible and Sabatier’s (2009) claim that “almost the entire literature on collaborative versus adversarial processes is dominated by case studies of either a collaborative process or an adversarial process, but rarely both” (p. 195), a future multiple case study, complemented by a cross-case analysis might test the validity of some of the propositions regarding the collaboration-conflict interaction derived from the current single case study. Along the same line, since the current analysis contains certain assertions about the collaborative versus conflictual character of the American system of governance that might seem somewhat arbitrary, the cross-case approach could be extended internationally in future research to provide a useful comparative foundation.

As scholars, such as Lijphart (1984), for example, have identified a correlation between a majoritarian versus consensual political system on the one hand and the adoption of a conflictual versus collaborative strategy in public policymaking on the other, juxtaposing US and European approaches to environmental regulation and pollution control, for example, would definitely allow for further testing of the arguments developed in the current study.
Future research could possibly correct for the perceived limitations of the current
study as well. Specifically, with respect to the Patuxent River case, for example, the study
has featured an embedded case design (Yin 2003), focusing exclusively on the adoption
of the *Patuxent River Nutrient Control Strategy* for point-sources of pollution as a *unit of
analysis* among the myriad of activities and program initiatives within the case in the
time period between 1977 and 1984. In particular, the *Patuxent River Policy Plan*, which
was left unexplored for the purposes of the current study, was developed and endorsed in
concurrence with the *Patuxent River Nutrient Control Strategy*, targeted land use and
non-point sources of water pollution, and followed a different trajectory and showed
different dynamics in terms of the collaboration-conflict interaction. A possible future
within-case analysis examining the contrast between the two policy proposals would
certainly bring another dimension to the case exploration and add value to the goal of
elucidating the intended comparison between conflict and collaboration as alternative
approaches to environmental policymaking.

In accordance with its qualitative methodological presuppositions, the current
study has developed inductively and extracted descriptively a number of findings that
have been found to characterize the collaborative-conflictual aspect of the Patuxent case
as salient themes. As most of those factors, however, have shown bi-directional effect,
influencing both collaboration and conflict in the case, the innate limitations of the case
study research design have not allowed for quantifying and estimating with greater
precision the direction and the strength of those effects. A future study might venture into
operationalizing those factors as variables and apply more powerful quantitative
techniques, such as Structural Equation Modeling, for example, to try to capture
statistically the whole complexity of relationships and possible causal interconnections among the various factors in the model.

Finally, following Koontz and Thomas’ (2006) recommendations, future research can try to draw a more direct link between policy outputs (bills, plans and programs) and environmental outcomes (actual changes in environmental conditions). Since natural settings would rarely (and, quite possibly, never), allow for experimental treatment of environmentally-distressed zones to test empirically the differential effect of alternative application of conflict and collaboration in water pollution control, it would be practically difficult, but still conceivable, to select a few cases as “natural experiments” (Bryman 2001) and compare longitudinally the effect of collaboration versus that of conflict. Additionally, the current study has opted against exploring in greater depth the social outcomes of collaborative versus conflictual strategies, such as “trust building” and “lasting animosity,” respectively. Future research might attempt to broaden the scope of the collaborative-conflictual comparison by examining the correlation between policy outputs and social outcomes.

CONCLUSION

Collaboration has increasingly emerged in recent years as a new paradigm in public management. This collaborative trend, however, has contradicted the longstanding American political tradition of conflictual contestation of competing interests and adversarial legalism. Consequently, it has presented public managers with the challenge of dealing in reality with the “tensions between alternative forms of management practice” (Huxham and Vangen 2005, 245).
Drawing on Connelly, Zhang, and Faerman’s (2008) *paradoxical approach* to collaboration, the current study has sought to explore this “simultaneous presence of contradictory, even mutually exclusive elements” (Cameron and Quinn 1988, 2) in the context of environmental regulation, in general, and pollution control through watershed management, in particular, as this is the policy area, which, arguably, has contained the most pronounced paradoxical interaction of collaboration with conflict in recent years. The research has involved in-depth thematic analysis and an interpretive account of the paradoxical features of collaboration and conflict as identified in an empirical case study of the Patuxent River, Maryland Nutrient Control Strategy, which has received national recognition as a model for water quality management.

The study has outlined a number of theoretical and practical implications. By extending the logic of the “paradoxical thinking” about collaboration to the realm of the strategic interaction of collaboration with conflict, the current research suggests a possibility for: incorporation of this aspect into Quinn et al.’s (2003) Competing Values Framework; related further development of Faerman and Quinn’s (1985) conceptual model of *positive* and *negative* zones in the distribution of the Competing Values; and reconsideration of Thomas’ (1976) classification of approaches to conflict management. Practically, the study demonstrates the descriptive, terminological, rhetorical, cognitive and managerial utility of the use of the paradoxical approach for practitioners and underscores the viability of the simultaneous execution of seemingly contradictory, yet ultimately complementary, strategies such as collaboration and conflict.
NOTES:


3 Faerman, McCaffrey, and Van Slyke’s (2001) study identifies four main determinants of successful outcomes of collaborative processes: (1) *initial dispositions toward collaboration*; (2) *leadership*; (3) *issues and incentives*; and (4) *number and variety of groups*.

4 The more traditional view is that of a *layer-cake federalism*, which holds that the three levels of government are totally separate – neatly arranged one on top of the other.


6 The level of discharge went from 3 Million Gallons Per Day in 1963 to 35 Million Gallons Per Day in 1980.

7 The early implementations of the Clean Water Act provided more match than more recent revisions and this had influence on policy decisions. Also, advanced wastewater treatment if deemed experimental, did not qualify for the full match.

8 Data collected by Dr. Heinle at the Chesapeake Biological Laboratory showed an increase of the mean chlorophyll concentrations in the upper tidal portion of the river from 15 mg/l in 1963 to 30 mg/l in 1978. Peak chlorophyll levels increased from 60 mg/l in 1963 to over 100 mg/l in 1978.

9 The following agencies were members of the Patuxent River Committee:
   1. Maryland State Department of Natural Resources
   2. Maryland Department of Water Resources
   3. Maryland Department of Forests and Parks
   4. Maryland Department of Game and Fish
   5. Maryland Department of State Planning
   6. Maryland Department of Public Health
   7. Maryland National Capital Park and Planning Commission
   8. Soil Conservation Service
   9. Anne Arundel County Department of Planning & Zoning
   10. The City of Bowie Planning Department
   11. Department of Planning, Charles County
   12. Prince George’s County Department of Public Works
   13. Prince George’s County Board of Education
   14. Prince George’s County Soil Conservation District
   15. Prince George’s County Department of Licenses and Permits
16. St. Mary’s County Department of Planning
17. The Patuxent Wildlife Research Center
18. University of Maryland Agronomy Department
19. University of Maryland Cooperative Extension Service

10 Tsai and Golembiewski (1979) reported that “a significant reduction in the fish species diversity index occurred between 1966 and 1977 below the two sewage treatment plants outfalls: Savage – from 2.69 to 0 and Patuxent-Crofton – from 3.06 to 1.33” (p. 1).


13 Source: Forum on the Patuxent River: a summary, compiled and edited by the Maryland Coastal Zone Unit, 1977, Annapolis, MD, p. 12.

14 Constituted in 1977 to help the State of Maryland’s planning effort for the Patuxent River basin, the Technical Advisory Group had no formal statutory authorization. It reported initially to the Water Resources Administration, Department of Natural Resources, but after Governor Hughes’ 1980 administrative reorganization, it began reporting to the Office of Environmental Programs, Department of Health and Mental Hygiene.

15 A similar group of environmental activists, called the “Patuxent River Public Advisory Council” and chaired by Merilyn Reeves, was formed in March 1977 to advise the Department of Natural Resources. Source: Douglas E. Ritchle, Jr., “Patuxent River Public Advisory Council,” Calvert Independent, February 13, 1980, A-6.

16 Letter to Secretary James Coulter, from Dr. Heinle, 19 July, 1979. CBL Archive.

17 The concept might appear somewhat confusing. The rationale is to control the “limiting nutrient”—essentially to make it even more growth limiting, and thereby control excessive algal growth.


19 Sources: Forum on the Patuxent River: a summary, compiled and edited by the Maryland Coastal Zone Unit, 1977, Annapolis, MD, p. 17.


Source: Forum on the Patuxent River: a summary, compiled and edited by the Maryland Coastal Zone Unit, 1977, Annapolis, MD, p. 5.

Source: Forum on the Patuxent River: a summary, compiled and edited by the Maryland Coastal Zone Unit, 1977, Annapolis, MD, p. 3.

Source: Letter to Alvin Morris, EPA Acting Regional Administrator, from Herbert Sachs, Director of the Water Resources Administration, April 29, 1977. CBL Library Archive.


Source: Letter to Greene Jones, EPA Region III Water Division Director, from James Coulter, Secretary of the Maryland Department of Natural Resources, October 30, 1979. CBL Library Archive.

Staff writer, “Patuxent Subject of Panel,“ Calvert Independent, October 8, 1980.

Letter to Harold R. Hughes, Governor of the State of Maryland, from David S. Fleischaker, Attorney at Law, February 6, 1979. CBL Library Archive.

A Harvard Law School graduate, William M. Eichbaum would later work for Governor Michael Dukakis of Massachusetts as his environmental secretary and become a Vice President of the Endangered Species Program of the World Wildlife Fund.


Appointed by Governor Hughes in March, 1981.


Memo from Gary Hodge, Executive Director of the Tri-County Council for Southern Maryland, to the panelists at the Environmental Seminar in Benedict, MD, October 20, 1981. CBL Library Archive.


The Charette can be characterized as a “critical incident” (Creswell 1998) in the Patuxent River Case. It will therefore be presented in greater detail in the next section.


The plan contained recommendation for pollution reduction through control of both “point sources” (sewage treatment plants) and “non-point sources” (water runoff from land). Source: Maryland Department of State Planning, “Patuxent River Policy Plan,” April 1984, Calvert Marine Museum Library.


Letter to the Charette invitees, from William Eichbaum, Assistant Secretary for Environmental Programs, November 13, 1981. CBL Library Archive.


Source: Letter to the Charette invitees, from William Eichbaum, Assistant Secretary for Environmental Programs, November 13, 1981. CBL Library Archive.


Scientists use a device called a Secchi disc to measure water clarity. A Secchi is a round, black and white disc attached to a rope. The Secchi disc is lowered into the water until it can no longer be seen; then, the water line on the rope is noted and measured. The measurement, called the Secchi depth, is the measure of water clarity and the depth to which sunlight is able to penetrate through the water. Source: Chesapeake Bay Program, http://www.chesapeakebay.net/water-clarity.aspx (accessed June 4, 2009).

The idea was popularized by Tom Wisner—a poet, a songwriter, and a local folk hero—who wrote in 1986 a poem tribute to Bernie Fowler entitled “Bernie Fowler Day—A Guide to Wading in Southern Maryland Waters:”

All the politicians gathered.
They’d come from miles around
To talk about the river
That flows by Solomons town.

Seems they had a problem.
Things were looking bad.
They’d looked at all resources
And used everything they had.

The scientists had told them
Everything they knew.
Still—the folks were puzzled
And they didn’t know what to do.
It came ’round to Bernie Fowler
And he stood among the best.
He said, “Folks, if you’ll bear with me
I think I got a test!”

“I think I have a measure
That can’t be beat,
You just wade out in the river
And look down to see your feet.”

“If you can’t see your cloppers
There’ll be trouble in this town
We oughta sue those upper counties
For the junk they’re sending down.”

It’s Bernie’s measure!
It’s simple—yet profound.
We got a treasure!
You can’t buy it by the pound.

It’s Bernie’s measure,
And it ain’t hard to do.
It’s a pleasure!
And it will soothe you too

You just wade out in the river,
Give it all you got…
Right up to your chest,
And then you pick your spot

Next you take your peepers
And cast them slowly down.
On the day we see our feet again
There’ll be celebration in this town.

Well—we should do this yearly
On Bernie Fowler Day.
Dress up fit to kill
And wade out all the way.

And somewhere in the future,
That day is coming sure,
We’ll look and see our feet again;
Could we ask for more?

’Cause I ask you what’s the profit
If we gain these worldly things
And foul the air and water
And the life that brings?

Source: Tom Horton, “Enough of Chesapeake Bay facts; let’s get to the more significant stuff: myths,” *The Baltimore Sun*, October 5, 1986, 3E.


66 Source: Letter to Spiro T. Agnew, Governor of the State of Maryland, from John T. Parran, Chairman, Governor’s Patuxent River Watershed Advisory Committee, November, 1968. CBL Library Archive.


68 In the most recent literature on collaboration there is a distinction drawn between the concepts of “collaboration” and “cooperation” (see Agranoff and McGuire 2003; Thomson and Perry 2006; Keast, Brown, and Mandell 2007). In the time period of the Patuxent River case, however, the terms were used interchangeably and carried the same meaning.


71 Prior to 1972, groups and citizens had to prove specific and direct “harm” by the government action in question. By expanding the definition of “injury,” the new legislation gave standing to environmental groups and citizens to claim in court general and aesthetic harm suffered by the public at large (Pralle 2006).
The Patuxent River Policy Plan had to be endorsed by five of the seven counties in the basin before the policies could be drafted into a bill. The remaining five counties endorsed the plan.

Source: Forum on the Patuxent River: a summary, compiled and edited by the Maryland Coastal Zone Unit, 1977, Annapolis, MD, p. 12.


Van Horn, Baumer, and Gormley (1992) delineate six policy domains of varying types of political activity with direct influence on the policymaking process:

1. **Boardroom politics**: decision making by business elites and professionals, but with important public consequences.
2. **Bureaucratic politics**: rule making and adjudication by bureaucrats, with input from clients and professionals.
3. **Cloakroom politics**: policy making by legislators, constrained by various constituencies.
4. **Chief executive politics**: a policy process dominated by presidents, governors, mayors, and their advisers.
5. **Courtroom politics**: the issuance of court orders, in response to interest groups and aggrieved individuals.
6. **Living room politics**: the galvanization of public opinion, usually through the mass media (p. 24).

Occasionally, the citizen groups and scientists fashioned their responses based on the information found in the media. For example, in a May 5, 1980 letter to Peter Wagner, Director of the Center of Environmental and Estuarine Studies at the University of Maryland, L. Eugene Cronin responded to news in the May 3, 1980 Annapolis Evening Capital of Governor Hughes’ requests for information on water quality standards and means of attaining them.

Source: Forum on the Patuxent River: a summary, compiled and edited by the Maryland Coastal Zone Unit, 1977, Annapolis, MD, p. 12.


82 Here “causality” is not used in its traditional meaning in terms of “internal validity” (Campbell and Stanley 1963), best achieved under experimental settings. Consistent with interpretive presuppositions, it denotes a “Sherlock Holmes” type causality—“a careful mapping of clues in context, a tracing of connections among events” (Schwartz-Shea 2006, 108).

83 This error is known as “ecological fallacy”—drawing conclusions about individual cases on the basis of population-level data (Robinson 1950).

84 The more traditional view is that of a *layer-cake federalism*, which holds that the three levels of government are totally separate – neatly arranged one on top of the other.

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