

Tensions between Participation and Expertise in French Watershed Governance and Management

**By Jamie Thomson
Workshop on the Workshop (WOW4)
Indiana University
Bloomington, IN 47401**

I. INTRODUCTION

This paper assesses French fiscal and institutional approaches to watershed governance and management. These began, as large-scale, coordinated efforts, with passage of major water legislation in the country in 1964. This legislation constituted the first major French policy response to a 20th century challenge collectively identified by French hydrologists, water lawyers and other water experts. Though France is generally ‘well-watered,’ these experts argued that the country would be endangered within decades by growing shortages of potable water, and as well by inadequate supplies of water required to attain other objectives such as preserving riverine environments and the life forms there found; energy production; irrigation; recreation and tourism, and food production. To respond to this challenge French political decision makers created, by national legislation, six major watershed districts that covered the entire land area of metropolitan France¹ as well as the *Départements d’outre-mer* and *Territoires d’outre-mer* (D.O.M.-T.O.M.). These were initially conceived, and functioned solely as, resource mobilization entities with a mandate to raise the funds necessary to finance construction of a wide range of water supply and sanitation infrastructure facilities.

Following this introduction the paper provides in a second section the physical and economic context of the contemporary water sector in France. The third section explores the impetus for the 1964 water legislation, and the several follow-on laws which supplemented and amended that initial legislation in spurring efforts to address France’s water problems. The paper then turns to the impact of the European Union’s Water Framework Law on the evolution of watershed governance and management efforts in France. The fourth section first describes the evolution of expert and user input in addressing water problems, and then highlights problems in mobilizing popular participation in efforts to control water use and ensure French uses of all categories adequate water quality and quantity. The fifth section summarizes paper findings and conclusions.

¹ The six metropolitan districts are (1) Artois-Picardie, (2) Rhin-Meuse, (3) Seine-Normandie, (4) Loire-Bretagne, (5) Adour-Garonne, (6) Rhône-Méditerranée-Corse. Corsica was eventually recognized, legally and operationally, as a separate watershed, perhaps as a way to undermine the Corsican separatist movement by accommodating one of its demands for autonomy . The state created water districts as well in five D.O.M.-T.O.M. – Guadeloupe, Guyana, Martinique, Réunion and Maylotte (Comores) (Drobenko: 66).

II. PHYSICAL AND ECONOMIC CONTEXT OF WATER PROBLEMS IN FRANCE

In general, water is reasonably abundant in France with the occasional exception of the Mediterranean coastal region and parts of the southwest (Aquitaine). France traditionally exploited its abundant domestic waterways to move bulk cargo (grains, construction materials, fuel, manufactured goods, etc.) via barges and to raft logs from the country's central forests to Paris as a source of household fuel. With a temperate climate and generally adequate water supplies, France has been an agricultural powerhouse for centuries.

A. Modern Era and Current Water Demands

Concerns about growing pollution and threats to potable water supplies in some districts prompted passage of the 1964 water law. That legislation occurred against a backdrop, noted above, of the intense demands that some current uses, particularly power generation, impose on available water resources. In the modern era France has developed the biggest nuclear power generation facilities in all of Europe, with the result that energy production (reactor cooling) now accounts for a colossal 55-64% of France's overall 'human' water demand.

B. Political Economic Factors in Water Allocation within France

Given current energy and global warming policies in Europe, and tensions between Russian and the European Union (EU) over energy prices, to say nothing of the sunk costs of nuclear reactors currently on-line and the Sarkozy government's desire to win lucrative contracts to construct nuclear reactors in foreign countries it seems fair to project that nearly two-thirds of France's future water use will continue to be dedicated to power production in the form of reactor cooling processes. This massive 'energy' allocation clearly structures and limits future water supply options in a very compelling manner: cutting back on reactor cooling is, given the technical characteristics of currently operational reactors, not feasible.

Of the remaining water dedicated to human uses, potable water supply accounts for 19% of current demand, agriculture for 14% and industry, 12% (Nicolazo and Redaud: 66, text and Figure 9²). Reducing nuclear reactor demand for water may be technically possible, but even if it is, the change-over will clearly be expensive. In the meantime, efforts focused on 'cleaning up' the other 45% of usage, distributed among domestic, industrial and agricultural uses, are clearly high priority measures. Remediation programs have improved performance in the first two uses, but agriculture remains problematic.

² While Figure 9, p. 66, indicates 55% of French water usage goes to reactor cooling, text on the same page sets the figure at an even more astounding 64% - nearly two-thirds of water consumption allocated to a single usage

III. FRENCH WATER LEGISLATION

France receives substantial annual rainfall, which regularly replenishes surface and ground water in most parts of the country. Supplies are as usual not unlimited. France began developing laws in the late 19th century to address water pollution. The first, approved in 1898, established a framework for and limits on hydraulic infrastructure facilities. Two more followed in the middle of World War I: the 1917 law targeting factories and industrial establishments that dumped pollutants into the country's waterways and, in the same year, a law governing hydroelectric projects.

The country's water experts have been keenly aware for some decades in the post-World War II period of the need to protect existing supplies and take steps both to monitor and to abate pollution sources (Nicolazo and Redaud: 217). The 1964 water law had its origins in a 1959 request from de Gaulle's new 5th Republic government to its Ministry of Plan to propose ways to address these growing threats. Five years later, the legislature and executive approved the 1964 water law (Drobenko, 2007: 33). It should be noted that this law and each of the four succeeding French water laws (1992, 1995, 2004 [‘domestication,’ within the French legislative system, of the European Union water framework law, binding on member states] and finally, 2006 [Drobenko: 34]) occasioned intense political struggles which suggest both the range of human interests involved and also the complexity of problems addressed.

Drafters of the 1964 water law – the first in the ‘modern’ era – crafted new institutional solutions for complex problems. While they were not entirely successful, their ‘failures’ occurred in large part because they overstepped the bounds of inherited institutional and constitutional constraints to structure radically new approaches, in terms both of water governance and management, and resource mobilization for those activities. Their innovations raised several prickly constitutional and institutional issues which were only subsequently resolved through legal and legislative action.

A. Innovative Institutional Arrangements in the Water Sector

French politicians' standard paradigm of governance, management and institutional design involved in addressing renewable natural resources problems structures the content of the 1964 water law, the initial major piece of legislation in the water sector (*Loi No. 64-1245 du 16 décembre 1964 relative au régime et à la répartition des eaux et de la lutte contre les pollutions*³ [Journal Officiel du 18 décembre 1964]) (Drobenko: 33, fn. 60). The 1964 law conceptualized the water pollution control problem as national in scope. All parts of the country, including the overseas *D.O.M.-T.O.M.*, simultaneously faced the same legal injunction: ‘reduce water pollution.’ While social and technical experimentation clearly occurred in meeting this mandate, during a first period it took the form of a centrally-initiated national movement rather than a series of discrete experiments in individual watersheds. This centralized approach has had important

³ Law No. 64-1245 of 16 December 1964 concerning the legal framework and allocation of water, and anti-pollution efforts.

implications. At the same time, the 1964 legislation set up six separate regional watershed jurisdictions to ‘localize’ financing of anti-pollution activities.

1. Geographic Watersheds Designated as New Water Governance and Management Jurisdictions

In an interesting departure from the ‘national administrative’ approach usual in France, French decision makers designed the institutional arrangements – the regional special fiscal water districts – to be congruent with the physical contours of the country’s major watersheds, rather than with the boundaries of existing administrative units. This appears on balance to have been highly appropriate. It significantly ‘down-sized’ the scope of the pollution abatement challenge. The operational scale of these new institutions shrank the national mandate to abate water pollution to a much more manageable size, despite the fact that the Rhone, the Loire, the Seine, the Rhein and the Garonne are not small rivers and drain major watersheds.

As we will see, this same approach was later applied within each of the six ‘regional watersheds’ to further scale down the size of pollution abatement challenges that water experts and water users faced. Crafters of this legislation were, however, also mindful of economies of scale. They did not hesitate to create ‘composite’ watersheds when necessary, bundling several smaller rivers, aligned in adjacent watersheds, into a single regional special pollution abatement financing district. They treated those geographic units (of which there were several, cf. Fn. 1, *supra.*), conceptually, as a ‘watershed.’

This same pragmatic approach was replicated within each river system. Watershed governing councils were established first for each of the six regional watershed special districts. Subsequently, governing commissions were mandated and established at the level of the major constituent tributaries to the main stem river(s) in each regional watershed special district. This produced reasonably close ties between constituents (water users) and their representatives within each watershed and provided some guarantee that the pollution abatement projects undertaken integrated local perceptions of the geographic, economic, political, social and engineering realities of each watershed context. The approach proved quite satisfactory and thus garnered the political support necessary to adapt institutions to both environmental and economic realities in an iterative process.

The French political decision to structure the country’s response to water pollution by major and then minor watershed units⁴ effectively reduced the counter-productive spillover and decision making costs involved in trying to achieve coordinated approaches to governing and managing a generic common pool problem (reducing water pollution) across administrative and political jurisdictions. As Vincent and Elinor Ostrom observed thirty-odd years ago in a jointly authored article,

⁴ This ideal scheme was not respected in situations in some of the smaller French regional watersheds, where it was judged necessary to combine several river watersheds to constitute a single district. Nonetheless, these institutional arrangements did create means to address water pollution problems within natural - and thus appropriate - geographic boundaries of watershed frameworks.

If a public agency is physically located in relationship to a natural resource system so that it can dispose of spillover costs beyond its boundaries without adversely affecting the utility of the resource for its own citizens, it can be expected to do so. Reduction of spillover costs created by public agencies may become particularly difficult when resource systems are larger than the general units of government, such as states, provinces, or nations. Regulation of rivers which pass through a number of different states frequently generates prolonged conflicts among the states and sometimes requires recourse to the U.S. Supreme Court, to Congress, and to federal executive agencies. The problem of finding long-run solutions to common pool problems is complicated still further in the case of any resource system which extends beyond the boundaries of a single nation (Ostrom and Ostrom, 1977: 167).

The French decision to create six major-scale water districts covering the whole country was driven initially by the problem of mobilizing funds to finance construction of a wide range of water supply and sanitation infrastructure facilities (cf. below III. B., “Constitutional Constraints on Financing.”) The integrated water resources governance and management institutions that grew up over the next four decades translated the desire to establish a set of *working* water institutions within an overall politico-institutional framework which the French judged to be less than effective. The watershed- and tributary watershed-based approaches contributed materially to this positive outcome.

2. Experimentation and Adaptation of Watershed Governance and Management Strategies

While the French approach⁵ suppressed possible advantages of experimenting with water pollution measures in several discrete watersheds before crafting national framework legislation, the fact that the six regional watershed institutions evolved simultaneously presumably created multiple opportunities for those involved to compare and contrast their approaches and fine-tune them as they proceeded.

3. Constitutional Principles and Agences de l'Eau Fiscal Arrangements

The 1964 water law provisionally solved a major problem: fiscal arrangements capable of funding construction of the very significant range and number of water pollution abatement infrastructure facilities that legislators, experts, administrators and eventually, local elected officials all viewed as indispensable. The solution that the 1964 law adopted allowed the regional water districts to impose payments for various activities (delivery of potable water, and of water for energy generation, industrial and farming uses) within nationally-established guidelines. Resources thus mobilized constituted the regional

⁵ The French have long interpreted their revolutionary motto – *liberté, égalité, fraternité* – as establishing a criterion that seemingly bars decision-makers from initiating programs at a less than national level, on the grounds that such an approach would fail to meet the constitutional standard of treating all citizens alike (*égalité*) (Nicolazo and Redaud: XX).

water district treasury that would enable construction of the necessary works, e.g., water supply arrangements, first and second stage sewage treatment plants, and the like.

At present, in the context of a global economic crisis and stress on the French national treasury, the *Agences de l'eau* are facing, for the first time, the prospect of penury, which may reduce their operational capacity, their financing clout, and possibly even their long-term capacity to play a leadership role in French water affairs (Bosc et al.). But until recently the *Agences de l'eau* disposed of truly munificent budgets.

4. Enshrining the Role of Experts in Pollution Abatement Activities

The 1964 law initially had the effect of concentrating authority and decision-making initiative in the hands of well-trained experts who, it was assumed, would identify the most effective and efficient means to reduce water pollution, in part by conducting targeted applied research to monitor the evolution of pollution problems and the impacts of various efforts to abate them.

5. Meaningful Devolution of Pollution Abatement Authority to Sub-National Special Water Districts

The 1964 water law created an institutional framework – in what was at the time still the pre-decentralization era in France⁶ – that devolved meaningful power in the water sector to local officials. This devolution took the form of watershed councils created not only at level of the six major watershed, but as well within the watershed of each significant tributary of a major river. Councilors remained subject to administrative oversight; their decisions were usually framed and guided by water experts. But the councils nevertheless provided fora within which water users, through their elected communal representatives (typically commune mayors), could in principle express their preferences and needs, and at least potentially, voice opposition to experts' initiatives through a formally approved channel designed to encourage feedback from water users.

B. Constitutional Constraints on Financing

Initially the impetus for this decision was fiscal: in a departure from standard French public finance theory, the new *Agences Financières de Bassin* (AFB, Watershed Financing Agencies), established in the early 1970s pursuant to the 1964 water law, were empowered to collect 'payments' (charges, rents, dues or royalties)⁷ from all categories of water users. These *redevances*, in sum, payments for services received or benefits derived from 'use of' an infrastructure facility (Drobenko: 264) were to be fixed and collected in light of the projected costs of proposed works, against the underlying

⁶ The Socialists finally passed and implemented decentralization legislation, after a century of desultory discussion of the topic in France, in the 1980s under President Mitterand. The law in question was that of 2nd March 1982 (Bodineau and Verpeaux: 102-04).

⁷ Note however that these amounts were expressly determined by the country's highest public (administrative) law court, *le Conseil d'État* to be neither taxes, nor 'parafiscal taxes,' nor taxes paid to a union of local jurisdictions, nor finally, fees for service, but a sort of *sui generis* payment.

principle that they involved . But this language proved ambiguous, raised significant legal and constitutional questions, and led to protracted litigation in the *Conseil d'État*, France's 'supreme court' for administrative law disputes, and in the *Conseil Constitutionnel*, which renders decisions on constitutional questions.

The funds that the Water Agencies mobilized by collecting the *redevances*, as they were formally authorized to do by Article 14-2 of the 1964 water law, were to be allocated in each watershed to help finance (through both subsidies and loans) projects of "common interest." This was interpreted to mean that said projects would contribute to efforts to abate pollution (Nicolazo and Redaud: 193-216). Projects envisioned included construction of the usual range of water supply and sanitation infrastructure facilities: dams to create reservoirs, water supply and sewage collection networks, and sewage treatment plants. These payments could be imposed on water users, however, on the grounds not of services directly provided but on the assumption that those users would benefit from improved quantities of better quality water in that watershed. Those whose behavior or activities occasioned pollution in a watershed could be compelled to pay *redevances*, just as could those who could be reasonably assumed to have an interest in better watershed management leading to higher quality and quantity of water supplies. The *Conseil d'État*, in its legal decisions, specifically excluded any requirement that the Water Agencies demonstrate that an entity or a person had in fact benefitted from the physical infrastructure and other activities undertaken by the water agencies before collecting *redevances* from that person or entity (Nicolazo and Redaud: 202-03). Another French lawyer maintains, however, that French jurisprudence establishes that the *redevances* are in fact paid as a quid pro quo for services received (Drobenko: 264).

The basis for the *redevances* assessed against watershed inhabitants and entities was established by the cost of the works envisaged. Budgetary motions to that effect were approved (or modified) by the regional water councils (cf. *infra*).

This topic is clearly complex but, from the perspective of French legal specialists, important because laws and litigation relevant to the theme effectively establish the first *environmental tax* in the country (Nicolazo and Redaud: 215).

The controversy surrounding the *sui generis redevance* financing scheme later created problems in modernizing the Water Agencies whenever such reforms involved modifying the initial legislation. The French constitution stipulates in effect (Article 34) that "all taxes have to be voted by the directly elected representatives of the nation." (Constitutional Council; Nicolazo and Redaud: 214). If the *redevances* were to be considered taxes, as some maintained, then the amounts could not be set by watershed committees, as eventually became the practice (Nicolazo and Redaud: 196). This gave rise to a long series of cases, ending before the country's highest administrative law court, the *Conseil d'État*. Its members eventually held that the *redevances* were a form of *sui generis* payment, in effect, a sort of environmental tax (Nicolazo and Redaud: 214). In the end, the Constitutional Council held that the *redevances* were a form of tax and thus the French Parliament had to provide legislative guidance concerning the fiscal base

for the *redevances*, the range of rates at which the *redevances* could be assessed, and finally, how they were to be collected (Nicolazo and Redaud: 213-14).

This issue was evaded for some years because the French executive and the Parliament agreed, during discussions in the 1990s that preceded passage of the 1992 water law, that there was really no reason to modify the law: it worked well, many of the members of the Regional and Tributary Water Councils who voted the assessments were local elected officials, and thus presumably sensitive to concerns of their constituents.⁸ It was only in the ten years during which French legislators worked on developing the 2006 water law, that they finally addressed the issue.

C. Water Agencies: From Financing to Integrated Water Governance and Management

In a country with a tradition of *aménagement de territoire* (roughly speaking, ‘regional planning’) that dates back to the post-Tennessee Valley Authority in the 1930s (Monod and Castelbajac, 1978: 3-5) and an even longer reinforcing tradition of centralized administrative planning, it is hardly surprising that the French *Agences de l’eau* quickly evolved into something more than simple fiscal arrangements. The water agencies, from their initial focus on fiscal objectives, progressively, pragmatically and in the end quite logically took on a much broader range of activities, including water quality monitoring and project planning studies, construction of water and sanitation networks tailored to local circumstances, rehabilitation of aquatic milieus and international cooperation in the water sector. By the time the agencies were rebaptized ‘*Agences de l’eau*’ in 1991, they had taken over primary responsibility for integrated water planning and development (Nicolazo and Redaud: 3; for details, see Drobenko: 69).

D. Regional Watershed Committees⁹

The Regional Watershed Committees play two critical roles in efforts to control water pollution at the river basin level in France. First, they serve as bodies that bring together representatives of diverse sets of water users. These representatives populate three separate colleges. One represents local government units (LGUs)¹⁰, a second represents businesses and non-governmental organizations (NGOs, including environmental organizations and fishers’ guilds), and a third represents state agencies. They afford voice

⁸ But see comments below on corrupt practices that sometimes accompanied communes contracting out to private water companies for construction and often operation of water and sanitation systems that the Water Councils progressively approved and the Water Agencies financed.

⁹ This section draws heavily on Drobenko: 66-71.

¹⁰ In France any governmental or political jurisdiction below the level of the state is characterized as a local government unit. The category thus includes not only the 36,500 *communes* found in metropolitan (mainland) France, but also the inter-communal special districts (*Syndicats intercommunaux à vocation(s) unique or multiples*, respectively S.I.V.U. and S.I.V.O.M.). These are established, frequently at local initiative, to address a variety of specific problems, e.g., governance of renewable natural resources [forests, lakes, pastures, aquatic environments] that spill across communal boundary lines and public services such as primary school transportation systems which require for successful operation economies of scale that cannot be achieved in the many Lilliputian-sized communes scattered across rural regions in France that have been, as a matter of national policy, depopulated in the post-World War II period.)

to all the major interests in each watershed, although complaints have been aired about how adequate the voice is of particular groups of users.

Second, and reflecting their origin as resource mobilization units, they must approve the *redevances* collected by each *Agence de l'Eau*. But increasingly, though always within limits established by national legislation, their members review (occasionally amend), and approve the watershed governance and management policies that apply to their basin. They also monitor implementation of activities approved within their basin's Master plan for regional watershed management (*Schéma directeur d'aménagement et de gestion des eaux*).

1. Recruitment of Watershed Committee Members

Given the powers of these bodies, the methods by which members are recruited merit scrutiny. By comparison with arrangements first incorporated in the 1964 water law, the new 2006 Law of Water and Aquatic Milieus has modified both allocation of seats among the colleges and methods of selection. These changes provide some insight into the evolution of French strategies and policies to promote popular participation in the water sector.

In 1964, the first two colleges represented at least 2/3 of the total seats in the *Comité de bassin*. Under that framework, state agencies could occupy at most a third of the *Comité* seats in each basin.

The 2006 Law increased representation of both LGUs, NGOs and businesses so that each of the first two colleges now seats 40% of the overall *Comité* membership. The first two colleges also elect the *Comité* president. In consequence, Government agencies are now limited to just one-fifth of total *Comité* membership. While this would appear to enhance users' weight in decision-making concerning pollution abatement activities in the regional watersheds and their tributary sub-basins, it is not entirely clear that this has been the result.

Seven factors play a role here: (1) indirect recruitment for LGU elected officials who become *Comité* members; (2) the preponderance of large urban centers in territorial representation in the first college; (3) the French practice (*cumul des mandats*) of allowing elected political officials to hold more than one elected post simultaneously; (4) a reordering of the second (NGO) college which now favors business representatives more than environmental NGOs; (5) careful drafting of water legislation to ensure that central government administrators and politicians retain important levers of control over decision-making in the watersheds; and (6) Water Agency technical experts' retention of control over the decision-making agenda concerning watershed issues. Finally, (7) the 'statist' mentality that has developed over centuries in France, and particular during the welfare state era which began in France between World Wars I and II, easily accommodates 'letting the experts do it.' Each of these factors will be considered below.

1. Indirect Election to Comité Membership

Election to seats in the *Comité* territorial college is indirect. Its members are thus arguably less subject to citizen political sanctions than they perhaps would be if directly elected. They, like the representatives of user groups and socio-professional organizations in the ‘NGO’ college, serve six-year, renewable terms of office (Nicolazo and Redaud: 266-67). The theory underlying the elements of citizen representation in the *Comités de bassin* and the *Agences de l’Eau* seems quite clearly to have been reliance on LGU elected officials, rather than on representatives directly elected to what would become an important public policy decision-making unit. LGU politicians are seen as close to and responsive to their constituents. Indirectly electing LGU representatives to the *Comité* economized on election costs and provided as well a means to influence the outcome of those elections. Responsibility for selecting communal and communal association members of the territorial college was vested in the Association of French Mayors (AMF) (Nicolazo and Redaud: 265). Additionally, members of the departmental and regional councils both elect representatives to the *Comité* from among their number (Nicolazo and Redaud: 264).

Since a large number of regional and national elected political officials are also mayors of communes (see *infra*, D.2.) it seems likely that departmental, regional and national governments could informally engineer communal representation on the regional water councils to encourage compliance with national, regional and departmental policies and preferences. There exists no opportunity for citizens to elect ‘water mavericks’ directly and it seems highly unlikely that the French mayors’ association, much less the departmental and regional councilors, would designate such individuals as representatives, since they might make waves and ‘rock the boat.’

The composition of the ‘territorial college’ reflects the financial contribution of large cities in raising funds necessary for WSS infrastructure facilities.

2. *Weight of Large Communities in Comité Representation*

As large cities are capable of providing the bulk of *redevances*, they are well represented in the *Comité* territorial college, despite the fact that rural areas, through the recruitment mechanisms of the French mayors’ association (most of France’s 36,500 communes are very small in size) and through the departmental and regional councils, could obtain a preponderance of the seats. Representatives of the smaller communities know, however, that they depend on the urban centers to mobilize the bulk of the *redevances* that finance construction of WSS infrastructure facilities.

3. *Multiple Mandates and Comité Leadership*

LGU elected officials have grasped the advantages they can derive from holding posts in their *Comité* college, and have thus taken advantage of the *cumul de mandats* practice, legal in France (holding multiple elected offices simultaneously) (Baguenard: 78-90, esp. . In effect, this insulates *Comité* elected politicians and reduces their accountability, thus weakening the political recourses available to citizens in the water sector. Commune

elected officials and those representing inter-communal special water districts (S.I.V.U., S.I.V.O.M.) must, by the terms of the 2006 water law, constitute the majority in the ‘territorial’ college, but they may just as well be informally dominated by the most important among them, those who simultaneously hold posts as elected departmental, regional or national representatives.

Representatives in the first two *Comité* colleges elect the president of the *Comité* (Drobenko: 67).

4. Weighting of Comité Second College Membership to Favor Business and Agricultural Interests over Civil Society Interests

Water politics in France are sufficiently important that business and farming enterprises have lobbied hard to increase their seats in the second college of the regional *Comités*. While it is understandable, the resulting distribution of power leaves consumers and environmental NGOs at something of a disadvantage, particularly where business and farming interests have incentives to shift costs of anti-pollution activities to consumers and undermine environmental values. The impact of this allocation of seats explains, at least in part, the difficulties that the Agencies and Basin Committees have experienced in trying to control agricultural pollution.

5. Ministerial Appointment of Socio-Professional and State Agency Representatives to Comité Second and Third Colleges

A number of the members are appointed by the minister responsible for the environment, as well as by heads of other national ministries. This is justified as helping to ensure that *Comité* decisions reflect *national* water policy.

The minister responsible for environmental matters also fixes by *arrêté* (decree) the regions and departments that belong to each watershed *comité* and the number of representatives allocated to each. S/he also specifies the ministries that will send representatives to the *comités*. Those representatives can be specially appointed, but most serve *ex officio* so long as they occupy posts judged relevant to the work of the *comités*.

The same minister determines the categories of users, and the number of their representatives to the *comités*. It is then up to the prefect of the department within which a given *comité* is headquartered to designate user group representatives on proposition from the respective groups. The minister for environment follows a similar procedure in selecting representatives from businesses: the socio-economic councils of each region propose representatives from local entities in each category, and the minister approves as *comité* members one representative per region for each category. Among the ‘socio-professional’ categories are farmers, industries, hydropower generators (including the national electrical company, which operates the nuclear reactor system), water supply companies, and construction companies. Civil society (NGO) representatives are drawn from environmental, consumer and fisher associations. The last are judged particularly important as they are assumed to play a ‘canary in the coal mine’ role in signaling any

degradation in water quality that affects their fisheries. (For this section, see Nicolazo and Redaud, 261-66).

Information provided in this and the two preceding sections indicates the extent to which the *Comités* are subject to top-down control and can be considered as closely controlled voice mechanisms. Nevertheless, in the judgment of highly qualified French writers who have closely studied the *Comités* they do, in fact, play a real role in decision-making about water quality and quantity, as well as pollution abatement activities. These authors remark that the popular nickname for the watershed committees, ‘water parliaments’, while technically incorrect, does convey something of their power (Nicolazo and Redaud: 261; Drobenko: 67). It is beyond question that the *Comités* exercise real power in determining the level of *redevances* to be collected by each *agence*, and the government – via the *Agences de l’Eau* – cannot circumvent the requirement for *comité* budgetary approval.

What seems more problematic is the amount of autonomous judgment that informs these budgetary decisions. LGUs, business and civil society organizations can influence those decisions, up to and including imposing an effective veto on projected expenditures. But most of the actors in the aforementioned categories seem recruited by processes that allow for or, more accurately, build in strong elements of state influence, whether direct or indirect. And, with the exception of the government technicians and civil servants, they are typically volunteers who have to take time from other activities to deal with water problems. By contrast, Agency technicians are full-time employees and experts in their various specialties. It seems probable that *Comité* members take their recommendations seriously and accord them due weight. And this leads to the question of Agency leadership in water policy, process and programs.

6. *Water Experts Control Comité Agenda*

Although the LGU and NGO colleges by terms of the 1992 water law place substantial numbers of members on the governing boards of their respective Water Agencies, Agency directors and technicians appear to control the agenda.

The *Agences* are, in French law, classified as public administration entities; their activities are subject to oversight (*tutelle*) by the ministry responsible for environment. Each is administered by its own council. The minister responsible for the environment names the council president, and the prime minister of France, the Agency director. By virtue of his/her appointment, the agency director appears to enjoy marked political status.

Agency administrative councils are constituted following a pre-set allocation of seats, as follows: each of the three *Comité* colleges receives an equal number of seats; *Comité* members elect, by college, the representatives of the first two colleges to the Agency administrative council. Agency technicians represent their state agencies on an *ex officio* basis. Agency personnel also select one representative to the council (Drobenko: 69-70). Agency administrative councils typically include some 35 members, selected to ensure,

not only geographic representation for the different parts of each regional basin, but also specific categories of users. They play a major role in preliminary review of proposals and in preparing budgetary propositions for consideration and (usually) approval by the *Comité* ‘parliament.’ The fact that different groups involved in the administrative council regularly jockey to increase their representation there suggests that participants see as critical the role of that council in shaping the Agencies’ action agendas and budgets.

The minister responsible for environment appoints the presidents of the administrative councils, which ensures high state officials easy access and capacity to intervene in Agency affairs.

In addition, the minister names the agency directors, who serve as chief executives. These individuals are almost always highly qualified civil servants, trained in some field relevant to water affairs. Typically, they are graduates of the French *grandes écoles*, particularly *mines* (mines), *génie rurale* (rural engineering) and *ponts et chaussées* (bridges and roads). The *grandes écoles* are among the country’s foremost training institutes. Originally established by Napoleon, their graduates are commonly regarded as extraordinarily well qualified (Bourdieu: *passim*, Nicolazo and Redaud: 254-55). And their first loyalty, as senior civil servants, is to the state.

7. *Tutelle*: Administrative Oversight of the Water Sector

The central government further reinforces its already strong hand in Agency decision-making via the regional prefect mandated to exercise oversight of Agency activities. As the water agencies and committees took on increased responsibility, and as the regional watersheds were accorded the administrative status of *circonscriptions*, it was decided in 1987 that each regional watershed jurisdiction should have a ‘coordinating prefect.’ This role is assigned, *ex officio*, to the prefects of regions in which the regional watersheds are headquartered.¹¹ They ‘speak for the state’ in interactions with the water agencies and committees, and are explicitly mandated to coordinate water policy, as *primus inter pares*, with their peers, the heads of the other politico-administrative regions with territory in a given watershed. Further, the civil servant who heads up the decentralized state environmental agency is, *ex officio*, designated to assist the coordinating prefect with the technical aspects of coordination issues (cf. Nicolazo and Redaud: 148-50).

7. “*Statist*’ Mentality and Reliance on State Expertise

In France there is a long and still vibrant tradition of relying on “the state” to solve problems (Tocqueville: *passim*; Crozier: *passim*). This extends to the point, for instance, where even environmental NGOs often rely on state financing for the bulk of their funds, over and above what they can solicit from donors, environmental foundations and the like. There is a general sense among French citizens that, as they are heavily taxed (with their consent of course, expressed through the country’s political processes), they have a right to expect that the state will use their Euros to solve public problems.

¹¹ Note that each ‘regional watershed,’ an entity defined in geographic terms, can contain more than one administrative and (since decentralization policies have been implemented) governmental region.

Political participation in France seems in general heavily mediated through political parties and unions, and is less focused on ‘self-help’ activities for instance, than in much of the United States. In this regard the country differs little from other Western European democracies (Lancelot: *passim*). Most of this participation occurs in the context of electoral campaigns; occasionally, an event elicits a short burst of enthusiasm which typically takes the form of a *manif* (*manifestation*, i.e., demonstration). The role of *manifs* is to prove to the government that those organizing them represent large numbers of citizens on a given issue and that sentiment about an issue is sufficiently intense that leaders can mobilize substantial support. As in other countries, the number of demonstrators in a given *manif* is hotly debated to underline or undermine the salience of the mobilizing issue (Gros). But then life returns to normal, that is, sustained political indifference (Lancelot: 58).

There exists only moderate activity that might be characterized as “popular participation in watershed management,” much less popular governance of watersheds. As noted above, “popular participation” is largely mediated through communal mayors who have been appointed to a regional watershed *Comité*. Nonetheless environmental groups do exist and those that are officially recognized have a right of access to information as projects are being prepared. Some help manage areas classified as nature reserves. They can play a role in helping victims of water disasters (floods, etc.) to seek legal recourse. And they are frequently involved in the formal institutions of watershed governance and management, i.e., the *Agences de l’eau*, the *Comités de bassin*, and the *commissions locales de l’eau* (see *infra*), where they monitor proceedings, and exercise their right to vote for or against propositions in light of their projected impact on the environment (Drobenko: 61-62).

E. Tributary Watershed Commissions

The regional watershed committees are mandated by the water law of 1992 to develop master plans for watershed development (*Schéma directeur d’aménagement et gestion des eaux* [SDAGE]). That legislation followed up on the European Union’s adoption of the French geographical approach to watershed management (European Union; Drobenko: 79). Within each regional watershed, watershed committees were authorized to establish for any tributary of the main stem rivers in the basin a *commission locale de l’eau* (CLE). Members were to be recruited among sitting *Comité de bassin* members, representing various interest groups, who physically reside in the tributary watershed. The first college, which controls half the votes of the CLE, is composed of LGU representatives, both communal and ‘public establishments,’ in this case, water-relevant special districts. This group of elected politicians selects the president of the CLE.¹² A quarter of the CLE seats are allocated to water user groups, landowners (farmers), professional associations (for instance, fishers’ committees), environmental NGOs, and the final quarter, to local representatives of the state and its technical agencies. The 2006 water law deleted reference to environmental NGOs, so that they now have but a single representative in the CLE (Drobenko: 74). This restriction on voluntary group activity

¹² Once again, note the reliance on indirect election, which dilutes users’ political recourse.

seems curious insofar as the 2006 water law specifically applies to “aquatic milieus,” where one would imagine NGO environmental groups might play an important role in supplementing state efforts.

Each CLE is responsible for developing for its tributary, with assistance from the departmental prefect and state technical agents, a *Schéma d'aménagement et de gestion des eaux* (SAGE). A SAGE can be established by two different processes. The first involves a decision by members of the relevant over-arching *Comité*, when preparing the SDAGE for their regional watershed, that a particular tributary watershed needs a SAGE because of some water quality or quantity problem revealed in the course of their SDAGE investigations. If the relevant local actors do not take the initiative to prepare a SAGE in light of the *Comité*'s injunction, the law provides that the prefect can draft it.

A second procedure can originate either with the prefect or with LGU officials who can request creation of a SAGE for their tributary watershed. In either case, the proposed geographic limits of the CLE's jurisdiction, as well as its mandate, are described in a technical report which justifies its creation. That report is submitted to all the LGUs (communes, departments, regions) that have jurisdiction over any part of the watershed. They have two months to comment, after which period the coordinating prefect for the regional watershed submits the report to the watershed *Comité*, again for their advice. Once this step is completed, the “competent prefect” – the one who controls the major part of the tributary watershed in question – determines the limits of the watershed and then publishes that information, and simultaneously establishes the CLE for that watershed (Drobenko: 88-89).

Members of the CLE, under the president's direction, establish the SAGE for their tributary, relying on experts' input when as few as five members request their assistance, and receiving input from the relevant prefect concerning current water quality and quantity problems in the watershed, as well as projected problems in light of development of existing uses. This document, once completed, is submitted to LGUs with territory in the CLE's jurisdiction, to the regional *comité*, and basin public jurisdictional units that may exist (e.g., special districts for watershed governance and management) for advice. They have four months to respond; amendments can be incorporated (but if so, state agencies must review the amended draft of the SAGE). Thereafter, the prefect finalizes the SAGE by publishing a prefectural *arrêté*.

Once a water development and management plan has been approved for a tributary, members of the *Commission local d'eau* bear first responsibility for ensuring that water users abide by its provisions and that projected investments are realized.

F. European Union Water Sector Rules and Regulations

The European Union, beginning in 1970, began to develop a corpus of rules designed to provide a framework for better governance and management in the water sector, while also creating a means for EU officials to keep an eye on how member countries moved to implement those rules. The EU essentially followed the French approach in the water

sector, based on the watersheds as geographic units (D. and E., *supra*). This was of course not unfamiliar in some other member countries because of the international efforts undertaken by Germany, France, Belgium and the Netherlands to abate pollution on the Rhein River and its tributaries.

The EU shaped member state water law as it developed the community's environmental regulations. Representatives of many states to the European parliament supported development of a Europe-wide approach because it relieved their home countries of the burden of acting alone. By 2000, the EU had developed a major water policy directive (No. 2000/06), which sought to "establish a framework for protection of domestic surface, brackish, coastal and subsurface waters." The overall objective was to promote achievement, throughout Europe, of a "good ecological condition of [EU] waters by 2015." Provisions for authorizing exceptions were integrated into this directive, but so as well were arrangements to define standards for a large number of noxious chemicals, establish monitoring systems, and compel implementation by member states (Nicolazo and Redaud: 41-44).

The directive mandated development in each member state of watershed governance and management arrangements along French lines. Each was to incorporate a watershed 'legislature' and an executive agency to implement watershed policies, programs, projects and rules. But enforcement, given the EU's constitutional structure, remains problematic. France has not distinguished itself in its zeal to implement the various elements of this directive, and has been repeatedly sued by the EU Commission in Brussels for its failure to comply. In this it has more or less followed the norm for member states. As these authors note, it's characteristic of the French that they seem to believe that "...to writing and passing a law suffices to solve a problem." (Nicolazo and Redaud: 53; 9).

IV. OUTCOMES: WATER QUALITY AND QUANTITY IN CONTEMPORARY FRANCE

The French institutional design for water governance and management, described above, is the product of an iterative and deliberate process. But how does it work in practice?

A French water engineer and a water lawyer, with years of experience working within this evolving framework sum up results as variable by subsector. In broad brush terms, they see marked progress in the domestic WSS area and a real contribution to pollution abatement occasioned by domestic sewage. Industry has achieved significant progress as well, despite the fact that industries have dumped sufficient PCBs in the Loire and the Rhone rivers that public health alerts have been issued to warn people about consuming more than a minimum amount of fish caught in the waters of those two major French rivers.

In the area of agricultural pollutants, results are much less encouraging. French farmers, despite a growing interest in the country for organic farming and its food products, French farmers are by far the biggest consumers in Europe of chemical fertilizers,

insecticides and pesticides. Just as in many rural areas in the United States, watersheds can handle/process only so much of such chemicals before they begin to show up in run-off and aquifers. That's a growing threat, in France, and farmers, whose mechanized operations leave them very exposed to fuel price rises, staged a large number of *manifests* in 2007-2008 when diesel fuel costs were escalating. That pressure has ebbed for the moment, but farmers suspect it will return and are leery of committing to change practices. If fuels and fertilizers become sufficiently expensive, they may; but at the moment, agricultural chemical pollution of potable water supplies in many areas of France poses a real threat to public health (Nicolazo and Redaud: 85-94, esp. Figure 13, p. 86 [distribution and intensity of agricultural pollution in France]).

In the south of France, agricultural chemicals are blamed for periodic algae blooms in coastal lagoons, particularly in the large and highly productive Étang de Thau. Fishers organizations tend, as noted, to be prized members in the *Comité* and *CLE* because of their acute awareness of water quality in coastal areas, upon which they depend for their livelihoods. Fishers are reluctant to accept appointment or election to the role of fisher representative because they feel they can ill afford to focus on activities other their trade. Given their unusual work schedule – many rise well before dawn to be on the waters during prime fishing time – they find it difficult to arrange to attend meetings, particularly when they involve travel away from their home base.

Results, thus, are mixed: progress in some areas, but severe resistance in some economic sectors to accepting changes necessary to abate pollution from agricultural chemicals. Fishers, furthermore, are loathe to finance provision for the broader national community of a public good – water quality monitoring – so soon as that impinges on their regular fishing effort.

The legal framework for water activities, as it evolved at the commune level, left something to be desired in terms of transparency. Many communes contracted out management of their WSS operations to one of France's three main water companies (Nicolazo and Redaud: 96). Mayors tended to handle negotiation of these contracts without much oversight, either from communal council members or from administrative oversight organizations. In consequence, some mayors solicited 'campaign contributions' as part of the process.

Another element that complicates progress in the water sector in France concerns issues of enforcement. The European Union Parliament and Commission have, over the last two decades, developed a significant role for themselves in the water sector of member countries. But the EU cannot move to enforce its directives against individuals, entities and jurisdictions judged to be remiss in meeting EU requirements, particularly in water supply and sanitation. Instead, each member nation is responsible for enforcing EU directives within its national territory. In France, state withdrawal from direct provision of water services as decentralization proceeds has not led to a corresponding increase in litigation designed to compel water users to meet their obligations under EU legislation. This undermines progress in the water sector (Nicolazo and Redaud: 99-104, esp. 103).

Farmers and the farmers' lobby have enjoyed a good deal of success in avoiding pollution abatement obligations. At present governmental and public pressure to reduce or modify agricultural practices that pollute the country's water supplies. French consumers know that organic farming products are markedly more expensive than those from chemically-based farming operations, if only through informal comparison shopping at outdoor markets. When chemical farmers complain about new (more organic) practices increasing their costs, consumers can translate that in terms of rising food bills, which dampens the ardor of many for fundamental changes in agriculture.

V. FINDINGS AND CONCLUSIONS

This brief paper highlights French reliance on expertise as the touchstone of policy and action in the water sector. This approach has fostered a complicated set of institutions, based in the first instance on geographic watersheds (regional river basins and their tributaries). The institutions themselves however appear designed to ensure that high-level politicians, administrators and technical experts will retain firm control of activities in the sector and exercise authority to impose national policy throughout the country. Politicians, administrators and technicians active in the water sector appear to assume that citizens should confirm and comply with experts' decisions about water sector programs and projects. The outcomes have been mixed: reasonable progress in abating domestic and industrial sewage, much less progress in dealing with agricultural pollution which now threatens potable water supplies in Brittany and many other parts of France. To that extent, France (like many other EU member countries) remains at odds with important EU water sector objectives.

Despite 'involvement' of a range of water users in decision-making processes in the water sector, French institutional designs that have evolved in the sector tend to reduce citizens and water users to 'takers' of decisions arrived at by experts and political elites, at national, regional and local levels. The design of French water institutions reflect clear awareness that the common pool characteristics of water in watersheds require coordinated approaches to maintain water quality and quantity. What is more problematic is whether this can be done through an approach which affords ordinary citizens very little capacity to influence the process. Popular participation in water quality and quantity maintenance activities remains limited. And the population expresses little inclination to play a more active role, preferring to rely on the state to solve such problems.

To this must be added France's difficulties when it comes to enforcing EU regulations within the country. Citizen and environmental user groups concerned with water lack institutional means to apply long-term pressure for reform in the French water sector. Businesses have fared much better in lobbying for their priorities within this institutional framework, in part because outcomes directly affect their short-run profitability, and in part because they can assign employees to address the issue. Inertia is heightened by the EU's inability to apply judicial pressure directly to individuals and entities that fail to meet their obligations under Union water law. The EU's commission in Belgium can only sue member states, and cannot sue those directly responsible for failure to comply with those regulations. Since the French state, as part of the decentralization policy initiated in

the 1970s by the Mitterand Socialist government and progressively implemented every since, has transferred more and more of its service provision authority to local government units, and public funds have followed that shift, the French national government now has relatively less capacity than it had in the 1960s to shoulder operational burdens. Now, 'the state' increasingly takes the form, in French domestic policy, of local government units. But national state *tutelle* (oversight) remains a fact of daily life.

Despite the existence of environmental NGOs and local government units that seek to implement state policies and willingly invest in implementation of water projects and programs, momentum in contemporary France that might produce further significant improvements in the quality and quantity of the country's water supplies is not apparent. The degree of top-down 'guidance' applied in the water sector seems to discourage self-help collaboration among water user groups: the answers are know, the policies fixed and anyway, it's the state's job.

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ABBREVIATIONS AND ACRONYMS

AFB	<i>Agences financières de bassin</i> (Watershed Financing Agencies)
DCE	<i>Directive cadre de l'eau</i> (European Union Water Framework Law, XXX)
NGO	Non-governmental organization
SAGE	<i>Schéma d'aménagement et de gestion des eaux</i> (Watershed [sub-basin] management plan)
SDAGE	<i>Schéma directeur d'aménagement et de gestion des eaux</i> (Master plan for regional watershed management)
SIVU	<i>Syndicat intercommunautaire à vocation unique</i> (inter-communal special district)
SIVOM	<i>Syndicat intercommunautaire à vocations multiples</i> (multiple-purpose inter-communal district)
WSS	Water Supply and Sanitation