The Use of Masters in Environmental Litigation

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The Case for Using Masters

The "downsizing" of American government is a clear trend in public policy. Already, federal environmental agencies have significantly smaller staffs and fewer resources. However, few federal statutes have been systematically altered to accommodate the reduced resources of government agencies. A major overhaul of environmental statutes to reflect a more limited federal role in enforcement or a shift in responsibility for environmental protection to either the states, other levels of government, or the private sector appears unlikely because the public's expectations for improving environmental quality remain high. Thus, the laws in effect are unlikely to be aggressively enforced. Although state government is extolled as the most efficient vehicle for environmental protection, in the past it often has been either unable or unwilling to fulfill this role. Because the downsizing trend is also occurring in state government, it is unlikely to fill any void left by the federal government.

Downsizing will have at least two significant results. First, ignoring environmental problems will return the nation to the practice of responding to environmental "train wrecks." Second, the absence of a strong federal role in implementing environmental policy will lead to increasing reliance on the citizen suit provisions of federal environmental statutes for selective and piecemeal environmental management. These assertions take into consideration the market solutions successfully used by the private sector for environmental protection; however, market solutions cannot resolve every situation. A system characterized by powerful environmental statutes and a lack of governmental will or capacity to enforce them will compel aggrieved parties to seek approaches beyond traditional government regulation.

With the growth of increasingly complex environmental issues and declining state and federal govern-

ment resources for enforcement, environmental disputes will gravitate to the courts in ever-increasing numbers. As the forum of last resort, courts are forced to assume some of the functions usually reserved for administrative agencies. However, the judicial system is also experiencing a reduction in resources. In June-1996, the Administrative Office of the U.S. Courts reported that there were twenty-six vacancies on the U.S. Court of Appeals and seventy vacancies in the U.S. District Courts. Telephone interview with Karen Redmond, Administrative Office of the U.S. Courts (June 10, 1997). Judicial vacancies will impede the ability of courts to absorb the additional workload, thus the need for court-appointed experts, often designated "masters." Depending on the assignment, they can also be called special masters, monitors, or other titles at the court's discretion. Among the most compelling reasons for a court's needing the help of a master are the following: (1) the workload of the court does not allow sufficient time for it to directly manage its orders or judgments (the court's time has to be divided among implementing complex environmental judgments, maintaining its usual caseload, and overseeing other complex cases); (2) inaction by state or federal agencies compels the court to supervise agencies or directly oversee actions of defendants to ensure compliance with its judgments, pursuant to the law (the court can use experts as a source of unbiased information or to perform administrative functions for the court); and (3) the expertise required in some litigation is often beyond the normal experience of the court (courts do not specialize in environmental litigation and the issues being brought to court are increasingly complex).

Despite the trend toward increasing specialization within the law and society, highly trained specialists in a single discipline are not the best choice for masters in litigation that involves multidisciplinary issues. The court will achieve better results from generalists within a particular field because these individuals have training and experience in a wide range of areas. Lawyers are not generally the best choices for masters, because legal knowledge is the area in which the court is least

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likely to need additional expertise. A master provides the most benefit when he or she augments the existing intellectual resources of the court.

An important factor in selecting a master is the individual's knowledge of the basic issues, in these cases those deriving from environmental statutes. Environmental issues often involve more than one medium (air, water, or land); therefore, the scope of a master's knowledge should be broader than that required for dealing with a single statute.

For environmental litigation, expertise often is needed in the following areas: (1) science, including biology, chemistry, ecology, engineering, forestry, geology, hydrology, and meteorology; (2) natural resource management, including air pollution, water pollution, hazardous wastes, and energy, land, and wildlife resources; (3) economics, including energy and environmental economics, and econometrics; (4) statistics and computer modeling; (5) public policy, including regulatory and legislative processes; and (6) negotiation skills and dispute resolution techniques. Generalists can be found with sufficient knowledge in most of these fields.

The services a master can provide during environmental litigation include: (1) negotiating and mediating disputes (the master can work outside the courtroom to narrow issues or build consensus among the parties to resolve key disputes); (2) developing a judgment and monitoring compliance with it (where the parties have negotiated an agreement requiring specific actions according to a time schedule, compliance should be monitored); (3) collecting, synthesizing, and interpreting data for the court (environmental litigation often requires management of much complex data; judges rarely have staff to manage, or the familiarity to work with, hydrological, geological, meteorological, biological, or chemical data); (4) planning (court decrees often require detailed and tedious development of compliance, resource management, or remediation plans); (5) acting as the eyes and ears of the court (through contacts independent of the litigation, and in a setting outside the courtroom, the master can collect, organize, and convey information useful to the court and the parties); and (6) lending additional credibility to the court's actions (an impartial analysis prepared by the master at the court's direction can provide the basis for the judge's decision).

A master provides the most benefit when he or she augments the existing intellectual resources of the court.

Rules of Evidence (FRE) are often cited by courts as the bases for appointing masters. Rule 53 pertains to the appointment of a master who can potentially exercise broad powers as directed by the court. The master may be anyone within the range of "a referee, an auditor, an examiner, and an assessor." Fed. R. Civ. P. 53(a). At the court's discretion, the master can be given the power to "put witnesses on oath" and to "call the parties to the action and examine them upon oath." Fed. R. Civ. P. 53(c). The master's powers and duties are usually established in the court's order of reference.

Rule 53 permits the use of a master in "any action" pending before the court, although the use of such a person is to be an "exception and not the rule." Fed. R. Civ. P. 53(a). For jury trials, Rule 53 refers vaguely to the use of a master for complicated issues, which could describe most environmental litigation. For non-jury trials, three circumstances are listed: (1) matters of account; (2) matters of difficult computation of damages; and (3) when exceptional conditions require such an appointment. With current judicial caseloads, most judges could use a master, and their use would still be an exception. However, in LaBuye v. Howes Leather Co., 352 U.S. 249, 77 S. Ct. 309, 1 L.Ed.2d 290 (1957), the U.S. Supreme Court affirmed a ruling by an appellate court that crowded dockets and lengthy trials do not define "exceptional conditions." Unfortunately this ruling did not clarify the meaning of this phrase.

FRE Rule 706 is the basis for appointing expert witnesses with more limited authority than that provided under Rule 53. Under Rule 706, the duties of the master can be established either in a written order from the court or at a judicial conference with the parties. Also under Rule 706, parties may be given the opportunity to nominate candidates for master.

A less commonly used authority for appointing a master is FRCP Rule 70. This rule gives the court the power to appoint an individual with expansive authority to ensure compliance with a judgment. The key to Rule 70 is its availability to the court in instances where a party fails to comply with a judgment within a specified time. The court can enter an order divesting real or personal property from the disobedient party and transferring the property to the master who is to fulfill the court's original judgment.

A court has several options for compensating the master. It can determine fees for compensation and then access any fund or subject matter of the action to pay them or, more likely, require some combination of the parties to the litigation to pay the fees.
Judges have wide discretion in designating a master to lend assistance, which may be tailored to almost any purpose the litigation specifically requires. A court can cite any of the authorities described above as the basis for appointing a master, although this is not required. A citation defining the limitations of the master’s authority is often included in the order issued by the court. The following four cases demonstrate some of the services that masters can provide to courts.

Examples of the Use of Masters

The City of Detroit was sued by the U.S. Environmental Protection Agency (EPA) for numerous violations of the Federal Water Pollution Control Act Amendments of 1972 (FWPCA) at the city’s wastewater treatment plant (WTP). United States of America v. City of Detroit, No. 77-1100 (E.D. Mich. May 6, 1977). The City of Detroit was compelled by the district court to accept an agreed-upon judgment on September 9, 1977, mandating a very short schedule for bringing the massive regional WTP into compliance, including a requirement for secondary treatment mandated by FWPCA. Within a year, Detroit had failed to meet the deadlines to which it had agreed. EPA sought a hearing at which the city would be required to “show cause” why it should not be compelled to comply with the judgment it had accepted. A dispute then arose as to the treatment capacity of the plant and other matters.

The court appointed a monitor to evaluate the performance of the plant. After the monitor’s report was complete, the court advised the parties that it was considering naming a person to be responsible to the court for the operation of the facility and invited the parties to provide nominations. After months of deliberation, the presiding judge, John Feikens, appointed Coleman A. Young, mayor of Detroit, as the administrator over operations of the WTP. Judge Feikens granted Mayor Young powers traditionally exercised by “receivers” to manage and conduct such operations under the supervision of the Court. United States of America v. City of Detroit, at 8–9 (E.D. Mich. Mar. 21, 1979) (Order).

In addition to citing FRCP Rule 70 in his opinion, Judge Feikens cited the following cases as the authority for his action:

they [invite] further confrontation and delay; and when the usual remedies are inadequate, a court of equity is justified, particularly in aid of an outstanding injunction, in turning to less common ones, such as a receivership, to get the job done.” Morgan v. McDonough, 540 F.2d 527, 533 (1st Cir. 1976). Id. at 7.

With the exception of the two cases concerning the Mississippi Valley Barge Line Co., Judge Feikens cited cases that dealt with racial discrimination. Both Mississippi Valley Barge Line Co. v. United States and United States v. Wallace include the following reference:

The courts of the United States have inherent statutory power and authority to enter such orders as may be necessary to enforce and effectuate their lawful orders and judgments; and to prevent them from being thwarted and interfered with by force, guile, or otherwise whether or not the person charged with the violation of the judgment or decree was originally a party defendant to the action. 28 U.S.C.A. § 1651. Mississippi Valley Barge Line Co. v. United States, 273 F. Supp. 1, 6 (E.D. Mo. 1967), aff’d sub nom. United States v. Wallace, 218 F. Supp. 290, 292 (N.D. Ala. 1963).

In an accompanying order, Judge Feikens delegated to the administrator the authority to control, manage, and operate Detroit’s WTP, including all of the functions, duties, powers, and authority of any and all departments, boards, or other divisions of the City of Detroit insofar as they affected the WTP. The administrator was given the authority to bypass the Detroit City Council in matters concerning the plant and to enter into contracts without going through the competitive bidding process. United States of America v. City of Detroit, at 8–9.

The Detroit City Council invited Judge Feikens to discuss with its members the provisions allowing the administrator to bypass the council. During his appearance before the council Judge Feikens observed,

There is a general feeling in the country these days that federal judges are involving themselves in too many areas of concern. ...To impose a receivership on a water system as big as this one is unusual, to say the least, but there is precedent in the law for it. ...These are problems that the federal judicial system must meet in these complex areas if there is no other group to meet them.

Judge John Feikens, Address to the Detroit City Council (Jan. 9, 1980), at 1–3.

In his opinion, Judge Feikens instructed Mayor Young to hire an assistant administrator to carry out this mandate. United States of America v. City of Detroit, at 8 (order appointing administrator of City of Detroit Wastewater Treatment Plant). The mayor named Joe G. Moore, Jr., as assistant administrator and delegated to him many of the duties assigned to the administrator under the court’s order. For more than a year, Mr. Moore directed the day-to-day operations of the 1,100 employees responsible for running the WTP; thereafter he served four more years in an oversight capacity.
After an evaluation of the treatment plant’s capacity, the court instructed the assistant administrator to prepare his recommendations to the court. Among his recommendations, Mr. Moore enumerated $246 million in capital expenditures necessary to achieve secondary treatment and control of air emissions from fourteen sludge incinerators. Letter of Transmittal from Moore to Feikens (Dec. 17, 1979), at 7.

The court subsequently directed the assistant administrator to chair a group consisting of staff from EPA, the Michigan Department of Natural Resources (MDNR), the Wayne County Health Department and the Detroit Water and Sewerage Department (DWSD) to draft an Amended Consent Judgment (ACJ). A detailed schedule for meeting air pollution control requirements was agreed upon in the ACJ.

Because the U.S. Congress had neither authorized nor appropriated funds to provide the federal share of grants for treatment works in 1980 and 1981, MDNR advised the court that there would be insufficient federal funds to pay the federal share of all projects needed to comply with the ACJ. The court thereupon entered an order extending a congressional appropriation beyond its expiration date, reserving all federal funds available to the State of Michigan solely for the City of Detroit, to the detriment of other cities in Michigan. Although this order was eventually overturned, Detroit, in the meantime was able to continue its projects with the requisite funding.

Mayor Young eventually issued twenty-nine administrative orders. Because one of the mayor’s administrative orders became the focus of a legal action alleging bribery of a city official, the court began to communicate directly with the assistant administrator on a variety of issues. At the behest of the Federal Bureau of Investigation, Judge Feikens authorized wiretaps of the mayor’s telephones, causing a rupture in the working relationship that had existed between Mayor Young and the court.

By 1984, with operations at the Detroit WTP in compliance with the water pollution control provisions of the ACJ, the court ended more than five and one-half years of operation of the WTP by the mayor through the assistant administrator. During this time, several hundred million dollars had been committed to projects to improve the plant’s operation.

A second example of the use of masters concerns a cleanup of lead-contaminated soil ordered by a state district court in Dallas. Three secondary lead smelters in Dallas had at one time recovered lead from spent automobile batteries. The Texas Attorney General, the City of Dallas, and others filed suit against RSR Corporation, the owner of one of these smelters, under the Texas Clean Air Act. The parties then negotiated a court order mandating that RSR (1) clean up the premises and install adequate air pollution control equipment; (2) provide free testing by City of Dallas health officials of lead levels in the blood of minor children living in a specified area; and (3) remove contaminated soil and replace it with clean soil in a forty-acre area, 50 percent of which was occupied by residents in low-income housing. City of Dallas v. RSR Corporation and Murph Metals Inc., No. 83-5680-D (Tex. 95th Dist. Ct. Oct. 17, 1983) (Order).

The soil cleanup provisions required the appointment of a special master. Attorneys representing the parties interviewed prospective masters and recommended one to the court, and Judge Nathan Hecht appointed Joe G. Moore, Jr. without citing a specific rule as the basis for his appointment.

His duties were to implement and oversee all cleanup procedures, establish protocols for action, and ensure that the contractors and subcontractors maintained compliance with all specifications of the soil cleanup and remedial program. City of Dallas v. RSR Corporation and Murph Metals Inc., at 7. The special master also was to act in a fiduciary capacity as the court’s representative. The judge authorized the special master to communicate with the public and convey public comments concerning the cleanup to the court.

The soil cleanup and remedial program was designed by the parties to remove lead-contaminated soil, replace it with clean soil, lay St. Augustine or Bermuda grass sod, and fertilize and water the grass for six months—all at RSR’s expense. The purpose of the program was to prevent the exposure of children to lead-contaminated soil.

Disposal of the 41,000 cubic yards of lead-contaminated soil was arranged in advance. Construction of a landfill according to an approved design was completed under a contract administered by the special master.

Eventually, some eight major contracts were executed to achieve the Order’s specifications. The whole process cost RSR approximately $3.5 million. After the disposal site was closed, RSR was refunded the cost of the site, and title was transferred to the City of Dallas.

The special master worked part-time for the court, but employed full-time office managers, engineers, accountants, and environmental scientists, as well as a
community liaison. The court declared the cleanup complete in 1986.

The third and fourth cases concern Endangered Species Act (ESA) litigation in central Texas. The Edwards Aquifer is a groundwater formation underlying parts of south central Texas. It is the sole source of water for about 1.5 million persons, including residents of the City of San Antonio. It supports the economies of San Antonio and the agriculture-based counties west of the city and the Guadalupe River Basin all the way to the Texas Gulf Coast. The aquifer feeds the Guadalupe River system east of San Antonio through Comal Springs and San Marcos Springs, both of which are home to federally listed threatened and endangered species. It is highly transmissive and therefore dependent upon recharge from annual rainfall, which is variable from year to year. During droughts, springflow from the Edwards Aquifer is sometimes the only source of water moving downstream into the Guadalupe River. In those years when rainfall is below normal and less water is recharging the aquifer, withdrawals from wells are high, thereby lowering the aquifer's level more quickly and reducing flow from the two springs. Generally, groundwater use in Texas has been governed by the "rule of capture," which permits a landowner to take as much water as he or she can effectively use without wasting it. As pumping from the aquifer increases, flow from the springs diminishes, causing "takes" of species listed under the ESA and reducing the flow of surface water downstream.

In 1991 the Sierra Club and others filed suit in the U.S. District Court in Midland, Texas, against the Secretary of the Interior and the U.S. Fish and Wildlife Service (FWS), alleging that the Secretary had allowed takings under the ESA by not ensuring an adequate water level in the Edwards Aquifer to sustain the flow of Comal and San Marcos Springs. The suit requested that the defendants be enjoined to restrict pumping from the Edwards Aquifer under certain conditions, and be required to develop and implement recovery plans for certain threatened and endangered species found in the aquifer and at Comal and San Marcos Springs.

On February 1, 1993, Judge Lucius Bunton ruled in favor of the Sierra Club, requiring FWS to fix springflow requirements to avoid takes and jeopardy of the listed species in both springs. Sierra Club v. Lujan, No. MO-91-CA-69, 1993 WL 151353 (W.D.Tex. Feb. 1, 1993). Judge Bunton also set a deadline for the state to prepare a plan that would assure that the springs would not fall below the defined jeopardy levels. He also ruled that if the Texas legislature did not adopt a management plan to limit withdrawals from the aquifer by the end of its then current session, the plaintiffs could return to court and seek additional relief. The Sierra Club indicated that in such an event, it would seek regulation of the aquifer by FWS, placing the aquifer under federal judicial control. On the day before the judge's deadline, the Texas legisla-
ture created the Edwards Aquifer Authority (EAA) to regulate pumping from the aquifer so as to comply with the ESA.

A subsequent challenge to the method of selecting EAA board members under the federal Voting Rights Act prevented the EAA's activation in 1993. The Sierra Club returned to court and requested that a monitor be appointed in the case, suggesting the names of possible appointees. On February 25, 1994, Judge Bunton appointed Joe G. Moore, Jr., as the court monitor to "... gather, summarize, and evaluate information necessary to allow the Court to take appropriate action to prevent violations of the Endangered Species Act (ESA)." Sierra Club v. Bruce Babbitt, No. MO-91-CA-069, at 1-2 (W.D.Tex. Feb. 25, 1994) (order appointing Joe G. Moore, Jr., as monitor). No specific rule or legal basis for appointing a monitor was cited in the court's order. Several parties unsuccessfully appealed this order to the Fifth Circuit.

Specifically, Judge Bunton ordered Mr. Moore to: (1) gather and analyze information concerning withdrawals from and recharge to the aquifer, and springflow levels; (2) monitor the efforts of the State of Texas to regulate withdrawals from the aquifer; (3) gather and analyze plans to limit withdrawals from the aquifer; (4) monitor the efforts of users of the aquifer to conserve water, reuse water, and secure water available from other sources; (5) gather and analyze information concerning the extent to which actions of federal agencies are affecting withdrawals; and (6) gather and analyze information about new wells drilled into the aquifer and increases in withdrawals from the aquifer. Id. at 4-5.

The monitor was allowed to communicate with all parties. Compensation for the monitor was to be borne by the defendants and defendant intervenors.

In the summer of 1994, springflow from the aquifer declined to such low levels that the Sierra Club asked the court to direct the monitor to prepare a drought management plan for users of the aquifer. The court ordered the monitor to prepare such a plan within thirty days—by August 1—and authorized him to employ Todd Votteler to assist with preparation of the plan. The plan was to be designed both to reduce withdrawals to preserve springflows, and to educate the public about Aquifer management issues. The Emergency Withdrawal Reduction Plan for the Edwards Aquifer was researched and developed in thirty days. It provided for staged reductions of pumping for municipal, industrial, and agricultural use of groundwater. With the end of summer and of heavy pumping from the aquifer, fall rains averted the need for the court to implement the plan. A second plan, the Revised Emergency Withdrawal Reduction Plan for the Edwards Aquifer, was produced for the court in March 1995.

In September 1995, because there was no alternative water source available to reduce San Antonio's...
reliance upon the aquifer, the monitor suggested that the city and other pumpers apply for an ESA § 10(a) Incidental Take Permit (ITP), which would allow inadvertent takings of federally listed species during an otherwise legal activity. A habitat conservation plan (HCP), which is required for an ITP, would be developed in part as a water conservation and supply plan for the aquifer region. The ITP, accompanied by an HCP, was intended to secure a twenty-year permit to authorize incidental takes by those entities and individuals who signed the application and were granted permits. Permittees would be required to take the necessary actions to implement the HCP.

A panel was convened that was chaired by the monitor and composed of professional staff members representing each of the nine major water development planners or purveyors in the region. The ITP Panel reviewed and discussed—during eleven meetings held over the next four months in various cities across the 175-mile aquifer region—the available water supply and conservation options that could preserve the endangered species. At each meeting, the panel members and the public received presentations on methods to conserve aquifer water and alternatives for securing new water supplies for the region. In addition, Mr. Moore and Mr. Votteler met individually with interested groups, representatives of various industries and government agencies, academic researchers, and persons knowledgeable in water conservation and supply.

In June 1995, a 330-page draft of the HCP was released. The essential goals of the HCP were the conservation and reuse of existing water supplies and the introduction of sufficient additional water supplies to the region to reduce withdrawals from the aquifer by 250,000 acre-feet to 350,000 acre-feet. Joe G. Moore, Jr. and Todd H. Votteler, Draft Habitat Conservation Plan for the Edwards Aquifer (Balcones Fault Zone—San Antonio Region), at 4 (1995) (unpublished manuscript on file with the U.S. Dist. Ct., Western Dist. of Texas, Midland-Odessa Div., Judge Lucius Bunton).

During the time the panel meetings were being held, the monitor provided information to state agencies and the Texas legislature concerning the ongoing federal litigation. During the litigation, the Base Closure and Realignment Commission (BRAC) was considering the fate of five military bases in San Antonio. The surface water supply for military bases in San Antonio required attention because the local bases had previously received adverse ratings by BRAC for their sole reliance on the Edwards Aquifer. The threat of formal consultation under ESA § 7 was hanging over four of the five San Antonio bases and could influence the decision to keep the bases open.

Early in April 1995, the monitor met with the principals of water purveyors to discuss a Letter of Intent to be executed by these parties to assure the transport of 15,000 acre-feet of Guadalupe River water to the military bases in San Antonio. During the discussion of bringing water to the military bases, the surface water needs of cities along I-35 Highway were also considered. The monitor facilitated discussions with the parties when they met individually and as a group.

An agreement was reached and arrangements were made so that a public announcement and a signed document could be released simultaneously by the governing boards of the Guadalupe-Blanco River Authority, San Antonio River Authority, San Antonio Water System, and others on April 19, 1995, the day before the visit of BRAC representatives to San Antonio. A copy was delivered to the San Antonio military bases for the meeting with BRAC representatives on April 20. As a result, the water supply for the bases was no longer considered a factor in BRAC's deliberations to close the bases in San Antonio.

Eventually this case ended with a Fifth Circuit order after FWS published a recovery plan for the threatened and endangered species at Comal and San Marcos Springs. The appellate court concluded that all actions required by Judge Bunton's judgment had been fulfilled.

The final example is a sequel to the previous case of ESA litigation concerning the Edwards Aquifer. In the latter half of 1995 and through 1996 much of Texas and the Edwards Aquifer region suffered the effects of a severe drought. The 1995 Texas legislature adopted legislation that addressed the Voting Rights Act objections to the creation of the EAA board. In a separate suit in state court challenging the EAA, the Texas Supreme Court ruled in June of 1996 that the statute creating the EAA, Senate Bill 1477, as amended in 1995, was constitutional. In August 1996, in the midst of the drought and with the appointed members facing their first elections in November, the EAA's board was divided about taking emergency action that would reduce pumping from the aquifer to maintain springflow to protect endangered species habitat and downstream water uses in the Guadalupe River Basin.

Flow from both Comal and San Marcos Springs reached the jeopardy level in May 1996. FWS removed specimens of each endangered species to a fish hatch-
ery to assure their survival. A representative of FWS stated before the San Antonio City Council that the agency would take no action against pumpers to protect springflows. In June, the Sierra Club filed a new class action suit in Judge Bunton's court alleging that pumpers from the aquifer were causing takes of endangered species. *Sierra Club v. San Antonio*, No. MO-96-CA-097 (W.D. Tex. June 10, 1996). The Sierra Club sought to include all pumpers from the aquifer—as many as one thousand individuals, organizations and corporations—into representative defendant classes to manage the litigation. In this most recent round of ESA litigation, the court appointed Todd Votteler as special master under Rule 706 of the FRE. *Sierra Club v. San Antonio*, No. MO-96-CA-097 at 1 (W.D. Tex. Aug. 16, 1996) (Order).

After the EAA board failed to declare a water use emergency, Judge Bunton ordered the special master to produce within ten days a draft plan to reduce pumping from the aquifer. The special master developed the 1996 Proposed Emergency Withdrawal Reduction Plan for the Edwards Aquifer (Proposed Plan) within the deadline. The Proposed Plan was released for public comment and later revised as the 1996 Emergency Withdrawal Reduction Plan for the Edwards Aquifer (1996 EWRP). The 1996 EWRP contained a schedule of staged reductions of municipal pumping from the aquifer to be triggered by declining flows from Comal Springs.

With the federal, state, and local government agencies unwilling or unable to reduce pumping from the aquifer, Judge Bunton issued an Order on August 23, 1996, drafted by the special master, setting a deadline of October 1, 1996, for the implementation of the 1996 EWRP. (The court's Order and the 1996 EWRP are available on the Internet at http://www.expressnews.net/unauth/aquifer/buntonp.htm.)

When in effect, the plan requires defendants to furnish, through the special master, all information, data, and reports necessary to keep the court informed as to compliance with the Order. Mr. Votteler was directed to accumulate and tabulate data concerning springflows, recharge, and pumping by all classes of users from the Edwards Aquifer, and to report periodically to the court concerning efforts by municipalities, water purveyors, military installations and other local and regional water districts and authorities to achieve reductions in aquifer water use adequate to preserve the endangered species. The special master also was to report to the court concerning the survival of species in refuges maintained by the FWS. Finally, Mr. Votteler was directed to prepare a plan to restrict agricultural irrigation withdrawals in 1997 in the event that conditions warrant the adoption of such a plan. *Sierra Club v. San Antonio*, No. MO-96-CA-097 at 9 (W.D. Tex. Aug. 23, 1996) (Order).

In late August 1996, rainfall provided temporary relief from the drought for most of Texas. In September, Judge Bunton's August 23 Order was stayed by the Fifth Circuit until a hearing could be held on December 4, 1996. On April 30, 1997, the Fifth Circuit vacated Judge Bunton's August 23, 1996, Order, finding that the court should have abstained from acting on a matter that could be handled by the EAA. A three-judge panel of the Fifth Circuit ruled, "Because we hold that the Sierra Club did not establish a substantial likelihood of success on the merits, in light of the abstention doctrine enunciated in *Burford v. Sun Oil Co.*, [319 U.S. 315 (1943)], we vacate the injunction." *Sierra Club v. San Antonio*, No. 96-50636, at 2 (5th Cir. 1997) (2–1 decision). The opinion continues, "we state no bar against the Sierra Club, either in pursuing the merits or in ultimate efforts to protect the water and darters if the State of Texas fails to do so." *Id.* at 18. The Sierra Club appealed the ruling to the U.S. Supreme Court. Fortunately, in 1997 heavy rains have temporarily quenched the region's thirst, providing central Texas with a reprieve before the onset of the next cycle of drought.

The use of masters may be a natural consequence of the burdens placed upon the court system, the increasing complexity of environmental issues, and the sophistication of court judgments. As the enforcement capacity of administrative agencies of the government is reduced, the extension of the court system's responsibilities into areas formerly handled by these agencies is predictable. The four examples discussed demonstrate the wide range of options and capabilities that masters may provide to courts as well as the wide range of responsibilities that can be thrust upon the courts. The use of masters in complex environmental litigation is likely to grow if courts are forced to assume the duties of implementing and enforcing environmental statutes. It is also likely that factors similar to those promoting the use of masters in environmental litigation will encourage their use in other fields of law.

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