August 1995

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Great Plains Research 5 (Fall 1995):323-52

River Protection in Texas: Up a Creek Without a Policy

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Abstract. *Federal river protection in the U.S. began in 1968 with passage of the National Wild and Scenic Rivers Act (P.L. 90-542). In addition to the federal system, 33 states have enacted some type of state-level river protection legislation. Currently, over 400 river segments and 15,000 river miles are protected by the state programs. Texas, which contains 23 major river basins and over 80,000 linear miles of streambed, has made numerous attempts to establish a state-level protection program; however, each has failed. With a growing population of more than 17.6 million, competition for water resources will intensify, including demands for various forms of river recreation. This research reviews the status of existing state-level river protection programs, summarizes the progression of water resource development in Texas as it relates to river protection issues, analyzes the history of failed legislative attempts at establishing a Texas rivers system, and recommends strategies for future passage of a Texas river protection act.*

According to the Nationwide Rivers Inventory completed in 1982 by the National Park Service, more than 60,000 of the nation's 3.5 million river miles qualify for inclusion in the Wild and Scenic Rivers System (National Park Service 1982). However, since the creation of this system in 1968 by the National Wild and Scenic Rivers Act (P.L. 90-542), fewer than 11,000 river miles have been designated for protection under the federal program. Well documented frustrations with the federal system including vagueness of guidelines, lack of adequate funding, lengthy designation procedures, resistance from private property owners, and failure to encourage innovative

solutions have resulted in alternative approaches to river protection (Watanabe 1988). Chief among these alternatives are state-level river protection programs which currently exist in thirty-three states.

While state-level river protection legislation has, in general, modeled the federal Wild and Scenic Rivers Act, many states have been able to overcome some of the obstacles faced at the national level. Presently, over 400 river segments and 15,000 river miles are provided with varying levels of protection by the thirty-three state river programs (Pettit and Schoolmaster 1994). Ideally, state-level programs can enable the protection of rivers that may not be qualified for federal designation, provide mechanisms for continued designation of eligible rivers, increase public participation and education, facilitate watershed management, protect riparian lands, and produce river protection strategies that are tailored to specific state, regional, or local needs.

However, many states, particularly in the Great Plains and Intermontane basin regions, have faced difficult problems in establishing and expanding river programs. For example, Texas has attempted to pass a number of river protection bills, all of which have failed, primarily as a result of a strong landownership ethic, fear of government regulation, and lack of political consensus in the state. States with successful river protection acts could provide fundamental guidance for other states working to develop river programs, recognizing that individual historical, political, geographical, environmental, cultural, and socioeconomic factors must be taken into account. This paper serves as a case study of failed attempts to establish a state-level river protection program in Texas.

Specifically, this research will

(1) review the status of existing state-level river protection programs,
(2) summarize the progression of water resource development in Texas as it relates to river protection issues,
(3) analyze the history of failed legislative attempts at establishing a Texas rivers system, and
(4) recommend strategies for future passage of a strong Texas river protection act.

Although this paper primarily addresses Texas river preservation strategies, this research could provide important insight into developing and improving river programs in regions facing similar obstacles, particularly in the Great

Plains and Intermontane basin states where there is a general absence of river protection programs.

Overview of Existing State River Protection Programs

Similar to the federal program, the majority of states with river protection acts have established river categories such as wild, scenic, or recreational. A designated river is placed into a category based on various criteria including but not limited to landscape appearance, flow conditions, and development of riparian lands. This type of classification system was included in the federal Wild and Scenic Rivers Act not only for organization and identification purposes, but also to accommodate differing perceptions of outdoor recreation and wilderness (Asmussen and Bouchard 1970). The remaining states have taken another approach by placing all designated rivers into one category, such as "protected river areas," based on a single set of criteria.

Generally, rivers can be nominated for designation by government officials, local groups, or private organizations. Nomination is usually accompanied by some type of study process followed by legislative initiative. State-level river protection legislation commonly restricts the channelization, diversion, or damming of waterways, sometimes addressing water quality concerns. Although extremely controversial, many states have also provided for the protection of riparian lands along designated rivers (Pettit and Schoolmaster 1994).

Riparian zones provide essential ecological linkages between terrestrial and aquatic ecosystems and therefore, river programs should ideally mandate the protection of riparian lands (Gregory et al. 1991). However, states attempting to institute riparian land protection measures have traditionally faced strong opposition from riverside property owners, otherwise referred to as riparian landowners, who associate river protection programs with government regulation and the taking of privately-owned lands. In addition, increased recreational use of rivers and the lack of enforcement against trespass violations, littering, and vandalism have all been cited as major concerns of riparian landowners. As a result, many state river programs have denigrated attempts to protect riparian lands to appease riparian landowners (Norcross and Calvo 1993). Other states have addressed riparian landowner concerns directly by including provisions in river protection legislation that also protect riparian landowner rights by prohibiting regulatory takings, limiting or removing restrictions for development of riparian

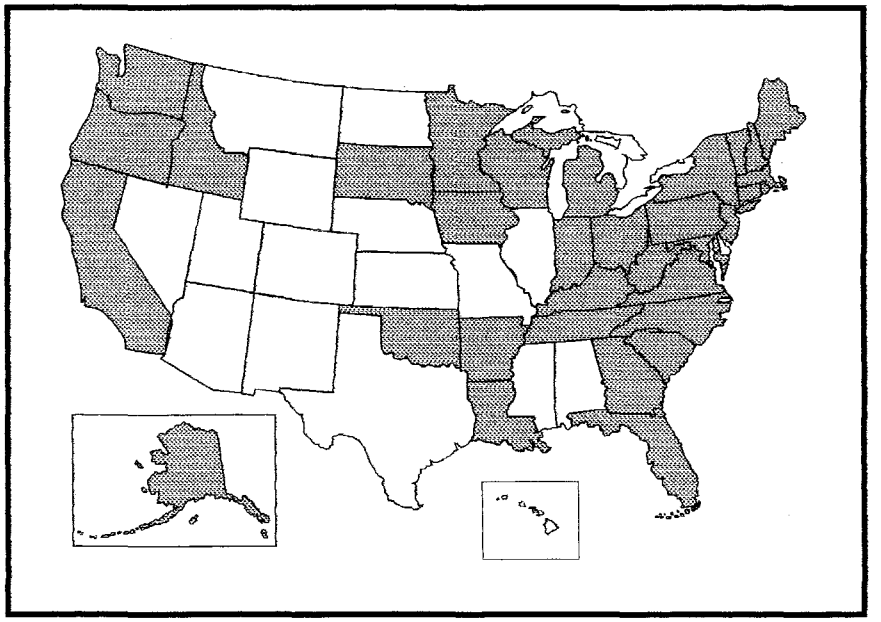

Figure 1. State-level river protection programs (shaded areas represent states with river protection programs).

lands, instituting landowner education and assistance programs, or mandating increased monitoring of river recreation and enforcement of criminal violations. Consequently, an emphasis on participation of riparian landowners and other local citizens in all phases of river management has proven paramount to the success of many existing state-level river protection programs (Pettit and Schoolmaster 1994).

Overwhelmingly, the majority of state-level programs are located in the eastern half of the U.S. (Fig. 1) which may be attributed to surface hydrology, higher precipitation levels, and the dominance of the riparian rights doctrine. Twenty-six of the thirty-one eastern states have enacted river preservation legislation, accounting for 71% of the total U.S. river mileage protected at the state level. Eastern states with the most successful river programs, such as Michigan and New York, not only lead the region in total river mileage protected, but also mandate the protection of riparian lands

along designated rivers and strongly encourage local government and citizen participation.

River programs are also found in the Pacific coastal states which combine elements of both riparian and prior appropriation water rights, and where precipitation is relatively high, thus contributing to the existence of numerous candidate rivers. Additionally, environmentally-oriented legislation has enjoyed public support throughout this coastal region. Oregon, Washington, California, and Alaska account for 21% of the total river mileage protected by state-level river programs. Oregon's State Scenic Waterway Act has been acknowledged as the strongest state river protection statute in the U.S. (Oregon Parks and Recreation Department 1993). In addition to protecting over 1,100 river miles, Oregon's program provides substantial opportunities for citizen participation, requires the protection of riparian lands, administers several types of riparian landowner assistance programs and has recently started addressing instream flow concerns.

However, in the Great Plains and Intermontane basin states, with the exception of South Dakota, Oklahoma, and Idaho, there is an absence of such programs. In these arid and semi-arid states where the prior appropriation doctrine prevails, there are fewer rivers, less precipitation and run-off, and higher evapotranspiration rates. Agriculture is often irrigation dependent and competition for water rights has intensified with urban growth and economic diversification. Given this milieu, it is not surprising that issues such as instream flow, public trust and the reallocation of water rights, which are all central to river protection, have met with resistance throughout the western United States.

Only three of the fourteen Great Plains and Intermontane basin states have enacted river protection legislation; hence, this region accounts for a mere 8% of the total river mileage protected at the state level. Comparatively, this region is also inadequately represented by river miles protected in the federal Wild and Scenic Rivers System (Graf and Beyer 1994). Idaho's state-level program leads the region with 1,020 miles of waterways designated through a unique watershed approach that protects entire river basins as opposed to fragmented river segments. While the program lacks provisions for the protection of riparian lands, it ensures maintenance of minimum stream flows for designated rivers. In contrast, South Dakota's Wild, Scenic and Recreational Rivers System has not expanded since its inception because it lacks a constituency. Moreover, legislation recently passed by the South Dakota Legislature permits agricultural landowners to fence across twenty of the state's major streams (Johnson 1994). Consequently, the key to

passing and then implementing river protection programs is overcoming riparian landowner and special interest group opposition and building political coalitions capable of influencing state lawmakers.

Historical Overview of Water Resource Planning in Texas

The lack of river protection in Texas is not surprising, especially in light of the state's surface hydrology, climate, geology, and history of water resource development. Texas holds 23 major river basins, 5,700 reservoirs, and 80,000 miles of linear streambed, second only to Minnesota in total surface miles of inland waterways. Historically, Texas has been plagued with recurring droughts that have often determined the direction of the state's water policy. Annual precipitation rates vary substantially across Texas, ranging from less than 8 inches in the far west to more than 56 inches along the eastern border. While groundwater provides more than half of the over 14 million acre-feet of water used annually in Texas, total groundwater use is declining in the state due to decreasing irrigation demand for groundwater, contaminated aquifers, declining groundwater levels from years of extensive withdrawal, and the conversion from groundwater to surface water or conjunctive use supplies by large metropolitan areas. With the growing reliance on surface water supplies, the dependable yield of surface water, 11 million acre-feet per year, is still enough to meet the 6 million acre-feet of surface water currently used by Texans. However, the spatial distribution of surface water supplies does not always coincide with the geographical demand (Texas Water Development Board [TWDB] 1991). With a growing population of more than 17.6 million people, the statewide annual water demand is predicted to increase to over 21 million acre-feet by the year 2040 (TWDB 1990).

The history of water resource planning in the state has been heavily influenced by a unique combination of the Hispanic, riparian, and prior appropriation doctrines. The earliest water rights can be traced back to when land was classified as irrigable or non-irrigable and apportioned by government grants with or without specific rights for water access. In 1840, English common law was adopted in Texas, invoking a riparian system of water rights. However, by 1872, the Texas Supreme Court realized the unsuitability of the riparian system of water rights for the arid and semi-arid regions of the state (Templer 1978). Consequently, the Texas Legislature adopted the prior appropriation system for allocating water rights with passage of the 1889 and 1895 Irrigation Acts. Both appropriation statutes deemed all

unappropriated waters as public property, but still recognized pre-existing riparian water rights. Therefore, both doctrines were simultaneously practiced in Texas with the riparian system prevailing generally in East Texas and the appropriation system predominating in West Texas. This division can be attributed primarily to the extreme differences in precipitation levels, annual temperatures, and surface hydrology between these two regions (Skillern 1988).

This unmanageable dual system of surface water law was replaced by a single prior appropriation system of water rights with passage of the 1967 Water Rights Adjudication Act. Since then, water resource planning in the state has focused on supply augmentation, involving reservoir construction and surface water capture in East Texas and attempts at water importation and interbasin transfer to West Texas and the Lower Rio Grande Valley. The first Texas Water Plan, released in 1968, called for an aggressive program of reservoir construction and the development of a Trans-Texas Canal. This Canal would have moved water from East to West Texas and to a degree, been part of the solution to the West Texas water problem (Schoolmaster 1987). Serving as the primary guide to water development until its update in 1984, this document gave little attention to river protection. Recent revisions of the Texas Water Plan continue to pay only lip service to river preservation issues.

Despite its inadequate coverage of river preservation concerns, the 1984 version of the Texas Water Plan did provide a new perspective on water policy development. In order to meet future freshwater demands, the Plan emphasized the need for water conservation as opposed to water transfers, the significance of local and regional solutions to water problems and the importance of instream flows to Texas bays and estuaries. Although protection of optimal instream flows is essential to aquatic and riparian habitats, water quality, channel maintenance, and estuarine integrity, the issue has been complicated by Texas water law. Following the principles of the prior appropriation doctrine, a water permit will only be granted by the State if the water is being diverted from a channel for a beneficial use. Because leaving water in a stream does not require an actual diversion, it has been questioned whether or not instream water uses should be eligible to receive appropriated water rights (Kaiser and Kelly 1987). Hence, the significance of the Water Plan's recognition of the importance of instream flow protection.

The 1990 version of the Texas Water Plan recommended the preparation of an interagency report on the potential to create a state river protection program and the 1990 Texas Outdoor Recreation Plan (TORP) recommended initiation of a statewide rivers assessment. Neither of these proposals has

been implemented, primarily due to an overall lack of public, political and financial support. Both the 1990 and 1992 versions of the Water Plan did however, give more credence to instream flow protection, resulting in the initiation of various studies addressing instream flow requirements and the establishment of the Texas Bays and Estuaries Program.

It is against this backdrop of surface water capture and supply augmentation that attempts to establish a river protection program in Texas have continuously failed. Between 1969 and 1995, nine proposals for the creation of a state-level river protection program have been proffered before the Texas Legislature. What follows is a historical overview of the controversy surrounding attempts to pass each of these bills.

Texas River Protection Bills

1969 Natural Rivers Act

In 1969, the Texas Senate Interim Committee on Parks and Recreation recommended the establishment of a state-level wild and scenic rivers program in Texas (Senate Interim Committee on Parks and Recreation 1969). Consequently, State Senator Don Kennard introduced the Natural Rivers Act to the Texas Legislature. Compared to subsequent bills, the 1969 proposal was very ambitious, attempting to immediately designate sixteen river segments for protection (Fig. 2). All protected segments were to be designated as "natural river areas" and the program was to be administered by Texas Parks and Wildlife Department (TPWD). System expansion would have required subsequent acts of the Legislature. Criteria for designation and inclusion into the natural rivers system were not specified and were to be left to the discretion of TPWD.

The legislation was intended to preserve free-flowing rivers in order to ensure public enjoyment of natural, scenic, fish and wildlife, scientific, and outdoor recreational values. If passed, the bill would have prohibited the construction, operation, or maintenance of any dam or other project interfering with the preservation of natural river areas. Unlike subsequent bills, the 1969 proposal would have protected the lands adjacent to natural rivers.

TPWD would have been authorized to establish scenic easements up to three miles wide and take lands up to 400 feet from each side of the cutbank level of designated rivers. Riparian landowners who granted easements to the State without just compensation were to be relieved of State and County tax liabilities, with the exception of lands used for commercial profit-

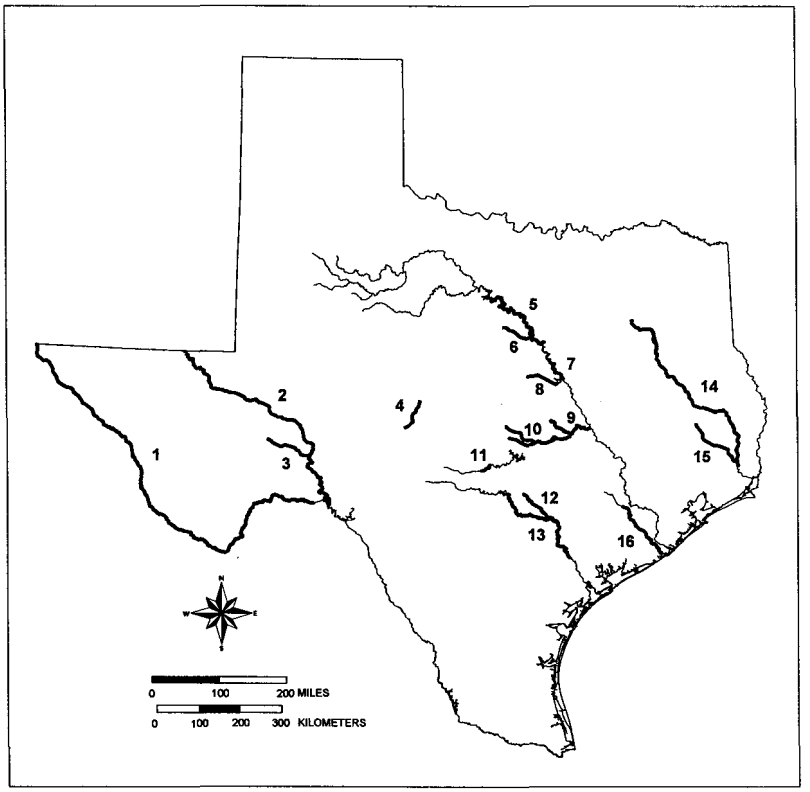

Figure 2. Segments of Texas rivers proposed for protection under the 1969 Natural Rivers Act: (1) Rio Grande River, (2) Pecos River, (3) Independence Creek, (4) Kickapoo Creek, (5) Brazos River, (6) Paluxy River, (7) Brazos River, (8) Hog Creek, (9) Little River, (10) San Gabriel River, (11) Pedernales River, (12) San Marcos River, (13) Guadalupe River, (14) Neches River, (15) Big Sandy-Village Creek, and (16) San Bernard River.

making purposes. Riparian lands could have been acquired by donation, purchase, easement, or fee simple.

State water pollution control agencies, the Texas Water Development Board (TWDB) and TPWD would have been charged with eliminating or reducing water pollution within natural river areas. Unique to the 1969 bill

was a provision that would have required the TWDB to reserve all unappropriated waters in natural rivers for scenic and natural purposes, unless needed for human or livestock consumption.

No specific funding mechanisms were proposed in the 1969 bill. Donations and appropriated funds were to be allocated for feasibility studies and land and water purchase. Funding was to be based on a budget plan prepared by TPWD. However, the Senate Interim Committee on Parks and Recreation recommended that the Texas Legislature authorize the allocation of $500,000 per year from the General Fund to establish the Natural Rivers Program. When the 1969 bill was defeated, the Legislature decided to spend $36,000 on a feasibility study for a combined trails and waterways program.

1971 Natural Rivers Act of Texas

Completed in 1971, *Pathways and Paddleways: A Trails and Scenic Waterways Feasibility Study* documented the rising numbers of canoeists in Texas and hence, the need for a long range river recreation development plan. The report recommended that TPWD conduct a survey and inventory of all trails and waterways in the state. Additionally, the study focused on the scenic, historic, archeological, and ecological values of a 22.5 mile segment of the Guadalupe River (TPWD 1971).

Senator Kennard followed suit with his proposal for the Natural Rivers Act of Texas which only listed the aforementioned segment of the Guadalupe River for immediate designation (Fig. 3). Subsequent additions to the system could be made only through Legislative enactment. TPWD would have been responsible for periodically presenting additional river or stream segments to the Legislature for potential inclusion in a Natural Rivers System. Eligibility criteria were not specified in the proposed legislation and therefore, were to be determined by TPWD in coordination with the TWDB, Texas Water Rights Commission, river authorities, and/or water districts.

Prohibited river uses were not specified in the 1971 bill. However, the proposal would have authorized TPWD to condemn lands where necessary and acquire riparian lands not exceeding 200 yards extending on either side of a designated river by scenic easement, long-term lease, fee, or perpetual easement. Gifts, grants, and bequests of property or money were to be accepted by TPWD. No other funding mechanisms were specified in the legislation. Tax breaks were proposed for riparian landowners granting easements to the State without just compensation. However, these small incentives did not convince riparian landowners to support the proposal.

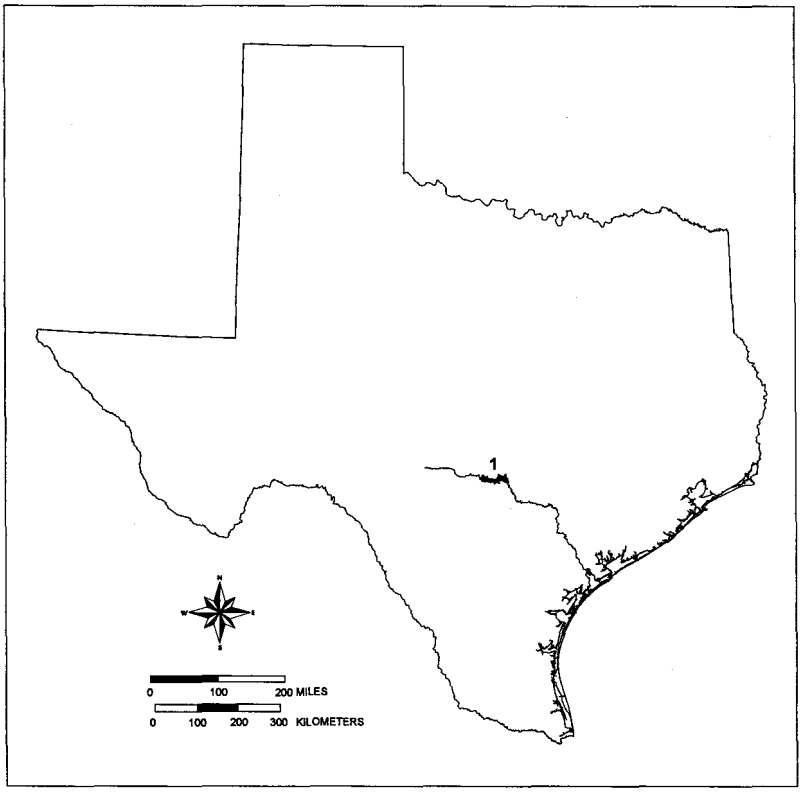

Figure 3. Segments of Texas rivers proposed for protection under the 1971 Natural Rivers Act of Texas: (1) Guadalupe River.

The increased demand for river recreation at this time combined with limited public access to navigable streams instigated serious problems for river protection efforts. Navigable streams have been defined by Texas law as rivers which retain an average width of 30 feet or more from the mouth upstream, and have beds which are held by the state in trust for the people (Templer 1978). Although the public has rights to use all navigable waters for the purposes of navigation and recreation related activities, these rights do not extend to the private lands bordering such waters. The public only has

access to lands which lie below the gradient boundary, the line which separates the state-owned riverbed from private property. The gradient boundary has been established as "a line located midway between the lower level of the flowing water that just reaches the cut bank and the higher level of it that just does not overtop the cutbank" (TPWD 1973). Because gradient boundaries were neither clearly marked nor easily determinable, the lack of public access to rivers in the early 1970s resulted in numerous trespass violations and landowner complaints. River recreationists often unknowingly trespassed, camped, and at times, damaged private lands. Therefore, fearing that river protection legislation would increase river recreation use and exacerbate trespass problems, riparian landowners fought the creation of a system of protected rivers as evident by the formation of the Guadalupe Landowner Protection Association. Landowners perceived the 1971 proposal as a threat to private property rights, especially since the bill specifically authorized the taking of private lands. It was primarily this strong landownership ethic that prevented passage of both the 1969 and 1971 bills.

1973 Texas Natural and Scenic Rivers Act and 1973 Texas Public Rivers Act

Two alternative legislative approaches were attempted in 1973 to protect Texas waterways. Representative Denson Allen proposed the Texas Natural and Scenic Rivers Act, which essentially was a streamlined version of earlier river bills. However, unlike the 1969 and 1971 proposals, no rivers were listed for immediate designation in Allen's bill. TPWD would have been responsible for surveying all state waterways, determining which were eligible for designation, and eventually including these rivers in a Natural and Scenic Rivers System. Additionally, recreational facilities within the System were to be provided by TPWD when consistent with the preservation and protection goals of the bill. Channelization, clearing and snagging, channel realignment, and reservoir construction would have been prohibited on designated rivers, but the bill clearly stated that "normal" riparian landowner activities were not to be affected. No specific mechanisms for protecting riparian lands were proposed, but scenic and surface easements were to be established where possible by gift, purchase, or condemnation. Lacking incentives for riparian landowners, the legislation only "encouraged" riparian landowners to establish easements and specifically authorized the State to exercise its power of eminent domain.

Senator Kennard approached river protection differently with his proposal for the 1973 Texas Public Rivers Act. The purpose of this legislation was to protect the public's right to have access to, use, and enjoy Texas' navigable inland waterways. Therefore, the State would have been responsible for providing Texans with the information and facilities needed to use state waters. No rivers were designated for any type of specific protection, but the bill broadly stated that the State was required to "provide whatever regulation [was] necessary for the protection of these waters and the adjacent land and landowners." Of particular interest here was the addition of riparian *landowner* protection.

The Texas Public Rivers Act would have prohibited the construction of any barrier that would restrict the public's use of or access to navigable waterways. However, the proposal would not have prevented the construction or maintenance of bridges, dams, reservoirs, or other barricades for "lawful purposes." TPWD would have acquired fishing and camping sites along the shores of navigable waterways through fee simple title, easements, gifts, donations, purchase, or condemnation. Additionally, TPWD would have been authorized to prescribe rules and regulations for use of these sites, issue permits, and charge access fees where appropriate. Specific funding mechanisms for the legislation were not addressed.

Although the bill specifically stated that riparian landowner rights were to be protected, landowners still feared any increase in governmental regulation, especially with the lingering possibility of condemnation. Following earlier precedence, both 1973 proposals were defeated.

Later that year, TPWD published *Texas Waterways: A Feasibility Report on a System of Wild, Scenic and Recreational Waterways in Texas* (TPWD 1973). The Department concluded that most Texas rivers, with the exception of a segment of the Rio Grande receiving federal designation in 1978, could not meet the criteria for designation under the National Wild and Scenic Rivers Act. Because the majority of Texas rivers had been impounded, diverted, channelized, or developed, Texas needed a set of criteria suited to its own unique waterways. Therefore, TPWD proposed the creation of a Texas Waterways System which, like the national system, would provide varying degrees of protection for three categories of rivers: wild, scenic, and recreational. However, because criteria for designation under the proposed Texas system were less stringent and more flexible than federal requirements, a diversity of Texas waterways would be eligible for some level of river protection. Although thirty-six waterways were recommended for

designation under the proposed program, fewer and fewer rivers were considered for designation with all subsequent proposed river protection bills.

1987 Texas Rivers Conservation Act

In 1986, TPWD and the Texas League of Women Voters sponsored the Texas Rivers Symposium, bringing together 215 various river users to discuss issues affecting Texas waterways. The main goal of the Symposium was to facilitate and improve communication and understanding among conflicting interest groups (TPWD 1987a). Despite the Symposium, riparian landowners continued their organized opposition to river protection legislation and in 1987, they formed the Riverside and Landowners Protection Coalition to lobby successfully against the Texas Rivers Conservation Act. Sponsored by Senator Tati Santiesteban and Representative Robert Saunders, the bill would have protected free-flowing rivers and river segments with extraordinary wild, scenic, recreational, geologic, aesthetic, botanical, archaeological, ecological, fishery, wildlife, or historic values. TPWD remained the lead agency proposed to administer the program.

In order to accommodate different categories of rivers, the 1987 bill was patterned after the federal Wild and Scenic Rivers Act more so than previous proposals. Thirteen river segments were recommended for immediate designation under the proposed act: two wild, eight scenic, and three recreational rivers (Fig. 4). Additional rivers were to be designated by acts of the Legislature or adoption by the director of TPWD. The director would have been held responsible for studying and periodically submitting to the Legislature proposals for new additions to the Texas Rivers Conservation System. Each proposal was to include a detailed report with maps and illustrations describing the qualifying characteristics of the proposed designation, the status of landownership and use in the area, reasonably foreseeable potential land and water uses, and the estimated cost of managing the new segment. Criteria for meeting wild, scenic, or recreational status were to be based on flow characteristics, presence of man-made structures, channelization, accessibility, landscape characteristics, riparian vegetation, and present state of development.

Prohibited uses of designated rivers in the proposed act included channelization, clearing and snagging, channel realignment, and reservoir construction. The director of TPWD would have been charged with evaluating other activities, determining their potential environmental impacts and deciding whether or not to issue a permit, following notice and opportunity

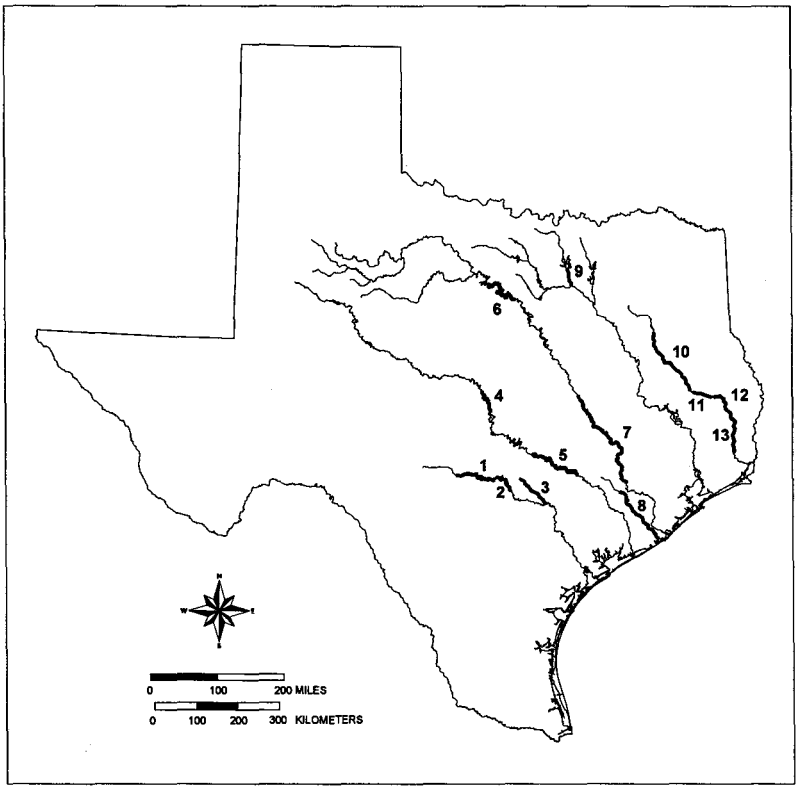

Figure 4. Segments of Texas rivers proposed for protection under the 1987 Texas Rivers Conservation Act: (1) Guadalupe River, (2) Guadalupe River, (3) San Marcos River, (4) Colorado River, (5) Colorado River, (6) Brazos River, (7) Brazos River, (8) San Bernard River, (9) Elm Fork of the Trinity River, (10) Neches River, (11) Neches River, (12) Neches River and (13) Neches River.

for public hearing. Permits would have been required for bridge construction, tree-cutting, bulk-heading, pipeline construction, dredging, and canaling. When planning for the development of all water or water-related land resources, local, state, and federal agencies would have been required to consider the potential designation of rivers.

Riparian lands were not to be affected by the 1987 bill with the exception of willingly established scenic or surface easements and the transfer, purchase, or donation of public lands. Although the State could in actuality authorize its power of eminent domain, the proposal gave no mention to the possibility of private land condemnation. Tax incentives for establishing scenic easements were eliminated in the 1987 proposal.

Unlike all other Texas river protection bills, the Texas Rivers Conservation Act would have established a specific funding mechanism. A Texas rivers conservation fund was proposed to consist of

(1) legislative appropriations,
(2) funds transferred from other funds,
(3) money legally required to be allocated to the rivers conservation fund,
(4) gifts, donations, and bequests and
(5) accrued interest from deposited river conservation funds.

All watercraft users would have been required to purchase tags from TPWD. Fees collected from the sale of watercraft tags were to be deposited into the rivers conservation fund.

Strongest opposition to the proposal came from riparian landowners, public utilities, and major cities. Concerns raised over the proposed permit provisions, number of rivers recommended for designation, classification scheme, and watercraft tag fees resulted in the defeat of the 1987 bill.

1989 Texas Rivers Protection Act

After extensive negotiations with riparian landowners, industries, and water development interests, the Lone Star Chapter of the Sierra Club and several other conservation groups, including the newly formed Texas Rivers Protection Association, proposed the Texas Rivers Protection Act for the 1989 Legislative session. The terms "wild, scenic or recreational" were removed in the new proposal in attempts to avoid negative connotations with the federal system and eliminate the misconception that activities conducted along designated rivers would be strictly regulated or prohibited altogether. Hence, all designated rivers would have been classified as "protected river segments." The bill, sponsored again by Senator Santiesteban and Representative Saunders, recommended three segments for immediate designation (Fig. 5) and mandated studies of four potential protected river segments.

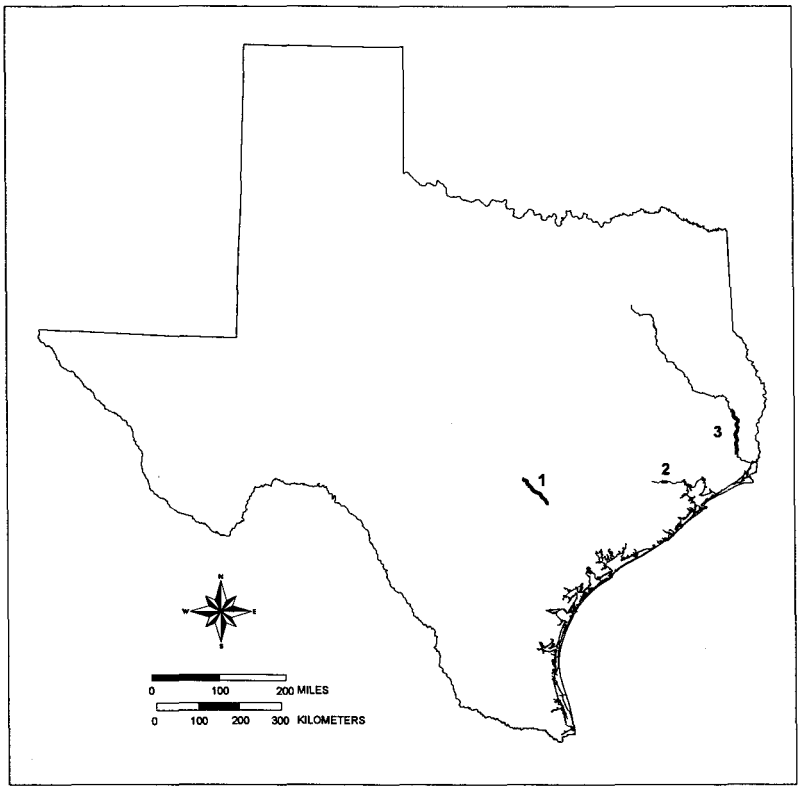

Figure 5. Segments of Texas rivers proposed for protection under the 1989 Texas Rivers Protection Act: (1) San Marcos River, (2) Buffalo Bayou, and (3) Neches River.

Designation and study processes for additional rivers were similar to those proposed in 1987. However, the 1989 bill would have specifically required study proposals to include opportunities for riparian landowner input as well as public participation.

The main purpose of the proposed legislation was not only to preserve the natural and social values included in previous bills, but to protect riparian landowner rights as well. Unique to the 1989 bill was a provision for

the maintenance of instream flows. While TPWD was proposed as the lead agency, the Texas Water Commission (TWC) would have maintained jurisdiction over flow requirements and water quality in designated rivers. To assist TPWD in the implementation of the 1989 proposal, a technical advisory committee was to be established consisting of one representative from each of the following agencies: the TWC, TWDB, General Land Office (GLO), and Office of the Attorney General.

A management plan would have been prepared by TPWD for each designated segment to

(1) preserve and enhance the values of each segment,
(2) protect riparian landowner rights,
(3) protect public navigation rights, and
(4) provide for the enforcement of trespass, vandalism, littering, and poaching laws.

Opportunities for public review and comment on management plans would have been required. Consistency provisions for other state agencies were also included in the proposed legislation. Planning groups would have assisted in the development of management plans for each designated segment. Any interested citizen could have participated in the planning group and riparian landowner input was strongly encouraged.

Proposed prohibited uses of designated rivers included channelization, channel realignment, and reservoir construction. No restrictions on riparian land use were proposed as private property rights were not to be affected. The 1987 permit provisions, watercraft tag fees and rivers conservation fund were eliminated, as was the language concerning access and conservation easements. Apparently, riparian landowners had misconstrued these voluntary agreements in the 1987 bill as mandatory. No funding mechanisms or landowner incentives were developed for the 1989 proposal. Tributaries of protected rivers, unless designated separately, would have been specifically excluded from protection.

Many provisions were added in the 1989 legislation as a result of concerns raised by special interest groups, riparian landowners, and government agencies. For example, the bill maintained that pipeline and privately owned bridge operations were not to be affected. Despite extensive lobbying, negotiation, and conciliation, the legislation was still perceived as a threat to the strong home rule ethic and the bill was defeated (Texas Rivers Protection Association 1989).

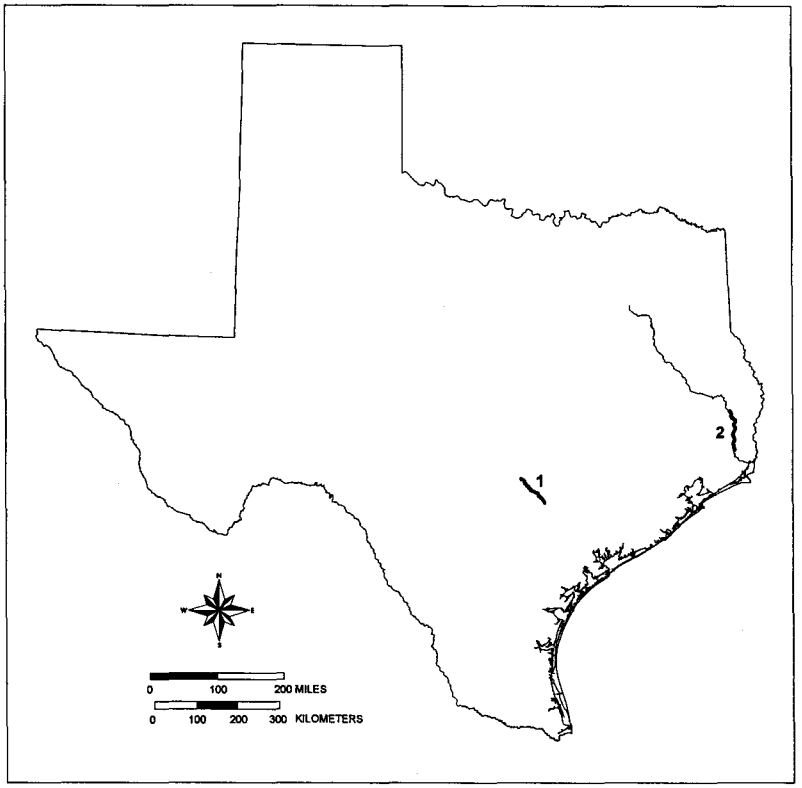

Figure 6. Segments of Texas rivers proposed for protection under the 1991 Texas Rivers Protection Act: (1) San Marcos River and (2) Neches River.

1991 Texas Rivers Protection Act

In an attempt to further diffuse landowner and legislative opposition, the proposed 1991 Texas Rivers Protection Act, sponsored by Senator Barrientos and Representative Saunders, was less comprehensive than the 1989 legislation. While the preliminary draft of the bill proposed three river segments for immediate designation, this was reduced to two segments in the final version (Fig. 6). The nomination and designation processes for additional river segments were similar to those proposed in 1989.

The main objectives of the legislation did not change substantially from the 1989 bill; however, a proposal for a program to monitor and protect water quality was added. TPWD would have been overseer of the Texas Protected Rivers System while flow requirements and water quality concerns were to remain under the jurisdiction of TWC. Special provisions for the issuance of waste discharge permits were added in the 1991 bill. The legislation proposed that TPWD conduct a comprehensive rivers assessment to identify, evaluate, and comparatively assess various river resource values in the state.

Many states have undertaken rivers assessments to facilitate the nomination process of eligible rivers (Eugster 1986). Once an inventory is complete, a state can develop management plans tailored to the specific resources, current use and users of each river area, and the perceptions of the local citizens. However, assessments can be costly, time consuming, and labor intensive. Nevertheless, no specific funding mechanisms for the proposed rivers assessment were developed in the 1991 Texas Rivers Protection Act beyond provisions for the acceptance of grants, private donations, and technical assistance from available sources.

Prohibited uses of designated rivers did not change in the 1991 proposal. Following the lead set by the 1989 bill, the 1991 proposal provided for the establishment of river conservation plans and technical advisory committees, including opportunities for public review. Representatives from the following groups were recommended to participate on the advisory committees: riparian landowners; federal, state, and local agencies; industry; and community, conservation, and recreation organizations. However, opposition continued and the 1991 proposal was defeated (Goynes 1994).

1993/1995 San Marcos River Protection Acts

In response to strong political opposition to an entire system of protected rivers, a single river protection strategy was attempted in 1993. A bill designating the San Marcos River for immediate protection was drafted. The 1993 proposal did not differ from the 1991 bill except it was to be applicable only to the San Marcos River (Fig. 7) with no provisions for the nomination or designation of additional rivers for protection. Key legislators and the City of San Marcos publicly supported protection of the San Marcos River (Porterfield 1992); however, this support never materialized when needed and the 1993 bill met the same fate as all of its predecessors. In 1995, a more limited San Marcos River Protection bill was proposed which would only

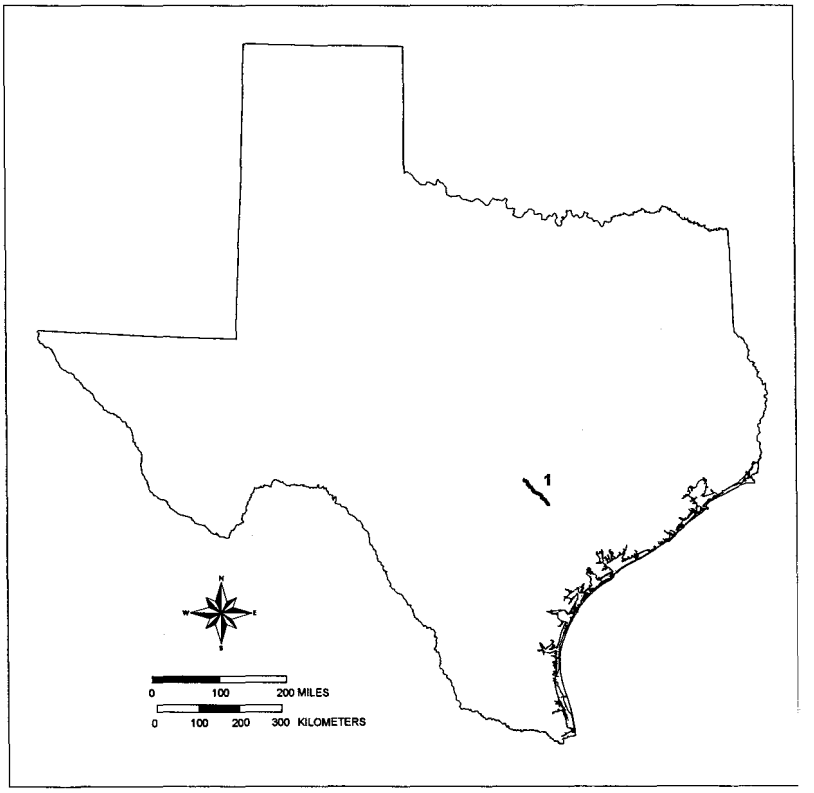

Figure 7. Segments of Texas rivers proposed for protection under the 1993 San Marcos River Protection Act: (1) San Marcos River.

have prevented large scale channelization of the San Marcos River. Backed by Representative Alec Rhodes and Senator Ken Armbrister, the bill passed the Senate, but died in the House Natural Resources Committee (Goynes 1995).

Analysis of Failed Attempts

Between 1969 and 1995, nine unavailing legislative initiatives were proposed to preserve Texas waterways (Table 1). Collectively, many factors have prevented passage of all nine proposals. First, the history of water

TABLE 1
SUMMARY OF FAILED TEXAS RIVER PROTECTION BILLS

Proposed Legislation	# of River Segments Designated	Classification System	Prohibited Uses of Designated Rivers	Riparian Land Protection Mandated	Riparian Landowner Incentives	Funding Mechanisms
1969 Natural Rivers Act	16	All segments designated as natural river areas	Dams and other projects	Yes	Tax incentives for easements	Donations, appropriations
1971 Natural Rivers Act of Texas	1	All segments designated as natural rivers	Not specified in the legislation	Yes	Tax incentives for easements	Gifts, grants
1973 Natural and Scenic Rivers Act	0	All segments designated as natural and scenic rivers	Channelization, clearing/snagging, reservoirs, channel realignment	Not specifically required, but condemnation authorized	Normal riparian activities not affected- no incentives	Gifts, grants
1973 Texas Public Rivers Act	Generally applicable to all navigable inland waterways	Not specified in the legislation	Construction of navigation barriers	Not specifically required, but condemnation authorized	Landowner rights not affected- no incentives	Not specified
1987 Texas Rivers Conservation Act	13	Segments designated as wild, scenic or recreational	Channelization, clearing/snagging, reservoirs, channel realignment	No	Landowner rights not affected- no incentives	Texas rivers conservation fund, donations, watercraft tag fees
1989 Texas Rivers Protection Act	3 with 4 more potential segments to be studied	All segments designated as protected river segments	Channelization, reservoirs, channel realignment	No	Landowner rights not affected- no incentives	Not addressed
1991 Texas Rivers Protection Act	2	All segments designated as protected river segments	Channelization, reservoirs, channel realignment	No	Landowner rights not affected- no incentives	Grants, donations
1993 San Marcos River Protection Act	1	Not specified in the legislation	Channelization, reservoirs, channel realignment	No	Landowner rights not affected- no incentives	Grants, donations
1995 San Marcos River Protection Act	1	Not specified in the legislation	Large scale channelization	No	Landowner rights not affected- no incentives	Grants, donations

resource development in the state corroborates the failure of Texas river preservation efforts. Given the lack of attention dedicated to river protection issues in the 1968 and 1984 versions of the Texas Water Plan, it is understandable that the earliest river protection bills could have been perceived as conflicting with traditional water development strategies. Texas rivers have been continuously and extensively dammed, channelized, and dredged to ensure adequate water supplies for the future. River protection entails the prevention of those very activities that Texans have historically supported. Only passing attention has been given to river protection concerns in the latest revisions of the Texas Water Plan; however, these documents do

recommend new strategies for water resource planning for the future that break with the traditional supply-oriented projects of the past.

Second, because early river preservation efforts aimed to protect a relatively large number of rivers, restrict use of riparian lands, provide for future designation of additional rivers, and specifically authorize condemnation of private lands, the first Texas river protection bills could have potentially been construed as being overly ambitious. By 1993 however, this ambition was lost in attempts to gain support from riparian landowners, key legislators, and special interest groups. Riparian land protection was replaced by riparian landowner protection and the proposed system of protected rivers was replaced by an attempt to preserve a single river segment.

A third and extremely salient factor preventing passage of river protection legislation in Texas has been the strong landownership ethic in the state, supported by the fact that 96% of Texas is privately owned (Texas State Soil and Water Conservation Board 1991). Texas farmers and ranchers hold tremendous influence over state legislators, as 92% of the land area in the state is allocated to agricultural uses and 47% of all surface water is dedicated to irrigation and livestock demands (TWDB 1991). The disproportionate influence of agricultural and rural interests is highlighted by recent demographic shifts. Between 1980 and 1990, rural farm population declined by 28.5%. Therefore, rural population dropped to 19.7% of the Texas population (17.6 million) and rural farm population accounted for only 1.1% of the state total (*Dallas Morning News* 1993). Hence, the fate of river protection legislation has been dramatically impacted by a small, yet powerful sector of the population.

Foremost to riparian landowner concerns has been the belief that a state-level river program will directly threaten private property rights by authorizing the state to control or take private lands along protected rivers. Although recent river protection bills have specifically prohibited regulation or condemnation of private riparian lands, the landownership ethic is so deeply embedded in the minds of Texas landowners that they continue to distrust any river protection proposals. Riparian landowners also fear increased recreational use of rivers and hence, an increase in trespass violations, vandalism, and littering on private lands. Unfortunately, past experience has demonstrated that trespass on and damage to private riparian lands is a legitimate concern in Texas.

Finally, as the demand for river recreation and water use has dramatically increased over the years, public awareness of river issues has grown. Despite this trend, state agencies have avoided significant involvement in

river protection efforts and have generally followed the lead of private volunteer groups such as the Sierra Club and the Texas Rivers Protection Association (Ragins 1994). Without state initiative and hence, state funding, it has been extremely difficult to raise public support for a rivers program. While the majority of states have not created a specific agency for the administration of protected rivers, the most successful state-level river programs, much like the federal program, promote compliance and consistency among state agencies whose activities directly or indirectly affect rivers. Although many water-related agencies and organizations in Texas have combined efforts to establish water quality and instream flow maintenance programs, state-level river protection has lacked this type of coordination and support. On more than one occasion, TPWD has reported the need for a system of protected waterways in Texas, but neither TPWD nor any other water resource agency has taken the initiative to implement such a program. Because river protection is often perceived to be a potential conflict with future water development projects, some agencies, such as TWDB, have shown little or no support at all for a Texas waterways program.

River protection in Texas has been and will continue to be an uphill battle. However, once lawmakers understand the factors that have coalesced to prevent passage of river protection legislation in Texas, they can begin to devise new strategies for future river bills.

Recommendations for Future Texas River Protection Bills

After analyzing the history of failed attempts at passing river protection legislation in Texas and briefly examining the thirty-three existing state-level river protection acts, we recommend the following six strategies for policy makers to implement when proposing and attempting to gain support for future river protection bills:

(1) the establishment of riparian landowner programs,
(2) river recreation monitoring,
(3) public and legislative support building,
(4) focusing on river protection in urban areas,
(5) linking water quality legislation to river protection, and
(6) the creation of specific funding mechanisms.

1. Because the strongest opponents to all proposed Texas river protection bills have been riparian landowners, future legislation must protect private

property rights without sacrificing the health of riparian and aquatic ecosystems. Therefore, instead of weakening proposed protection provisions, Texas needs to create riparian landowner educational, financial, and technical assistance programs. Tax incentives and other financial assistance for protection of riparian lands are valid possibilities. Other state-level river protection programs have implemented these tactics, resulting in mutually beneficial agreements. Landowners need to participate in all phases of river management, for not only must they understand the goals of river protection policy, but they can offer valuable insight into designing and implementing river protection and landowner assistance programs. Protection of riparian lands is not an area that can be compromised in river protection legislation.

2. Riparian landowners fear the increased recreational use of designated rivers that may accompany a river protection program. Therefore, a river protection bill must include provisions for enforcing trespass, littering, and vandalism laws. Only the 1989 bill proposed management plans that addressed these concerns. Recreational education programs are needed to teach recreationists to use designated areas for access to and egress from rivers, camping, and picnicking. If these programs are required in a river protection bill, riparian landowners may be more apt to support the legislation. Monitoring of recreational activities will not only benefit landowners, but will also enhance recreational experiences and help to preserve the natural integrity of both riparian and aquatic ecosystems.

3. Studies have shown that Texans support river protection (TPWD 1987b), but are not adequately communicating that support to state legislators. This is especially true for urban residents that now account for 80.3% of the total Texas population. Public education and exposure to river issues are needed to promote proposed river protection legislation. Increased citizen awareness of river issues may be accomplished through town meetings, the development of river "Friends groups," creation of more volunteer programs, institution of river-related activities in state parks, and development of a statewide communication network. Ultimately, each designated river needs its own citizen involvement program that focuses on the river's specific needs. Local citizen and landowner support should facilitate legislative initiative and consensus. Greater state involvement in establishing and administering a Texas rivers program, either by creating a specific river protection agency or by improving coordination between existing state agencies, is paramount for gaining both public and legislative support.

4. Given the historical inability to muster the necessary political support for passage of river protection legislation, attention should turn to coalition building. Between 1969 and 1981, voters defeated three state-level amendments to the Texas Constitution that would have increased the authorization level for water development projects. These defeats were largely attributable to the political cleavage between east and west Texas voters over inter-basin transfer and water importation. In 1985, referenda concerning both urban and agricultural, and east and west Texas interests were included in the same package and ratified by voters (Schoolmaster 1992). This same approach should be explored as new river proposals are considered. Attempts should be made to draft legislation capable of building coalitions across broad constituencies. Similarly, alternative strategies for river protection also need to be explored. For example, the cities of Denton and Dallas, along with the Army Corps of Engineers, are moving to create a greenbelt that will protect 12 river miles of the Elm Fork of the Trinity River in North Central Texas.

5. Unlike wild and scenic river preservation, water quality enhancement and instream flow protection have generated support in Texas from across a wide spectrum of special interest groups, which may prove to be an important consensus building tool for river protection at the state-level. In fact, despite the absence of a state-level river protection act, Texas has made progress towards cleaning and restoring some river segments. Examples include the Texas Watch Volunteer Monitoring Program, Clean Texas 2000, the Clean Rivers Program, the Trans Texas Water Program, and the aforementioned Bays and Estuaries Program. In 1991, the Texas Clean Rivers Act was passed mandating a regional assessment of water quality by watershed or river basin. All users of water and wastewater permit holders are to bear the costs of administering the program. Cities that desire financial assistance for water quality programs are required by the Act to submit proposals for water pollution control and abatement programs. The Act is currently administered by the Texas Natural Resources Conservation Commission (TNRCC) which was formed in 1993 by a merger between the Texas Water Commission and the Texas Air Control Board. Based on the evidence of wide support for water quality and instream flow maintenance, the inclusion of provisions for these issues in future river preservation proposals may prove to be a very promising strategy.

6. Finally, to pass a river protection act, specific funding mechanisms need to be developed. With the exception of the 1987 bill, none of the

proposed river protection acts specified financial strategies for implementing a river program. Plans perceived as being overly expensive are often met with skepticism and opposition. Therefore, cost/benefit analyses are needed to demonstrate both the ecological and economical benefits of a Texas river protection program. Other states raise revenues from river access fees, recreational use permits, or the sale of commercial outfitter licenses. Studies have shown that people are willing to pay for quality recreational experiences (Brown and Daniel 1991). Similar to the funding mechanisms instituted by the Clean Rivers Act, all people who use and benefit from state waters should be required to pay for their protection and enhancement.

Conclusions

While the National Wild and Scenic Rivers System continues to grow at a sluggish pace, thirty-three states have succeeded in passing state-level river protection legislation that has augmented the preservation and enhancement of many U.S. rivers. Rivers flowing through the Great Plains and Intermontane basins states are grossly underrepresented in both the federal and state-level systems; hence, successful existing state-level programs could provide important guidance for this region. However, a melange of factors including an arid and semi-arid climate, riparian landowner opposition, western water politics, powerful agricultural sectors, and the history of extensive water development projects have exacerbated the problems inherent in attempting to pass any type of river protection legislation in the Great Plains and Intermontane basin states.

In Texas, previous attempts at passing state-level river protection policy have all failed. If this discouraging trend is to change, policy makers must begin to incorporate the information gained from past experiences into the development of new legislation. Traditionally, when a proposed Texas river protection bill was defeated, the next step was to remove controversial sections from the legislation to satisfy riparian landowners and other opposition. Compromises were made on important issues such as riparian land protection, funding mechanisms and the number of rivers designated for immediate protection. However, even conciliatory measures did not sway landowners and key legislators to back the protection of a single river, let alone an entire system of rivers.

Insight gained from our analysis of the Texas experience could be applied to the creation of river protection programs in states facing similar obstacles, particularly those in the Great Plains and Intermontane basin

regions. However, each river program must consider specific state, regional, and local needs. Clearly, new strategies are needed to gain support from those currently opposed to river protection in Texas and other states lacking river preservation programs. Instead of streamlining legislative proposals, provisions need to be added that will provide educational, financial, and technical assistance to riparian landowners; monitor river recreation; encourage public and legislative education, support, and participation; and establish innovative funding mechanisms. Rivers belong to the people, but without legislative conscience, future generations may not have the opportunity to know and enjoy Texas' unique waterways in their natural and somewhat free-flowing condition.

Acknowledgments

We would like to thank Jeffrey W. Fitzgerald and Jeffrey C. Kessler for their technical assistance and cartographic guidance.

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