COMMENTS

Water Pressure: The Eightieth Texas Legislature Attempts To Protect Instream Flows of Rivers and Streams, and Freshwater Inflows to Bays and Estuaries

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The summer river:
although there is a bridge, my horse
goes through the water.
—Shiki Masaoka[1] (1867 ~ 1902)

I. OVERVIEW

The emergence of the current water rights battle in Texas over environmental flows[2] stems from the convergence of several unwavering trends. The skyrocketing urban population growth, and the limited water supply to support this growth, represents a critical challenge to Texas' leaders. This challenge will only be met if the legislature takes a realistic approach to water law reform and correctly prioritizes water allocation. If we ensure by statute that a minimum amount of water is kept in Texas' surface water system, we can protect Texas' environment and the wildlife living in it. But preserving waters instream could come at the expense of accommodating urban growth, effectively prioritizing fish over humans. If we funnel all our water resources to our growing population, we could end up with dry, dead river beds—a wildlife catastrophe. The 80th Texas Legislature is addressing this issue, and the potential for significant changes to the Texas Water Code looms. The stakes are high. The stakeholders are well-intentioned. Texas' future hangs in the balance. This Article will argue that the reforms taken up in the 80th Texas Legislature shift water management to a basin-wide perspective, and inject needed scientific counsel, but that the reforms alone are insufficient to protect environmental flows.

II. BACKGROUND OF TEXAS WATER LAW AND ENVIRONMENTAL FLOWS

A. Population and the Looming Water Crisis

Texas is in the midst of a dramatic population explosion. In 2000, Texas had a population of about twenty-two million. By 2050, this

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1. HAROLD G. HENDERSON, AN INTRODUCTION TO HAIKU 166 (1958). Shiki Masaoka, the son of a samurai, reformed haiku by injecting realism. His work led to a revival in the art form, and he is considered one of the great masters of Japanese poetry.

2. Environmental flows are, generally, river waters that are precluded from consumptive uses, and that are instead preserved instream to maintain the health of the water's ecosystem. Martin C. Rochelle, *TYLA Focus: Water Law: Environmental Flows: Competing for Limited Flows: Competing for Limited Resources: The TWDB's Most Recent State Water Plan Projects a Shortfall of Available Water Resources over the Next 50 Years of More Than Five Million Acre-Feet of Water, Even After Existing Supplies Are Fully Considered*, 67 TEX. B.J. 202, 202 n.2 (2004). For a more thorough definition, see *supra* Part II.C.

figure is expected to double.[3] To understand the daunting task Texas faces with water management, consider the doubling of the population coupled with the finite nature of water resources, and the fact that twelve of fifteen Texas river basins are already overappropriated.[4] Overappropriated rivers are those in which more water has been granted for withdrawal (via permit) than exists in the river. In times of drought, overappropriation can lead to dry river beds. Looking forward, "every county in the state faces the possibility of insufficient water supplies in the next fifty years."[5]

Texas is a microcosm of the worldwide problem of meeting water needs for a growing world population. Although Texas is "moving towards [a] looming water crisis,"[6] Texas is not alone.[7] Not only does "[the United States have] a gnawing, growing scarcity" of water resources, but many scientists predict that severe water shortages are brewing worldwide.[8] Many also believe that Earth's climate change will exacerbate water shortages, especially in Texas.[9] Global warming could directly affect Texas by causing a significant increase in surface water evaporation, thereby reducing water supply before water becomes

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3. TEX. WATER DEV. BD., WATER FOR TEXAS—2002, at 9, 32 (2002) [hereinafter WATER FOR TEXAS—2002]. WATER FOR TEXAS-2002 is the 2002 State Water Plan, which was developed and adopted by the Texas Water Development Board (TWDB). The TWDB creates a new State Water Plan every five years. The TWDB appointed over 450 representatives and held over 900 public meetings in the course of developing the Plan's recommendations. The product, WATER FOR TEXAS–2002, acts as a bridge between local experts and policy makers. Texas Water Code Annotated § 16.051(b) (2000) states that the State Water Plan "shall be a guide to State water policy" in Texas.

4. Ronald A. Kaiser, *Untying the Gordian Knot: Negotiated Strategies for Protecting Instream Flows in Texas*, 38 NAT. RESOURCES J. 157, 159 (1998).

5. Martin Hubert & Bob Bullock, *Senate Bill 1, the First Big and Bold Step Toward Meeting Texas' Future Water Needs*, 30 TEX. TECH L. REV. 53, 56 (1999).

6. Augustus Campbell, *Texas Watermasters: A Legal History and Analysis of Surface Water Rights Enforcement*, 7 TEX. TECH J. TEX. ADMIN. L. 143, 177 (2006).

7. "Nationally, very little water remains for appropriation. A 1975 assessment of water supplies in the U.S. determined that 86 percent of the nation's average annual streamflows were used and in many western states water use exceeds the average annual renewal supply." Kaiser, *supra* note 4, at 159 n.7 (citing U.S. WATER RESOURCES COUNCIL, THE NATION'S WATER RESOURCES, 1975-2000: SECOND NATIONAL WATER ASSESSMENT (1978)).

8. David Getches, *Water Wrongs: Why Can't We Get It Right the First Time*, 34 ENVTL. L. 1, 18 (2004), *available at* http://www.unesco.org/water/wwap/wwdr1/table_contents/index.shtml (citing WORLD WATER ASSESSMENT PROGRAMME, WATER FOR PEOPLE, WATER FOR LIFE: THE U.N. WORLD WATER DEVELOPMENT REPORT 5 (2003) (noting that "the world faces a water crisis")).

9. WORLD METEOROLOGICAL ORG. & U.N. ENV'T PROGRAMME INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, & VULNERABILITY 197-209 (2001), *available at* http://www.grida.no/climate/ipcc_tar/wg2/index.htm.

usable.[10] Utilizing surface water to meet the needs of growing, migrating populations during an era of global climate change is a daunting challenge.[11]

As we scramble to provide water to sustain human life, we cannot forget about the plant and animal life that make their natural habitat in and beside rivers. Ensuring that ecosystems in Texas' rivers are protected is a "problem in search of a solution."[12] If a river's water is extracted for consumption, without leaving enough to sustain its plant and animal life, that river dies. Future river flow will not resuscitate fish. "The true problem that Texas faces concerning the availability of water is the mismatching of supply and demand," which results in human encroachment of water supplies that support ecosystems.[13] The problem of protecting the ecosystems from river draining is "compounded by the fact that most of the state's surface water is already allocated and little water remains for environmental flows."[14] That is, the challenge is not just how we will provide water for Texas' growing human population, but how we can do so while still preserving our ecosystem.

Strains on surface water resources will become more pronounced in the coming years. Compounding these demands, the Texas Water

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10. WATER FOR TEXAS (Jim Norwine et al. eds., 2004). This publication is unaffiliated with the *Water for Texas* reports that make up the Texas State Water Plans. *See* TEX. WATER DEV. BD., WATER FOR TEXAS—1997 (1997) [hereinafter WATER FOR TEXAS—1997]; WATER FOR TEXAS—2002, *supra* note 3.

11. This Article will address the management of surface water resources, but briefly places groundwater resources in the debate for context. Forty percent of the water Texas currently uses to meet its needs comes from surface water, while sixty percent comes from groundwater. WATER FOR TEXAS—1997, *supra* note 10, at 3-14. However, groundwater is used primarily for agriculture and livestock, while surface water is used primarily for municipal and industrial purposes. *Id.* at 3-15. It is not easy to shift a water use source from surface water to groundwater, even assuming groundwater as an abundant alternative. First, groundwater is difficult to pump and convey from source to use point. Second, groundwater is not an abundant resource, and faces its own crisis. *See generally* Chris Lehman, Comment, *Hung Out To Dry?: Groundwater Conservation Districts and the Continuing Battle Save Texas' Most Precious Resource*, 35 TEX. TECH L. REV. 101 (2004) (describing the groundwater problems in Texas). For these reasons, as the Texas population increases more acutely in cities, these cities tax surface water resources disproportionately to groundwater, and exacerbate the surface water supply problem. WATER FOR TEXAS—1997, *supra* note 10, at 3-3, 3-8.

12. Ronald Kaiser, *Water Law: Water Concerns in Texas: A Problem in Search of a Solution*, 67 TEX. B.J. 188, 190 (2004).

13. Dinniah M. Chahin, *Is the Once Mighty River Not So Mighty?: How the Distribution of Water Rights and Water Planning Along the Texas Portion of the Rio Grande River Affects Future Texans*, 6 TEX. TECH J. TEX. ADMIN. L. 115, 137 (2005).

14. Kaiser, *supra* note 12, at 191 n.12 ("There is no water available for new appropriations [rivers are fully appropriated] in stretches of the Canadian, Red, Cypress, Sabine, Neches, Trinity, Brazos, Colorado, Guadalupe, San Antonio, Nueces, and Rio Grande rivers." (citing TEX. NAT. RES. CONSERVATION COMM'N, A REGULATORY GUIDANCE DOCUMENT FOR APPLICATIONS TO DIVERT, STORE OR USE STATE WATER 26 (1995))).

Development Board (TWDB) has predicted that while the population will double by 2050, groundwater supplies will be reduced by ten percent, and groundwater will no longer be a reliable source for some small cities and agriculture.[15] Skillful groundwater management could partially alleviate the surface water crisis, but groundwater management alone will not solve the problem. Ultimately, a city's ability to sustain itself while accommodating population growth will depend on the availability and management of proximate surface water.

B. Texas Water Law

Texas water law is a unique hybrid of two markedly different systems of water allocation. Most eastern states in this country subscribe to a riparian rights system, which allows water users to extract as much water as needed from the user's property. On the other hand, most western states use a prior appropriation system which requires water users to first obtain a permit before extracting water. Not to be outdone, Texas subscribes to both systems. Texas employs a riparian rights system to manage its groundwater resources, and a prior appropriation system to manage its surface water resources.[16]

A riparian rights system for groundwater is guided by the "rule of capture" allowing a landowner to draw as much groundwater as desired. There are two exceptions to the unlimited withdrawal right. First, a landowner is not permitted to withdraw water in a willfully wasteful manner that injures a neighbor when there is also a malicious intent to injure that neighbor.[17] The second exception is that a landowner is not permitted to withdraw in a manner that negligently causes subsidence to

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15. WATER FOR TEXAS—2002, *supra* note 3, at 4.

16. In the field, it is not easy to draw a clear geological line between groundwater and surface water. *Surface water*, by statute, includes "the water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the storm water, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed in the state." TEX. WATER CODE ANN. § 11.021(a) (Vernon 2006); *see also* City of Marshall v. City of Uncertain, 49 TEX. SUP. CT. J. 695 (2006). *Groundwater* includes:

> Water beneath the land surface which fills the pore spaces of rock and soil material and which supplies wells and springs is termed groundwater. Artesian, or flowing, wells are considered groundwater. . . . Groundwater, or percolating water, is that water below the surface of the ground not flowing through the soil in known and defined channels, but is instead oozing or filtering through the earth.

Ronald Kaiser, *Texas Water Marketing in the Next Millennium: A Conceptual and Legal Analysis*, 27 TEX. TECH L. REV. 181, 232, 257 (1996); *see also* Houston & T.C. Ry. v. East, 81 S.W. 279, 280 (Tex. 1904) (citing Frazier v. Brown, 12 Ohio St. 294 (Ohio 1861)).

17. City of Corpus Christi v. City of Pleasanton, 276 S.W.2d 798, 801 (1955).

a neighbor's property.[18] In effect, the rule of capture does not do much to discourage wastefulness. In adopting this user-friendly groundwater doctrine, the Texas Supreme Court stated in 1904 in *Houston and Texas Central Railway Co. v East* that underground waters "are so secret, occult, and concealed that an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty, and would be, therefore, practically impossible."[19]

Unlike the riparian rights system for groundwater, the prior appropriation system for surface water is based on statute, not common law. Under the Texas Water Code, all surface water belongs to the state in trust for the people of Texas.[20] The Texas legislature initiated the prior appropriation system via two acts in 1889[21] and 1895,[22] after which the right to draw Texas surface water was no longer inherent to landownership,[23] but rather dependent on giving notice to the county clerk.[24] Water was not allocated so much as staked out by the water consumer. In 1913 the Texas legislature enacted rules that dictated that rather than filing a form, a prospective user must submit an application to seek approval from the state government to use its water.[25] The permitting system has evolved, but essentially remains the same. In Texas, to collect groundwater, you need land, a shovel, and a bucket; to collect surface water, you need a bucket and a permit.

C. Environmental Flows

There are two related surface water concepts embodied in the phrase "environmental flows." First, "*instream flow*" constitutes, generally, the bare minimum water level needed to sustain a river's health. Instream flow is often referred to as "*minimum flow.*" The concept of instream flow is broad, and includes water in streams, rivers

18. Friendswood Dev. Co. v. Smith-Sw. Indus., Inc., 576 S.W.2d 21, 29-30 (Tex. 1978).

19. Hous. & T.C. Ry. v. E., 81 S.W. 279, 281 (1904).

20. TEX. WATER CODE ANN. § 11.021 (providing that the waters of every natural stream and flowing river are "the property of the state"); *see also id.* § 11.0235.

21. Irrigation Act of 1889, Act approved Mar. 19, 1889, 21st Leg., Reg. Sess., ch. 88, §§ 1-17, 1889 Tex. Gen. Laws 100, *reprinted in* 9 H.P.N. GAMMEL, THE LAWS OF TEXAS 1822-1897, at 1128 (1898).

22. Irrigation Act of 1895, Act approved Mar. 21, 1895, 24th Leg., Reg. Sess., ch. 21, §§ 1-21, 1895 Tex. Gen. Laws 21, *reprinted in* 10 GAMMEL, *supra* note 21, at 751.

23. Between 1836 and 1895 Texas used the riparian system, allowing for the ability to draw water as inherent to land ownership. This includes the period of Texas Independence (1836-1845). Prior to 1836, civil law governed under Mexican and Spanish rule (1821-1835 and 1600-1821, respectively). WATER FOR TEXAS, *supra* note 10, at 6.

24. Chahin, *supra* note 13, at 116.

25. Irrigation Act of 1913, 33d Leg., Reg. Sess., ch. 171, §§ 1-102, 1913 Tex. Gen. Laws 358, 358-79.

and lakes. Further, instream flow represents not only the *quantity* of water, but also the water *quality*, and includes a temporal element due to seasonal characteristics of water bodies. The concept of river health is also broad, and includes the health of the plant, animal, and surrounding wetlands.[26] In other words, a river's health includes the ecosystem tied to the water body. Failure to sustain a river's instream flow will result in dead wildlife, as the river stagnates or, worse, dries up. Beyond ecological matters, there is interruption to water-borne activities, such as river tubing, canoeing, fishing, boating, and commercial navigation.[27]

The second surface water concept under the heading of environmental flows is *freshwater inflows for bays and estuaries*. When Texas' freshwater rivers reach the saltwater of the Gulf of Mexico, the mixture creates a critical and environmentally precarious breeding ground for wildlife, such as shrimp, oysters, and red snapper. This breeding ground is a zone of intense marine life and a nursery for animals that depend on that life. In the late 1990s, the combination of a drought and water extraction from the Guadalupe River caused extremely low levels of freshwater to enter San Antonio Bay. San Antonio Bay's altered water composition reduced the blue crab population, which the migratory whooping crane flock relies on for food in the winter.[28] The endangered whooping crane was reduced in numbers by ten percent that winter due to a lack of the crane's primary food, blue crab.[29]

Whooping cranes are not the only coastal constituency affected when a river becomes impotent. Freshwater inflows provide "$2.2 billion in economic benefits for coastal recreational and commercial fisheries."[30] Indeed, fishing and tourism organizations have supported environmentalist efforts to protect freshwater inflows to bays and estuaries.[31] The sight of a dried up river is as unaesthetically appealing as

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26. *See supra* note 16 and accompanying text.

27. Kaiser, *supra* note 4, at 157-58; *see also* Scott Gold, *Water Pressures Inspire Creative Conservationism*, L.A. TIMES, July 28, 2003, at A1 ("[In 2003,] for the first time since a devastating drought in the 1950s, the Rio Grande stopped flowing altogether in some places—leaving behind a mosaic of cracked mud.").

28. The whooping crane flock is "believed to be the world's only natural migrating population of the endangered animals." Gold, *supra* note 27.

29. Dina Cappiello, *Nature Groups Wade into Water War*, HOUS. CHRON., Jan. 26, 2003, at A1.

30. Larry McKinney, *Why Bays Matter*, TEX. PARKS & WILDLIFE MAG., July 2003, at 24; *see* Gold, *supra* note 27 ("In addition to wildlife, the shores of the Gulf support 30,000 commercial fishermen, who run a $575-million-a-year business, and a thriving tourism industry. Texans spend about $3 billion annually on vacations to seaside towns where they fish, boat and water-ski. . . .").

31. Gold, *supra* note 27.

it is catastrophic for the life within and around that river and the bays it supports.

Looking at the other side of the equation, if the Texas legislature were to enact a law that would insist on an unadjustable minimum flow requirement, this requirement could trump water rights held by municipalities and industry. Water rights held by municipalities and industry are rights upon which humans rely for their daily lives and rights upon which economies rely to prevent themselves from breaking down. If a city's water usage were to be held subservient to environmental flows in a time of drought, water planners' ability to ensure water to sustain urban areas would be compromised. The open question remains whether Texas can protect water use by municipalities, industry, and agriculture, while simultaneously protecting environmental flows.

D. Texas Water Law Protection for Environmental Flows

Texas water law lacks an adequate mechanism to protect environmental flows in large part because the Texas legislature historically did not foresee battles over insufficient water resources. Despite Texas' recurrent droughts, until recently, Texas had no emergency plan to manage dwindling water supplies during dry years.[32] Nor did state law ensure that at least some water remained in rivers and flowing to bays.[33]

Although droughts did not move the state to develop a state drought plan, droughts often triggered changes to Texas water laws.[34] In 1917, following a particularly severe drought, Texas adopted a constitutional amendment calling for the "conservation" and "preservation" of public waters.[35] "Conservation" can mean many things, but "conservation" was

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32. *See* Hubert & Bullock, *supra* note 5, at 58 ("Prior to the passage of S.B. 1, Texas was one of only three western states that did not have a state drought plan.").

33. "Scientific recognition of the linkage between rainfall, freshwater inflows into Texas bays and estuaries and fish production was first recognized in 1953." Kaiser, *supra* note 4, at 162 (citing Hanry H. Hildebrand & Gordon Gunter, *Correlation of Rainfall with Texas Catch of White Shrimp, Penaeus Setiferus*, 82 TRANSACTIONS AM. FISHERIES SOC'Y 151-55 (1953)).

34. "The story of water law in Texas is also the story of its droughts." *In re* Adjudication of the Water Rights of the Upper Guadalupe Segment of the Guadalupe River Basin, 642 S.W.2d 438, 441 (Tex. 1982).

35. The Texas Constitution states:

> The conservation and development of all of the natural resources of this State, including the control, storing, preservation and distribution of its storm and flood waters, the waters of its rivers and streams for irrigation, power and all other useful purposes, the reclamation and irrigation of its arid, semiarid and other lands needing irrigation, the reclamation and drainage of its overflowed lands, and other lands needing drainage, the conservation and development of its forests, water and hydro-electric power, the navigation of its inland and coastal waters, and the preservation and

never applied to protect environmental flows, despite the "preservation" and "conservation" wording of the amendment. "Conservation," at that time, meant water conservation to sustain navigation.[36] Protection for Texas rivers, bays and estuaries would have to wait.

From 1954-56, the worst drought in Texas history struck the state.[37] During that span, "ninety-four percent of Texas' counties were declared national disaster areas."[38] Surface water resources were not replenished, and after the rivers became creeks, "[t]he creeks soon evaporated, leaving salt concentrates that leached into reservoirs, contaminating any water that remained for municipal needs."[39] The drought resulted in a flood of litigation that lasted thirteen years.[40] The drought also resulted in the 1967 Water Rights Adjudication Act, providing a system for adjudicating water rights disputes.[41] The Act indirectly benefited environmental flows by initiating surface water usage accountability. The Act forced old, unquantified water rights to be converted into new, quantified, and prioritized rights. The eyes of Texas were upon water users.

Historically, the prior appropriation system for surface water did not harbor any protection for environmental flows, and the state divvied up water without regard to leaving instream flow to sustain the ecosystem. Specifically, the Texas Water Code protects water *extraction*. Thus, in spite of litigation attempting to gain water rights to instream flow,[42] the Texas Water Code has not allowed for new water rights to preserve instream flows.

> conservation of all such natural resources of the State are each and all hereby declared public rights and duties; and the Legislature shall pass all such laws as may be appropriate thereto.

TEX. CONST. art. XVI, § 59(a).

36. Michael D. Morrison & M. Keith Dollahite, *The Public Trust Doctrine: Insuring the Needs of Texas Bays and Estuaries*, 37 BAYLOR L. REV. 365, 404 n.202 (1985) (citing Carrithers v. Terramar Beach Cmty. Improvement Ass'n, 645 S.W.2d 772, 774 (Tex. 1983) ("The waters of public navigable streams are held by the State in trust for the public, primarily for navigation purposes.")).

37. WATER FOR TEXAS, *supra* note 10, at 7.

38. Kevin Smith, *Texas Municipalities' Thirst for Water: Acquisition Methods for Water Planning*, 45 BAYLOR L. REV. 685, 685 (1993). Comal Springs ceased to flow for 144 days during the drought in 1956. Todd H. Votteler, *Raiders of the Lost Aquifer? Or, the Beginning of the End to Fifty Years of Conflict over the Texas Edwards Aquifer*, 15 TUL. ENVTL. L.J. 257, 268 (2002).

39. Smith, *supra* note 38, at 685 n.2 (citing Interview with Jerry G. Boyd, Head of the Water Rights Permit Team, Texas Water Comm'n, in Austin, Tex. (Mar. 22, 1993)).

40. State v. Hidalgo County Water Control & Improvement Dist. No. 18, 443 S.W.2d 728 (Tex. Civ. App.-Corpus Christi 1969, *writ ref'd n.r.e*); *see also* WATER FOR TEXAS, *supra* note 10, at 7.

41. Act of Apr. 13, 1967, ch. 45, 1967 Tex. Gen. Laws 86, codified as amended at TEX. WATER CODE ANN. § 11.301-.341 (Vernon 2006).

42. *See infra* Part I.G.

Not only does the Texas Water Code not permit new water rights to preserve instream flow, and also the water rights application process did not factor in environmental flows until 1985. Prior to that year, no requirement existed forcing the state to consider the environmental impact as the state doled out water rights to water users. In 1957, the Texas legislature amended the Texas Water Code to establish water plans[43] to provide "orderly development, management, and conservation of water resources and preparation for and response to drought conditions."[44] Collectively, however, these periodic amendments to the Texas Water Code and the Texas Constitution did not result in sufficient protection of Texas rivers, streams, estuaries and bays.

E. The 1985 Legislation

The Texas legislature passed legislation in 1985 (1985 Legislation) in reaction to a drought. The 1985 Legislation requires the Texas Commission on Environmental Quality (TCEQ) "to consider the impacts on environmental flows when it issue[s] permits to divert or impound state water."[45] The 1985 Legislation only requires that new water rights applications (and amendments to old existing rights) be subjected to environmental flow impact scrutiny. The 1985 Legislation does not affect the thousands of preexisting surface water permits (consisting of billions of gallons).[46] All preexisting permits are grandfathered in and escape environmental impact scrutiny.[47] While water rights applications *after* 1985 must account for environmental flows, pre-1985 permits represent over eighty percent of all water rights permits.[48]

Furthermore, the 1985 Legislation left undecided how to calculate the amount of instream flow to protect. Some experts believe that in case of drought, the pre-1985 permit holders would soak up so much of Texas' river water that environmental flows would be compromised, causing severe environmental damage. Although the 1985 Legislation intended to protect instream flows and inflows to bays and estuaries, it did not do so in practice, leaving rivers vulnerable.

The 1985 Legislation requires TCEQ to consider environmental flows when approving new water rights, but this leaves municipal

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43. TEX. WATER CODE ANN. § 16.051.

44. The State Water Plan "shall be a guide to state water policy." *Id.* § 16.051(b).

45. Kaiser, *supra* note 12, at 190. The Texas Commission on Environmental Quality (TCEQ) is the state agency that grants water rights to draw water from rivers.

46. Cappiello, *supra* note 29.

47. *Id.*

48. *Id.*

planners with little recourse to accommodate population growth. Findings of what exactly constitutes sufficient environmental flow are inherently speculative and thus difficult to plan for. Because of the ambiguity and ineffective protection, the 1985 Legislation gives neither certainty to city planners nor genuine protection to instream flows.

As a result of the 1985 Legislation, environmental flow consideration arises only in the context of new water rights applications. That is, the water rights application process is done on an ad hoc basis that is uninformed. It is also myopic because the process does not consider the health of the entire basin system. Each basin is unique, with different characteristics and environmental flow needs. What happens upstream in a basin affects downstream stakeholders and the environment. The river and bay health problems are exacerbated by the lack of a system in Texas whereby basin-wide scientific experts inform basin-wide water managers of environmental flow needs in a way that allows the basin managers to maximize water use benefits while safeguarding that basin's environmental flow needs.

F. Bob Bullock and the Texas Water Trust

In 1997, Lt. Governor Bob Bullock brought together TNRCC (now known as TCEQ), TWDB and the Texas Parks and Wildlife Department (TPWD) and charged them with proposing water law reform.[49] The result brought sweeping changes to water law in Texas—Senate Bill 1, 75th Texas Legislature (S.B. 1).[50] A crushing drought proceeded S.B. 1 in the mid-1990s. In this drought "more than ninety-five percent of the counties in Texas were eligible for disaster assistance from the federal government."[51] Drought and overappropriation, as described in a 1998 law review article coauthored by Bullock, had resulted in "less water available than users are permitted to withdraw."[52] According to Bullock, "[o]ne of the most important aspects of S.B. 1 is the recognition that water must be available to satisfy environmental needs for Texas' fish and wildlife habitat, instream flows, bays, and estuaries."[53] S.B. 1 mandated that "environmental needs be considered" in water management, and

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49. In Texas, the lieutenant governor is more powerful than the governor. Pieter M. Schenkkan, *When and How Should Texas Courts Review Agency Rules*, 47 BAYLOR L. REV. 989, 1118-19 (1995); *see also* James S. Liebman & Charles F. Sabel, Symposium, *Changing Schools—A Public Laboratory Dewey Barely Imagined: The Emerging Model of School Governance and Legal Reform*, 28 N.Y.U. REV. L. & SOC. CHANGE 183, 234 (2003).

50. Act of June 2, 1997, 75th Leg., Reg. Sess., ch. 1010, 1997 Tex. Gen. Laws 3610.

51. Hubert & Bullock, *supra* note 5, at 55.

52. *Id.* at 64.

53. *Id.*

established the Texas Water Trust (Trust) to "balance conservation with the water-supply needs of the future."[54] The Trust acts as a repository for water rights whereby consumptive water rights can be donated (permanently or temporarily) to the Trust to be used to support environmental flows.

The Trust was designed to protect the environment: "[b]y placing their water rights in this trust, owners and purchasers of water rights will be allowed to dedicate their water rights to environmental needs for a 'term specified by contractual agreement or in perpetuity.'"[55] Has the Trust's creation solved the problem? Not yet. As of January 2007, there have only been two donations to the Trust.[56]

G. The San Marcos River Foundation Litigation

For the moment, the Trust is woefully underutilized, and does not actively protect environmental flows. Despite the 1985 Legislation and S.B. 1's creation of the Trust, environmental flows remain vulnerable. Unsatisfied at the level of protection the Texas Water Code afforded Texas' rivers, a small environmental organization in San Marcos took aim to secure by permit what the Texas Water Code failed to protect by statute.[57] In December 2000, the San Marcos River Foundation (SMRF) applied for a new water right to be donated to the Trust.[58] This water right was to be the first donation to the Texas Water Trust.[59] Although S.B. 1 appears plainly to allow for environmental flows to be protected by acquisition of a water right and its donation to the Trust, such an acquisition is arguably in tension with the State Water Plan.[60] The water

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54. Cappiello, *supra* note 29.

55. Hubert & Bullock, *supra* note 5, at 64.

56. ENVIRONMENTAL FLOWS ADVISORY COMMITTEE: FINAL REPORT 162 (Dec. 2006), *available at* http://www.twdb.state.tx.us/EnvironmentalFlows/pdfs/REPORT/EFAC_FINAL_REPORT.pdf [hereinafter FINAL REPORT] (final report submitted to the Texas Governor, Lieutenant Governor, and Speaker of the House of Representatives).

57. *See* Gold, *supra* note 27 (quoting Wassenich: "People assume that the government is doing what it needs to do to sustain at least a minimum water flow in rivers. That is not the case. It is a free-for-all. They are giving away more than exists").

58. The application was unique in that previous applications in Texas were for water use, while this was effectively an application to ensure nonuse. "We could see water rights being handed out right and left," said SMRF Executive Director Dianne Wassenich. "We were concerned that there wouldn't be any water left." Jim Yardley, *Despite Recent Floods, Texas Fight over Rights to R=Precious Water of the Guadalupe River*, N.Y. TIMES, July 21, 2002, § 1, at 1-14.

59. Cappiello, *supra* note 29.

60. Votteler, *supra* note 38, at 319. For a definition of "state water plan," see *infra* note 3 and accompanying text.

right application sought to preserve 1.3 million acre-feet[61] of water (enough to supply a medium sized city) and currently serves to block future urban developments already being planned in San Antonio. The maneuver's ripple effect has contributed to a wave of water legislation for the 80th session of the Texas legislature in 2007.

After SMRF applied, a myriad of stakeholders stood up to oppose it. One key stakeholder, the Guadalupe-Blanco River Authority (GBRA),[62] had been maneuvering to apply for new water rights to accommodate San Antonio's future growth, an application jeopardized by SMRF's application. W.E. West Jr., general manager of the GBRA, explained that "[w]e cannot wait to ensure the water future of this region," because "[w]e're all in this together."[63] The timing of SMRF's application (December 2000) affected GBRA's application (November 2001). SMRF's application pre-dates GBRA's, and would effectively displace it. If granted, SMRF's application would result in its instream flow protection taking priority over GBRA's new municipal use. In times of drought this could mean that parts of San Antonio would go thirsty. The battle pits conservation against consumption. "It's a very interesting, very classic water battle," said West.[64] The battle is, at its essence, a battle of priorities.

For stakeholders involved in the contested SMRF application, the ride was more akin to a plunge down white water rapids than a lazy tube ride down Comal Springs. After finding the SMRF application administratively complete, the TCEQ panel executive director advised that the application be sent to an administrative hearing. For a moment, SMRF seemed poised to make fish happy and to make municipal planners' work exponentially more difficult. However, TCEQ commissioners took the unusual step of dismissing the SMRF permit outright, rather than the customary administrative judicial review process. The vote was unanimous (3-0).[65] The commissioners stated that

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61. An acre-foot is the amount of water needed to cover one acre of land one foot deep across.

62. The Mission of the Guadalupe-Blanco River Authority is to protect, conserve, reclaim, and steward the resources of the ten-county district in order to ensure and promote quality of life. GBRA was created in 1933 under the Texas Constitution, and is the steward of water resources in the ten-county district that constitutes the basin of the Guadalupe and Blanco Rivers. Guadalupe-Blanco River Authority: Overview, http://www.gbra.org/About/Default.aspx (last visited Mar. 20, 2007).

63. Press Release, Guadalupe-Blanco River Authority, *GBRA Moves To Secure Water Supply for Region* (Nov. 28, 2001), *available at* http://www.gbra.org/Documents/News/2001/01112803.pdf.

64. Yardley, *supra* note 58.

65. As of March 2007, the SMRF application is still being litigated.

current law did not authorize TCEQ to provide for new permits for instream river flows.[66] The *Los Angeles Times* noted another reason that the permit may have been quashed from the agenda: "Andy Saenz, a spokesman for the Texas Commission on Environmental Quality, acknowledged [that] when the item was placed on the commission's agenda, Texas Lt. Gov. David Dewhurst passed along a message, Saenz said: 'Don't vote on this issue.'"[67]

The Lt. Governor's move was practical. Rather than throw a wrench into the planning gears of urban developers, he issued an executive order to prevent TCEQ from granting environmental flow water rights. Simultaneously Lt. Gov. Dewhurst established a commission to study and provide recommendations for legislative changes addressing the issue. Specifically, the commission was authorized to "examine relevant issues and make recommendations for commission action and legislation on methods for making future decisions to protect instream flows and freshwater inflows, while integrating such needs with human needs, including methods to address allocation of flows during drought conditions."[68]

The 78th legislature created the Study Commission on Water for Environmental Flows (78th Commission) to address instream flow in the context of Texas' growing population.[69] The same legislation reiterated that TCEQ temporarily lacked the ability to issue permits for environmental flows (a nod to the SMRF application). The SMRF application predated this legislation, and is the subject of ongoing litigation.

The 78th Commission's final report to the Legislature formed the basis of Senate Bill 3, 79th Legislative Session in 2005 (2005 Water Bill).[70] The proposed 2005 Water Bill did not pass, but remains the

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66. "As a matter of law, agencies do not have authority to take an action unless it is provided for by the Legislature," said TCEQ attorney Duncan Norton. Gold, *supra* note 27; *see also* Jerry Needham, *Water Rights Bid Is Rejected; Conservationists Tried To Claim Flows for Bay*, SAN ANTONIO EXPRESS-NEWS, Mar. 20, 2003, at 1B ("I do not find even a hint in the Water Code that the commission was granted the express authority to grant a stand-alone permit for environmental flows. . . ." (quoting TCEQ chairman Robert Huston)).

67. Gold, *supra* note 27.

68. State of Texas, Exec. Order No. RP50 (2005), *available at* http://www.governor.state.tx.us/divisions/press/exorders/rp50.

69. S. 1639, 78th Leg., Reg. Sess., § 2 (Tex. 2003). The commission was charged to "study public policy implications for balancing the demands on the water resources of the state resulting from a growing population with the requirements of the riverine, bay, and estuary systems."

70. S. 3, 79th Leg., Reg. Sess. (Tex. 2005), *available at* http://www.capitol.state.tx.us/tlo/legislation/ bill status.htm (select "79(R)-2005" in the "Legislature" drop-down menu; select radial dial "Bill Number," and search for SB 3).

starting point and model for the current water bill, H.B. 3, which sits before the current Texas legislature.[71]

H. The 2005 Water Bill

The doomed 2005 Water Bill would have been a "seismic shift" in Texas water law that would have protected environmental flows in three key ways.[72] First, the 2005 Water Bill would have dedicated water in some rivers to support environmental flows. This provision would have only operated in rivers that were not yet fully allocated. On the other hand, in fully allocated rivers (or rivers in which existing water allocation already displaces environmental flow standards), "a variety of approaches, both public and private, for filling the gap [would have been] explored and pursued."[73] For example, "[i]n a drought, these 'in-stream flows' requirements would [have been] scaled back so farmers and other users could get what they need. Environmentalists said the nondrought standards [were] stringent enough to enable wildlife populations to rebound after dry spells."[74] For perhaps the first time, developers and environmentalists agreed that the 2005 Water Bill was an important step towards protecting environmental flows.[75]

The second way in which the 2005 Water Bill would have protected environmental flows was to allow statutory dedication of existing water rights to the Trust. The 2005 Water Bill would have allowed existing permit holders to voluntarily transfer existing permits to the Trust. Note however that the 2005 Water Bill would have only allowed for the dedication of *existing* rights to the Trust. The 2005 Water Bill would not have allowed *new* rights to be dedicated to the Trust. That is, those attempting to obtain new water rights (by direct application to the state) would have been statutorily shut out of the application process.

The third way in which the 2005 Water Bill would have protected environmental flows was by encouraging conservation to reduce water use for human, farming and industrial needs.

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71. FINAL REPORT, *supra* note 56.

72. Press Release, Tex. Parks & Wildlife Dep't, *Senate Bill 3 Would Provide Water for Fish and Wildlife* (Apr. 11, 2005), *available at* http://www.tpwd.state.tx.us/newsmedia/releases/text.phtml?req=20050411a [hereinafter *Press Release—TPWD*] (quoting Joseph Fitzsimmons, TPWD Chairman, Member of the 78th Commission and Member of the Environmental Flows Advisory Commission).

73. S.B. 3, 79th Leg., Reg. Sess. (Tex. 2005).

74. Robert Elder & Stephen Scheibal, *Texans Would Pay More Under Water Policy Shift*, AUSTIN AM.-STATESMAN, Apr. 5, 2005, at A1.

75. *Id.* (quoting Ken Kramer, State Dir., Sierra Club).

Despite "widespread support from diverse interests and basically no opposition," the 2005 Water Bill failed in both the regular and special sessions.[76] Although the 2005 Water Bill passed the Senate, the House did not vote on the 2005 Water Bill. One knowledgeable commentator suggested that the 2005 Water Bill "succumbed to the problems caused by the strained relationship between the House and Senate leadership over other unrelated matters."[77]

III. THE ENVIRONMENTAL FLOWS ADVISORY COMMISSION FINAL REPORT

In the fall of 2005, it seemed that much progress was lost. The 2005 Water Bill failed in the Texas legislature, and the 78th Study Commission's authority expired and disbanded. However, in late October, Governor Rick Perry issued Executive Order RP50, which called for the creation of a new commission—the Environmental Flows Advisory Commission (EFAC).[78] EFAC consisted of officers of TCEQ, TWDB and TPWD, as well as representatives from river authorities, municipalities, the public, environmental, agricultural, industrial, and hunting and fishing interests or others with expertise in environmental flows issues.[79] EFAC was charged with "develop[ing] recommendations to establish a process that will achieve a consensus-based, regional approach to integrate environmental flow protection with flows for human needs."[80] Further, EFAC was directed by the Governor to use the earlier 78th Study Commission's final report as a "starting point."[81]

EFAC issued a Final Report (Final Report) in December 2006 packed with proposed changes to the Texas Water Code and general policy recommendations.[82] Taken as a whole, the Final Report's suggestions stood to benefit not only the fish and the developer (two stakeholders who rarely find themselves on the same page), but also water rights holders, ranchers, scientists and environmentalists. The Final Report's suggestions appealed across the board, but were slightly

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76. Press Release, Lone Star Chapter, Sierra Club, *Sierra Club Calls Legislative Session a Defensive Victory* (May 31, 2005), *available at* http://www.texas.sierraclub.org/press/news releases/20050531.htm (quoting Ken Kramer, State Dir., Sierra Club).

77. *Id.*

78. State of Texas, Exec. Order No. RP50 (2005), *available at* http://www.governor.state.tx.us/divisions.press/exorders/rp50.

79. *Id.*

80. *Id.*

81. *Id.*

82. The 80th Texas Legislative is in session from January 2007 through late spring of 2007.

different than the 2005 Water Bill proposals. The Final Report adopted the main pillars of the 2005 Water Bill to support environmental flows. Like the 2005 Water Bill, the Final Report recommended that Texas incentivize conservation, promote the Trust, and create and maintain a standards regime for environmental flows. Further, the Final Report recommended the promotion of water marketing and expansion of TCEQ's ability to amend water rights.

IV. HOUSE BILL 3, 80TH LEGISLATIVE SESSION

In early February 2007, Texas Representative Robert Puente of San Antonio[83] submitted House Bill 3 (H.B. 3) to the Texas legislature.[84] H.B. 3 closely resembled the 2005 Water Bill, but with one major exception: the system by which Texas manages its environmental flow protection. The design of the system is where the rubber meets the road (or, perhaps, where the paddle meets the stream) for environmental protection.

Under H.B. 3, committees and science teams from each basin would recommend a system for environmental flow protection. A single state-wide Advisory Group would make key appointments, keep the Texas legislature abreast of committee and team activity,[85] and issue its own recommendations to the final arbiter, TCEQ. The composition of the Advisory Group would be critical—a lopsided commission of either environmentalists or industry and municipal representatives could tilt policy heavily enough in one's favor at the expense of the other. The political maneuvering has already begun.[86]

Under H.B. 3, local basin and bay expert scientific teams (Basin Science Teams) would work together with an overarching statewide team of scientific experts (Texas Science Advisory Committee).[87] These Basin Science Teams would develop and submit to TCEQ environmental flow

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83. Representative Puente is chair of the Texas House of Representatives Natural Resources Committee.

84. "Greg Rothe, general manager of the San Antonio River Authority and president of the Texas Water Conservation Association (www.twca.org), a water conservation association representing the full spectrum of water users says, 'this bill will provide needed certainty for both the environment and our water supply needs.'" Press Release, Rep. Robert Puente, Puente Files Texas River and Bay Protection Bill (Feb. 1, 2007), *available at* http://pressroom.capitolannex.com/archives.159.

85. *See infra* notes 102-109 and accompanying text.

86. "Texas cities, utility districts and water interests have already reported more than 200 lobbying contracts worth up to $7 million for this session." Emily Ramshaw, *Water Bill Aims to Regulate Flow*, DALLAS MORNING NEWS, Feb. 2, 2007, at 4A.

87. H.R. 3, 80th Leg., Reg. Sess. (Tex. 2007) (amending TEX. WATER CODE ANN. § 11.02362(k) (Vernon 2006)).

regime recommendations (EF Regime Recommendations).[88] Each basin would also have a committee of basin and bay stakeholders (Basin Stakeholder Committee) which would comment and make recommendations to TCEQ with regard to the EF Regime Recommendations.[89] TCEQ would then adopt a regime for each river basin and bay system.[90]

A. Regime Change

In H.B. 3's environmental flow protection system, power would flow top down. That is, state politicians would have appointment power of key positions, along with removability power for some.[91] Management would rest primarily with Texas' Environmental Flows Advisory Group (Advisory Group),[92] which would in turn be appointed by three Texas politicians.[93] The Advisory Group's duties would include: (1) determining the geographical boundaries of each basin;[94] (2) developing schedules for EF Regime Recommendations;[95] (3) appointing the Basin Stakeholder Committee members;[96] (4) appointing the Texas Science Advisory Committee (TSAC);[97] (5) considering for approval the Basin Stakeholder

88. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(c)).
89. *Id.*
90. *Id.*
91. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(d)).
92. The proposed code states:

> The advisory group shall conduct public hearings and study public policy implications for balancing the demands on the water resources of the state resulting from a growing population with the requirements of the riverine, bay, and estuary systems including granting permits for instream flows dedicated to environmental needs or bay and estuary inflows, use of the Texas Water Trust, and any other issues that the advisory group determines have importance and relevance to the protection of environmental flows. In evaluating the options for providing adequate environmental flows, the advisory group shall take notice of the strong public policy imperative that exists in this state recognizing that environmental flows are important to the biological health of our public and private lands, streams and rivers, and bay and estuary systems and are high priorities in the water management process. The advisory group shall specifically address: (1) ways that the ecological soundness of those systems will be ensured in the water rights administration and enforcement and water allocation processes; and (2) appropriate methods to encourage persons voluntarily to convert reasonable amounts of existing water rights to use for environmental flow protection temporarily or permanently.

H.R. 3, 80th Leg., Reg. Sess. (Tex. 2007) (amending TEX. WATER CODE ANN. § 11.0236(i)).
93. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(b)).
94. *Id.* (amending TEX. WATER CODE ANN. § 11.02362).
95. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(d)).
96. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(f)).
97. *Id.* (amending TEX. WATER CODE ANN. § 11.02361(a)).

Committees' ongoing work plans;[98] (6) receiving reports from TCEQ, TPWD, and TWDB regarding flow recommendations and implementation of flow plans;[99] (7) reporting activities to the Governor, lieutenant Governor, and speaker of the house;[100] and (8) submitting comments to TCEQ during review of EF Regime Recommendations. TCEQ ultimately would adopt and promulgate the regime and standards.[101] Thus, the Advisory Group would act as a conduit of information from the Texas political leadership to the policy makers at TCEQ.

The environmental flow protection regime would not be well-insulated from politics. The Advisory Group itself would be composed entirely of political appointees.[102] The Advisory Group would have nine members.[103] The first three would be appointed by the Governor.[104] The Governor's three appointees would be consistent with section 11.0236(c), which states that one appointee would be from TCEQ, one would be from TWDB, and one would be from the TPWD. The next three would be appointed by the Lieutenant Governor, and all three would come from the Texas Senate.[105] The final three members would be appointed by the Speaker of the House of Representatives, and all three would come from the Texas House.[106] All appointments would be made by only three politicians, and thus happenstance of political leadership could lead to representation for narrow constituencies, rather than a more politically-neutral process that would represent broader interests.

The Advisory Group members would serve at the pleasure of the person who appointed them.[107] While removability would add an element of accountability, the structure also would subject the member to additional direct political influence that could draw them away from their expert impartiality. An appointee whose position is subject to a Governor's whims would likely find it difficult to muster the courage to

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98. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(p)).

99. *Id.* (amending TEX. WATER CODE ANN. § 11.02361(f)).

100. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(l)).

101. TCEQ must adopt environmental flow standards "that are adequate to support a sound ecological environment, to the maximum extent reasonable considering other public interests and other relevant factors." *Id.* (amending TEX. WATER CODE ANN. § 11.1471(a)). The standards "must consist of a schedule of flow quantities, reflecting seasonal and yearly fluctuations that may vary geographically." *Id.* (amending TEX. WATER CODE ANN. § 11.1471(c)).

102. EFAC's Final Report proposed that this advisory group be composed such that five of eleven positions would be earmarked for specific agency officers or legislature representatives.

103. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(b)).

104. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(b)(1)) and TEX. WATER CODE ANN. § 11.0236(C)).

105. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(b)(2)).

106. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(b)(3)).

107. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(d)).

act inconsistently with the Governor's political inclinations, especially since water issues are so politically charged. Effectively, the removability provision elevates political loyalty over evenhanded basin management.

The political makeup of the Advisory Group would affect the composition of the Basin Stakeholder Committees, which are appointed entirely by the Advisory Group, for five year terms.[108] These appointments would be subject to a flexible rule under which various industries, water users and environmental interests must be represented.[109] Under this rule, a minimum of seventeen stakeholders must form each Basin Stakeholder Committee, with fourteen of the positions being earmarked for specific kinds of stakeholders.[110] Overall the Texas Water Code would allocate positions for representatives of water *users*, to the detriment of those interested in preserving in-stream flows. With water consumers weighing heavily, the likely result would be that EF Regime Recommendations would lean towards water consumption, with too little environmental protection for rivers and streams.

Each Basin Stakeholder Committee would appoint a basin and bay expert science team. H.B. 3 affords much discretion in the appointments, with little direction in the process beyond that the Basin Science Team should be "composed of technical experts with special expertise regarding the river basin and bay system or regarding the development of environmental flow regimes."[111] The Basin Science Team members would serve five year terms.[112]

The environmental flow regime, as set forth in H.B. 3, calls for the Basin Stakeholder Committees to submit recommendations to the TCEQ.

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108. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(f)-(g)).

109. The proposed code states:

> The membership of each committee must: (1) reflect a fair and equitable balance of interest groups concerned with the particular river basin and bay system for which the committee is established; and (2) be representative of appropriate stakeholders, including the following if they have a presence in the particular river basin and bay system for which the committee is established: (A) agricultural water users; (B) recreational water users, including coastal recreational anglers and businesses supporting water recreation; (C) municipalities; (D) soil and water conservation districts; (E) industrial water users, including representative of each of the following sectors: (i) refining; (ii) chemical manufacturing; (iii) electricity generation; and (iv) production of paper products or timer; (F) commercial fisherman; (G) pubic interest groups; (H) regional water planning groups; (I) groundwater conservation districts; (J) river authorities and other conservation and reclamation districts with jurisdiction over surface water; and (K) environmental interests.

H.R. 3, 80th Leg., Reg. Sess. (Tex. 2007) (amending TEX. WATER CODE ANN. § 11.02362(f)).

110. *Id.*

111. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(i)).

112. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(j)).

These recommendations would supplement and respond to the EF Regime Recommendations submitted earlier to TCEQ by the Basin Science Team. As noted above, the Advisory Group would submit to TCEQ comments on the Basin Stakeholder Committee's recommendations. Approval power with respect to environmental flow standards would rest with TCEQ (which would rely on the Texas Science Advisory Committee for scientific support). Standards would be finalized on a basin by basin level.

The Advisory Group would appoint the TSAC to make recommendations to the Advisory Group concerning flow programs at Texas' agencies and basin science team activities.[113] The TSAC would provide "an objective perspective and diverse technical expertise, including expertise in hydrology, hydraulics, water resources, aquatic and terrestrial biology, geomorphology, geology, water quality, computer modeling, and other technical areas pertinent to the evaluation of environmental flows."[114] The TSAC would work closely with each basin science team, with TSAC appointing one nonvoting liaison as a member of each Team. The liaison would "facilitate coordination and consistency in environmental flow activities throughout the state."[115] The TSAC would report on Basic Science Teams' recommendations to the Advisory Group.[116]

The TWDB, TCEQ, and TPWD would also delegate representatives as nonvoting members to the Basin Science Teams to "provide technical assistance to each basin and bay expert science team . . . [and] to facilitate the development of environmental flow regime recommendations."[117]

B. Sunlight Provisions

H.B. 3 proposes a system to develop basin wide plans to protect Texas rivers, streams, bays, and estuaries. Although this plan would be poised to bend in political winds, H.B. 3 includes provisions that would help offset the political character slightly. H.B. 3 would feature sunlight provisions requiring that deliberations be public for Basin Science Teams,[118] Basin Stakeholder Committees,[119] and the Advisory Group.[120]

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113. *Id.* (amending TEX. WATER CODE ANN. § 11.02361(e)).
114. *Id.* (amending TEX. WATER CODE ANN. § 11.02361(b)).
115. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(k)).
116. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(k)); *id.* (amending TEX. WATER CODE ANN. § 11.02361(f)).
117. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(k)).
118. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(l)).
119. *Id.* (amending TEX. WATER CODE ANN. § 11.02362(h)).

The Texas Science Advisory Committee would not have a public hearing provision.

Coupled with the cross-membership between the Texas agencies, Basin Science Teams, Basin Stakeholder Committees and the Advisory Group, the sunlight provisions assure that Texas water policy would not be created in secret. With much of water law taking place off the ordinary Texan's radar, such an open policy is welcome in that it would encourage newspapers to report on water issues, and it would allow concerned citizens to participate in the debate. The sunlight provisions would make it harder for any particular stakeholder to be shortchanged in the process.

C. No New Water Rights for Instream Flows

The H.B. 3 reform proposal states that TCEQ "may not issue a new permit for instream flows dedicated to environmental needs or bay and estuary inflows."[121] This provision would remove any doubt that environmental organizations cannot apply for *new* water rights to dedicate to the Trust for environmental flow protection (a direct legislative response to the SMRF application).[122] Precluding new environmental flow water rights statutorily would ease the work of city planners. That is, planners would not have to contend with large blocks of water declared off limits by new inflow water rights. H.B. 3 would allow TCEQ to amend an *existing* permit "to change the use to or add a use for instream flows dedicated to environmental needs or bay and estuary inflows."[123] At the moment, there appears to be no incentive for a water right holder to amend a permit for instream flow, and it is unlikely that this provision will trigger a waterfall of amended permits for instream flows.

The SMRF application was a unique attempt to establish a base minimum flow in the Guadalupe River, but its achievement would have left growing cities high and dry. The absolute nature of such a right would not allow for compromise in times of drought. Nor would such an instream right accommodate future development along the river, development that could, arguably, be managed in such a way that does not compromise environmental flows. It is good governance to preclude blanket instream flow protection of new water rights, but there is a

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120. *Id.* (amending TEX. WATER CODE ANN. § 11.0236(i)).
121. *Id.* (amending TEX. WATER CODE ANN. § 11.0237(a)).
122. *Id.*
123. *Id.*

meaningful absence of strong alternative environmental flow protection in H.B. 3's remaining provisions.

D. Environmental Set-Aside

H.B. 3 would set aside water for environmental purposes in rivers that have not been fully appropriated.[124] Although the final calculations have not been made, few rivers would likely meet this criteria, and thus few would have water set aside.[125] For rivers which lack enough unappropriated water to set aside to meet environmental flow standards, "a variety of market approaches, both public and private, for filling the gap must be explored and pursued."[126] H.B. 3 would not expropriate by removing water from existing water rights to serve environmental flows. H.B. 3 differs from the 2005 Water Bill in the addition of the qualifying term "market," which would restrict solutions to the realm of water marketing. There are no funding provisions complementing the set-aside provision, and state purchase of water rights on the market for deposit into the Trust would be highly unlikely.

On the other hand, H.B. 3 would leave the onus to protect rivers, streams, bays, and estuaries on private parties with an interest in environmental flows. That is, if environmentalists and fishing organizations want to protect flows, they would have to buy water rights from private water rights holders, then donate those rights to the Trust. If this arrangement results from H.B. 3, the stakeholders for preservation (which includes everyone from tubing/canoeing companies to fisherman to industries that depend on healthy bays) would need to pool their resources to secure water rights.

E. Texas Water Trust Provisions

H.B. 3 would remove impediments to transferring and leasing water rights to the Texas Water Trust. This would include fees,[127] cost assessments,[128] and expenses[129] for donations and long-term leases.[130] The purpose here would be to encourage transfers to the Trust by reducing costs for the donor. Water in the Trust would be actively protected as

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124. *Id.* (amending TEX. WATER CODE ANN. § 11.0235(d-3)(1)).
125. Kaiser, *supra* note 4, at 159.
126. *Id.* (amending TEX. WATER CODE ANN. § 11.0235(d-3)(2)).
127. *Id.* (amending TEX. WATER CODE ANN. § 5.701(j)).
128. *Id.* (amending TEX. WATER CODE ANN. § 11.404(e)).
129. *Id.* (amending TEX. WATER CODE ANN. § 11.404(e)).
130. *Id.* (amending TEX. WATER CODE ANN. § 11.329(g)).

environmental flow by giving standing to TPWD to file suit as guardian of the Trust's water rights.

For the water rights holder, these provisions would be beneficial because a rights holder who does not use up his allocated water was previously susceptible to rights cancellation. But per H.B. 3, his rights would not be subject to cancellation if the unused water is loaned to the Trust.

F. Environmental Set-Aside Set-Aside (Emergency Provisions)

In times of heavy rainfall, water is plentiful and environmental flows need little protection. In times of drought, though, protection for environmental flows is at its most critical. According to H.B. 3, water set aside for environmental flows "may be made available temporarily for other essential beneficial uses if the commission finds that an emergency exists that cannot practically be resolved in another way."[131] Moreover, "all permit conditions relating to [environmental flows] must be subject to temporary suspension if necessary for water to be applied to essential beneficial uses during emergencies."[132]

The result of these provisions is that environmental flow standards would be compromised during droughts, and water right permits with environmental flow conditions could have those conditions (environmental safeguards) removed in time of emergency. Setting aside for a moment what would constitute an "emergency" (the beginning and end dates of droughts cannot easily be determined), safeguards that can easily be set aside when they are needed most are not safeguards. Indeed, set-aside provisions that can be easily set-aside are impotent protections. Under H.B. 3, TCEQ would determine when an "emergency" exists. These provisions would facilitate water management during a drought, and thus constitute a tool for city planners. This is a significant attribute of the proposed emergency provisions. However, the benefit would be gained at the cost of instream flow and freshwater inflow protection, and would render ineffective H.B. 3's environmental safeguards.

131. *Id.* (amending TEX. WATER CODE ANN. § 5.506(a-1)).
132. *Id.* (amending TEX. WATER CODE ANN. § 11.0235(c)).

V. CONCLUSION

A catfish laughs.
It thinks of other catfishes
In other ponds.
—Koi Nagata (1900 ~ 1997)[133]

In our society we often undervalue things we cannot readily place a price tag on. Free market mechanisms improve efficiency and allocate resources to the highest bidder. H.B. 3 would clearly improve efficiency in water management; but less clear is whether the highest bidder system will afford a place for environmental concerns.

H.B. 3's provisions on water marketing and the environmental flows regime could ensure protection of Texas' rivers, streams, bays and estuaries, but success is not inevitable. The Texas legislature must also agree to fund conservation programs. The Texas legislature must encourage the donation of water rights, and in the event that donations are inadequate, the Texas legislature must purchase rights or allocate water to the Trust. In times of drought, the Texas legislature must protect environmental flows from the powerful finances of water users. The crucial moments in water law are during droughts, because during droughts a community must use water resources as efficiently as possible, and in a way that minimizes environmental impacts.

When flows are at their lowest, and demand for water use is high, we should defer not to those who most benefit from water consumption, but rather to our scientific experts. Scientific experts know how to best exploit natural resources and to what extent we can take advantage of natural resources without causing environmental harm. There will be temptation of politicians to solve short-term, drought-related supply crises in such a way that could cause long-term environmental damage. This damage could be mitigated by increasing scientific expert involvement in the decision making process. Passing H.B. 3 would take a few important steps forward in setting up these scientific advisory mechanisms. However, despite an impressive framework, the system itself would be susceptible to political winds, and its environmental flow protections would be illusory in times of drought.

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133. Ryu Yotsuya, History of Haiku, http://www.big.or.jp/~loupe/links/ehisto/ekoi.shtml (last visited Mar. 3, 2007).