

Strategies

Senate Bill 3 (SB3) mandates that in addition to developing recommendations for environmental flow standards, each bay/basin area stakeholder committee also develop recommendations for strategies to meet these standards.

Environmental and water management strategies was viewed by the committee as a list of potential measures to meet the environmental flow standards. While these strategies are separate and apart from the environmental flow standards, they should work in concert with a regime that balances ecological needs and human needs. The committee viewed workable strategies as an integral component for achieving the recommended environmental flow standards for the basin. These strategies could be considered by water planners, state or federal agencies, legislators, or permit holders to pursue the protection goals established by the committee.

To that end, the Brazos River Basin and Bay Stakeholder Committee has developed a list of strategies explained in detail below. It is important to note that in recommending these strategies the committee does not intend for them to be viewed or implemented as mandates on individuals, local governments or water right permit holders. Instead, the committee recommends that this list of strategies be viewed as a set of voluntary or incentive-based measures that could be used to achieve environmental flow standards within the Brazos basin. The applicability of individual strategies should be considered on a case-by-case basis, and must produce a benefit to environmental flow, or at least no adverse effects. The committee also believes that, just as the environmental flow regimes will evolve over the coming years, so to should the environmental and water management strategies designed to meet those regimes.

- Consider the use of incentives, such as tax incentives to encourage donation of water rights for environmental flows (e-flows). Rights could be dedicated to the Texas Water Trust or private water trusts.
- Explore opportunities for individuals to obtain grants, donations, or state or federal funding to purchase or lease water rights for use in dedicating such water for e-flows through the Texas Water Trust or private water trusts.
- Consider the voluntary dedication of return flows (treated wastewater effluent) for purposes of e-flows, and whether incentives would be beneficial to promote such dedication. This could be a dedication of some or all of the wastewater return flows associated with a permit.
- Promote the beneficial reuse of treated wastewater effluent for uses such as irrigation of large landscaped areas (golf courses, parks, etc) to reduce the demand of potable water, thereby reducing or delaying the need for future raw water supplies. This is essentially a conservation or demand reduction strategy. The less water being used, the more that could be available for e-flows.
- Consider developing cost incentive programs for entities that promote conservation and dedicate conserved water to e-flows. This would encourage entities to implement specialized and targeted conservation measures and dedicate all or a portion of the savings experienced to environmental flows. It would need to be clear that the entities would not be subject to water right cancellation for non-use if they are saving water for the purpose of e-flows.
- Explore conjunctive use of groundwater and surface water to determine whether such conjunctive use would benefit e-flows. Conjunctive use allows a water user to toggle back and forth between surface and groundwater depending on conditions. In some cases, during dry times, a water user could rely more heavily on groundwater so as to protect river e-flows.
- Explore the benefits for graywater use in reducing the use of potable water for uses such as lawn irrigation and other innovative uses which could use graywater rather than potable water. Graywater shall mean wastewater from showers, bathtubs, handwashing lavatories, sinks not used for food preparation or disposal and clothes-washing machines. Graywater does not include wastewater from the washing of material, including diapers, soiled with human excreta or wastewater that has come in

contact with toilet waste. Use of graywater shall be in accordance with Title 30 Texas Administrative Code, Chapter 285.

- Provide information to and support the Groundwater Management Area (GMA) process so that the establishment or consideration of Desired Future Conditions (DFC) takes into account any potential impact that DFCs may have on environmental flows, particularly spring-flow, and how groundwater could be used to benefit environmental flows.
- Encourage stewardship activities on private lands by providing incentives or funding to landowners who engage in land management practices that benefit water quality and e-flows. These could include activities such as riparian protection or wetlands restoration that have a proven benefit to e-flows.
- Encourage stewardship activities on public lands that benefit water quality and e-flows. Where possible, public entities with landholdings could engage in activities on those lands such as riparian protection, invasive species control, wetlands restoration, etc that provide a benefit to environmental flows.
- Promote increasing EQIP contract awards for water conservation and water quality improvement. The Environmental Quality Incentives Program (EQIP) is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length. These contracts provide financial assistance to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air and related resources on agricultural land and non-industrial private forestland.
- Encourage and increase public acceptance of prescribed burning as a rangeland management tool. Prescribed fire has been shown to not only improve wildlife habitat, but also to provide increased water quality to rivers and streams once land is revegetated, as well as controlling the spread of invasive species. Stormwater pollution prevention measures could be implemented to reduce pollution until vegetation is reestablished.
- Consider forming a group of reservoir owners (such as those that operate more than one reservoir, various owners from several reservoirs, etc.) to periodically review ways and means to improve reservoir operations to enhance both environmental flows and water supply. This could include scheduling releases to better mimic natural flow patterns and could be done for individual dams or multiple dams.
- Explore water right management options to look for efficiencies that could benefit e-flows. This could include finding opportunities where water right diversion points could be relocated to improve delivery efficiencies to both water users and the environment.

Regional strategies:

The BBASC recommends several regional strategies to help meet environmental flow standards. These include:

- Consider performing studies to evaluate strategies to control invasive species such as salt cedar, mesquite tree, the giant cane *Arundo donax* and junipers throughout the basin where found and seek state funding, tax incentives, or similar monetary incentives to support the studies and implement recommended eradication/control strategies. Removal of invasive species, particularly those that are heavy water users has been shown over time to increase flows and such removal should be encouraged or incented where possible.
- Consider the construction of a salt water barrier to prevent saltwater intrusion in the lower basin. During periods of low-flow in the river, saltwater can intrude into the mouth of the Brazos, at times reaching as far as forty miles upstream. Constructing a saltwater barrier, which could take the form of a passable dam structure, could prevent this intrusion and improve water quality in that area of the basin.