

## **Texas Instream Flow Program Frequently Asked Questions**

### **Q. What are instream flows and why are they so important?**

Instream flows are the amounts of water running in a river, usually measured by the volume moving down the channel in a specified amount of time. A variety of instream flows – low, medium and high - are needed to maintain a healthy river.

Instream flows are important because they are a limited natural resource that must be shared between humans, fish and animals for a healthy environment. People need water for drinking, manufacturing, farming, power and recreation. The environment needs water for fish, plants and wildlife.

### **Q. How do you intend to balance human needs versus environmental needs?**

Human and environmental needs are balanced through the water-rights permitting process. Water rights currently are granted for human uses -- such as drinking, power generation and irrigation - though not for environmental purposes.

The Texas Instream Flow Program and the environmental flow allocation process outlined in SB3 seek to balance human and environmental needs, in several ways:

1. The public provides input on scientific studies by identifying goals and objectives for them.
2. Scientific studies are conducted to quantify the flow requirements for healthy fish and wildlife.
3. Lawmakers and regulatory agencies, with the input from groups involved in stakeholder processes through SB 3, determine appropriate policies considering many factors including study results and the need for water for out of stream uses. Regulatory agencies then implement such policies.
4. Long-term monitoring enables watershed management programs to adapt over time.

### **Q. How does the Texas Instream Flow Program (SB2) relate to the environmental flow allocation process outlined in SB3?**

Texas Instream Flow Program studies required in SB 2 will determine how much water is required to support a sound ecological environment in the state's rivers. A separate program, the Texas Freshwater Inflow Program, studies the amount of freshwater required to maintain the health of the state's bays and estuaries.

Study results from these programs as well as public input will underpin the water management policies developed through the environmental flows allocation process for the state's seven river basin and bay systems. This allocation process was outlined in Senate Bill 3, which was passed in 2007.

### **Q. How will instream flow recommendations for rivers relate to freshwater inflow recommendations for bays and estuaries?**

Instream flow recommendations for each river basin will be integrated into wider recommendations for the whole basin-and-bay system. Each basin and bay system will have an area stakeholder committee and an expert science team that will make recommendations, drawing on studies conducted by the Texas Instream Flow Program and other sources.

**Q. What happens to study results and flow recommendations? Will they really provide any benefit to the river?**

The TIFP study results and flow recommendations will be integrated into water management policies that result from the environmental flow allocation process. The studies and recommendations will benefit the river and people by quantifying the environmental water needs so that management policies have a sound basis.

**Q. Why are the agencies asking the public and landowners for input in creating a scientific study design?**

Residents along rivers can provide several types of useful information to scientists:

- Values - how the river is valued by individuals and communities
- Perspective - historical perspective of the river and its environs
- Data gaps - information that may be lacking in public databases
- Concerns – issues of concern to local inhabitants
- Check-and-balance review - ensure the data/information is reliable, credible, and useable

**Q. Why do these studies include an overbank flow component? We don't have a capacity to manage these flows and we'd probably be sued if we did provide these types of flow.**

Rivers require a variety of flows to be healthy. These flow regimes include subsistence flows, base flows, high flow pulses and overbank flows.

Overbank flows are infrequent, high flows that exceed the channel and are necessary to maintain the health of a river system. They provide the following benefits:

- Restore water quality in floodplain water bodies, such as oxbow lakes
- Provide life phase cues for organisms
- Maintain the diversity of riparian (water/land) vegetation and cultivate the development of seedlings
- Connect various parts of the floodplain for plants and animals that need to cross it
- Recharge the water table
- Flush organic matter into the channel
- Deposit nutrients onto the floodplain

While current regulations don't provide a framework for managing overbank flows, future regulations may do so as a result of the instream flow studies.

**Q. Will stakeholders have any say in the final recommendations?**

Stakeholders and the public have opportunities for input at the beginning and end of the technical studies. Study goals and objectives will be developed in collaboration with the public

and local stakeholders. After technical studies are complete, results will be integrated with input from the public and local stakeholders to insure that recommendations achieve study goals and objectives.

**Q. What's going to be the standard for the river: current conditions or pre-European settlement conditions?**

It would be impossible to return our rivers to conditions that existed before the country was settled. Dams, channeling, urban growth, mining and deforestation have irrevocably changed the landscape.

Still, it is helpful to understand how the river behaved in the past, so we can protect and maximize its health in the future.

**Q. Are these studies going to consider effects of global warming?**

The program is currently considering how to address climate change. Some opportunities may exist for climate-change assessments:

- Species changes, given various flow regimes representing different climate conditions
- Flow conditions that satisfy water quality/biology relationships
- Variability of wet, dry and average conditions
- Hydrology and hydraulics – historic and current
- Flow regime as compared with historic and current conditions
- Flow ranges at various time scales for key species
- Water quality under various flow conditions

**Q. Are these studies going to consider population growth in our cities and future water supply projects?**

Population growth and future water supply projects will be considered in the water management policies that result from the environmental flows allocation process. That process will rely on the technical studies conducted by TIFP.

**Q. How do you plan to implement flow recommendations?**

Instream flow recommendations will be implemented through water management policies that are developed through the environmental flows allocation process, outlined in SB3. These policies will guide state agencies in managing and conserving rivers and bays.

- Recommendations will be in the form of flow regimes – which describe the quantity, frequency, timing and duration of water flows required to maintain a sound ecology.
- The recommendations will be incorporated into water management policies developed through the environmental flows allocation process.
  - This process is carried out at the state level through two groups:
    - Environmental Flows Advisory Group
    - Texas Environmental Flows Science Advisory Committee

- This process is carried out at the local level in each basin and bay system through two groups:
  - Basin and Bay Area Stakeholders Committee
  - Basin and Bay Expert Science Team
- The Texas Commission on Environmental Quality will adopt environmental flow standards to be used in the water-rights permitting process. That includes determining whether unappropriated water, if available, should be set aside for the environment.

**Q. Who's going to complete these studies? Who's paying for them?**

The studies are being overseen and conducted by the state's water agencies: Texas Water Development Board, Texas Parks and Wildlife Department and Texas Commission on Environmental Quality. The agencies have partnered with river authorities and have funded research conducted by academic institutions..

Other partners – such as cities, organizations and individuals – are invited to participate through financial or in-kind contributions.

**Q. How long will it take to complete these studies?**

Each of the studies will take between 3 and 5 years. The study period began in 2004 and is expected to continue through 2016.

**Q. Will instream flow recommendations threaten my water rights?**

No, the instream flow recommendations will be considered when Texas Commission on Environmental Quality issues future water rights, including amendments.

**Q. Why was my river selected for an instream flow study?**

Rivers included in the TIFP priority studies were selected based on:

- State diversity
- Size (constitute a portion of a major river system)
- Stakeholder input