SUBCHAPTER B: TRINITY AND SAN JACINTO RIVERS, AND GALVESTON BAY

Effective May 15, 2011

§298.200. Applicability and Purpose.

This subchapter contains the environmental flow standards for the Trinity and San Jacinto rivers, their associated tributaries, and Galveston Bay. In case of a direct conflict, provisions of this subchapter control over any provisions of Subchapter A of this chapter (relating to General Provisions) for purposes of environmental flow standards and regulation in the Trinity and San Jacinto rivers, their associated tributaries, and Galveston Bay.

Adopted April 20, 2011 Effective May 15, 2011

§298.205. Definitions.

The following words or phrases have the following meanings, in this subchapter, unless the context clearly indicates otherwise:

1. **Galveston Bay**—the estuary system consisting of Galveston Bay and Trinity Bay, along with smaller associated bays including East Bay and West Bay.

2. **Fall**—the period of time September through November, inclusive.

3. **Spring**—the period of time March through May, inclusive.

4. **Sound ecological environment**—a resilient, functioning ecosystem characterized by intact, natural processes, and a balanced, integrated, and adaptive community of organisms comparable to that of the natural habitat of a region.

5. **Summer**—the period of time June through August, inclusive.

6. **Winter**—the period of time December through February, inclusive.

Adopted April 20, 2011 Effective May 15, 2011


(a) The Trinity and San Jacinto rivers, their associated tributaries, Galveston Bay, and the associated estuaries are healthy and sound ecological environments.
(b) The commission finds that these sound ecological environments can best be maintained by a set of flow standards that implement a schedule of flow quantities that contain subsistence flow, base flow, and one level of high flow pulses at defined measurement points. Minimum flow levels for these components will vary by season and by year since the amount of precipitation and, therefore, whether a system is in subsistence or base flow conditions, will vary from year to year and within a year from season to season, and the number of pulses protected will also vary with the amount of precipitation.

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§298.215. Set-Asides and Standards Priority Date.

The priority date for the environmental flow standards and set-asides established by this subchapter is December 1, 2009. The priority date for the environmental flow standards will be used in the water availability determination for a new appropriation or for an amendment to an existing water right that increases the amount of water authorized to be stored, taken, or diverted and has no other purpose.

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§298.220. Schedule of Flow Quantities.

(a) The environmental flow standards adopted by this subchapter constitute a schedule of flow quantities made up of subsistence flow, base flow, and one level of high flow pulses. Environmental flow standards are established at six separate measurement locations in §298.225 of this title (relating to Environmental Flow Standards).

(b) Subsistence flow. The applicable subsistence flow standard varies depending on the seasons as described in §298.205 of this title (relating to Definitions). For a water right holder to which an environmental flow standard applies, at a measurement point that applies to the water right, the water right holder may not store or divert water unless the flow at the measurement point is above the applicable subsistence flow standard for that point. If the flow at the measurement point is above the subsistence flow standard but below the applicable base flow standard, then the water right holder may divert or store water according to its permit, subject to senior and superior water rights, as long as the flow at the measurement point does not fall below the applicable subsistence flow standard.

(c) Base flow. The applicable base flow standard varies depending on the seasons as described in §298.205 of this title. For a water right holder to which an environmental flow standard applies, at a measurement point that applies to the water right, the water right is subject to a base flow standard. For a water right holder to which an environmental flow standard applies, at a measurement point that applies to the
water right, when the flow at that point is above the applicable base flow standard, and below the applicable high flow pulse trigger level, the water right holder may store or divert water according to its permit, subject to senior and superior water rights, as long as the flow at the measurement point does not fall below the applicable base flow standard.

(d) High flow pulses. High flow pulses are relatively short-duration, high flows within the watercourse that occur during or immediately following a storm event.

(1) Two pulses per season are to be passed (i.e., no storage or diversion by an applicable water right holder) if the flows are above the applicable base flow standard, and if the applicable high flow pulse trigger level is met at the measurement point. The water right holder shall not divert or store water except during times that streamflow at the applicable measurement point exceeds the applicable high flow pulse trigger level and until either the applicable volume amount has passed the measurement point or the applicable duration time has passed since the high flow pulse trigger level occurred.

(2) If the applicable high flow pulse trigger level does not occur in a season, then the water right holder need not stop storing or diverting water to produce a high flow pulse. The water right holder is not required to store water to be released later to produce a high flow pulse.

(3) With the exception of summer and fall, which are treated as a single season for purposes of pulse flow compliance, each season is independent of the preceding and subsequent seasons with respect to high flow pulse frequency.

(e) A water right owner that has stored water in accordance with the terms and conditions of its water right, including any applicable environmental flow requirement in effect at the time the water was stored, may divert, release, or use this water, even if the applicable environmental flow requirement is not met at the time of the subsequent diversion, release, or use of that stored water.

Adopted April 20, 2011

Effective May 15, 2011


(a) A water right application in the Trinity or San Jacinto river basins, which increases the amount of water authorized to be stored, taken or diverted as described in §298.10 of this title (relating to Applicability), shall not reduce the long-term frequency on either a seasonal or annual basis at which the volumes of freshwater inflows, to Galveston Bay, as described in the figure in this subsection, occur.
### Bay and Estuary Freshwater Inflow Standards for the Galveston Bay System

<table>
<thead>
<tr>
<th>Basin</th>
<th>Annual Inflow Quantity (af)</th>
<th>Annual Target Frequency</th>
<th>Winter Inflow Quantity (af)</th>
<th>Winter Target Frequency</th>
<th>Spring Inflow Quantity (af)</th>
<th>Spring Target Frequency</th>
<th>Summer Inflow Quantity (af)</th>
<th>Summer Target Frequency</th>
<th>Fall Inflow Quantity (af)</th>
<th>Fall Target Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity</td>
<td>2,816,532</td>
<td>50%</td>
<td>500,000</td>
<td>40%</td>
<td>1,300,000</td>
<td>40%</td>
<td>245,000</td>
<td>40%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>2,245,644</td>
<td>60%</td>
<td>250,000</td>
<td>50%</td>
<td>750,000</td>
<td>50%</td>
<td>180,000</td>
<td>50%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>1,357,133</td>
<td>75%</td>
<td>160,000</td>
<td>60%</td>
<td>500,000</td>
<td>60%</td>
<td>75,000</td>
<td>60%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>San Jacinto</td>
<td>1,460,424</td>
<td>50%</td>
<td>450,000</td>
<td>40%</td>
<td>500,000</td>
<td>40%</td>
<td>220,000</td>
<td>40%</td>
<td>200,000</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>1,164,408</td>
<td>60%</td>
<td>278,000</td>
<td>50%</td>
<td>290,000</td>
<td>50%</td>
<td>100,000</td>
<td>50%</td>
<td>150,000</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>703,699</td>
<td>75%</td>
<td>123,000</td>
<td>60%</td>
<td>155,000</td>
<td>60%</td>
<td>75,000</td>
<td>60%</td>
<td>90,000</td>
<td>60%</td>
</tr>
</tbody>
</table>

*af = acre-feet*
(b) The freshwater inflow standards are subject to adjustment, in accordance with Texas Water Code, 11.147(e-1). The adjustment for each inflow level is calculated by adding the volumes for all of the seasons in that inflow level for the entire year and multiplying that annual total volume by 12.5% to generate the maximum adjustment amount. The maximum adjustment, including the effect of any previous adjustments, cannot increase the total volume for that inflow level above the sum of the annual total of the original volume requirement for that level plus the 12.5% adjustment.

(c) The following environmental flow standards are established for the following described measurement points:

(1) West Fork Trinity River near Grand Prairie, Texas, generally described as United States Geological Survey (USGS) gage 08049500, and more specifically described as Latitude 32° 45' 45"; Longitude 96° 59' 40".

<table>
<thead>
<tr>
<th>Season</th>
<th>Subsistence</th>
<th>Base</th>
<th>Pulse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>19 cfs</td>
<td>45 cfs</td>
<td>Trigger: 300 cfs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volume: 3,500 af</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Duration: 4 days</td>
</tr>
<tr>
<td>Spring</td>
<td>25 cfs</td>
<td>45 cfs</td>
<td>Trigger: 1,200 cfs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volume: 8,000 af</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Duration: 8 days</td>
</tr>
<tr>
<td>Summer</td>
<td>23 cfs</td>
<td>35 cfs</td>
<td>Trigger: 300 cfs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volume: 1,800 af</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Duration: 3 days</td>
</tr>
<tr>
<td>Fall</td>
<td>21 cfs</td>
<td>35 cfs</td>
<td>Trigger: 300 cfs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Volume: 1,800 af</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Duration: 3 days</td>
</tr>
</tbody>
</table>

\[cfs = \text{cubic feet per second}\]
\[af = \text{acre-feet}\]

(2) Trinity River at Dallas, Texas, generally described as USGS gage 08057000, and more specifically described as Latitude 32° 46' 29"; Longitude 96° 49' 18".

United States Geological Survey (USGS) Gage 08057000, Trinity River at Dallas
Season | Subsistence | Base | Pulse
---|---|---|---
Winter | 26 cfs | 50 cfs | Trigger: 700 cfs  
Volume: 3,500 af  
Duration: 3 days
Spring | 37 cfs | 70 cfs | Trigger: 4,000 cfs  
Volume: 40,000 af  
Duration: 9 days
Summer | 22 cfs | 40 cfs | Trigger: 1,000 cfs  
Volume: 8,500 af  
Duration: 5 days
Fall | 15 cfs | 50 cfs | Trigger: 1,000 cfs  
Volume: 8,500 af  
Duration: 5 days

cfs = cubic feet per second  
af = acre-feet

(3) Trinity River near Oakwood, Texas, generally described as USGS gage 08065000, and more specifically described as Latitude 31° 38’ 54”; Longitude 95° 47’ 21”.

### USGS Gage 08065000, Trinity River near Oakwood

| Season | Subsistence | Base | Pulse
---|---|---|---
Winter | 120 cfs | 340 cfs | Trigger: 3,000 cfs  
Volume: 18,000 af  
Duration: 5 days
Spring | 160 cfs | 450 cfs | Trigger: 7,000 cfs  
Volume: 130,000 af  
Duration: 11 days
Summer | 75 cfs | 250 cfs | Trigger: 2,500 cfs  
Volume: 23,000 af  
Duration: 5 days
Fall | 100 cfs | 260 cfs | Trigger: 2,500 cfs  
Volume: 23,000 af  
Duration: 5 days

cfs = cubic feet per second  
af = acre-feet

(4) Trinity River near Romayor, Texas, generally described as USGS gage
08066500, and more specifically described as Latitude 30° 25' 30"; Longitude 94° 51' 02".

### United States Geological Survey Gage 08066500, Trinity River at Romayor

<table>
<thead>
<tr>
<th>Season</th>
<th>Subsistence</th>
<th>Base</th>
<th>Pulse</th>
</tr>
</thead>
</table>
| Winter | 495 cfs     | 875 cfs | Trigger: 8,000 cfs  
|        |             |      | Volume: 80,000 af  
|        |             |      | Duration: 7 days   |
| Spring | 700 cfs     | 1150 cfs | Trigger: 10,000 cfs  
|        |             |      | Volume: 150,000 af  
|        |             |      | Duration: 9 days    |
| Summer | 200 cfs     | 575 cfs | Trigger: 4,000 cfs  
|        |             |      | Volume: 60,000 af   
|        |             |      | Duration: 5 days    |
| Fall   | 230 cfs     | 625 cfs | Trigger: 4,000 cfs  
|        |             |      | Volume: 60,000 af   
|        |             |      | Duration: 5 days    |

cfs = cubic feet per second  
af = acre-feet

(5) East Fork San Jacinto River near Cleveland, Texas, generally described as USGS gage 08070000, and more specifically described as Latitude 30° 20' 11"; Longitude 95° 06' 14".

### United States Geological Survey Gage 08070000, East Fork San Jacinto River near Cleveland

<table>
<thead>
<tr>
<th>Season</th>
<th>Subsistence</th>
<th>Base</th>
<th>Pulse</th>
</tr>
</thead>
</table>
| Winter | 22 cfs      | 33 cfs | Trigger: 400 cfs  
|        |             |      | Volume: 4,500 af   
|        |             |      | Duration: 8 days    |
| Spring | 18 cfs      | 31 cfs | Trigger: 600 cfs  
|        |             |      | Volume: 5,000 af    
|        |             |      | Duration: 6 days    |
| Summer | 9 cfs       | 18 cfs | Trigger: 200 cfs  
|        |             |      | Volume: 1,300 af    
|        |             |      | Duration: 4 days    |
Fall | 9 cfs | 18 cfs | Trigger: 200 cfs  
Volume: 1,300 af  
Duration: 4 days

(6) West Fork San Jacinto River near Conroe, Texas, generally described as USGS gage 08068000, and more specifically described as Latitude 30° 14' 40"; Longitude 95° 27' 25".

United States Geological Survey Gage 08068000, West Fork San Jacinto River near Conroe

<table>
<thead>
<tr>
<th>Season</th>
<th>Subsistence</th>
<th>Base</th>
<th>Pulse</th>
</tr>
</thead>
</table>
| Winter | 23 cfs      | 42 cfs | Trigger: 400 cfs  
Volume: 3,500 af  
Duration: 7 days |
| Spring | 24 cfs      | 52 cfs | Trigger: 1,100 cfs  
Volume: 12,000 af  
Duration: 9 days |
| Summer | 10 cfs      | 19 cfs | Trigger: 200 cfs  
Volume: 1,300 af  
Duration: 3 days |
| Fall   | 10 cfs      | 22 cfs | Trigger: 200 cfs  
Volume: 1,300 af  
Duration: 3 days |

cfs = cubic feet per second  
af = acre-feet

Adopted April 20, 2011  
Effective May 15, 2011


(a) For water right permits with an authorization to store or divert more than 10,000 acre-feet per year in the Trinity and San Jacinto River basins, and to which the environmental flow standards apply, that are issued after the effective date of this subchapter, the water right permit or amendment shall contain flow restriction special conditions that are adequate to protect the environmental flow standards of this subchapter.
(b) For water right permits with an authorization to store or divert 10,000 acre-feet or less per year in the Trinity and San Jacinto river basins and to which the environmental flow standards apply, that are issued after the effective date of this subchapter, the water right permit or amendment shall contain flow restriction special conditions that are adequate to protect the environmental flow standards of this subchapter; however, no special conditions are necessary to preserve or pass high flow pulses.

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§298.240. Schedule for Revision of Standards.

The environmental flow standards or environmental flow set-asides adopted herein for the Trinity and San Jacinto rivers, their associated tributaries, and Galveston Bay may be revised by the commission through the rulemaking process. The final revised rules shall be effective no sooner than ten years from the effective date of this rule, unless the Trinity and San Jacinto basin and bay area stakeholder committee submits a work plan approved by the advisory group under Texas Water Code, §11.02362(p), that provides for a periodic review to occur more frequently. In that event, the commission may provide for the rulemaking process to be undertaken in conjunction with the periodic review if the commission determines that schedule to be appropriate. The rulemaking process shall include participation by a balanced representation of stakeholders having interests in the Trinity and San Jacinto Rivers, their associated tributaries, and Galveston Bay.

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