

# TCEQ Interoffice Memorandum

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**To:** Commissioners

**Thru:** Laurie Gharis, Chief Clerk  
Toby Baker, Executive Director *TB*  
L'Oreal Stepney, Deputy Executive Director *LS*  
Josalyn McMillon, Acting Director, Office of Water *JM*  
Craig Pritzlaff, Director, Office of Compliance and Enforcement *CP*

**From:** Kim Nygren, Deputy Director, Water Availability Division *Kim Nygren*

**Date:** August 17, 2022

**Subject:** Evaluation of whether a Watermaster Program should be appointed in the following basins: Upper Brazos River, San Jacinto-Brazos Coastal, Colorado River, Brazos-Colorado Coastal, and Colorado-Lavaca Coastal

The Texas Commission on Environmental Quality (TCEQ) currently has four watermaster programs in 10 of Texas' 23 river basins<sup>1</sup> that actively manage water.<sup>2</sup> The Executive Director (ED) is required by statute<sup>3</sup> to evaluate basins without a watermaster at least every five years<sup>4</sup> to determine if a watermaster should be appointed. The ED's evaluation is based on the criteria and risk factors determined by the Commission.<sup>5</sup> The ED is required to report the findings of that evaluation and make recommendations to the Commission.<sup>6</sup> The Commission then includes those evaluation findings in the TCEQ's biennial report to the Texas Legislature.<sup>7</sup>

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<sup>1</sup> See Appendix A: Watermaster Programs.

<sup>2</sup> See Appendix B: Current Water Rights Management.

<sup>3</sup> Texas Water Code (TWC) § 11.326.

<sup>4</sup> TWC § 11.326(g)(1); see also Appendix C: Basin Evaluation Schedule.

<sup>5</sup> TWC § 11.326(h)(1).

<sup>6</sup> TWC § 11.326(g)(2).

<sup>7</sup> TWC § 11.326(h)(2).

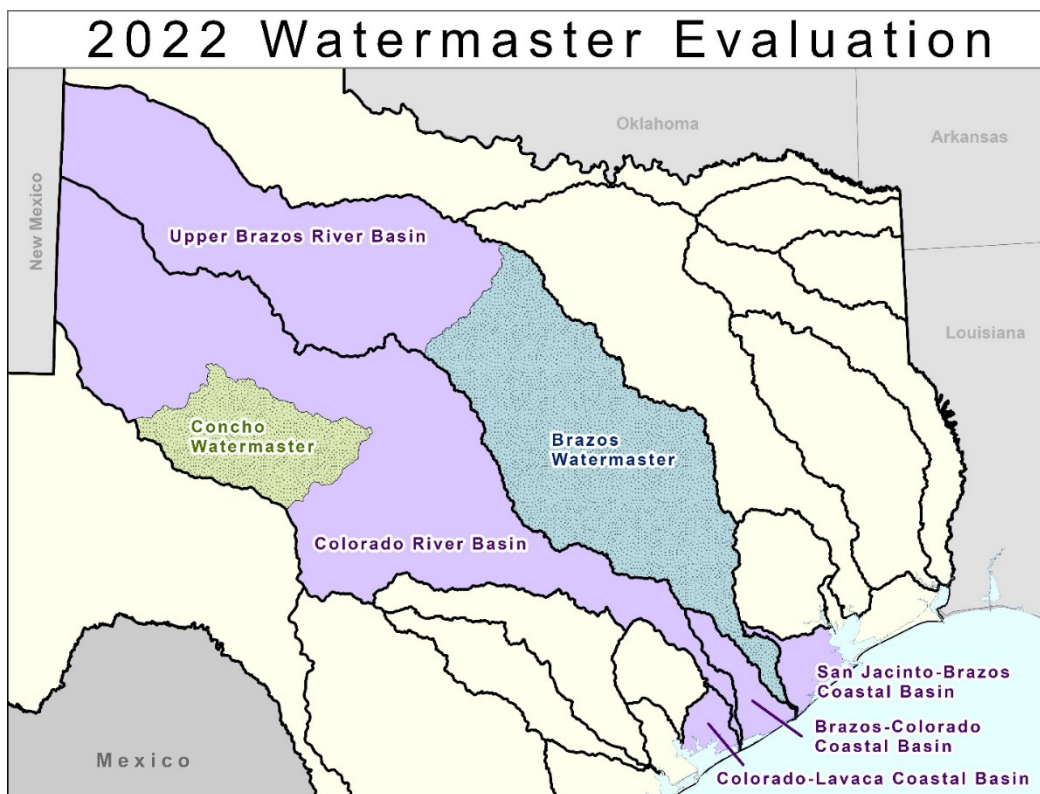
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## 2022 Basin Evaluations

In 2022, the ED evaluated the Upper Brazos (that portion of the Brazos River Basin upstream of Possum Kingdom Lake) and Colorado River Basins and the San Jacinto-Brazos, Brazos-Colorado, and Colorado-Lavaca Coastal Basins for the five-year period of Fiscal Years (FY) 2017-2021. The total estimated cost for the ED's 2022 evaluation activities is \$67,911.23.<sup>8</sup> This is the third evaluation of these basins by the ED. The previous evaluation of these basins occurred in 2012 and 2017.<sup>9</sup> This memorandum begins with a general discussion of the evaluation criteria and the evaluation process followed by the evaluations of the specific basins.

**Figure 1. Map of the Upper Brazos and Colorado River Basins and the San Jacinto-Brazos, Brazos-Colorado, and Colorado-Lavaca Coastal Basins**



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<sup>8</sup> See Appendix D: 2022 Watermaster Evaluation Costs (including the total costs of the 2022 evaluation for the following basins: Upper Brazos and Colorado River Basins and the San Jacinto-Brazos, Brazos-Colorado, and Colorado-Lavaca Coastal Basins).

<sup>9</sup> The San Jacinto-Brazos Coastal Basin was evaluated in 2013 and added to the 2017 evaluation cycle with the Upper Brazos River Basin because of the inter-relationships between water rights in this coastal basin and water rights in the Brazos River Basin.

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## Evaluation Criteria

The Commission outlined the following evaluation criteria in the Commission's September 28, 2011 Work Session:

1. *Is there a court order to create a watermaster?*
2. *Has a petition been received requesting a watermaster?*
3. *Have senior water rights been threatened, based on:*
  - a. *Either the history of senior calls or water shortages within the basin or*
  - b. *The number of water right complaints received on an annual basis in each basin?*

A brief discussion of each evaluation criterion follows.

### ***Is There a Court Order to Create a Watermaster?***

Court orders to create a watermaster are considered in the evaluation.

### ***Has a Petition Been Received Requesting a Watermaster?***

In evaluating this criterion, the ED considers petitions that meet statutory and rule requirements. Twenty-five or more holders of water rights in a river basin or segment of a river basin may submit a petition to TCEQ requesting that a watermaster be appointed.<sup>10</sup>

### ***Who may Petition the Commission Requesting a Watermaster?***

Determined and adjudicated water rights holders may petition for the creation of a watermaster, whereas domestic and livestock users (D&L) may not. D&Ls are individuals that "directly divert and use water from a stream or watercourse for domestic and livestock purposes . . . without obtaining a permit."<sup>11</sup> While D&Ls are protected in watermaster areas because they are considered to be superior to appropriated water rights, they are not required to register with the Commission and

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<sup>10</sup> TWC § 11.451.

<sup>11</sup> 30 Tex. Admin. Code (TAC) § 297.21(a).

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are not assessed a watermaster fee.<sup>12</sup> Only holders of water rights that have been “determined or adjudicated and are to be administered by the watermaster” are required to reimburse the Commission for the compensation and expenses of a watermaster - and D&Ls are not “determined or adjudicated” rights.<sup>13</sup>

### *How are Undivided Water Rights Considered?*

The term “water right holder” is defined as “[a] person or entity that owns a water right. In the case of divided interests, this term will apply to each separate owner.”<sup>14</sup> Accordingly, for undivided water rights, the term “water right holder” does not grant a right separately to each owner. Therefore, each owner of an undivided water right should not be counted as a separate petitioner. For example, a married couple who owns an undivided water right should be counted as one water right holder, not as two separate water right holders.

### *Have Senior Water Rights Been Threatened?*

#### *Definition of a Threatened Water Right*

A definition for “threat” is required in order to evaluate whether senior water rights have been threatened. During the September 14, 2012 Commission work session discussing the watermaster evaluation process, the Commission directed the ED to utilize the definition of “threatened water right” from a 2004 Commission Order appointing a watermaster for the Concho River.<sup>15</sup> The 2004 Commission Order was issued in response to petitions for the appointment of a watermaster in the Concho River watershed. The Commission officially approved use of the definition in the ED’s evaluations at the Commission’s October 31, 2012 agenda. The definition adopted by the Commission is as follows:

*“Threat” to the rights of senior water rights holders as used in Chapter 11, Subchapter I, of the Water Code implies a set of circumstances creating the*

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<sup>12</sup> See TWC § 11.329(a); see also 30 TAC § 297.21(a).

<sup>13</sup> TWC § 11.329(a).

<sup>14</sup> 30 TAC § 304.3(18).

<sup>15</sup> Order Appointing a Watermaster for the Concho River Segment, TCEQ Docket No. 2000-0344-WR, Aug. 17, 2004.

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*possibility that senior water rights holders may be unable to fully exercise their rights – not confined to situations in which other people or groups convey an actual intent to harm such rights. Specifically, in time of water shortage, the rights of senior water rights holders in the basin are threatened by the situation of less available water than appropriated water rights; the disregard of prior appropriation by junior water rights holders; the storage of water; and the diversion, taking, or use of water in excess of the quantities to which other holders of water rights are lawfully entitled.<sup>16</sup>*

### **Evaluation Process**

As part of the evaluation process, the Commission directed the ED to develop information (in addition to the evaluation criteria) to support implementation considerations during the September 28, 2011 Work Session. The Commission also directed the ED to involve stakeholders in the evaluation process. An explanation of the implementation considerations and stakeholder involvement follows.

### ***Implementation Considerations***

The Commission identified specific implementation considerations at the September 28, 2011 Work Session. These considerations include river compacts, environmental flows, the geographic reach of river basins, the number of permitted water rights within the basin, and cost factors for both current water management and potential watermaster programs. Implementation considerations specific to the basins in this evaluation are discussed in detail in later sections below. In this section, the development of the implementation criteria is discussed more generally.

There are five interstate river compacts: Canadian River Compact; Pecos River Compact; Red River Compact; Sabine River Compact; and Rio Grande Compact. None of these interstate river compacts apply to the basins considered in the evaluation. Therefore, they are not discussed further in the watermaster evaluations below.

TCEQ's adopted environmental flow standards apply to new appropriations of water.<sup>17</sup> Water rights for new appropriations of water in the basins covered in this evaluation

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<sup>16</sup> *Id.*

<sup>17</sup> 30 TAC § 298.10.

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will include appropriate permit special conditions that are adequate to protect any adopted standards. A watermaster in basins with environmental flow standards administers permits with special conditions to protect environmental flow standards in the same manner as water rights are administered in non-watermaster basins. TCEQ does not have authority to restrict diversions by water right holders to protect streamflow solely for the environment unless the water right includes such a requirement.

The remaining implementation considerations: the geographic reach of river basins, the number of permitted water rights within the basin, and cost factors for both current water management and potential watermaster programs, are fully discussed later in this memorandum.

### ***Stakeholder Involvement***

The ED's evaluation included a robust stakeholder process consistent with Commission direction. Stakeholders included:

- All water right holders in the basins evaluated (including river authorities, cities, agricultural interests, and industries);
- County judges;
- County extension agents; and
- Other interested parties in the basin (including environmental interests and D&L users that requested to participate in the evaluation).

The ED facilitated stakeholder activities and involvement with the following:

- **Webpage:** The ED maintained a public webpage exclusively dedicated to the watermaster evaluation process. The webpage provided information about watermaster programs, the evaluation process, stakeholder letters, and other information developed during the evaluation.

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- **Outreach Letter:** An initial outreach letter was sent to all stakeholders providing information about the evaluation process and seeking initial comments.<sup>18</sup>
- **Stakeholder Meetings:** Stakeholder meetings were held at three locations in the basins evaluated, and two meetings were held virtually. Notification of stakeholder meetings were posted on the evaluation webpage and mailed to all stakeholders.<sup>19</sup> At stakeholder meetings, staff from the Office of Water presented information about water management practices, evaluation requirements, the evaluation process, the processes for establishing watermaster programs, the functions of a watermaster, and evaluation options considered. Additionally, staff addressed stakeholder questions.
- **Public Comments:** Stakeholders were provided with the opportunity to provide comments at stakeholder meetings or to submit comments in writing (including via email) during the public comment period. The public comment period opened with the mailing of the initial outreach letter on March 11, 2022. The comment period for this evaluation closed on June 28, 2022.

### **Evaluation of the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin**

The ED's evaluation findings for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin are discussed below, including the criteria established by the Commission, the implementation considerations, and a discussion of stakeholder involvement.

#### ***History of Court Orders to Create a Watermaster***

Currently, there are no court orders to create a watermaster program within the basins under consideration.

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<sup>18</sup> See Appendix F: TCEQ Letters to Stakeholders.

<sup>19</sup> Id.

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## *History of Petitions Requesting a Watermaster*

A petition for a watermaster was received on January 7, 2013, requesting a watermaster for the Brazos River Basin (that petition did not include the San Jacinto-Brazos Coastal Basin). The matter was referred to the State Office of Administrative Hearings (SOAH), who conducted a hearing. SOAH presented their proposal for decision to the Commission on April 9, 2014. On April 21, 2014, the Commission issued an order partially granting the petition to create a watermaster in the Brazos River Basin. The Brazos Watermaster Program has jurisdiction over the Lower Brazos River Basin from Possum Kingdom Lake (including the lake) to the Gulf of Mexico. The Brazos Watermaster program began on June 1, 2015.

Currently, there are no active or approved petitions to create a watermaster program within the basins under consideration.

## *Have Senior Water Rights been Threatened?*

### *History of Priority Calls or Water Shortages*

There were no priority calls received from FY 2017 to FY 2021.

### *History of Complaints*

See the following table for a summary of complaints by year.

**Table 1. Summary of Complaints from FY 2017 to FY 2021**

<b>Basin</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Total</b>
Upper Brazos River	0	1	1	1	3	6
San Jacinto-Brazos Coastal	0	0	0	0	1	1

From FY 2017 to FY 2021 the TCEQ Regional Offices received and investigated a total of six water rights complaints in the Upper Brazos River Basin and one water rights complaint in the San Jacinto-Brazos Coastal Basin. All seven complaints resulted in no violations or enforcement actions.

The graphs below summarize complaints in the Upper Brazos Basin and the San Jacinto-Brazos Coastal Basin.



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Figure 2. Graph of Complaints Investigated in the Upper Brazos River Basin

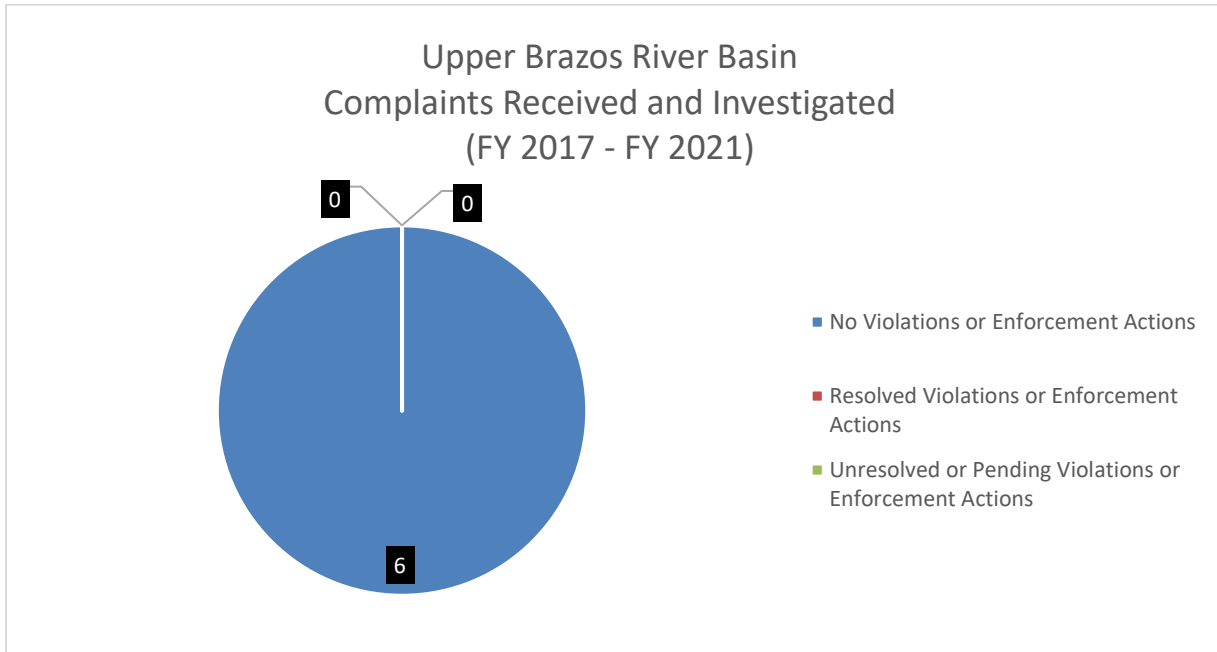
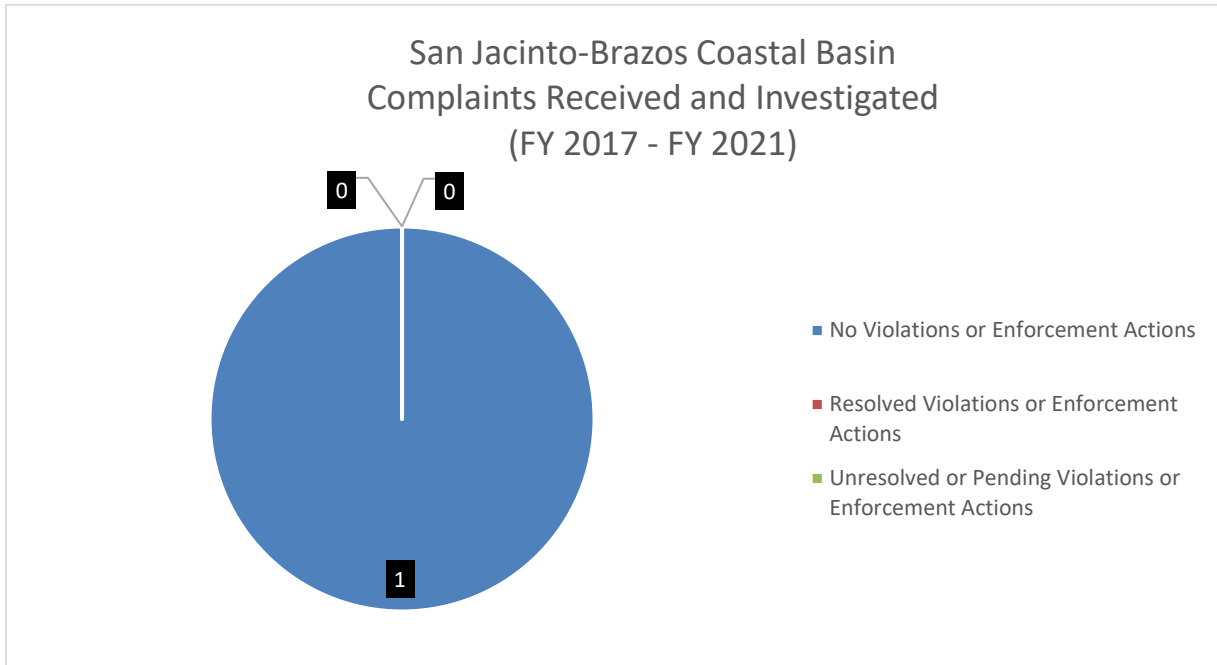


Figure 3. Graph of Complaints Investigated in the San Jacinto-Brazos Coastal Basin



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Table 2. Summary of Investigations\* from FY 2017 to FY 2021

Basin	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Upper Brazos River	9	1	2	2	0	14
San Jacinto-Brazos Coastal	0	0	0	0	0	0

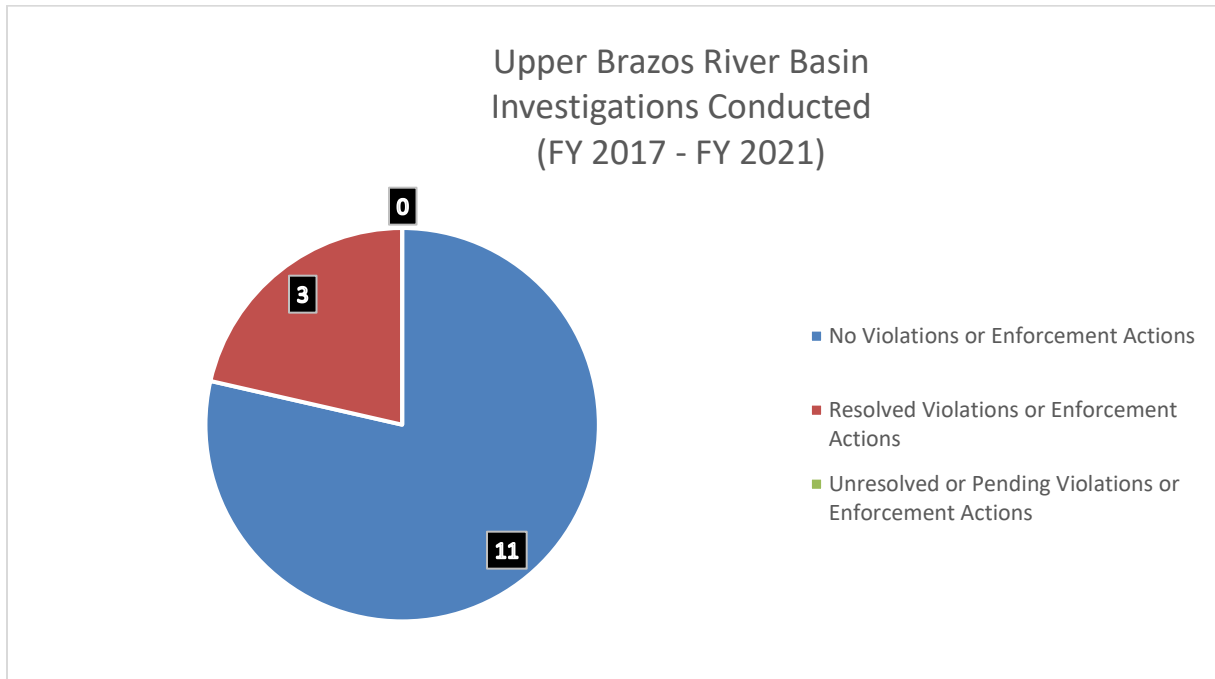
\*Investigation types do not include temporary permits.

From FY 2017 to FY 2021, the TCEQ Regional Offices conducted a total of 14 water rights-related investigations in the Upper Brazos River Basin and zero water rights-related investigations in the San Jacinto-Brazos Coastal Basin. Of the 14 investigations in the Upper Brazos Basin, 11 resulted in no violations or enforcement actions. The remaining three resulted in violations or enforcement actions that have since been resolved. Note, some water rights-related investigations cover activities that are not expected to result in violations or enforcement actions, such as permit reviews and routine flow monitoring.

The graph below summarizes investigations conducted in the Upper Brazos River Basin. Although the numbers are not included in Table 2 or Figure 4, there were 12 investigations conducted for temporary permits in the Upper Brazos River Basin and 8 investigations conducted for temporary permits in the San Jacinto-Brazos Coastal Basin.

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Figure 4. Graph of Investigations Conducted in the Upper Brazos River Basin



### ***Implementation Considerations***

A summary of implementation considerations is provided below.<sup>20</sup>

#### *Geographic Reach of the Basin and Water Right Information*

The Upper Brazos River Basin includes all or a portion of 38 counties and 211 water rights, and the San Jacinto-Brazos Coastal Basin includes all or a portion of five counties and 69 water rights. While this evaluation is for the Upper Brazos River Basin, it should be noted that the entire Brazos River Basin includes all or a portion of 74 counties with 1,143 water rights (with 932 water rights located in the Brazos River Watermaster program jurisdiction).

#### *Environmental Flows*

TCEQ adopted environmental flow standards for the Brazos River Basin in 2014.<sup>21</sup>

<sup>20</sup> See Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Coastal Basin

<sup>21</sup> 30 TAC Chapter 298, Subchapter G

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TCEQ adopted environmental flow standards for the San Jacinto-Brazos Coastal Basin in 2011.<sup>22</sup>

## *Cost Factors*

The total estimated costs for the ED to manage water rights for FY's 2017 - 2021 in the Upper Brazos River Basin was \$10,435.73 while the San-Jacinto Brazos Coastal Basin was \$2,263.74.

The ED considered three options when evaluating potential watermaster program costs for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin. These options were presented to stakeholders at meetings held in the Brazos River Basin and virtually. A more detailed discussion of costs is included in Appendix E.

**Option 1:** No watermaster recommended for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin.

**Option 2:** Extend the current Brazos Watermaster Program to include the Upper Brazos River Basin. Estimated costs reflect the amount required to operate the FY23 Brazos Watermaster Program plus the addition of the Upper Brazos River Basin. Year 1 has an estimated cost of \$1,298,666 (\$970,901.21 for the existing Brazos Watermaster Program and \$327,764.79 for program expansion) with a cost of \$1,231,168 for subsequent years.

**Option 3:** Extend the current Brazos Watermaster Program to include the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin. Estimated costs reflect the amount required to operate the FY23 Brazos Watermaster Program plus the addition of the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin. Year 1 has an estimated cost of \$1,491,531 (\$970,901.21 for the existing Brazos Watermaster Program and \$520,629.79 for program expansion) with a cost of \$1,375,548 for subsequent years.

## ***Stakeholder Involvement***

On March 11, 2022, the initial outreach letter was mailed to stakeholders initiating the comment period for the evaluation. On May 13, 2022, a letter announcing stakeholder

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<sup>22</sup> 30 TAC Chapter 298, Subchapter B

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meetings was mailed to the stakeholders. Stakeholder meetings were conducted in-person in San Angelo, Abilene, and San Saba between June 1 and June 3, 2022. In addition, two stakeholder meetings were conducted virtually on June 7 and June 9, 2022. Written comments were received during the evaluation period for the Upper Brazos River Basin. No comments were received for the San Jacinto-Brazos Coastal Basin. Four stakeholders opposed a watermaster due to the lack of need and the additional expense of a watermaster program. One stakeholder in favor of a watermaster commented that the Brazos River should be managed holistically.

**Table 3. Summary of Written Comments for Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin**

Basin	Comments Received				
	Total	In Favor		Opposed	
		Water Right Holders	Other	Water Right Holders	Other
Upper Brazos	5	1	0	4	0
San Jacinto-Brazos Coastal	0	0	0	0	0

## Evaluation of the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

The ED's s evaluation findings for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins are discussed below, including the criteria established by the Commission, the implementation considerations, and a discussion of stakeholder involvement.

### *History of Court Orders to Create a Watermaster*

Currently, there are no court orders to create a watermaster program within the basins under consideration.

### *History of Petitions Requesting a Watermaster*

There have been three petitions filed in the Colorado River Basin since 2001. All three were related to the San Saba River. In January 2001, a petition was filed by mostly

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domestic and livestock users requesting a watermaster for the San Saba River. The petition was subsequently withdrawn in January of 2004. In September of 2012, the TCEQ received a petition requesting a watermaster for the San Saba River from domestic and livestock users. The petition did not move forward because it did not meet statutory criteria. In October of 2012, TCEQ received a third petition requesting a watermaster for the San Saba River from 30 domestic and livestock water users. Prior to being discussed at Commission agenda, the petitioners withdrew the petition.

### ***Have Senior Water Rights been Threatened?***

#### *History of Priority Calls or Water Shortages*

There were priority calls prior to 2017 which were considered in the previous evaluation. From 2017 through 2021, the ED responded to eight priority calls in the upper Colorado River Basin. All eight calls were from domestic and livestock users on the San Saba River. In evaluating the priority calls, the ED considered streamflows and streamflow trends, overall drought conditions in the priority call area, all water rights in the area including their locations and authorized use, information from field investigations in the area of the call, and the need for water by the individuals making the calls. The ED's response to the calls balanced whether curtailment of existing water right holders would maximize the beneficial use of water, minimize the impact on water right holders, and prevent the waste of water.

The ED did not suspend water rights in response to the eight calls on the San Saba because any theoretical additional water in the stream resulting from such curtailment would either not have reached the location of the domestic and livestock users who made priority calls in sufficient quantities to be beneficially used (futile call) or there was still sufficient water in the river to meet the needs of the domestic and livestock users making the priority calls.

An additional priority call from a municipal water right holder in Llano County was also received and later rescinded.

#### *History of Complaints*

See the following table for a summary of complaints by year.

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**Table 4. Summary of Complaints from FY 2017 to FY 2021**

<b>Basin</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Total</b>
Colorado River*	15	14	8	7	9	53
San Saba Watershed	2	0	2	0	0	4
Brazos-Colorado Coastal	0	0	0	0	0	0
Colorado-Lavaca Coastal	0	0	0	0	0	0

\*This number includes the complaints received in the San Saba Watershed.

From FY 2017 to FY 2021 the TCEQ Regional Offices received and investigated a total of 53 water rights complaints in the Colorado River Basin (four of those in the San Saba Watershed) and zero water rights complaints in the Brazos-Colorado and Colorado-Lavaca Coastal Basins. Of the 53 complaints in the Colorado River Basin, 40 resulted in no violations or enforcement actions. Of the remaining, 11 resulted in violations or enforcement actions that have since been resolved, and two resulted in violations or enforcement actions that are currently still unresolved or pending.

Of the four complaints in the San Saba Watershed, one resulted in no violations or enforcement actions, and the remaining three resulted in violations or enforcement actions that have since been resolved.

The graphs below summarize complaints in the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins as well as the San Saba Watershed.

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Figure 6. Graph of Complaints Investigated in the Colorado River Basin, Brazos-Colorado Coastal Basin, and Colorado-Lavaca Coastal Basin

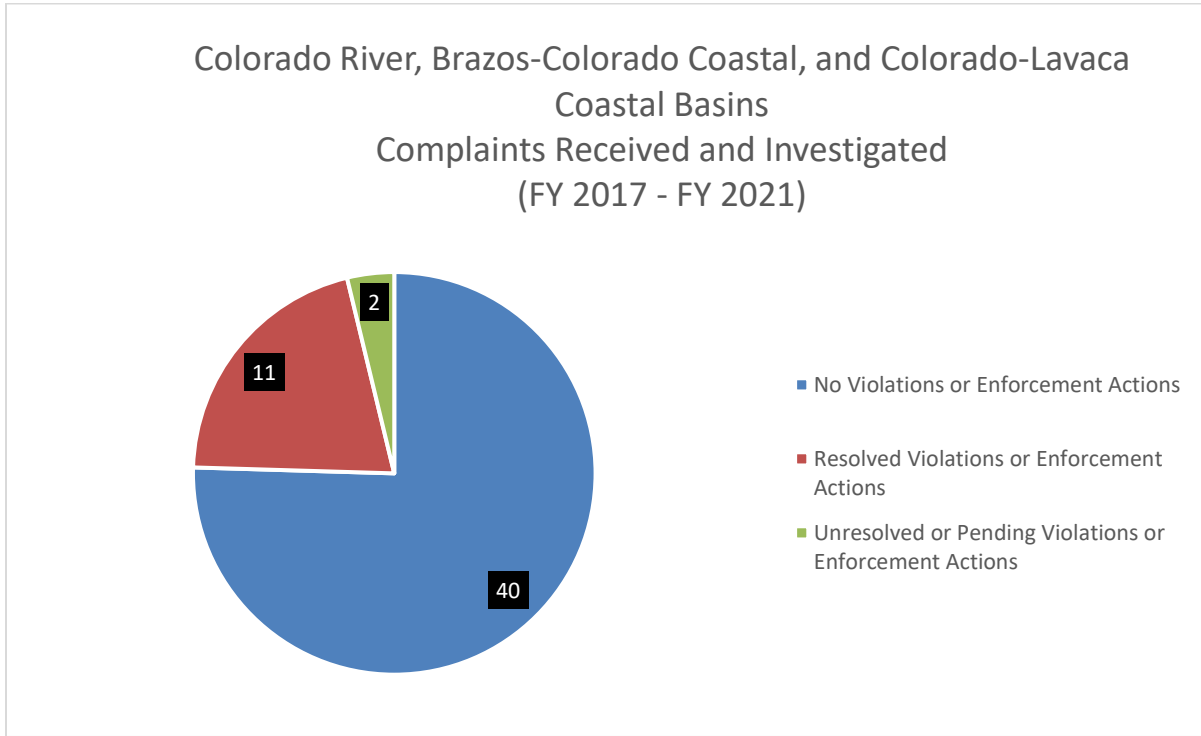
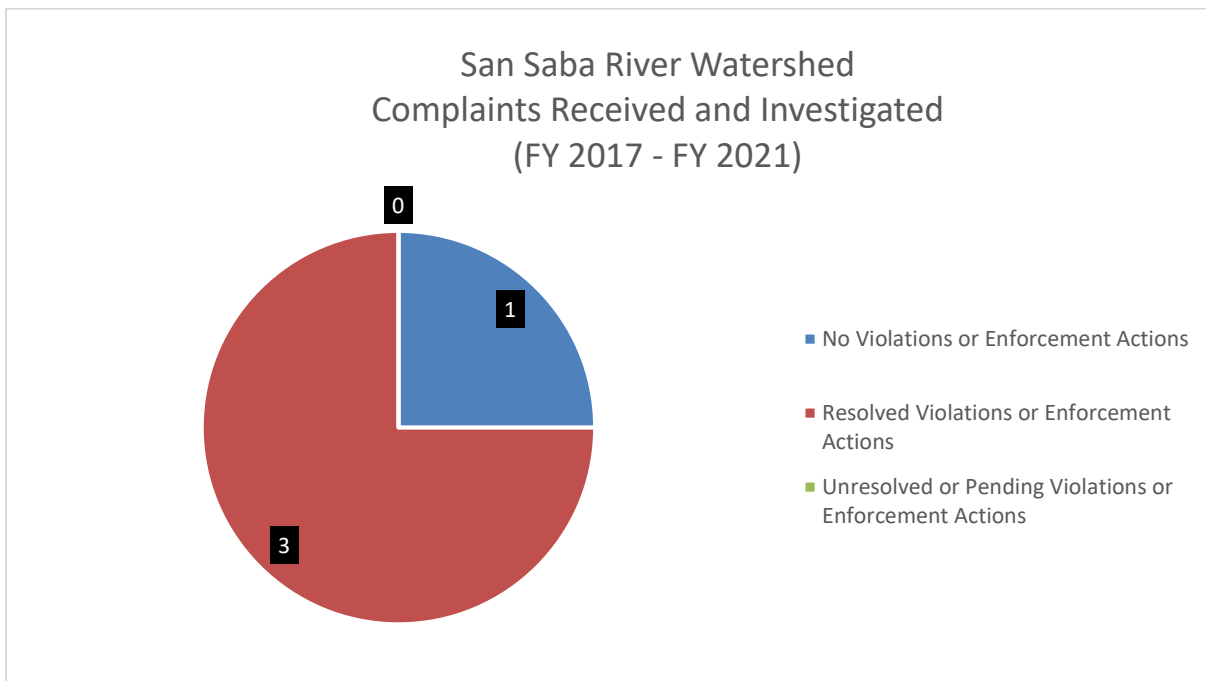


Figure 7. Graph of Complaints Investigated in the San Saba Watershed





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Table 5. Summary of Investigations\* from FY 2017 to FY 2021

Basin	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
Colorado River*	138	162	54	29	41	424
San Saba Watershed	125	142	37	15	20	339
Brazos-Colorado Coastal	0	0	0	0	0	0
Colorado-Lavaca Coastal	0	0	0	0	0	0

\* This number includes the investigations conducted in the San Saba Watershed.

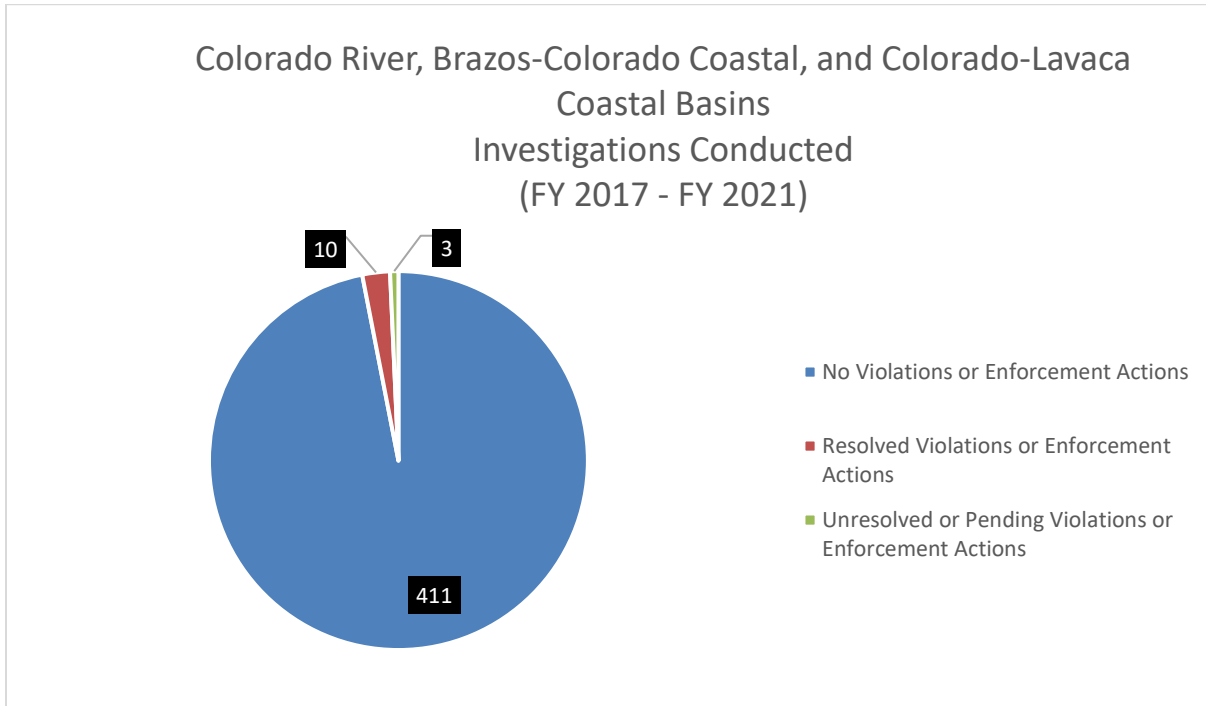
From FY 2017 to FY 2021, the TCEQ Regional Offices conducted a total of 424 water-rights related investigation in the Colorado River Basin (339 of those in the San Saba Watershed), and zero water rights-related investigations in the Brazos-Colorado Coastal Basin and Colorado-Lavaca Coastal Basin. Of the 424 investigations in the Colorado Basin, 411 resulted in no violations or enforcement actions. Of the remaining, 10 resulted in violations or enforcement actions that have since been resolved, and three resulted in violations or enforcement actions that are currently still unresolved or pending. Note, some water rights-related investigations cover activities that are not expected to result in violations or enforcement actions, such as permit reviews and routine flow monitoring.

Of the 339 investigations in the San Saba Watershed, 332 resulted in no violations or enforcement actions, five resulted in violations or enforcement actions that have since been resolved, and two resulted in violations or enforcement actions that are currently still unresolved or pending.

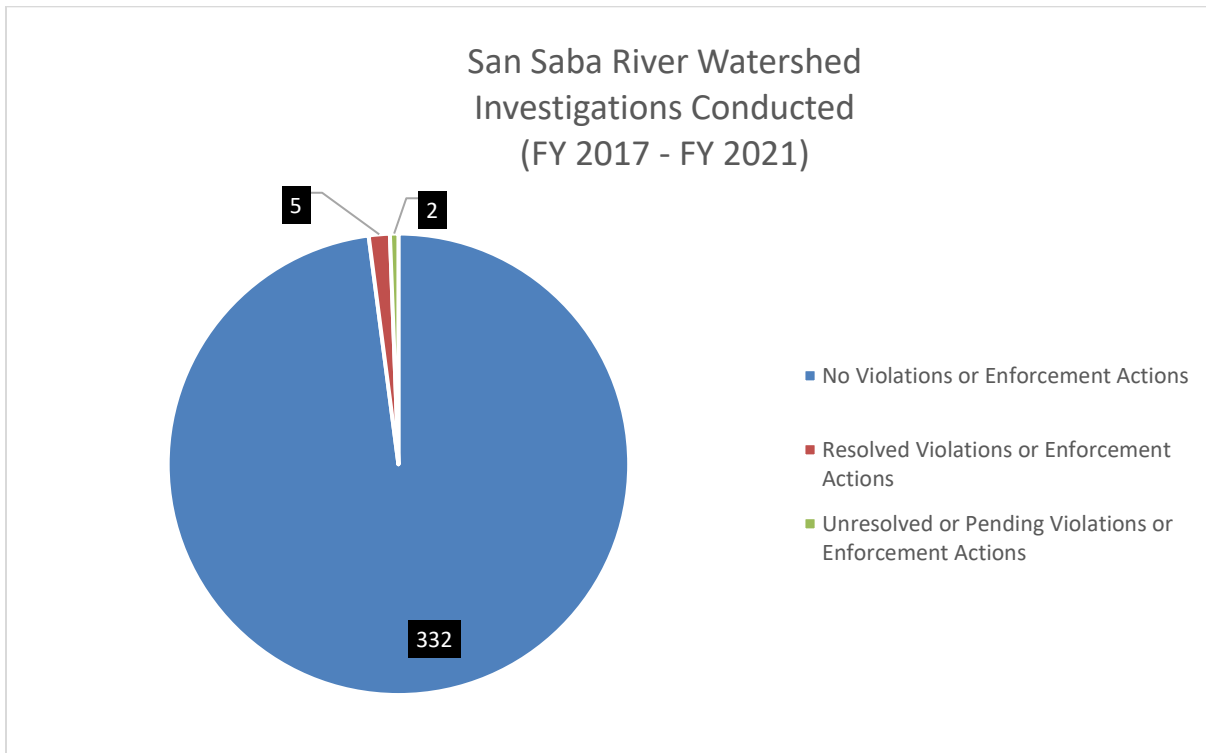
The graphs below summarize investigations conducted in the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins as well as the San Saba Watershed. Although the numbers are not included in Table 5, Figure 8, or Figure 9, there were 26 investigations conducted for temporary permits in the Colorado River Basin (one of those in the San Saba Watershed) and seven investigations conducted for temporary permits in the Brazos-Colorado Coastal Basin.

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**Figure 8. Graph of Investigations Conducted in the Colorado River Basin, Brazos-Colorado Coastal Basin, and Colorado-Lavaca Coastal Basin**



**Figure 9. Graph of Investigations Conducted in the San Saba Watershed**



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## *Implementation Considerations*

A summary of implementation considerations is provided below.<sup>23</sup>

### *Geographic Reach of the Basin and Water Right Information*

The Colorado River Basin includes all or a portion of 63 counties with 1,221 water rights (with 220 of those water rights located in the Concho River Watermaster program jurisdiction). The Brazos-Colorado Coastal Basin includes all or a portion of six counties with 69 water rights. The Colorado-Lavaca Coastal Basin includes all or a portion of four counties with 31 water rights.

### *Environmental Flows*

TCEQ adopted environmental flow standards for the Colorado River Basin and the Colorado-Lavaca Coastal Basin in 2012.<sup>24</sup> TCEQ adopted environmental flow standards for the Brazos-Colorado Coastal Basin in 2014.<sup>25</sup>

### *Cost Factors*

The total estimated costs for the ED to manage water rights for FY's 2017 - 2021 in the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins was \$163,533.54. Of that total cost, \$98,589.50 was directly related to managing water rights in the San Saba watershed. The total estimated cost for managing priority calls in the San Saba was an additional \$3,230.14 and \$1,285.55 for the rescinded priority call in Llano County.

The ED considered four options (numbered 4, 5, 6, and 7, below) when evaluating potential watermaster program costs for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins. These options were presented to stakeholders at meetings in the Colorado River Basin and virtually. A more detailed discussion of costs is included in Appendix G.

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<sup>23</sup> See Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

<sup>24</sup> 30 TAC Chapter 298, Subchapter D

<sup>25</sup> 30 TAC Chapter 298, Subchapter G

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**Option 4:** No watermaster recommended for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins.

**Option 5:** Appoint a watermaster for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins. Estimated costs reflect the amount required to operate the FY23 Concho River Watermaster Program plus the addition of the other portions of the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins. Year 1 has an estimated cost of \$1,344,395 (\$223,801.44 for the existing Concho River Watermaster Program and \$1,120,593.56 for program expansion) with a cost of \$1,041,222 for subsequent years.

**Option 6:** Appoint a watermaster for the San Saba River. Year 1 has an estimated cost of \$422,060 with a cost of \$325,380 for subsequent years.

**Option 7:** Appoint a watermaster for the San Saba River above the confluence with Brady Creek and the San Saba River. Year 1 has an estimated cost of \$354,685 with a cost of \$262,446 for subsequent years.

### ***Stakeholder Involvement***

On March 11, 2022, the initial outreach letter was mailed to stakeholders initiating the comment period for the evaluation. On May 13, 2022, a letter announcing stakeholder meetings was mailed to the stakeholders. Stakeholder meetings were conducted in-person in San Angelo, Abilene, and San Saba between June 1 and June 3, 2022. In addition, two stakeholder meetings were conducted virtually on June 7 and June 9, 2022. Written comments were received during the evaluation period for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins. One stakeholder opposes a watermaster in any of the basins. 26 stakeholders oppose a watermaster in the Colorado River Basin. Nine of those 26 specifically oppose a watermaster in the San Saba watershed. All of these comments in opposition focused on the lack of need and the additional expense of a watermaster program. Three comments supporting a watermaster program in the San Saba watershed assert domestic and livestock users are entitled to the normal flow of the stream. Although the numbers are not included in Table 3, two additional comments were received that

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are neither in favor of nor opposed to a watermaster. One of these was from a County Judge.

Stakeholders identified several additional issues in written comments that are outside the scope of the evaluation criteria. Appendix H provides limited discussion of those issues<sup>26</sup>.

**Table 3. Summary of Written Comments for Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins**

Basin	Comments Received				
	Total	In Favor		Opposed	
		Water Right Holders	Other	Water Right Holders	Other
Colorado River*+	30	0	3	25	2
San Saba River	12	0	3	7	2
Brazos-Colorado Coastal+	1	0	0	1	0
Colorado-Lavaca Coastal+	1	0	0	1	0

\*This includes the comments received for the San Saba River watershed.

+One stakeholder commented on all three basins (Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins)

## Executive Director's Recommendation

The ED considered the evaluation criteria outlined by the Commission in the September 28, 2011, work session and addressed implementation considerations for the establishment of a watermaster. For the evaluated basins, there were no court orders to create a watermaster and no petitions from water right holders requesting a watermaster. There were no priority calls in the Upper Brazos River Basin or the San Jacinto-Brazos, Brazos-Colorado, or Colorado-Lavaca Coastal Basins. In the Colorado River Basin, the ED did not suspend water rights in response to eight priority calls from domestic and livestock users. Complaints and investigations in Upper Brazos River Basin and the San Jacinto-Brazos, Brazos-Colorado, or Colorado-Lavaca Coastal

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<sup>26</sup> See Appendix H: Additional Issues

## TCEQ Interoffice Memorandum

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Basins were relatively few in number and most did not result in violations or enforcement actions. In the Colorado River Basin, complaints and investigations were more numerous. The majority (40 of 53) of complaints investigated in this area did not result in violations or enforcement action. Most of those resulting in violations or enforcement action have been resolved (11), with two remaining unresolved or pending. The TCEQ regional office proactively monitored conditions in the San Saba River watershed (flow monitoring activities), resulting in an increased number of investigations (339). However, only 10 of those investigations resulted in violations or enforcement actions. In general, the water rights-related investigations covering routine flow monitoring activities are not expected to result in violations or enforcement actions.

Complaints and investigations in the remainder of the Colorado River Basin were relatively few in number and most did not result in violations or enforcement action.

**The Executive Director does not believe that the criteria for recommending the creation of a watermaster have been met. Accordingly, the ED does not recommend that the Commission move forward on its own motion with the creation of a watermaster program for the Upper Brazos and Colorado River Basins and the San Jacinto-Brazos, Brazos-Colorado, and Colorado-Lavaca Coastal Basins.**

Twenty-five or more holders of water rights in a river basin or segment of a river basin may petition the Commission to appoint a watermaster. The Commission may refer a valid petition to the State Office of Administrative Hearings for a complete administrative hearing and recommendation to the Commissioners for consideration.

While the statute requires the ED to evaluate the need for a watermaster at least every five years; there is no prohibition against evaluating a basin sooner, on an as needed basis, if threats to senior water rights occur. The ED can also consider stakeholder input, and the ED is always open to additional information from stakeholders. It is important to have stakeholder support in articulating the threat and the need to establish a new program as water right holders will be responsible for paying a new fee to support the new regulatory program.

# **TCEQ Interoffice Memorandum**

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## **List of Appendices**

Appendix A: Watermaster Programs

Appendix B: Current Water Rights Management

Appendix C: Basin Evaluation Schedule

Appendix D: 2022 Watermaster Evaluation Costs

Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

Appendix F: TCEQ Letters to Stakeholders

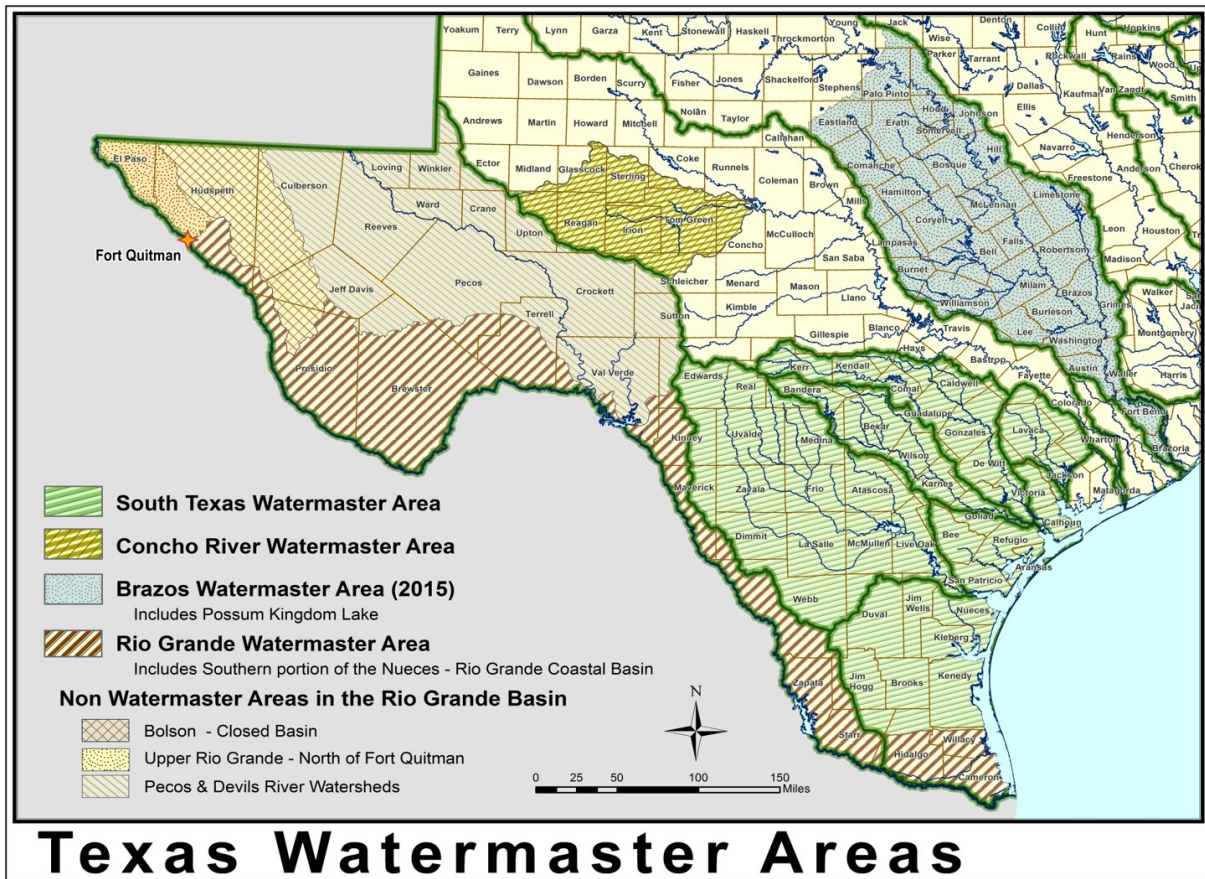
Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

Appendix H: Additional Information

# Appendix A: Watermaster Programs

There are four watermaster programs in Texas:

1. **Rio Grande**, which serves the Rio Grande Basin below Fort Quitman, Texas (excluding the Pecos and Devils Rivers),
2. **South Texas**, which serves the Nueces, San Antonio, Lavaca, and Guadalupe River Basins, as well as the adjoining coastal basins,
3. **Concho River**, currently a division of the South Texas Watermaster, which serves the Concho River segment of the Colorado River Basin, and
4. **Brazos**, which serves the Brazos River Basin, downstream of Possum Kingdom reservoir, including said reservoir.





## **Appendix B: Current Water Rights Management**

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Surface water rights are managed by the TCEQ either through an established watermaster program or through one of the 16 Regional Offices in non-watermaster areas. TCEQ is responsible for the protection of senior water rights regardless of whether a watermaster program has been established in the affected area.

### **Day-to-day Water Rights Management**

#### ***Watermaster Areas***

Watermasters proactively manage water rights in their areas and allocate available water according to water right priorities on a real-time operational basis. In a watermaster area, a water rights holder must notify the watermaster of how much water they plan to divert, before the water right holder diverts authorized water. After receiving a declaration of intent (DOI) to divert water, the watermaster determines whether a diversion will remove water that rightfully belongs to another user. As needed, the watermaster will notify any users with more junior priority dates to reduce pumping or to stop pumping altogether if necessary.

Day-to-day activities performed by watermaster staff include monitoring rivers, taking stream flow measurements, setting stream flow markers, meeting with water right holders and other interested persons, investigating complaints, writing notices of violations and in some cases notices of enforcement, collecting water use data, and recording their daily investigation activities.

Watermasters can respond quickly to identify and to stop unauthorized diversions because of their real-time monitoring of local streamflow conditions. Also, because watermasters have information on which water is being diverted under a water right at any given time, they are able to better anticipate a shortage before it reaches a critical situation, thus enabling the watermaster and local users to work together to develop a strategy that will best meet everyone's water needs.

## **Appendix B: Current Water Rights Management**

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### ***Non-Watermaster Areas***

TCEQ regional offices conduct active water management activities in areas of the state outside the jurisdiction of a watermaster program to increase agency awareness of potential impacts to surface water and to provide information critical for the agency's evaluation and determination of priority calls for surface water. This water management includes monitoring United States Geological Survey (USGS) gages, using flow data from applicable TCEQ Surface Water Quality Monitoring sites, and coordinating with and reaching out to other TCEQ program areas and outside stakeholders.

The regional offices conduct water rights-related initiatives (including flow monitoring, stream assessments, and on-site investigations) when necessary. Other than these initiatives, water rights investigations are complaint driven, unless conducted to ensure compliance with a priority call.

### **Water Rights Management during Senior or Priority Calls**

#### ***Watermaster Areas***

When stream flows diminish, a watermaster allocates available water among the users according to priority dates, consistent with TWC §11.027. For domestic and livestock users (D&Ls), the watermaster will respond to a priority call or complaint. If a water right holder does not comply with the water right or with TCEQ rules, the Executive Director may direct a watermaster to adjust the water right holder's control works, including pumps, to prevent them from diverting, taking, storing, or distributing water until they comply.

#### ***Non-Watermaster Areas***

In order to provide the best possible response to drought conditions and facilitate response to water right priority calls, the agency created the Drought Response Task Force. The Task Force includes staff with water rights expertise from multiple offices and is focused on responding to priority calls. The Task Force coordinates TCEQ response to priority calls and may recommend that water rights be suspended in response to a call.

# Appendix B: Current Water Rights Management

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## Handling Unauthorized Diversions

### *Watermaster areas*

Watermaster staff work in the field on a day-to-day basis checking on authorized diversions. This consistent presence enables the watermaster office to quickly identify potential unauthorized diversions. If found, watermaster offices handle unauthorized diversions by issuing field citations or notices of violation or by referring the matter directly to enforcement based on the nature of the violation(s).

### *Non-Watermaster areas*

Investigations of possible unauthorized diversions within non-watermaster areas occur most often as a result of complaints. Suspected unauthorized water diversions outside watermaster areas are currently addressed by the Office of Compliance and Enforcement (OCE) based on one of the following two scenarios:

1. **Normal Conditions** - No Suspension in Effect: Water diversions outside watermaster areas are currently addressed by regional field staff on a complaint response basis. No daily information on diversions are currently received or reviewed by OCE field staff. Investigations of water right holders are currently non-routine and are initiated only in response to reported conditions.
2. **Priority Call Conditions** - Suspension in Effect in Response to a Priority Call: Tools used by OCE during times of curtailment in response to a priority call include frequent tracking of available flow gages, observations by flyovers and “boots on the ground” to monitor river conditions, and coordination with sister agencies to obtain and to track information. OCE tracks flow gages during these priority call conditions using the “follow the water” concept and is able to identify specific segments of a river to more closely monitor for potentially unauthorized diversions. In doing so, staff may perform investigations of water right holders as well as non-permitted persons.

Whether in normal conditions or in priority call conditions, OCE addresses potentially unauthorized diversions and may issue field citations or notices of violation and/or enforcement based on the nature of the violation(s).

## Appendix C: Basin Evaluation Schedule

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Texas Water Code (TWC) §11.326(g)(1) requires the Executive Director to evaluate basins without a watermaster at least every five years to determine if a watermaster should be appointed. The Executive Director conducted the first cycle of evaluations from 2012 through 2016 and the second cycle of evaluations from 2017 through 2021. The third cycle of evaluations began in 2022 and will run through 2026.

### Cycle 1

Year	Basin
2012	Brazos River Basin Brazos-Colorado Coastal Basin Colorado River Basin Colorado-Lavaca Coastal Basin
2013	Trinity River Basin Trinity-San Jacinto Coastal Basin San Jacinto River Basin San Jacinto-Brazos Coastal Basin
2014	Sabine River Basin Neches River Basin Neches-Trinity Coastal Basin
2015	Canadian River Basin Red River Basin
2016	Cypress Creek Basin Sulphur River Basin

### Cycle 2

Year	Basin
2017	Brazos River Basin (Upper Only) San Jacinto-Brazos Coastal Basin Brazos-Colorado Coastal Basin Colorado River Basin Colorado-Lavaca Coastal Basin
2018	Trinity River Basin San Jacinto River Basin Trinity-San Jacinto Coastal Basin Neches-Trinity Coastal Basin
2019	Sabine River Basin Neches River Basin
2020	Canadian River Basin Red River Basin
2021	Cypress Creek Basin Sulphur River Basin

## Appendix C: Basin Evaluation Schedule

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### Cycle 3

Year	Basin
2022	Brazos River Basin (Upper Only) San Jacinto-Brazos Coastal Basin Brazos-Colorado Coastal Basin Colorado River Basin Colorado-Lavaca Coastal Basin
2023	Trinity River Basin San Jacinto River Basin Trinity-San Jacinto Coastal Basin Neches-Trinity Coastal Basin
2024	Sabine River Basin Neches River Basin
2025	Canadian River Basin Red River Basin
2026	Cypress Creek Basin Sulphur River Basin

## **Appendix D: 2022 Watermaster Evaluation Costs**

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The costs for the Executive Director's evaluation of the Upper Brazos and Colorado River Basins and the San Jacinto-Brazos, Brazos-Colorado, and Colorado-Lavaca Coastal Basins are summarized below.

### ***Costs Associated to the Evaluation***

Total Estimated Costs for TCEQ Evaluation Activity: \$67,911.23.

#### **Office of Water Costs**

- OW Staff time: \$60,134.89
  - Multiple staff participated in this evaluation for a portion of their time, equating to 1.0 full time equivalent for the duration of the project.
  - Calculated salary for 1.0 FTE from February 2022 through August 2022 (seven months).
  - Assumed mid-level B23.
  - Fringe (35.00 % of base salary): \$15,590.53
- Postage: \$3,331.90
- Travel: \$1,273.56
- Total: \$65,023.64

#### **Office of Legal Services Costs**

- OLS staff time: \$209.83
- Calculated staff attorney review time of 7 hours
- Total: \$209.83

#### **Office of Compliance and Enforcement Costs**

- OCE staff time: \$2,598.73
  - Time spent preparing information and attending meetings plus travel time, calculated using regular labor: 83 hours
- State equipment use (vehicle): \$154.00
- Other costs: \$208.32

## **Appendix D: 2022 Watermaster Evaluation Costs**

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- Total: \$2,961.05

### **Other Agency Programs**

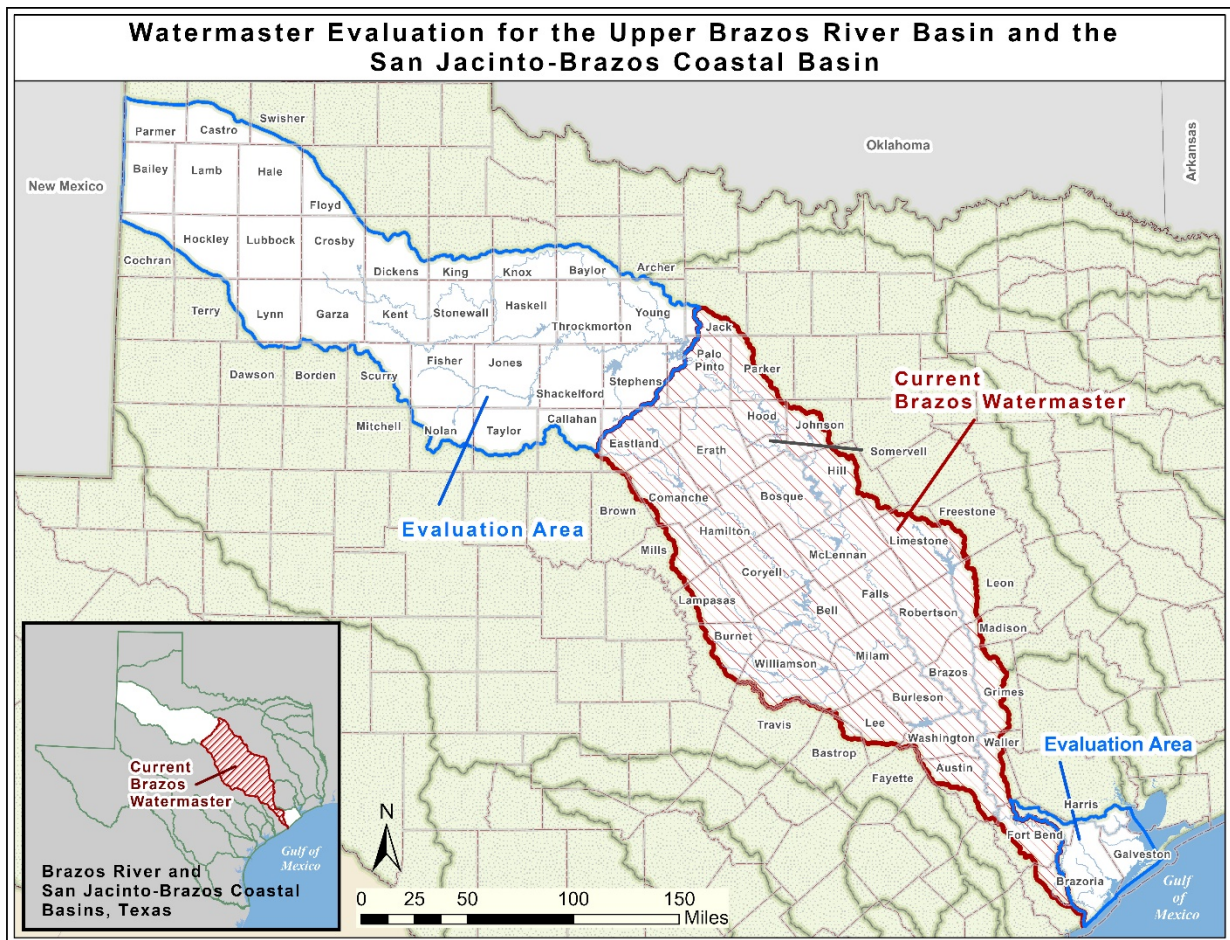
Other agency staff were provided an opportunity to participate, but no significant costs were associated with their involvement.

# Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

## Geographic Reach of the Basins and Water Right Information

The Upper Brazos River Basin includes all or a portion of 38 counties and 211 water rights, and the San Jacinto-Brazos Coastal Basin includes all or a portion of five counties and 69 water rights (Table 1). The number of total water rights compared to the water rights by county may differ slightly as some water rights are authorized in multiple counties.

Figure 1. Brazos River Basin and San Jacinto-Brazos Coastal Basin





## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

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Table 1. Number of Permitted Water Rights by Basin and County.

<i>Upper Brazos</i>				<i>San Jacinto-Brazos</i>	
<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>
Archer*	0	Kent	5	Brazoria*	44
Bailey	1	King*	2	Fort Bend*	7
Baylor*	4	Knox*	4	Galveston	12
Borden*	1	Lamb	0	Harris*	7
Callahan*	6	Lubbock	4	Waller*	0
Castro*	6	Lynn*	1		
Cochran*	0	Mitchell*	0		
Crosby*	8	Nolan*	4		
Dawson*	0	Palo Pinto	0		
Dickens*	5	Parmer*	11		
Eastland*	2	Scurry*	0		
Fisher	13	Shackelford	10		
Floyd*	1	Stephens	25		
Garza*	4	Stonewall	3		
Hale*	15	Swisher*	0		
Haskell	6	Taylor*	23		
Hockley*	0	Terry*	0		
Jack*	2	Throckmorton	5		
Jones	29	Young*	18		

\*County located in multiple basins.

### Watermaster Program Options and Costs

The ED considered three options (numbered 1, 2, and 3, below) when evaluating watermaster program costs for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin. These options were presented to stakeholders at meetings held in the Brazos River Basin and virtually in June 2022.

***Option 1: No watermaster recommended for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin.***

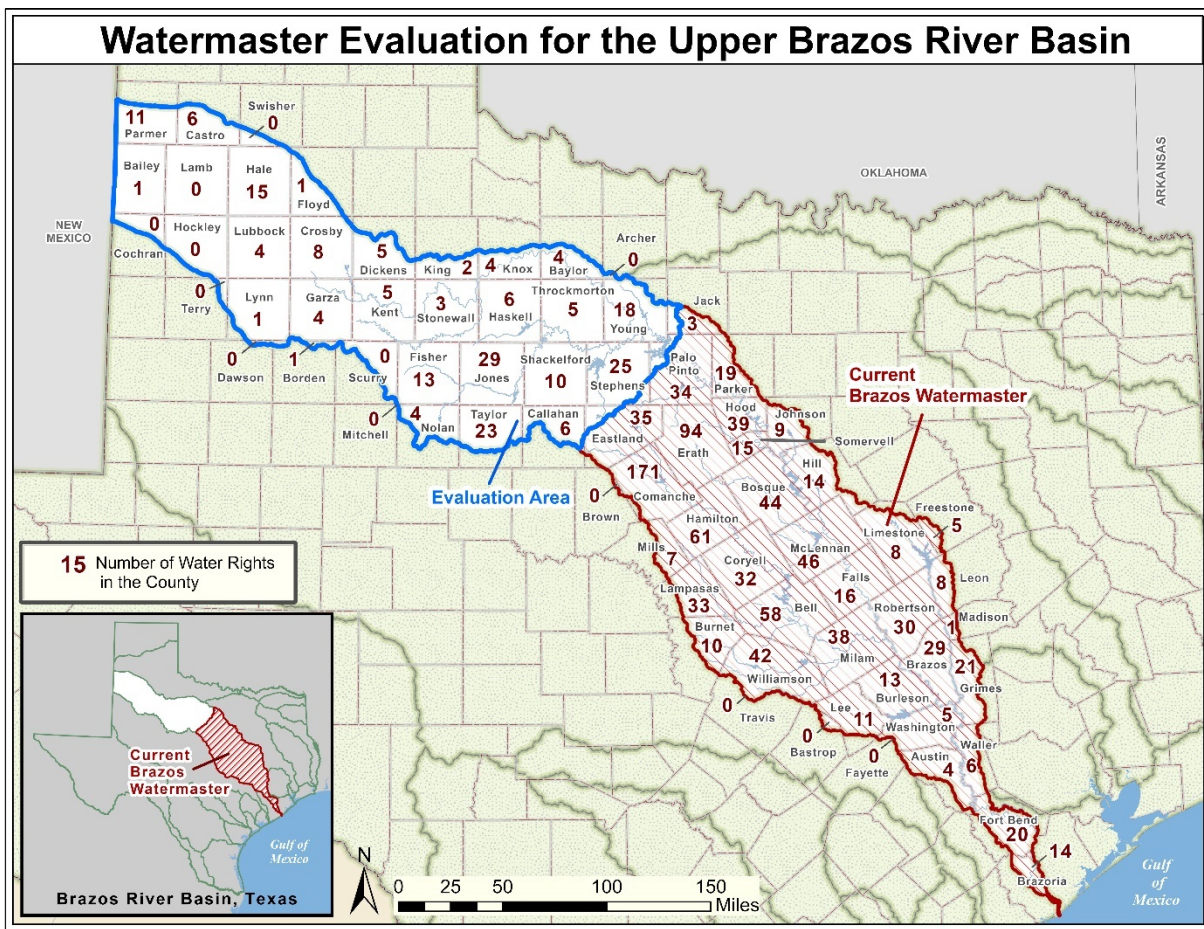
# Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

*Option 2: Extend the current Brazos Watermaster Program to include the Upper Brazos River Basin.*

Number of permitted water rights: 1,143

Counties: 74 (61 have permitted water rights)

Figure 2. Watermaster Program for the Brazos River Basin (Option 2)



## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

Table 2. Number of Permitted Water Rights by County (Option 2)

<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>
Archer*	0	Fisher	13	Madison*	1
Austin*	4	Floyd*	1	McLennan	46
Bailey	1	Fort Bend*	20	Milam	38
Bastrop*	0	Freestone*	5	Mills*	7
Baylor*	4	Garza*	4	Mitchell*	0
Bell	58	Grimes*	21	Nolan*	4
Borden*	1	Hale*	15	Palo Pinto	34
Bosque	44	Hamilton	61	Parker*	19
Brazoria*	14	Haskell	6	Parmer*	11
Brazos	29	Hill*	14	Robertson	30
Brown*	0	Hockley*	0	Scurry*	0
Burleson	13	Hood	39	Shackelford	10
Burnet*	10	Jack*	3	Somervell	15
Callahan*	6	Johnson*	9	Stephens	25
Castro*	6	Jones	29	Stonewall	3
Cochran*	0	Kent	5	Swisher*	0
Comanche*	171	King*	2	Taylor*	23
Coryell	32	Knox*	4	Terry*	0
Crosby*	8	Lamb	0	Throckmorton	5
Dawson*	0	Lampasas*	33	Travis*	0
Dickens*	5	Lee*	11	Waller*	6
Eastland*	35	Leon*	8	Washington	5
Erath	94	Limestone*	8	Williamson	42
Falls	16	Lubbock	4	Young*	18
Fayette*	0	Lynn*	1		

\* County located in multiple basins.

Estimated costs reflect the amount required to operate the FY23 Brazos Watermaster Program, plus the addition of the Upper Brazos Basin. Year 1 has an estimated cost of \$1,298,666 (\$970,901.21 for the existing Brazos Watermaster Program and \$327,764.79 for program expansion) with a cost of \$1,231,168 for each subsequent year. Actual assessments would vary based on the estimated expected return rate. Table 3 summarizes expected expenditures for Option 2.

## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto- Brazos Coastal Basin

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Table 3. Cost Estimate (Option 2)

	Year 1	Year 2	Assumptions
<b>Salaries</b>			
<b>Current Brazos Staff Salaries</b>	\$592,398	\$618,529	Includes Watermaster, Assistant Watermaster, Administrative Assistant II, Administrative Assistant IV, and six Watermaster Specialists of various degrees (with 4.5% increase by year 2), plus longevity
<b>2 Watermaster Specialists II</b>	\$42,702	\$44,624	2 Watermaster Specialist II, B17 , (\$42,702/year with 4.5% increase by year 2)
<b>2 Watermaster Liaisons</b>	\$25,590	\$26,721	50% of Liaisons Salary paid by watermaster programs. Second, determined by percentage of water rights among all watermaster programs. In this instance, assumption is 36% of all water rights. (with 4.5% increase by year 2), plus longevity
<b>Watermaster Purchaser</b>	\$13,827	\$14,553	Purchaser Salary determined by percentage of water rights among all watermaster programs. In this instance, assumption is 36% of all water rights. (with 4.5% increase by year 2), plus longevity
<b>Total Salaries</b>	<b>\$674,517</b>	<b>\$704,427</b>	
<b>Fringe</b>	\$219,353	\$229,080	Agency Standard is 32.52% of salaries
<b>Additional Insurance and Retirement</b>	\$10,118	\$10,566	Table of standard costs for FTEs - 1.5% of salaries
<b>SORM fee</b>	\$725	\$725	36% of total SORM \$2,013. B&P provides total SORM or \$100 per FTE average
<b>SWCAP fee</b>	\$4,718	\$4,718	36% of total SWCAP \$13,105. B&P provides total SWCAP or \$600 per FTE average
<b>Professional/Temp Services</b>	\$80,000	\$80,000	Higher in first two years to add water accounts and functionality into the accounting system for program.
<b>Travel In-State</b>	\$36,000	\$36,000	12 FTEs (\$2,500/each; however, this amount assumes some employees will travel more than others) + 500 per FTE for new WM travel
<b>Training</b>	\$12,000	\$12,000	12 FTEs (\$1,000/each; however, this amount assumes some employees will require more training than others)
<b>Rent - Building</b>	\$33,704	\$33,704	Rent space for TCEQ regional offices in Waco, Abilene, and Lubbock and Angleton lease
<b>Postage</b>	\$4,700	\$3,500	Based on BWM amount plus 2 initial program startup mailouts

## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

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Phone/Utilities	\$18,305	\$16,045	Based on BWM amount plus 2 FTE equipment (\$2,260 for year 1), and additional services (\$2,100/year for both years)
Supplies - Consumables	\$4,000	\$3,000	Based on BWM amount plus additional FTE needed items
Other Operating Expenses	\$31,028	\$32,404	Table of standard costs for FTEs - 4.6% of salaries
Fuels/Lubricants	\$42,500	\$42,500	7 BWM vehicles amount plus 2 additional vehicles (\$4,500/year/each) + \$2000 for increased fuel cost & new WM travel
Rent - Machine & Other	\$0	\$0	Based on BWM amount
Facilities, Furniture, and Equipment	\$45,000	\$22,500	Based on BWM amount plus 3 additional vehicles and 2 FTEs (\$7,250/each for year 1, \$3,500/each for year 2) plus 2 flow trackers the first year \$15,000
Capital Equipment - IT	\$4,000	\$0	2 computers at \$1,500, \$500 remote work accessories per FTE
Capital - Vehicles	\$78,000	\$0	BWM has 7 vehicles. 2 additional vehicles (\$39,000/each)
<b>Total</b>	<b>\$1,298,666</b>	<b>\$1,231,168</b>	

Costs include:

- Current Brazos Watermaster Program staff.
- Two watermaster specialists/field deputies located in the TCEQ Lubbock and Abilene Regional Offices.

***Option 3: Extend the Brazos Watermaster Program to include the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin.***

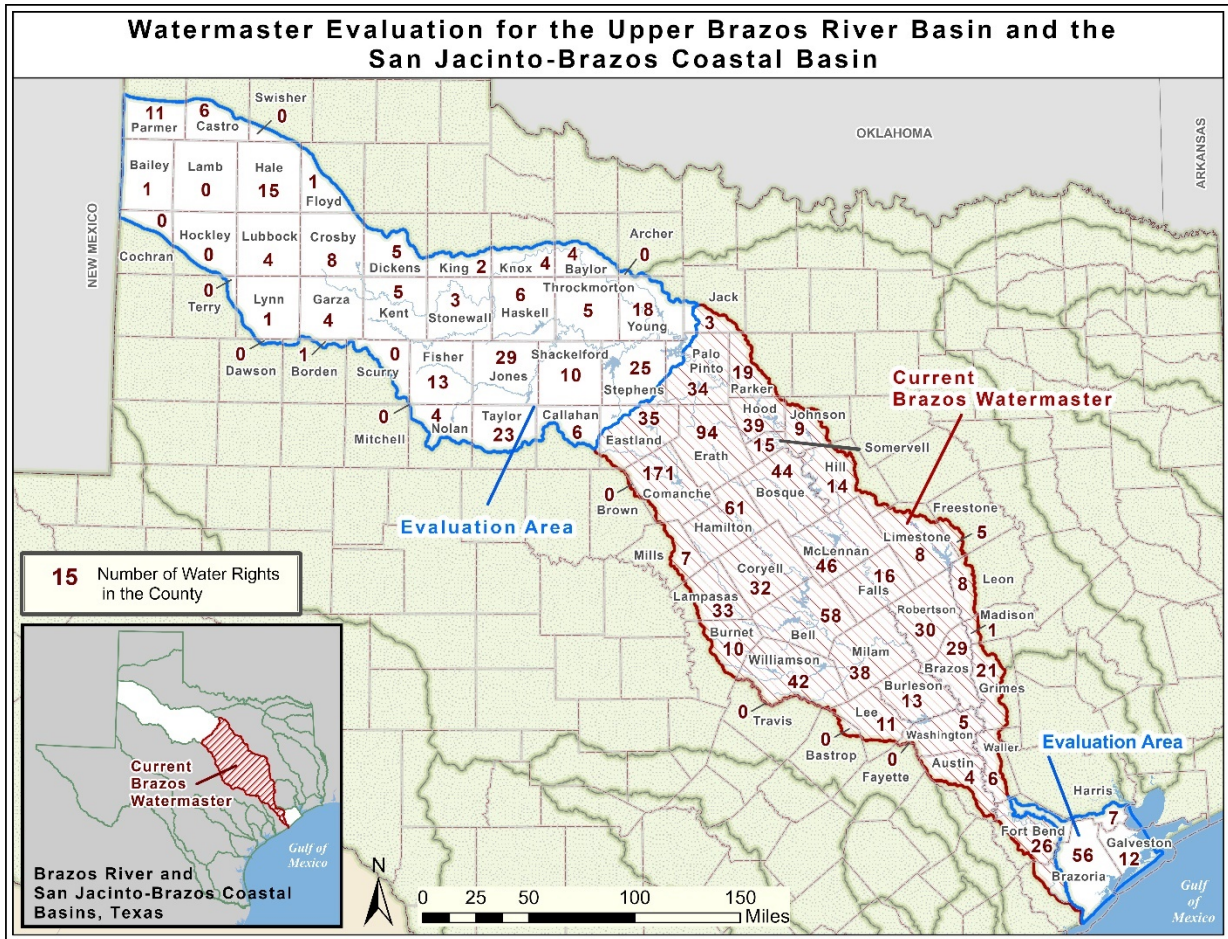
**Number of permitted water rights:** 1,208

**Counties:** 76 (62 have permitted water rights)



# Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

Figure 3. Watermaster Program for Brazos River Basin and the San-Jacinto-Brazos Coastal Basin (Option 3)



## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

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**Table 4. Number of Permitted Water Rights by County (Option 3)**

<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>
Archer*	0	Fisher	13	Lynn*	1
Austin*	4	Floyd*	1	Madison*	1
Bailey	1	Fort Bend*	26	McLennan	46
Bastrop*	0	Freestone*	5	Milam	38
Baylor*	4	Galveston	12	Mills*	7
Bell	58	Garza*	4	Mitchell*	0
Borden*	1	Grimes*	21	Nolan*	4
Bosque	44	Hale*	15	Palo Pinto	34
Brazoria*	56	Hamilton	61	Parker*	19
Brazos	29	Harris*	7	Parmer*	11
Brown*	0	Haskell	6	Robertson	30
Burleson	13	Hill*	14	Scurry*	0
Burnet*	10	Hockley*	0	Shackelford	10
Callahan*	6	Hood	39	Somervell	15
Castro*	6	Jack*	3	Stephens	25
Chambers	0	Johnson*	9	Stonewall	3
Cochran*	0	Jones	29	Swisher*	0
Comanche*	171	Kent	5	Taylor*	23
Coryell	32	King*	2	Terry*	0
Crosby*	8	Knox*	4	Throckmorton	5
Dawson*	0	Lamb	0	Travis*	0
Dickens*	5	Lampasas*	33	Waller*	6
Eastland*	35	Lee*	11	Washington	5
Erath	94	Leon*	8	Williamson	42
Falls	16	Limestone*	8	Young*	18
Fayette*	0	Lubbock	4		

\* County located in multiple basins.

Estimated costs reflect the amount required to operate the FY23 Brazos Watermaster Program plus the addition of the Upper Brazos Basin and the San Jacinto-Brazos Coastal Basin. Year 1 has an estimated cost of \$1,491,531 (\$970,901.21 for the existing Brazos Watermaster Program and \$520,629.79 for program expansion) with a cost of \$1,375,548 for each subsequent year. Actual assessments would vary based on the

## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto-Brazos Coastal Basin

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estimated expected return rate. Table 5 summarizes estimated expenditures for Option 3.

**Table 5. Cost Estimate (Option 3)**

	Year 1	Year 2	Assumptions
<b>Salaries</b>			
<b>Current Brazos Staff Salaries</b>	\$592,398	\$618,529	Includes Watermaster, Assistant Watermaster, Administrative Assistant II, Administrative Assistant IV, and six Watermaster Specialists of various degrees (with 4.5% increase for year 2) plus longevity
<b>3 Watermaster Specialists II</b>	\$128,106	\$133,871	3 Watermaster Specialist II, B17 (\$42,702/year/each with 4.5% increase by year 2)
<b>2 Watermaster Liaisons</b>	\$26,288	\$27,451	50% of Liaison Salary paid by watermaster programs. Second, determined by percentage of water rights among all watermaster programs. In this instance, assumption is 37% of all water rights. (with 4.5% increase by year 2), plus longevity
<b>Watermaster Purchaser</b>	\$14,208	\$14,951	Purchaser Salary determined by percentage of water rights among all watermaster programs. In this instance, assumption is 37% of all water rights. (with 4.5% increase by year 2) plus longevity
<b>Total Salaries</b>	<b>\$761,000</b>	<b>\$794,803</b>	
<b>Fringe</b>	\$247,477	\$258,470	Agency Standard is 32.52% of salaries
<b>Additional Insurance and Retirement</b>	\$11,415	\$11,922	Table of standard costs for FTEs - 1.5% of salaries
<b>SORM fee</b>	\$745	\$745	37% of total SORM \$2,013. B&P provides total SORM or \$100 per FTE average
<b>SWCAP fee</b>	\$4,849	\$4,849	37% of total SWCAP \$13,105. B&P provides total SWCAP or \$600 per FTE average
<b>Professional/Temp Services</b>	\$85,000	\$85,000	Higher in first two years to add water accounts and functionality into the accounting system for program.
<b>Travel In-State</b>	\$39,000	\$39,000	13 FTEs (\$2,500/each; however, this amount assumes some employees will



## Appendix E: Implementation Considerations for the Upper Brazos River Basin and the San Jacinto- Brazos Coastal Basin

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			travel more than others) plus \$500 for new WM travel
<b>Training</b>	\$13,000	\$13,000	13 FTEs (\$1,000/each; however, this amount assumes some employees will require more training than others)
<b>Rent - Building</b>	\$33,704	\$33,704	Rent space for TCEQ regional offices in Waco, Abilene, and Lubbock and Angleton lease
<b>Postage</b>	\$5,200	\$4,000	Based on BWM amount plus 2 initial program startup mailouts
<b>Phone/Utilities</b>	\$20,485	\$17,095	Based on BWM amount plus 3 FTE equipment (\$3,390 for year 1), and additional services (\$3,150/year for both years)
<b>Supplies - Consumables</b>	\$4,900	\$3,400	Based on BWM amount plus additional FTE needed items
<b>Other Operating Expenses</b>	\$35,006	\$36,561	Table of standard costs for FTEs - 4.6% of salaries
<b>Fuels/Lubricants</b>	\$47,000	\$47,000	7 BWM vehicles amount plus 3 additional vehicles (\$4,500/year/each) + \$2000 for increased fuel cost & new WM travel
<b>Rent - Machine &amp; Other</b>	\$0	\$0	Based on BWM amount
<b>Facilities, Furniture, and Equipment</b>	\$59,750	\$26,000	Based on BWM amount plus 3 additional vehicles and 3 FTEs (\$7,250/each for year 1, \$3,500/each for year 2) plus 3 flow trackers the first year \$22,500
<b>Capital Equipment - IT</b>	\$6,000	\$0	3 computers at \$1,500, \$500 remote work accessories per FTE
<b>Capital - Vehicles</b>	\$117,000	\$0	BWM has 7 vehicles. 3 additional vehicles (\$39,000/each)
<b>Total</b>	<b>\$1,491,531</b>	<b>\$1,375,548</b>	

Costs include:

- Current Brazos Watermaster Program staff.
- Three watermaster specialists/field deputies located in the TCEQ Lubbock and Abilene Regional Offices.

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 11, 2022

Re: Watermaster Evaluation for the Brazos River (upstream of Possum Kingdom Lake), San Jacinto-Brazos Coastal, Brazos-Colorado Coastal, Colorado River, and the Colorado-Lavaca Coastal Basins

Dear Stakeholder:

The Texas Commission on Environmental Quality (TCEQ) is currently evaluating the above listed basins under Texas Water Code §§11.326(g) and (h) to determine whether there is a need to establish a watermaster. More information on this process can be found at:

[www.tceq.texas.gov/goto/watermaster](http://www.tceq.texas.gov/goto/watermaster).

The purpose of this letter is to notify you and seek your input on the process. Please email *or* mail any initial comments you have by April 14, 2022 to:

- Email: [watermaster@tceq.texas.gov](mailto:watermaster@tceq.texas.gov)
- Regular Mail: Stephen Kinal, Watermaster Section Liaison, Water Availability Division, TCEQ, MC-160, P.O. Box 13087, Austin, Texas 78711-3087.

In your comments, please identify:

- Basin/waterbody on which you are commenting
- Affiliation (examples: domestic/livestock user, holder of Water Right No. X)

Your initial comments will assist the TCEQ in developing the information for presentation at stakeholder meetings planned for June 2022. You will receive further information on these stakeholder meetings, which will be held in San Angelo and Abilene, Texas *and* virtually through Microsoft Teams. The TCEQ will then accept any comments/additional comments from stakeholders through June 28, 2022.

Your interest and participation in this process is valuable to the TCEQ. If you have questions please contact Stephen Kinal at (512) 239-4010.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jose Davila".

Jose A. Davila, Manager  
Watermaster Section, Water Availability Division  
Texas Commission on Environmental Quality

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 13, 2022

Re: Stakeholder Meetings: Watermaster Evaluation for the Brazos River (upstream of Possum Kingdom Lake), San Jacinto-Brazos Coastal, Brazos-Colorado Coastal, Colorado River, and the Colorado-Lavaca Coastal Basins

Dear Stakeholder:

The Texas Commission on Environmental Quality (TCEQ) is currently evaluating the above listed basins to determine whether there is a need to establish a watermaster. More information on the evaluation process and watermaster programs can be found on the TCEQ's website at: [www.tceq.texas.gov/goto/watermaster](http://www.tceq.texas.gov/goto/watermaster). Stakeholder input is an important part of this process.

### Stakeholder Meetings

TCEQ will hold five stakeholder meetings to provide information about the evaluation process, answer questions, and take public comment. Three of these stakeholder meetings will be held in-person and two will be held virtually in Microsoft Teams.

**Wednesday, June 1, 2022 from 6-7 PM**  
Concho Valley Council of Governments  
South Training Room 204  
5430 Link Rd.  
San Angelo, Texas 76904

**Friday, June 3, 2022 from 6-7 PM**  
San Saba High School Cafeteria  
104 S. 8th St.  
San Saba, Texas 76877

**Thursday, June 2, 2022 from 6-7 PM**  
TxDOT Training Room  
4250 N. Clack  
Abilene, TX 79601

**Tuesday, June 7, 2022 from 6-7 PM**  
Teams Link: <https://bit.ly/3jmAODb>

**Thursday, June 9, 2022 from 6-7 PM**  
Teams Link: <https://bit.ly/3x4mNC4>

Instructions on how to join the virtual meetings can be found on the reverse. *Please try to join the meeting 10 minutes before the start time.*

### Public Comment

You can also submit comments without attending the stakeholder meetings. The TCEQ will be taking public comment through **June 28, 2022**. Please email your comments to [watermaster@tceq.texas.gov](mailto:watermaster@tceq.texas.gov). You can also mail your comments to Stephen Kinal, Watermasters Section Liaison, MC 160, P.O. Box 13087, Austin, Texas 78711-3087.

### Questions

If you have any questions about the process, stakeholder meetings, or submitting comments, please contact Stephen Kinal at [watermaster@tceq.texas.gov](mailto:watermaster@tceq.texas.gov) or (512) 239-4010.

Thank you for your participation in this important process.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jose Davila".

Jose A. Davila, Manager  
Watermasters Section  
Water Availability Division

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • [tceq.texas.gov](http://tceq.texas.gov)

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## How to Join a Microsoft Teams Meeting

You can join a Microsoft Teams meeting from your desktop, laptop, tablet or smart phone. You can also use your phone to call into a Microsoft Teams meeting.

### Desktop or Laptop (PC or Mac)

- Ensure that your device has a microphone, speakers, and a camera to fully participate (participating on camera is optional).
- The recommended Internet browser app for Microsoft Teams Meetings is either Google Chrome or Microsoft Edge (PC only).
- Open Google Chrome or Microsoft Edge and type the meeting link (see reverse) and hit "Enter."
  - If you have Microsoft Teams on your desktop/laptop, select "Open Microsoft Teams" or "Open Teams" in the browser window so that the meeting will open in the app. Allow the app to use your microphone and camera.
  - If you do not have Microsoft Teams on your desktop/laptop, select "Continue on this browser" or "Join on the web instead" in the browser window so that the meeting will open in a browser tab. Enter your name to be displayed in the Participant list and allow the browser to use your microphone and camera.

### Tablet or Smart Phone

- You will need to download the Microsoft Teams app. Make sure you set up your profile in Microsoft Teams after downloading the app. There is no cost to download the app or use it for these meetings.
- Open your internet browser and type in meeting link (see reverse) and hit "Enter." You will be prompted with "Open this page in 'Teams'". Click "Open." The app on your tablet or phone will open. Click the blue, "Join Now" button.

### Phone

An audio-only tollfree phone number is available for this meeting. Please see the call-in information below.

***Tuesday, June 7, 2022 from 6-7 PM***

Phone Number: [+1 512-826-8070](tel:+15128268070)

Phone Conference ID: 211977923#

***Thursday, June 9, 2022 from 6-7 PM***

Phone Number: [+1 512-826-8070](tel:+15128268070)

Phone Conference ID: 21946087#

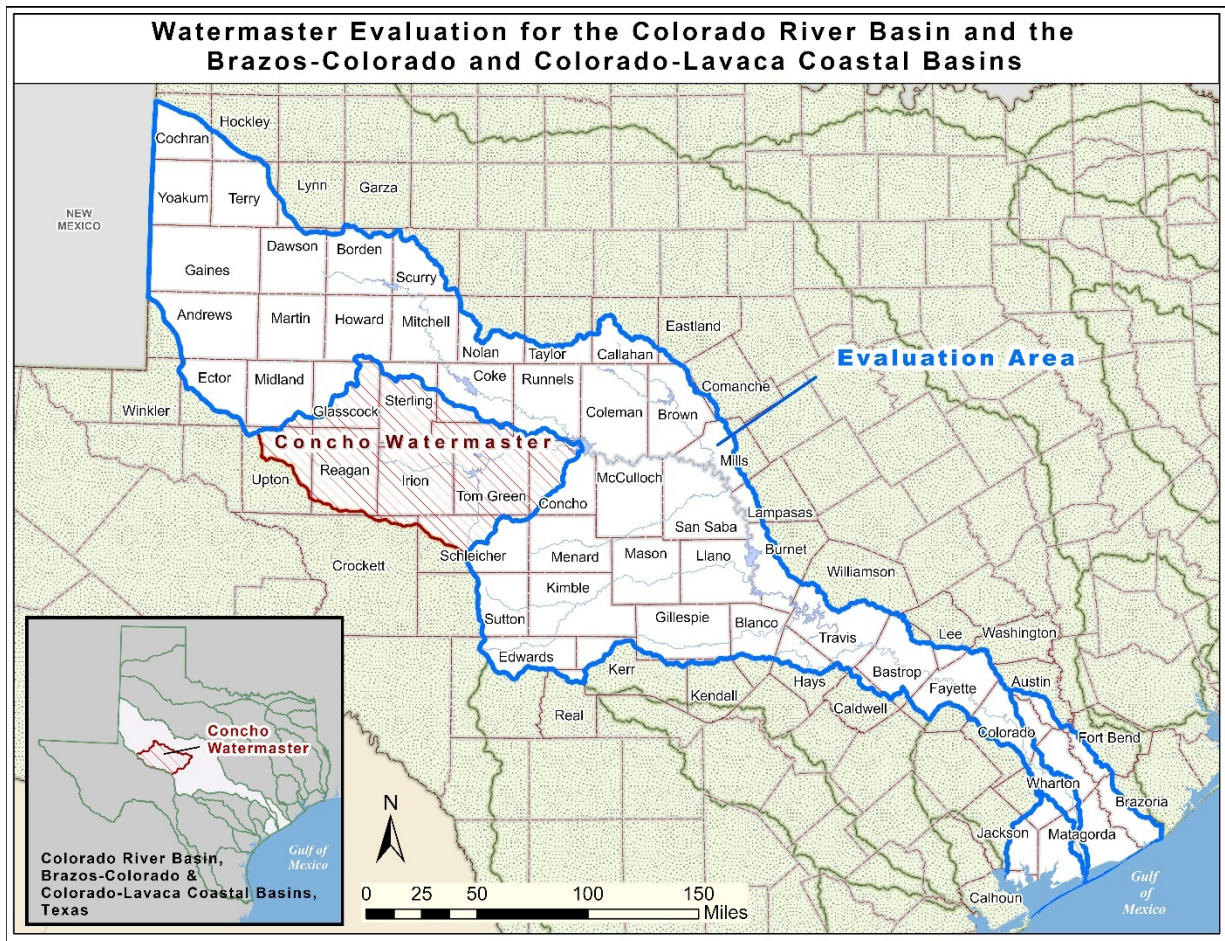
Although registration is not required, individuals interested in attending are requested to submit a registration form, which can be found on TCEQ's website under the "Which Basins are Being Evaluated Now?" section: [www.tceq.texas.gov/goto/watermaster](http://www.tceq.texas.gov/goto/watermaster)

# Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

## Geographic Reach of the Basins and Water Right Information

The Colorado River Basin includes all or a portion of 63 counties with 1,221 water rights (with 220 of those water rights located in the Concho River Watermaster program), the Brazos-Colorado Coastal includes all or a portion of six counties and 69 water rights, and the Colorado-Lavaca Coastal Basin includes all or a portion of four counties and 31 water rights (Table 1). The number of total water rights compared to the water rights by county may differ slightly as some water rights are authorized in multiple counties.

Figure 1. Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins



## Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

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**Table 1. Number of Permitted Water Rights by Basin and County**

Colorado				Brazos-Colorado		Colorado-Lavaca	
<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>
Andrews*	0	Lampasas	22	Austin*	0	Calhoun*	5
Austin*	0	Lee*	3	Brazoria*	15	Jackson	4
Bastrop*	20	Llano	40	Colorado*	5	Matagorda*	12
Blanco*	11	Lynn*	0	Fort Bend*	2	Wharton	11
Borden*	2	Martin	1	Matagorda*	24		
Brown	46	Mason	12	Wharton*	25		
Burnet	30	Matagorda*	7				
Caldwell*	0	McCulloch	26				
Callahan*	17	Menard	76				
Cochran*	0	Midland	0				
Coke	16	Mills	52				
Coleman	54	Mitchell*	4				
Colorado*	7	Nolan*	3				
Comanche*	0	Reagan*	0				
Concho	19	Real*	0				
Crockett*	0	Runnels	103				
Dawson*	2	San Saba	120				
Eastland*	1	Schleicher*	2				
Ector*	1	Scurry*	6				
Edwards*	3	Sterling	3				
Fayette*	18	Sutton*	4				
Gaines	0	Taylor*	17				
Garza*	0	Terry*	1				
Gillespie*	75	Tom Green	137				
Glasscock	0	Travis*	64				
Hays*	10	Upton*	0				
Hockley*	0	Washington	0				
Howard	11	Wharton*	5				
Irion	66	Williamson	0				
Kendall*	2	Winkler	0				
Kerr*	0	Yoakum*	0				
Kimble	139						

\*County located in multiple basins.

## **Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins**

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### **Watermaster Program Options and Costs**

The ED considered four options (numbered 4, 5, 6, and 7, below) when evaluating watermaster program costs for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins. Option 7 is analogous to the Brazos Watermaster program, where a hydrologic control (the confluence of Brady Creek and the San Saba River) separates the watermaster and non-watermaster areas. These options were presented to stakeholders at meetings held in the Colorado River Basin and virtually in June 2022.

*Option 4: No watermaster recommended for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins.*

*Option 5: Appoint a watermaster for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins.*

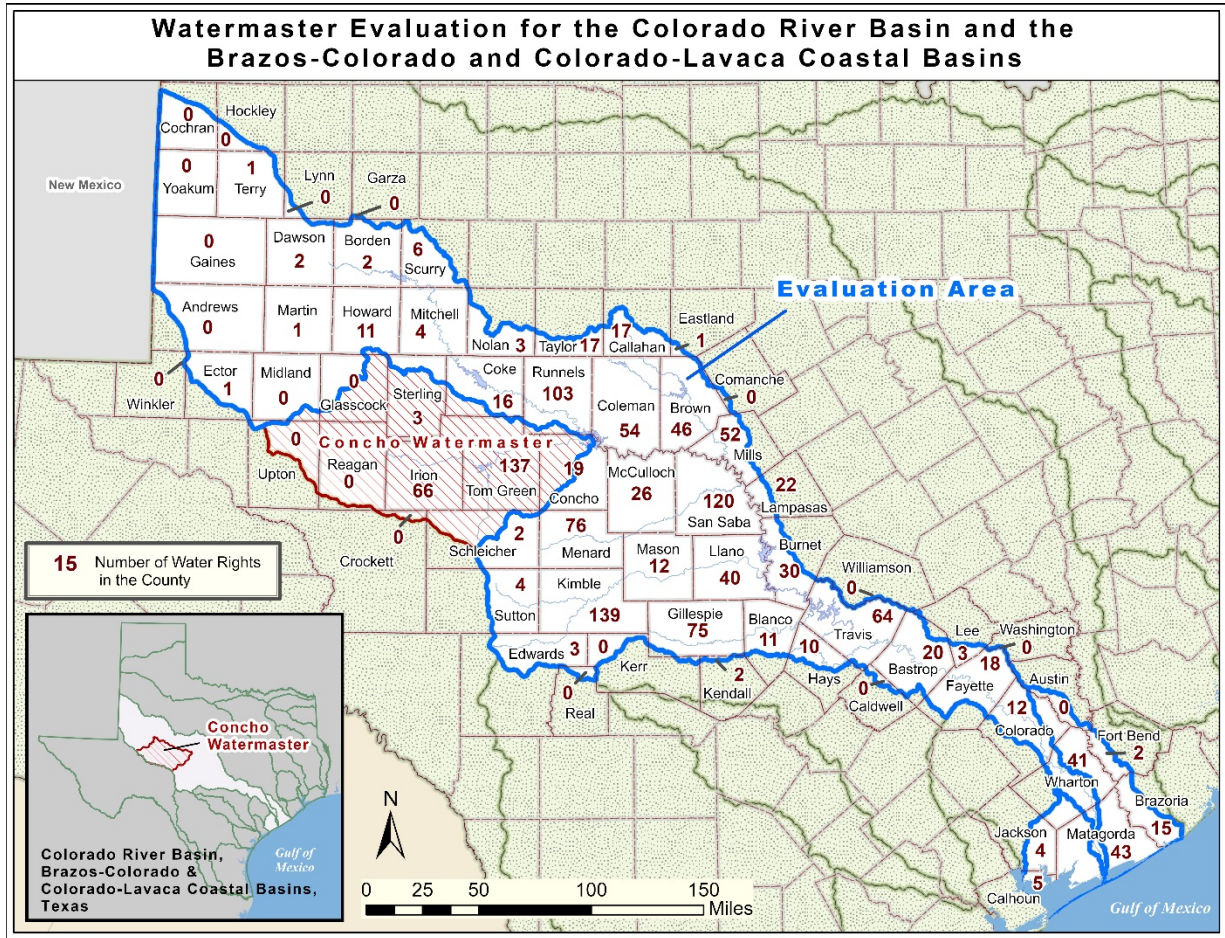
**Number of permitted water rights:** 1,319

**Counties:** 67 (47 have permitted water rights)



# Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

Figure 2. Watermaster Program for Colorado River Basin and the Colorado-Lavaca and Brazos-Colorado Coastal Basins (Option 5)





## **Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins**

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**Table 2. Number of Permitted Water Rights by County (Option 5)**

<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>	<i>County</i>	<i>Number of Water Rights</i>
Andrews*	0	Fort Bend*	2	Mills	52
Austin*	0	Gaines	0	Mitchell*	4
Bastrop*	20	Garza*	0	Nolan*	3
Blanco*	11	Gillespie*	75	Reagan*	0
Borden*	2	Glasscock	0	Real*	0
Brazoria*	15	Hays*	10	Runnels	103
Brown	46	Hockley*	0	San Saba	120
Burnet	30	Howard	11	Schleicher*	2
Caldwell*	0	Irion	66	Scurry*	6
Calhoun	5	Jackson	4	Sterling	3
Callahan*	17	Kendall*	2	Sutton*	4
Cochran*	0	Kerr*	0	Taylor*	17
Coke	16	Kimble	139	Terry*	1
Coleman	54	Lampasas	22	Tom Green	137
Colorado*	12	Lee*	3	Travis*	64
Comanche*	0	Llano	40	Upton*	0
Concho	19	Lynn*	0	Washington	0
Crockett*	0	Martin	1	Wharton*	41
Dawson*	2	Mason	12	Williamson	0
Eastland*	1	Matagorda*	43	Winkler	0
Ector*	1	McCulloch	26	Yoakum*	0
Edwards*	3	Menard	76		
Fayette*	18	Midland	0		

\* County located in multiple basins.

Estimated costs reflect the amount required to operate the FY23 Concho River Watermaster Program plus the addition of the other portions of the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins. Year 1 has an estimated cost of \$1,344,395 (\$223,801.44 for the existing Concho River Watermaster Program and \$1,120,593.56 for program expansion) with a cost of \$1,041,222 for each subsequent year. Actual assessments would vary based on the estimated expected return rate. Table 3 summarizes expected expenditures for Option 5 which includes already established expenditures for the Concho River Watermaster Program.

## Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

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Table 3. Cost Estimate (Option 5)

	Year 1	Year 2	Assumptions
<b>Salaries</b>			
<b>Current Concho Staff Salaries</b>	\$104,124	\$109,530	Includes Assistant Watermaster and 1 Watermaster Specialist II (with 4.5% increase by year 2), plus longevity
<b>Watermaster</b>	\$69,000	\$72,105	1 Watermaster, Program Supervisor VI, B23 (\$69,000/year with 4.5% increase by year 2)
<b>1 Administrative Assistant II</b>	\$31,332	\$32,742	1 Administrative Assistant II, A11 (\$31,332/year with 4.5% increase by year 2)
<b>1 Administrative Assistant IV</b>	\$33,660	\$35,175	1 Administrative Assistant IV, A15 (\$33,660/year with 4.5% increase by year 2)
<b>Watermaster Specialist IV</b>	\$53,106	\$55,496	1 Watermaster Specialist IV, B21 (\$53,106/year with 4.5% increase by year 2)
<b>5 Watermaster Specialist II</b>	\$213,510	\$223,118	5 Watermaster Specialist II, B17 (\$42,702/year/each with 4.5% increase by year 2)
<b>2 Watermaster Liaisons</b>	\$22,494	\$23,500	50% of Liaison Salary paid by watermaster programs. Second, determined by percentage of water rights among all watermaster programs. In this instance, assumption is 32% of all water rights. (with 4.5% increase by year 2) plus longevity
<b>Watermaster Purchaser</b>	\$12,222	\$12,796	Purchaser Salary determined by percentage of water rights among all watermaster programs. In this instance, assumption is 32% of all water rights. (with 4.5% increase by year 2) plus longevity
<b>Total Salaries</b>	<b>\$539,448</b>	<b>\$564,460</b>	
<b>Fringe</b>	\$175,428	\$183,562	Agency Standard is 32.52% of salaries
<b>Additional Insurance and Retirement</b>	\$8,092	\$8,467	Table of standard costs for FTEs - 1.5% of salaries
<b>SORM fee</b>	\$644	\$644	32% of total SORM \$2,013 or \$100 per FTE average
<b>SWCAP fee</b>	\$4,194	\$4,194	32% of total SWCAP \$13,105 or \$600 per FTE average
<b>Professional/Temp Services</b>	\$90,000	\$90,000	Higher in first two years to add water accounts and functionality into the accounting system for program.

## Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

Travel In-State	\$53,000	\$33,000	11 FTEs (\$2500/each; however, this amount assumes some employees will travel more than others) (\$20,000 for year 1), year 2 \$500 additional per FTE for new WM travel
Training	\$11,000	\$11,000	11 FTEs (\$1,000/each; however, this amount assumes some employees will require more training than others)
Rent - Building	\$20,000	\$20,000	Rent space for TCEQ regional offices in Midland, San Angelo, and Austin
Postage	\$4,200	\$3,500	Based on BWM amount plus 2 initial program startup mailouts
Phone/Utilities	\$22,465	\$14,995	Based on BWM amount plus additional FTE equipment (\$7,620 for year 1), and additional services (\$1,050/year for both years)
Supplies - Consumables	\$3,100	\$2,600	Based on BWM amount plus additional FTE needed items
Other Operating Expenses	\$24,815	\$25,965	Table of standard costs for FTEs - 4.6% of salaries
Fuels/Lubricants	\$38,000	\$35,500	Based on BWM amount plus 1 additional vehicle (\$4,500/year/each) (\$10,000 for year 1 and 5K for yr 2)
Rent - Machine & Other	\$835	\$835	Based on CRWM amount
Facilities, Furniture, and Equipment	\$97,175	\$42,500	Based on CRWM amount plus 6 additional vehicles and 9 FTEs (\$7,250/each for year 1, \$3,000/each for year 2)
Capital Equipment - IT	\$18,000	\$0	9 computers at \$1,500, \$500 remote work accessories per FTE
Capital - Vehicles	\$234,000	\$0	CRWM has 2 vehicles. 6 additional vehicles (\$39,000/each)
<b>Total</b>	<b>\$1,344,395</b>	<b>\$1,041,222</b>	

Costs include:

- Current Concho River Watermaster Staff.
- One watermaster and two administrative assistants in the TCEQ Austin Central Office.
- Six watermaster specialists/field deputies (one of which would be a senior investigator) in the TCEQ Midland, San Angelo, and Austin Central Offices, and a field office in the lower portion of the basin.

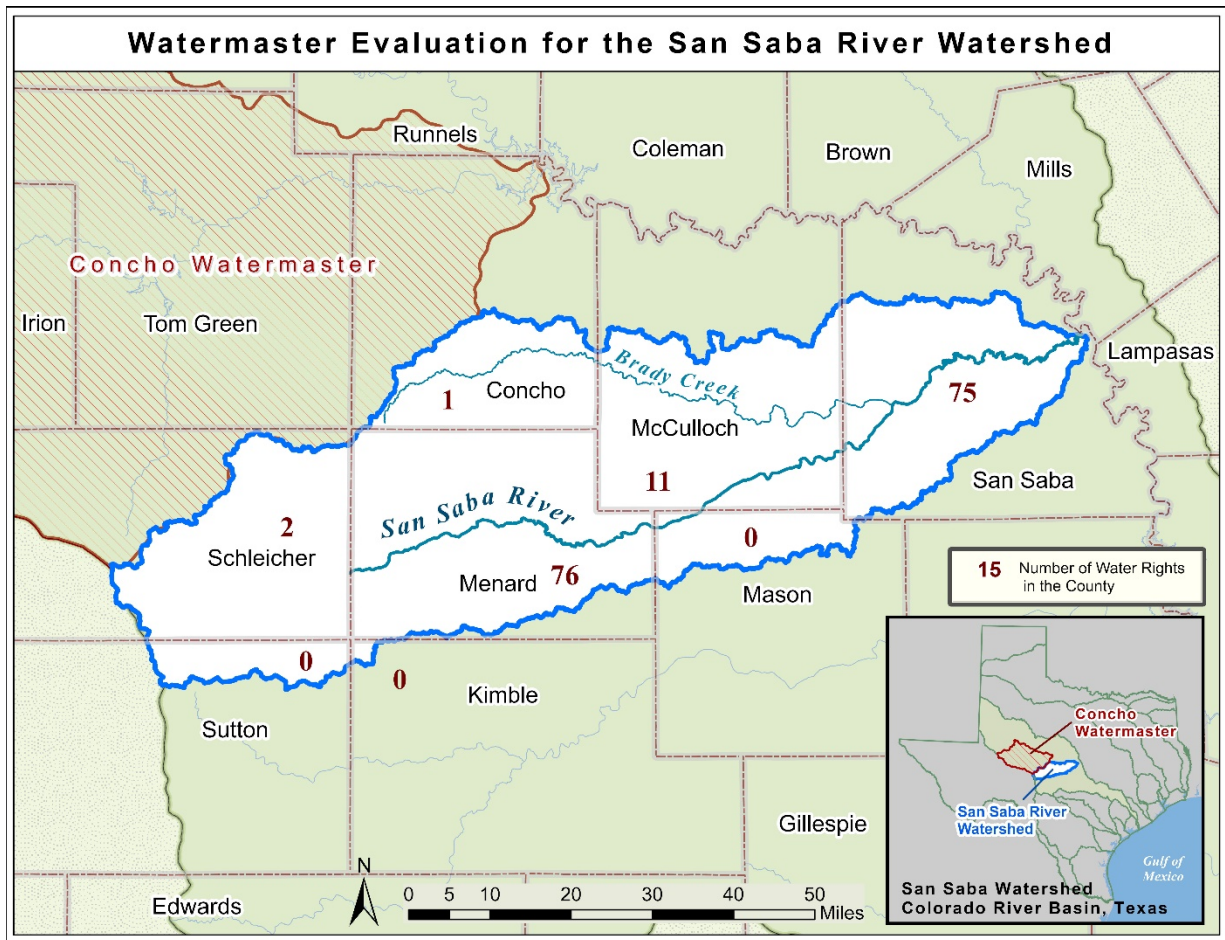
# Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

*Option 6: Appoint a watermaster for the San Saba River.*

Number of permitted water rights: 163

Counties: 8 (5 have permitted water rights)

Figure 3. Watermaster Program for the San Saba River Basin (Option 6)



## Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

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Table 4. Number of Permitted Water Rights by County (Option 6)

<i>County</i>	<i>Number of Water Rights</i>
Concho	1
Kimble	0
Mason	0
McCulloch	11
Menard	76
San Saba	75
Schleicher*	2
Sutton*	0

\* County located in multiple basins.

Year 1 has an estimated cost of \$422,060 and a cost of \$325,380 for subsequent years. Actual assessments would vary based on the estimated expected return rate. Table 5 summarizes expected expenditures for Option 6.

Table 5. Cost Estimate (Option 6)

	<b>Year 1</b>	<b>Year 2</b>	<b>Assumptions</b>
<b>Salaries</b>			
<b>Watermaster</b>	\$69,000	\$72,105	1 Watermaster, Program Supervisor VI, B23 (\$69,000/year with 4.5% increase by year 2)
<b>Administrative Assistant</b>	\$31,332	\$32,742	1 Administrative Assistant II, A11 (\$31,332/year with 4.5% increase by year 2)
<b>Watermaster Specialist II</b>	\$42,702	\$44,624	1 Watermaster Specialist II, B17 (\$42,702/year with 4.5% increase by year 2)
<b>Watermaster Liaisons</b>	\$3,672	\$3,829	50% of Liaison Salary paid by watermaster programs. Second, determined by percentage of water rights among all watermaster programs. In this instance, assumption is 5% of all water rights. (with 4.5% increase by year 2)
<b>Watermaster Purchaser</b>	\$1,923	\$2,009	Purchaser Salary determined by percentage of water rights among all watermaster programs. In this instance, assumption is 5% of all water rights. (with 4.5% increase by year 2)
<b>Total Salaries</b>	<b>\$148,629</b>	<b>\$155,309</b>	
<b>Fringe</b>	\$48,334	\$50,506	Agency Standard is 32.52% of salaries
<b>Additional Insurance and Retirement</b>	\$2,229	\$2,330	Table of standard costs for FTEs - 1.5% of salaries

## Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

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SORM fee	\$101	\$101	5% of total SORM \$2,013. B&P provides total SORM or \$100 per FTE average
SWCAP fee	\$655	\$655	5% of total SWCAP \$13,105. B&P provides total SWCAP or \$600 per FTE average
Professional/Temp Services	\$50,000	\$50,000	Higher in first two years to add water accounts and functionality into the accounting system for program.
Travel In-State	\$9,000	\$9,000	3 FTEs (\$2,500/each; however, this amount assumes some employees will travel more than others) plus \$500 for new WM travel
Training	\$3,000	\$3,000	3 FTEs (\$1,000/each; however, this amount assumes some employees will require more training than others)
Rent - Building	\$11,000	\$11,000	Rent space for TCEQ regional offices in San Angelo
Postage	\$1,300	\$1,300	Based on CRWM amount plus 2 initial program startup mailouts and higher volume of notifications
Phone/Utilities	\$7,090	\$5,400	Based on CRWM amount plus additional FTE equipment (\$1,690 for year 1), and additional services (\$1,050/year for both years)
Supplies - Consumables	\$2,500	\$2,500	Based on CRWM amount
Other Operating Expenses	\$6,837	\$7,144	Table of standard costs for FTEs - 4.6% of salaries
Fuels/Lubricants	\$12,000	\$12,000	Based on CRWM and higher volume of driving
Rent - Machine & Other	\$835	\$835	Based on CRWM amount
Facilities, Furniture, and Equipment	\$34,550	\$14,300	Based on CRWM amount plus 2 additional vehicles and 3 FTEs (\$7,250/each for year 1, \$3,000/each for year 2) plus 1 flow tracker @ \$7500
Capital Equipment - IT	\$6,000	\$0	3 computers at \$1,500, \$500 remote work accessories per FTE
Capital - Vehicles	\$78,000	\$0	2 vehicles at \$39,000
<b>Total</b>	<b>\$422,060</b>	<b>\$325,380</b>	

Costs include:

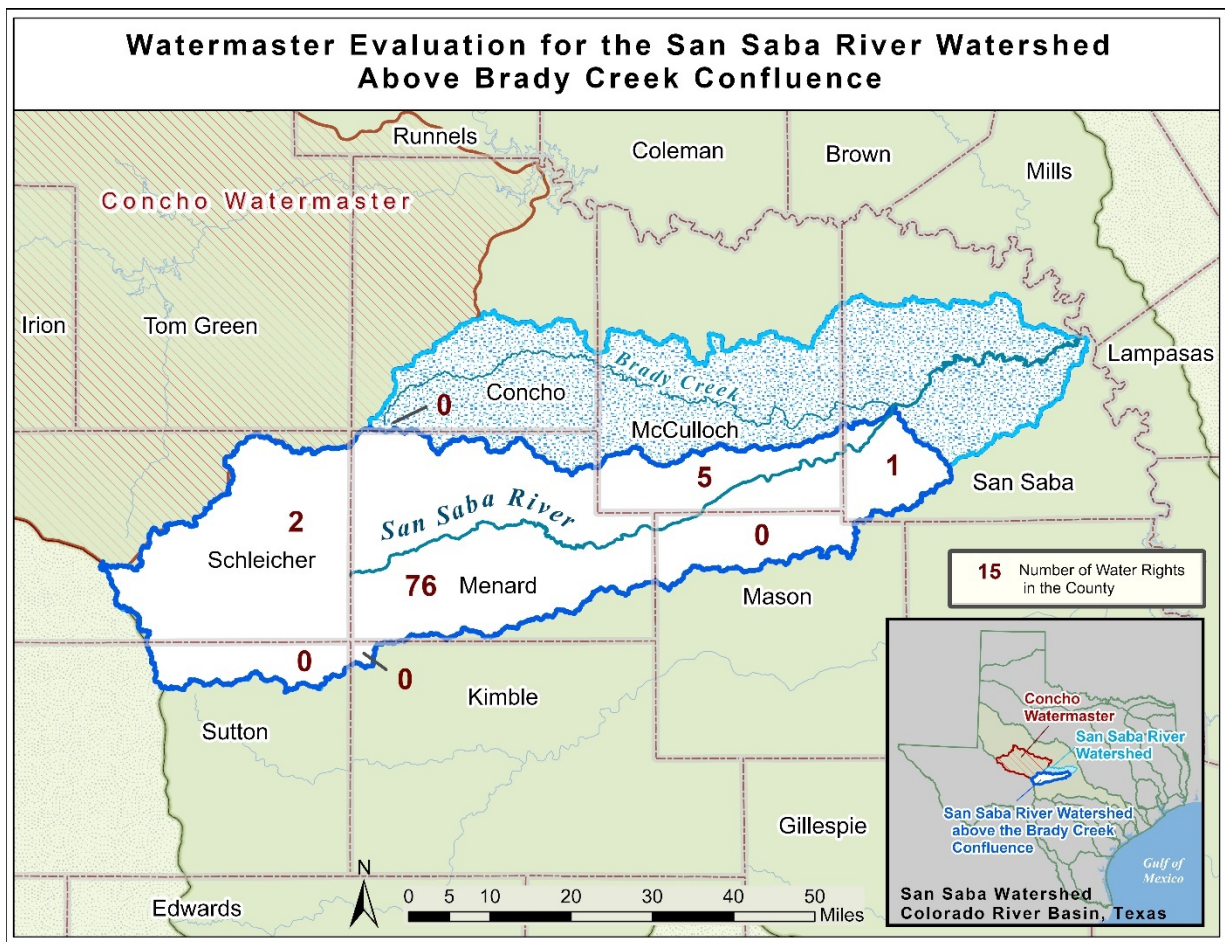
- One watermaster, one administrative assistant, and one watermaster specialist/field deputy all located in a field office in Brady or San Saba.

# Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

*Option 7: Appoint a watermaster for the San Saba River above the confluence with Brady Creek and the San Saba River.*

Number of permitted water rights: 83

Counties: 8 (4 have permitted water rights)



## Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins

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**Table 6: Number of Permitted Water Rights by County (Option 7)**

<i>County</i>	<i>Number of Water Rights</i>
Concho	0
Kimble	0
Mason	0
McCulloch	5
Menard	76
San Saba	1
Schleicher*	2
Sutton*	0

\*County located in multiple basins.

Year 1 has an estimated cost of \$354,685 and a cost of \$262,446 for subsequent years. Actual assessments would vary based on the estimated expected return rate. Table 7 summarizes expected expenditures for Option 7.

**Table 7. Cost Estimate (Option 7)**

	Year 1	Year 2	Assumptions
<b>Salaries</b>			
<b>Watermaster</b>	\$69,000	\$72,105	1 Watermaster, Program Supervisor VI, B23 (\$69,000/year with 4.5% increase by year 2)
<b>Watermaster Specialist II</b>	\$42,702	\$44,624	1 Watermaster Specialist II, B17 (\$42,702/year with 4.5% increase by year 2)
<b>Watermaster Liaisons</b>	\$2,233	\$2,328	50% of Liaison Salary paid by watermaster programs. Second, determined by percentage of water rights among all watermaster programs. In this instance, assumption is 3% of all water rights. (with 4.5% increase by year 2)
<b>Watermaster Purchaser</b>	\$1,154	\$1,206	Purchaser Salary determined by percentage of water rights among all watermaster programs. In this instance, assumption is 3% of all water rights. (with 4.5% increase by year 2)
<b>Total Salaries</b>	\$115,089	\$120,262	
<b>Fringe</b>	\$37,427	\$39,109	Agency Standard is 32.52% of salaries
<b>Additional Insurance and Retirement</b>	\$1,726	\$1,804	Table of standard costs for FTEs - 1.5% of salaries
<b>SORM fee</b>	\$60	\$60	3% of total SORM \$2,013 or \$100 per FTE average
<b>SWCAP fee</b>	\$393	\$393	3% of total SWCAP \$13,105. B&P provides total SWCAP or \$600 per FTE average



## **Appendix G: Implementation Considerations for the Colorado River Basin and the Brazos-Colorado and Colorado-Lavaca Coastal Basins**

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<b>Professional/Temp Services</b>	\$45,000	\$45,000	Higher in first two years to add water accounts and functionality into the accounting system for program.
<b>Travel In-State</b>	\$6,000	\$6,000	2 FTEs (\$2,500/each; however, this amount assumes some employees will travel more than others) plus \$500 for new WM travel
<b>Training</b>	\$2,000	\$2,000	2 FTEs (\$1,000/each; however, this amount assumes some employees will require more training than others)
<b>Rent - Building</b>	\$11,000	\$11,000	Rent space for TCEQ regional offices in San Angelo
<b>Postage</b>	\$1,300	\$1,300	Based on CRWM amount plus 2 initial program startup mailouts and higher volume of notifications
<b>Phone/Utilities</b>	\$5,760	\$4,350	Based on CRWM amount plus additional FTE equipment (\$1,410 for year 1)
<b>Supplies - Consumables</b>	\$2,500	\$2,500	Based on CRWM amount
<b>Other Operating Expenses</b>	\$5,294	\$5,532	Table of standard costs for FTEs - 4.6% of salaries
<b>Fuels/Lubricants</b>	\$11,000	\$11,000	Based on CRWM amount and higher volume of driving
<b>Rent - Machine &amp; Other</b>	\$835	\$835	Based on CRWM amount
<b>Facilities, Furniture, and Equipment</b>	\$27,300	\$11,300	Based on CRWM amount plus 2 additional vehicles and 3 FTEs (\$7,250/each for year 1, \$3,000/each for year 2) plus 1 flow tracker @ \$7500
<b>Capital Equipment - IT</b>	\$4,000	\$0	2 computers at \$1,500, \$500 remote work accessories per FTE
<b>Capital - Vehicles</b>	\$78,000	\$0	2 vehicles at \$39,000
<b>Total</b>	<b>\$354,685</b>	<b>\$262,446</b>	

Costs include:

- One watermaster and one watermaster specialist/field deputy both located in a field office.

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Throughout the evaluation process, the Executive Director reviewed and considered other information referenced by or identified by stakeholders directly related to the San Saba watershed, and other basins or portions of basins considered in this evaluation, as well as factors that may impact surface water availability.

### **Recent Report Information**

A Texas Water Development Board report evaluated declining flow trends in the Upper Colorado Basin (Evaluation of Rainfall/Runoff Patterns in the Upper Colorado River Basin, TWDB Contract No. 160000012011, Kennedy Resource Company and Others, August 2017). The report evaluated precipitation and streamflow data and potential causes for declining flow trends such as noxious brush, small reservoirs (both permitted and exempt), groundwater declines, and historic drought conditions. The authors were unable to determine specific causes of the declining flow trends. However, the authors note that in 2015 and 2016, flows are again trending upward. The authors suggest that the observed declines prior to 2015 may have been related to recent severe drought conditions.

A second phase of the study (Final Report: Evaluation of Rainfall-Runoff Trends in the Upper Colorado River Basin (Phase Two), Jordan Furnans and others, September 2019) focused on four watersheds, including the San Saba River watershed. The Phase Two report built on the efforts in the previous study, including a more in-depth review of groundwater/surface water interaction. Based on the available data and study results, the authors were unable to make any definitive connection between groundwater levels and changes in streamflow. The authors were also unable to identify other specific causes of declining flow trends although they recommended additional analyses focusing on small reservoirs and development of more detailed models.

Espey Consultants produced a report for Friends of the San Saba Inc. related to hydrology in the San Saba portion of the evaluation area. The July 2, 2013 report noted that drought conditions are more frequent in the Edwards Plateau Region than in other areas of Texas, with the exception of the Trans Pecos Region. The authors also noted that streamflows declined in parts of the San Saba River during drought conditions and higher water use.

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Carollo Consultants produced a follow-up to the Espey report for Friends of the San Saba, Inc. that was completed October 12, 2015. The report concludes that precipitation for the previous ten year period had been almost two inches below the long term average, lake evaporation had been above average for the last ten years, and springflows showed declining trends. Further, the report evaluates alluvial wells in the area. The report concludes that the shallow groundwater being produced from the alluvial aquifer in Menard County is hydrologically connected to the San Saba River.

A hydrologic connection alone does not meet the Title 30 Texas Administrative Code §297.1(56) definition for underflow of a stream. “Underflow of a stream” is defined as “water in sand, soil, and gravel below the bed of the watercourse, together with the water in the lateral extensions of the water-bearing material on each side of the surface channel, such that the surface flows are in contact with the subsurface flows, the latter flows being confined within a space reasonably defined and having a direction corresponding to that of the surface flow.”

For this evaluation, TCEQ also reviewed information on wells drilled in Menard County over the past ten years. The vast majority of new wells were for domestic and livestock use. The wells drilled for irrigation use were either very deep (300 - 2,770 feet deep) or were located a significant distance from the San Saba River and would be unlikely to impact the flows of the San Saba River.

A watermaster can work to mitigate effects of, but has no control over, precipitation, evaporation, groundwater production that may be impacting spring discharges, the hydrologic connection between surface water and groundwater, the construction of small exempt reservoirs and other non-water right related activities that may impact surface water availability.

### ***Naturalized Flow and Water Availability Considerations***

TCEQ’s naturalized flows represent an approximation of what streamflows would be without the influence of permitted water use such as diversions and reservoir storage. These flows are part of the hydrologic inputs for TCEQ’s water availability models (WAM), which are used by TCEQ to evaluate water rights applications. The starting point for developing naturalized flows are recorded streamflows at United States

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Geological Survey (USGS) gages. Streamflows recorded at USGS gages are reduced due to use of water by both permitted water right holders and domestic and livestock users. During the creation of the naturalized flows, the gage flows are adjusted by adding reported water use from permitted water right holders to the USGS gage flows. Water use for domestic and livestock users is not adjusted because these users are exempt from permitting requirements and are not required to report their water use. Therefore, the naturalized flows reflect what flows would be available to permitted water rights after use by domestic and livestock users is considered. This is consistent with the legal status of domestic and livestock users as superior to permitted water rights.

### ***Watermasters and Water Availability Models (WAMs)***

A Watermaster program does not affect the use of TCEQ's water availability models (WAM) to process water right applications. For example, the Concho Watermaster oversees a tributary of the Colorado River but not the entire basin, and the Brazos Watermaster oversees only the portion of the Brazos River Basin downstream of, and including, Lake Possum Kingdom. The presence of the Concho and Brazos Watermasters does not affect TCEQ's use of the WAM to process water rights permit applications and the WAM TCEQ uses for permitting does not include any considerations related to the watermaster.

### ***Endangered Species Act (ESA) Timelines and Determinations***

The current status of water rights-related Endangered Species activities in the basins or portions of basins covered in this evaluation are described in more detail below. Based on the current status of these activities, there is no need for any water rights-related actions or additional consideration of these activities that would be required at this time. TCEQ continues to closely monitor Endangered Species activities in the basins or portions of basins covered in this evaluation.

### **Recovery Plan for Sharpnose and Smalleye Shiners (Upper Brazos)**

The United States Fish and Wildlife Service (USFWS) published notice of the availability of a draft Recovery Plan for the Sharpnose Shiner and Smalleye Shiner (Draft Recovery Plan) in the November 24, 2020 edition of the *Federal Register*. Recovery plans are not

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regulatory, they include goals for the long-term recovery of species, with defined objectives and criteria to downlist or delist species. The Draft Recovery Plan includes actions that address threats (reduction and alteration of streamflow and degradation of water quality) to the survival and facilitate recovery of the species.

Recovery actions in the Recovery Plan focus on:

- Ensuring adequate stream flows.
- Restoring and preserving natural river morphology.
- Maintaining current populations of both species.
- Establishing a captive breeding program.
- Ensuring water quality.

The final recovery plan was announced by USFWS in a press release on April 1, 2022 but was not published in the *Federal Register*.

### Central Texas Mussels

In the August 15, 2019 edition of the *Federal Register*, the USFWS published notice of 12-month petition for the golden orb and smooth pimpleback. In the notice, the USFWS found after a thorough review of the best available scientific and commercial information that it is not warranted at this time to list the species.

In the August 26, 2021 edition of the *Federal Register*, the USFWS published a proposed rule listing the Guadalupe fatmucket, Texas fatmucket, Guadalupe orb, Texas pimpleback and false spike as endangered; and the Texas fawnsfoot as threatened. Designations of critical habitat for all species were included in the proposal.

The USFWS has been actively reviewing the status of each species. A final draft of the Central Texas Species Status Assessment was included in the *Federal Register* (regulatory Docket FWS-R2-ES-2019-0061 by USFWS), to support the August 26, 2021 proposed rule listing the six species.

The proposed critical habitat designations included:

False spike - Llano and San Saba Rivers.

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Texas fatmucket - Cherokee, Live Oak, Elm, Bluff, Threadgill, Beaver, and Onion Creeks, and the Pedernales, Llano, James and San Saba Rivers

Texas fawnsfoot - Colorado River (Below La Grange, Above Lake Buchanan, and Below O.H. Ivie Reservoir), San Saba River, and Clear Fork Brazos River.

Texas pimpleback - Elm and Bluff Creeks, the riverine portion of O.H. Ivie Reservoir, Colorado River (Below La Grange, Above Lake Buchanan, and Below O.H. Ivie Reservoir), and the Llano and San Saba Rivers.

The Texas Comptroller of Public Accounts has established work groups to provide guidance and direction on research activities and information collection efforts concerning candidate species under the Endangered Species Act. Research and information developed through the work groups contributes to the scientific body of evidence considered by USFWS during listing evaluations and species status assessments.

The end of the public comment period for the proposed rule listing the mussels was October 25, 2021. USFWS will consider all comments and information received during the comment period. Based on the comments and any new information, USFWS may conclude that any of these species are threatened instead of endangered, or endangered instead of threatened, or they may conclude that any of these species do not warrant listing as either an endangered species or a threatened species.

### ***Protection of Domestic and Livestock Users***

If a person wants to divert, use, or store state water, a state water right permit is required, unless the water is being used for one of several specific exempt uses. The most common exemption is for domestic and livestock (D&L) purposes. The D&L exemption also allows a person, without obtaining a permit, to construct on the person's own property a dam or reservoir with normal storage of not more than 200 acre-feet of water for D&L purposes. Additionally, water may be diverted and used for personal D&L uses without a permit so long as the use is reasonable. This exemption does not apply to a commercial operation.

D&L uses are superior to appropriative rights and are protected by a watermaster or the regional offices where there is not a watermaster program. Between individual D&L

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users, each D&L user has equal rights to streamflow. For example, the owner of an exempt D&L reservoir must pass inflows to other D&L reservoir owners and users as needed. Although the watermaster or regional offices will assist in these situations, the need for a D&L user to pass inflows to another D&L user may also be enforced in district court.