



## **Task 7**

**Description of How the  
Regional Water Plan is  
Consistent With Long-term  
Protection of the State's  
Water Resources,  
Agricultural Resources,  
and Natural Resources**

## **7.1 Introduction**

The Panhandle Water Planning Group balanced meeting water shortages with good stewardship of the water, agricultural, and natural resources within the region. The PWPG recommended water conservation and demand reduction as the first strategy applied to meet every projected shortage. In the strategy selection process, the yield and environmental impact of projects were given greater consideration than the unit cost of water.

In this plan, existing in-basin or region supplies were fully utilized before any recommendations for new water supply projects or interbasin transfers were considered. Wastewater reuse is a recommended strategy to meet long-term power generation and industrial water needs and several other municipal options as alternatives to the development of new supplies.

The PWPG believes that local groundwater conservation districts are best-suited to manage groundwater resources in which the individual GCDs have the responsibility to regulate. This plan recommends using not more than 1.25% of annual saturated thickness within the aquifer as a management option for long-term sustainable management of the aquifers within the PWPA to meet local demands.

## **7.2 Water Resources within the Panhandle Water Planning Area**

Water resources available by basin within Region A are discussed in further detail below.

### **7.2.1 Red River Basin**

The Red River Basin is bounded on the north by the Canadian River Basin and on the south by the Brazos, Trinity, and Sulphur river basins. The Red River extends from the northeast corner of the State, along the Texas/Arkansas and Texas/Oklahoma state borders, across the Texas Panhandle to its headwaters in eastern New Mexico. The Red River Basin has a drainage area of 48,030 square miles, of which 24,463 square miles occur within Texas.

The main stem of the Red River has a total length of 1,217 river miles. The North Fork of the Red River forms near Pampa, Texas and the Salt Fork of the Red River forms about 26 miles east of Amarillo, Texas. Both forks exit Texas into Oklahoma and join the Red River, individually, about 17 miles north of Vernon, Texas. Palo Duro Creek forms near Canyon, Texas and becomes Prairie Dog Town Fork to the east, which in turn becomes the Red River at the 100th meridian. The watershed in Texas receives an average annual precipitation varying from 15 inches near the New Mexico border to 55 inches near the Arkansas border. (RRA, 1999)

### **7.2.2 Canadian River Basin**

Approximately 13,000 square miles of the Canadian River Basin are located in the PWPA. There are three major reservoirs in the Texas portion of the Basin: Lake Meredith, Palo Duro Reservoir, and Rita Blanca Lake are used for municipal and

recreation purposes. Other important reservoirs in the basin include Lake Marvin near the city of Canadian in Hemphill County, and Lake Fryer near Perryton in Ochiltree County.

From the Texas-New Mexico state line eastward, the Canadian River enters an area known as the Canadian River Breaks, a narrow strip of rough and broken land extensively dissected by tributaries of the Canadian River. Elevations in the northwestern portion of the basin extend to 4,400 feet MSL in Dallam County. Elevations in the eastern portion of the basin range from 2,175 feet MSL in the riverbed at the Texas-Oklahoma border to 2,400 feet MSL in Lipscomb County. Land use in the Texas portion of the Canadian River watershed is predominantly irrigated and dryland farming and cattle ranching.

Average annual precipitation of the Texas portion of the basin varies from 15 inches near the New Mexico border to 22 inches near the eastern state boundary with Oklahoma. Streamflow measured near Canadian, Texas, approximately 22 miles upstream of the Texas-Oklahoma state line, averages 89 cubic feet per second (CFS), or 64,700 acre-feet per annum.

### **7.3 Agricultural Resources within the Panhandle Water Planning Area**

According to the 2002 Census of Agriculture, Region A has approximately 1,523,839 acres of land in 2,762 farms. The number of farms has decreased in the period between 1978 and 2002. In the period between 1978 and 2002, the acres of harvested cropland have decreased by approximately 34 percent. In 2002, approximately 66 percent of the harvested cropland was contained in six counties (Carson, Dallam, Hansford, Hartley, Moore, and Sherman) on 973 farms. Agricultural land use in the PWPA includes irrigated cropland, dryland cropland, and pastureland. Major crops include corn, cotton, hay, peanuts, sorghum, sunflower, soybeans, and wheat

### **7.4 Natural Resources within the Panhandle Water Planning Area**

Region A contains many natural resources and the water management strategies recommended in this plan are intended to protect those resources while still meeting the projected water needs of the region. The impacts of recommended strategies on specific resources are discussed below.

#### **7.4.1 Threatened and Endangered Species**

The abundance and diversity of wildlife in the PWPA is influenced by vegetation and topography, with areas of greater habitat diversity having the potential for more wildlife species.

The presence or potential occurrence of threatened or endangered species is an important consideration in planning and implementing any water resource project or water management strategy. Both the state and federal governments have identified species that need protection. Species listed by the U.S. Fish and Wildlife Service (USFWS) are afforded the most legal protection, but the Texas Parks and Wildlife Department (TPWD)

also has regulations governing state-listed species. As detailed in Chapter 1, there are 10 state or federally protected species which have the potential to occur within the PWPA. This does not include species without official protection such as those proposed for listing or species that are considered rare or otherwise of special concern.

#### **7.4.2 Parks and Public Lands**

Region A contains over 103,000 acres of protected parks and public lands. The PWPA is home to Palo Duro Canyon State Park, approximately 16,400 acres located in Armstrong and Randall Counties. Buffalo Lake National Wildlife Refuge is also located in the Region and is a valuable wintering area for migratory waterfowl. In addition to these lands, the Region contains three National Grasslands. These include Black Kettle National Grassland in Hemphill County, McClellan Creek National Grassland in Gray County and Rita Blanca National Grassland in Dallam County. No recommended strategies require water supply projects located within these areas. Implementation of water management strategies should not directly impact these lands.

### **7.5 Impacts of Water Management Strategies on Other Water Resources**

Implementation of water management strategies can adversely affect surface water and groundwater supplies in the region. Issues that are of concern for water supply in the PWPA include aquifer depletions due to pumping exceeding recharge; contamination of surface water and groundwater; and drought related shortages for both surface water and groundwater. Potential groundwater contamination may supersede water quantity as a consideration in evaluating the amount of water available for a use.

Most water used in the PWPA is supplied from aquifers such as the Ogallala, making aquifer depletion a potentially major constraint on water sources in the region. Depletions lower the water levels, making pumping more expensive and reducing the potential available supply. Another potential constraint to both groundwater pumping and maintenance of stream flows relates to restrictions that could be implemented due to the presence of endangered or threatened species. "Recent consideration by the U. S. Fish and Wildlife Service of the designation of critical habitat for the federally threatened Arkansas River shiner had the potential to affect water resource projects and other activities in Hemphill, Hutchinson, Oldham, Potter, and Roberts Counties. However, based on the provisions of a management plan developed by the Canadian River Municipal Water Authority which includes plans for flow augmentation by performing salt cedar control work, and for other reasons, the Service did not designate any critical habitat areas for the species in Texas. Therefore there should be no federal intervention with activities in the PWPG area for protection of this species."

Potential contamination of groundwater may be associated with oil-field practices, including seepage of brines from pits into the groundwater; brine contamination from abandoned wells; and broken or poorly constructed well casings. Agricultural and other practices may have contributed to elevated nitrates in groundwater and surface water.

Surface waters in the PWPA may also experience elevated salinity due to brines from oil-field operations, nutrients from municipal discharges, and other contaminants from industrial discharges. Other potential sources of contaminants include industrial facilities such as the Pantex plant near Amarillo; the Celanese plant at Pampa; an abandoned smelter site at Dumas; and concentrated animal feeding operations in various locations throughout the PWPA. However, most of these potential sources of contamination are regulated and monitored by TCEQ or other state agencies. Naturally occurring brine seeps also restrict the suitability of surface waters, such as Lake Meredith, for certain uses.

**Table 7-1: Plan Consistency**

<b>RULE</b>	<b>RULE TASK</b>
§357.5	<b>Guidelines for Development of Regional Water Plans</b>
§357.5(b)	Submittal of Plan on or before January 5, 2001 and at least as frequently as every five years thereafter
§357.5(d)	Use of population and water demands. In developing regional water plans, RWPG shall use:
§357.5(d)(1)	State population and water demand projections in state water plan or adopted by the TWDB
§357.5(d)(2)	Population or water demand projection revisions adopted by the TWDB
§357.5(e)	Plan development. In developing regional water plans, RWPG shall:
§357.5(e)(1)	Ensure water management strategies are adjusted to provide appropriate environmental water needs, including instream flows and bays and estuaries inflows. Use environmental information from existing site-specific studies, state environmental planning criteria adopted by the TWDB.
§357.5(e)(2)	Provide water management strategies to be used during a drought of record
§357.5(e)(3)	Protect existing water rights, water contracts and option agreements
§357.5(e)(4)	Provide specific recommendations of water management strategies based upon identification, analysis and comparison of all water management strategies the RWPG determines to be potentially feasible, present for public comment.
	To determine the cost-effectiveness, the regional water planning groups will use the process described in §357.7(a)(8)(A)(i)
	To determine environmental sensitivity, the regional water planning groups shall use the process described in §357.7a)(8)(A)(ii)
	Document the process by which the regional water planning group will list all possible water management strategies and identify water management strategies that are potentially feasible for meeting a need in the region.
	The regional water planning group shall present the process to the public for comment at the public meeting required by §357.12(a)(1).

<b>RULE</b>	<b>RULE TASK</b>
§357.5(e)(5)	Incorporate water conservation planning and drought contingency planning
	Water conservation and drought management strategies considered for each need should be evaluated as other WMS in Task 5. Must document why not selected if applicable. Conservation WMS for each WUG or WWP with new IBT. Model conservation and drought management plan. Chapter of conservation and drought management recommendations. (NOTE: IS OUR GUIDANCE CHANGING ON THIS PER VT?)
§357.5(e)(6)	Conduct planning to achieve efficient use of existing water supplies, explore opportunities for and benefits of developing regional water supply facilities or their management, coordinate actions of local and regional agencies, provide substantial public involvement, provide full dissemination of planning results
§357.5(e)(7)	For each source of water supply in the regional water planning area designated in accordance with §357.7(a)(3), identify:
§357.5(e)(7)(A)	Factors specific to each source of water supply to be considered in determining whether to initiate a drought response, and
§357.5(e)(7)(B)	Actions to be taken as part of the response, and
§357.5(e)(8)	Consider the effect of the regional water plan on navigation
§357.5(f)	Existing law. Each regional water planning group shall prepare its regional water plan to be consistent with all laws applicable to water use in the regional water planning area.
§357.5(g)	Special water resources
§357.5(h)	Protecting rights to special water resources
§357.5(i)	Consider emergency transfers of surface water
§357.5(j)	Simplified planning
§357.5(k)	Existing regional water planning efforts. In developing a regional water plan, consider the following:
§357.5(k)(1)	Consider existing plans and information, including:
§357.5(k)(1)(A)	Water conservation plans
§357.5(k)(1)(B)	Drought contingency plans
§357.5(k)(1)(C)	Information from water loss audits
§357.5(k)(1)(D)	Certified groundwater conservation district management plans
§357.5(k)(1)(E)	Publicly available plans of agricultural, municipal, manufacturing and commercial water users
§357.5(k)(1)(F)	Water management plans
§357.5(k)(1)(G)	Water availability requirements promulgated in accordance with TWC §35.019
§357.5(k)(1)(H)	Any other information available from existing local or regional water planning studies
§357.5(k)(2)	Existing programs and goals, including:
§357.5(k)(2)(A)	State Clean Rivers Program
§357.5(k)(2)(B)	Federal Clean Water Act
§357.5(k)(2)(C)	Other planning goals, including regionalization of water and wastewater services where appropriate

<b>RULE</b>	<b>RULE TASK</b>
§357.5(l)	Instream and bay and estuary flows. Consider environmental water needs including instream flows and bay and estuary inflows.
§357.7	<b>Regional Water Plan Development</b>
§357.7(a)	Prepare description of regional water planning area, including:
§357.7(a)(1)(A)	Major water providers
§357.7(a)(1)(B)	Current water use (for identified water use categories)
§357.7(a)(1)(C)	Identify water quality problems
§357.7(a)(1)(D)	Sources of groundwater and surface water including major springs
§357.7(a)(1)(E)	Major demand centers
§357.7(a)(1)(F)	Agricultural and natural resources
§357.7(a)(1)(G)	Social and Economic aspects
§357.7(a)(1)(H)	Assessment of current preparations for drought
§357.7(a)(1)(I)	Summary of existing regional water plans
§357.7(a)(1)(J)	Summary of recommendations in state water plan
§357.7(a)(1)(K)	Summary of local water plans
§357.7(a)(1)(L)	Identify threats to agricultural and natural resources due to water quantity or water quality problems related to water supply
§357.7(a)(1)(M)	Information compiled by the board from water loss audits performed by retail public utilities pursuant to §358.6
§357.7(a)(2)	Prepare presentation of current and projected population and water demands,
§357.7(a)(2)(A)	By:
§357.7(a)(2)(A)(i)	City for cities with populations greater than 500 people
§357.7(a)(2)(A)(ii)	Counties with less than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(2)(A)(iii)	Individual retail public utility or collective data for all retail public utilities that form a logical reporting unit for counties with more than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(2)(A)(iv)	Categories of water use, for each river basin
§357.7(a)(2)(B)	Wholesale water provider by category of water use, for each river basin. The wholesale water provider's current contractual obligations to supply water must be reported in addition to any demands projected for the wholesale water provider.
§357.7(a)(2)(C)	Include an adjustment to each municipal demand due to water savings from using plumbing fixtures identified in Chapter 372 of the Texas Health and Safety Code. The regional water planning group shall determine and report the extent to which such plumbing fixtures impact projected municipal water use using parameters approved by the executive administrator.
§357.7(a)(3)	Evaluation of adequacy of current water supplies legally and physically available to the regional water planning area for use during drought of record. Consider surface water and groundwater data from state water plan, existing water rights, contracts and option agreements, other planning and water supply studies and analysis of water supplies currently available. Firm yields for reservoirs.

<b>RULE</b>	<b>RULE TASK</b>
§357.7(a)(3)(A)	By:
§357.7(a)(3)(A)(i)	City for cities with populations greater than 500 people
§357.7(a)(3)(A)(ii)	Counties with less than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(3)(A)(iii)	Individual retail public utility or collective data for all retail public utilities that form a logical reporting unit for counties with more than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(3)(A)(iv)	Categories of water use, for each river basin
§357.7(a)(3)(B)	Wholesale water provider by category of water use, for each river basin. The wholesale water provider's current contractual obligations to supply water must be reported in addition to any demands projected for the wholesale water provider.
§357.7(a)(4)	Water supply and demand analysis comparing:
§357.7(a)(4)(A)	Water demands as developed in paragraph (2)(A) of this subsection with current water supplies available to the regional water planning area as developed in paragraph (3)(A) of this subsection to determine if water users identified in paragraph (2)(A) of this subsection in the regional water planning area will experience a surplus of supply or a need for additional supplies. The social and economic impact of not meeting these needs shall be evaluated by the regional water planning groups and reported by regional water planning area and river basin. The executive administrator shall provide available technical assistance to the regional water planning groups, upon request, on water supply and demand analysis, including methods to evaluate the social and economic impacts of not meeting needs. Other results report by:
§357.7(a)(4)(A)(i)	Cities with populations greater than 500 people
§357.7(a)(4)(A)(ii)	Counties with less than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(4)(A)(iii)	Individual retail public utility or collective data for all retail public utilities that form a logical reporting unit for counties with more than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(4)(A)(iv)	Categories of water use, for each river basin
§357.7(a)(4)(B)	Water demands as developed in paragraph (2)(B) of this subsection with current water supplies available to the wholesale water provider as developed in paragraph (3) of this subsection to determine if the wholesale water providers in the regional water planning area will experience a surplus of supply or a need for additional supplies. Results shall be reported, for each wholesale water provider by categories of water use, for each river basin. The executive administrator shall provide available technical assistance to the regional water planning groups, upon request, on water supply and demand analysis.
§357.7(a)(5)	Using identified water supply needs, provide water management strategies to be used during the drought of record to provide sufficient water supply to meet the identified needs

<b>RULE</b>	<b>RULE TASK</b>
§357.7(a)(5)(A)	Water management strategies shall be developed for:
§357.7(a)(5)(A)(i)	Cities with populations greater than 500 people
§357.7(a)(5)(A)(ii)	Counties with less than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(5)(A)(iii)	Individual retail public utility or collective data for all retail public utilities that form a logical reporting unit for counties with more than 5 retail public utilities which provide more than 280 acre-ft per year for municipal use
§357.7(a)(5)(A)(iv)	Categories of water use, for each river basin
§357.7(a)(5)(B)	Water demands as developed in paragraph (2)(B) of this subsection with current water supplies available to the wholesale water provider as developed in paragraph (3) of this subsection to determine if the wholesale water providers in the regional water planning area will experience a surplus of supply or a need for additional supplies. Results shall be reported, for each wholesale water provider by categories of water use, for each river basin. The executive administrator shall provide available technical assistance to the regional water planning groups, upon request, on water supply and demand analysis.
§357.7(a)(5)(C)	The plan to be used for water supply during drought of record shall meet all needs for the water use categories of municipal, manufacturing, irrigation, steam electric power generation, mining, and livestock watering except:
§357.7(a)(5)(C)(i)	Identify those needs for which no water management strategy is feasible, present full evaluation with reasons why no water management strategy is feasible
§357.7(a)(5)(C)(ii)	Where a political subdivision that provides water supply (other than water supply corporations, counties, or river authorities) does not participate in the regional water planning effort for needs located within its boundaries or extraterritorial jurisdiction. The regional water planning group shall establish terms of participation that shall be equitable and shall not unduly hinder participation.
§357.7(a)(6)	If desired by the RWPG, presentation of data in subdivisions of the reporting units required such as reporting irrigation for a county by splitting it into two or more reporting units
§357.7(a)(7)	Evaluation of all water management strategies the regional water planning group determines to be potentially feasible, including:
§357.7(a)(7)(A)	Water conservation practices:
§357.7(a)(7)(A)(i)	Impact on water needs
§357.7(a)(7)(A)(ii)	For each user group beyond the minimum requirements
§357.7(a)(7)(A)(iii)	For each water user group or wholesale water provider that is to obtain water from a proposed interbasin transfer, resulting in the highest practicable level of water conservation and efficiency achievable
§357.7(a)(7)(A)(iv)	Consider strategies to address any issues from water loss audits
§357.7(a)(7)(B)	Drought management measures including water demand management

<b>RULE</b>	<b>RULE TASK</b>
§357.7(a)(7)(C)	Reuse of wastewater
§357.7(a)(7)(D)	Expanded use of existing supplies
§357.7(a)(7)(E)	New supply development
§357.7(a)(7)(F)	Interbasin transfers
§357.7(a)(7)(G)	Other measures
§357.7(a)(8)	Evaluate all water management strategies the regional water planning group determines to be potentially feasible, including:
§357.7(a)(8)(A)	Quantitative reporting of:
§357.7(a)(8)(A)(i)	Quantity, reliability and cost of water delivered and treated for the end user's requirements, incorporating factors to be used in the calculation of infrastructure debt payments, present costs, and discounted present value costs provided by the executive administrator.
§357.7(a)(8)(A)(ii)	Environmental factors including effects on environmental water needs, wildlife habitat, cultural resources, and effect of upstream development on bays, estuaries and arms of the Gulf of Mexico.
§357.7(a)(8)(A)(iii)	Impacts on agricultural resources.
§357.7(a)(8)(B)	Impacts on other water resources of the state including other water management strategies and groundwater/surface water interrelationships.
§357.7(a)(8)(C)	For each threat to agricultural and natural resources identified, a discussion of how that threat will be addressed or affected by the water management strategies evaluated.
§357.7(a)(8)(D)	Any other factors as deemed relevant by the regional water planning group including recreational impacts;
§357.7(a)(8)(E)	Equitable comparison and consistent application of all water management strategies the regional water planning groups determine to be potentially feasible for each water supply need;
§357.7(a)(8)(F)	Consideration of the provisions in Texas Water Code §11.085(k)(1) for interbasin transfers of surface water. At a minimum, this consideration shall include a summation of water needs in the basin of origin and in the receiving basin, based on needs presented in the applicable approved regional water plan.
§357.7(a)(8)(G)	Consideration of third party social and economic impacts resulting from voluntary redistributions of water, including analysis of third-party impacts of moving water from rural and agricultural areas; and
§357.7(a)(8)(H)	Consideration of water pipelines and other facilities that can be used for water conveyance as described in subsection (a)(1)(M) of this section.
§357.7(a)(9)	Specific recommendations of water management strategies to meet the needs in sufficient detail to allow state agencies to make financial or regulatory decisions to determine the consistency of the proposed action before the state agency with an approved regional water plan. Strategies selected so that cost effective water management strategies which are consistent with long-term protection of the state's water resources, agricultural resources and natural resources are adopted.

<b>RULE</b>	<b>RULE TASK</b>
§357.7(a)(10)	Prepare regulatory, administrative or legislative recommendations.
§357.7(a)(11)	Include a chapter consolidating the water conservation and drought management recommendations of the regional water plan.
§357.7(a)(12)	Include a description of the major impacts of recommended water management strategies on key parameters of water quality identified by the regional water planning group as important to the use of the water resource and comparing conditions with the recommended water management strategies to current conditions using best available data.
§357.7(a)(13)	Include a chapter describing how the regional water plan is consistent with long-term protection of the state's water resources, agricultural resources, and natural resources as required in §357.14(2)(C) of this title (relating to Approval of Regional Water Plans by the Board); and
§357.7(a)(14)	Include a chapter describing the financing needed to implement the water management strategies recommended. Include how local governments, regional authorities, and other political subdivisions in the regional water planning area propose to pay for water management strategies identified in the regional water plan.
§357.7(b)	Specific recommendations of water management strategies to meet an identified need will not be shown as meeting the need for a political subdivision if the political subdivision to supply or to be provided water supplies objects to inclusion of the strategy for such political subdivision and specifies its reasons for such objection. This does not prevent the inclusion of the strategy to meet other needs.
§357.7(c)	The regional water planning group shall include in its regional water plan a model water conservation plan pursuant to Texas Water Code §11.1271.
§357.7(d)	The regional water planning group shall include in its regional water plan a model drought contingency plan pursuant to Texas Water Code §11.1272.
§357.7(e)	The executive administrator shall provide technical assistance within available resources to the regional water planning groups requesting such assistance in performing regional water planning activities and if requested, may facilitate resolution of conflicts within regional water planning areas.
§357.8	<b>Ecologically Unique River and Stream Segments</b>
§357.8(b)	A regional water planning group may recommend a river or stream segment as being of unique ecological value based upon the following criteria:
§357.8(b)(1)	<b>Biological function</b> - stream segments which display significant overall habitat value including both quantity and quality considering the degree of biodiversity, age, and uniqueness observed and including terrestrial, wetland, aquatic, or estuarine habitats;
§357.8(b)(2)	<b>Hydrologic function</b> - stream segments which are fringed by habitats that perform valuable hydrologic functions relating to water quality, flood attenuation, flow stabilization, or groundwater recharge and discharge;

RULE	RULE TASK
§357.8(b)(3)	<b>Riparian conservation areas</b> - stream segments which are fringed by significant areas in public ownership including state and federal refuges, wildlife management areas, preserves, parks, mitigation areas, or other areas held by governmental organizations for conservation purposes, or stream segments which are fringed by other areas managed for conservation purposes under a governmentally approved conservation plan;
§357.8(b)(4)	<b>High water quality/exceptional aquatic life/high aesthetic value</b> - stream segments and spring resources that are significant due to unique or critical habitats and exceptional aquatic life uses dependent on or associated with high water quality; or
§357.8(b)(5)	<b>Threatened or endangered species/unique communities</b> - sites along streams where water development projects would have significant detrimental effects on state or federally listed threatened and endangered species, and sites along streams significant due to the presence of unique, exemplary, or unusually extensive natural communities.
§357.8(c)	For every river and stream segment that has been designated as a unique river or stream segment by the legislature, during a session that ends not less than one year before the required date of submittal of an adopted regional water plan to the board, or recommended as a unique river or stream segment in the regional water plan, the regional water planning group shall assess the impact of the regional water plan on these segments. The assessment shall be a quantitative analysis of the impact of the plan on the flows important to the river or stream segment, as determined by the regional water planning group, comparing current conditions to conditions with implementation of all recommended water management strategies. The assessment shall also describe the impact of the plan on the unique features cited in the region's recommendation of that segment.
§357.9	Unique Sites for Reservoir Construction. A regional water planning group may recommend sites of unique value for construction of reservoirs by including descriptions of the sites, reasons for the unique designation and expected beneficiaries of the water supply to be developed at the site. The following criteria shall be used to determine if a site is unique for reservoir construction:
§357.9(1)	Site-specific reservoir development is recommended as a specific water management strategy or in an alternative long-term scenario in an adopted regional water plan; or
§357.9(2)	The location, hydrologic, geologic, topographic, water availability, water quality, environmental, cultural, and current development characteristics, or other pertinent factors make the site uniquely suited for:
§357.9(2)(A)	Reservoir development to provide water supply for the current planning period; or
§357.9(2)(B)	Where it might reasonably be needed to meet needs beyond the 50-year planning period.
§357.10	Format of information to be presented in regional water plans.

<b>RULE</b>	<b>RULE TASK</b>
§357.10(a)	Initially prepared and adopted regional water plans or amendments to approved regional water plans shall include:
§357.10(a)(1)	Technical report and data prepared in accordance with this chapter and the executive administrator's specifications.
§357.10(a)(2)	Include executive summary that documents the key regional water plan findings and recommendations.
§357.10(a)(3)	Prepare summaries of all written and oral comments, with a response by the RWPG explaining how the plan was revised or why changes were not warranted in response to written comments received.
§357.10(b)	Transfer copies of all data and reports to the TWDB in electronic format to the maximum extent possible.
§357.11	Adoption of regional water plans by regional water planning groups
§357.11(a)	RWPGs shall concurrently submit to the executive administrator and release to the public an initially prepared regional water plan prior to adoption. Plan submitted to the executive administrator must be in the specified electronic and paper format. RWPG must certify that the initially prepared plan is complete and adopted by the RWPG.
§357.11(b)	The RWPGs shall receive and consider comments from the TWDB, any federal or Texas state agency and the public.
§357.11(b)(1)	The executive administrator's written comments, which shall be provided to the regional water planning group within 120 days of receipt of the initially prepared plan
§357.11(b)(2)	Written comments received from any federal agency or Texas state agency, which the regional water planning groups shall accept for at least 120 days after the first public hearing notice is published pursuant to §357.12(a)(3) and (5) of this title.
§357.11(b)(3)	Any written or oral comments received from the public after the first public hearing notice is published pursuant to §357.12(a)(3) and (5) of this title until at least 60 days after the public hearing is held pursuant to §357.12(a)(3) and (4) of this title.
§357.11(c)	The regional water planning group shall submit in a timely manner to the executive administrator information on any known interregional conflict between regional water plans.
§357.11(d)	RWPG shall modify the regional water plan to incorporate board resolutions of interregional conflicts.
§357.11(e)	RWPG shall seek to resolve conflicts with other regional water planning groups and shall participate in any board sponsored efforts to resolve interregional conflicts.
§357.11(f)	A regional water planning group may amend an adopted regional water plan at any meeting, after giving notice according to §357.12 of this title and providing the public, the board, and other governmental entities 30 days to submit written or oral comments on the proposed amendment. A regional water planning group may propose amendments to an approved regional water plan by submitting proposed amendments to the board for its consideration and possible approval under the standards and procedures of this chapter.

<b>RULE</b>	<b>RULE TASK</b>
§357.11(g)	A political subdivision in the regional water planning area may request a regional water planning group to consider specific changes to an adopted regional water plan based on changed conditions or new information. A regional water planning group must formally consider such a request within 180 days after its submittal and shall amend its adopted regional water plan if it determines an amendment is warranted. If the political subdivision is not satisfied with the regional water planning group's decision on the issue, it may file a petition with the executive administrator to request board review the decision and consider changing the approved regional water plan. The political subdivision shall send a copy of the petition to the chair of the affected regional water planning group.
§357.11(g)(1)	The petition must state:
§357.11(g)(1)(A)	The changed condition or new information that affects the approved regional water plan;
§357.11(g)(1)(B)	The specific sections and provisions of the approved regional water plan that are affected by the changed condition or new information;
§357.11(g)(1)(C)	The efforts made by the political subdivision to work with the regional water planning group to obtain an amendment;
§357.11(g)(1)(D)	The proposed amendment to the approved regional water plan.
§357.11(g)(2)	If the executive administrator determines that the changed condition or new information warrants a change in the approved regional water plan, the executive administrator shall request the regional water planning group to consider making the appropriate change and provide the reason in writing. The political subdivision that submitted the petition will receive notice of any action requested of the regional water planning group by the executive administrator. If the regional water planning group does not amend its plan consistent with the request within 90 days, the executive administrator will present the issue to the board for consideration at a public meeting. Before presenting the issue to the board, the executive administrator will provide the regional water planning group, the political subdivision submitting the petition, and any political subdivision determined by the executive administrator to be affected by the issue 30 days notice.
§357.12	Notice and Public Participation
§357.12(a)	RWGPs and any subregional water planning groups shall provide for public participation including:
§357.12(a)(1)	At least one public meeting prior to the preparation of the regional water plan pursuant to §357.6(a)(1) of this title held in some central location within the regional water planning area;
§357.12(a)(2)	Ongoing opportunities for public input during preparation of the regional water plan;
§357.12(a)(3)	A public hearing following adoption of an initially prepared regional water plan, to be held in a central location within the regional water planning area.
§357.12(a)(4)	A public hearing before adoption of an amendment to an adopted regional water plan, including amendments required by the board's resolution of interregional conflicts, to be held in a central location.

<b>Rule</b>	<b>Rule Task</b>
§357.12(a)(5)	Notice of the public meetings and public hearings required by paragraphs (1), (3), and (4) of this subsection shall be published in a newspaper of general circulation in each county located in whole or in part in the regional water planning area before the 30th day preceding the date of the public meeting or hearing and mailed to, at a minimum, the following:
§357.12(a)(5)(A)	Each mayor of a municipality with a population of 1,000 or more or which is a county seat that is located in whole or in part in the regional water planning area;
§357.12(a)(5)(B)	Each county judge of a county located in whole or in part in the regional water planning area;
§357.12(a)(5)(C)	Each special or general law district or river authority with responsibility to manage or supply water in the regional water planning area based upon lists of such water districts and river authorities obtained from TNRCC;
§357.12(a)(5)(D)	Each retail public utility, defined as a community water system, that serves any part of the regional water planning area or receives water from the regional water planning area based upon lists of such entities obtained from TNRCC; and
§357.12(a)(5)(E)	Each holder of record of a water right for the use of surface water the diversion of which occurs in the regional water planning area based upon lists of such water rights holders obtained from TNRCC; and
§357.12(a)(6)	Notice of the public meetings and public hearings shall include:
§357.12(a)(6)(A)	A date, time, and location of the public meeting or hearing;
§357.12(a)(6)(B)	A summary of the proposed action to be taken;
§357.12(a)(6)(C)	The name, telephone number, and address of the person to whom questions or requests for additional information may be submitted; and
§357.12(a)(6)(D)	Information that the regional water planning group will accept written and oral comments at the hearings required by paragraphs (3) and (4) of this subsection, and information on how the public may submit written comments separate from such hearings. The regional water planning group shall specify a deadline for submission of public written comments of not earlier than 30 days after the hearings required by paragraphs (3) and (4) of this subsection.
§357.12(b)	Make copies of the regional water plan available for public inspection at least one month before a required public hearing by providing a copy in at least one public library in each county and either the county courthouse's law library, the county clerk's office or some other accessible place within the county courthouse of each county having land in the regional water planning area and include locations of such copies in the notice for public hearing.
§357.12(c)	Regional water planning groups and regional water planning subgroups shall:
§357.12(c)(1)	Conduct all business in a meeting posted and held in accordance with the Texas Open Meetings Act with a copy of all materials presented or discussed available for public inspection prior to and following the meeting; and

<b>Rule</b>	<b>Rule Task</b>
§357.12(c)(2)	Provide notice of regional water planning group and subregional water planning meetings to persons who requested in writing receipt of such notice.
§357.12(d)	Regional water planning groups shall publish agendas, meeting notices, and current adopted initially prepared plans and adopted final regional water plans on the Internet. This requirement can be met by submitting the information, in the format specified by the executive administrator, to the board to be posted on the board's web site.
§358.3	<b>Guidelines</b>
§358.3(a)	The executive administrator shall prepare, develop, and formulate the state water plan and the board shall adopt a state water plan no later than January 5, 2002, and before the end of each successive five-year period after that date. The executive administrator shall identify the beginning of the 50-year planning period for the state and regional water plans. The executive administrator shall incorporate into the state water plan presented to the board those regional water plans approved by the board pursuant to Chapter 357 of this title (relating to Regional Water Planning Guidelines). The board shall, not less than 30 days before adoption or amendment of the state water plan, publish notice in the Texas Register of its intent to adopt a state water plan and shall mail notice to each regional water planning group. The board shall hold a hearing, after which it may adopt a water plan or amendments thereto.
§358.3(b)	Development of the state water plan and of regional water plans shall be guided by the following principles:
§358.3(b)(1)	Identification of those policies and actions that may be needed to meet Texas' near- and long-term water needs and preparation for and response to drought conditions, in order that sufficient water will be available at a reasonable cost to satisfy a reasonable projected use of water to ensure public health, safety and welfare, further economic development, and protect the agricultural and natural resources of the state;
§358.3(b)(2)	Decision-making that is open to and accountable to the public with decisions based on accurate, objective and reliable information with full dissemination of planning results;
§358.3(b)(3)	Consideration of the effect of policies or water management strategies on the public interest of the state, water supply and those entities involved in providing this supply throughout the entire state;
§358.3(b)(4)	Consideration of all water management strategies the board determines to be potentially feasible when developing plans to meet future water needs and to respond to drought so that cost effective water management strategies which are consistent with long-term protection of the state's water resources, agricultural resources, and natural resources are considered and approved;
§358.3(b)(5)	Consideration of opportunities that encourage and result in voluntary transfers of water resources, including but not limited to regional water banks, sales, leases, options, subordination agreements, and financing agreements;

<b>Rule</b>	<b>Rule Task</b>
§358.3(b)(6)	Consideration of a balance of economic, social, aesthetic, and ecological viability;
§358.3(b)(7)	For regional water planning areas without approved regional water plans or water providers for which revised plans are not developed through the regional water planning process, the use of information from the adopted state water plan and other completed studies that are sufficient for water planning shall represent the water supply plan for that area or water provider;
§358.3(b)(8)	The orderly development, management, and conservation of water resources;
§358.3(b)(9)	All surface waters are held in trust by the state, their use is subject to rights granted and administered by the commission and the use of surface water is governed by the prior appropriation doctrine, unless adjudicated otherwise.
§358.3(b)(10)	Protect existing water rights, water contracts and option agreements
§358.3(b)(11)	The use of groundwater in Texas is governed by the right of capture doctrine, unless such use is under the authority of a locally controlled groundwater management district.
§358.3(b)(12)	Consideration of recommendations of river and stream segments of unique ecological value to the legislature for potential protection;
§358.3(b)(13)	Consideration of recommendation of sites of unique value for the construction of reservoirs to the legislature for potential protection;
§358.3(b)(14)	Coordination of water planning and management activities of local, regional, state, and federal agencies;
§358.3(b)(15)	Designated water quality and related water uses as shown in the state water quality plan should be improved or maintained;
§358.3(b)(16)	Coordination of water planning and management activities of regional water planning groups to identify common needs and issues and achieve efficient use of water supplies, including the board and the neighboring regional water planning groups, working together to identify common needs, issues, and/or problems and working together to resolve conflicts in a fair, equitable, and efficient manner;
§358.3(b)(17)	Describe water management strategies identified in approved regional water plans to meet near-term needs in sufficient detail to allow a state agency making a financial or regulatory decision to determine if a proposed action before the state agency is consistent with an approved regional water plan;
§358.3(b)(18)	Evaluation of alternative water management strategies using environmental information resulting from site-specific studies, or in the absence of such information, using state environmental planning criteria adopted by the board for inclusion in the state water plan after coordinating with staff of the commission and the Texas Parks and Wildlife Department.
§358.3(b)(19)	Consideration of environmental water needs including instream flows and bay and estuary inflows;
§358.3(b)(20)	Planning consistent with all laws applicable to water use for the state and regional water planning area; and
§358.3(b)(21)	Inclusion of ongoing water development projects which have been issued a permit by the commission or predecessor agency.