

Appendix 5A-A

Screening Criteria for Potentially Feasible Water Management Strategies

The screening criteria used to assess the feasibility of potential water management strategies (WMS) in the East Texas Regional Planning Area (ETRWPA) are provided as follows. These criteria were adopted as guidelines, and strategies could be retained or dismissed at the discretion of the East Texas Regional Water Planning Group (ETRWPG).

5A-A.1 General Guidelines

The ETRWPG identified a series of general guidelines when considering the potential feasibility of WMSs for the region. The guidelines are as follows:

- Feasible strategy must have an identified sponsor or authority.
- Feasible strategy must consider the end use. This includes water quality, distance to end use, etc. For example, long transmission systems with pumping are not likely to be economically feasible for irrigation use.
- Strategy should provide a reasonable percentage of the projected need (except conservation, which will be evaluated for all needs).
- Strategy must meet existing federal and state regulations.
- Strategies must be based on proven technology.
- Strategy must be able to be implemented.
- Strategy must be appropriate for regional water planning.

5A-A.2 Evaluation by Water Strategy Type

In accordance with 31 TAC Chapter 357.34, the ETRWPG must evaluate all WMSs the regional water planning group determines to be potentially feasible. The types of WMSs to be evaluated are described below.

5A-A.2.1 Water Conservation.

The guidelines for water planning require that water conservation be considered as a strategy for every identified need. If water conservation is not adopted, the reason must be documented. Water conservation in the ETRWPA is driven more by economics than lack of readily available supply, and therefore, not every user will have the need to implement conservation. Additional screening criteria for conservation strategies were adopted to comply with this general policy. The criteria are outlined below.



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- Municipal conservation strategies will be evaluated for all municipal WUGs that have a current per capita water use greater than 140 gpcd. This is the recommended goal for municipal users by the State of Texas Water Conservation Implementation Task Force. Municipal conservation will not be evaluated for WUGs with current usage less than 140 gpcd.
- The ETRWPG does not recommend water conservation for manufacturing WUGs. Although it is expected that manufacturers will implement water conservation measures during the planning period, the ETRWPG does not have the industry and site-specific information necessary to identify the current status of manufacturing water conservation or to recommend which measures should be implemented. In addition, changes to processes and equipment required for effective water conservation may be costly for manufacturing users, especially considering that water is readily available in the ETRWPA.
- The ETRWP does not recommend further water conservation beyond the irrigation conservation measures already implemented within the region. The ETRWPG encourages the implementation of irrigation water conservation measures; however, it does not have the farm-specific information necessary to identify the current status of on-farm water conservation or to recommend what measures should be implemented.
- Conservation was considered for steam electric power, livestock or mining water demands. However, the cost of water in these industries comprises a small percentage of the overall business cost, and it is not expected that these industries will see an economic benefit to water conservation. Based on these considerations, water conservation strategies have not been recommended for steam-electric, livestock and mining WUGs.

5A-A.2.2 Drought Management Measures.

Drought management WMSs are implemented in response to drought conditions. These strategies provide a safety factor for water users during drought. Drought management measures will not be adopted as strategies to meet long-range needs.

5A-A.2.3 Wastewater Reuse.

Reuse projects will be considered on a case-by-case basis. Both direct and indirect reuse will be considered, as appropriate.

5A-A.2.4 Expanded Use of Existing Supplies.

Use of existing supplies should be optimized, where possible, to meet new demands. Following is a discussion of how various types of existing supplies might be expanded.

Area-Capacity Relationships. The connection of existing supplies will be considered on a case-by-case basis. In general, supplies should be owned by the water group with a need for additional supply or available to that group for purchase or permitting.

System Operation. New or additional system operations may be considered if they are feasible and the owner wishes to adopt such strategies. Existing operating policies will be considered during evaluation of available supplies.

Conjunctive Use of Groundwater and Surface Water. The conjunctive use of groundwater and surface water supplies may be considered when groundwater supplies are available. Applicable groundwater conservation district rules will be considered for such conjunctive systems.



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Reallocation of Reservoir Storage. Reallocation of reservoir storage will be considered if the owner is amenable to reallocation and, where reallocation in federal reservoirs is being considered (such as from flood to conservation storage), an appropriate and willing local sponsor can be found to sponsor a federal study.

Voluntary Redistribution of Water Resources. Voluntary redistribution with the involved parties will be considered and the ETRWPG will come to a consensus on an approach. If the involved parties are not interested, this option will not be pursued.

Voluntary Subordination of Existing Water Rights. Voluntary subordination of existing water rights will be considered if the involved parties are amenable to the strategy. Alternatively, the ETRWPG may recommend that the water right holder consider selling water under their water right to the willing buyer.

Yield Enhancement. ETRWPG will consider yield enhancement projects, as appropriate, for the water source and identified need.

Water Quality Improvement. Water quality improvement projects will be considered for municipal supplies that bring the existing water supply into compliance with state and federal regulations. General water quality projects may be considered if they improve the usability of the water source to help meet demands.

5A-A.2.5 New Supply Development.

The development of new water supplies may be necessary to meet new water demands. A discussion of the development of new water supplies follows.

Surface Water Resources. New surface water resources that can be permitted will be considered, provided a reasonable amount of supply to meet the identified need is located within a reasonable distance of the end users, and recommended new sources would be expected to provide water supplies at a reasonable cost.

Groundwater Resources. The ETRWPG will consider groundwater supplies in areas where additional groundwater is available.

Brush Control. Brush control is not considered a cost-effective water supply strategy in the ETRWPA due to the large amount of rainfall and lack of invasive brush species, and will not be considered as a WMS.

Precipitation Enhancement. The ETRWPA has an abundance of precipitation. Precipitation enhancement will not be considered as a WMS.

Desalination. The ETRWPG will consider desalination on a case-by-case basis.

Water Right Cancellation. The ETRWPG will generally not pursue water right cancellation as a means of obtaining additional water supplies. Instead, the ETRWPG will recommend that the water right holder consider selling water under their water right to the willing buyer.

Aquifer Storage and Recovery. Aquifer storage and recovery (ASR) will be considered where the structure of the aquifer is such that this method is applicable. An ASR study must have already been performed to consider an area feasible for an ASR project.

5A-A.2.6 Interbasin Transfers.

The ETRWPG will recommend interbasin transfers when necessary to transport water from the source to its destination. Interbasin transfers will be evaluated in accordance with current regulations. The process for selection of the WMSs is described as follows:



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- Define groupings or common areas with supply deficiencies.
- Develop comprehensive list of potentially feasible strategies, per screening process.
- Contact potential suppliers/WUGs to determine current strategies under consideration.
- Prepare qualitative rating based on cost, reliability, environmental impact, impacts on other water resources, impacts on agricultural and natural resources, and political acceptability for the various strategies.
- Select one or more strategies as appropriate for each need or group.
- Contact each WUG with a need and confirm the selected strategies are acceptable.
- Present proposed WMSs to the ETRWPG in a public meeting for discussion, modification, and approval.

