In response to the drought of the 1950s and in recognition of the need to plan for the future, the legislature created the Texas Water Development Board (TWDB) to develop water supplies and prepare plans to meet the state's future water needs. In 1997, the legislature established a new water planning process, based on a bottom-up, consensus-driven approach. Coordinating this water planning process are 16 planning groups, one for each regional water planning area (see map). The planning groups are charged with adopting plans that reflect the water needs and strategies to recommend. Consensus building within the planning groups is crucial to ensure sufficient support for adopting the plans.

Each planning group approved bylaws to govern its methods of conducting business and designated a political subdivision, such as a river authority, groundwater conservation district, or council of governments, to administer the planning process and manage any contracts related to developing regional water plans. The planning groups conduct all functions at open meetings in an open and participatory manner. They hold special public meetings when they develop their scopes of work and hold hearings before any contracts related to developing regional water plans are approved. In 1999, the legislature passed legislation expanding the powers of the planning groups. The legislation was in response to the severe water shortages in 1998 and 1999. The legislation authorized the planning groups to promote conservation and water management initiatives and to work with state and local water districts. The legislation also authorized the planning groups to undertake water resource development projects. The planning groups are also authorized to enter into agreements with other entities to provide water or water-related services.