



Water is used primarily for irrigation in Uvalde and Medina Counties and for municipal and industrial purposes in Bexar County.

When use of water exceeds the average annual recharge of 500,000 acre-feet per year, storage in the reservoir will begin to be depleted. The total storage capacity of the reservoir is not known.

The underground reservoir cannot supply the total long-term needs of the area, and must be supplemented by imported surface water. The upper portions of the Nueces, San Antonio and Guadalupe River Basins are connected by the Edwards Underground Reservoir and must be considered as a unit for water resources planning of both surface and ground water.

POLLUTION

A Texas Water Quality Board Order regulates waste disposal on the recharge zone. The Order delegates enforcement to local health agencies. Information gathered to date indicates that shallow wells in the "water table" part of the reservoir are particularly susceptible to being polluted. After prolonged rains in August 1971 on the drainage areas contributing to recharge there was a significant increase in coliform bacteria found in wells just below the recharge zone, and below built-up areas where large numbers of septic tanks have been in use for a long time. Water quality in the artesian part may also be threatened by increasing development on the recharge zone.

THE EDWARDS UNDERGROUND WATER DISTRICT

The Texas Legislature created the Edwards Underground Water District in 1959 for the purpose of "protecting, conserving, and recharging the underground reservoir".

The District consists of all of Uvalde County, most of Medina and Bexar Counties, and a small part of Comal and Hays Counties. Three Directors elected from each County area make up the 15 member Board of Directors. A 2¢ tax per \$100 property valuation provides funds for operation of the District.

The amount of additional surface water which can be diverted into the ground has been estimated; assistance has been given to local agencies and the Soil Conservation Service in the construction of small dams which promote increased recharge; the District is planning to construct two small recharge dams in Medina County; recharge and discharge are being computed yearly, and extensive water quality studies are being conducted.

PROTECTION OF THE RESERVOIR FROM POLLUTION
IS UNDOUBTEDLY THE MOST IMPORTANT FUNCTION
OF THE DISTRICT.

Edwards Underground Water District
2402 Tower Life Bldg.
San Antonio, Texas

October 1971

T H E E D W A R D S

U N D E R G R O U N D R E S E R V O I R

The Edwards Underground Reservoir is a natural, water-containing geologic structure of porous, honeycombed limestone which is the primary source of water for over one million people in South Texas. It extends about 175 miles from Brackettville to Kyle (see map), and varies from 5 to 30 miles in width. The Edwards limestone formation which gives the reservoir its name averages 500 feet in thickness.

RECHARGE

An average of 500,000 acre-feet of water enters the Edwards each year through cracks along the fault zone (junction of grey and white on map), primarily in stream beds (blue areas in stream beds along the fault zone on map).

DISCHARGE

Grey areas on the map are Edwards limestone on the surface and are "water table" parts of the reservoir where shallow wells produce small amounts of water. About 350,000 acre-feet of water will be pumped from the "artesian" part (below fault zone) of the reservoir in 1971.

Springflow, a great economic asset to the New Braunfels and San Marcos areas, varies greatly. In 1956 at the end of a prolonged drought it was only 70,000 are-feet. However, since that time, despite increasing use it has not been less than 200,000 acre-feet per year.