



PLAINVIEW, TX
explore the opportunities

The Future is Water

CITY OF PLAINVIEW'S LONG-RANGE WATER SUPPLY PLAN

The City of Plainview works hard to provide reliable, high-quality water to foster growth and ensure prosperity for our community. In 2021, the City adopted its first-ever Long-Range Water Supply Plan (LRWSP) to guide how we will meet our future water supply needs.

We currently have enough water, but we need to plan for future generations. The LRWSP serves as a roadmap for Plainview to:



**Provide
sufficient
annual supply**



**Provide sufficient
water system
capacity**



**Promote efficient use of
water through conservation
and education**

WHAT'S IN THE PLAN?

We looked at several aspects of our future water needs, including future water demands, our current supplies, and several different strategies to ensure we have enough water for today and tomorrow.

HOW MUCH WATER WILL WE NEED?

The first step we took was determining how much water we will need in the future. For our purposes, the “future” is defined as through the year 2070. That may seem like a long time, but we need to be able to provide a reliable water supply for our future generations. This almost 50-year timeframe is consistent with the horizon used to develop the State Water Plan every five years.

We used past patterns of water use and projections of future water conservation efforts to estimate how our customers will use water in the future. We then developed three alternative projections of future growth to understand how much water we expect Plainview to use in the future. These projections are shown in units of acre-feet per year (acft/yr), a common unit of water supply measurement. An acre-foot is enough water to cover an area of about a football field one foot deep in water. It is equal to 325,851 gallons.

The City currently uses about 3,300 acft/yr, but this can vary a lot depending on our weather conditions during the summer.



EXPECTED DEMANDS

0.5%/yr growth in residential connections, increased conservation savings, small increase in commercial/industrial demands



HIGH DEMANDS

Larger growth rates, increased conservation savings, additional commercial/industrial demands



LOW DEMANDS

Smaller growth rates, no conservation savings, no additional commercial/industrial demands

HOW MUCH WATER DO WE HAVE?

We get our water from two sources:

1 Canadian Municipal Water Authority (CRMWA) — surface water from Lake Meredith and groundwater from Roberts County.

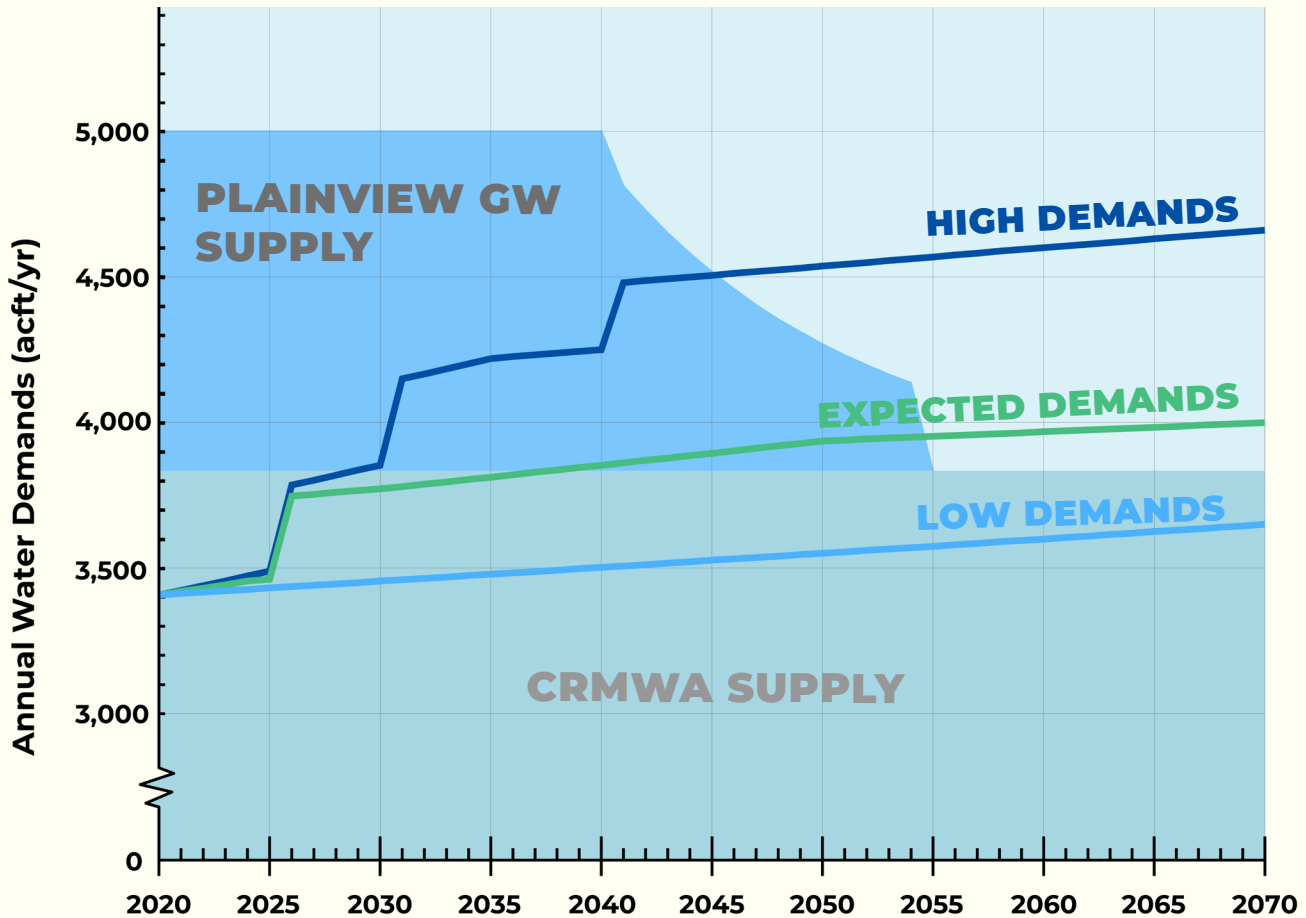
CRMWA is our primary supply. We have a long-term contract with CRMWA for 3,779 acft/yr. We are a member city with representation on its board of directors. Our CRMWA supply comes to Plainview through a long pipeline that has had disruption due to maintenance and repair, interrupting our supply from CRMWA. Our contract also limits how much can be delivered on any given day, and our high summer demands often exceed this capacity.

2 A City-owned network of 15 active groundwater wells that pump water from the Ogallala Aquifer.

Our City-owned groundwater is a great resource to back up the CRMWA supply and help us meet high summer demands. We can pump more than 4,500 acft/yr right now. However, water levels in our area of the Ogallala Aquifer continue to decline and we must be good stewards of the water resource in our conservation efforts. We have already experienced declines in what we can pump, and we anticipate that by 2055, we will no longer be able to rely on this resource to meet daily demand.

DO WE NEED MORE WATER?

The short answer is “yes, we do, but not immediately.” This graph compares our annual current water supplies with each of the three water demand projections. Based on this comparison, we anticipate we will need to incorporate additional supplies by about 2045 under the High Demand projection.



However, simply looking at annual demands is not enough. We use a lot more water in the summer than we do during the winter and our infrastructure needs to be able to supply these high summer demands. We anticipate we will need additional capacity to meet summer water demands as early as 2042. This may seem a long way off, but we need to start planning and developing the projects for these new supplies and capacity now, as these projects can take a long time to design, permit and build.



Water is the lifeblood
of our bodies, our
economy, our nation
and our **well-being.**

- STEPHEN JOHNSON

WHAT'S OUR PLAN?

We identified three primary issues that our plan should address:

- 1 Our diminishing local groundwater supplies.
- 2 The potential for our CRMWA supply to be interrupted.
- 3 Limited alternative supply options.

After careful consideration of a variety of options, the City has decided on the following path forward:

- 1 Continue to promote water conservation to use our supplies efficiently.
- 2 Continue to actively manage our wellfield to prolong its useful life.
- 3 Construct a reservoir to store water supply from CRMWA.
- 4 Develop an aquifer storage and recovery system (ASR) to supplement our existing groundwater supplies.
- 5 Begin using our reclaimed wastewater, treated to a high quality.



Projects for Our Water Supply

