

## **IWRP Board Demand Projections for Scenarios**

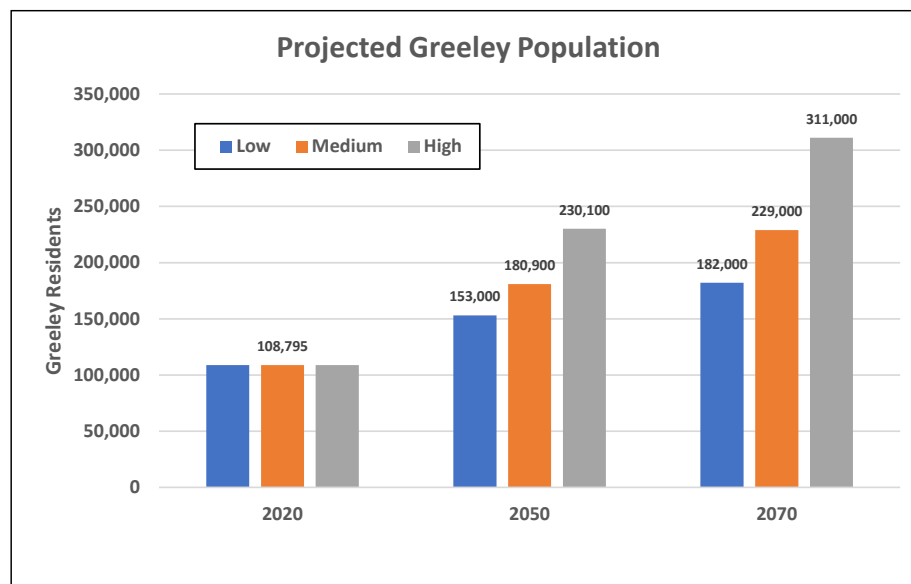
**Presentation Summary:** The IWRP updated Greeley's existing demand forecasting model to incorporate new information and generate new demand forecasts. These demand forecasts and their underlying assumptions will be presented.

**What is the Greeley water demand model:** The demand forecasting model was developed to support the Milton Seaman permitting, then subsequently refined during the Revised Alternative Screening process in 2019. This model forecasts Greeley's annual water use by customer class and how important drivers could change that demand.

**What are the key drivers in the future demands projected for the IWRP scenarios?** There are three key drivers the IWRP used to develop different demand scenarios, which are:

1. Future population growth – Three forecasts of how much population Greeley's future water system will serve (low, medium and high forecasts)
2. The cost of water to customers in the future – Alternative increases in water pricing, which capture Greeley's water conservation efforts.
3. The extent to which hotter conditions increase irrigation needs – A warmer climate could increase outdoor irrigation requirements by 12% to 37% per square foot.

**What population forecasts are used in the model?** The chart below compares the three population forecasts, which is the biggest driver in future demands. Current Greeley population is about 110,000 people. The forecasts range from 1% to 2% annual growth through 2070 and is based on the most recent data from the Colorado State Demographer.



*Figure 1. Projections of Greeley Population Used to Generate Demands for the IWRP*

**How will these demands be used in the IWRP?** The IWRP is evaluating three Planning Horizons: a 10-year horizon, the timing of Terry Ranch, and buildout. Demand projections at 2030 and buildout will be used to develop future portfolios of projects. Projected demands from 2030 to 2070 will be compared to the maximum demand Greeley's water supply can meet without Terry Ranch to estimate when the infrastructure associated with Terry Ranch will need to be completed.