

**LA PLATA WEST WATER AUTHORITY**

**RESOLUTION NO. 2021 - 03**

**A RESOLUTION OF THE LA PLATA WEST WATER AUTHORITY PERTAINING TO MAXIMUM STATIC PRESSURES WITHIN THE WATER SYSTEM**

WHEREAS, In their review of the La Plata West Water Authority (LPWWA) Phase 2 Preliminary Engineering Report (PER), both the United States Department of Agriculture – Rural Development (USDA-RD) and Souder Miller and Associates (SMA's) Quality Assurance/Quality Control (QA/QC) Reviewer noted that the Colorado Department of Public Health (CDPHE) design criteria for potable water systems states that "the normal working pressure in the distribution system must be at least 35 psi and should be approximately 60 to 80 psi."; and

WHEREAS, SMA recommends that the system be limited to 80 psi to ensure safe operation of the waterline extensions; and

WHEREAS, Static pressures above 80 psi exceed the recommended pressure by the Uniform Plumbing Code and can damage residential plumbing; and

WHEREAS, Mainline pressures over 80 psi are more likely to induce transient pressures (water hammer) that can create pipe breaks and damage system components.

WHEREAS, maintaining pressures under 80 psi for the desired project scope requires a reduction in the number of homes that can be served on the line and increases the capital cost per home by more than 20%; and

WHEREAS, The LPWWA understands the following risks with exceeding the CDPHE limit of 80 psi maximum static pressure:

1. All residences with static pressures over 80 psi must have individual PRVs that must be maintained in good working order to prevent damage to customer plumbing.
2. Higher mainline pressures pose a greater risk to water system operators.

WHEREAS, any departure from the CDPHE recommended standard will require LPWWA's Engineer to perform additional hydraulic analysis that includes analyzing transient pressures to ensure the recommended pipe is suitable for use with the selected maximum pressure. This will require greater design expense; and

WHEREAS, The LPWWA desires to have a maximum static pressure exceeding the CDPHE limit of 80 psi maximum static pressure to increase the number of homes that can be served on the second phase and reduce the cost per home of the project.

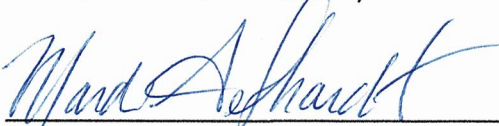
NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE LA PLATA WEST WATER AUTHORITY:

The maximum static pressure for all future line extensions shall be set at 150 psi.

ADOPTED this 15<sup>th</sup> day of December, 2021

ATTEST:

La Plata West Water Authority



President



Secretary