

Memorandum

Date: January 13, 2025
To: Durham Irrigation District Board **From:** Robin Kampmann, PE
NS#: 20-001
RE: Durham Irrigation – Connection Fee Analysis

BACKGROUND

NorthStar was requested by the Durham Irrigation District to conduct a connection fee analysis, with the objective of updating fees for future connections. In this process, various factors were evaluated, including the cost associated with labor, materials, and the overall value of the system. Following determining these costs, NorthStar applied the American Water Works Association (AWWA) standards to establish the appropriate connection fees for each service size.

CONNECTION FEE ANALYSIS

Connection fees consist of three components, cost of the system assets buy-in, cost of system capacity buy-in, and cost of actual reimbursable expenses. The cost of systems assets buy-in and the cost of system capacity buy-in are both directly proportional to the impact on the system as related to water demand potential. We account for this by using the American Water Works Association equivalency factors (EF). These equivalency factors are based on actual hydraulic capacity of the related pipe sizes, see table below.

Service Size	EF
3/4"	1.00
1"	1.67
1-1/2"	3.33
2"	5.33
3"	10.00
4"	16.67
6"	33.33

Reimbursable Costs

Based on recent meter installation costs the reimbursable costs have been updated to reflect the actual cost for the materials (meters, meter box and associated piping/fittings) and the cost for a contractor to install the new meter.

Cost of System Assets Buy-in

The total assets of the system were calculated using the 2022 audited financial statement as a base point, which valued the system at \$1,070,128. NorthStar then added in the value of various improvements to the system that have occurred since 2022. These improvements include the USBR meter installation project, USBR well improvements, and the Brown/Faber water line replacement project. Depreciation percentages were applied to these values based



on what year the project was completed. The total assets, including the improvements since 2022 were then divided by the current equivalent customers (amount of customers per meter size with the equivalency factors applied). This resulted in the $\frac{3}{4}$ " cost of system asset buy-in being \$1,436. The larger meter sizes cost of system assets buy-in was calculated by multiplying the \$1,436 by the relevant equivalency factor.

Cost of System Capacity Buy-in

The purpose of the capacity buy-in is to recover a proportionate share of the value of the system's capacity. It ensures that new users contribute to the system's development and maintenance, rather than placing excessive financial burdens on existing users. In 2018, the cost of system capacity buy-in for a $\frac{3}{4}$ " service was set to \$4,000, with adjustments made for other service sizes based on the equivalency factors. For this analysis, the same cost of system capacity buy-in from 2018 was utilized.

See attached Exhibit A: Connection Fee Analysis January 13, 2025, for the analysis calculations.

Annual Fee Increase

It is suggested that the connection fee costs be adjusted automatically on July 1 of each fiscal year, beginning July 1, 2026, by a percentage equal to the previous year's April to April percentage of increase in the U.S. Consumer Price Index; U.S. cities average. Prior to increasing the fees the Board must conduct a public hearing at a board meeting each year approving said increases.

Durham Irrigation District
Exhibit A: Connection Fee Analysis
January 13, 2025

Improvements to Systems Since 2022				
Improvement	Year Completed	Value	% Depreciation	Current Value
USBR Meter Installation	2023	\$44,055	5%	\$41,852
USBR Well Improvements	2023	\$83,165	5%	\$79,007
Brown/Faber Line Replacement	2024	\$47,879	0%	\$47,879

Current Equivalent Customer Analysis			
Connection Size	Number of Connections	Equivalency Factor	Equivalent Customers
3/4"	362	1.00	362
1"	175	1.67	292.25
1-1/2"	25	3.33	83.25
2"	11	5.33	58.63
3"	0	10.00	0
4"	0	16.67	0
6"	2	33.33	66.66
Total			862.79

Total Assets 2022 Audit = \$1,070,128.00

Total Assets (Including Improvements Since 2022) = \$1,238,866.32

Current Equivalent Customers = 862.79

Average Net Equity to Determine Cost of System Assets Buy-in = \$1,435.88

Durham Irrigation District				
Meter Size	Reimbursable Costs	Cost of System Assets Buy-in	Cost of System Capacity Buy-in	Total Connection Fee
3/4"	\$1,260	\$1,436	\$4,000	\$6,696
1"	\$1,860	\$2,398	\$6,680	\$10,938
1-1/2"	\$2,560	\$4,781	\$13,320	\$20,661
2"	\$3,700	\$7,653	\$21,320	\$32,673
3"	\$4,750	\$14,359	\$40,000	\$59,109
4"	\$6,500	\$23,936	\$66,680	\$97,116
6"	\$12,500	\$47,858	\$133,320	\$193,678

*Each fee imposed pursuant to this table shall be adjusted automatically on July 1 of each fiscal year, beginning July 1, 2026, by a percentage equal to the previous year's April to April percentage of increase in the U.S. Consumer Price Index; U.S. cities average. Said increases shall become effective following public notice and hearing held during the Board's June meeting each year.