| 1  |    | WRITTEN TESTIMONY OF JOSHUA BEAN   |
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| 2  |    | 2020 Water Rate Increase Application (Docket #20-2443-01)                                |
| 3  |    |  |
| 4  | Q. | Please state your name and contact information.  |
| 5  | A. | My name is Joshua Bean. My business address is 154 E. 14075 S., Draper, Utah 84020.      |
| 6  |    | My phone number is 801-495-2224. My email address is jbean@bowencollins.com.             |
| 7  | Q. | Briefly describe your educational and professional background relating to this rate      |
| 8  |    | increase.  |
| 9  | A. | I am employed by Bowen, Collins and Associates, Inc. (BC&A), which provides              |
| 10 |    | consulting engineering services to WaterPro Inc., (the Company), a wholly-owned          |
| 11 |    | subsidiary of Draper Irrigation Company. I am a licensed professional engineer in Utah.  |
| 12 |    | I have a bachelor's degree in civil and environmental engineering. I have been working   |
| 13 |    | in the civil engineering field for approximately 8 years and have worked on multiple     |
| 14 |    | public utility rate increase projects.   |
| 15 | Q. | Who else worked on the water rate model with you?  |
| 16 | A. | Keith Larson, a principal of BC&A and a licensed professional engineer in Utah also      |
| 17 |    | worked on the rate model. Keith has been working in the civil engineering field for over |
| 18 |    | 20 years and has assisted in implementing utility rate increases with over 30 different  |
| 19 |    | public utility entities.   |
| 20 | Q. | What services does Bowen Collins and Associates, Inc. perform on behalf of the           |
| 21 |    | Company?   |
| 22 | A. | BC&A has assisted the Company with various civil engineering services, including, but    |
| 23 |    | not limited to: the development of the Company's water right master plan, culinary water |

master plan, and pressure irrigation master plan, design of various waterline projects, new
 development plan reviews, a water rate study, etc.

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## Q. What is the purpose of your testimony?

A. My testimony is intended to explain the water rate model (that was included in Appendix
H of the rate increase application filed with the Utah Public Services Commission on
March 5, 2020 (the Application)). That rate model was used as a basis for determination

30 of the needed rate increase requested by the Company.

## 31 Q. Are impact fees are addressed in this rate case application?

32 A. No. This rate case application is based upon BC&A's review of the Company's culinary water rates and proposed system improvements. That review was completed in order to 33 determine when rate increases are necessary to maintain the existing level of service in 34 the Company's culinary water system and ensure adequate funds are available to 35 complete system improvements necessary to continue providing service to the 36 37 Company's existing customers. That is distinct from the imposition of impact fees, which are intended to apportion the cost of constructing facilities required by new 38 development. Impact fees are designed to prevent existing customers from subsidizing 39 40 the construction of new facilities or infrastructure needed to serve new development.

41 Q. Can you briefly summarize Appendix H of the Application?

A. Appendix H of the Application contains the rate model used to determine the necessary
rate increase. The first page is a summary of historic and projected expenses and income
determined by the rate model. The bottom of that page shows the total cash flow
comparisons of a scenario where the Company maintains its existing rates and a scenario
where the Company has its income increased by the requested 5%. As shown, the

| 47 |    | Company is expected to have an approximately \$380,000 deficit in 2021 at the existing     |
|----|----|--|
| 48 |    | rates and only an approximately \$87,000 deficit if the 5% rate increase is implemented.   |
| 49 |    | Although the rate model still shows a deficit, the Company wishes to limit its increase to |
| 50 |    | 5% at this time. The next three pages of the rate model show the historic and projected    |
| 51 |    | non-rate income sources, operational and maintenance expenses, debt service, and capital   |
| 52 |    | improvements. The last page shows a figure summarizing the preceding 3 years and           |
| 53 |    | projected 3 years of revenue and expenditures at both the existing and proposed rates.     |
| 54 | Q. | Can you explain the source of the historic data included in the rate model?                |
| 55 | A. | The PSC requires the Company to annually submit financial data to the PSC in a certain     |
| 56 |    | format using certain budget item categories. The rate model was set up in a similar        |
| 57 |    | format as those annual PSC financial submissions for continuity and ease of review. The    |
| 58 |    | Company provided BC&A the last three years of data (2017-2019) that was submitted to       |
| 59 |    | the PSC. The rate model includes that PSC historic financial data.                         |
| 60 | Q. | Can you explain the first page of the rate model (the model summary page)?                 |
| 61 | A. | The summary lists the historic number of accounts and their actual growth rates along      |
| 62 |    | with the estimated number of future accounts. It should be noted that starting in 2019,    |
| 63 |    | the future number of accounts was based on the 0.10% growth rate estimated in the          |
| 64 |    | Company's Culinary and PI Water Master Plan. The expenditures and income categories        |
| 65 |    | shown are copied from subsequent pages of the rate model. To determine the projected       |
| 66 |    | 2020 value of the 'Sales – Existing Rates' category, the 2019 sales amount was grown at    |
| 67 |    | the projected system growth rate of 0.10%. Later years were increased in a similar         |
| 68 |    | fashion by growing the previous year by the projected system growth rate of that year.     |
| 69 |    |  |

70 **Q**. Can you explain the second page of the rate model (the non-rate revenue page)? The 'Non-Utility Income' category was also grown by increasing the previous year's 71 A. revenue by the projected system growth rate. The 'Fire Protection Customers' and 72 'Miscellaneous Service Revenue' categories were grown the same way as the 'Non-73 Utility Income', except an assumed inflation rate of 3.0% was also added. The 'Other 74 75 Miscellaneous Water Revenues' category had an approximately \$130,000 (50%) historical increase from 2018 to 2019. From a discussion with WaterPro, that large 76 77 increase in 2019 is expected to be temporary. To avoid overestimating income, the last 78 three years of historic data was averaged for this category and then grown at the system growth rate. 79 80 **Q**. Can you explain the third page of the rate model (the operation and maintenance

81 **expenditure page)?** 

82 A. With the exception of three categories, each operations and maintenance category was 83 grown from the prior year's cost at the assumed 3.0% inflation rate plus half of the system growth rate. Since operational and maintenance costs do not generally directly 84 increase at the same rate as system growth, the system growth rate was halved for these 85 86 categories. The three categories treated differently were: 'Purchased Water', 'Materials 87 and Supplies', and 'Rental of Equipment'. Of the three years of historical record, 2019 88 was abnormally lower than the previous years. Since these values are lower than would 89 be expected in the future, the three prior years were averaged together and then grown for inflation plus half of the system growth rate in 2020. Then the values for each of those 90 91 three categories were grown in the same way as all other categories for 2021 onward.

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## **Q**. Can you explain the fourth page of the rate model (the debt service and capital 93 improvement projections page)?

The Company has an existing loan it obtained in 2013 to pay for pressure irrigation and 94 A. 95 culinary projects. The total loan amount, as shown in Appendix L of the Application, was \$8,552,878. The Company has indicated that \$4,000,000 of that loan amount was to 96 97 pay for projects relating to installation of a new culinary water well and a pipeline from that well to the Water Treatment Plant. Therefore, 47% of the loan repayment schedule 98 should be paid by the culinary system. That 47% amount is reflected in the loan 99 100 payments that are projected into the culinary rate model. That page also shows the 101 system replacements and improvement projects that are projected to be required between 102 now and 2022. The replacements include mostly old and under capacity water pipelines 103 that will need to be replaced, well maintenance and replacement, and water meter upgrades. These improvements are needed to continue providing cost-effective and 104 105 efficient service to the Company's existing customers.

## 106 The capital improvement projects are shown to occur in particular years. Are those **O**. expenses certain to occur in those years? 107

108 A. All of those replacements and improvement projects are things the Company knows will 109 need to be done within this three-year time period, but there is typically some flexibility. 110 For many of the water pipe replacement projects, for instance, the Company will try to 111 time those replacements so that they are done in concurrence with other projects by the city or state that require the road the pipelines occupy to be excavated for other reasons. 112 113 That allows the Company to do the work at a lower cost and minimizes the disruption to

| 114 |    | traffic and the public. Also, if revenues are less than expected or operational costs are   |
|-----|----|---|
| 115 |    | higher than expected, the Company may have to postpone some projects.                       |
| 116 | Q. | Can you summarize the test period used in the rate model?                                   |
| 117 | A. | Except for a few categories, all income and expense categories were grown based on the      |
| 118 |    | 2019 financial data provided to BC&A. The following is a list of categories with test       |
| 119 |    | periods that instead averaged the historical amounts from 2017, 2018, and 2019 to use a     |
| 120 |    | basis for projecting future values:   |
| 121 |    | Other Miscellaneous Service Revenue – Non-Rate Revenue                                      |
| 122 |    | Purchased Water – Operational & Maintenance   |
| 123 |    | Materials and Supplies – Operational & Maintenance  |
| 124 |    | Rental of Equipment – Operational & Maintenance   |
| 125 |    | Again, these modifications to the general 2019 test period were to account for some         |
| 126 |    | fluctuation in 2019 historical amounts that may not be as accurate in projecting future     |
| 127 |    | values.   |
| 128 | Q. | What do these projections show would be the result of the 5% increase in rates?             |
| 129 | A. | As shown in the summary page of the rate model, without any changes to existing rates       |
| 130 |    | the Company would be expected to have a deficit of approximately \$227,000 in 2020.         |
| 131 |    | After the proposed 5% rate increase is implemented in 2021, it is projected that there will |
| 132 |    | be an approximately \$87,000 deficit. Although the Company could ask for a larger rate      |
| 133 |    | increase to eliminate that deficit, it has been decided that the Company will slightly      |
| 134 |    | adjust the timing of some capital projects and/or dip into its reserve fund to offset the   |
| 135 |    | deficit in an attempt to lessen the burden of a larger rate increase on its customers.      |
| 136 |    |   |

- 137 Q. Does this conclude your direct testimony?
- 138 A. Yes.