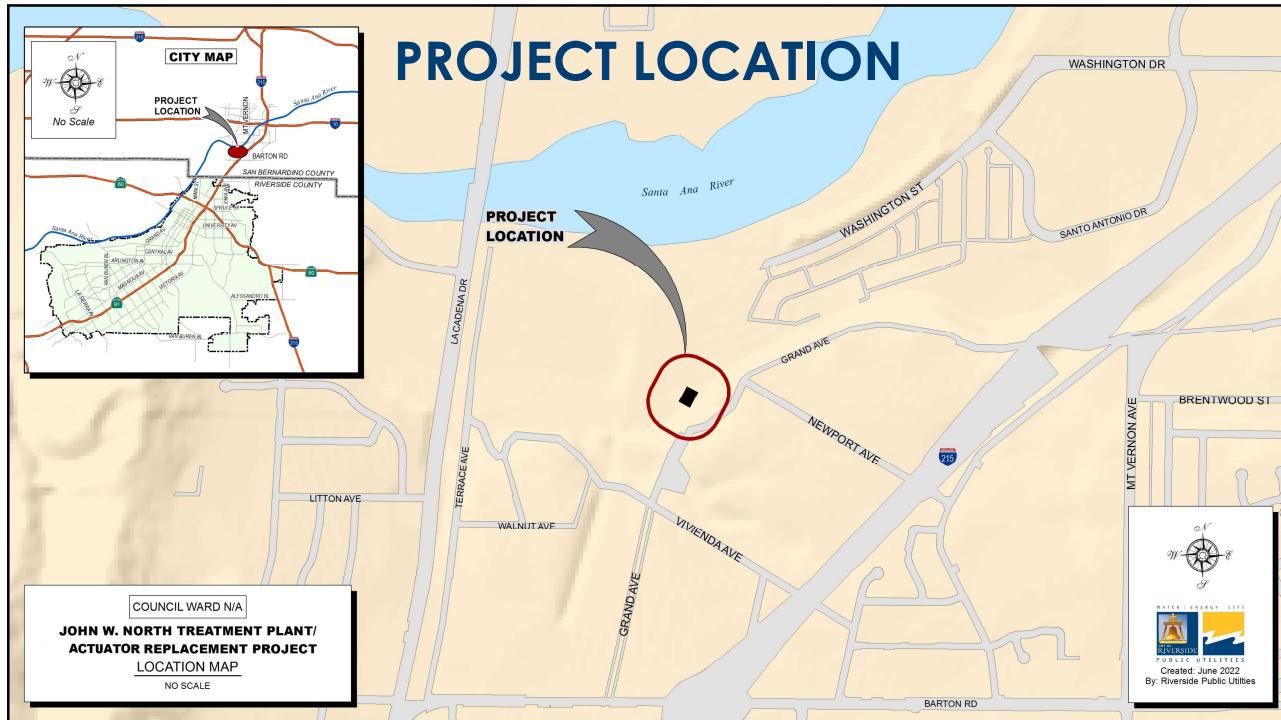


ACTUATOR REPLACEMENT PROJECT JOHN W. NORTH TREATMENT PLANT

Riverside Public Utilities

Board of Public Utilities
September 12, 2022

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BACKGROUND

1. The J.W. North Treatment Plant began operating in September 2008.
2. The plant uses an “ultrafiltration” ZeeWeed 1000 membrane system that relies on water valve actuators to keep them filled with water.
3. Constant water level fluctuations contribute to the membrane’s filtration effectiveness.
4. Water level fluctuation is created with both feed and backwash valves controlled by the actuators.
5. Membrane damage will occur if not kept wet.



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DISCUSSION – BASIN & VALVES

Ultrafiltration Basin



Feed & Backwash Valves



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DISCUSSION – MEMBRANES & VALVES

Membrane Fibers



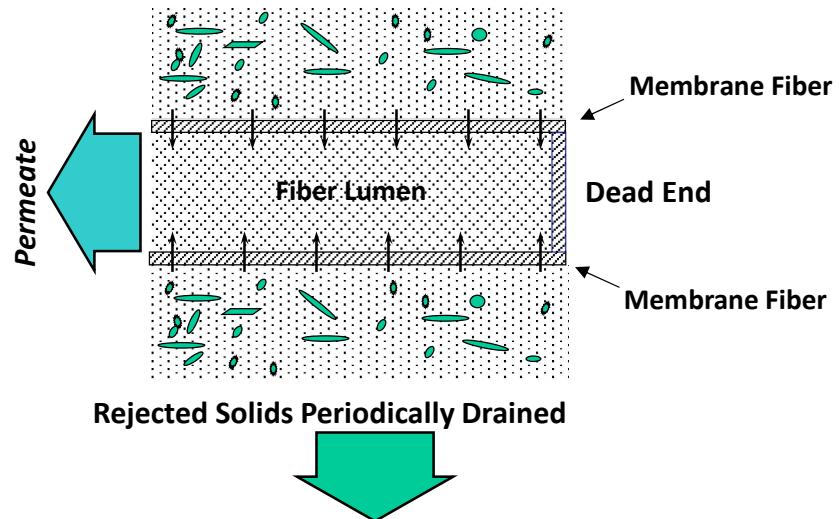
Feed & Backwash Valves



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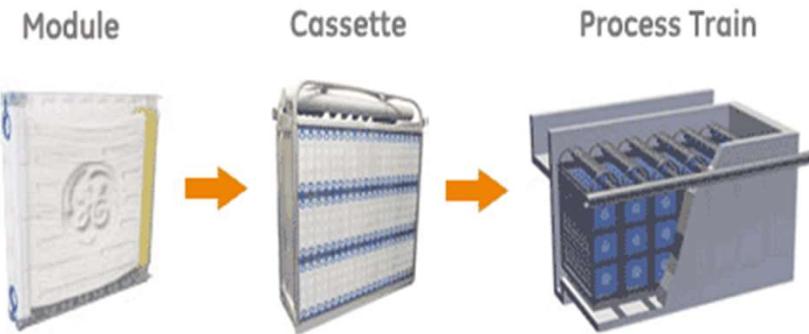
DISCUSSION – ULTRAFILTRATION



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DISCUSSION – PROCESS TRAIN MAP



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DISCUSSION

1. The Kinetrol Actuator is only available through local contractor R&B Automation, who is also offering specialized integration hardware making it adaptable to our existing membrane ultrafiltration system.
2. R&B Automation will provide maintenance training to water operation technicians.
3. The Kinetrol Actuators come with a 1 million cycle warranty, which is offered through R&B Automation Inc.



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DISCUSSION

4. Purchasing resolution 23812, Section 702(d) provides that informal procurement instead of competitive procurement may be utilized when the procurement can only be obtained timely from a single source.
5. The Purchasing Manager concurs that the recommended actions are compliant with Purchasing Resolution No. 23812.



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DISCUSSION PROJECT BREAKDOWN

| | |
|-----------------------------|----------------------------|
| Replacement Performed By: | R&B Automation Inc. |
| Anticipated Start Date: | September 2022 |
| Anticipated Duration: | 2 days |
| Coordination Required With: | RPU Water Operations staff |
| Reimbursements: | None |



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STRATEGIC PLAN ALIGNMENT



Priority 4 - Environmental Stewardship

Goal 4.2: Sustainably manage local water resources to maximize reliability and advance water reuse to ensure safe, reliable drinking water.

Cross-Cutting Threads



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation

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RECOMMENDATIONS

That the Board of Public Utilities:

1. Approve the Services Agreement for Replacement of Actuators at JW North Water Treatment Plant with R&B Automation, Inc., of Temecula, California, in the amount of \$75,006.99;
2. Authorize the City Manager, or designee, to execute the Services Agreement with R&B Automation, Inc., including making minor and non-substantive changes; and
3. Approve Work Order No. 2227727 for the actuator replacement work at JW North Water Treatment Plant.



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