



Replacement of Two John W. North Treatment Plant Trains

Riverside Public Utilities

Board of Public Utilities

July 10, 2017

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BACKGROUND

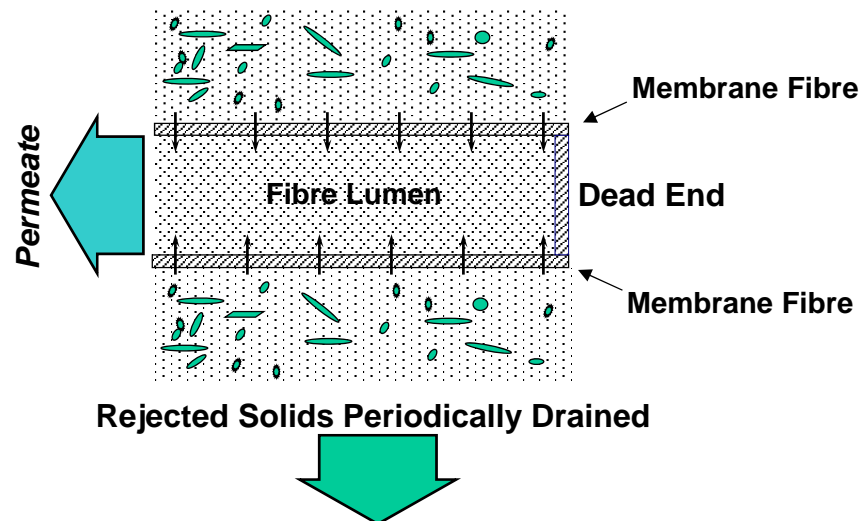
1. The JWN Treatment Plant began operating in September 2008
2. The plant uses an "ultrafiltration" ZeeWeed 1000 membrane system manufactured solely by General Electric



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DISCUSSION - ULTRAFILTRATION



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DISCUSSION

Process Train Map



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BACKGROUND

3. Over time, the membranes lose their effectiveness
4. The membranes are expected to last 5 to 7 years, but, the membranes at JWN should last between 7 and 10 years
5. Recently, tests for Trains 4 and 5 indicate that the membranes are now out of compliance



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DISCUSSION

Membrane Fibres



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DISCUSSION

Ultrafiltration Basin (Train No.5) Cassette removal for inspection



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DISCUSSION

Two Cassettes within Basin



Cassette removal for inspection



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DISCUSSION

1. The ZeeWeed membrane technology was developed and is manufactured solely by Zenon Environmental Corp
2. Under Section 201(c) of City Council Resolution No. 22576, formal competitive procurement is not required for treatment equipment under the utilities exemption



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DISCUSSION

3. GE guaranteed this price for 10 years from the warranty start date in September 2008
4. Pricing warranty will expire on September 3, 2018
5. To benefit from the guaranteed MMRP within the contracted time limits, RPU staff will request the Board to consider approval for replacing the remaining three trains in the first quarter of 2018



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PROJECT BREAKDOWN

Replacement Performed By:	Zenon Environmental Corp.
Anticipated Start Date:	September 2017
Anticipated Duration:	1 week
Coordination Required With:	RPU Water Operations staff
Reimbursements:	None



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Recommendations

That the Board of Public Utilities:

1. Approve Membrane Replacement Proposal Agreement and the award of a purchase order in the amount of \$326,289 to Zenon Environmental Corp. of Ontario, Canada for replacing two John W. North treatment plant membranes;
2. Authorize the City Manager, or his designee, to execute the agreement and all related documents; and
3. Approve the expenditure in the amount of \$368,000 for Work Order No. 1727627, which includes the membrane replacement, onsite technical assistance, RPU staff support and contingency costs for the John W. North treatment plant membrane replacement.



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