

PRE-MEETING AGENDA

Casper City Council

City Hall, Council Meeting Room

Tuesday, February 18, 2020, 5:30 p.m.



	Presentation	Allotted	Beginning Time
1.	Agenda Review	5 min	5:30
2.	GETAC Computers - Sole Source Purchase	10 min	5:35
3.	NEA Grant Application for the Old Yellowstone District	5 min	5:45
4.	PAX Water Storage Tank Mixers – Sole Source Purchase	5 min	5:50
	Approximate Ending Time		5:55

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Communication **Accountability** **Stewardship** **Professionalism** **Efficiency**
Responsiveness

February 4, 2020

MEMO TO: J. Carter Napier, City Manager *JN*

FROM: Andrew Beamer, P.E., Public Services Director *AB*
Bruce Martin, Public Utilities Manager
Clint Conner, Distribution Manager

SUBJECT: Authorizing Sole Source Purchase – PAX Water Storage Tank Mixers

Meeting Type & Date

Regular Council Meeting – Pre-meeting
February 18, 2020

Action type

Authorization

Recommendation

That Council authorize the sole source purchase of two (2) PAX water storage tank mixers from Municipal Treatment Equipment in the amount of \$55,400 for use at the North Park and Manor South water storage tanks.

Summary

Water storage tanks, because of their inherent design, often are stratified with colder water at the bottom, and much warmer water at the top. This stratification leads to nitrification in the water storage tanks and water distribution system usually in the late summer and fall. Nitrification leads to the loss of chloramine residual in the system which could, if left unabated, lead to public health concerns. To minimize nitrification events, City staff spends a great deal of time sampling water, flushing water lines, and draining water storage tanks. Stratification also leads to ice buildup in the water storage tanks in the winter, which damages tank coatings and roof structures.

In 2009, a nitrification control study was performed by CH2M Hill Consulting Engineers for the Central Wyoming Regional Water System (CWRWS) Joint Powers Board. The report made several recommendations, including experimenting with the use of water storage tank mixers. Tank mixers will gently mix the water in the water storage tank throughout its depth in order to achieve a fully mixed tank. Incoming water with sufficient chloramine residual can combine with tank water with a lower residual to keep the entire contents of the tank at an adequate chloramine residual concentration. Tank mixers by themselves will not stop nitrification events, but they will help.

During the past ten years mechanical mixers have been installed in four of five CWRWS distribution water storage tanks and ten of eighteen City of Casper water storage tanks either by staff or by contractors during tank renovation projects. The mixers, along with changes made at the Water Treatment Plant, have reduced nitrification event intensity in the distribution system.

In 2010, staff installed mechanical mixers from two different vendors to compare their performance. One was successful (a PAX submersible mixer); the other was not (a SolarBee floating mixer). The vendor of the floating mixer changed their design to a submersible mixer and exchanged the floating mixer for their new submersible mixer. That mixer has not performed as well as the PAX mixers and ice buildup remains an issue in that water storage tank. PAX Water Technology mechanical submersible mixers are now in fourteen RWS/Casper water storage tanks with good results.

SolarBee and PAX are the only two nationally recognized mechanical water storage tank mixer manufacturers, neither of which have distribution outlets within Wyoming. SolarBee is headquartered and distributed out of Dickenson, North Dakota and Municipal Treatment Equipment, Inc. of Golden, Colorado is the exclusive representative for PAX equipment for the Colorado, Wyoming, and New Mexico area.

Financial Considerations

Funding for the project will come from the Water Fund

Oversight/Project Responsibility

Clint Conner, Distribution Manager

Attachments

No Attachments