

## MFRWTP DO INJECTION - CONSTRUCTION SCOPE & COST INCREASES

	No.	Description	Added Cost
Misc. Plant Modifications	1	Owner request to re-route Air Relief Valves discharge to exterior of the filter gallery building	\$ 2,000
	2	Owner request to replace corroded lab sink	\$ 7,500
	3	Owner request to route compressed air line to chemical fill station for offloading bulk product	\$ 500
	4	Owner request for additional upper and lower mezzanine lighting in equipment building	\$ 2,500
	5	Owner request for additional isolation valves on raw water and finished water mains	\$ 20,000
<b>Subtotal</b>			\$ 32,500

Dissolved Oxygen Design Changes	7	DOH requirement for onsite professional archeologist training	\$ 1,500
	8	DOH requirement for backflow preventer to protect carrier water from air injection and chemical injection systems	\$ 7,500
	9	DOH requirement for backflow preventer to protect air injection from chemical injection	\$ 7,500
	10	Owner standard to construct injectors in vaults rather than direct bury	\$ 24,000
	11	Owner request for raw water sample point between pre-chlorination and DO injection, with sample line to lab	\$ 5,000
	12	Owner standard for redundant design adding second 200 gpm 15hp DO pump	\$ 15,000
	13	Design change to use air compressor and receiver instead of air eductor which required 20-ft tall degassing unit	\$ 70,000
	14	Design change for new subpanel to support electrical load from compressors and DO pumps; No spare breakers in Panel DPE	\$ 3,500
	15	Design change for second DO vault for air injection capability pre-filter into raw water stream	\$ 150,000
	16	Estimated cost inflation due to current bidding climate	\$ 35,000

**Subtotal** \$ 319,000

<b>OH&amp;P (8%)</b>	\$ 28,120
----------------------	-----------

<b>Total</b>	<b>\$ 379,620</b>
--------------	-------------------

August 3, 2017