

I. I & I costs in Turners Falls, Montague City, and Montague Center

A Cost to remove grit contained in I & I

18.29%	I & I solids as percent of total solids (calculation below).
16,562	Total cost to remove grit - estimated at FY22 total payments to Waste Management for grit removal
3,029	Est cost to remove grit due to I & I

B Increased electrical costs for increased pumping

204,000	Budgeted Electricity
0.08	Document's estimated % of electricity used for primary screw pump
32.31%	I & I as % of total flow (calculation below)
5,273	Electricity x % for pump x I & I %

C Increased amount of chlorine in primary clarifier and chlorine contact tank

32.31%	I & I as % of total flow (calculation below)
23,360	Estimated FY24 Chlorine cost for primary clarifier and chlorine contact tank
	[FY22 total chlorine g=4,310, \$5.42/g) purchases = 13,257.6. Estimating 75% used for above purpose per info in document]
7,547	Cost of chlorine for primary clarifier and chlorine contact tank for I & I flow

D Increased labor due to grit handling, equipment maintenance, chlorine handling, and process control modifications

Document says this is estimated at 1 FTE employee. FY22 Budget has 9 FTE, so 1 FTE = 1/9 total labor costs

506,684	5110 Regular Wages
46,401	5132 OT Wages
12,000	5172 Workers Comp
178,000	5174 Health Insurance
136,308	5191 Retirement
879,393	
97,710	1/9 total labor costs

II. Increased fee from Erving due to I & I from Millers Falls

30,742,160	Trombley called this MF WWTP flow from Montague, what we're calling Erving's flow from Millers Falls. CY 2022
(11,719,000)	Less the Millers Metered Q Cal22 of the TFWD metered Q to FF
19,023,160	total I & I from Millers Falls going to Erving
61.88%	as a %, rounded to 6 decimal places
\$43,893	PY MF Overage
236,232	Assessment to Montague from Erving for treating wastewater from MF, 2.5% increase/yr.
173,341	Cost of treating I & I from Millers Falls by Erving

TOTAL COST TO TOWN TO TREAT I & I IN FY23

286,900

Calculation of I & I as % of total Montague WPCF Flow	
237,980,000	2 calendar year average Montague WPCF flow
(161,090,889)	Less Montague metered flow (MC = 7,310,000, LP = 3,445,175, TF+Mcity= 193,004,700)
76,889,111	Total I & I coming into Montague WPCF
32.31% I & I as % of total flow	

Calculation of I & I solids as % of total solids	
525,864	Montague WPCF influent solids in pounds/year. This is a 2 year average.
96,188	pounds of solids due to I & I. This uses the I & I flow calculated above, and 150 mg/l as the percentage of solids in the I & I
18.29%	I & I solids as percent of total solids. This % will be used in other calculations.

Total I & I Town Cost \$286,900 as % of

Total 440	\$2,074,229	13.83%
Total 661	\$3,006,124	9.54%