



# Memo

**To: Board of Supervisors**

**From: Catherine Ricardo, Township Manager**

**Date: September 7, 2022**

**Re: Barton’s Meadows WWTP  
Cost Comparison for Methanol, Micro-C, and Acetic Acid**

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The Township currently uses methanol for denitrification at the Barton’s Meadows WWTP. Ed Gillette from Environmental Engineering & Management Associates, Inc. (EEMA), as part of his overall analysis of the Barton’s Meadows WWTP, suggested the Township look at alternatives to methanol due its potentially explosive properties when storing barrels in direct sunlight. There are two alternatives recommended by the Township’s chemical supplier which are explored in this memo. The two other options are Micro-c , which is an alcohol-based product, and acetic acid, which consists of carbon, hydrogen, and oxygen. However, the ratio is not 1:1 for each of these, so a comparison of all three has been provided for your review.

The Township currently is paying **\$275.22 per 55-gallon drum of methanol**. The operator uses approximately 1 drum per week, so this year we are on pace to spend approximately **\$14,000**.

<u>GIVEN INFORMATION:</u>			
<u>TYPE</u>	<u>PRICE</u>	<u>WEIGHT</u>	<u>PROPORTIONAL USAGE</u>
METHANOL	\$0.66/LB	417 LB/DRUM	5 GAL = 1.0
MICRO-C	\$0.75/LB	525 LB/DRUM	6.5 GAL = 1.3
ACETIC ACID	\$0.39/LB	460 LB/DRUM	11 GAL = 2.2

<b><u>COST PER DRUM:</u></b>	
<b><u>TYPE</u></b>	<b><u>COST PER DRUM</u></b>
<b>METHANOL</b>	\$0.66/LB X 417 LB = <b>\$275.22</b>
<b>MICRO-C</b>	\$0.75/LB X 525 LB = <b>\$393.75</b>
<b>ACETIC ACID</b>	\$0.39/LB X 460 LB = <b>\$179.40</b>

<b><u>COST PER YEAR COMPARISON: (Assume using 52 drums of Methanol per year (1 drum per week.):</u></b>	
<b><u>TYPE</u></b>	<b><u>COST PER YEAR COMPARISON</u></b>
<b>METHANOL</b>	(1.0 X 52 ) = 52 DRUMS/YEAR X \$275.22 = <b>\$14,311.44 PER YEAR*</b>
<b>MICRO-C</b>	(1.3 X 52 ) = 67.6 DRUMS/YEAR X \$393.75 = <b>\$26,617.50 PER YEAR*</b>
<b>ACETIC ACID</b>	(2.2 X 52 ) = 114.4 DRUMS/YEAR X 179.40 = <b>\$20,523.36 PER YEAR*</b>

\*Additional shipping charges may be incurred if weight exceeds a certain amount and/or if a fuel surcharge is implemented by the supplier.