

Public Comment from Gregg Dieguez received at 11.44 pm on July 26'2020

Dear SAM Board Members and Management,

The analysis by Woodard & Curran clarifies and extends our understanding of the Alternative Wet Weather Projects, but it contains two errors in financial calculations, is suboptimal in presenting the decision criteria for comprehension, and omits a concept in fiscal sustainability now well understood in the industry. This email, and the attached spreadsheet, corrects for the first three items mentioned above, and will explain the latter point.

It is clear that one of the two storage alternatives is the safer and more affordable option.

Errors in Financial Analysis:

1. The cost tables double-count the value of the \$300,000 RWQCB settlement credit, both charging it against the No Action alternative and subtracting it from capital costs of the other alternatives. Not paying the settlement amount does NOT reduce the capital costs of those projects. The payment is merely required if no action is taken. I have adjusted the capital costs of the alternative projects and the NPV calculations to reflect this.
2. The analysis of operating expenses omits inflation. Over the past 20 years, based on civil engineering cost metrics, inflation has been at a 3.04% compound rate, as detailed in the spreadsheet. For simplicity, I have used a 3% inflation factor to forecast those costs over 20 years for each alternative. I then apply the same 3% discount rate as W/C suggests to compute the NPV of those costs, and tally the NPV including both these corrections.

Presentation of Decision Criteria:

As the report details, there are a number of risk factors to consider along with the tangible costs. The chart below (and in the attached spreadsheet) depicts those risks, color coded where green is least risky, pink is most risky, and yellow is of medium risk. Together with the cost figures, it is clear that the storage projects are preferred from both fiduciary and stewardship viewpoints. Please refer to the spreadsheet for derivation of the corrected financial impacts.

**SAM Wet Weather Alternatives Decision Analysis** Gregg Dieguez 7/26/20  
Source: Sewer Authority Mid-Coastside Woodard & Curran, Inc. Wet Weather Flow Alternatives - DRAFT July 20;

Decision Criteria	No Action	Pump Station Alt. 1*	200kgal Storage	400kgal Storage	
<b>Costs: (\$000)</b>					
Capital	300	3,407	1,400	2,900	DoubleCounted the \$300k settlement credit
Oper Exp (init. Annual)	192	110	97	97	<b>FORGOT INFLATION</b>
20yr NPV	4,028	5,543	3,283	4,783	Corrected for above 2 issues
* Missing "soft costs" for engineering, environmental, legal, administrative and permitting.					
<b>Risks:</b>					
Oper. Cost Inflation	High	Med	Low	Low	
Burst IPS main joints	Low	Concern	No	No	
Spill in 10 yr, 6hr storm	Med	Low	Med	Low	
Spill in 5 yr storm	Low	Low	Low	Low	
Construction Disruption	None	High	Low	Low	
Permitting	None	Unknown	None	None	
WWT plant overflow	Unknown	Unknown	None	None	
Installation Timeframe	None	Long	Med	Med	
Current compliance	Lose settlement credit	Unknown	Yes	Yes	
Future compliance	Jeopardy	Unknown	Yes	Yes	

Omission of Fiscal Sustainability:

In Public Works "Once an asset, Always an asset". Assets age and must be replenished, in addition to their normal operating and maintenance costs. To do, so public works should accrue reserves annually so that eventual asset replacement and replenishment does not: cause rate shock to customers, prevent timely safety upgrades, undermine agency capital adequacy, nor incur additional costs of borrowing. The AWWA most recently included funding annual reserves based on the assets' current replacement costs and remaining lives in their 2018 treatise on reserves. Failure to include an allocation of reserve funding for eventual asset replenishment is in essence an intergenerational justice issue, as it allows under-charging current ratepayers and requiring the next generations to face a financially crippled future and incur sudden, large additional borrowing costs.

The current W/C analysis does not include projections of those reserve requirements. However, for this analysis I do not believe they would change the decision before you. Going forward, however, SAM will need to include an analysis of sustainable funding for reserves for its entire asset portfolio.

Please enter this email into the minutes and public comment under agenda item 4A.

I plan to attend and ask related questions.

--

Gregg A. Dieguez  
P.O. Box 370404  
Montara, CA 94037  
650-544-0714

**SAM Wet Weather Alternatives Decision Analysis**

Gregg Dieguez 7/26/20

Source: Sewer Authority Mid-Coastside Woodard & Curran, Inc. Wet Weather Flow Alternatives - DRAFT July 2020

Decision Criteria	No Action	Pump Station Alt. 1*	200kgal Storage	400kgal Storage
-------------------	-----------	----------------------	-----------------	-----------------

**Costs: (\$000)**

Capital	300	3,407	1,400	2,900	DoubleCounted the \$300k settlement credit
Oper Exp ( init. Annual)	192	110	97	97	<b>FORGOT INFLATION</b>
20yr NPV	4,028	5,543	3,283	4,783	Corrected for above 2 issues

\* Missing "soft costs" for engineering, environmental, legal, administrative and permitting.

**Risks:**

Oper. Cost Inflation	High	Med	Low	Low
Burst IPS main joints	Low	Concern	No	No
Spill in 10 yr, 6hr storm	Med	Low	Med	Low
Spill in 5 yr storm	Low	Low	Low	Low
Construction Disruption	None	High	Low	Low
Permitting	None	Unknown	None	None
WWT plant overflow	Unknown	Unknown	None	None
Installation Timeframe	None	Long	Med	Med
Current compliance	Lose settlement credit	Unknown	Yes	Yes
Future compliance	Jeopardy	Unknown	Yes	Yes

Discount Factor: 3.00%  
 Cost Inflation: 3.00%

Operating Expenses:	NPV	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
<b>No Action</b>	3,728,155	192,000	197,760	203,693	209,804	216,098	222,581	229,258

<b>Pump Station Alt. 1</b>	2,135,922	110,000	113,300	116,699	120,200	123,806	127,520	131,346
<b>200kgal Storage</b>	1,883,495	97,000	99,910	102,907	105,995	109,174	112,450	115,823
<b>400kgal Storage</b>	1,883,495	97,000	99,910	102,907	105,995	109,174	112,450	115,823

Source: <https://www.publi> Q1, 2000 Yr 2020 Compound Growth Rate  
 19 Buildings, Grounds & Utilities 466.30 856.60 3.04%

Updated NPV Calcs: (\$000)	Pump Station			
	No Action	Alt. 1*	200kgal Storage	400kgal Storage
Capital in Year 0	300	3,407	1,400	2,900
Oper Exp NPV	3,728	2,136	1,883	1,883
<b>Total NPV</b>	<b>4,028</b>	<b>5,543</b>	<b>3,283</b>	<b>4,783</b>

\* Missing "soft costs" for engineering, environmental, legal, administrative and permitting.

Sheet1

Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17
236,136	243,220	250,516	258,032	265,773	273,746	281,958	290,417	299,130	308,104

Sheet1

135,286	139,345	143,525	147,831	152,266	156,834	161,539	166,385	171,376	176,518
119,298	122,877	126,563	130,360	134,271	138,299	142,448	146,721	151,123	155,657
119,298	122,877	126,563	130,360	134,271	138,299	142,448	146,721	151,123	155,657

Year 18	Year 19	Year 20	Gross Total
317,347	326,867	336,673	5,159,112

181,813	187,268	192,886	2,955,741
160,326	165,136	170,090	2,606,426
160,326	165,136	170,090	2,606,426