

E.B. 3/9/16

February 12, 2016

Matthew Hymel
Chair
Finance Committee
Marin Emergency Radio Authority

Dear Matthew,

The purpose of this letter is to summarize for the Finance Committee the results of the analysis of financing alternatives for the Next Generation Project that Sperry Capital has completed.

We have concluded that MERA should issue bonds very soon in order to take advantage of historically low interest rates currently available in the tax exempt bond market. We estimate the interest cost of a 15-year bond issue today at 2.5%, which includes all transaction costs.

The most recent advice we have from Federal Engineering regarding the project schedule indicates that the project contract will be awarded in April or May 2017 and system acceptance will occur in October 2018. Since the cost will not be confirmed until 2017, by selling bonds now, we may need to do a second bond issue to complete the financing at a later date.

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We approached our analysis of financing alternatives by running calculations for three alternative strategies:

Case A: Sell sufficient bonds now that, together with parcel taxes received thus far and during the construction period, will fund the full estimated \$40 million project cost.

Case B: Sell sufficient bonds now that, together with parcel taxes received thus far and during the construction period plus a \$15 million construction line, will fund the full estimated \$40 million project cost. Sell bonds on October 1, 2018 to pay off the construction line.

Case C: Enter into a construction line of credit sufficient, together with parcel taxes received thus far and during the construction period, to fund the full estimated \$40 million project cost. Sell bonds on October 1, 2018 to pay off the construction line.

The parcel tax should yield over \$3.5 million per year for 20 years or about \$70.9 million in total. If bonds were sold today in order to raise the maximum amount possible at interest rates ranging from 2.0% to 4.0%, the amounts raised would range from \$58 million at a 2.0% rate to \$48 million at 4% as shown in the table below:

Discount Rate	Debt Capacity (Present Value)
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2.0%	\$58,000,000
2.5%	\$55,000,000
3.0%	\$53,000,000
3.5%	\$50,000,000
4.0%	\$48,000,000

We have compared the outcomes of alternative financing strategies according to **the amount of parcel tax receipts that would remain at the end of the parcel tax term** after having paid in full for the financing of the new \$40 million radio system.

From the first receipt of taxes in December 2015 through the end of construction in October 2018, about \$10.6 million of parcel taxes can be used to pay for project construction and interest on any bonds issued prior to that date. Depending upon the timing of bond issues, the interest earned on bond proceeds prior to expenditure, and the use of construction lines of credit, debt must be used to fund varying amounts in excess of \$30 million to complete paying for the project. Given the fact that bonds today are sold at premium prices, the par amount of the bonds sold to fund the \$30 million will be on the order of \$26 million as shown in the following summary table. Using current market interest rates and construction line terms, the three cases compare as follows:

Case	May 2016 Bonds	Apr 2017 Line	Oct 2018 Bonds	Total Bonds	Total Debt Service	Tax Remainder
A	\$26,720,000	-	-	\$26,720,000	\$40,500,000	\$22,295,000
B	\$13,565,000	\$15,000,000	\$12,990,000	\$26,555,000	\$38,910,000	\$22,635,000
C		\$29,980,000	\$25,730,000	\$25,730,000	\$36,340,000	\$23,925,000

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What these results show is that the project financing will be cheaper if you use a construction line of credit and issue bonds in 2018 rather than in 2016. **However, that is only true if long term interest rates are as low in 2018 as they are now.** If rates are higher than today when bonds are sold in October, 2018, the Tax Remainder will be lower than is shown in the table for Cases B and C. That leads to the question: **If interest rates are higher in 2018 than they are now, how much higher would they need to be to make the Tax Remainder for Case C equal to that for Case A. The answer is an increase of 175 basis points or 1.75%.** That would mean the interest cost of the 2018 bonds would be about 4.20%. That is about the level of rates just prior to the Great Recession. Perhaps more persuasively, if interest rates in 2018 are the same as today, the tax remainder would only be 7% greater than if we sell bonds now. Gambling on rates in 2018 for a maximum 7% gain in the outcome is not persuasive to us. **MERA should sell bonds now.**

We won't know the actual cost of the project until March or April of next year. If the cost is more than \$40 million, as we suspect it will be, we can sell more bonds in a year or enter into a construction line for the difference and sell completion bonds in 2018 or at any time in between.

Best Regards,





James H. Gibbs
Principal



Martha J. Vujovich
Principal