

## Appendix G: Estimated Costs

(IN THOUSANDS OF DOLLARS)

|                                        | Next Gen Radio | M/W Equip | Shelter<br>improvements | Civil | Freq. Coord.<br>including<br>M/W needs | Environmental<br>Compliance | Legal<br>Planning<br>permits<br>leases | Staff Support |
|----------------------------------------|----------------|-----------|-------------------------|-------|----------------------------------------|-----------------------------|----------------------------------------|---------------|
| Tomales *                              | 608            | 167       | 223                     | 262   | 11                                     | 28                          | 38                                     | 77            |
| Pt Reyes *                             | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Barnabe *                              | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Stewart Pt *                           | 608            | 167       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Sonoma *                               | 608            | 0         | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Burdell *                              | 608            | 250       | 0                       | 0     | 11                                     | 28                          | 38                                     | 77            |
| Big Rock *                             | 608            | 167       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| San Pedro *                            | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Forbes *                               | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Dollar *                               | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Tam *                                  | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Millvalley *                           | 608            | 250       | 0                       | 0     | 11                                     | 28                          | 38                                     | 77            |
| Tiburon *                              | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Wolfback *                             | 608            | 250       | 223                     | 262   | 11                                     | 28                          | 38                                     | 77            |
| Martha                                 | 608            | 250       | 223                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| Muir                                   | 608            | 167       | 223                     | 262   | 11                                     | 28                          | 38                                     | 77            |
| Bayhill                                | 608            | 167       | 223                     | 87    | 11                                     | 28                          | 38                                     | 77            |
| Civic Center/EOF *                     | 608            | 167       | 700                     | 0     | 11                                     | 28                          | 38                                     | 77            |
| 2nd M/W site1                          |                | 250       | 223                     | 262   | 11                                     | 28                          | 38                                     | 77            |
| Subtotal                               | 10,942         | 4,000     | 4,264                   | 1,135 | 216                                    | 528                         | 713                                    | 1,468         |
| System Equipment/backbone costs        | 23,266         |           |                         |       |                                        |                             |                                        |               |
| Subscriber cost 3,000 count (from RFP) | 8,790          |           |                         |       |                                        |                             |                                        |               |
| unit cost with discount \$2930.10      |                |           |                         |       |                                        |                             |                                        |               |
| Total 18 site w/subscriber (no tax)    | 32,056         |           |                         |       |                                        |                             |                                        |               |
| Tax @8.25%                             | 2,645          |           |                         |       |                                        |                             |                                        |               |
| assuming 1/2 of full cost taxable      |                |           |                         |       |                                        |                             |                                        |               |
| Sub Total                              | 34,701         |           |                         |       |                                        |                             |                                        |               |
| Contingency 15.27%                     | 5,300          |           |                         |       |                                        |                             |                                        |               |
| TOTAL                                  | 40,000         |           |                         |       |                                        |                             |                                        |               |

**Appendix H MERA: Operating/Maintenance Cost Projections**

**(IN THOUSANDS OF DOLLARS)**

|                                                  | APPROVED<br>BUDGET<br><u>2013-14</u> | ESTIMATED<br>BUDGET<br><u>2014-15</u> | ESTIMATED<br>BUDGET<br><u>2015-16</u> | ESTIMATED<br>BUDGET<br><u>2016-17</u> | ESTIMATED<br>BUDGET<br><u>2017-18</u><br>(building out<br>new system) | NERA<br>NEXT GEN<br>ESTIMATED<br>BUDGET<br><u>2018-19</u><br>(both systems<br>on line) | NERA<br>NEXT GEN<br>ESTIMATED<br>BUDGET<br><u>2019-20</u><br>(new system<br>out of warranty) | NERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2020-21</u> | NERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2021-2022</u> | NERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2022-2023</u> |
|--------------------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| Preventive and Corrective Programming            | \$420                                | \$433                                 | \$447                                 | \$462                                 | \$476                                                                 | \$596                                                                                  | \$615                                                                                        | \$635                                                     | \$656                                                       | \$676                                                       |
| Parts, Materials, and Factory Repairs            | 0                                    | 0                                     | 0                                     | 0                                     | 0                                                                     | 0                                                                                      | 0                                                                                            | 0                                                         | 0                                                           | 0                                                           |
| Training                                         | 80                                   | 84                                    | 88                                    | 93                                    | 97                                                                    | 102                                                                                    | 107                                                                                          | 113                                                       | 118                                                         | 124                                                         |
| Technical Services                               | 31                                   | 32                                    | 33                                    | 34                                    | 62                                                                    | 64                                                                                     | 38                                                                                           | 39                                                        | 40                                                          | 41                                                          |
| Administrative Services                          | 100                                  | 100                                   | 100                                   | 100                                   | 100                                                                   | 100                                                                                    | 100                                                                                          | 100                                                       | 100                                                         | 100                                                         |
| Communications Engineer                          | 155                                  | 160                                   | 165                                   | 171                                   | 176                                                                   | 182                                                                                    | 188                                                                                          | 195                                                       | 201                                                         | 208                                                         |
| Contract Services                                | 170                                  | 190                                   | 196                                   | 203                                   | 209                                                                   | 216                                                                                    | 223                                                                                          | 230                                                       | 237                                                         | 245                                                         |
| Auditing                                         | 158                                  | 164                                   | 170                                   | 176                                   | 182                                                                   | 188                                                                                    | 195                                                                                          | 202                                                       | 209                                                         | 216                                                         |
| Legal                                            | 15                                   | 15                                    | 16                                    | 16                                    | 17                                                                    | 18                                                                                     | 19                                                                                           | 20                                                        | 21                                                          | 22                                                          |
| Misc.                                            | 10                                   | 10                                    | 10                                    | 10                                    | 11                                                                    | 11                                                                                     | 12                                                                                           | 13                                                        | 13                                                          | 14                                                          |
| Contingency                                      | 1                                    | 1                                     | 1                                     | 1                                     | 2                                                                     | 2                                                                                      | 2                                                                                            | 2                                                         | 2                                                           | 2                                                           |
| Site Utilities - Current                         | 20                                   | 20                                    | 20                                    | 20                                    | 30                                                                    | 30                                                                                     | 30                                                                                           | 30                                                        | 30                                                          | 30                                                          |
| Site Utilities - With Next Gen                   | 85                                   | 91                                    | 97                                    | 104                                   | 222                                                                   | 237                                                                                    | 127                                                                                          | 136                                                       | 145                                                         | 156                                                         |
| Site Maintenance                                 |                                      |                                       |                                       |                                       | 46                                                                    | 49                                                                                     | 53                                                                                           | 57                                                        | 61                                                          | 65                                                          |
| Site Maintenance - With Next Gen                 | 13                                   | 13                                    | 13                                    | 14                                    | 14                                                                    | 15                                                                                     | 15                                                                                           | 15                                                        | 16                                                          | 17                                                          |
| Insurance                                        |                                      |                                       |                                       |                                       | 6                                                                     | 6                                                                                      | 6                                                                                            | 6                                                         | 7                                                           | 7                                                           |
| Insurance - With Next Gen                        | 40                                   | 44                                    | 48                                    | 53                                    | 59                                                                    | 64                                                                                     | 71                                                                                           | 78                                                        | 86                                                          | 94                                                          |
| Current Leases                                   |                                      |                                       |                                       |                                       | 24                                                                    | 27                                                                                     | 30                                                                                           | 32                                                        | 36                                                          | 39                                                          |
| Next Gen Tomales, Martha, Wolfback, Stinson, EOF | 354                                  | 372                                   | 390                                   | 410                                   | 430                                                                   | 452                                                                                    | 474                                                                                          | 480                                                       | 523                                                         | 549                                                         |
|                                                  |                                      |                                       |                                       |                                       | 210                                                                   | 220                                                                                    | 231                                                                                          | 242                                                       | 254                                                         | 265                                                         |
| <b>TOTAL MERA Operating Costs:</b>               | <b>1,650</b>                         | <b>1,728</b>                          | <b>1,795</b>                          | <b>1,866</b>                          | <b>2,374</b>                                                          | <b>2,580</b>                                                                           | <b>2,536</b>                                                                                 | <b>2,624</b>                                              | <b>2,753</b>                                                | <b>2,870</b>                                                |
| Optional System User Upgrade                     | 0                                    | 0                                     | 0                                     | 0                                     | 0                                                                     | 0                                                                                      | 450                                                                                          | 450                                                       | 450                                                         | 450                                                         |
| <b>TOTAL MERA Operating Costs with Option:</b>   | <b>1,650</b>                         | <b>1,728</b>                          | <b>1,795</b>                          | <b>1,866</b>                          | <b>2,374</b>                                                          | <b>2,580</b>                                                                           | <b>2,986</b>                                                                                 | <b>3,074</b>                                              | <b>3,203</b>                                                | <b>3,320</b>                                                |

**NOTES TO ACCOMPANY PRELIMINARY MERA NEXT GEN  
OPERATING/MAINTENANCE COST PROJECTIONS**

**MERA OPERATING FUND 70030**

**ASSUMPTIONS:**

- 1) REFLECTS COST ESTIMATES FROM FY14-15 THROUGH FY22-23
- 2) ESTIMATES BASED ON TWO-YEAR CONCURRENT OPERATION OF CURRENT SYSTEM AND NEXT GEN, EFFECTIVE FY17-18 AND FY18-19

**DEPARTMENT OF PUBLIC WORKS:**

**PREVENTIVE AND CORRECTIVE MAINTENANCE** - 3.2% EACH YEAR, ASSUME MERA PURCHASES ONE YEAR WARRANTY FROM VENDOR, INCREASE IN FY 18-19 WITH NEW SITES.

**PROGRAMMING** - 3.2% EACH YEAR

**PARTS, MATERIALS, FACTORY REPAIRS** - 5% EACH YEAR

**TRAINING** - 3.3% EACH YEAR TO 16-17, THEN INCREASED WITH NEW SYSTEM FOR ALL USERS. TO INCLUDE: TRAIN THE TRAINER, END USER, DISPATCH, SUPERVISOR AT \$60,000, THEN 3.3% EACH YEAR

**TECHNICAL SERVICES** - 3.2% EACH YEAR, MOTOROLA TECHNICAL SUPPORT AGREEMENT COSTS FY 14/15 \$25,689, FY 15/16 \$26,973, FY 16/17 \$28,052, FY 17/18 \$29,174. THEN ESTIMATED AT FY 18/19 \$26,590, FY 19/20 \$28,620, FY 20/21 \$29,765, FY 21/22 \$30,955, FY 22/23 \$32,194.

**ADMINISTRATIVE SERVICES** - 3.3% EACH YEAR

**SYSTEM UPDGRADE AGREEMENT** - THIS IS PRESENTED AS AN OPTIONAL ITEM. MERA DOES NOT HAVE A SYSTEM UPDGRADE AGREEMENT WITH THE CURRENT SYSTEM. DETAILS CAN BE FOUND IN THE PLANNED SYSTEM LIFE SECTION ON PAGE 11. COST IS ESTIMATED AT \$450,000 PER YEAR, STARTING IN FY 19/20

**MERA (NON-DPW COSTS):**

**CONTRACT SERVICES** - 3.5% EACH YEAR

**AUDITING SERVICES** - 3.0% EACH YEAR THRU FY16-17 AND 5.0% BEGINNING FY17-18

**LEGAL SERVICES** - 3.0% EACH YEAR THRU FY16-17 AND 5.0% BEGINNING FY17-18

NOTES TO ACCOMPANY PRELIMINARY MERA NEXT GEN  
OPERATING/MAINTENANCE COST ESTIMATES  
NOVEMBER 13, 2013  
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**MISCELLANEOUS EXP** - NO % INCREASE - BEGINNING FY17-18 ADDED \$1,000 EACH YR

**CONTINGENCY EXP** - NO % INCREASE - BEGINNING FY17-18 ADDED \$10,000 EACH YR

**NOTE:** LINE ITEMS BELOW AFFECTED BY ADDITION OF 5 NEW SITES IN FY17-18  
(TOMALES, MARTHA/TIBURON, WOLFBACK, STINSON AND EOF)

**SITE UTILITIES** - 7.0% EACH YEAR & W/INCREASE OF 5 SITES BEGINNING FY17-18

**SITE MAINTENANCE** - 3.0% EACH YEAR & W/INCREASE OF 5 SITES BEGINNING FY17-18

**INSURANCE** - 10.0% EACH YEAR & W/INCREASE OF 5 SITES BEGINNING FY17-18

**CURRENT SITE LEASES** - 5.0% EACH YEAR

**NEXT GEN SITE LEASES** - BEGINNING FY17-18

TOMALES - FY17-18 ANNUAL LEASE IS \$10,200 - REFLECTS 1.0% EACH YR  
MARTHA/TIBURON, WOLFBACK, STINSON AND EOF:  
NO LEASES SIGNED AS OF NOVEMBER 1, 2013  
ESTIMATED COSTS BASED ON AVERAGE OF ALL CURRENT SITE LEASES (8)  
W/INCREASE OF 5% FOR EACH SITE BEGINNING FY18-19



**Appendix J MERA: Operating, Capital and Debt Cost Projections**

Without Optional System Upgrade Agreement (in thousands of dollars)

|                                                | APPROVED<br>BUDGET<br><u>2013-14</u> | ESTIMATED<br>BUDGET<br><u>2014-15</u> | ESTIMATED<br>BUDGET<br><u>2015-16</u> | ESTIMATED<br>BUDGET<br><u>2016-17</u> | ESTIMATED<br>BUDGET<br><u>2017-18</u><br>(building out<br>new system) | MERA<br>NEXT GEN<br>ESTIMATED<br>BUDGET<br><u>2018-19</u><br>(both systems<br>on line) | MERA<br>NEXT GEN<br>ESTIMATED<br>BUDGET<br><u>2019-20</u><br>(new system<br>out of warranty) | MERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2020-21</u> | MERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2021-2022</u> | MERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2022-2023</u> |
|------------------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| MERA Operating Costs                           | 1650                                 | 1728                                  | 1795                                  | 1866                                  | 2374                                                                  | 2580                                                                                   | 2536                                                                                         | 2624                                                      | 2753                                                        | 2870                                                        |
| Capital Costs                                  | 185                                  | 132                                   | 208                                   | 100                                   | 100                                                                   | 100                                                                                    | 100                                                                                          | 100                                                       | 100                                                         | 100                                                         |
| 2010 Refunding Revenue Bonds                   | 2347                                 | 2347                                  | 2347                                  | 2347                                  | 2347                                                                  | 2347                                                                                   | 2347                                                                                         | 2347                                                      | 2000                                                        |                                                             |
| Less Use of Bond Reserve                       |                                      |                                       |                                       |                                       |                                                                       |                                                                                        |                                                                                              |                                                           |                                                             |                                                             |
| <b>TOTAL Operating, Capital and Debt Costs</b> | <b>4182</b>                          | <b>4207</b>                           | <b>4350</b>                           | <b>4313</b>                           | <b>4821</b>                                                           | <b>5027</b>                                                                            | <b>4983</b>                                                                                  | <b>3071</b>                                               | <b>2853</b>                                                 | <b>2970</b>                                                 |

With Optional System Upgrade Agreement (in thousands of dollars)

|                                                | APPROVED<br>BUDGET<br><u>2013-14</u> | ESTIMATED<br>BUDGET<br><u>2014-15</u> | ESTIMATED<br>BUDGET<br><u>2015-16</u> | ESTIMATED<br>BUDGET<br><u>2016-17</u> | ESTIMATED<br>BUDGET<br><u>2017-18</u><br>(building out<br>new system) | MERA<br>NEXT GEN<br>ESTIMATED<br>BUDGET<br><u>2018-19</u><br>(both systems<br>on line) | MERA<br>NEXT GEN<br>ESTIMATED<br>BUDGET<br><u>2019-20</u><br>(new system<br>out of warranty) | MERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2020-21</u> | MERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2021-2022</u> | MERA NEXT<br>GEN<br>ESTIMATED<br>BUDGET<br><u>2022-2023</u> |
|------------------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| MERA Operating Costs                           | 1650                                 | 1728                                  | 1795                                  | 1866                                  | 2374                                                                  | 2580                                                                                   | 2986                                                                                         | 3074                                                      | 3203                                                        | 3320                                                        |
| Capital Costs                                  | 185                                  | 132                                   | 208                                   | 100                                   | 100                                                                   | 100                                                                                    | 100                                                                                          | 100                                                       | 100                                                         | 100                                                         |
| 2010 Refunding Revenue Bonds                   | 2347                                 | 2347                                  | 2347                                  | 2347                                  | 2347                                                                  | 2347                                                                                   | 2347                                                                                         | 2347                                                      | 2000                                                        |                                                             |
| Less Use of Bond Reserve                       |                                      |                                       |                                       |                                       |                                                                       |                                                                                        |                                                                                              |                                                           |                                                             |                                                             |
| <b>TOTAL Operating, Capital and Debt Costs</b> | <b>4182</b>                          | <b>4207</b>                           | <b>4350</b>                           | <b>4313</b>                           | <b>4821</b>                                                           | <b>5027</b>                                                                            | <b>5433</b>                                                                                  | <b>3521</b>                                               | <b>3303</b>                                                 | <b>3420</b>                                                 |