



NORTH MARIN WATER DISTRICT
AGENDA - REGULAR MEETING
 August 20, 2013 – 7:30 p.m.
 District Headquarters
 999 Rush Creek Place
 Novato, California

Information about and copies of supporting materials on agenda items are available for public review at 999 Rush Creek Place, Novato, at the Reception Desk, or by calling the District Secretary at (415) 897-4133. A fee may be charged for copies. District facilities and meetings comply with the Americans with Disabilities Act. If special accommodations are needed, please contact the District Secretary as soon as possible, but at least two days prior to the meeting.

| Est. Time | Item | Subject |
|------------------|-------------|---|
| 7:30 p.m. | | CALL TO ORDER |
| | 1. | APPROVE MINUTES FROM REGULAR MEETING , August 6, 2013 |
| | 2. | GENERAL MANAGER'S REPORT |
| | 3. | OPEN TIME: (Please observe a three-minute time limit) |
| | | This section of the agenda is provided so that the public may express comments on any issues not listed on the agenda that are of interest to the public and within the jurisdiction of the North Marin Water District. When comments are made about matters not on the agenda, Board members can ask questions for clarification, respond to statements or questions from members of the public, refer a matter to staff, or direct staff to place a matter of business on a future agenda. The public may also express comments on agenda items at the time of Board consideration. |
| | 4. | STAFF/DIRECTORS REPORTS |
| | 5. | MONTHLY PROGRESS REPORT |
| | | ACTION CALENDAR |
| | 6. | Approve: Recycled Water Expansion South Service Area Phase 2 Project – Change Order Numbers 12 through 17 – Argonaut Constructors |
| | 7. | Approve: Notice of Completion for Recycled Water Expansion South Service Area Phase 2 Project – (Argonaut Constructors) |
| 8:00 p.m. | | INFORMATION ITEMS |
| | 8. | Construction Manager Final Report – Recycled Water South Service Area |
| | 9. | Water Conservation Year End Report (July 2012 through June 2013) |
| | 10. | Year End Progress Report - Engineering Department |
| | 11. | FY 13 - Operations/Maintenance Year End Report |
| | 12. | Dry Year Conditions |

All times are approximate and for reference only.

The Board of Directors may consider an item at a different time than set forth herein.

13. **MISCELLANEOUS**

Disbursements

Napa Sonoma Salt Marsh Restoration Pipeline Opening

News Articles:

Two Resource Conservation Districts Merge

North Marin Water District Relies on HDD as Part of Regional Recycled Water System Upgrades

50 Years Ago – August 1963

Opening Celebration of the Napa Sonoma Salt Marsh Restoration Pipeline

No rate hike for Marin Municipal Water District customers this year

9:00 p.m. 14. **ADJOURNMENT**

1

1 Gallagher Well

2 Mr. DeGabriele reported that USGS has installed an auxiliary stream gauge on Lagunitas
3 Creek, downstream of the existing gauge and the Gallagher Well. He stated that the auxiliary gauge
4 will be used for Gallagher Well testing to evaluate impacts the well may have on Lagunitas Creek
5 stream flow.

6 Local Coastal Plan

7 Mr. DeGabriele stated that he attended the Marin County Board of Supervisors meeting on
8 Monday to advocate for the local coastal program amendment. He advised the Board that the
9 Supervisors adopted the amendment.

10 **OPEN TIME**

11 President Fraithe asked if anyone in the audience wished to bring up an item not on the
12 agenda and there was no response.

13 **STAFF/DIRECTORS REPORTS**

14 President Fraithe asked if staff or Directors wished to bring up an item not on the agenda
15 and there was no response.

16 **PRELIMINARY FY 2012/13 FINANCIAL STATEMENT**

17 David Bentley provided a summary of the FY 2012/13 Preliminary Financial Statement. He
18 stated for the fiscal year the District generated a net income of just over \$2M and saw a net cash
19 decrease of approximately \$500K. Mr. Bentley advised the Board that the operating in revenue
20 came in at 109% of budget and operating expense at 103% of budget. He noted that the increase
21 revenue was due to increased water sales and rate increases and the increased expenses were due
22 to increased purchased water. He informed the Board that the cash decrease is due to the State
23 Water Resources Control Board delay in providing state revolving loan funding for the Recycled
24 Water System Expansion. Mr. Bentley stated that the District has collected \$871K in connection fees
25 with 30 new dwelling units. He advised the Board that the District received the first bills from Novato
26 Sanitary District and Las Gallinas Valley Sanitary District and stated that the costs will not be
27 consistent, as start up costs and other costs occur.

28 Director Rodoni asked if the majority of recycled water purchase expenses were due to start
29 up costs. Mr. Bentley said not a lot of it was start up costs and the District came in close to the
30 budget. He stated that LGVSD is a little higher in cost.

31 Mr. Bentley stated that in West Marin there was a 9% rate increase and expenses were up
32 2%. He stated that a net income of \$702K was in the bank. He informed the Board that in Oceana
33 Marin there was no rate increase last year and the revenue remained the same. He noted that the

1 expenses were up 8% primarily due to the Brown annexation in June and that Oceana Marin ended
2 the fiscal year with a cash balance of \$193K.

3 Director Rodoni asked what portion of the \$12M of Novato water money in the bank is
4 considered part of the Bank of Marin loan. Mr. Bentley responded that \$8.5M. He noted that \$4.8M
5 from the Recycled Water Expansion Project and \$5.9M is the unexpended portion of the loan.

6 Director Baker asked if the start up costs are higher at LGVSD vs. NSD. Mr. Bentley stated
7 that they are both about \$36K, but LGVSD provides 1/3 of the water NSD does.

8 Mr. McIntyre stated that most of the costs the District is seeing recycled water purchase is
9 for labor.

10 Novato resident, Ed Grundstrom, commended the Board on their action at the last meeting to
11 adopt a resolution increasing the wheeling rate for water delivered to Marin Municipal through the
12 North Marin Aqueduct.

13 **CONSENT CALENDAR**

14 On motion of Director Rodoni, seconded by Director Baker carried by the following vote, the
15 following items were approved on the Consent Calendar:

16 AYES: Director Baker, Fraites, Rodoni, Schoonover

17 NOES: None

18 ABSTAIN: None

19 ABSENT: Director Petterle

20 **MARIN LAFCO SPECIAL DISTRICT ALTERNATE MEMBER ELECTION BALLOT**

21 The Board voted for Jack Baker as first choice and Russ Greenfield as second choice for
22 the alternate Special District member position in the Marin LAFCO.

23 **ACWA REGION 1 BOARD ELECTION**

24 The Board authorized the General Manager to concur with ACWA Region 1 Nominating
25 Committee's recommended slate and sign the ACWA Region 1 Board Ballot.

26 **ACTION CALENDAR**

27 **LOCKBOX SERVICES**

28 David Bentley reminded the Board that the Administrative Department staffing has been
29 reduced by two employees over the past eight months. He noted that staff has been actively
30 searching for new ideas and methods to increase efficiency while continuing to provide a high level
31 of customer service. Mr. Bentley advised the Board that US Bank has provided a proposal for

1 LockBox services, handling all of the District's US Mail payment processing, about 55,000 payments
2 per year, for an average of \$705 per month. He noted that Bank of Marin also promoted their
3 LockBox service to the District although their pricing was three-times US Bank's. He stated that
4 District customers would mail their payments to a post office box and the bank will then collect and
5 process the payments and deposit them into the District's account. He noted that the PO BOX for
6 US Bank LockBox is located in Los Angeles. Mr. Bentley stated that the full cost of District staff
7 performing functions such as opening envelopes, separating checks, endorsing checks and entering
8 payments is \$48 per hour. He stated that US Bank's charge would be the equivalent of \$18 per
9 hour. Mr. Bentley also informed the Board that with the out-sourcing of payments, staff would be
10 able to shift work within the office to reduce overtime and rebalance workloads.

11 Director Rodoni suggested the bill payment envelope be addressed to the NMWD Payment
12 Center at the LockBox address to continue to assure District customers that their payment is being
13 made appropriately. Mr. Bentley thought that was a great idea.

14 Director Rodoni asked about customers that pay their bills in the office.

15 Mr. Bentley informed the Board that the bank will not be able to process those deposits so
16 District staff will send them electronically to the bank and staff will still have a daily bank deposit.

17 Director Rodoni asked how long the District has been banking with US Bank. Mr. Bentley
18 replied two years.

19 Director Baker suggested trying to deal with a local bank.

20 Director Rodoni questioned the financial impact of \$8,500. Mr. Bentley stated that that is the
21 cost of the service and the money saved will not be determined until the agreement is in place. He
22 stated that it will free up staff time and be able to reduce overtime.

23 On motion of Director Schoonover, seconded by Director Baker and carried by the following
24 vote, the Board authorized the Auditor-Controller to enter into an agreement with US Bank to provide
25 LockBox services.

26 AYES: Director Baker, Fraites, Rodoni, Schoonover

27 NOES: None

28 ABSTAIN: None

29 ABSENT: Director Petterle

30 Director Baker asked that Mr. Bentley provide the Board with an update once the service is
31 up and running.

1 **INFORMATION ITEMS**

2 **WAC/TAC – AUGUST 5, 2013**

3 Mr. DeGabriele provided a summary of the Water Advisory and Technical Advisory
4 Committee meeting held on August 5, 2013. He stated that the Water Agency staff made an
5 excellent presentation in regards to the summer Save Our Water campaign and 20 Gallon
6 Challenge. He informed the Board that there are new “Take it From the Tap” water bottles which are
7 available at the Sonoma County Fair when a customer takes the 20 Gallon Challenge pledge to
8 reduce their daily consumption by 20 gallons per day. He noted that the fair is halfway through and
9 there has been over 1,000 pledges and the website has over 5,000 hits. Mr. DeGabriele advised the
10 Board that there are radio and media ads, along with ads in the movie theaters and Marin
11 Independent Journal and Novato Advance. He informed the Board that the reason for the 20 Gallon
12 Challenge is in response to the Temporary Urgency Change Order issued by the State Water
13 Resources Control Board, which reduced flows in the Russian River. He noted that to date the
14 Water Contractor water conservation effects have been effective and that per capita water
15 consumption is below both the 2015 and 2020 target, as required by the 20% reduction in per capita
16 consumption by year 2020 legislation and that the total storage in Lake Mendocino continues to be
17 above the critical storage curve. Mr. DeGabriele advised the Board that storage in Lake Mendocino
18 will likely fall below the critical storage curve sometime in early to mid-September. He informed the
19 Board that the Water Contractors are urged to step up water conservation messaging and efforts to
20 assist wherever possible in maintaining water in the Russian River for fishery purposes.

21 Mr. DeGabriele recommended that the District look at the water shortage contingency plan
22 and consider more voluntary water conservation efforts. He stated that the TAC is meeting every two
23 weeks to stay on top of this issue.

24 Director Rodoni stated that the TAC is reviewing the water supply conditions every two
25 weeks and making recommendations to the Water Contractors. He suggests that the District
26 promote voluntary restrictions.

27 Mr. DeGabriele stated that Potential Projects for Further Evaluation was discussed and
28 reviewed by the WAC. He stated that the Santa Rosa Plain Groundwater Workshop was reviewed
29 and the Water Agency made a presentation on the bi-annual community opinion survey and a
30 presentation on the raising of the Summer Dam.

31 Director Rodoni suggested that the presentation on the Summer Dam would be a good
32 presentation for the Board to see.

1 Director Fraites asked if the District was the only Water Contractor with a Recycled Water
2 System. Mr. DeGabriele stated that the District system is fairly new and Marin Municipal and City of
3 Santa Rosa have much larger Recycled Water Systems. He noted that the District's Recycled Water
4 offsets the potable water demand.

5 Director Rodoni advised the Board that Susan Gorin has taken an active roll as the SCWA
6 Board liaison to the WAC in absence of Supervisor Carillo.

7 **MISCELLANEOUS**

8 The Board received the following miscellaneous items: Disbursements, Scrap Metal
9 Receipts, and FY13 4th Quarter Labor Cost Report.

10 The Board received the following news articles: Dry spring has some water watchers
11 concerned about 'D word' in Marin, Low water levels threaten Russian River businesses, Graton
12 tribe concerned over casino possibility, Editorial: Good reason to save more water this year, County
13 approves coastal development policies, Marin Agricultural Land Trust elects familiar face to its
14 board, Supes approve amended Local Coastal Plan, and MALT hails Ralph Grossi.

15 **CLOSED SESSION**

16 President Fraites adjourned the Board into closed session at 8:15 p.m. in accordance with
17 Government Code Section 54956.8 Conference with Real Property Negotiator (Chris DeGabriele,
18 David Bentley & Ari Lauer) regarding 42 Spinosa Way, Novato, CA; Conference with Legal Counsel
19 - Existing Litigation Pursuant to subdivision (d)(1) of Section 54956.9 (Hendrix litigation); and
20 Conference with Real Property Negotiators as allowed under Government Code 54956.8. Property:
21 Interconnection Agreement between North Marin Water District and Marin Municipal Water District;
22 District Negotiators: General Manager, Chief Engineer, and Counsel; Negotiating Party: Marin
23 Municipal Water District; Under Negotiation: Price and Terms.

24 **OPEN SESSION**

25 Upon returning to regular session at 9:05 p.m., President Fraites stated that during the
26 closed session the Board had discussed the issues and no reportable action had been taken.

27 **ADJOURNMENT**

28 President Fraites adjourned the meeting at 9:06 p.m.

29 Submitted by

30
31
32
33 Katie Young
34 District Secretary

2

3

4

5

NORTH MARIN WATER DISTRICT
MONTHLY PROGRESS REPORT FOR July 2013
 August 20, 2013

1.

Novato Potable Water Prod - RR & STP Combined - in Million Gallons - FYTD

| Month | FY13/14 | FY12/13 | FY11/12 | FY10/11 | FY09/10 | 14 vs 13 % |
|-------|---------|---------|---------|---------|---------|------------|
| July | 385 | 389 | 371 | 379 | 360 | -1% |

West Marin Potable Water Production - in Million Gallons - FY to Date

| Month | FY13/14 | FY12/13 | FY11/12 | FY10/11 | FY09/10 | 14 vs 13 % |
|-------|---------|---------|---------|---------|---------|------------|
| July | 9.3 | 9.3 | 9.2 | 9.9 | 10.0 | 0% |

Stafford Treatment Plant Production - in Million Gallons - FY to Date

| Month | FY13/14 | FY12/13 | FY11/12 | FY10/11 | FY09/10 | 14 vs 13 % |
|-------|---------|---------|---------|---------|---------|------------|
| July | 98 | 49 | 115 | 109 | 152 | 101% |

Recycled Water Production - in Million Gallons - FY to Date

| Month | FY13/14 | FY12/13 | FY11/12 | FY10/11 | FY09/10 | 14 vs 13 % |
|-------|---------|---------|---------|---------|---------|------------|
| July | 27.6 | 11.2 | 11.0 | 11.9 | 12.0 | 147% |

2. Stafford Lake Data

| | July Average | July 2012 | July 2013 |
|--------------------------|--------------|-------------|------------|
| Rainfall this month | 0.0 Inches | 0.01 Inches | 0.0 Inches |
| Rainfall this FY to date | 0.0 Inches | 0.01 Inches | 0.0 Inches |
| Lake elevation* | 188.10 Feet | 185.92 Feet | 186.4 Feet |
| Lake storage** | 870.00 MG | 751.00 MG | 764.1 MG |

* Spillway elevation is 196.0 feet

** Lake storage less 390 MG = quantity available for delivery

Temperature (in degrees)

| | Minimum | Maximum | Average |
|--------------------|---------|---------|---------|
| July 2012 (Novato) | 51 | 107 | 73 |
| July 2013 (Novato) | 58 | 94 | 76 |

3. Number of Services

| July 31 | Novato Water | | | Recycled Water | | | West Marin Water | | | Oceana Marin Swr | | |
|------------------------|--------------|--------|--------|----------------|------|--------|------------------|------|--------|------------------|------|--------|
| | FY13 | FY12 | Incr % | FY13 | FY12 | Incr % | FY13 | FY12 | Incr % | FY13 | FY12 | Incr % |
| Total meters installed | 20,738 | 20,745 | 0.0% | 34 | 2 | 1600% | 819 | 820 | 0.1% | - | - | - |
| Total meters active | 20,485 | 20,489 | 0.0% | 31 | 2 | 1450% | 776 | 777 | 0.1% | - | - | - |
| Active dwelling units | 23,942 | 23,941 | 0.0% | 0 | 0 | - | 811 | 811 | 0.0% | 227 | 227 | 0.0% |

4. Oceana Marin Monthly Status Report (July)

| Description | July 2012 | July 2013 |
|---------------------------------|-----------|-----------|
| Effluent Flow Volume (MG) | 0.64 | 0.644 |
| Irrigation Field Discharge (MG) | 0.58 | 0.304 |
| Treatment Pond Freeboard (ft) | 3.4 | 3.2 |
| Storage Pond Freeboard (ft) | 4.7 | 6.4 |

5. Developer Projects Status Report (July)

| Job No. | Project | % Complete | % This month |
|---------|----------------------------|------------|--------------|
| 2670 | Canyon Green | 60 | 10 |
| 2763 | City Administration Office | 10 | 5 |

District Projects Status Report - Const Dept (July)

| Job No. | Project | % Complete | % This month |
|---------|---|------------|--------------|
| 7139.00 | PB Replacement- City Measure A, Group 5 | 70 | 0 |

Employee Hours to Date, FY 12/13

As of Pay Period Ending July 31, 2013
Percent of Fiscal Year Passed = 8%

| Developer Projects | Actual | Budget | % YTD Budget | District Projects | | | |
|--------------------|--------|--------|--------------|-------------------|--------|--------------|---|
| | | | | Actual | Budget | % YTD Budget | |
| Construction | 321 | 1,400 | 23 | Construction | 33 | 5,607 | 1 |
| Engineering | 55 | 1,480 | 4 | Engineering | 343 | 3,698 | 9 |

6. Safety/Liability

| | Industrial Injury with Lost Time | | | | Liability Claims Paid | |
|--------------------|----------------------------------|---------------------------|----------------------|------------------|-----------------------|------------------|
| | Lost Days | OH Cost of Lost Days (\$) | No. of Emp. Involved | No. of Incidents | Incurred (FYTD) | Paid (FYTD) (\$) |
| FY through July 13 | 2 | 832 | 1 | 0 | 0 | 0 |
| FY through July 12 | 0 | 0 | 0 | 0 | 1 | 853 |

Days without a lost time accident through July 31, 2013= 51 days

7. Energy Cost

| FYE | | Kwh | July | | Fiscal Year-to-Date thru July | | |
|------|-------------|---------|-------|----------|-------------------------------|-------|----------|
| | | | ¢/Kwh | Cost/Day | Kwh | ¢/Kwh | Cost/Day |
| 2014 | Stafford TP | 84,925 | 25.2¢ | \$689 | 84,925 | 25.2¢ | \$689 |
| | Pumping | 189,701 | 16.4¢ | \$1,039 | 189,701 | 16.4¢ | \$1,039 |
| | Other* | 48,230 | 22.2¢ | \$357 | 48,230 | 22.2¢ | \$357 |
| | | 322,856 | 19.6¢ | \$2,109 | 322,856 | 19.6¢ | \$2,109 |
| 2013 | Stafford TP | 39,026 | 19.7¢ | \$257 | 39,026 | 19.7¢ | \$257 |
| | Pumping | 207,591 | 11.4¢ | \$714 | 207,591 | 11.4¢ | \$714 |
| | Other* | 48,927 | 20.6¢ | \$325 | 48,927 | 20.6¢ | \$325 |
| | | 295,544 | 14.0¢ | \$1,333 | 295,544 | 14.0¢ | \$1,333 |
| 2012 | Stafford TP | 98,727 | 17.4¢ | \$574 | 98,727 | 17.4¢ | \$574 |
| | Pumping | 276,765 | 14.0¢ | \$1,111 | 276,765 | 14.0¢ | \$1,111 |
| | Other* | 43,363 | 21.3¢ | \$308 | 43,363 | 21.3¢ | \$308 |
| | | 418,855 | 15.6¢ | \$1,675 | 418,855 | 15.6¢ | \$1,675 |

*Other includes West Marin Facilities

8. Water Conservation Update

| | Month of July 2013 | Program Total to Date |
|--|--------------------|-----------------------|
| High Efficiency Toilet (HET) Rebate (\$100 each) | 21 | 2,645 |
| Retrofit Certificates Filed | 32 | 4,801 |
| Cash for Grass Rebates Paid Out | 5 | 527 |
| Washing Machine Rebates | 38 | 6,189 |
| Water Smart Home Survey | 29 | 1,446 |

9. Utility Performance Metric

| CUSTOMER SERVICE INTERRUPTIONS | July No. of Customers Impacted |
|---------------------------------------|---------------------------------------|
| PLANNED | |
| Duration Between 0.5 and 4 hours | 14 |
| Duration Between 4 and 12 hours | |
| Duration Greater than 12 hours | |
| UNPLANNED | |
| Duration Between 0.5 and 4 hours | 18 |
| Duration Between 4 and 12 hours | |
| Duration Greater than 12 hours | |
| SERVICE LINES REPLACED | July |
| Polybutylene | 23 |
| Copper (Replaced or Repaired) | 3 |

NORTH MARIN WATER DISTRICT

Summary of Complaints & Service Order July 2013

8/12/2013

| <u>Type</u> | <u>Jul-13</u> | <u>Jul-12</u> | <u>Action Taken July 2013</u> |
|--|---------------|---------------|-------------------------------|
| <u>Consumers' System Problems</u> | | | |
| Service Line Leaks | 20 | 25 | Notified Consumer |
| Meter Leak Consumer's Side | 0 | 0 | ~ |
| House Plumbing | 0 | 0 | ~ |
| Noisy Plumbing | 1 | 0 | Replaced Meter |
| Seepage or Other | 0 | 0 | ~ |
| House Valve / Meter Off | 5 | 8 | Turned Back On |
| Nothing Found | 4 | 17 | Notified Consumer |
| Low Pressure | 0 | 1 | ~ |
| High Pressure | 0 | 1 | ~ |
| Water Waster Complaints | 0 | 0 | ~ |
| Total | 30 | 52 | |
| <u>Service Repair Reports</u> | | | |
| Register Replacements | 0 | 0 | ~ |
| Meter Replacement | 3 | 0 | Replaced |
| Meter Box Alignment | 0 | 0 | ~ |
| Meter Noise | 0 | 0 | ~ |
| Dual Service Noise | 0 | 0 | ~ |
| Box and Lids | 2 | 2 | Replaced |
| Water Off/On Due To Repairs | 6 | 6 | Notified Consumer |
| Misc. Field Investigation | 8 | 6 | Notified Consumer |
| Total | 19 | 14 | |
| <u>Leak NMWD Facilities</u> | | | |
| Main-Leak | 0 | 0 | ~ |
| Mains-Nothing Found | 0 | 0 | ~ |
| Mains-Damage | 0 | 0 | ~ |
| Service- Leak | 20 | 18 | Repaired |
| Services-Nothing Found | 12 | 0 | Notified Consumer |
| Service-Damaged | 0 | 0 | ~ |
| Fire Hydrant-Leak | 4 | 2 | Repaired |
| Fire Hydrants-Nothing Found | 0 | 0 | ~ |
| Fire Hydrants-Damaged | 1 | 0 | Repaired |
| Meter Replacement | 0 | 0 | ~ |
| Meters-Leak | 0 | 0 | ~ |
| Meters-Nothing Found | 0 | 0 | ~ |
| Meters Damaged | 0 | 0 | ~ |
| Washer Leaks | 12 | 16 | Replaced |
| Total | 49 | 36 | |
| <u>High Bill Complaints</u> | | | |
| Consumer Leaks | 10 | 15 | Notified Consumer |
| Meter Testing | 0 | 0 | ~ |
| Meter Misread | 1 | 5 | ~ |
| Nothing Found | 19 | 53 | Notified Consumer |
| Projected Consumption | 0 | 0 | ~ |
| Excessive Irrigation | 0 | 3 | ~ |
| Total | 30 | 76 | |

NORTH MARIN WATER DISTRICT

Summary of Complaints & Service Order July 2013

8/12/2013

| <u>Type</u> | <u>Jul-13</u> | <u>Jul-12</u> | <u>Action Taken July 2013</u> |
|--|-------------------|-------------------|---|
| <u>Low Bill Reports</u> | | | |
| Meter Misread | 0 | 0 | ~ |
| Stuck Meter | 0 | 0 | ~ |
| Nothing Found | 0 | 0 | ~ |
| Projected Consumption | 0 | 0 | ~ |
| Minimum Charge Only | 0 | 0 | ~ |
| Total | 0 | 0 | |
| <u>Water Quality Complaints</u> | | | |
| Taste and Odor | 1 | 5 | <i>Customer reported bad taste in water. (S Novato Blvd)</i> NMWD noted odor & taste from STP supply. GAC cells replaced to improve T & O. Customer was notified. |
| Color | 0 | 1 | ~ |
| Turbidity | 0 | 0 | ~ |
| Suspended Solids | 1 | 1 | <i>Customer reported carbon particles in water. (Bear Creek Rd)</i> Carbon particles were verified to be from customer filter not in the NMWD water supply. Customer was notified of results. |
| Other | 1 | 2 | <i>Customer requested water to be tested due to brown stain on dishes. (Indian Valley Rd)</i> Metals were not detected in samples. Customer was notified of results. |
| Total | 3 | 9 | |
| <u>TOTAL FOR MONTH:</u> | <u>131</u> | <u>187</u> | <u>-30%</u> |
| <u>Fiscal YTD Summary</u> | | | |
| Consumer's System Problems | 30 | 52 | -42% |
| Service Repair Report | 19 | 14 | 36% |
| Leak Complaints | 49 | 36 | 36% |
| High Bill Complaints | 30 | 76 | -61% |
| Low Bills | 0 | 0 | 0% |
| Water Quality Complaints | 3 | 9 | -67% |
| Total | 131 | 187 | -30% |
| <u>Change Primarily Due To</u> | | | |
| | | | Decrease In Consumer Service Leak |
| | | | Increase In Meter Replacement |
| | | | Decrease In Washer Leaks |
| | | | Increase In Nothing Found |
| | | | ~ |
| | | | Decrease In Taste & Odor |

NORTH MARIN WATER DISTRICT

Summary of Complaints & Service Order July 2013

8/12/2013

| <u>Type</u> | <u>Jul-13</u> | <u>Jul-12</u> | <u>Action Taken July 2013</u> |
|---|---------------|---------------|-------------------------------|
| <u>"In House" Generated and Completed Work Orders</u> | | | |
| <u>Check Meter:</u> possible consumer/District leak, high bill, flooded, need read, etc. | 226 | 210 | |
| <u>Change Meter:</u> leaks, hard to read | 10 | 7 | |
| <u>Possible Stuck Meter</u> | 0 | 0 | |
| <u>Repair Meter:</u> registers, shut offs | 0 | 0 | |
| <u>Replace Boxes/Lids</u> | 0 | 3 | |
| <u>Hydrant Leaks</u> | 0 | 2 | |
| <u>Trims</u> | 49 | 3 | |
| <u>Dig Outs</u> | 45 | 37 | |
| <u>Letters to Consumer:</u> meter obstruction, trims, bees, gate access, etc. | 0 | 0 | |
| <u>Misc:</u> locate meter, get meter number, cross connection follow ups, kill service, etc. | 0 | 0 | |
| | 330 | 262 | |

Bill Adjustments Under Board Policy:

July 13 vs. July 12

| | | |
|--------|----|---------|
| Jul-13 | 31 | \$7,457 |
| Jul-12 | 24 | \$4,107 |

Fiscal Year to Date vs. Prior FYTD


| | | |
|------------|----|---------|
| 13/14 FYTD | 31 | \$7,457 |
| 12/13 FYTD | 24 | \$4,107 |

t:\cons srv\complaint report[complain 14.xls]jul13

6

MEMORANDUM

To: Board of Directors Date: August 16, 2013

From: Drew McIntyre, Chief Engineer 
David Jackson, Associate Engineer

Re: Recycled Water Expansion South Service Area Phase 2 Project –
Argonaut Constructors. Change Order Numbers 12 - 17
R:\Folders by Job No\6000 jobs\6056\Board Memos\6056 Phase 2 Change Orders Board memo.docx

RECOMMENDED ACTION: Authorize the General Manager to Execute Change Order Nos. 12, 13, 14, 15, 16 and 17 to Argonaut Constructors

FINANCIAL IMPACT: \$61,866.91 (increase of \$18,755 above 5% Board approved contingency)

The purpose of this memo is to request Board approval to execute Change Order Nos. 12, 13, 14, 15, 16, and 17 to Argonaut Constructors (Attachment A). In keeping with established engineering policy, all cumulative change orders that exceed the Board approved contingency limit are brought to the Board for approval. Execution of the aforementioned Change Orders will exceed the Board approved 5% contingency of \$75,000 by \$18,755. The resulting project change order percentage is 6.5%. District staff and the construction manager (The Covello Group) have reviewed, negotiated and recommend payment of the above change orders. A description of the changes requiring additional funds is provided as follows:

Change Order No. 12 - Additional Striping and Microseal Contribution (<\$446.25>)

This change order has two parts: (1) additional striping (painting of road markings) and (2) costs and credit for Argonauts contribution for micro sealing Hamilton Parkway in areas that were damaged during construction. The first part is for striping in areas outside of the direct construction effects to provide a neat and consistent appearance, negotiated cost is \$4,553.76. The second part is deductive (\$5,000) and is half the estimated cost for future micro-sealing to be done by the City of Novato on Hamilton Parkway for which NMWD will make a \$10,000 contribution. The net credit is \$446.25.

Change Order No. 13 – Miscellaneous Onsite Irrigation Retrofit Changes (+\$12,683.24)

In numerous locations the contractor encountered differing conditions in the underground irrigation piping. These conditions required additional work, which was recorded and reviewed by NMWD's third party Construction Inspector (The Covello Group). The total cost of Change Order No. 13 is \$12,683.24

Change Order No. 14 - Credit for Lining of Steel Pipe (<\$560.00>)

The supplier of the steel pipe casing for the railroad crossing at State Access Road (on the J-line) inadvertently omitted the coating specified by the contract. Returning the casing for the specified coating would have delayed the contract, creating more costs than its value to the

District. The casing is installed with a cathodic protection system and was specified with excess thickness for long life. This credit is valued at \$560.00

Change Order No. 15 – Onsite Irrigation Retrofit Changes at Hamilton and Charter School (+\$38,815.78)

During construction the design of irrigation retrofits at Hamilton Elementary School and the Novato Charter School were revised with the addition of booster pumps (at each location) and modifications due to additional areas that are receiving recycled water. Additionally, there were changed conditions of the underground facilities. These changes required considerable additional work that was not shown on the contract drawings. The total cost of Change Order No. 15 is \$38,815.78.

Change Order No. 16 – Deletion of O-Line Service Lateral at Alconbury Way (<\$4,894.00>)

During the design of the onsite retrofits for this service, it was determined that the total cost of installing this service was not cost effective. Therefore the service lateral was removed from the Phase 2 contract. This credit is valued at \$4,894.00.

Change Order No. 17 – Cement Treated Base Impacts (+\$16,268.14)

During the excavation for the pipelines the contractor encountered unforeseen significant quantities of cement treated road base material along Main Gate Road, Palm Drive, Hamilton Parkway and Hanger Ave. This slowed the excavation and required additional labor and equipment. The total cost of this change order is \$16,268.14.

A complete list of change orders for the project are summarized below:

| CCO # | Change Order Title/Description | Status | Amount |
|---|--|----------|---------------------|
| 1 | Davis Bacon Wage Determination | Executed | \$ - |
| 2 | Additional Rock Excavation Quantity | Executed | \$ 2,700.00 |
| 3 | Survey Control Coordination | Executed | \$ 1,650.00 |
| 4 | J-Line Tie-In to Existing @ STA 0+00 | Executed | \$ 13,434.72 |
| 5 | Additional Asphalt Grind and Overlay on Hamilton and Main Gate | Executed | \$ 34,250.00 |
| 6 | Tracer Wire/Telemetry/CP Boxes at J-Line STA 0+00 | Executed | \$ 3,219.60 |
| 7 | Inverted Drop at Main Gate/C-St Stub | Executed | \$ 3,551.31 |
| 8 | Additional Potholing on G & J Lines | Executed | \$ 4,580.78 |
| 9 | J-Line Conflict with Existing Concrete Ductbank | Executed | \$ 3,385.70 |
| 10 | Lanham Village Piping Deletion | Executed | \$ (25,000.00) |
| 11 | G-Line Piping Deletion and Service Relocation | Executed | \$ (9,884.00) |
| Subtotal (approved within Contingency) | | | \$ 31,888.11 |

| Remaining Change Orders | | | |
|--------------------------------|--|-------------------------|---------------------|
| 12 | Additional Striping and Microseal Contribution | Pending | \$ (446.25) |
| 13 | Miscellaneous Onsite Irrigation Retrofit Changes | Pending | \$ 12,683.24 |
| 14 | Credit for Lining of Steel Pipe | Pending | \$ (560.00) |
| 15 | Onsite Irrigation Retrofit Changes at Hamilton and Charter Schools | Pending | \$ 38,815.78 |
| 16 | Delete O-Line Service Lateral at Alconbury Way | Pending | \$ (4,894.00) |
| 17 | Cement Treated Base Impacts | Pending | \$ 16,268.14 |
| Subtotal (Remaining) | | | \$ 61,866.91 |
| Total | | | \$ 93,755.02 |
| | | Original Contract | \$ 1,441,750.00 |
| | | Change Order Percentage | 6.50% |

The General Manager has already approved change orders 1-11 for a total of \$31,888.11 within the board approved contingency amount of \$75,000. An updated Recycled Water South project cost summary is provided in a separate Board memo.

RECOMMENDATION

That the Board authorize the General Manager to execute Change Order Nos. 12 through 17.

CONTRACT CHANGE ORDER No. 012
North Marin Water District
Recycled Water Expansion
South Service Area Phase 2
Project No. 5.6056.13

Item: Additional Striping and Microseal Contribution

DESCRIPTION OF CHANGE:

Additional Striping Work

In addition to the Contract striping work, Argonaut shall complete all additional striping work as designated by the City Inspector, which is a result of additional paving work outside of Argonaut's scope. This additional striping work is listed in detail in Argonaut's Proposal titled 'J17 - NMWD Additional Striping', and is attached to this Change Order.

Cost: \$4,553.75

Microseal Contribution

The City of Novato is requiring a \$10,000 payment towards their microsealing of North Hamilton Parkway (See email from Julian Skinner dated 6/20/13). A microseal is required on Hamilton Parkway due to gouges and oil tracking on existing asphalt by Argonaut, as well as additional patch paving as a result of unforeseeable utility conflicts. It has been agreed that the Contractor and District will each contribute \$5,000 towards the City's microseal. This deductive Change Order amount shall constitute full payment from Argonaut.

Cost: (\$5,000.00)

REFERENCES: *Argonaut Striping Proposal J17 dated 6/25/13*
 Covello Group email to Argonaut dated 6/25/13

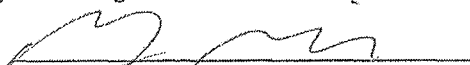
COST OF CHANGE: DELETE \$446.25

CONTRACT TIME ADJUSTMENT: 0 Calendar Days

This change order constitutes full and complete compensation for all labor, equipment, materials, overhead, profit, any and all indirect costs and time adjustment required to perform the above described change.

ACCEPTED:


Argonaut Constructors Inc.
Project Manager:

By: 
Mike Smith, Jr.

Date: 8/1/13

RECOMMENDED FOR ACCEPTANCE:

The Covello Group, Inc.
Construction Manager:

By: 
for Edward O'Brien

Date: 8/5/13

North Marin Water District
Chief Engineer

By: _____
Drew McIntyre

Date: _____

J17 - NMWD Additional Striping
Breakdown - 6/25/13

Main Gate

| | |
|-----------------------------------|----------|
| 1 Stripe of Crosswalk at Martin | \$185.00 |
| High Volume Cross Walk | \$520.00 |
| Double Yellow Between Islands | \$175.00 |
| Turn Lane/Reflectors/2 Arrows | \$460.00 |
| Double Yellow at C Street | \$345.00 |
| 1 Stripe of Crosswalk at C Street | \$93.00 |
| 34 Yellow Reflectors | \$120.00 |

Hamilton

| | |
|--------------------------------|----------|
| Stripe Remainder of Crosswalks | \$840.00 |
|--------------------------------|----------|

Hanger Ave

| | |
|------------------------------------|----------|
| Stop Legend - Redo Right Lane | \$145.00 |
| Restripe Crosswalks above Contract | \$760.00 |

| | |
|-----------------------------------|-------------------|
| Subtotal | \$3,643.00 |
| 25% EW Markup | \$910.75 |
| Total EW Cost for Striping | \$4,553.75 |

J17 - NMWD Additional Striping

Breakdown - 6/25/13

Main Gate

| | |
|-----------------------------------|----------|
| 1 Stripe of Crosswalk at Martin | \$185.00 |
| High Volume Cross Walk | \$520.00 |
| Double Yellow Between Islands | \$175.00 |
| Turn Lane/Reflectors/2 Arrows | \$460.00 |
| Double Yellow at C Street | \$345.00 |
| 1 Stripe of Crosswalk at C Street | \$93.00 |
| 34 Yellow Reflectors | \$120.00 |

Hamilton

| | |
|--------------------------------|----------|
| Stripe Remainder of Crosswalks | \$840.00 |
|--------------------------------|----------|

Hanger Ave

| | |
|------------------------------------|----------|
| Stop Legend - Redo Right Lane | \$145.00 |
| Restripe Crosswalks above Contract | \$760.00 |

| | |
|-----------------------------------|-------------------|
| Subtotal | \$3,643.00 |
| 25% EW Markup | \$910.75 |
| Total EW Cost for Striping | \$4,553.75 |

CONTRACT CHANGE ORDER No. 013
North Marin Water District
Recycled Water Expansion
South Service Area Phase 2
Project No. 5.6056.13

Item: Miscellaneous Onsite Irrigation Retrofit Changes

DESCRIPTION OF CHANGE:

Argonaut performed additional work as directed at several of the onsite irrigation retrofit sites. This Change Order shall constitute full compensation for the following work items:

| ARG Billing No. | Description | Amount |
|-----------------|--|---------------------|
| 62.0 | Locate and Quantify Broken Irrigation Boxes/Lids throughout project | \$ 799.71 |
| 63.0 | Locate and expose ex. Irrigation Lines at Site S14 | \$ 1,060.42 |
| 64.0 | Trench for adequate separation from potable line at Site S8 | \$ 1,256.40 |
| 65.0 | Locate ex. Potable water line under AC pathway for connection to ex. Hose bib at Site S14 | \$ 1,669.63 |
| 66.0 | Excavate and expose ex. Irrigation/potable lines at location of new RP at Site S56/61 | \$ 348.79 |
| 67.0 | Re-route irrigation line for adequate separation from potable line at Site S8 | \$ 704.85 |
| 68.0 | Excavate and expose ex. Piping to determine where to locate new RP at Site S56/61 | \$ 238.52 |
| 69.0 | Relocate ex. Irrigation to make room for wye strainer and tie-in at main at Site S9 | \$ 736.76 |
| 70.0 | Install new RP's at Sites S56/61 and S14 | \$ 3,401.25 |
| 71.0 | Install new RP at Site S18 | \$ 924.22 |
| 72.0 | Turn ex. Meter 90 deg and reset meter box parallel to curb to allow room for wye strainer and tie-in at Site S9. | \$ 205.60 |
| 73.0 | Form and pour concrete pads for new RP's at Sites S56/61, S14 and S18. | \$ 1,337.09 |
| Total | | \$ 12,683.24 |

REFERENCES: Argonaut Daily Extra Work Reports 62.0 through 73.0
Field Order No. 06

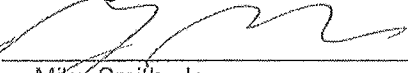
COST OF CHANGE: Add \$12,683.24

CONTRACT TIME ADJUSTMENT: 0 Calendar Days

This change order constitutes full and complete compensation for all labor, equipment, materials, overhead, profit, any and all indirect costs and time adjustment required to perform the above described change.

ACCEPTED:


Argonaut Constructors Inc.
Project Manager:

By: 
Mike Smith, Jr.

Date: 3/1/13

RECOMMENDED FOR ACCEPTANCE:

The Covello Group, Inc.
Construction Manager:

By: 
for Edward O'Brien

Date: 8/5/13

North Marin Water District
Chief Engineer

By: _____
Drew McIntyre

Date: _____

CONTRACT CHANGE ORDER No. 014
North Marin Water District
Recycled Water Expansion
South Service Area Phase 2
Project No. 5.6056.13

Item: Credit for Lining of Steel Pipe

DESCRIPTION OF CHANGE:

Spec Section 15125.2.01.F requires steel pipe casings to be lined with liquid epoxy to a minimum of 0.305 mm. The steel casings were delivered to the site without any epoxy lining. This Change Order shall constitute a credit to the District for allowing the installation of the steel pipe casings as delivered.

REFERENCES: RFQ 01

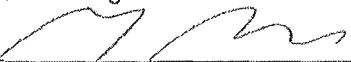
COST OF CHANGE: Delete \$560.00

CONTRACT TIME ADJUSTMENT: 0 Calendar Days

This change order constitutes full and complete compensation for all labor; equipment, materials, overhead, profit, any and all indirect costs and time adjustment required to perform the above described change.


ACCEPTED:

Argonaut Constructors Inc.
Project Manager:

By: 
Mike Smith, Jr.
Date: 8/1/13

RECOMMENDED FOR ACCEPTANCE:

The Covello Group, Inc.
Construction Manager:

By: 
For Edward O'Brien
Date: 8/5/13

North Marin Water District
Chief Engineer

By: _____
Drew McIntyre
Date: _____

CONTRACT CHANGE ORDER No. 015
North Marin Water District
Recycled Water Expansion
South Service Area Phase 2
Project No. 5.6056.13

Item: Onsite Irrigation Retrofit Changes at Hamilton and Charter School

DESCRIPTION OF CHANGE:

Complete the changes in the onsite irrigation work at the Novato Charter School and Hamilton School per Field Orders No. 07 and 08. Work at each site includes the following:

Dwg. S34-1 & S34-2: Novato Unified School District Hamilton School, 1 Main Gate Rd.:

- Install new (District supplied) booster pump, pad and enclosure. Connect power to new pump.
- Install approx. 300' of new electrical conduit and pull new feeder wire from (E) Siemens MCC to booster pump. Minimum cover over conduit shall be 18". New N-9 Christie boxes with traffic rated covers to be installed at all directional changes.
- Replace (E) 3-pole 100 amp trip supply breaker with a new 3 pole 100 amp frame/240V 35 amp trip circuit breaker at (E) MCC.
- Restore landscaping in kind.

Dwg. S23-1 & S23-2: Novato Unified School District Charter School, 940 C St.:

- Relocate (E) Booster Pump and install new (District Supplied) booster pump, reduced backflow assembly, control valves, and piping per attached revised Field Order No. 08.

REFERENCES: *Field Order 07*
 Field Order 08

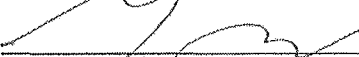
COST OF CHANGE: Add \$38,815.78

CONTRACT TIME ADJUSTMENT: 0 Calendar Days

This change order constitutes full and complete compensation for all labor, equipment, materials, overhead, profit, any and all indirect costs and time adjustment required to perform the above described change.

ACCEPTED:

Argonaut Constructors Inc.
Project Manager:

By: 
Mike Smith, Jr.

Date: 8/1/13

RECOMMENDED FOR ACCEPTANCE:

The Covello Group, Inc.
Construction Manager:

By: 
Edward O'Brien

Date: 8/5/13

North Marin Water District
Chief Engineer

By: _____
Drew McIntyre

Date: _____



Field Order 07: Onsite Irrigation Retrofit Revisions at Hamilton School
NMWD Recycled Water Expansion - South Service Area Phase 2

Issue Date: 05/20/13

To:
Jason Balatti
1236 Central Avenue
Santa Rosa, California 95402
United States

Issued By:
Clay Kuzma
500 Davidson Street
Novato, California 94945
United States

| | |
|---|--|
| SPEC. SECTION: 00700 - General Conditions | REFERENCE: Revised Drawing S34-1 & S34-2 (Attached) |
| | DISCIPLINE: Landscaping |

Scope of Work:

Attachments:
Bartley Pump LABOR RATES.pdf, FO 07_Dwg_S34-1 and S34-2.pdf

Dwg. S34-1 & S34-2: Novato Unified School District Hamilton School, 1 Main Gate Rd.:

1. Install new (District supplied) booster pump, pad and enclosure. Connect power to new pump. Specifications per attached Dwg. No S34-2.
2. Install approx. 300' of new electrical conduit and pull new feeder wire from (E) Siemens MCC to booster pump. Minimum cover over conduit shall be 18". New N-9 Christie boxes with traffic rated covers to be installed at all directional changes.
3. Replace (E) 3-pole 100 amp trip supply breaker with a new 3 pole 100 amp frame/240V 35 amp trip circuit breaker at (E) MCC.

Exact routing of conduit and placement of pump pad to be determined in field with onsite inspector and shall avoid any necessary obstacles and (E) utilities. Note: Argonaut intends to use subcontractor, Bartley Pump, for the installation of the pump and electrical work. A copy of Bartley's approved hourly rates is also attached to this Field Order. Bartley's hourly labor rates include all Subcontractor mark-up. If special equipment is used, it will be billed at the acceptable Caltrans equipment rate in addition to the agreed labor rate.

Contractor and Subcontractor shall submit daily T&M tags to the onsite inspector for review and approval.

The Contractor is directed to proceed with the above Scope of Work and will be reimbursed for cost of the additional or changed work up to the authorized amount indicated below in accordance with the terms and conditions of the Contract. Daily time sheets that document labor, equipment, materials and other resources employed to complete the work shall be presented to the Construction Manager at the end of each day for verification. Contractor shall notify the Construction Manager prior to starting the work and coordinate the work schedule with the Construction Manager. Contractor must notify the Construction Manager if he will exceed the pre-authorized amount prior to expending those resources.

Cost Impact NOT TO EXCEED: \$20,000.00

Notify CM prior to exceeding this allowance.

(Owner) Approval by: _____
(name) (date)

Recommended by The Covello Group: _____
(name) (date)

Accepted for (Contractor) by: _____
(name) (date)



AREA IRRIGATED FROM S33 MAIN GATE ROAD

NAVE DR

MAIN GATE RD

AREA IRRIGATED FROM S33 MAIN GATE ROAD

RECYCLED WATER METER AND WYE STRAINER FOR SITE S33 MAIN GATE ROAD.

NEW 2" RECYCLED WATER METER TO BE INSTALLED BY NMWD. REFER TO DET 2/RG7 ON SHEET RG7.

NEW 3" PVC IRRIGATION MAIN LINE

NEW BOOSTER PUMP REFER TO SHEET S34-2 FOR INSTALLATION INSTRUCTIONS

NEW 3" WYE STRAINER ASSEMBLY

RELOCATED FLOW METER

RELOCATED MASTER VALVE

CONTRACTOR TO CONNECT INTO EXISTING 3" MAIN LINE AT THIS APPROXIMATE LOCATION, APPROXIMATELY 10' OF 3" MAIN LINE.

EXISTING 3" PVC IRRIGATION MAIN LINE

NEW 2" ELECTRICAL CONDUIT (APPROXIMATELY 300') WITH NEW FEEDER (3-#6,1#BN,1#10G WIRES) FROM EXISTING SIEMENS MCC WITHIN FENCED UTILITY AREA TO NEW BOOSTER PUMP. EXACT ROUTE SHALL BE GOVERNED BY THE NECESSARY OBSTACLES THAT NEED TO BE BYPASSED. MINIMUM COVERAGE SHALL BE 18-INCHES. USE CHRISTY N-9 PULLBOX WITH A TRAFFIC RATED COVER LABELED "ELECTRICAL" AT ALL CHANGES IN DIRECTION. REPLACE EXISTING 3-POLE 100AMP TRIP SUPPLY BREAKER WITH A NEW 3 POLE 100AMP FRAME/240V 35 AMP TRIP CIRCUIT BREAKER. ALL ELECTRICAL WORK TO BE DONE BY A LICENSED ELECTRICAL CONTRACTOR.

CONTRACTOR TO PULL NEW FLOW SENSOR AND MASTER VALVES WIRES THROUGH EXISTING 1" CONDUIT FROM NEW SENSOR LOCATION TO EXISTING CONTROLLER. WIRE TO CONTROLLER AND PROGRAM FLOW SETTINGS INTO CONTROLLER.

ADVISORY SIGN (TYP.)

EXISTING BACKFLOW PREVENTION DEVICE, TO BE REMOVED AND RETURNED TO THE SCHOOL. RELOCATE EXISTING FLOW METER AND MASTER VALVE TO NEW RECYCLED WATER METER LOCATION. REFER TO NEW METER LAYOUT ON THIS SHEET. CONTRACTOR SHALL REMOVE A MINIMUM 4' OF IRRIGATION PIPELINE, CAP AND LABEL AS DOMESTIC WATER. REMOVE PER DETAIL 1/RG7 ON SHEET RG7.

NOTES:

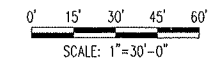
- THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.
- IF POSSIBLE AVOID SAW CUTTING CONCRETE. HAND TRENCH AND BORE UNDER SIDEWALKS PROVIDE SLEEVE FOR PIPING UNDER SIDEWALKS.
- THE EXISTING MAIN LINE SHOWN ON THE DRAWING IS DIAGRAMMATIC. VERIFY AND LOCATE EXISTING MAIN LINE IN FIELD. REPORT TO ARCHITECT IN WRITING ANY DEVIATION OF EXISTING MAIN LINE LOCATION FROM THAT SHOWN ON THE DRAWINGS.
- AT POINTS OF CONNECTION BETWEEN EXISTING MAIN LINE AND A NEW MAIN LINE BRANCH, USE THE FOLLOWING PROCEDURE: REMOVE A PORTION OF EXISTING MAINLINE FABRICATE A TEE AND NIPPLE ASSEMBLY REQUIRED FOR CONNECTION OF NEW MAIN LINE BETWEEN REMOVED PORTION OF EXISTING MAIN LINE. USE SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC FITTINGS.
- OPEN TRENCHES SHALL BE BACKFILLED AND RESTORED TO AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE.
- ROUTE PIPING AS NECESSARY TO AVOID ANY OBSTRUCTIONS SUCH AS TREES ETC.
- CONTRACTOR TO REMOVE A MINIMUM OF 4' OF IRRIGATION PIPE DOWNSTREAM OF BACKFLOW PREVENTION DEVICE. CAP AND LABEL AS RECYCLED WATER.

BRIEF SITE SCOPE OF WORK:

- NEW 3" MAIN LINE FROM RW METER (INSTALLED IN PRIOR PHASE) TO EXISTING IRRIGATION SYSTEM. DISCONNECT EXISTING BACKFLOW FROM DOMESTIC WATER LINE. INSTALL PER RETROFIT NOTES ON SHEET RG3.
- INSTALL NEW BOOSTER PUMP AND NEW ELECTRICAL TO SERVICE BOOSTER PUMP.
- LABEL AND TAG ALL IRRIGATION VALVE BOXES AND COMPONENTS. REFER TO RETROFIT NOTES FOR MORE INFORMATION.
- ADD RECYCLED WATER ADVISORY SIGNAGE AS SHOWN.
- SITE MUST PASS REQUIRED CROSS-CONNECTION TEST.

GENERAL SITE INFORMATION:

- LANDSCAPE RECYCLED WATER IRRIGATION USE AREA: 104,545 SF
- PUBLIC ACCESS TO SITE GROUNDS IS: UNRESTRICTED
- OWNER: NOVATO UNIFIED SCHOOL DISTRICT
- OWNER CONTACT: MARK SILVA
- TENANT(S): N/A
- ON-SITE WELL LOCATIONS: NONE
- WELLS ON ADJACENT SITES LOCATED WITH 50 FT. OF RECYCLED WATER APPROVED USE AREA OR WITHIN 100 FT. OF ANY RECYCLED WATER IMPOUNDMENT: NONE
- OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER APPROVED USE AREA: NONE
- OUTDOOR EATING AREA(S) IN/NEAR THE RECYCLED WATER APPROVED USE AREA: NONE
- WATER FEATURES ON SITE: NONE
- ESTIMATED NUMBER OF:
 - VALVES: 23
 - QUICK COUPLERS: 8
 - CONTROLLERS: 2
- PEAK FLOW: 80 GPM
- ESTIMATED YEARLY DEMAND: 8.45 AFY
- ESTIMATED OPERATING PRESSURE AT THE RW METER: 34 PSI



RECYCLED WATER ONSITE RETROFIT PROJECT
PHASE 2 SERVICE AREA-PUBLIC SITES
TASK 2



Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 • fax 925.932.5671
www.rmsirrigation.com

| 3/28/13 | BOOSTER PUMP ADDED | | |
|---------|--------------------|----------|---------|
| 8/8/12 | ISSUED FOR BID | RG | DJ |
| NO. | DATE | REVISION | BY APP. |

NORTH MARIN WATER DISTRICT
NOVATO, CALIFORNIA
SITE S34 - NOVATO UNIFIED SCHOOL
DISTRICT HAMILTON SCHOOL 1 MAIN GATE
SOUTH SERVICE AREA - PUBLIC
SITE PLAN

| | | | | |
|--------------------------|--------------|-----------|-----------------|-----------------|
| DES | DR | CH | SCALE | : AS NOTED |
| CM | CG | | DATE | : JULY 27, 2012 |
| APPROVED: CHIEF ENGINEER | | SHEET NO. | : 26 | OF 29 SHEETS |
| R.E. C40936 | SERVICE AREA | S | JOB.NO. 6056.21 | NO. S34-1 |

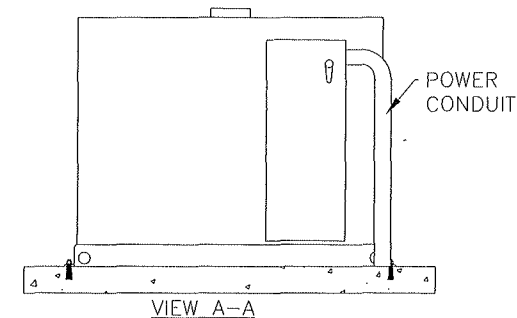
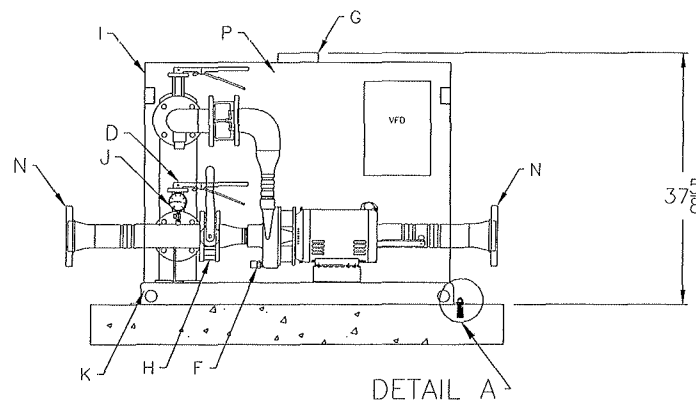
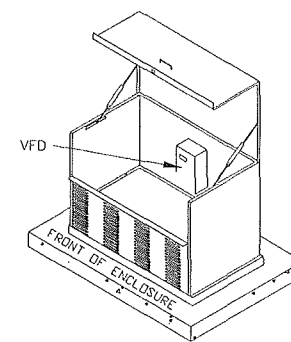
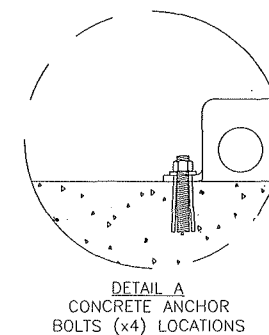
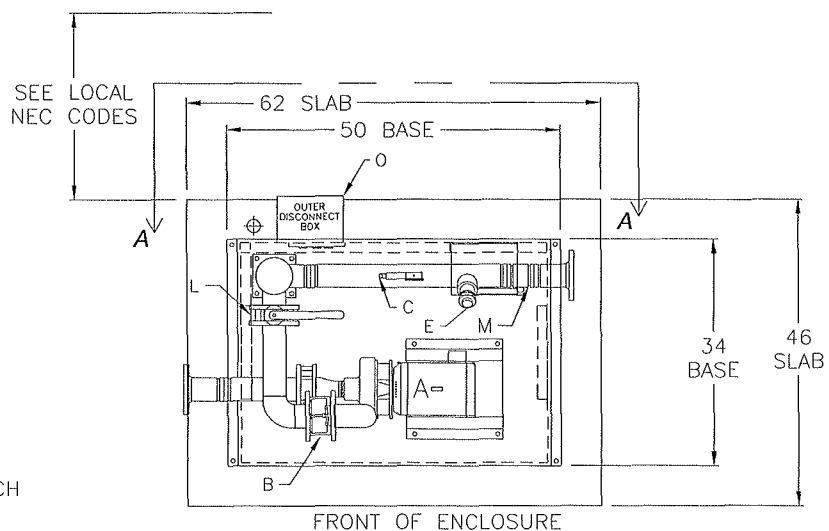
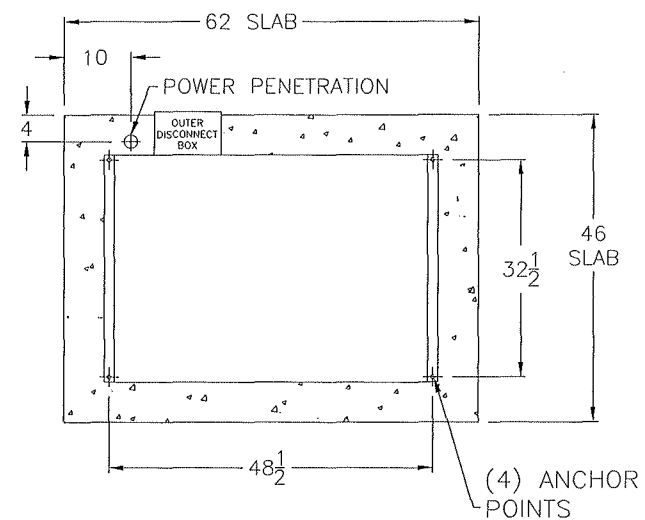
WATERTRONICS PUMP STATION SPECIFICATIONS:

NAME: HAMILTON SCHOOL
 STATION MODEL: WMBV-5000-2-5-208-3-80-45
 STATION TOTAL PERFORMANCE: 80 GPM @ 45 PSI BOOST
 REGULATE PRESSURE: 75
 DYNAMIC INLET PRESSURE: 30
 PRESSURE START
 PUMP HORSEPOWER:
 PUMP NO.1 5 HP (3600 RPM)
 CHECK VALVE SIZES:
 PUMP NO.1 3"
 ISOLATION VALVE SIZES:
 DISCHARGE ISOLATION VALVE SIZE: 3"
 DISCHARGE MANIFOLD SIZE: 3"
 EXHAUST FAN REQUIREMENTS: 240CFM

POWER REQUIREMENTS: 208 V, 60 HZ, 3 PHZ, 28 FULL LOAD AMPS

STATION COMPONENTS:

- A PUMP AND MOTOR
- B CHECK VALVE
- C PRESSURE TRANSDUCER WITH GAUGE
- D BYPASS VALVE
- E FLOW SENSOR
- F TEMP SENSOR
- G STATION FAN HOOD MOUNTED
- H PUMP INTAKE ISOLATION VALVE
- I MARINE GRADE ALUMINUM ENCLOSURE (UNPAINTED)
- J PSI/VAC GAUGE LIQUID FILLED / LOW SUCTION PSI SWITCH
- K STAINLESS STEEL BASE (UNPAINTED)
- L PUMP DISCHARGE ISOLATION VALVE
- M STATION DISCHARGE ISOLATION VALVE
- N 3" FLANGE CONNECTION
- O DEAD-FRONT DISCONNECT
- P INTERNAL SOUND DAMPENING MATERIAL



| | | | |
|---|--------------|--|---------------------------|
| RECYCLED WATER ONSITE RETROFIT PROJECT PHASE 2 SERVICE AREA-PUBLIC SITES TASK 2 | | | |
| NORTH MARIN WATER DISTRICT | | Russell D. Mitchell Associates, Inc. 2760 Camino Diablo Walnut Creek, CA 94597 tel 925.939.3985 • fax 925.932.5671 www.rdmirrigation.com | |
| ISSUED FOR CONSTRUCTION | | | |
| NO. | DATE | REVISION | BY APP. |
| NORTH MARIN WATER DISTRICT NOVATO, CALIFORNIA | | | |
| SITE S34 - NOVATO UNIFIED SCHOOL DISTRICT HAMILTON SCHOOL 1 MAIN GATE SOUTH SERVICE AREA - PUBLIC BOOSTER PUMP DETAILS | | | |
| DES | DR | CH | SCALE : AS NOTED |
| CM | CG | | DATE : JULY 27, 2012 |
| APPROVED: CHIEF ENGINEER | | SHEET NO. : 26A | OF 29 SHEETS |
| R.E. C40936 | SERVICE AREA | S | JOB NO. 6056.21 NO. S34-2 |



Field Order 08: Revisions to Onsite Irrigation Retrofits at Charter School Site

Issue Date: 06/10/13

NMWD Recycled Water Expansion - South Service Area Phase 2

To:
Jason Balatti
1236 Central Avenue
Santa Rosa, California 95402
United States

Issued By:
Clay Kuzma
500 Davidson Street
Novato, California 94945
United States

| | |
|---|--|
| SPEC. SECTION: 00700 - General Conditions | REFERENCE: Attached Sketches S23-1 and S23-2 |
| | DISCIPLINE: |

Scope of Work:

| |
|---|
| Attachments: FO 08 Dwgs S23-1 and S23-2.pdf |
|---|

Contractor shall proceed on a T&M basis to complete the onsite irrigation retrofits at the Charter School Site S-23 per the attached revised drawings S23-1 and S23-2. The main area of work to be covered by this Field Order is within and around the (E) fenced enclosure at the booster pump and backflow point of connection. Please note that Drawing S23-2 is schematic and that field fit and changes may be needed at the time of intallation. Please also note that the Reduced Pressure Backflow Assembly on the new 2" potable line is existing and does not require replacement with new.

The Contractor is directed to proceed with the above Scope of Work and will be reimbursed for cost of the additional or changed work up to the authorized amount indicated below in accordance with the terms and conditions of the Contract. Daily time sheets that document labor, equipment, materials and other resources employed to complete the work shall be presented to the Construction Manager at the end of each day for verification. Contractor shall notify the Construction Manager prior to starting the work and coordinate the work schedule with the Construction Manager. Contractor must notify the Construction Manager if he will exceed the pre-authorized amount prior to expending those resources.

Cost Impact NOT TO EXCEED: \$15,000.00

Notify CM prior to exceeding this allowance.

(Owner) Approval by: _____
(name) (date)

Recommended by The Covello Group: _____
(name) (date)

Accepted for (Contractor) by: _____
(name) (date)

BRIEF SITE SCOPE OF WORK:

1. NEW 2.5" MAIN LINE FROM RW METER (INSTALLED IN PRIOR PHASE) TO EXISTING BOOSTER PUMP. NEW PIPING FOR BOOSTER PUMP/EXPANSION TANK TO EXISTING POTABLE WATER LINE AND CONNECT PER BOOSTER PUMP DETAIL ON SHEET S23-2.
2. LABEL AND TAG ALL IRRIGATION VALVE BOXES AND COMPONENTS IN BALL FIELD AREA. REFER TO RETROFIT NOTES FOR MORE INFORMATION
3. ADD RECYCLED WATER ADVISORY SIGNAGE AS SHOWN.
4. SITE MUST PASS REQUIRED CROSS-CONNECTION TEST.
5. REMOVE ONE DRINKING FOUNTAIN.

NEW 2.5" PVC IRRIGATION MAIN LINE

EXISTING 2" PVC IRRIGATION MAIN LINE

CUT, CAP AND REMOVE AT LEAST 10 FEET OF EXISTING IRRIGATION MAIN LINE AT THIS APPROXIMATE LOCATION.

EXISTING PVC IRRIGATION MAIN LINE

EXISTING BACKFLOW PREVENTION DEVICE, TO REMAIN IN SERVICE FOR THE DOMESTIC WATER LINE.

EXISTING DOMESTIC WATER LINE TO WATER METER

SEE SHEET 24-A FOR PUMP DETAIL.

NEW 2" PVC POTABLE IRRIGATION MAIN LINE.

DOMESTIC WATER METER FOR C STREET CHARTER SCHOOL

AREA IRRIGATED FROM THE MAIN GATE IRRIGATION

MAIN GATE RD

NEW 2" RECYCLED WATER METER TO BE INSTALLED BY NMWD. UPSIZE MAIN LINE TO 2.5" ON DISCHARGE SIDE OF FILTER ASSEMBLY SEE DET 2/RG7 ON SHEET RG7

NEW 2.5" WYE STRAINER ASSEMBLY

AREA IRRIGATED FROM THE MAIN GATE IRRIGATION

REPLACE EXISTING HOSE BIB WITH A QUICK COUPLER

ADVISORY SIGN (TYP.)

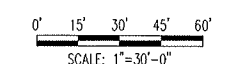
REMOVE AND CAP EXISTING DRINKING FOUNTAIN

EXISTING IRRIGATION MAIN LINE.

EXCAVATE AND FIND LINE EXTENSION AND CUT AND CAP LINE WITH AT LEAST 4' OF SEPARATION.

APPROXIMATE ROUTING OF EXISTING DOMESTIC IRRIGATION TO GARDEN

NEW 2.5" PVC IRRIGATION MAIN LINE, THROUGH EXISTING LANDSCAPE TO PUMP. APPROXIMATELY 400' OF 2.5" MAIN LINE




GENERAL SITE INFORMATION:

1. LANDSCAPE RECYCLED WATER IRRIGATION USE AREA: 36,365 SF
2. PUBLIC ACCESS TO SITE GROUNDS IS: UNRESTRICTED
3. OWNER: NOVATO UNIFIED SCHOOL DISTRICT
4. CONTACT: MARK SILVA
5. TENANT(S): N/A
6. ON-SITE WELL LOCATIONS: NONE
7. WELLS ON ADJACENT SITES LOCATED WITH 50 FT. OF RECYCLED WATER APPROVED USE AREA OR WITHIN 100 FT. OF ANY RECYCLED WATER IMPOUNDMENT: NONE
8. OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER APPROVED USE AREA: TWO
9. OUTDOOR EATING AREA(S) IN/NEAR THE RECYCLED WATER APPROVED USE AREA: NONE
10. WATER FEATURES ON SITE: NONE
11. ESTIMATED NUMBER OF:
 - A. VALVES: 15
 - B. QUICK COUPLERS: 1
 - C. CONTROLLERS: 1
12. PEAK FLOW: 50 GPM
13. ESTIMATED YEARLY DEMAND: 4.65 AFY
14. ESTIMATED OPERATING PRESSURE AT THE RW METER: 35 PSI

NOTES:

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.
2. IF POSSIBLE AVOID SAW CUTTING CONCRETE. HAND TRENCH AND BORE UNDER SIDEWALKS PROVIDE SLEEVE FOR PIPING UNDER SIDEWALKS.
3. THE EXISTING MAIN LINE SHOWN ON THE DRAWING IS DIAGRAMMATIC. VERIFY AND LOCATE EXISTING MAIN LINE IN FIELD. REPORT TO ARCHITECT IN WRITING ANY DEVIATION OF EXISTING MAIN LINE LOCATION FROM THAT SHOWN ON THE DRAWINGS.
4. AT POINTS OF CONNECTION BETWEEN EXISTING MAIN LINE AND A NEW MAIN LINE BRANCH, USE THE FOLLOWING PROCEDURE: REMOVE A PORTION OF EXISTING MAINLINE FABRICATE A TEE AND NIPPLE ASSEMBLY REQUIRED FOR CONNECTION OF NEW MAIN LINE BETWEEN REMOVED PORTION OF EXISTING MAIN LINE. USE SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC FITTINGS.
5. OPEN TRENCHES SHALL BE BACKFILLED AND RESTORED TO AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE.
6. ROUTE PIPING AS NECESSARY TO AVOID ANY OBSTRUCTIONS SUCH AS TREES ETC.
7. CONTRACTOR TO REMOVE A MINIMUM OF 4' OF IRRIGATION PIPE DOWNSTREAM OF BACKFLOW PREVENTION DEVICE. CAP AND LABEL AS RECYCLED WATER.

RECYCLED WATER ONSITE RETROFIT PROJECT
PHASE 2 SERVICE AREA-PUBLIC SITES
TASK 2



NORTH MARIN WATER DISTRICT

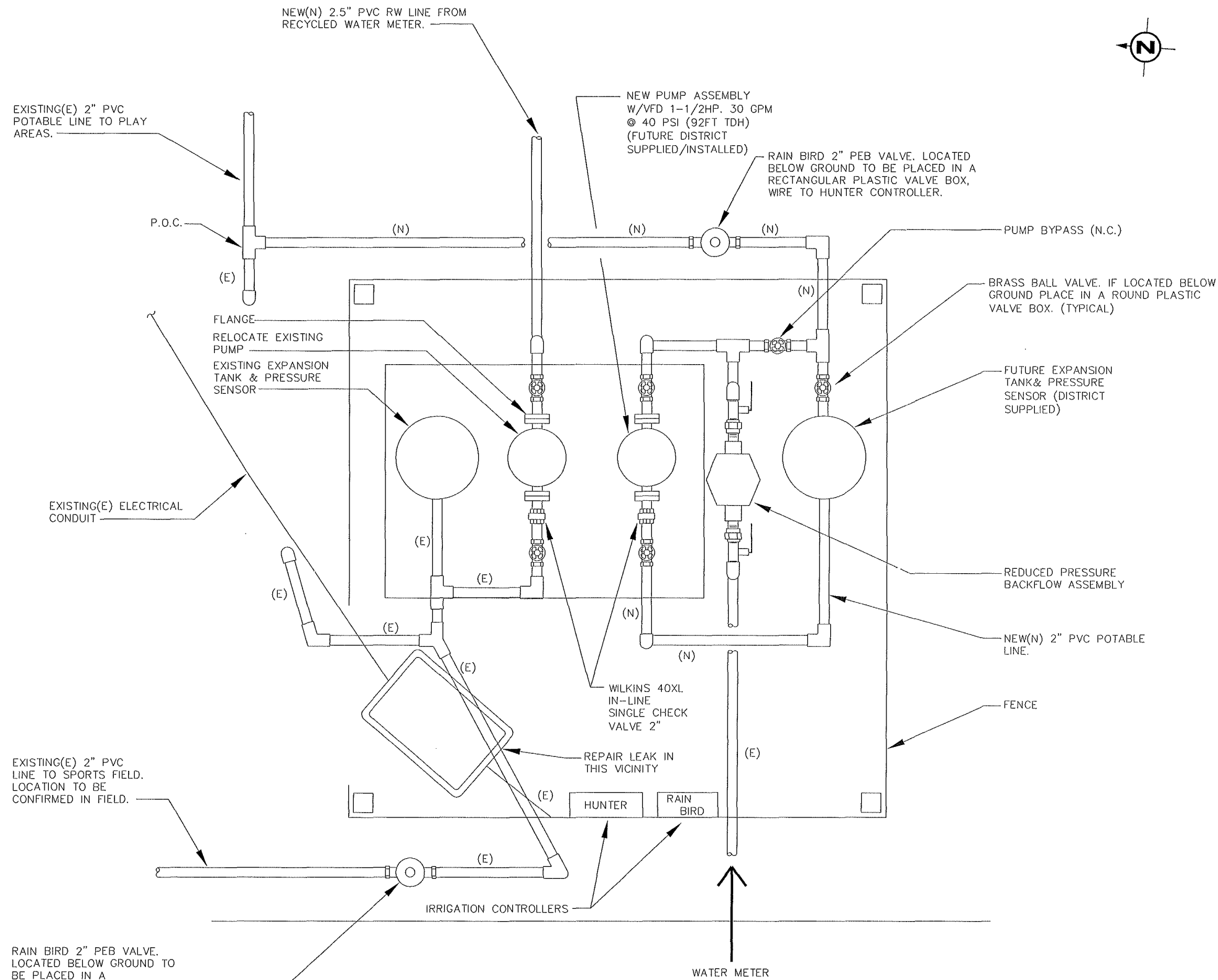
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 • fax 925.932.5671
www.rmairrigation.com

| | | | |
|---------|-------------------------------|----------|---------|
| 5/31/13 | ADDITION OF SECOND PUMP | | |
| 3/28/13 | POINT OF CONNECTION REVISIONS | | |
| 8/8/12 | ISSUED FOR BID | RG | DJ |
| NO. | DATE | REVISION | BY APP. |

NORTH MARIN WATER DISTRICT
NOVATO, CALIFORNIA

SITE S23 - NOVATO UNIFIED SCHOOL DISTRICT CHARTER SCHOOL 940 C ST
SOUTH SERVICE AREA - PUBLIC
SITE PLAN

| | | | | |
|--------------------------|--------------|-----------|---------|-------------------|
| DES | DR | CH | SCALE | : AS NOTED |
| CM | CG | | DATE | : JULY 27, 2012 |
| APPROVED: CHIEF ENGINEER | | SHEET NO. | | : 24 OF 29 SHEETS |
| R.E. C40936 | SERVICE AREA | S | JOB NO. | 6056.21 NO. S23-1 |



- NOTES:**
1. FUTURE BOOSTER PUMP CONNECTION. CONTRACTOR TO TAG VALVE PER SHEET RG5 AND COLOR CODE ALL PIPING WITH EITHER PURPLE PIPE OR WARNING TAPE THAT IS ADHESIVE, PERMANENT, AND RESISTANT TO ENVIRONMENTAL CONDITIONS.
 2. AVOID SAW CUTTING CONCRETE. HAND TRENCH AND BORE UNDER CONCRETE IF POSSIBLE. SLEEVE PIPING UNDER CONCRETE.
 3. ALL ABOVE GRADE PIPING SHALL BE COPPER PIPE.

BOOSTER PUMP AND BACKFLOW POINT OF CONNECTION DETAIL
NOT TO SCALE

| | | | |
|--|------|---|----------------------|
| RECYCLED WATER ONSITE RETROFIT PROJECT PHASE 2 SERVICE AREA-PUBLIC SITES TASK 2 | | | |
| | | Russell D. Mitchell Associates, Inc. 2760 Camino Diablo Walnut Creek, CA 94597 tel 925.939.3985 • fax 925.932.5671 www.rmairrigation.com | |
| NO. | DATE | REVISION | BY APP. |
| 5/31/13 | | ISSUED FOR CONSTRUCTION | RG DJ |
| NORTH MARIN WATER DISTRICT NOVATO, CALIFORNIA | | | |
| SITE S23 - NOVATO UNIFIED SCHOOL DISTRICT CHARTER SCHOOL 940 C ST SOUTH SERVICE AREA - PUBLIC SITE PLAN | | | |
| DES | DR | CH | SCALE : AS NOTED |
| CM | CG | | DATE : JULY 27, 2012 |
| APPROVED: CHIEF ENGINEER | | SHEET NO. : 24A | OF 29 SHEETS |
| R.E. C40936 | S | JOB NO. 6056.21 | NO. S23-2 |

CONTRACT CHANGE ORDER No. 016
North Marin Water District
Recycled Water Expansion
South Service Area Phase 2
Project No. 5.6056.13

Item: Deletion of O-Line Service Lateral at Alconbury Way

DESCRIPTION OF CHANGE:

This Contract Change Order shall constitute a full credit to the District for the deletion of the installation of a new service lateral on the O-Line, STA 3+68, at Alconbury Way per RFQ No. 05.

REFERENCES: RFQ 05

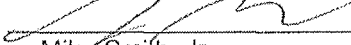
COST OF CHANGE: Delete \$4,894.00

CONTRACT TIME ADJUSTMENT: 0 Calendar Days

This change order constitutes full and complete compensation for all labor, equipment, materials, overhead, profit, any and all indirect costs and time adjustment required to perform the above described change.

ACCEPTED:

Argonaut Constructors Inc.
Project Manager:

By: 
Mike Smith, Jr.

Date: 8/1/13

RECOMMENDED FOR ACCEPTANCE:

The Covello Group, Inc.
Construction Manager:

By: 
Edward O'Brien

Date: 8/5/13

North Marin Water District
Chief Engineer

By: _____
Drew McIntyre

Date: _____

CONTRACT CHANGE ORDER No. 015
North Marin Water District
Recycled Water Expansion
South Service Area Phase 2
Project No. 5.6056.13

X 17 (MM)

Item: Cement Treated Roadway Base

DESCRIPTION OF CHANGE:

The Contractor encountered unforeseen layers of cement-treated base rock throughout the project while excavating for pipeline installation. This was encountered throughout the G-Line on Main Gate Road, and in other areas on the P Line, P1 Line, O Line and N Line. Contractor mitigated impacts of the cement-treated base by designating an operator and excavator for removal in front of production crews. This change order shall constitute full compensation for all impacts related to cement-treated base rock as encountered on the project.

REFERENCES: ARG DEWR's Billing No. 18.0 through 61.0

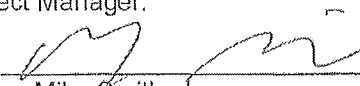
COST OF CHANGE: Add \$16,268.14

CONTRACT TIME ADJUSTMENT: 0 Calendar Days

This change order constitutes full and complete compensation for all labor, equipment, materials, overhead, profit, any and all indirect costs and time adjustment required to perform the above described change.

ACCEPTED:

Argonaut Constructors Inc.
Project Manager:

By: 
Mike Smith, Jr.

Date: 8/1/13

RECOMMENDED FOR ACCEPTANCE:

The Covello Group, Inc.
Construction Manager:

By: 
Edward O'Brien

Date: 8/5/13

North Marin Water District
Chief Engineer



By: _____
Drew McIntyre

Date: _____

7

MEMORANDUM

To: Board of Directors August 16, 2013

From: Drew McIntyre, Chief Engineer 
David Jackson, Associate Engineer 

Subject: Notice of Completion for Recycled Water Expansion South Service Area
Phase 2 Project (Argonaut Constructors)

R:\Folders by Job No\6000 jobs\6056\Board Memos\6056.13 Phase 2 Notice of Completion BOD memo.docx

RECOMMENDED ACTION: Authorize the General Manager to execute and file a Notice of Completion for the Recycled Water Expansion South Service Area Phase 2 project.

FINANCIAL IMPACT: None

Pursuant to and in conformance with contract requirements for the Recycled Water Expansion South Service Area Phase 2 project, the contractor (Argonaut Constructors) has fulfilled their obligations under the contract. Corrections of all work deficiencies and punch list items have been completed. All work performed by Argonaut Constructors has been inspected by District staff, construction manager (Covello Group.), consultants (Miller Pacific Engineering and Environmental Science Associates), the County of Marin and the City of Novato. Argonaut Constructors' work was completed on July 10, 2013.

Per the Contract Documents, Argonaut Constructors has furnished written notice that the work is complete, that all subcontractors and equipment suppliers have been paid, and Argonaut Constructors has released the District of all claims(see Attachment A). A Notice of Completion is provided as Attachment B which, if approved, will be filed with Marin County on August 22, 2013. Final payment (for monies held in retention) in the amount of \$76,775.25 will be processed for release on or about September 23, 2013 subject to absence of any claims filed during the 30-day notice period.

Project Phase Cost Summary

The project summary as of August 1, 2013 is provided as Attachment C. The Board approved the award of the Phase 2 project contract with Argonaut Constructors on November 6, 2012 for \$1,441,750 with a contingency of \$75,000 (5% of contract value).

Additive and deductive change orders were executed for a sum of \$93,755(attachment D), and included unforeseen underground obstructions, revised paving quantities, and revised on-site retrofit designs. The four deductive change orders (-\$40,784) included the elimination of the 8-inch main into the Lanham Village area and shortened the pipeline on Main Gate Road, both cost savings related to revised meter locations.

The final Phase 2 expenditures of \$1,535,505 is \$18,755 more than the original contract amount with the contingency. These costs are primarily covered by the committed WaterSMART grants and SRF loans.

South Area Project Financing

The Recycled Water Expansion – South Service Area Project, including Bolling Circle Pump Station, Phases 1a, 1b, 2, and on-site retrofit contracts, were funded with a combination of Grants, SRF loans and District funds. The following table shows the distribution of the costs by funding source.

| Funding source | Est. 9/30/2011 | Est. 2/28/13 | Est. 7/31/13 | Over/ (Under) |
|-----------------------|-------------------|-----------------|-----------------|------------------|
| ARRA Grant | \$ 555,945 | \$ 553,743 | \$ 553,743 | \$ 0 |
| WaterSMART | \$ 931,055 | \$ 1,349,755 | \$ 1,349,755 | \$ 0 |
| Prop 84 | \$ 195,000 | \$ 243,750 | \$ 243,750 | \$ 0 |
| SRF Loan | \$ 5,480,740 | \$ 5,058,000 | \$ 5,319,341 | \$ 261,341 |
| NMWD Share | \$ 324,360 | \$ 569,302 | \$ 675,356 | \$ 106,054 |
| Estimated Actual Cost | \$ 7,487,100 | \$ 7,774,550 | \$ 8,141,945 | \$ 367,395 |

The last Project Summary, brought to the Board in March 2013, estimated the total South Service Area Project cost at \$7,774,550. The current total project cost is \$8,141,945, an increase of \$367,395 (i.e., 5.7%). Overall, the South Service Area project had a number of issues that increased the costs. The majority of these additional costs fall into four categories: 1) District provided paving restoration and striping over and above of the designed and contracted amounts (\$143,500); 2) due to contract consolidation, the Group 2 On-site Retrofits contract contained four North Service Area sites (\$54,000); 3) increased construction management and public relations costs (est ~\$130,000), and 4) increased District staff costs for facilities construction and engineering administration during construction (est ~\$110,000).

RECOMMENDATION

Authorize the General Manager to execute and file a Notice of Completion for the Recycled Water Expansion South Service Area – Phase 2 project.

CONDITIONAL WAIVER
RELEASE AND CERTIFICATE OF FINAL PAYMENT

TO: North Marin Water District (District)

JOB: 5 6055.13

CONTRACT DATED: November 21, 2012

CONTRACTOR:
Argonaut Constructors (Argonaut)
1236 Central Ave.
Santa Rosa, CA 95402

DESCRIPTION OF PROJECT: Recycled Water Expansion – South Service Area Phase 2 Project. Installation of 2,031 LF of 12" PVC Pipeline and 6,945 LF of 8" PVC Pipeline in the Hamilton area of southern Novato, CA. A total of 8,976 LF of recycled water pipeline have been installed along with appurtenances thereto and all restorations for the purpose of delivering recycled water.

DESCRIPTION OF SITE (LOCATION): Hamilton Parkway, Hangar Avenue, Lanham Drive, Main Gate Road, North Hamilton Parkway, South Palm Drive and State Access Road in Novato, CA.

With reference to said contract, as amended, between the undersigned Contractor and the District, the undersigned hereby certifies and represents that it has made full payment of all costs, charges and expenses incurred by it or on its behalf for work, labor, services, materials and equipment supplied to the foregoing site and/or used in connection with its work under said contract.

The undersigned further certifies that to its best knowledge and belief, each of its subcontractors and materialmen has made full payment of all costs, charges and expenses incurred by them or on their behalf for work, labor, services, materials and equipment supplied to the foregoing site and/or used by them in connection with the undersigned's work under said contract.

In consideration of the sum of \$76,775.25, less adjustment noted below, as final payment under the contract to be received hereafter within a reasonable time, the undersigned, upon receipt of such final payment, waives and releases and forever discharges the District and the site and property from all claims, stop notices and obligations of every nature arising out of or in connection with the performance of said contract by the undersigned and all amendments thereto except as set forth below.

IF APPLICABLE NA

* 35 DAY FROM
DATE NOTICE OF
COMPLETION IS
FILED PER
CONTRACT LAW.

1. There are outstanding labor wage-rate compliance issues that need to be resolved. Argonaut has been informed of the outstanding discrepancies by RGM and Associates. An amount of \$7,500 will be withheld from the Final Payment for this item. The balance of the withheld amount, subject to resolution of penalties, if any, or other such cost for resolution, will be released when all labor compliance items are satisfactorily complete.
2. District has not yet received As-Built Drawings from Argonaut as required by the Contract. An amount of \$5,000 will be withheld from the Final Payment for this item. The balance of the withheld amount will be released upon favorable review of the as-built drawings by the District.

(Note: If none, write "NONE" in space above. If the space above is left blank, it is interpreted that "NONE" is claimed. Any claims excepted must be described and the specific amount claimed must be set forth.)

Unless any claims, stop notices, and obligations are described and the specific amounts claimed, are described in the space above, contractor certifies that there are none.

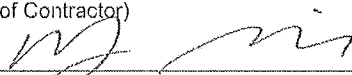
As additional consideration for the final payment the contractor agrees to indemnify and hold harmless the District from and against all costs, losses, damages, claims, causes of action, judgments and expenses, including attorney's fees arising out of or in connection with claims against the District which claims arise out of the performance of the work under the contract and which may be asserted by the contractor or any of its suppliers, subcontractors of any tier or any of their representatives, officers, agents or employees except for those claims listed above.

The foregoing shall not relieve the undersigned of its obligations under the provisions of said contract, as amended, which by their nature survive completion of the work including, without limitation, warranties, guarantees and indemnities.

Executed this 2nd day of August 20 13

Please attach appropriate
notarial certificate

Argonaut Constructors
(Name of Contractor)

By: 

Title: VICE-PRESIDENT

Distribution:

Original
Copy

Contractor
Job File



Recording requested by:

NORTH MARIN WATER DISTRICT

When Recorded Mail To:

North Marin Water District
P. O. Box 146
Novato, CA 94948-0146

NORTH MARIN WATER DISTRICT
NOVATO, CALIFORNIA

NOTICE OF COMPLETION

To: Marin County Recorder
4186 Civic Center
San Rafael, CA 94913

Date: August 21, 2013
File No. 5 6056.13
Date of Final Completion: July 30, 2013

Owner: North Marin Water District
999 Rush Creek Place
Novato, CA 94947

OWNER'S ESTATE OR INTEREST:

Easement _____ Fee Title X Encroachment Permit _____
Other (describe) _____

CONTRACTOR:

Argonaut Constructors
1236 Central Ave.
Santa Rosa, CA 95402

TITLE OF PROJECT: Recycled Water Expansion – South Service Area Phase 2

DESCRIPTION OF PROJECT: The work of this project includes: installation of 2,031 LF of 12" PVC pipeline and 6,945 LF of 8" PVC pipeline in the Hamilton area of southern Novato, CA. A total of 8,976 LF of recycled water pipeline have been installed along with appurtenances thereto and all restorations for the purpose of delivering recycled water.

DESCRIPTION OF SITE (LOCATION): Hamilton Parkway, Hangar Avenue, Lanham Drive, Main Gate Road, North Hamilton Parkway, South Palm Drive and State Access Road in Novato, CA.

Final payment will be made to the above contractor on or after 35 days from the recording date of this notice of completion, except where otherwise provided for by law.

The undersigned under penalty of perjury says that he is the General Manager of the North Marin Water District, the public agency authorizing the work or improvement referred to in the foregoing notice of completion; that he has executed such notice of completion on behalf of such public agency and likewise makes this verification on behalf of said public agency pursuant to authority granted by the District's Board of Directors; and that he has read said notice of completion and knows the contents thereof and that the facts therein stated are true.

General Manager

**VERIFICATION
STATE OF CALIFORNIA)
COUNTY OF MARIN)**

THE UNDERSIGNED, declares that he has read the foregoing notice, knows the contents thereof, and the same is true of his own knowledge. I certify under penalty of perjury that the foregoing is true and correct.

SEAL:

General Manager

Date and Place

Disposition:
Original: County Recorder
Copy: Contractor
Copy: Project File

ATTACHMENT B

NORTH MARIN WATER DISTRICT
 WATER SYSTEM IMPROVEMENTS/SPECIAL PROJECTS
 PROJECT SUMMARY
 AS OF August 1, 2013

| | | | | | | | | | | | |
|---|---|-------------------------|-------------------------------|--------------------------|-----------------------------|-------------------------------|--|----------------------|------------------------------|----------------------|------------------------|
| Job No. | Title: | | | | | | | | | | |
| 5.6056.00 | Recycled Water Expansion - South Service Area | | | | | | | | | | |
| Facility No. | | | | | | | Facility Type (Pipelines, Pump Stations, etc.) | | Pipelines, Tank Improvements | | |
| Description | | | | | | | | | | | |
| Provides about 192 AF/Yr of recycled water for Irrigation use. Construction of 5.4 miles of recycled water pipeline and the rehabilitation of the Reservoir Hill Water Storage Tank. Phase 1a - 12-inch pipe from Las Galinas Valley Sanitary District Treatment Plant to Bolling Circle (9,800 ft). Phase 1b - 12-inch and 8-inch pipes Bolling Circle, Randolph Drive, Main Gate Road, Palm Drive, North Hamilton Parkway, and the tank Inlet/Outlet line. (10,000 ft). Phase 2 - Extends distribution 12-inch and 8-inch lines in Main Gate Road, South Palm Drive, Hanger Ave, Captain Nurse Circle, Hamilton Parkway, State Access Road to Martin Drive(8,900 ft). | | | | | | | | | | | |
| Project Justification | | | | | | | | | | | |
| The recycled water expansion project is per NMWD Recycled Water Implementation Plan and is also part of NBWRA regional project Phase 1. | | | | | | | | | | | |
| | Baseline Cost Estimate | 2010 Estimate(1) | Funding Est. Sept 2011 | Jan 2012 Estimate | Oct 2012 Estimate(8) | March 2013 Estimate(9) | Estimated to Complete (8/1/2013) | | Start | Finish (Est.) | Finish (Actual) |
| 1 | Development/Admin | \$48,000 | \$95,000 | \$90,000 | \$90,000 | \$90,000 | \$90,000 | Project Dev. | Jul-10 | Aug-11 | Aug-11 |
| 2 | Prelim Design | | \$30,000 | \$30,000 | \$30,000 | \$30,000 | \$30,000 | Prelim. Design | Sep-10 | Sep-11 | Sep-11 |
| 3 | Permitting and Fees | \$24,000 | \$30,000 | \$24,300 | \$24,300 | \$24,300 | \$24,300 | | Jun-10 | Dec-10 | Sep-11 |
| 4 | Environmental Consultant | \$408,050 | \$68,000 | \$70,000 | \$70,000 | \$122,000 | \$120,000 | | Jun-10 | Dec-10 | Sep-11 |
| 5 | Eng. Design - Nute (Pipelines) | | \$585,000 | \$585,000 | \$585,000 | \$585,000 | \$585,000 | Permitting | Jun-10 | Apr-11 | Jul-12 |
| 6 | Eng. Design - CSW Stuber/Stroeh (Tank) | | \$60,000 | \$50,000 | \$50,000 | \$50,000 | \$50,000 | Final Design | Sep-10 | Sep-11 | Nov-13 |
| 7 | Engr Admin During Construction | | \$57,000 | 60000 | \$70,000 | \$80,000 | \$201,000 | Construction | | | |
| 8a | Construction Ph 1a | \$3,600,000 | \$900,000 | \$914,000 | \$884,488 | \$881,000 | \$881,000 | Phase 1a | Apr-12 | Sep-12 | Oct-12 |
| 8b | Construction Ph 1b | | \$2,408,700 | \$2,542,500 | \$2,665,000 | \$2,765,500 | \$2,752,512 | Phase 1b | Feb-12 | Dec-13 | Dec-12 |
| 8c | Construction Ph 2 | | \$1,168,000 | \$1,168,000 | \$1,441,750 | \$1,501,750 | \$1,535,505 | Phase 2 | Jan-13 | Jul-13 | Jul-13 |
| 9 | On-site Retrofits | | \$911,000 | \$820,000 | \$943,000 | \$640,000 | \$748,000 | | | | |
| 10 | District Construction and Materials | | | | | | \$274,650 | | | | |
| 11 | Bolling Circle Pump Station | | | | | \$67,000 | \$103,820 | | | | |
| 12 | Eng. Servs. During Const. | \$720,100 | \$30,000 | \$30,000 | \$30,000 | \$30,000 | \$28,000 | | | | |
| 13 | Public Outreach - Data Instincts | | \$0 | \$0 | \$0 | \$40,000 | \$30,000 | | | | |
| 14 | Const. Inspection/ Mat Testing | | \$575,000 | \$572,000 | \$672,000 | \$672,000 | \$685,000 | | | | |
| 15 | Claims - Phase 1b | | | | | | \$10,000 | | | | |
| 16 | Const. Management - Phase 1b Closeout | | \$0 | \$0 | \$0 | \$35,000 | \$40,000 | | | | |
| 17 | Project Closeout | | \$10,000 | \$10,000 | \$10,000 | \$10,000 | \$10,000 | Project Closeout | Aug-13 | Sep-13 | |
| 18 | Project Subtotal | \$4,800,150 | \$6,927,700 | \$6,965,800 | \$7,565,538 | \$7,623,550 | \$8,198,787 | | | | |
| 19 | Project Contingency | \$1,244,600 | \$559,400 | \$521,700 | \$100,000 | \$151,000 | | | | | |
| | Total | \$6,044,750 | \$7,487,100 | \$7,487,500 | \$7,665,538 | \$7,774,550 | \$8,141,950 | Costs to Date | | | |

NOTES:

(1) Did not include allowance for on-site retrofits, pipeline cost estimated at \$99/ft.
 (2) Tank Rehabilitation estimated at \$376k
 (3) 9-15-11: North Hamilton Parkway delayed due to cost creep.
 (4) revised to include all pipelines, except G3 and lowered contingency to 8%
 (5) 10-11 Revised phase costs to match no alternates (1b)
 (6) 1-12 Revised with Ph 1b bid Award Amount
 (7) 10-12 Revised with Ph 1a and Ph 2 bids and expected contract CO for phases 1a and 1b
 (8) Oct 2012 Estimated Increase over Sept 2011 Budget = \$178,438
 (9) Mar 2013 Estimated Increase over Oct 2012 Est = \$109,012 Phase 1b change orders 8.77%
 (10) Reduced On-site cost estimate by amount covered in Phase 2 construction contract and reduced number of sites (\$225K)

Job: 5.6056.13: Recycle Water South Service Area, Phase 2

| CCO # | Change Order Title/Description | Status | Amount |
|---|---|-------------------------|---------------------|
| 1 | Davis Bacon Wage Determination | Executed | \$ - |
| 2 | Additional Rock Excavation Quantity | Executed | \$ 2,700.00 |
| 3 | Survey Control Coordination | Executed | \$ 1,650.00 |
| 4 | J-Line Tie-In to Existing @ STA 0+00 | Executed | \$ 13,434.72 |
| 5 | Additional Asphalt Grind and Overlay on Hamilton and Main Gate | Executed | \$ 34,250.00 |
| 6 | Tracer Wire/Telemetry/CP Boxes at J-Line STA 0+00 | Executed | \$ 3,219.60 |
| 7 | Inverted Drop at Main Gate/C-St Stub | Executed | \$ 3,551.31 |
| 8 | Additional Potholing on G & J Lines | Executed | \$ 4,580.78 |
| 9 | J-Line Conflict with Existing Concrete Ductbank | Executed | \$ 3,385.70 |
| 10 | Lanham Village Piping Deletion | Executed | \$ (25,000.00) |
| 11 | G-Line Piping Deletion and Service Relocation | Executed | \$ (9,884.00) |
| Subtotal (approved within Contingency) | | | \$ 31,888.11 |
| Remaining Change Orders | | | |
| 12 | Additional Striping and Microseal Contribution | ABA* | \$ (446.25) |
| 13 | Miscellaneous Onsite Irrigation Retrofit Changes | ABA* | \$ 12,683.24 |
| 14 | Credit for Lining of Steel Pipe | ABA* | \$ (560.00) |
| 15 | Onsite Irrigation Retrofit Changes at Hamilton and Charter School | ABA* | \$ 38,815.78 |
| 16 | Delete O-Line Service Lateral at Alconbury Way | ABA* | \$ (4,894.00) |
| 17 | Cement Treated Base Impacts | ABA* | \$ 16,268.14 |
| Subtotal (Remaining) | | | \$ 61,866.91 |
| Total | | | \$ 93,755.02 |
| Note:* ABA = Awaiting Board Approval | | Original Contract | \$ 1,441,750.00 |
| | | Change Order Percentage | 6.50% |

8

MEMORANDUM

To: Board of Directors

August 16, 2013

From: Drew McIntyre, Chief Engineer *DM*
David Jackson, Associate Engineer

Subject: Project Construction Manager's Report(Recycled Water South)
R:\Folders by Job No\6000 jobs\6056\Board Memos\6056 Update Project Status BOD Memo 8-16-13.docx

RECOMMENDED ACTION: Information only

FINANCIAL IMPACT: None

Recycled Water Expansion to South Service Area project consists of installation of three pipeline segments (totaling 5.4 miles in length) and rehabilitation of the 0.5 MG Reservoir Hill tank for recycled water storage. The South Service Area projects were designed by Nute Engineering with review by the District. The last segment of the South Service Area project, Phase 2 was completed in July. The Group 2 on-site retrofit contract with Wildcat Engineering was also completed in July. Approximately 181 acre feet of annual irrigation demand will be supplied with recycled water by the South Area Project.

The Covello Group was contracted to provide Construction Management services for the Recycled Water North Area projects and their role was expanded to include Phase 2 of the Recycled Water South Area Project. Clay Kuzma of the Covello Group will present an overview of the construction of the three phases pipeline work of the South Area Project.

NORTH MARIN WATER DISTRICT RECYCLED WATER EXPANSION PROJECT SOUTH SERVICE AREA

Final Construction Progress Update
August 20, 2013

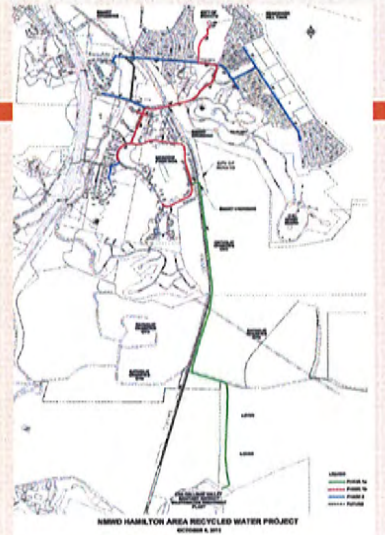


Three Phases

Phase 1a: Between the Las Gallinas Valley Sanitary District and Bolling Circle

Phase 1b: Bolling Circle, Randolph Drive, Kelly Court, Main Gate Rd, Palm Drive, Hamilton Parkway and Reservoir Hill

Phase 2: Hamilton Parkway, Hangar Ave, Main Gate Road, South Palm Drive and State Access Rd.



Novato South – Project Snapshot

- Pipeline: ~28,000 LF of 8", 12" and 16" PVC (5.3 miles)
- Reservoir Hill Storage Tank Rehabilitation
- 28 Recycled Water Service Connections
- Status: Construction Complete
- Three Construction Packages/Phases
- Schedule: April 2012 through July 2013

Novato South – Project Snapshot

- **1st Water Delivery:** September 28, 2012
- **Final Construction Cost:** \$5,168,810
- **Change Order Total:** \$300,072
- **Change Order Percentage of Bid Amount:** 6.2%



Phase 2 – Highlights

- Length 2031 LF; 12" Diameter PVC Pipeline
- Length 6245 LF; 8" Diameter PVC Pipeline
- 114' Jack and Bore under SMART RR Tracks to install 20" casing pipe
- 8 ea. tie-in locations to (E) RW Mains
- 10 Onsite RW Irrigation Retrofit Sites (8 City and 2 School Sites)

Phase 2 - Challenges

- Hard Rock Excavation along Hamilton Parkway
- Cement-Treated Base Rock Multiple Locations
- Existing Utility Variations/ Differing Site Conditions
- Challenges at Onsite Irrigation Retrofit Sites
- Additional Pavement Restoration and Lane Striping as result of utility variations



Phase 2 - Cost

- Original Contract Amount = \$1,441,750
- Change Orders = \$93,755
- Final Contract Amount = \$1,535,505
- Percent Change Orders = 6.5%
- Changes Summary on Following Page



Phase 2 - Changes Summary

| Category: | Amount | % of Total |
|------------------------------|-----------------|------------|
| □ Differing Site Conditions | \$74,891 | 80 |
| □ Unmarked/Unknown Utilities | \$59,203 | 63 |
| □ Owner Initiated | (\$40,338) | -43 |
| TOTAL | \$93,756 | 100 |

Phase 2 - Schedule

- Notice to Proceed = December 7, 2012
- Original Contract Time = 210 Calendar Days
- Time Change = Added 2 Calendar Days
- Contractual Completion Date = July 7, 2013
- Substantial Completion = July 5, 2013
- Completion of Punchlist/Final Completion = July 10, 2013

Phase 2 - Photos

Jack & Bore under RR Tracks



ADA Ramp on Hamilton Pkwy



Phase 2 - Photos

Pipe Installation on State Access Rd



Hamilton Pkwy (J-Line) Tee and Valves



Phase 2 - Photos

Excavation on Main Gate Rd



45 deg bends underneath (E) main



Phase 2 - Photos

O-Line Service Lateral Installation



Asphalt Grind and Overlay on Main Gate Rd



Phase 2 - Photos

Irrigation Retrofits on Hamilton Pkwy



Irrigation Booster Pump at Hamilton School Site



Pipeline Project Cost Summary

| Phase | Engineers Estimate | Bid Amount | Change Order Amount | % Change Orders |
|-----------------------|--------------------|--------------------|---------------------|-----------------|
| Phase 1a | \$ 914,000 | \$ 884,488 | (\$ 3,695) | (0.4%) |
| Phase 1b | \$2,409,000 | \$2,542,500 | \$210,012 | 8.2% |
| Phase 2 | \$1,300,000 | \$1,441,750 | \$ 93,755 | 6.5% |
| Total | \$4,623,000 | \$4,868,738 | \$300,072 | 6.2% |
| Owner initiated CCO's | | | \$ 84,591 | |
| Net Unforeseen CCO's | | | \$215,481 | 4.4% |

Recycled Water Expansion Project

South Service Area
Final Construction Update
August 20, 2013

Questions?



9

MEMORANDUM

To: Board of Directors

August 16, 2013

From: Ryan Grisso, Water Conservation Coordinator *RG*

Subject: Water Conservation Year End Report (July 2012 through June 2013)

\\Nmwdsvr1\water conservation\Memos to Board\Quarterly Reports\Year End Report 12_13\Water Conservation FY 2012_2013 Year End Report.docx

RECOMMENDED ACTION: Information**FINANCIAL IMPACT:** None**Water Conservation and Public Outreach Summary**

This memo provides an update on all water conservation and public outreach activities implemented during Fiscal Year 2012/2013 (FY 13).

The District Water Conservation and Public Outreach Programs are operating according to the Water Conservation Master Plan, approved in June 2008. Water Conservation participation numbers through the end of the current and previous two fiscal years are summarized in Table 1 below.

Table 1: Year End Water Conservation Program Participation (July through June: 2011 - 2013)

| Program | FY 13 | FY 12 | FY 11 |
|--|-------------------|-------|-------|
| Water Smart Home Surveys | 177 | 283 | 345 |
| Water Smart Commercial Surveys | 4 | 5 | 20 |
| High Efficiency Toilet Rebates (Residential) | 238 | 230 | 568 |
| High Efficiency Toilet Rebates (Commercial) | 9 | 5 | 64 |
| Retrofit on Resale (Dwellings Certified) | 315 | 274 | 280 |
| High Efficiency Washing Machine Rebates | 252 | 312 | 468 |
| Cash for Grass Rebates | 33 ⁽¹⁾ | 39 | 50 |
| Water Smart Landscape Rebates | 3 | 8 | 15 |
| Water Smart Irrigation Controller Rebates (Residential) | 0 | 2 | 0 |
| Water Smart Irrigation Controller Replacement (Commercial) | 22 | 1 | 1 |
| New Development Approvals (Residential) | 17 | 16 | 19 |
| New Development Approvals (Commercial) | 20 | 16 | 22 |
| Large Landscape Audits (measured by number of accounts) | 16 ⁽²⁾ | 0 | 6 |
| Large Landscape Budgets (measured by number of accounts) | 435 | 435 | 433 |

(1) Cash for Grass participants removed 27,207 square feet of turf versus 27,935 last FY.

(2) Large landscape conservation audits were performed in conjunction with recycled water retrofit coverage tests.

Water Conservation Programs

Water Smart Home Survey (WSHS) Program: This program is the cornerstone of the Residential Water Conservation Program and provides the customer with an in-depth analysis of both their indoor and outdoor water use. The WSHS provides the customer with water use analysis and water efficient recommendations to implement, but also provides staff with an opportunity to present available and applicable incentive programs to which the participating customer may be eligible (i.e. Cash for Grass and Smart Controller Rebate Program). WSHS participation has decreased with 177 WSHS completed during FY 13, compared to 283 in the previous year. This decrease is related to temporary staff transition during the fiscal year resulting in a reduction in marketing of the WSHS during that period. Currently the program is implemented by Sonoma County Water Agency through the Sonoma Marin Saving Water Partnership, with the District having administrative oversight. Targeted and overall program marketing has resumed and numbers should increase next fiscal year.

Water Conservation Fixture Distribution: The District continues to distribute water conserving fixtures at the front counter of the District Administration Building, on service calls and WSHS, and at various public outreach events. Fixtures include 1.5 to 2.0 gallon per minute (GPM) showerheads, 1.0 and 0.5 GPM sink aerators, hose nozzles (when available) and other related items. We also offer commercial establishments installation of 0.5 GPM sink aerators on all hand-washing sinks when conducting a Water Smart Commercial Survey.

High Efficiency Toilet (HET) Replacement Program: The District provides \$100 rebates for residential and commercial customers, for purchase and installation of qualified HETs. During FY 13, the District rebated 238 residential HETs and 9 commercial HETs, both fairly consistent with participation from the previous fiscal year. Customer demand has likely tapered off due to the economy and reduced rebate value, though maintaining the rebate has had the desired effect on market transformation. Currently, Pini Hardware displays almost all qualified HET models (1.28 gallons per flush) instead of Ultra Low Flush Toilet (1.6 gallons per flush) models and other retailers are also converting a majority of their display models, and toilets offered for sale, to qualifying HETs. The Prop 84 Grant Funding and subsequent increase in rebate level to \$100 for residential customers initiated at the start of the fiscal year, did not result in increased participation numbers for FY 13 as anticipated.

Retrofit on Resale: The District currently requires ultra low flush toilets (1.6 gallons per flush), showerheads (2.0 gallons per minute) and bathroom sink aerators (1.5 gallons per minute) to be certified by the seller before the close of escrow of any property sold in the District

service area. HET rebates are available to customers to help ease any potential financial hardships from the requirement. In FY 13, the District received certificates for 315 dwellings sold in Novato. This is slight increase from last FY, consistent with the recovering real estate market.

High Efficiency Clothes Washer Rebate Program: The District currently offers rebates for qualified high efficiency clothes washing machines through the Sonoma-Marín High Efficiency Clothes Washer Program, with rebates paid directly by the District. In FY 13, the District rebated 252 clothes washing machines, which is a lower participation level than in previous fiscal years. This could indicate that the rebate level reduction down to \$50 might not be enough incentive for customers to purchase the more water efficient machine. However, most of the clothes washers available on the market provide some kind of water use efficiency and the District only rebates the most efficient models.

Cash for Grass Rebate Program: The District rebated 33 Cash for Grass projects, removing a total of 27,207 square feet of automatically irrigated turf, in FY 13. Cash for Grass program participation levels have fluctuated over the past few years, with a peak in FY 10, however, FY 13 participation numbers are lower than historical participation levels. The rebate reduction effective 7/1/11 (from \$1.00 per sq. ft. down to \$0.50 per sq. ft.) along with general economic factors has likely caused these lower participation numbers. The new Water Smart Home Survey Program has generated more pre-inspections for possible Cash for Grass projects. Staff is looking into other outreach alternatives for the coming fiscal year in an effort to increase participation.

Water Smart Landscape Rebate Program: The District rebates customers for improving landscape water use efficiency. Rebates are provided for drip irrigation installations, multi-stream/low volume sprinkler retrofits, mulch, rain sensors and other efficient retrofits. In FY 13, the District rebated three projects.

Water Smart Irrigation Controller Rebate Program: Rebates are available for purchase, installation and activation of District approved Smart Irrigation Controllers (Smart Controllers) at a minimum level of \$200, or \$30 per active station, up to \$1,200. This rebate also extends to large landscape customers on a per meter basis. In FY 13 the District rebated 22 qualified controllers to non-residential (large landscape) customers. To date, this program has been a very tough sell to customers, however, the new Prop 84 Grant Funding rebate levels, effective 7/1/12, helped increase participation numbers for FY 13 for non-residential customers.

Large Landscape Water Conservation Program: The Large Landscape Water Conservation Program consists of the Large Landscape Audit Program, the Large Landscape Budget

Program, Water Smart Controller Rebate Program (previously covered in the Water Smart Irrigation Controller Rebate Program section) and the Large Landscape Water Smart Landscape Efficiency Rebate Program. All programs are aimed at assisting large landscape accounts (dedicated irrigation and large mixed use metered) to become more water use efficient in their landscape water management practices. In FY 13, the District audited 16 large landscape accounts in conjunction with the recycled water program. Large landscape audits were performed during the coverage testing for recycled water retrofit sites. The District maintained and distributed water budgets for 435 dedicated irrigation meter accounts during FY 13.

In addition to the District Large Landscape conservation efforts, the Sonoma Marin Saving Water Partnership implements the Qualified Water Efficient Landscaper (QWEL) trainings throughout the year.

Commercial Water Conservation Program: The Commercial Water Conservation Program currently offers the HET Rebate Program (previously covered in the High Efficiency Toilet Replacement Program), Water Smart Commercial Survey (WSCS), and a High Efficiency Clothes Washing Machine Rebate. In FY 13, staff completed 4 WSCS and rebated 9 HETs.

Water Management Technology Education Center (WaMTEC): The District is currently involved in the development of WaMTEC in cooperation with College of Marin and Marin Municipal Water District, with a goal to research, develop and demonstrate new water management practices and technologies, and educate industry leaders and the workforce in state of the art landscape water management. The District's initial involvement in WaMTEC has been to help establish a California Irrigation Management Information System (CIMIS) station located at the Indian Valley Campus. The station was installed in 2010. The station provides a valuable tool for the students of WaMTEC learning about the weather factors involved in landscape water management. This CIMIS station has also been useful for the District's Large Landscape Water Budget Program by providing representative weather data for the typically warmer western portion of the District's Novato service area. This past fiscal year, the CIMIS program authorized this station to be included in their web-based database making the weather data more easily accessible.

New Development Requirements: The District New Development Requirements specify innovative and "state of the art" water efficiency measures consistent with the Water Conservation Master Plan 2008 and AB 1881, for all new construction in both service areas. These requirements are enforced through water service agreements and the District's signature requirement for all final permits with the City of Novato Building Department and Marin County Plan-

ning. In FY 13, staff inspected and approved 17 residential projects and 20 commercial projects.

Public Outreach and Conservation Marketing

The Fall 2012 “Water Line” issue was sent in mid November. This issue focused on water supply and the various District water use efficiency program offerings. The Spring 2013 “Water Line” issue was mailed out in May and focused of the letter was connecting current and future water supply with District projects and funding commitments to ensure adequate supply and the rates associated with those commitments. The Water Smart Home Survey Program was advertised along with the Water Smart Savings Program offerings (Cash for Grass, Water Smart Landscape Rebate, High Efficiency Toilet Rebate, and High Efficiency Clothes Washer Rebate). Both letters updated the customers on the Recycled Water Project. Again this year, the District Water Quality Report was also included in the mailer packet with the “Water Line”.

The District sent out High Impact Direct Mailers to higher water use customers in an effort to generate participation in the WSHS program, placed newspaper advertisements, and staffed outreach events, such as the Eco Friendly Garden Tour, Tour of Novato, California Native Plant Society Plant Sale and Fair, and a drip irrigation workshop. The District is actively maintaining a Facebook page and created a YouTube video page which now showcases the “About NMWD” and “Water Treatment” video. The District also replaced the banner on the storage shed facing Highway 101 with a new attractive and catchy banner.

In addition to the public information and outreach efforts directly implemented the District, the Sonoma Marin Saving Water Partnership conducted many outreach efforts including the Save Our Water Campaign, 20 Gallon Challenge, and Eco Friendly Garden Tour.

Water Conservation Budget and Staffing

Table 2 summarizes and compares the year end budget expenditures between the last three fiscal years (FY 11, FY 12 and FY 13). FY 13 expenditures were substantially below budget.

Table 2: Water Conservation and Public Outreach Expenditures (July 2012-June 2013)

| | FY 13 | FY 12 | FY11 |
|---------------------|-----------|-----------|-----------|
| Total Budget | \$400,000 | \$400,000 | \$500,000 |
| Actual Expenditures | \$263,000 | \$270,277 | \$382,901 |

Water Conservation is currently staffed by one full time Water Conservation Coordinator. The District has also partnered with Sonoma County Water Agency through the Sonoma-

Marin Saving Water Partnership to implement some of the District Water Conservation Programs including the WSHS program.

The District was awarded a Prop 84 Grant (\$183,750 allocated to the District), in cooperation with the Sonoma County Water Agency (SCWA) and other Bay Area Agencies, which will help fund future HET rebates, Cash for Grass rebates, Smart Controllers, Clothes Washer rebates, and a Commercial Direct Install HET Program. The District has entered into a funding agreement with SCWA to receive these funds and will begin invoicing for reimbursement in early FY14.

10

MEMORANDUM

To: Board of Directors

Date: August 16, 2013

From: Drew McIntyre, Chief Engineer



Subject: Year-End Progress Report – Engineering Department

R:\CHIEF ENGM\CINTYRE\BUDGETS\FY12-13 Budget\eng dept perf recap-4th Qtr 12-13.doc

The purpose of this memo is to provide a year-end status report to the Board on the District's performance in completing budgeted FY12-13 Capital Improvements Projects (CIP). The following information is being provided to supplement the progress report summary provided to the Board each month.

SUMMARY

| <u>Service Areas</u> | <u>FY13 Project Costs (\$)</u> | | <u>% Complete @ 6/30/13</u> | | <u>Earned Value (\$)</u> <u>@ 6/30/13</u> | |
|----------------------|--------------------------------|-------------|-----------------------------|--------|--|-----------|
| | Budget (\$) | Actual (\$) | Planned | Actual | Planned | Actual |
| Novato Water | 3,107,000 | 1,365,562 | 100 | 84 | 2,500,000 | 1,216,023 |
| Novato Recycled | 5,525,000 | 6,847,498 | 100 | 98 | 5,525,000 | 6,579,037 |
| West Marin | 990,000 | 602,160 | 100 | 82 | 950,000 | 522,573 |
| TOTAL | 9,622,000 | 8,815,229 | 100 | 88 | 9,129,000 | 8,317,632 |

The above project costs shows that actual respective CIP expenditures for Novato Water and Recycled Water Service Areas were 44% and 124% of the approved FY12-13 budgets (versus respective mid-year forecasts of 67% and 109%). With respect to West Marin (including Oceana Marin), CIP expenditures were 61% of the approved FY12-13 budget value (versus a mid-year forecast of 73%).

Performance Status for Capital Improvement Projects

The attached tables and figures summarize the District's year-end performance in completing FY12-13 Capital Improvements Projects. This review encompasses all District CIP's in both Novato and West Marin.

A total of 38 projects were originally budgeted in FY12-13 for the Novato, West Marin and Oceana Marin service areas (see Attachments A and B). Nine projects have been added, seven have been carried over and eleven projects have been deferred resulting in an adjusted budget total of 43 projects (versus 43 projects in the prior fiscal year). Of these 43 Improvement Projects, 28 are under the lead responsibility of the Engineering Department for completion (22 in Novato and 6 in West Marin). The remaining 15 projects are under the responsibility of the other departments: 8 - Maintenance, and 7 - Operations). A detailed project milestone schedule is provided in Attachment C.

At year end, 32 out of the 43 projects (i.e., 74%) have been completed by all departments and 21 out of the 28 projects (i.e., 75%) have been completed by Engineering. Note that the above summary table shows higher completion percentages because it also includes progress on partially completed projects. When broken down by service areas, 25 of the Novato CIPs have been completed and 7 West Marin CIPs have also been finished. As shown in Attachment A, overall progress in fully completing Novato CIPs was 76%. From a strictly CIP budget expenditure

standpoint, approximately 44% of the authorized Novato CIP budget was expended (compared to 32% in FY11-12) and 124% of the authorized Novato Recycled Water CIP budget was expended (compared to 117% in FY11-12).

Novato Service Area Project Costs Variances

Of the 33 FY12-13 Novato Water CIPs, 26 (or 79%) were at or below original budget compared to 81% in FY11-12). The projects exceeding the FY12-13 budgets were: (1) RTU Upgrades, (2) Sampling Stations, (3) Inaccurate Meter Replacement, (4) Corp Yard Paving and (5) Watershed Erosion Control. From a strictly CIP expenditure standpoint, the slow start of the Aqueduct Energy Efficiency Project (AEEP) construction represents an \$800,000 of the shortfall in expenditures. Without considering this project, overall actual Novato Water CIP would have been 71% of approved budget (versus the year end percentage of 44%). When reviewing total project expenditures for all Novato Water Capital Improvements, it is apparent that no budget augmentation was needed during this fiscal year.

Novato Recycled Water Service Area Project Costs Variances

As shown in Attachment B, expenses for two of the three FY12-13 Novato Recycled Water CIPs are above original budget. Actual expenses for the Recycled Water North and South Service Area projects have been reviewed with the Board via separate agenda items.

West Marin Service Area (including Oceana Marin) Project Costs Variances

All but one of the FY12-13 West Marin projects (90%) were at or below the original budget (compared to 77% in FY11-12). As already discussed with the Board, the sole project exceeding the FY12-13 budget was Pt. Reyes Well #3 Replacement. Based on a review of total project expenditures for all West Marin system Capital Improvements Projects, it is apparent that no budget augmentation was required during this fiscal year.

Engineering Department Labor Hours

The Engineering Department provides a multitude of functions supporting overall operation, maintenance and expansion of water facilities. The major work classifications are: (1) General Engineering, (2) Developer Projects and (3) District (i.e., CIP) Projects. Out of the approximately 14,900 engineering labor hours available annually (less Conservation), the FY12-13 labor budget for Developer Projects and District Projects is 1,393 (9% of total) and 3,855 (26% of total), respectively. A chart of actual hours expended versus budgeted hours for both Developer and District projects during FY12-13 is provided in Attachment D. At year-end, actual engineering labor hours expended for Developer work was 631 hours (versus 989 in FY11-12) compared against a forecast of 1,393 hours (45% of forecast). With respect to District Projects, 5,402 engineering labor hours (versus 5,401 in FY11-12) has been expended on Capital Improvement Projects compared against the estimate of 3,855 hours (or 140% of forecast). In summary, labor hours for Developer Projects have continued to lag while District projects labor efforts exceeded budgeted hours.

FY 12-13
 CAPITAL IMPROVEMENTS PROJECTS

| PROJECTS BUDGETED | NOVATO SERVICE AREA | WEST MARIN/ OCEANA MARIN | TOTAL |
|--------------------|------------------------|-----------------------------|-------|
| Original Budget | 30 | 8 | 38 |
| Added | 7 | 2 | 9 |
| FY 11-12 Carryover | 5 | 2 | 7 |
| Deferred/Dropped | 9 | 2 | 11 |
| Adjusted Budget | 33 | 10 | 43 |

| FISCAL YEAR COMPLETION STATUS | NOVATO SERVICE AREA | WEST MARIN/ OCEANA MARIN | TOTAL |
|--|------------------------|-----------------------------|------------|
| No. of Projects Fully Completed | 25 | 7 | 32 |
| <u>Year-End Completion Performance</u> | 76% | 70% | 74% |

FY11-12 CARRYOVER

Date Brought to Board

Novato

| | |
|---|-----------------------|
| PB Replacement – Center Rd/Garner/Oak Forest/Simmons/3 rd St | First Quarter Report |
| ADA Access Phase 1 | Second Quarter Report |
| Solar Panel Build | First Quarter Report |
| STP Portable Generator Connection | First Quarter Report |
| STP Potable Water Feed Pipeline Rehab | First Quarter Report |

West Marin

| | |
|-----------------------|----------------------|
| Tank Seismic Upgrades | First Quarter Report |
| P RTP RTU Upgrade | First Quarter Report |

DEFERRED/DROPPED

Novato

| | |
|---------------------------------------|-----------------------|
| Gustafson Ct House Acquisition | Second Quarter Report |
| Electronic Document Management | Third Quarter Report |
| SMART Crossing Upgrade | Third Quarter Report |
| PB Repl – Pacheco Valle (42) | Fourth Quarter Report |
| Repl PB in Sync with City Paving (45) | Fourth Quarter Report |
| Other Relocations | Fourth Quarter Report |
| Anode Installations | Fourth Quarter Report |
| Other Yard Improvements | Fourth Quarter Report |
| Start Up Flushing Connection | Fourth Quarter Report |

West Marin

| | |
|---|-----------------------|
| Gallagher Auxiliary Stream Gauge | Fourth Quarter Report |
| Treatment Plant Pond Algae Control Device | Fourth Quarter Report |

PROJECTS ADDED

Novato

| | |
|---|-----------------------|
| PB Replacements: Loma Verde (14) & H Lane (10) | First Quarter Report |
| Sunset Parkway & Cambridge (12" @ 600') | First Quarter Report |
| PB Replacement: City Measure A, Group 5 (83 services) | First Quarter Report |
| Redwood Blvd & Olive Ave Traffic Lights | Fourth Quarter Report |
| Crest Pump Station | Fourth Quarter Report |
| Atherton Recoat/Mixing System | Fourth Quarter Report |
| Lake Aeration Upgrade | Fourth Quarter Report |

West Marin

| | |
|---|-----------------------|
| PB Replacement: Balboa, Portola, Mesa, 2nd St (26 services) | Second Quarter Report |
| Gallagher Well Pipeline Design | Third Quarter Report |

**NOVATO SYSTEM CAPITAL IMPROVEMENT PROJECTS SUMMARY FY12-13
AS OF JUNE 30, 2013**

| STATUS ¹ | DEPT | ITEM # | PROJECT NO. | DESCRIPTION | PROJECT COSTS | | % COMPLETE | | EARNED VALUE | |
|--|-------|--------|-------------|---|---------------|-------------|------------|--------|--------------|-------------|
| | | | | | Budget | Actual | Forecast | Actual | Planned | Actual |
| 1. PIPELINE REPLACEMENTS/ADDITIONS | | | | | | | | | | |
| PC | Eng | 1 | 1.a.1 | STP 18" Transmission Line Assess/Repair | \$160,000 | \$10,358 | 100 | 5 | \$160,000 | \$518 |
| PC | Eng | 2 | 1.b.1 | Digital to Leveroni Looping (12"@600') | \$130,000 | \$18,535 | 100 | 15 | \$130,000 | \$2,780 |
| PC | Eng | 3 | 1.b.2 | Delong to Cain Looping (8"@400') | \$100,000 | \$0 | 100 | 10 | \$100,000 | \$0 |
| C | Eng | 4 | 1.c.1 | <i>PB Repl - Center Rd/Garner/Oak Forest/Simmons/3rd St</i> | \$0 | \$22,760 | 100 | 100 | \$0 | \$22,760 |
| | | | 1.c.2 | PB Repl - Pacheco Valle (42) - DEFERRED | \$84,000 | \$2,833 | 0 | 0 | \$0 | \$0 |
| C | Eng | 5 | 1.c.3 | PB Repl - Loma Verde (14) & H Lane (10) | \$0 | \$78,161 | 100 | 100 | \$0 | \$78,161 |
| | | | 1.c.4 | Repl PB in Sync w/City Paving (45) - DEFERRED | \$90,000 | \$0 | 0 | 0 | \$0 | \$0 |
| C | Eng | 6 | 1.c.5 | Sunset Parkway & Cambridge (12"@600') | \$0 | \$164,629 | 100 | 100 | \$0 | \$164,629 |
| PC | Eng | 7 | 1.c.6 | PB Repl City Meas. A, Group 5 (83) | \$0 | \$37,364 | 100 | 100 | \$0 | \$37,364 |
| | | | 1.d.1 | Other Relocations - DEFERRED | \$80,000 | \$0 | 0 | 0 | \$0 | \$0 |
| C | Eng | 8 | 1.d.2 | Redwood Blvd & Olive Ave Traffic Lights | \$0 | \$25,795 | 100 | 100 | \$0 | \$25,795 |
| PC | Eng | 9 | 1.e.1-10 | AEEP - Hwy 101 Widening | \$1,300,000 | \$465,589 | 100 | 75 | \$1,300,000 | \$349,192 |
| | | | | SubTotal | \$1,944,000 | \$826,024 | | | \$1,690,000 | \$681,199 |
| 2. SYSTEM IMPROVEMENTS | | | | | | | | | | |
| C | Maint | 10 | 2.a | RTU Upgrades | \$10,000 | \$26,875 | 100 | 100 | \$10,000 | \$26,875 |
| C | Eng | 11 | 2.b | DCA Repair/Replace | \$150,000 | \$85,034 | 100 | 100 | \$150,000 | \$85,034 |
| | | | 2.c | Anode Installations - DEFERRED | \$30,000 | \$1,618 | 0 | 0 | \$0 | \$0 |
| C | Maint | 12 | 2.d | Radio Telemetry | \$15,000 | \$10,065 | 100 | 100 | \$15,000 | \$10,065 |
| C | Eng | 13 | 2.e | Sampling Stations | \$24,000 | \$30,391 | 100 | 100 | \$24,000 | \$30,391 |
| C | Eng | 14 | 2.f | Inaccurate Meter Replacement | \$16,000 | \$16,175 | 100 | 100 | \$16,000 | \$16,175 |
| PC | Maint | 15 | 2.g | Facilities Security Enhancements | \$25,000 | \$0 | 100 | 10 | \$25,000 | \$0 |
| C | Maint | 16 | 2.h | Backflow Device Upgrade - BMK (14) | \$30,000 | \$15,732 | 100 | 100 | \$30,000 | \$15,732 |
| | | | | SubTotal | \$300,000 | \$185,890 | | | \$270,000 | \$184,272 |
| 3. BUILDINGS, YARD, & S.T.P. IMPROVEMENTS | | | | | | | | | | |
| | | | 3.a.1 | Electronic Document Management System - DEFERRED | \$50,000 | \$0 | 0 | 0 | \$0 | \$0 |
| C | Maint | 17 | 3.a.2 | Misc Admin Bldg Improvements Phs 1 | \$25,000 | \$0 | 100 | 100 | \$25,000 | \$0 |
| C | Maint | 18 | 3.a.3 | ADA Access Phase 1 | \$0 | \$2,767 | 100 | 100 | \$0 | \$2,767 |
| | | | 3.a.4 | Gustafson Ct House Acquisition - DEFERRED | \$0 | \$2,447 | 0 | 0 | \$0 | \$0 |
| | | | 3.b.1 | SMART Crossing Upgrade - DEFERRED | \$58,000 | \$0 | 0 | 0 | \$0 | \$0 |
| | | | 3.b.2 | Other Yard Improvements - DEFERRED | \$15,000 | \$0 | 0 | 0 | \$0 | \$0 |
| C | Eng | 19 | 3.b.3 | Corp Yard Paving | \$0 | \$87,980 | 100 | 100 | \$0 | \$87,980 |
| C | Ops | 20 | 3.c.1 | Watershed Erosion Control | \$25,000 | \$25,154 | 100 | 100 | \$25,000 | \$25,154 |
| C | Eng | 21 | 3.c.2 | Leveroni Creek Bank Repair | \$145,000 | \$103,546 | 100 | 100 | \$145,000 | \$103,546 |
| C | Eng | 22 | 3.c.3 | Dam Concrete Apron Repairs | \$50,000 | \$22,431 | 100 | 100 | \$50,000 | \$22,431 |
| | | | 3.c.4 | Start Up Flushing Connection - DEFERRED | \$200,000 | \$374 | 0 | 0 | \$0 | \$0 |
| C | Ops | 23 | 3.c.5 | <i>Solar Panel Build</i> | \$0 | \$29,630 | 100 | 100 | \$0 | \$29,630 |
| C | Ops | 24 | 3.c.6 | <i>STP Portable Generator Connection</i> | \$0 | \$6,827 | 100 | 100 | \$0 | \$6,827 |
| C | Eng | 25 | 3.c.7 | <i>STP Potable Water Feed Pipeline Rehab</i> | \$0 | \$15,358 | 100 | 100 | \$0 | \$15,358 |
| C | Ops | 26 | 3.c.8 | Lake Aeration Upgrade | \$0 | \$28,088 | 100 | 100 | \$0 | \$28,088 |
| | | | | SubTotal | \$568,000 | \$324,602 | | | \$245,000 | \$321,781 |
| 4. STORAGE TANKS & PUMP STATIONS | | | | | | | | | | |
| PC | Maint | 27 | 4.a | Lynwood PS Motor Control Center | \$265,000 | \$306 | 100 | 10 | \$265,000 | \$31 |
| C | Eng | 28 | 4.b | Pacheco Tank C12 Mixing System (1st Yr) | \$30,000 | \$17,513 | 100 | 100 | \$30,000 | \$17,513 |
| C | Eng | 29 | 4.c | Crest Pump Station - Pre-Design | \$0 | \$6,903 | 0 | 100 | \$0 | \$6,903 |
| C | Eng | 30 | 4.d | Atherton Recoat/Mixing System - Pre-Design | \$0 | \$4,324 | 0 | 100 | \$0 | \$4,324 |
| | | | | SubTotal | \$295,000 | \$29,046 | | | \$295,000 | \$28,771 |
| | | | | Novato Water Total | \$3,107,000 | \$1,365,562 | 100 | 84 | \$2,500,000 | \$1,216,023 |
| 5. RECYCLED WATER FACILITY | | | | | | | | | | |
| C | Eng | 31 | 5.a | NBWRA Grant Program Administration | \$325,000 | \$313,422 | 100 | 100 | \$325,000 | \$313,422 |
| C | Eng | 32 | 5.b-i | Expansion to North Service Area | \$1,000,000 | \$1,164,849 | 100 | 100 | \$1,000,000 | \$1,164,849 |
| PC | Eng | 33 | 5.j-q | Expansion to South Service Area | \$4,200,000 | \$5,369,227 | 100 | 95 | \$4,200,000 | \$5,100,766 |
| | | | | Novato Recycled Total | \$5,525,000 | \$6,847,498 | 100 | 98 | \$5,525,000 | \$6,579,037 |
| | | | | Tctal Novato | \$8,632,000 | \$8,213,060 | 100 | 91 | \$8,025,000 | \$7,795,059 |

¹C - Completed
PC - Partially completed
PROJECT FORECAST REVISED
Baseline projects with revised forecast budget increases (indicated by shaded box)
Baselined projects to be deferred (indicated in strikeout)
New projects added (indicated in bold)
Prior year projects carried over indicated in italics

ATTACHMENT B

WEST MARIN CAPITAL IMPROVEMENT PROJECT SUMMARY FY12-13
AS OF JUNE 30, 2013

| STATUS | DEPT | ITEM # | PROJECT NO. | DESCRIPTION | PROJECT COSTS | | % COMPLETE | | EARNED VALUE | |
|---|-------|--------|-------------|--|---------------|-------------|------------|--------|--------------|-------------|
| | | | | | Budget | Actual | Forecast | Actual | Planned | Actual |
| 6. West Marin Water System | | | | | | | | | | |
| System Improvements | | | | | | | | | | |
| PC | Eng | 34 | 6.a | TP Solids Handling | \$400,000 | \$73,607 | 100 | 15 | \$400,000 | \$11,041 |
| C | Eng | 35 | 6.b-c | PRE Well #3 Repl/Rehab/Destruction | \$165,000 | \$184,355 | 100 | 100 | \$165,000 | \$184,355 |
| PC | Ops | 36 | 6.d | TP Control Valve Replacement | \$75,000 | \$6,104 | 100 | 80 | \$75,000 | \$4,883 |
| | | | 6.e | Gallagher Auxilliary Stream Gauge - DEFERRED | \$30,000 | \$299 | 0 | 0 | \$0 | \$0 |
| PC | Eng | 37 | 6.f | Tank Seismic Upgrades | \$0 | \$19,377 | 100 | 20 | \$0 | \$3,875 |
| C | Ops | 38 | 6.g | TP RTU Upgrade | \$0 | \$24,432 | 100 | 100 | \$0 | \$24,432 |
| C | Eng | 39 | 6.h | PB Repl: Balboa, Portola, Mesa, 2nd St (27) | \$0 | \$67,520 | 100 | 100 | \$0 | \$57,520 |
| C | Eng | 40 | 6.i | Gallagher Well & Pipeline Pre-Design | \$0 | \$14,631 | 100 | 100 | \$0 | \$14,631 |
| | | | | | \$670,000 | \$380,325 | | | \$640,000 | \$300,738 |
| 7. Oceana Marin Sewer System | | | | | | | | | | |
| C | Ops | 41 | 7.a | Infiltration Study & Repair | \$15,000 | \$6,932 | 100 | 100 | \$15,000 | \$6,932 |
| C | Maint | 42 | 7.b | Tahiti Way Lift Pumps Rebuild | \$20,000 | \$16,011 | 100 | 100 | \$20,000 | \$16,011 |
| C | Eng | 43 | 7.c | Cross Country Sewer Line Rehab | \$275,000 | \$198,892 | 100 | 100 | \$275,000 | \$198,892 |
| | | | 7.d | TP Pond Algae Control Device - DEFERRED | \$10,000 | \$0 | 0 | 0 | \$0 | \$0 |
| | | | | SubTotal | \$320,000 | \$221,835 | | | \$310,000 | \$221,835 |
| | | | | Total West Marin | \$990,000 | \$602,160 | 100 | 82 | \$950,000 | \$522,573 |
| | | | | FY12-13 TOTAL | \$9,622,000 | \$8,815,220 | 100 | 88 | \$8,975,000 | \$8,317,632 |
| ¹ C - Completed PC - Partially completed PROJECT FORECAST REVISED Baseline projects with revised forecast budget increases (indicated by shaded box) Baselined projects to be deferred (indicated in strikeout) New projects added (indicated in bold) Prior year projects carried over indicated in italics | | | | | | | | | | |

FY12_13 CAPITAL IMPROVEMENT PROJECTS

| ID | Task Name | Start | Finish | % Complete | Resp | Qtr 1, 2013 | | | Qtr 2, 2013 | | | Qtr 3, 2013 | | | Qtr 4, 2013 | | |
|----|---|--------------|---------------|------------|----------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | | | | | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 1 | 1 A PIPELINE REPLACEMENTS/ADDITIONS | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 2 | 1A1 STP 18" Transmission Line Repair (Inspection) | Tue 1/1/13 | Fri 6/28/13 | 5% | ENG / DJ | | | | | | | | | | | | |
| 3 | 1B MAIN/PIPELINE ADDITIONS | Sun 7/1/12 | Fri 6/28/13 | 5% | | | | | | | | | | | | | |
| 4 | 1B1 Digital to Leveroni Looping (12"@600') | Thu 11/1/12 | Fri 6/28/13 | 15% | ENG / CC | | | | | | | | | | | | |
| 5 | 1B2 DeLong to Cain Looping (8"@400') | Mon 10/1/12 | Fri 6/28/13 | 10% | ENG / CC | | | | | | | | | | | | |
| 6 | 1C PB SERVICE LINE REPLACEMENTS | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 7 | 1C1 Center Rd/Garner/Oak Forest/Simmons/3rd St (20) | Mon 7/2/12 | Sun 12/30/... | 100% | ENG / JK | | | | | | | | | | | | |
| 8 | 1C4 Pacheco Valle (42) | Tue 1/1/13 | Fri 6/28/13 | 100% | ENG / JK | | | | | | | | | | | | |
| 9 | 1E AQUEDUCT REPLACEMENTS/ENHANCEMENTS | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 10 | 1E1 Aqueduct Energy Efficiency Project | Sun 7/1/12 | Fri 6/28/13 | 75% | ENG / DM | | | | | | | | | | | | |
| 11 | 2 SYSTEM IMPROVEMENTS | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 12 | 2A RTU Upgrades | Tue 1/1/13 | Fri 6/28/13 | 100% | MAINT/RC | | | | | | | | | | | | |
| 13 | 2C DCA Repair/Replace (14/yr) | Mon 10/1/12 | Fri 6/28/13 | 0% | ENG / JK | | | | | | | | | | | | |
| 14 | 2D Anode Installations (150/yr) - DEFERRED | Sun 7/1/12 | Sun 7/1/12 | 0% | ENG / JM | | | | | | | | | | | | |
| 15 | 2E Radio Telemetry | Mon 7/2/12 | Fri 6/28/13 | 100% | MAINT/RC | | | | | | | | | | | | |
| 16 | 2f Sampling Stations | Sun 12/30/12 | Tue 4/30/13 | 100% | | | | | | | | | | | | | |
| 17 | 2G Inaccurate Meter Replacement | Mon 10/1/12 | Fri 6/28/13 | 100% | ENG / CC | | | | | | | | | | | | |
| 18 | 2H Facilities Security Enhancements | Fri 2/1/13 | Fri 6/28/13 | 100% | MAINT/RC | | | | | | | | | | | | |
| 19 | 2I Backflow Device Upgrade - BMK (14) | Mon 12/3/12 | Fri 6/28/13 | 100% | MAINT/RC | | | | | | | | | | | | |
| 20 | 3 BUILDING, YARD, STP IMPROVEMENTS | Mon 7/2/12 | Fri 6/28/13 | 8% | | | | | | | | | | | | | |
| 21 | 3A ADMIN BUILDING | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 22 | 3A1 Electronic Document Management System DEFERRED | Sun 7/1/12 | Sun 7/1/12 | 0% | ACCT/DB | | | | | | | | | | | | |
| 23 | 3A3 ADA Access Phase 1 | Mon 7/2/12 | Sun 6/30/13 | 100% | OPS / RC | | | | | | | | | | | | |
| 24 | 3B CORP YARD/WAREHOUSE/CONSTRUCTION OFFICE | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 25 | 3B1 SMART Crossing Upgrade (@Golden Gate Pl) DEFERRED | Sun 7/1/12 | Sun 7/1/12 | 0% | GM | | | | | | | | | | | | |
| 26 | 3B3 Yard Paving | Mon 7/2/12 | Mon 12/31/... | 100% | ENG / JK | | | | | | | | | | | | |
| 27 | 3C STAFFORD TREATMENT PLANT | Mon 7/2/12 | Fri 6/28/13 | 16% | | | | | | | | | | | | | |



| | | | | | |
|--------------------|--|-----------------------|--|-------------|--|
| Current | | Inactive Summary | | Start-only | |
| Baseline | | Manual Task | | Finish-only | |
| Inactive Task | | Duration-only | | Progress | |
| Inactive Task | | Manual Summary Rollup | | | |
| Inactive Milestone | | Manual Summary | | | |

ATTACHMENT C

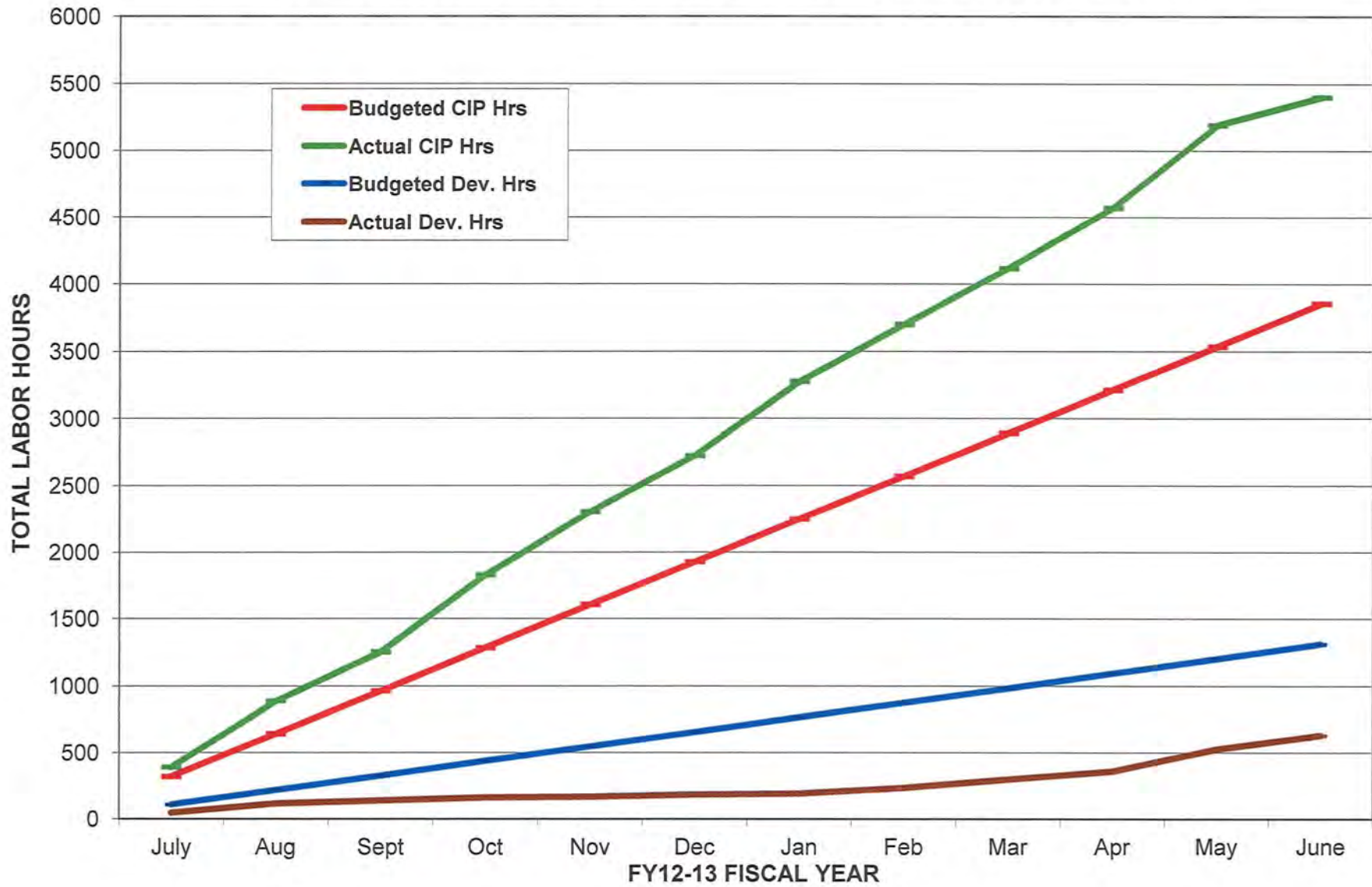
FY12_13 CAPITAL IMPROVEMENT PROJECTS

| ID | Task Name | Start | Finish | % Complete | Resp | Qtr 1, 2013 | | | Qtr 2, 2013 | | | Qtr 3, 2013 | | | Qtr 4, 2013 | | |
|----|---|-------------------|--------------------|------------|------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | | | | | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 28 | 3C1 Watershed Erosion Control | Mon 7/2/12 | Thu 11/15/12 | 100% | OPS / RC | | | | | | | | | | | | |
| 29 | 3C2 Leveroni Creek Bank Repair | Mon 7/2/12 | Mon 12/31/12 | 100% | ENG / CC | | | | | | | | | | | | |
| 30 | 3C4 Dam Concrete Apron Repairs | Mon 11/5/12 | Sun 12/30/12 | 100% | CONST/ DM | | | | | | | | | | | | |
| 31 | 3C4 Start Up Flushing Connection DEFERRED | Mon 7/2/12 | Fri 7/12/13 | 0% | ENG / CC | | | | | | | | | | | | |
| 32 | 3C5 Solar Panel Build | Mon 7/2/12 | Fri 11/30/12 | 100% | MAINT / RC | | | | | | | | | | | | |
| 33 | 3C6 STP Portable Generator Connection | Mon 7/2/12 | Fri 11/30/12 | 100% | MAINT / RC | | | | | | | | | | | | |
| 34 | 3C7 STP Potable Water Feed Pipeline Rehab | Mon 7/2/12 | Fri 11/30/12 | 100% | MAINT / RC | | | | | | | | | | | | |
| 35 | 4 STORAGE TANKS/PUMP STATIONS | Mon 7/2/12 | Fri 6/28/13 | 16% | | | | | | | | | | | | | |
| 36 | 4D Lynwood Pump Station Motor Control Center | Thu 11/1/12 | Fri 6/28/13 | 100% | MAINT/RC | | | | | | | | | | | | |
| 37 | 4E Pacheco Tank C12 Mixing System | Mon 7/2/12 | Thu 2/28/13 | 100% | ENG / DJ | | | | | | | | | | | | |
| 38 | 5 RECYCLED WATER | Mon 7/2/12 | Fri 6/28/13 | 30% | | | | | | | | | | | | | |
| 39 | 5A NBWRA Grant Program Administration | Mon 7/2/12 | Fri 6/28/13 | 100% | ENG / DM | | | | | | | | | | | | |
| 40 | 5B RW Expansion to North Service Area | Mon 7/2/12 | Fri 6/28/13 | 100% | ENG / CC | | | | | | | | | | | | |
| 41 | 5C RW Expansion to South Service Area | Mon 7/2/12 | Fri 6/28/13 | 95% | ENG / DJ | | | | | | | | | | | | |
| 42 | 6 WEST MARIN WATER SYSTEM IMPROVEMENTS | Mon 7/2/12 | Fri 6/28/13 | 4% | | | | | | | | | | | | | |
| 43 | SYSTEM IMPROVEMENTS | Mon 7/2/12 | Fri 6/28/13 | 4% | | | | | | | | | | | | | |
| 44 | 6A PRTP Solids Handling | Mon 7/2/12 | Fri 6/28/13 | 15% | ENG / DJ | | | | | | | | | | | | |
| 45 | 6B PR Well #3 Repl/Destruction/Construction | Mon 7/2/12 | Mon 12/31/12 | 100% | ENG / DM | | | | | | | | | | | | |
| 46 | 6E PRTP Control Valve Replacement | Thu 11/1/12 | Fri 6/28/13 | 80% | OPS / RC | | | | | | | | | | | | |
| 47 | 6F Gallagher Auxiliary Stream Gauge DEFERRED | Sun 7/1/12 | Sun 7/1/12 | 0% | GM | | | | | | | | | | | | |
| 48 | 6G Tank Seismic Upgrades | Tue 1/1/13 | Fri 6/28/13 | 20% | ENG / JK | | | | | | | | | | | | |
| 49 | 6H TP RTU Upgrade | Mon 7/2/12 | Thu 2/28/13 | 100% | MAINT / RC | | | | | | | | | | | | |
| 50 | 7 OCEANA MARIN SEWER SYSTEM | Mon 7/2/12 | Fri 6/28/13 | 0% | | | | | | | | | | | | | |
| 51 | 7A Infiltration Study & Repair | Mon 7/2/12 | Fri 6/28/13 | 100% | OPS / RC | | | | | | | | | | | | |
| 52 | 7B Tahiti Way Lift Pumps Rebuild | Tue 1/1/13 | Thu 1/31/13 | 100% | MAINT/RC | | | | | | | | | | | | |
| 53 | 7C Cross Country Sewer Line Rehab | Mon 7/2/12 | Thu 1/31/13 | 100% | ENG / JK | | | | | | | | | | | | |
| 54 | 7E Treatment Pond Algae Control Device - DEFERRED | Sun 7/1/12 | Sun 7/1/12 | 0% | OPS / RC | | | | | | | | | | | | |



| | | | | | |
|--------------------|--|-----------------------|--|-------------|--|
| Current | | Inactive Summary | | Start-only | |
| Baseline | | Manual Task | | Finish-only | |
| Inactive Task | | Duration-only | | Progress | |
| Inactive Task | | Manual Summary Rollup | | | |
| Inactive Milestone | | Manual Summary | | | |

ENGR. DEPT DEVELOPER & DISTRICT CAPITAL IMPROVEMENT PROJECTS (CIPs)



11

MEMORANDUM

To: Board of Directors
From: Robert Clark, Operations / Maintenance Superintendent
Subject: FY 13 Operations /Maintenance – Year End Report
X:\MAINT SUP\2013\BOD\IQ4 12-13 O&M Update.doc

August 16, 2013

RECOMMENDED ACTION: Information

FINANCIAL IMPACT: None

Operations Summary

The Distribution / Treatment group staffing level was restored to five operators two years ago (August 2011). At the end of this fiscal year one of the Operators elected to move onto other pursuits. Our hope is that existing staff from Operations / Maintenance and the Construction / Maintenance Departments can help fill in for the Operations Group needs in FY 14. Operations activities and accomplishments during FY2013 include 23 improvement projects, 15 major maintenance tasks during the winter shutdown and over 800 routine maintenance tasks throughout the year. Work was performed to complete the Pacheco Tank chlorination and mixing system, Stafford Lake aeration system, Point Reyes Well and Treatment Plant controls replacements that are key to the continued high quality water production and distribution.

Stafford Production

- The production season start was early this spring (January 22, 2013) due to heavy December rainfall.
- Lake water quality is a bit improved this year due primarily to the increased efforts to restrict the Dairy manure spreading on the watershed. Additional work with the Solar Bees operation and the addition of an aeration system also improved lake water quality.
- Replacement of the Granular Activated Carbon (GAC) filter beds 3 and 4 took place in late June. However an early algae bloom resulted in some Taste and Odor complaints reported.

Novato Water system Flows

- Novato consumption was slightly up again this year along with the five-year average (2.8 B Gal). Average production during the period was 10.3 mgd with a peak day of 14.3 mgd.
- Recycled water production for the period was 45.7 mg. over double the production from the April-June period last year due to the 32 new recycled water customers.

West Marin System Flows, Demands and Storage

- West Marin average production was 256,476 gallons per day with a peak day of 399,850 gallons about the same as last year.
- Point Reyes well replacement was completed and has been in production since May.

Oceana Marin

- During the period, force main pump flow has averaged 14,805 gallons per day with a peak on Memorial Day of 38,780 gallons. The total discharge to the irrigation field was consistent with the previous years, leaving a freeboard of 6.1 feet at the end of June.
- Two trial algae control methods proved unsuccessful in reducing the total suspended solids in the storage pond. Staff has begun to investigate how other Districts are operating to keep the algae population in check.

Water Quality

Water Quality group staffing level has remained consistent throughout this past year. Group activities have expanded with contract lab services to Marin Municipal Water District and Las Gallinas Valley Sanitary District for recycled water testing. Other activities this year included coordinating with Department of Public Health staff for approval of on-site retrofits for new recycled water services throughout Novato; and submitting the detailed permit request and water quality data for timely approval of the replacement Point Reyes well.

Maintenance Summary

Maintenance staffing levels have been consistent over the past year with continued help from the Operations staff on the spring clean up and backflow program activities. Department accomplishments during FY2013 include 27 facility improvement projects and over 500 routine maintenance tasks. Staff continued to execute the day-to-day activities while performing projects on the remote telemetry unit upgrades and radio communication links at STP, Reservoir Hill, Nunes and Half Moon pump stations and the Point Reyes Treatment Plant. Improvement projects also included Stafford Lake aeration, Stafford Lake Solar, Stafford Generator connection, Point Reyes Well, the Bolling Circle Recycled Water booster station, and access modification for the main office entry.

Electrical Mechanical

- Designed, built, installed and started up a new remote telemetry unit for the Point Reyes Treatment plant and two recycled water storage tanks.
- Installed a new pump station for the Recycled Water South distribution system.

Cross Connection Control

- Recycled water and small device testing completion was the primary focus for our CCC staff with large devices, fire service testing and repairs not being completed during the period.
- Staff continues to work on changes in the requirements for back flow devices and how the District applies these to our cross connection control regulation.

Building and Grounds

- Completed the landscape installation along the Laveroni Creek next to the Stafford Treatment Plant.
- Completed the installation of over 300 plantings and irrigation for the recycled water south project and monitoring monthly.

Fleet Operations

- The District's fleet mechanic received his Distribution Operator II certification and has been able to assist E/M staff with a major overhaul of the Stafford Treatment Plant high service pump station and the Point Reyes well pump power re-alignment.
- Received and outfitted two new ¾-ton service trucks and a vacuum excavator for the Construction / Maintenance Department.

12

MEMORANDUM

To: Board of Directors

August 16, 2013

From: Chris DeGabriele, General Manager Subject: Dry Year Conditions
t:\gmbod misc 2013\dry year conditions.doc**RECOMMENDED ACTION:** Information Only**FINANCIAL IMPACT:** None at this time

The Board last received similar information to that included herein at their February 21, 2012 meeting. Rainfall in Novato this water year through July is 19.95 inches. A table of dry year rainfall totals is attached for your information (Attachment 1). On the Russian River Sonoma County Water Agency (SCWA) has received a Temporary Urgency Change Order (TUCO) from the State Water Resources Control Board reducing in stream flow requirements to essentially dry year conditions with the authority to lower flows even more if Lake Mendocino falls below a critical storage curve.

The TUCO provisions reducing minimum flows in the Russian River is intended to preserve storage in Lake Mendocino for later release necessary for water supply or fishery requirements. Through August 12th, Lake Mendocino holds just over 48,000 AF, some 2,500 AF above the critical storage curve (Attachment 2). Lake Sonoma holds just under 205,000 AF, which is ample to meet the regions potable water needs and lower river in stream flow requirements. Keep in mind however that flows in Dry Creek are limited pursuant to the Biological Opinion for fishery protection. Stafford Lake storage at 51% of capacity should be satisfactory for budgeted local water production the remainder of this calendar year.

Water continues to be available for diversion from the Russian River and there is no limit on delivery capacity in the SCWA Transmission System. The TUCO does not include mandatory water use restrictions. Nevertheless, should flows in the Russian River be lowered further as a result of Lake Mendocino storage falling below the critical storage curve, it's likely that additional water conservation measures will be needed for two reasons: 1) to indicate to the SWRCB that our region can manage water supply, even during dry years and under shortage conditions, to hopefully preclude issuance of future mandatory water conservation requirements from the SWRCB; and 2) to prepare for a potential multiple dry year condition and even more serious water shortage conditions next year.

NMWD staff has dusted off the Novato area water shortage contingency plan and emergency water conservation ordinance included herein as Attachment 3 & 4. Pursuant to

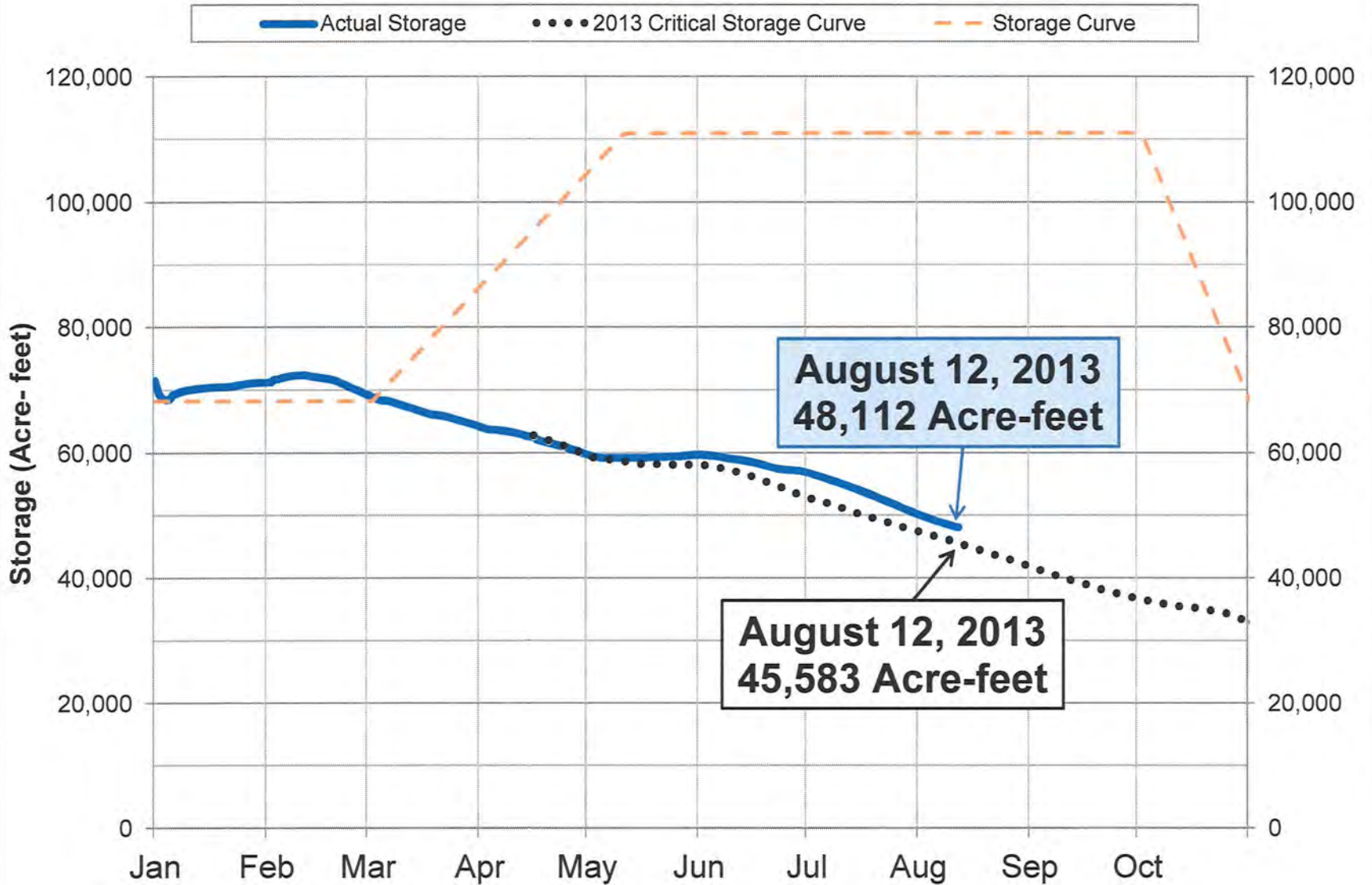
SCWA's 2010 Urban Water Management Plan, SCWA will notify the Water Contractors if a water supply shortage might occur and will encourage voluntary demand reduction measures. Should this happen NMWD can follow the Water Shortage Contingency Plan and request customers voluntarily reduce water use by up to 15% compared to the same period last year.

Earlier this week Lake Mendocino was closed to motorized boating due to its' low level (Attachment 5). Staff will continue to keep the Board apprised as the weeks proceed.

Dry Year Rainfall

| Year | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sept | Oct-Dec Total | Oct-Jan Total | Oct-Feb Total | Water Year Total |
|------|------|------|------|-------|-------|------|------|------|------|------|------|------|---------------|---------------|---------------|------------------|
| 1976 | 3.16 | 0.35 | 0.68 | 0.26 | 2.29 | 1.06 | 2.06 | 0.00 | 0.00 | 0.00 | 0.54 | 0.28 | 4.19 | 4.45 | 6.74 | 10.68 |
| 1977 | 0.43 | 1.45 | 1.25 | 2.17 | 1.33 | 2.69 | 0.15 | 1.04 | 0.00 | 0.00 | 0.08 | 0.70 | 3.13 | 5.30 | 6.63 | 11.29 |
| 1991 | 0.28 | 0.46 | 1.63 | 0.51 | 4.22 | 9.39 | 0.87 | 0.13 | 0.31 | 0.00 | 0.28 | 0.00 | 2.37 | 2.88 | 7.10 | 18.08 |
| 2007 | 0.53 | 2.91 | 4.66 | 0.58 | 4.87 | 0.13 | 1.14 | 0.38 | 0.02 | 0.01 | 0.02 | 0.06 | 8.10 | 8.68 | 13.55 | 15.32 |
| 2008 | 2.03 | 0.67 | 3.76 | 14.44 | 2.85 | 0.07 | 0.05 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 6.46 | 20.9 | 23.75 | 24.03 |
| 2009 | 1.27 | 2.20 | 2.34 | 0.83 | 10.24 | 2.73 | 0.41 | 0.02 | 0.00 | 0.00 | 0.00 | 0.33 | 5.81 | 6.64 | 16.88 | 20.37 |
| 2012 | 2.04 | 2.53 | 0.1 | 3.4 | 2.08 | 5.69 | 0.47 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 4.67 | 8.07 | 10.15 | 16.32 |
| 2013 | 2.06 | 6.47 | 8.02 | 0.67 | 0.57 | 0.71 | 1.00 | 0.05 | 0.40 | 0.00 | | | 16.55 | 17.22 | 17.79 | 19.95 |

Lake Mendocino 2013 Critical Storage Curve



**NORTH MARIN WATER DISTRICT'S
WATER SHORTAGE CONTINGENCY PLAN
FOR GREATER NOVATO AREA**

**NORTH MARIN WATER DISTRICT
WATER SHORTAGE CONTINGENCY PLAN
FOR GREATER NOVATO AREA
March 2006**

Customer Notification

1. NMWD notifies customers by bill message
 - A. Dry water supply conditions exist on the Russian River. Please reduce your water use by 15%. Consult the NMWD website for water saving tips and the latest news on water supply status.
 - B. Critical dry water supply conditions exist on the Russian River. A mandatory _____% reduction in water use is required. Consult the NMWD website for more information.
2. Special issue of NMWD WaterLine will be mailed to all customers during critical dry conditions stipulating mandatory requirements.

Specific Triggers

Stage 1 Trigger: When the Sonoma County Water Agency adopts a Stage 1 Water Emergency (Criteria: Dry Conditions¹ prevail for at least 30 days on the Russian River system.

Stage 2 Trigger: When the Sonoma County Water Agency adopts a Stage 2 Water Emergency provided that storage is not projected to fall below 70,000-acre feet in Lake Sonoma.

Stage 3 Trigger: When the Sonoma County Water Agency adopts a Stage 3 Water Emergency.

Consumption Limits

Stage 1: (Request for up to 15% voluntary reduction)

Residential: 15% voluntary reduction in water use from prior year for similar billing period

¹ Dry Conditions are defined in State Water Resources Control Board Decision 1610 as follows:

| Date | Cumulative Inflow to Lake Pillsbury |
|------------|-------------------------------------|
| January 1 | 8,000 acre feet |
| February 1 | 39,200 acre feet |
| March 1 | 65,700 acre feet |
| April 1 | 114,500 acre feet |
| May 1 | 145,000 acre feet |
| June 1 | 160,000 acre feet |

Commercial and Industrial 15% voluntary reduction in water use from prior year for similar billing period (exceptions may be granted in order to preserve jobs)

Stage 2: (Up to 30% mandatory reduction)

Residential 30% reduction in water use from prior year for similar billing period

Commercial and Industrial: 30% reduction in water use from prior year for similar billing period (exceptions may be granted in order to preserve jobs)

Stage 3: (Up to 50% mandatory reduction)

Residential: Equivalent to X² gallons per person per day

Commercial and Industrial 50% reduction in water use from prior year for similar billing period (exceptions may be granted to preserve jobs)

Stages of Action

Stage 1 Voluntary - achieve up to a 15% reduction³ in water use by implementation of the following

- a. Encourage voluntary rationing
- b. Pursue vigorous enforcement of water wasting regulations and provisions of District's Water Conservation Regulation 15 which requires water saving devices in new construction, prohibits installation of certain wasteful types of turf configurations, and encourages turf avoidance
- c. Request customers to make conscious efforts to conserve water
- d. Request other governmental agencies to demonstrate leadership and implement restrictive water use programs
- e. Distribute water saving kits upon customer request, to assure availability to existing and new customers. (Note: Similar kits were distributed system wide to all customers during the 1976-77 California drought.)
- f. Encourage private sector to use alternate water sources such as recycled water or use of private wells.
- g. Encourage the non-commercial washing of privately owned motor vehicles, trailers and boats only from a bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse.
- h. Encourage nighttime irrigation

Stage 2 Mandatory - achieve up to a 30% reduction³ in water use by declaring a water shortage emergency and implementing Phase 1 (introductory) and Phase 2 (mandatory) of the District's Emergency Water Conservation Ordinance

- a. Under Phase 1, the following uses are declared to be non-essential:

² gpcd is to be determined when the water shortage emergency is declared

³Exact amount and Districtwide measurement of goal and method of achievement to be established by Board of Directors after examining projected supplies from SCWA, Stafford Lake and treatment plant and emergency well sources and after holding water shortage emergency hearing.

- (1) washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by the Novato Fire Protection District or other public agency for the purpose of public safety;
 - (2) refilling a swimming pool;
 - (3) Non-commercial washing of privately-owned motor vehicles, trailers and boats except from a bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse.
 - (4) Request restaurants to serve water only upon request.
- b. The following additional uses are declared to be non-essential under Phase 2:
- (1) any use of water from a fire hydrant except for fighting fires, human consumption, essential construction needs or use in connection with animals;
 - (2) watering of any lawn, garden, landscaped area, tree, shrub or other plant except from a hand-held hose or container or drip irrigation system except sprinklers can be used if customer maintains a 30% reduction compared to prior year's use in same billing period;
 - (3) watering any portion of a golf course except the tees and greens except where private well or recycled water supply is used;
 - (4) use of water for dust control at construction sites;
 - (5) initial filling of any swimming pool;
 - (6) use by a vehicle washing facility in excess of 30% less than the amount used by it during the corresponding billing period in prior year;
 - (7) any non-residential use in excess of 30% less than the amount used by the customer during the corresponding billing period in prior year

Stage 3 Mandatory - achieve up to a 50%² reduction in water use by enacting Phase 3 of the District's Emergency Water Conservation Ordinance.

- a. The following additional uses are declared to be non-essential:
- (1) Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time day or night during the period of March 1, through September 30, when a Stage 3 rationing plan is in progress. (These designated lawns will be allowed to dry up for the summer. Affected customers will be advised on tested methods for re-greening the lawns at minimum expense beginning on October 1, during a Stage 3 rationing period if operating conditions permit. By following the prescribed instructions, the affected customers will likely avoid the cost of replacing the lawns.)
 - (2) Planting any new landscaping, except for designated drought resistant landscaping prescribed by the District.
 - (3) Public agencies may apply to the General Manager for exemptions for watering specific public lawns used extensively for community wide recreation. Such public area lawn watering shall only be done under methods and time periods prescribed by the General Manager. Such exemptions will only be given by the General Manager, if a 50% or greater conservation level can otherwise be achieved on a service area basis.

- (4) Golf courses may only use private well or recycled water for general irrigation. Golf courses may apply to the General Manager for specific exemptions to water greens only, and then only under methods and time periods prescribed by the General Manager. Such exemptions will only be given by the General Manager, if a 50% or greater conservation level can otherwise be achieved on a service area basis.
 - (5) All day and nighttime sprinkling will be discontinued. Any and all outside watering will be done only with a hand held nozzle. An exception will be made to permit drip irrigation for established perennial plants and trees using manual or automatic time controlled water application sufficient only for assured plant survival.
 - (6) No new annual plants, vegetables, flowers or vines may be planted until the Stage 3 emergency is over. An exception will be made for customers who are eliminating existing thirsty landscaping and replacing same with drought resisting landscaping prescribed by the District, as in (2) above.
- b. The following additional voluntary actions will be recommended for District customers:
- (1) Navy style showering will be promoted (e.g., turn on water to wet person or persons, turn off water, lather up, scrub, then turn on water for a quick rinse, then turn off shower).

Customers will be provided push button showerhead control valves upon request, and at no direct charge to them, to better allow them to take "Navy style showers."
 - (2) Customers will be urged not to regularly flush their toilets for disposal of urine only.

Plan Preparation

This plan has been coordinated with the Sonoma County Water Agency and the other regular contractors which utilize the Sonoma County Water Agency Aqueduct System and the City of Novato, and County, State and Federal Emergency Services Offices.

Adoption of Plan

The emergency rationing plan will be enacted after public hearing required by the District's Emergency Water Conservation Ordinance and a determination by the District's Board of Directors that a Water Shortage Emergency exists.

Monitoring of Actual Water Use

Monitoring of water use will be by meters with data analysis using the District's computers.

Mandatory Prohibitions

Wasting of water is prohibited by Regulation 15 of the North Marin Water District.

Phase 2 and Phase 3 of the Emergency Ordinance contain specific mandatory provisions.

Revenue and Expenditure Analysis

Assessment of potential revenue losses will be made as each stage is implemented and rate adjustments thereafter will be made in a timely manner to guarantee continued operation of the water system with reduced water sales.

The District Board of Directors will review all aspects of rate design and its reserve position before deciding whether to pass on the revenue loss, in part or in full, in the form of a rate adjustment to the ratepayers.

DRAFT
NORTH MARIN WATER DISTRICT
EMERGENCY WATER CONSERVATION ORDINANCE

Section 1. Declaration of a Water Shortage Emergency..... 1

Section 2. Purpose and Authority..... 1

Section 3. Effect of Ordinance 2

Section 4. Suspension of New Connections to the District's Water System 2

Section 5. Waste of Water Prohibited..... 2

Section 6. Prohibition of Non-Essential Use of Water..... 2

 Phase 1 - Introductory Phase 2

 Phase 2 - Moderate Mandatory Rationing (30% reduction)..... 3

 Phase 3 - Severe Mandatory Rationing (50% reduction)..... 3

Section 7. Variances 4

Section 8. Violations..... 4

Section 9. Signs on Lands Supplied from Private Wells or Recycled Water..... 4

Section 10. Use of Sprinklers Conditional..... 5

DRAFT

EMERGENCY WATER CONSERVATION ORDINANCE

ORDINANCE NO. _____

AN ORDINANCE OF NORTH MARIN WATER DISTRICT DECLARING THE EXISTENCE OF A WATER SHORTAGE EMERGENCY CONDITION WITHIN A PORTION OF THE DISTRICT, PROHIBITING THE WASTE AND NON-ESSENTIAL USE OF WATER, AND PROVIDING FOR THE CONSERVATION OF THE WATER SUPPLY OF THE DISTRICT

BE IT ORDAINED by the Board of Directors of North Marin Water District as follows:

Section 1. Declaration of a Water Shortage Emergency

This Board of Directors does hereby find and declare as follows:

(a) Pursuant to Resolution No. _____ duly adopted by this Board on _____, a public hearing was held on _____, on the matter of whether this Board of Directors should declare a water shortage emergency condition exists within the water service area of this District which is served by Stafford Lake and the North Marin Aqueduct.

(b) Notice of said hearing was published in the _____, a newspaper of general circulation printed and published within said water service area of the District.

(c) At said hearing all persons present at said hearing were given an opportunity to be heard and all persons desiring to be heard were heard.

(d) Said hearing was called, noticed and held in all respects as required by law.

(e) This Board heard and has considered each protest against the declaration and all evidence presented at said hearing.

(f) A water shortage emergency condition exists and prevails within the portion of the territory of this District served by Stafford Lake and the North Marin Aqueduct. Said portion of this District is hereinafter referred to as the Novato area and consists in all the territory of this District except the portions hereof in the western part of Marin County denominated Annexations 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15 and 16 generally known as Point Reyes Station, Inverness Park, Olema, Oceana Marin, and territories on the east shore of Tomales Bay. Said water shortage exists by reason of the fact that the ordinary demands and requirements of the water consumers in the Novato area cannot be met and satisfied by the water supplies now available to this District in the Novato area without depleting the water supply to the extent that there would be insufficient water for human consumption, sanitation and fire protection.

Section 2. Purpose and Authority

The purpose of this ordinance is to conserve the water supply of the District for the greatest public benefit with particular regard to public health, fire protection and domestic use, to conserve water by reducing waste, and to the extent necessary by reason of drought and the existing water shortage emergency condition to reduce water use fairly and equitably. This ordinance is adopted pursuant to Water Code Section 350 to and including 358, and Sections 31026 to and including 31029.

Section 3. Effect of Ordinance

This ordinance shall take effect immediately, shall be effective only in the Novato area, shall supersede and control over any other ordinance or regulation of the District in conflict herewith, and shall remain in effect until the Board of Directors declares that the water shortage emergency has ended.

Section 4. Suspension of New Connections to the District's Water System

(a) From and including _____, the Board of Directors by resolution declares that the water shortage has ended, which period is hereinafter referred to as the suspension period, no new or enlarged connection shall be made to the District's water system except the following:

- (1) connection pursuant to the terms of connection agreements which prior to _____, had been executed or had been authorized by the Board of Directors to be executed;
- (2) connections of fire hydrants;
- (3) connections of property previously supplied with water from a well which runs dry.
- (4) connection of property for which the Applicant agrees to defer landscape installation until after the suspension period.

(b) During the suspension period applications for water service will be processed only if the Applicant acknowledges in writing that such processing shall be at the risk and expense of the Applicant and that if the application is approved in accordance with the District's regulations, such approval shall confer no right upon the Applicant or anyone else until the suspension period has expired, and that the Applicant releases the District from all claims of damage arising out of or in any manner connected with the suspension of connections.

(c) Upon the expiration of the suspension period, the District will make connections to its water system in accordance with its regulations and the terms of connection agreements for all said applications approved during the suspension period. The water supply then available to the District will be apportioned equitably among all the customers then being served by the District without discrimination against services approved during the suspension period.

(d) Nothing herein shall prohibit or restrict any modification, relocation or replacement of a connection to the District's system if the General Manager determines that the demand upon the District's water supply will not be increased thereby.

Section 5. Waste of Water Prohibited

No water furnished by the District shall be wasted. Waste of water includes, but is not limited to, the following:

- (a) permitting water to escape down a gutter, ditch or other surface drain;
- (b) failure to repair a controllable leak of water;
- (c) failure to put to reasonable beneficial use any water withdrawn from the District's system.

Section 6. Prohibition of Non-Essential Use of Water

(a) No water furnished by the District shall be used for any purpose declared to be non-essential by this ordinance.

Phase 1 - Introductory Phase

- (b) The following uses are declared to be non-essential from and after _____:

- (1) washing sidewalks, driveways, parking areas, tennis courts, patios or other exterior paved areas except by the Novato Fire Protection District or other public agency for the purpose of public safety;
- (2) refilling a swimming pool drained after _____;
- (3) non-commercial washing of privately-owned motor vehicles, trailers and boats except from a bucket and except that a hose equipped with a shut-off nozzle may be used for a quick rinse.

Phase 2 - Moderate Mandatory Rationing (30% reduction)

- (c) The following additional uses are declared to be non-essential from and after _____:
- (1) any use of water from a fire hydrant except for fighting fires, human consumption, essential construction needs or use in connection with animals;
 - (2) watering of any lawn, garden, landscaped area, tree, shrub or other plant except from a handheld hose or container or drip irrigation system except as provided in Section 10 hereof;
 - (3) watering any portion of a golf course except the tees and greens except as provided in Section 10 hereof or where private well or recycled water supply is used;
 - (4) use of water for dust control at construction sites;
 - (5) initial filling of any swimming pool for which application for a building permit was made after _____;
 - (6) use by a vehicle washing facility in excess of 30% less than the amount used by it during the corresponding billing period in _____. If the facility was not operating in _____, an assumed amount shall be computed by the District from its records. This subsection shall not apply to any facility that recycles water in a manner satisfactory to the District.
 - (7) any non-residential use in excess of 30% less than the amount used by the customer during the corresponding billing period in _____. If connection to the District system was not in existence or use in _____, an assumed amount will be computed from the District's records.

Phase 3 - Severe Mandatory Rationing (50% reduction)

(d) From and after the date that the Board of Directors, by resolution, determines that the water shortage emergency requires severe rationing, the following additional uses are declared to be non-essential:

- (1) Watering any residential lawn, or any commercial or industrial area lawn maintained for aesthetic purposes, at any time of the day or night during the period of March 1, through September 30, when a Stage 3 is in progress.
- (2) Planting any new landscaping, except for designated drought resistant landscaping prescribed by the District.
- (3) All day and nighttime sprinkling will be discontinued. Any and all outside watering will be done only with a hand held nozzle. An exception will be made for carefully timed drip irrigation for established perennial plants and trees. Only sufficient water for assured plant survival may be applied.
- (4) No new annual plants, vegetables, flowers or vines may be planted during the Stage 3 emergency period. An exception will be made for customers who are eliminating

existing thirsty landscaping and replacing same with drought resisting landscaping prescribed by the District, as in (2) above.

The combined rationing including Phase 1, 2, and 3 is designed to achieve a minimum reduction of 50% or more in Novato service territory water consumption as compared with normal annual usage.

(e) The percentages stipulated in Phase 2 and Phase 3 may be increased by the General Manager for any class of customer if the General Manager determines that such increase is necessary to protect the public health, safety and welfare or to spread equitably among the water users of the District the burdens imposed by the drought and the shortage in the District's water supply.

Section 7. Variances

Applications for a variance from the provisions of Section 6 of this ordinance may be made to the General Manager. The General Manager may grant a variance to permit a use of water otherwise prohibited by Section 6 if the General Manager determines that the variance is reasonably necessary to protect the public health and safety. Any decision of the General Manager under this section may be appealed to the Board of Directors.

Section 8. Violations

(a) If and when the District becomes aware of any violation of any provision of Section 5 or 6 of this ordinance, a verbal warning will be given, then if the violation continues or is repeated, a written notice shall be placed on the property where the violation occurred and mailed to the person who is regularly billed for the service where the violation occurs and to any other person known to the District who is responsible for the violation or its correction. Said notice shall describe the violation and order that it be corrected, cured and abated immediately or within such specified time as the General Manager determines is reasonable under the circumstances. If said order is not complied with, the District may forthwith disconnect the service where the violation occurs.

(b) For the first offense, a fee of \$50 shall be paid for the reconnection of any service disconnected pursuant to subsection (a) during the suspension period. For each subsequent violation of Section 8 (a), the fee for reconnection shall be \$75.

(c) No service which is disconnected twice because of a violation of Section 5 or 6 of this ordinance during the suspension period, shall be reconnected unless a device supplied by the District which will restrict the flow of water to said service is installed. Furthermore, the fee for reconnection of such a service during the suspension period shall be \$100 in lieu of the fee required by subsection (b) hereof.

(d) In the event the District determines that water furnished by the District has been used to fill a swimming pool in violation of Section 5 or 6 hereof, service shall be disconnected and shall be reconnected pursuant to Section 8 (b) hereof, as applicable, except that the reconnection fee shall be \$200 for each subsequent offense.

Section 9. Signs on Lands Supplied from Private Wells or Recycled Water

The owner or occupant of any land within the Novato water service area that is supplied with water from a private well or with recycled water shall post and maintain in a conspicuous place thereon a sign furnished by the District giving public notice of such supply.

Section 10. Use of Sprinklers Conditional

Any customer of the District may use a sprinkler or sprinkler system to apply water furnished by the District to irrigate any lawn, garden, landscaped area, trees or shrubs provided said application is attended, properly controlled, performed in a non-wasteful manner and confined to the hours between 7:00 p.m. and 9:00 a.m. of the next day. The term sprinkler shall be defined to include soaker hoses or lines. The privilege to use a sprinkler or sprinkler system shall be banned for all customers in the event the Board of Directors of the District determines that the aggregate water use by all customers exceeds 50% of the amount of water used by all customers for a similar period 12 months prior. The General Manager of the District may temporarily prohibit the use of sprinklers in part of or the entire water system if in his judgement such use may reduce the District's water supplies below levels adequate for human consumption, sanitation and fire protection purposes. The District reserves the right to check the water use of any customer and if such use exceeds 50% of the use by the same customer or account for the corresponding period in _____ or if sprinkled water is used in a wasteful manner, the General Manager may prohibit sprinkling by that customer.

* * * * *

I hereby certify that the foregoing is a true and complete copy of an ordinance duly and regularly adopted by the Board of Directors of North Marin Water District at a regular meeting thereof held on _____ by the following vote:

AYES: Directors
NOES:
ABSENT:
ABSTAINED:
(SEAL)

Secretary
North Marin Water District

The Press Democrat

Lake Mendocino closed to motorized boats

By MARY CALLAHAN THE PRESS DEMOCRAT on August 14, 2013, 9:47 AM

The U.S. Army Corps of Engineers has closed Lake Mendocino to motorized boat travel because the lake's low level this year poses a risk boater safety.

The corps, which manages the reservoir, issued a notice Tuesday, saying it was closing both the north and south boat launches, as well as prohibiting vehicle travel at a southern beach known as "Jet Ski Beach," effective immediately.

A very dry spring has left the area parched and storage in Lake Mendocino at only 43 percent of capacity.

Visitors with canoes, kayaks or other portable vessels may still carry them to shore and paddle out on the lake.

More information on the launch closures is available at (707) 467-4200.

The U.S. Army Corps of Engineers has closed Lake Mendocino to motorized boat travel because the lake's low level this year poses a risk boater safety.

The corps, which manages the reservoir, issued a notice Tuesday, saying it was closing both the north and south boat launches, as well as prohibiting vehicle travel at a southern beach known as "Jet Ski Beach," effective immediately.

A very dry spring has left the area parched and storage in Lake Mendocino at only 43 percent of capacity.

Visitors with canoes, kayaks or other portable vessels may still carry them to shore and paddle out on the lake.

More information on the launch closures is available at (707) 467-4200.

Officials: North Coast water conservation must continue

By MARY CALLAHAN THE PRESS DEMOCRAT on August 14, 2013, 6:58 PM

North Bay residents appear to be holding the line on water use this summer, narrowly conserving enough to forestall the kind of water emergency that could provoke state intervention and trigger the need to cut consumption even more.

But the summer isn't over, and an unusually dry spring has put storage in Lakes Sonoma and Mendocino at their lowest levels in at least five years, according to the Sonoma County Water Agency.

"I can tell you right now that every water planner in our office is on pins and needles," waiting to see what the next month or two brings, agency spokesman Brad Sherwood said this week.

"This is serious," the agency's Assistant General Manager Pam Jeane said. "We have had an extremely dry spring, and anything anybody can do to save even a small amount of water would be extremely helpful."

Already, Lake Mendocino's water supply is down to just 43 percent of its storage capacity, or about 48,000 acre feet, according to water agency data.

The water level is so low that the U.S. Army Corps of Engineers announced Tuesday it was closing the popular lake to motorized boat travel for the foreseeable future.

Mid-summer levels haven't been this low since the 1970s, according to data from the California Department of Water Resources.

Storage at much larger Lake Sonoma is at 83 percent of capacity, but that is lower even than in 2009, when the state Water Resources Control Board directed the Sonoma County Water Agency's 600,000 domestic customers to reduce water use by 25 percent.

Residents of Sonoma and northern Marin counties have responded well to a plea from the local water agency in early June to conserve water use through a "20-gallon challenge," urging each resident to find ways to use 20 gallons less water each day.

Reduced consumption, despite heat waves in June and early July, is particularly good news given earlier high demand and polling data indicating residents had little awareness of the need to conserve this year.

Officials were pleasantly surprised, Sherwood said, when the agency's water delivery data came out last week suggesting the message had reached its audience.

But while June and July consumption was down from the same period last year, the difference in what the water agency delivered to its contractors this year from last was less than 2 percent.

So those not already watching their water use need to start now, Sherwood and others said, especially given uncertainty about how the next winter might shape up.

“We want people to know that we’re on the edge,” water agency Program Specialist Ann DuBay said, “and we need people to continue to conserve as they do all the time and as they’ve been doing this summer.”

The potential shortage is a consequence of a second consecutive year of below-normal rainfall, most of which came in December before the so-called “rainy season” came to a virtual halt.

In the meantime, the Army Corps of Engineers, which manages Lakes Mendocino for flood-control purposes, made dam releases in anticipation of additional rainfall that never came.

The goal now is to balance consumer and agricultural needs along the upper reaches of the Russian River, from Ukiah to Healdsburg, in such a way that there’s still enough storage in Lake Mendocino to ensure cold water releases can be made into the river when the Chinook salmon, listed as “threatened” under the Endangered Species Act, run upstream in the fall to spawn.

Maury Roos, chief hydrologist with the state Department of Water Resources, said staffers monitoring the Russian River aren’t panicked yet, but they definitely have their eye on what’s happening here and around the state after an unusual winter.

But he suggested the real test would come next year if the winter still to come doesn’t bring substantial precipitation.

“The odds of getting sufficient rainfall in the Russian River system — the Russian/Upper Eel — are pretty good,” Roos said, “but we can’t be sure of it.”

Jeane said the water agency and its partners in north Sonoma and Mendocino counties are promoting conservation all along the river corridor, even beyond district boundaries, where the greatest effect is likely to be felt.

North Bay residents have demonstrated over time a strong willingness to conserve water, cutting daily per capita consumption by about a quarter since 1995 and meeting targets toward the state’s 2008 mandate for all Californians to reduce water use by 20 percent by 2020.

Tasked by the state in 2009 to reduce use by 25 percent, water agency consumers met that goal, too.

The current focus needs to be here and now, however, the water agency’s Principal Programs Specialist Carrie Pollard said.

Each city and water district in the area offers a variety of incentives and assistance programs aimed at making conservation easy, including rebates for water-efficient appliances, payments toward conversion of lawns to less-thirsty landscapes, and free audits to help home and business owners to identify leaks or inefficiencies that can be addressed.

Rincon Valley resident Amy Southwick learned recently that her installation of a raised vegetable bed and potted plants earlier this summer just about doubled her water bill, despite steps she’s taken for years to conserve, including collecting rainwater from her roof in barrels and catching water while her shower warms to use later to flush the toilet.

She said she figured out on her own, when leaves started dropping, that she was overwatering her new garden, but was stunned to find out it was enough to raise her water use so startlingly.

“There isn’t enough to waste,” she said.

“Every drop of water’s going to really matter at the end of summer,” Sherwood said, “and if you haven’t started (conserving), please: Now’s the time to start.

“We weren’t bluffing. We weren’t kidding. We were talking about low water levels in Lake Mendocino. We’re seeing them now, and we need everyone to help out.”

(You can reach Staff Writer Mary Callahan at 521-5249 or mary.callahan@pressdemocrat.com.)

13

DISBURSEMENTS - DATED AUGUST 8, 2013

Date Prepared:8/6/13

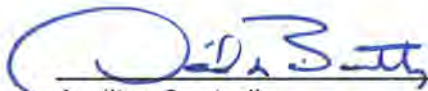
The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:

| Seq | Payable To | For | Amount |
|-----|--------------------------|--|----------|
| 1 | Aberegg, Michael | Drafting Services: Atherton Tank (Balance Remaining on Contract \$26,526) | \$605.00 |
| 2 | American Messaging | Final Pymt on Pager Rental (Ret'd Pagers) | 19.01 |
| 3 | American Family Life Ins | July Employee Contribution for Accident, Disability & Cancer | 4,000.20 |
| 4 | AT&T | Internet Service @ PRTP (7/20-8/19/13) | 70.00 |
| 5 | AT&T | Telephone Charges: Leased Lines | 63.42 |
| 6 | AT&T | Telephone Charges: Leased Lines (\$230) & Voice (\$485) | 715.24 |
| 7 | Bold & Polisner | June Legal Services: AEEP (\$37), Atherton Tank Recoat (\$148), Director's Compensation (\$287), MMWD Intertie Agreement (\$1,170), Novato Redevelopment Agency Claim (\$231), Rate Increase Letters (\$746), Redwood Center Lot Line Adj (\$111) & RW South Phs 1B-Claims (\$1,064) | 3,794.58 |
| 8 | Building Supply Center | Plumbing Fittings | 53.13 |
| 9 | Connolly, James | Novato "Washer Rebate" Program | 50.00 |
| 10 | DeGabriele, Chris | Exp Reimb: Annual Rotary Dues (\$175) (7/13-6/14) (Budget \$180) & Exp Reimb: July Mileage (\$316) | 491.40 |
| 11 | Dowden, Mary Ann | Accounts Payable Consulting Services (Balance Remaining on Contract \$2,350) | 1,500.00 |
| 12 | Fisher Scientific | Reagents & Manganese (Lab) | 95.06 |
| 13 | Hach | Ascorbic Acid, Chlorine Reagent Set, Sodium Thiosulfate, Glycine & Monochlor Reagents (STP) | 344.28 |

| Seq | Payable To | For | Amount |
|-----|-------------------------------|--|-----------|
| 14 | Irish & Son Welding | Weld 12" Water-Off Set @ Novato High School | 440.00 |
| 15 | Maltby Electric | Tracer Wire (1500') | 319.48 |
| 16 | Marin Landscape Materials | Quik Mix (42 bags) | 200.06 |
| 17 | Microtech Scientific | Lauryl Sulfate Broth (Lab) | 173.05 |
| 18 | New Pig | Disposable Nitrile Gloves (1,500) (STP) | 246.84 |
| 19 | Novato Builders Supply | Concrete (1 1/2 yds) (\$299), Wire to Make Barriers to Protect Trees @ Tank Sites (\$120), Rebar & Lumber | 428.54 |
| 20 | Office Depot Business Service | Quarterly Office Supply Order: Pens (156) (\$190), Business Cards (5,000), Tape (2), Markers (36), Copy Paper (4 reams), Mousepad, Folders (\$248), Labels (2,000), Legal Pads (24), Calculator Rolls (72), Duster, Paper Clips, Scratch Pads (48), Post-it Pads (36), Gummed Tabs (100), Storage Boxes (24), Clasp Envelopes (100), Report Covers (20), Key Ring, Pressboard Folders (50) (\$95) & Binders (18) (\$241) | 1,354.16 |
| 21 | O'Reilly Auto Parts | Spark Plugs (2), Car Wash (2 gal), Wheel Brush, Wiper Fluid, Glass Cleaner, Car Brush & Degreaser | 107.00 |
| 22 | Pace Supply | Couplings (9) (\$1,234), Corp Stops (20) (\$861), Els (2) (\$662), Steel Pipe (20) (\$1,482), Gate Valve (\$398) & Copper Tube Nuts (8) | 4,695.81 |
| 23 | PERS Retirement System | Pension Contribution PPE 7/31/13 | 48,014.78 |
| 24 | Roberts, Renee | Vision Reimbursement | 149.97 |
| 25 | Simison, Robert | Novato "Washer Rebate" Program | 50.00 |
| 26 | Soiland | Asphalt Recycling (1 ton) | 20.00 |
| 27 | | Vision Reimbursement | 386.00 |
| 28 | Sonoma County Water Agency | FY14 NBWRA Phase 1 Allocation (\$76,577) & April-June Conservation Program Support (\$19,814) | 96,390.54 |
| 29 | Terryberry | Service Awards (5) | 623.57 |

| Seq | Payable To | For | Amount |
|-----|--------------------|--|----------------------------|
| 30 | Thomas Scientific | Disposable Nitrile Gloves (2,200) (Lab) | 194.12 |
| 31 | Univar | Caustic Soda (26,013 lbs) & Ferric Chloride (18,621 lbs) | 16,305.33 |
| 32 | USA BlueBook | Magnetic Pipe Locator | 53.15 |
| 33 | Verizon California | Telephone Charges: DSL Line (\$47) & Leased Line (\$44) | 91.05 |
| 34 | Verizon Wireless | June CIMIS Station Data Transfer Fee | 24.76 |
| 35 | VWR International | Bottles (12) (\$175) & Sulfate Standard (Lab) | 213.78 |
| 36 | West Marin Citizen | Subscription Renewal (8/13-8/14) (Budget (\$60) | 64.00 |
| 37 | | Cafeteria Plan: Childcare Reimbursement | 1,000.00 |
| | | TOTAL DISBURSEMENTS | <u>\$183,347.31</u> |

The foregoing payroll and accounts payable vouchers totaling \$183,347.31 are hereby approved and authorized for payment.



Auditor-Controller

8/6/13

Date



General Manager

8/6/2013

Date

DISBURSEMENTS - DATED AUGUST 15, 2013

Date Prepared: 8/13/13

The following demands made against the District are listed for approval and authorization for payment in accordance with Section 31302 of the California Water Code, being a part of the California Water District Law:


| Seq | Payable To | For | Amount |
|-----|-------------------------------|---|--------------|
| P/R | Employees | Net Payroll PPE 7/31/13 | \$117,688.65 |
| EFT | US Bank | Federal & FICA Taxes PPE 7/31/13 | 50,671.03 |
| EFT | State of California | State Taxes & SDI PPE 7/31/13 | 8,949.41 |
| 1 | Agile Business & Technology | Timekeeper Maintenance Renewal | 800.00 |
| 2 | AT&T | Telephone Charges: Voice Lines | 237.43 |
| 3 | Balestreri, Anthony | Novato "Washer Rebate" Program | 50.00 |
| 4 | Bundesen, Gerald | Retiree Exp Reimb (Aug Health Ins) | 282.55 |
| 5 | Butti, Lou | Retiree Exp Reimb (Aug Health Ins) | 282.55 |
| 6 | California State Disbursement | Wage Assignment Order | 1,018.50 |
| 7 | CDW-Government | Laserjet Color Printer (Young) | 348.03 |
| 8 | Cole-Parmer Instrument | PVC Tubing (50') (\$69) & Stop Watch | 93.76 |
| 9 | Costco Wholesale | Food for Patio Picnic | 275.96 |
| 10 | Cummings Trucking | Rock (64 yds) | 3,819.11 |
| 11 | | Cafeteria Plan: Uninsured Medical Reimbursement | 88.70 |
| 12 | Diggs, James | Retiree Exp Reimb (Aug Health Ins) | 884.31 |
| 13 | Fisher Scientific | Copper, Fluoride & Bromide Standard (Lab) | 52.37 |
| 14 | Arthur J. Gallagher | Audit Premium for FY13 Excess Workers' Compensation Insurance | 351.00 |
| 15 | Golden Gate Petroleum | Gasoline (\$3.87/gal) & Diesel (\$3.93/gal) | 3,595.78 |
| 16 | Gomez, Marta | Novato "Washer Rebate" Program | 50.00 |
| 17 | | Cafeteria Plan: Uninsured Medical Reimbursement | 657.49 |

| Seq | Payable To | For | Amount |
|-----|--------------------------------|--|-----------|
| 18 | Grainger | "D" Batteries (24) & Adjustable Hydrant Wrenches (6) (\$144) | 160.36 |
| 19 | Groeniger | Elbows (14) (\$141) & Nipples (5) | 189.74 |
| 20 | Hach | Sample Cell, Alkaline Cyanide Reagent (2), Pan & Standard (\$130) (STP) | 276.38 |
| 21 | Hertz Equipment Rental | Crawler Loader (\$482) & Mower Attachment Rental (2 days) | 869.82 |
| 22 | Hille, Ervin | Novato "Toilet Rebate" Program | 100.00 |
| 23 | Idexx Laboratories | Bacteriological Test Result Indicator (Lab) | 17.12 |
| 24 | Interstate Battery | Batteries (\$95-'89 Chipper, \$267-'02 Intl 5 yd Dump Truck & \$43-'73 Tilt Trailer) | 406.03 |
| 25 | Journey Ford/Lincoln | Brake Pads, Rotors (\$250), Seals ('05 Ford Ranger) & Back-up Light Switch ('05 Ford Ranger) | 397.89 |
| 26 | | Cafeteria Plan: Uninsured Medical Reimbursement | 51.65 |
| 27 | | Cafeteria Plan: Uninsured Medical Reimbursement | 50.65 |
| 28 | Lincoln Life | Deferred Compensation PPE 8/15/13 | 10,892.06 |
| 29 | Lowrie, Patricia | Novato "Toilet Rebate" Program | 200.00 |
| 30 | | Cafeteria Plan: Childcare Reimbursement | 416.66 |
| 31 | Maltby Electric | Conduits (200) (\$166), 2" Elbows (4) & | 200.62 |
| 32 | Matchette, Tim | Retiree Exp Reimb (Aug Health Ins) | 282.55 |
| 33 | McLellan, WK | Misc Paving: Novato Area (1,244 S.F.) | 8,898.76 |
| 34 | Mendez, Erick | Novato "Washer Rebate" Program | 50.00 |
| 35 | Nationwide Retirement Solution | Deferred Compensation PPE 8/15/13 | 1,025.00 |
| 36 | New Pig | Absorbent Spill Pads (50) | 67.74 |

| Seq | Payable To | For | Amount |
|-----|------------------------------|--|-----------|
| 37 | North Marin Auto Parts | Grease Fitting, Oil Filters (7) (\$28), Air Filters (5) (\$60), Motor Oil (37 qts) (\$136), Mechanic Gloves (6) (\$117), Shop Rags (\$143), Bolts (4), Wiper Blades, Oil Drain Plug, Allen Head Bolt, Tail Lights (2) (\$112) & Fan Belt | 627.70 |
| 38 | North Bay Gas | Nitrogen (\$525) & July Cylinder Rental (\$104) | 629.77 |
| 39 | Pace Supply | 1-1/4" Couplings (2) (\$102), 20" Hydrant Extension (\$110), Corp Stops (7) (\$217) & Hose Bibs (15) (\$89) | 518.02 |
| 40 | PG&E | Power: Bldgs/Yard (\$4,099), Rectifier/Controls (\$445), Pumping (\$37,631), Treatment (\$8,151) & Other (\$103) | 50,429.72 |
| 41 | Phillips & Associates | August O & M of O.M. Wastewater Treatment System | 5,311.43 |
| 42 | Pini Hardware | Pipe Fittings for Pacheco Tank, Paint Brushes, Self Drilling Screws, Mouse Bait & Traps, SS Cleaner, Simple Green, Door Knob, Shop Vac Filters, Slip Hooks, Struction Shovels (12) (\$412), Razorback 3" Hand Shovels (\$75) & Extension Cord Reel | 627.20 |
| 43 | Prunuske Chatham | Progress Pymt #1: Site Assessments & Preparation of 2013 Leveroni Creek Bank Repair Monitoring Report (Balance Remaining on Contract \$2,819) | 1,880.00 |
| 44 | Roberts & Brune | Trans Couplings (3) | 809.71 |
| 45 | Roberts, Renee | Retiree Exp Reimb (Aug Health Ins) | 282.55 |
| 46 | Scott Technology Group | Quarterly Maintenance on Engineering Copier (4/16/13 - 7/15/13) | 524.95 |
| 47 | Shirrell Consulting Services | August Dental Insurance Admin Fee | 288.15 |
| 48 | Shirrell Consulting Services | July Dental Expense | 5,367.40 |
| 49 | Sierra Chemical | Chlorine (2 tons) | 1,013.32 |
| 50 | Soiland | Asphalt Recycling | 20.00 |
| 51 | Speck, Mary | Novato "Washer Rebate" Program | 50.00 |
| 52 | Speedpro Imaging | Save Water Banner (12' x 40') | 920.51 |

| Seq | Payable To | For | Amount |
|----------------------------|---------------------------|---|----------------------------|
| 53 | SPG Solar | Energy Delivered Under Solar Services | 13,286.35 |
| 54 | Tehrani, Allen | Novato "Cash for Grass" Program | 105.00 |
| 55 | Underground Service Alert | Annual Membership (7/1/13 - 6/30/14) (Budget \$890) | 884.04 |
| 56 | US Bank | July Safekeeping Fee Treasury Securit | 39.50 |
| 57 | Verizon California | Telephone Charges: Leased Lines | 890.52 |
| 58 | Verizon Wireless | Cellular Charges: Data (\$99) & Airtime (\$112) | 211.33 |
| 59 | Yancey, Janelle | Novato "Washer Rebate" Program | 50.00 |
| 60 | Young, Katie | Novato "Washer Rebate" Program | 50.00 |
| TOTAL DISBURSEMENTS | | | <u>\$299,566.83</u> |

The foregoing payroll and accounts payable vouchers totaling \$299,566.83 are hereby approved and authorized for payment.


 Auditor-Controller 8/12/13
 Date


 General Manager 8/12/2013
 Date



**NAPA
SONOMA
SALT
MARSH**
**Restoration
Pipeline Opening
August 30, 2013**

**August 30, 2013
10:00 - 11:30am
at the Napa Sonoma Salt Marsh**

Pond 7A (aka "the Donut") near Buchli Station Road and Highway 121
(Click [here](#) for directions)

Thanks to many years of dedicated labor from a wide variety of partners as well as grants from the U.S. Bureau of Reclamation and the California Department of Water Resources, recycled water will soon be flowing to dilute the bittern ponds of the Napa Sonoma Salt Marsh.

This project provides an inspiring glimpse into the future of water conservation in the west: Drought-proof recycled water benefiting agriculture, the environment, recreation, and the economy.

Join us at this celebration of the transition from bittern ponds to bay land restoration.

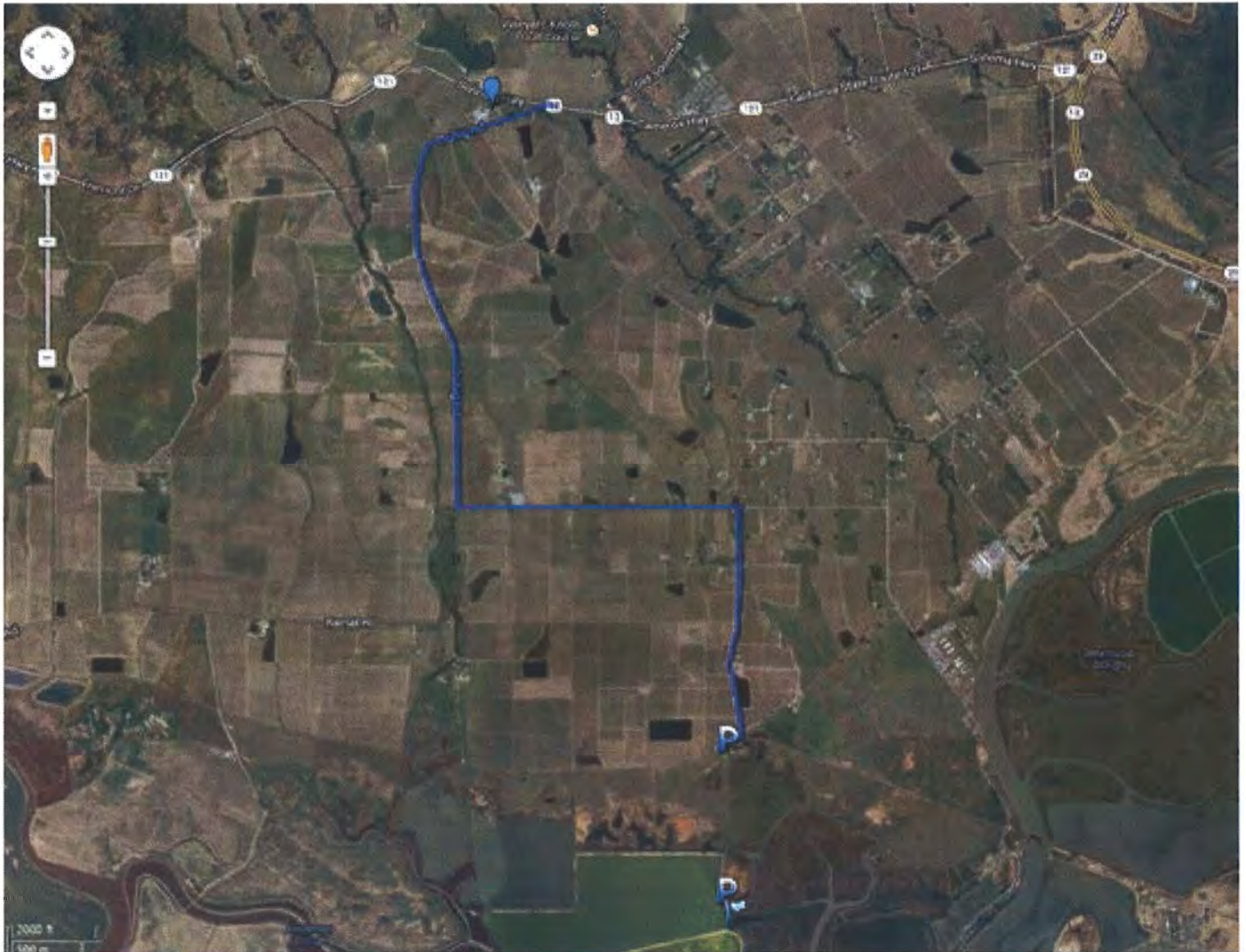
United States Congressman Mike Thompson, Keynote Speaker

**Hosted by Sonoma County Water Agency
and the Sonoma Valley County Sanitation District**

Light snacks will be provided.

RSVP to pamela.kuhn@scwa.ca.gov

Recommended attire is semi-casual with comfortable walking shoes.
Area is still a construction site.



Napa Sonoma Salt Marsh Restoration Pipeline Opening

August 30, 2013 from 10 - 11:30am at Pond 7A

<http://goo.gl/maps/L5Md8>



Event: Pond 7A aka "The Donut"

This is where the celebration event and short reception will occur. Recommended attire is semi-casual with comfortable walking shoes.



Suggested Route

From California State Route 121, turn onto Duhig Road. Look for Domaine Carneros Winery as a landmark for the turn onto Duhig. Make a left onto Las Amigas Road followed by a right onto Buchli Station Road. Follow Buchli Station Road to the end and make a slight right to the California Department of Fish and Wildlife Parking Lot. We will travel through the lot to park on the dirt road adjacent to Pond 7A.



Domaine Carneros Winery

This winery is a good landmark for the turnoff onto Duhig Road



Parking 1

Parallel parking on dirt, close to event



Parking 2

Accessible parking in small California Department of Fish and Wildlife parking lot with shuttle or short walk to event

Sonoma ~ Marin Farm News

Aug 2013

is spawning second-generation innovations that are also double- or triple-bottom line focused.” servings and generated thousands of new dollars for farmers and food sellers.

TWO RESOURCE CONSERVATION

DISTRICTS MERGE *At the direction of both Boards of Directors, the Southern Sonoma and Sotoyome RCDs have merged to become the Sonoma Resource Conservation District.*

Sonoma RCD Director, Vickie Mulas, expressed, “We look forward to serving the community more efficiently and economically by merging the technical resources of our staff.” The RCD’s have been assisting landowners since the 1940’s identify local conservation problems and guiding solutions from focused stream enhancement efforts, developing best management practices for rural lands to watershed enhancement plans. Supervisor Mike McGuire notes that “The RCD is a tremendous resource for Sonoma County’s

rural and agricultural landowners. As a trusted liaison between regulatory agencies and local property owners, the RCD leverages millions of dollars to improve the water and soil quality of our region and is a critical partner for our local communities.” Sonoma RCD is a non-regulatory, local, special district. “As one district we will have the opportunity to expand our conservation programs to more landowners and work better with our partners,” says Kara Heckert, Executive Director.

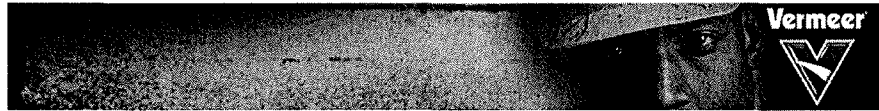
nce 1978

ci & Sons

- Ponds / Dams
- Pads / Arenas
- Demolition

July 2013

Benjamin Media, Inc



Home Featured Editorial Trenchless International News Webinars Conferences Subscriptions Resources Contact Us Search Trenchless Online

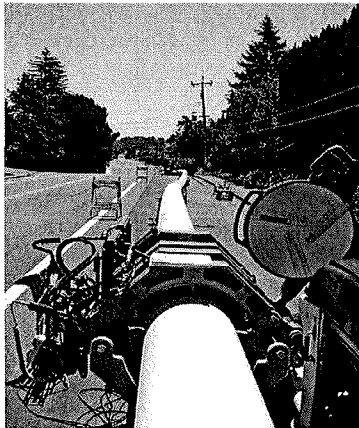
North Marin Water District Relies on HDD as Part of Regional Recycled Water System Upgrades

By Drew McIntyre, P.E. — Jul 22, 2013

< All stories in this section

The use of recycled or reclaimed water continues to gain traction as water demand increases while potable water supplies dwindle. Recycling the water we 'waste' after domestic use makes good sense in terms of the cost, efficiency, scarcity and local control of our water resources.

A very popular use for recycled water is public park and landscape irrigation. One major issue with recycled water distribution piping networks is that the infrastructure required for a new dedicated distribution and delivery system must oftentimes be installed in areas of established communities and development. This type of construction requires additional easement space and is often performed with very tight project site constraints considering public access, traffic patterns and existing build-out. One potential way to help ease the installation pains in this situation is to employ trenchless methods. Trenchless methods, including horizontal directional drilling (HDD), minimizes excavation requirements, which go a long way to easing the impact of a construction project on the area of installation.



The North Marin Water District (NMWD) is located in Marin County in the San Francisco Bay Area of California. In terms of raw water, NMWD relies on imported Russian River water for nearly 80 percent of its supply. However, this source has been impacted by limitations promulgated to protect fish habitat and the river environment. Reacting to these constraints in water supply going forward, NMWD officials have endeavored to reduce potable water demands within their service territory. They have done this primarily with two methods. First, they undertook an aggressive and successful water conservation program, reducing the amount of water waste in their system. Second, NMWD has been proactively developing recycled water for parks, schools, and common area landscape irrigation as another drought-proof water source.

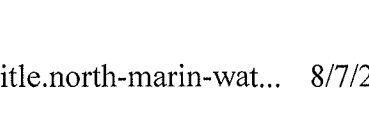
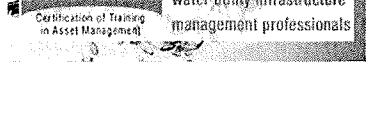
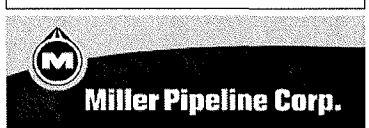
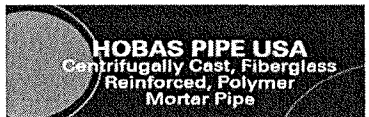
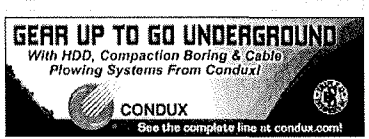
In 2011, NMWD began advertising a series of recycled water expansion projects for its North and South Service Areas to be completed by the end of 2013. The Novato Recycled Water Phase 2 Expansion Project, which totals approximately 10 miles of recycled water pipe, is part of a regional conservation effort in partnership with the Novato Sanitary District and Las Gallinas Valley Sanitary District.



Understanding that these projects would be installed in communities of established infrastructure and development, NMWD designed them to allow the use of HDD as an alternate form of installation to the standard direct bury, or open trench methodology. The idea was that if the HDD installation methodology could save the contractor money and hassle in terms of construction practice, NMWD would realize both the financial benefit of a competitive price, and the socioeconomic benefit of less intrusive public impacts of the trenchless construction for the project.

Two of the recently contracted projects for NMWD's construction and HDD installation for these very reasons. The first project was installed by Ghilotti Construction (Ghilotti) and consisted of approximately 5,000 lf of 8-in. recycled distribution waterline. The project site included areas of extremely 'tight' working environment, with two-lane streets and a crowded infrastructure easement, along with work on a very busy thoroughfare in Atherton Avenue. Ghilotti performed the work in 500- to 600-ft increments. The HDD installations would be angled to get to depth with the use of an insertion pit, and then run at the correct grade for the length of the run. Typical depths of bury were in the 7- to 8-ft range to limit issues with inadvertent returns of drilling fluid, but to keep the pipeline accessible for the future.

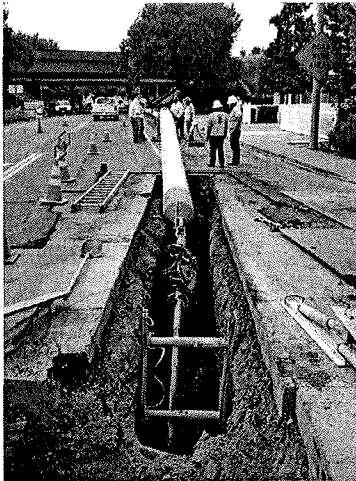
The pipe material used for the installation was Fusible PVC pipe (FPVCP), which due to the thermal butt fusion used to make the joints, is capable of installation by being pulled into place. This is a requirement for HDD installation, which creates a bored hole along the desired alignment and as a last step of installation, pulls the new pipeline through the space created by the process. The 8-in. FPVCP was generally fused and staged in the lengths required for the installation at a location separate from the actual location of the final alignment. When the HDD sections were properly prepared the lengths of FPVCP were moved into position for the insertion and then



installed. All crossing utilities were potholed prior to the installations to make positive identification and to ensure that the drilling operation would not result in a utility strike. HDD was very successful in limiting the amount of construction impact in these tight locations, keeping access available for the residences and businesses along the project route.

Project No. 2

The second project was installed by Ranger Pipelines (Ranger) and consisted of more than 6,000 lf of 12-in. recycled distribution waterline. This project, like the previous one, took place in a very busy and congested area. The main route of the alignment was on Redwood Boulevard, with heavy traffic congestion as well as a high volume of commercial properties. As part of Ranger's project, there was a 700 lf Sonoma Marin Area Rapid Transit (S.M.A.R.T) train crossing required. This crossing was accomplished with HDD by first installing an 18-in. FPVCP pipeline to act as a casing. This casing was then used to house the 12-in. FPVCP carrier pipe. The S.M.A.R.T. train HDD crossing was designed by Jacobs Associates Engineers of San Francisco.



Another section of this project included the crossing of the pipeline alignment under a Hwy 101 overpass. This section was drilled to eliminate the need to try and dig under the overpass which would have been very difficult for excavators due to the minimal clearance of the bridge structure and the existing road. Much like the first project, pipe was fused in one location and brought to the specific installation locations for insertion. Pipe trolleys were used to move the pipe and keep it from dragging on the ground.

As water becomes more and more precious, recycled water systems will become more and more prevalent. The construction required for these systems will tend to be very disruptive both in scope and location, and trenchless technologies like HDD are helping to ease this disruption. For NMWD, two recent projects were bid with the option to install the new pipelines via open-cut or HDD with both contractors choosing the less disruptive HDD method as the most efficient and competitive. Trenchless methods are providing a viable means to limit the impact of these critical infrastructure installations as well as save construction dollars.

Drew McIntyre, P.E., is chief engineer with the North Marin Water District, San Francisco.

< All stories in this section

Horizontal Drilling
 TF www.trenchfree.com

TrenchFree, Trenchless, Horizontal Drill "all underground utilities"

➔

AdChoices

| | | | |
|------------------------------|----------------------------------|------------------|---------------------|
| Trenchless Technology | Conferences | Resources | Contact Us |
| Featured Stories | No-Dig Show | Buyer's Guide | General Inquires |
| Trenchless News | Trenchless Technology Road Shows | Forums | Advertising |
| Directional Drilling | WUIM Conference | Classified Ads | Editorial |
| Pipe Cleaning | | Resource Center | Benjamin Media, Inc |
| Archives / Past Issues | | Webinars | |

President has perfect attendance

✓ 50 YEARS AGO
AUGUST 1963

North Marin Water District directors gave their blessing to a Novato Junior Chamber of Commerce proposal to transform the Stafford Lake area into a family recreation park.

PAST

Three Jaycees attended the water district meeting to sound out directors on the possibility of developing a "total concept" recreation plan for the district's more than 200 acres at the lake. James McConnell, community development chairman, John Stuber, external vice president and Roger Hilman, representing the Jaycees parks and recreation subcommittee, presented the proposal. The lake area, they said, should be developed into a regional park where an entire family would find "something for everyone" on an outing.

The Indian Valley Gold Club already occupies some of the area on a 50-year lease. In addition, however, the Jaycees said the future park should provide sports such as volleyball, baseball, horseshoes, and other games, as well as picnic grounds. The Novato Lions Club has set up one picnic area.

Ground breaking ceremonies for the new plant of Marin Products Inc., frozen food distributors, were held at the building's construction site, Hamilton Park, Ignacio.

The plant, Hamilton Industrial Park's first tenant, will be the largest frozen food distribution facility in northern California, north of San Francisco. It will occupy 100 acres of

ground. Its construction is scheduled for completion in 90 days. To mark the ceremony, a helicopter dropped some 1,000 ping pong balls in selected areas around Marin County which finders may redeem for a package of frozen food from the company.

25 YEARS AGO
AUGUST 1988

David Price Jones is new president of the Novato Rotary Club. The former Mayor of Novato leads a board that includes Alan T. Dunham, vice president; Gordon Lee, secretary; Ben Borok, treasurer; and directors George Estes, John Elloway, Jerry Mead, Joel Grey and Jim White. Jones has a long history of involvement in Novato civic and community affairs. He served on the city council from 1971 through 1976 and was mayor in 1974.

He was founding president of the Novato Youth Soccer Association and chairman of the Novato District Boy Scouts. He was born in Berkeley and has lived in Novato since 1962. He and wife Kay, a teacher at Sinaloa Middle School, have two children.

A 15-year member of Rotary with a perfect attendance record, Jones says he wants more Rotarians involved in more activities. "My goal is for every member to become actively involved and utilize Rotary as an avenue for service," he explained.

Pages from the Past is compiled from the archives of the Novato Advance by Mike Read.

Novato
Advance
8/7/13

Follow @MarinscopeNews
on Twitter

Sneaky scammers are on the prowl

300 MSC



Sonoma County Water Agency Press Release

For Immediate Release

August 14, 2013

CONTACT:

Ann DuBay
707.524.8378 (Office)
707.322.8185 (Cell)
Brad Sherwood
707.547.1927
707.322.8192

Opening Celebration of the Napa Sonoma Salt Marsh Restoration Pipeline

(Santa Rosa, CA) On August 30, 2013 a gathering of elected officials, federal agencies, partner organizations and grape growers will celebrate the transition of bittern ponds to restored bay lands with the flow of recycled water through a new pipeline to the Napa Sonoma Salt Marsh.

The former Cargill salt pond complex at the north end of San Pablo Bay has the potential to provide diverse wetland habitat, but the area wasn't able to be fully restored without clean water to eliminate the bittern left over from the salt production process.

The event, hosted by the Sonoma County Water Agency and the Sonoma Valley County Sanitation District, commemorates 3.4 miles of pipeline that extends an existing recycled-water pipeline. The new pipeline is being constructed to deliver recycled water for salinity reduction and restoration of 640 acres of bittern ponds, part of a larger 10,000-acre restoration project.

"It's taken 10 years, \$10 million dollars, coordination across two counties, easements across private property, and the cooperation of countless organizations to see this pipeline through," said event keynote speaker Congressman Mike Thompson. "This project is a testament to what is possible through visionary thinking, determination and collaboration. Now that it's complete, this pipeline will help restore valuable wetlands, provide a reliable water source for our area's farmers, and reduce our region's water demands."

"Hypersaline conditions harm aquatic life," says Greg Martinelli, Wildlife Program Manager with the California Department of Fish and Wildlife. "Not only does this pipeline help protect against saltwater intrusion into the bay, it dilutes the toxic bittern salt concentrations, creating habitat for fish and wildlife."

Connections for agricultural irrigation along the pipeline route will also provide grape growers in the Carneros Region with a resilient source of clean water for irrigation.

“Farmers throughout California are grappling with the effects of climate change, lack of rain, and shrinking groundwater supplies,” said 4th District Assemblymember Mariko Yamada, Chair of the Assembly Select Committee on Sustainable and Organic Agriculture. “This shared pipeline crossing Sonoma and Napa counties is a great model for innovative recycled water projects that will help sustain agriculture into the future.”

“With California experiencing one of the driest years on record, it’s imperative that we squeeze every last drop out of our precious water resources.” said David Rabbitt, chairman of the Board of the Sonoma County Water Agency, the Sonoma County Board of Supervisors and the North Bay Water Reuse Authority. “Utilizing clean, drought-proof recycled water is one of the keys to water conservation in the West and this pipeline showcases the multi-use benefits that are possible.”

“The pipeline will allow 1,100 to 1,700 acre-feet of water annually to be delivered from the Sonoma Valley County Sanitation District treatment plant to the former salt ponds,” said Sonoma County Supervisor and Sonoma Valley County Sanitation District Director Susan Gorin. “Each acre-foot of water can flood a football field one foot deep—that’s a lot of water being delivered to support our wetlands and farmers, while offsetting demand on groundwater.”

“This project is one component of a large regional effort to increase the use of clean recycled water to enhance the environment and provide an alternative for irrigating crops, fields, parks and golf courses,” said Napa County Supervisor Keith Caldwell, who also is on the board of the North Bay Water Reuse Authority. “Working together, local governments can secure federal and state funds to make these projects possible.”

“The Carneros grape growing region is recognized worldwide for its high quality wines,” said Napa County Supervisor Brad Wagenknecht. “This drought-proof source of clean, high-quality water helps ensure that legacy will continue.”

The August 30, 2013 event will be held at the Napa Sonoma Marsh near Buchli Station Road and Highway 121 from 10:00am – 11:30am. For more information about the event, contact Ann DuBay at 707.524.8378 or ann.dubay@scwa.ca.gov or Brad Sherwood at 707.547.1927 or brad.sherwood@scwa.ca.gov.

To find out more about the 10,000-acre Napa Sonoma Marsh restoration project, visit www.napa-sonoma-marsh.org. For more information on how recycled water is being beneficially reused in the North Bay visit <http://www.nbwra.org>.

###

The Sonoma County Water Agency is working to secure our future by investing in our water resources, community and environment. The Water Agency provides water supply, flood protection and sanitation services for portions of Sonoma and Marin counties. Visit us on the Web at www.sonomacountywater.org.

No rate hike for Marin Municipal Water District customers this year

Posted:

marinij.com

After six straight years of rate increases, Marin Municipal Water District customers will get a reprieve for the next two years, water officials announced.

Improved finances from years of budget control and increased water usage in the last fiscal year led to improvements in both operating reserves and cash flow, said Krishna Kumar, the district's general manager.

"Across California there has been a loss of between 15 and 20 percent in revenue for water districts," Kumar said. "Several factors went into it: The economy took a nosedive, there were great conservation efforts and weather and climate played a part too. The last three or four years have been extremely tough."

To generate revenue, the district increased rates from 2008 through 2012. But that streak will come to an end this year.

As the budget stands, the district is able to cover all operating costs, continue to invest in capital projects, and maintain adequate operating reserves without raising rates.

"We had no choice but to raise rates over the last few years in order to recover from the 2008 recession," said Larry Russell, board president. "But we worked hard to achieve our goal of stabilizing the district's finances. We are now in a position to give our customers a break, and that's what we're going to do."

The earliest a rate increase would take place is 2015.

Meanwhile, rate structures are being looked at by the board and there will be public hearings on that matter in October.

The operating budget — approved last week — for the fiscal year 2014 is \$75.5 million and the capital budget is \$22.8 million. The operating budget for fiscal year 2015 is \$77.2 million and the capital budget is \$23.5 million. Conservation programs are fully funded, Kumar said.

Water use for the fiscal year ending June 30 was 7 percent higher than the previous year, which brought in revenue, officials said.

The water district has cut its costs by negotiating a deal with employees in which they picked up additional pension costs. In the past five years the employee contribution percentage has increased from 13 to 18 percent for retirement costs.

The workforce was also cut by 10 percent, overtime and standby pay was cut by 50 percent, and a two-year pay freeze was implemented, among other cost-cutting measures.

The district provides water to 185,000 people from San Rafael to Sausalito and manages land on Mount Tamalpais.

Contact Mark Prado via email at mprado@marinij.com

INCREASES

Marin Municipal Water District recent rate hikes:

- 2012: 6 percent
- 2011: 4 percent
- 2010: 9.8 percent
- 2009: 7.3 percent
- 2008: 9.7 percent
- 2007: 3.8 percent