

# **ANNUAL DRINKING WATER REPORT, 1998**

## **MELODY WOODS MUTUAL WATER COMPANY**

### **PREFACE**

Since 1990, Melody Woods Mutual Water Co. (MWMWC) has been required to provide its users with an Annual Water Quality Report (AWQR). As we reported to you in our June 1998 Water News Letter, the US EPA now requires a Consumer Confidence Report (CCR) that MWMWC must prepare and distribute to all our users. California's Health and Safety Code also requires a similar report that is really an expansion of the AWQR we have been issuing since 1990. Since these reports are very similar and contain the same basic information, California's Department of Health Services has allowed us to combine the two reports for 1998 and stipulates that it be issued by April 1, 1999.

The report requirements define the format of the report; in some parts, the language used; information provided; and the date for issue.

This is MWMWC's first report to be issued in response to these new rules. We are pleased to provide it to you and hope that you find the information useful and reassuring.

### **1. SOURCE**

MWMWC gets all of its drinking water from "ground" water. In our case this is one well - we call well # 3 - located just off of Summit Road between Melody Lane and Mt. Charlie Road. At one time we used 4 wells and a spring. All but # 3 well have been abandoned because of poor water quality and/or insufficient production. Water from the spring is still drawn and stored in our large tank located near the bottom of Melody Lane. We keep this as our emergency back-up for use in case of fire or other emergency. Should it become necessary to use this water for drinking purposes, we can reconnect the lines and pump to our main distribution/ treatment tank near Summit Road in the Peacock Christmas Tree Farm. If we do use it as drinking water, you will be advised and told to boil the water before consumption.

### **2. WATER QUALITY**

We are pleased to report that our water is safe and meets federal and state health requirements.

### **3. MWMWC CONTACT PERSONNEL**

If you have any questions about this report or concerning your water utility, please contact Dale Pennington at 353-2556 or Tom Gray at 353- 3570. We want our valued customers to be informed about our water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the last Tuesday of each quarter (March, June, September, and December) at 7:30 PM in the home of one of the board members. Contact Dale or Tom to determine which member is hosting the meeting for the quarter you are interested in.

The March quarterly meeting also serves as our annual meeting where board members are elected and

major operational topics are discussed.

#### 4. REPORT PERIOD

MWMWC routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 1998. For this period, we were required to monitor and have analyzed by a state certified laboratory the General Physical, General Mineral, Inorganic Chemicals, Gross Alpha, and Nitrate in our source water (Well #3). All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In the table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

<i>Public Health Goal (PHG)</i>	- The level of a Contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
<i>Maximum Contaminant Goal (MCLG)</i>	The level of a contaminant in drinking water below which there no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency. <i>Level</i>
<i>Maximum Contaminant Level (MCL)</i>	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to PHGs and MCLGs as is economically or technologically feasible.
<i>Primary Drinking Water Standard</i>	Primary MCLs, specific treatment techniques adopted in lieu of primary MCLs, and monitoring and reporting requirements for MCLs that are specified in regulations.
<i>Parts per million (ppm) or Milligrams per liter (mg/l)</i>	One part per million corresponds to one minute in two years or a single penny in \$10,000.
<i>Parts per billion(ppb) or Micrograms per liter (ug/l)</i>	One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
<i>Picocuries per liter (pCi/L)</i>	Picocuries is a measure of radioactivity in water.
<i>Million Fibers per Liter (MFL)</i>	Million fibers per liter is a measure of the presence of asbestos that are longer than 10 micrometers.

*Nephelometric Turbidity Unit (NTU)*

Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**TABLE OF TEST RESULTS \***

Contaminant	Violate Y/N	Level Detect	Unit of Meas.	MCLG	MCL	Likely Source of the Contaminant.
Sulfate	N	70	mg/l	250	250	Naturally present
Chloride	N	17	mg/l	250	250	Naturally present
Nitrate	N	<1	mg/l	45	45	Animal waste, fertilizer, etc.
Floride	N	0.2	MG/L	1.4-2.4	1.4-2.4	Naturally present
pH	N	7.1	Std unit	6.5-8.5	6.5-8.5	Acid/Caustic in water
Spec. Conduct.	N	560	µmhos	900	900	Naturally present solids
Dissolve Solids	N	300	mg/l	500	500	Naturally present
Color	N	5	Units	15	15	Solids in water
Odor	N	1	Units	3	3	Gases in water
Turbidity	N	0.1	NTU	1	1	Solids in water
Total Alpha	N	0.6	pCi/L	15	15	Erosion of natural deposits

**\*NOTE:** We have reported only on those components where an analysis has been performed by a certified laboratory where the results are within the detectable limits. Many other components have been checked but were found to be below the detectable limits.

In addition to the components reported in the above table, we test monthly for the presence of coliforms. In 1998 we had no detected coliforms in our water.

We also test for lead and copper. These tests are unique in that they include the household plumbing in determining the results. A number of households (5) having the highest potential for the presence of lead and/or copper because of the materials used in the home plumbing are selected for testing. Results are reported on a 90% basis - i.e. if 90% of the tested sites are within the MCLs - we are in compliance. The MCLs are: 0.015mg/L for lead and 1.3 mg/L for copper. In 1998 our 90th Percentile level for lead was 0.001ppm and 1.004 for copper.

All of the above results are based on analysis by certified laboratories. We also test our water using our own analytical devices on a frequency determined by the level of the contaminant. This usually done every 4 or 5 days. These measurements are made at the inlet to our distribution system after treatment.

Results of this testing are summarized below:

**Sampled at system distribution inlet**

<b>Component</b>	<b>Average Value</b>	<b>High Value</b>	<b>Low Value</b>	<b>MCL/MCLG</b>
Chlorine	0.83ppm	1.8 ppm	0.02 ppm	0.5 ppm
pH	7.09 units	7.42 units	6.76 units	6.5-8.5 units
Temperature	56.3F	68F	48F	None
Alkalinity	165 ppm	220 ppm	100 ppm	None
Iron	0 ppm	0 ppm	0 ppm	0.30 ppm
Manganese	0.15 ppm	0.70 ppm	0 ppm	0.05 ppm

**Sampled at well #3**

Manganese	2.90 ppm	3.10 ppm	2.8 ppm	0.05 ppm
Iron	1.00 ppm	1.4 ppm	0.6 ppm	0.30 ppm

Note that our testing shows that we are above the MCL for manganese in our delivered water. **There are no known health impacts from manganese.** The major problem with iron and manganese is aesthetic. It makes the water look dirty and can cause staining of clothing and plumbing fixtures.

It is important to recognize that these readings are unofficial and not as accurate as those provided by the laboratory. We feel it is important to monitor these components so that we can improve the water we all use. Based on such information we have already made significant progress in improving our drinking water.

**5. ABOUT MWMWC**

MWMWC was organized in 1948 when the property developer turned over the existing system to the neighborhood after the last parcel was sold. Initially, the system was in very poor condition with times when users went without water for several days. Water quality was also poor.

The users in the area served by the developer's system joined together to form the MWMWC. It is important to recognize that this is a **MUTUAL** system with all members being responsible for its operation. The users (members) elect a Board of Directors who serve on a voluntary basis in the day-to-day operation of the system. Members, through the Board, set the rates, establish assessments, determine

system modifications, changes and other operational needs and maintenance.

Since 1948, the MWMWC has made significant progress in providing **reliable** and **safe** drinking water to its members at **reasonable rates**.

Our plans for the near future include:

1. Continue to improve our water particularly to reduce/remove the manganese.
2. Explore additional sources of water since we now operate from a single source.
3. Build up our reserve funds to handle unforeseen needs such as recovery from another earthquake which could mean replacing our system plumbing, our storage tank, etc.

## **6. CAUTIONS**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-436-4791).

## **7. CLOSING NOTE**

We at MWMWC are working to keep our water safe, aesthetically pleasing, and reliable. It is important to understand that we have limitations. The MWMWC's responsibilities end at the outlet side of the water meter. We cannot be responsible for individual home plumbing problems such as pressure regulators, broken pipes, etc. We are willing to help where and when we can. We may be able to advise you of causes for your individual problems and corrective actions you might take. Please feel free to contact any Board member for answers or to offer comments. Board members are: Chuck Bloom, Donna Dunton, Tom Gray, Harold Hoyt, Harry Johnson, Russ Lee, and Dale Pennington

**Prepared by:** Tom Gray, January 1999



# MELODY WOODS WATER CO.

## WATER NEWS

### INTRODUCTION

Regulations of drinking water are currently being upgraded with expanded monitoring and reporting requirements. Our reporting activities to the regulatory agencies has changed over the years from relatively simple reports to the County and the U.S. EPA to more comprehensive reporting to the State Department of Health Services. Our report for 1997 consisted of 12 pages. We expect next year's report to be even larger.

We have been alerted about some of the expanded requirements but specifics have not yet been provided. A new feature that will be required will be a Consumer Confidence Report (CCR). The CCR will include information on the definition of some of the allowable contaminant levels, goals for various contaminants and identification of any health effects of any detected contaminants.

In addition to the expanded reporting requirements, new contaminants, with Maximum Contaminant Levels (MCL) are being added to the list of required reporting. There has been considerable publicity given to some of these in the news media. To help you understand some of these and how it may impact our water company, we will try to summarize the current status for the more important issues. Our purpose is not to alarm you (we don't think there is cause for alarm), but to provide you with information on these important issues.

### EXISTING IDENTIFIED CONTAMINANTS

Those contaminants having the greatest health hazard that we have been reporting on include: pathogens, copper and lead, and nitrate and nitrite. There are current regulations setting MCLs and monitoring requirements.

Pathogens are the germs that may be found in contaminated water. These could include E-coli as well as others. Pathogens are found in several forms. They generally come from human and animal fecal matter. Pathogens are monitored on a present/ absent basis. There should be none present.

Lead entering the body can lead to lead poisoning with lead building up in the body - eventually causing damage to the brain, red blood cells, and the kidneys. Pregnant women and infants are at the greatest risk. Health effects of copper include stomach and intestinal distress. Lead generally enters the water system from plumbing in the distribution system or in the home. The MCL for lead is 0.015 ppm.

Copper's health effect include stomach and intestinal distress with liver damage resulting from prolonged exposure. Copper enters the system from plumbing, generally in the home. The MCL for copper is 1.3 ppm

Nitrate/ nitrite is of particular concern for infants and small children. Its effect is a body reaction that deprives the blood of oxygen. It enters the water supply from fertilizer, sewage seepage and the geological structure of the source. The MCL for nitrate is 45 ppm and 1 ppm for nitrite.

### THM AND MtBE

There is a growing concern about trihalomethanes (THM) and methyl tertiary butyl ether (MtBE) in drinking water. These compounds are suspected of causing cancer.

THMs are formed when there is appreciable organic loading in the water and when chlorine is used to disinfect the water. The organic loading generally comes from vegetation breakdown in the water as might happen from submerged plants in surface water sources such as reservoirs, lakes, etc. and from natural formation of algal blooms. Their presence is usually indicated by increased organics, increased color and a major increase in chlorine demand.

The U.S. EPA has adopted a maximum contaminant level (MCL) for THMs of 0.1 parts per million (ppm).

MtBE is a chemical added to gasoline since the early 1990s to reduce air pollution. MtBE enters the water from leaks in underground gasoline storage tanks and from gasoline powered boat engines operated on reservoirs etc. The MCL for MtBE will be set for various components and will vary from 0.1 to 0.01 ppm for different ones. We are waiting official notification on this.

In 1997 California adopted a regulation requiring that MtBE be monitored in larger water systems and monitoring for all appropriate systems is anticipated by 1999. Regulations are also being implemented regarding the location of gasoline storage facilities near water sources. You are also probably aware of the increasing regulation of engine powered boats on our reservoirs.

A recent report from the Regional Water Quality Control Board identified sources of MtBE in the Bay Area. Of interest to us, there were 7 sites in Los Gatos, more than 130 sites in San Jose and 36 in Santa Clara. None of these were near our water source.

### OTHER NUISANCES

Occasionally we have experienced "dirty" water in our distribution system. This is caused by iron and manganese. In the concentrations we have experienced, these do not present a health hazard. They do, however, occasionally give the water an unpleasant appearance and can cause staining of clothes and fixtures. Iron and manganese are found naturally in most water wells in our area.

## WHAT'S THE WATER COMPANY DOING ABOUT THIS ?

For a number of years now our water company has monitored all our water sources and reported on contaminants as required by regulations. We have had an excellent record resulting in the reduction of required monitoring frequencies. Specifically, relative to the items discussed here, we do the following:

**Pathogens** - we sample our water from a point located approximately at the middle of our distribution system and submit it to a certified laboratory for analysis reporting results to the state monthly. During the past few years we have had two instances of pathogen presence which, on additional testing, proved to be false. We have never detected a presence of E-coli. As an additional precaution, although not required by the state, we measure the chlorine levels at the inlet of the distribution system and at the end of the system to assure disinfection about every 4 - 5 days.

**Lead and copper** - these are checked from samples drawn from homes in our system that are most likely to have a problem. Since we have been within the MCLs for these elements for the past few years, we are on a reduced sampling requirement.

**Nitrate/nitrite** - we have consistently been well within the allowable MCL, the maximum detected was 4.3 ppm (MCL is 45) but, as a precaution, we have shut down 2 of our wells over the years because of relatively high nitrate levels and low water production.

**THM and MtBE** - we have to continue to chlorinate our water to assure the absence of pathogens. We have maintained the level of "free chlorine residual" at about 1.5 ppm for the past few years and have recently lowered it to 1.0 ppm. We have also had our water analyzed for organic chemicals and have a consistent report of no presence of these chemicals. The absence of organics and the decreased chlorine demand are good indicators of no THM in our water. Also, to the best of our knowledge, there are no sources of MtBE near our water source. We have not had THM and MtBE analysis performed to date but expect that this will be a future requirements.

**Other nuisances** - since the beginning of 1998, we have expanded our treatment to include an aeration process with ozone. Ozone is a much stronger oxidizing compound than chlorine which enhances our purification process as well as the removal of iron and manganese. It also does not have the potential THM problem like chlorine. Time will be required to "scrub" the iron and manganese built up in our pipes over the years so results will take time. We continue to flush the system monthly. Our analysis shows that all the iron is being removed and that the manganese level is approaching an acceptable level. We are still required to chlorinate to assure the disinfection of the distribution system. We hope you have noticed an improvement in the appearance and taste of your water.

## WHAT CAN YOU DO ?

Although we feel and the regulatory agencies confident that our water is safe, you can, if you want to, take some insurance steps yourself. This might be particularly important if you are pregnant, planning a pregnancy or have infants or small children. There are several things you can do:

If pregnant or planning a pregnancy, talk to your doctor about what you might do.

Use approved bottled water for preparing baby formulas, drinking water for small children, etc.

Boil the water for several minutes before use. This will disinfect the water and will reduce the level of any THM should any be present.

Use an approved water filter that will remove contaminants of concern. Look for NSF certification.

Report any suspected irregularities or problems to any member of the water board.

Help out if necessary - we are a **MUTUAL WATER COMPANY** and we all have a responsibility to assure good, safe water for our community.

## QUESTIONS ?

We hope this newsletter answers any concerns or questions you might have regarding our water. Should you have any questions or comments please call Tom Gray at 353- 3750 or Dale Pennington at 353-2556.

June, 1998

Tom Gray, Vice President  
Melody Woods Water Co.