

YOSEMITE WEST MAINTENANCE DISTRICT RESOLUTION NO. 88-1

A RESOLUTION ESTABLISHING A WATER CONSERVATION PLAN WITHIN THE YOSEMITE WEST SUBDIVISION

WHEREAS, the Yosemite West Maintenance District wishes to establish a water conservation plan within the Yosemite West Subdivision;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors, Yosemite West Maintenance District, that, effective immediately and until further notice, the Yosemite West Water Conservation Plan attached hereto as Exhibit A will apply within the Yosemite West Subdivision.


PASSED AND ADOPTED by the Mariposa County Board of Supervisors sitting as the Board of Directors of the Yosemite West Maintenance District this 19th day of July, 1988, by the following vote:

AYES: BAGGETT, DALTON, ERICKSON, RADANOVICH, TABER

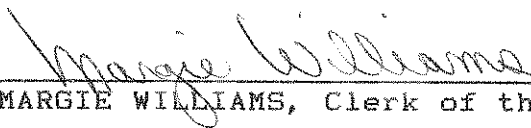
NOES: NONE

EXCUSED: NONE

ABSTAINED: NONE

  
ERIC J. ERICKSON, Chairman  
Mariposa County Board of Supervisors

ATTEST:

  
MARGIE WILLIAMS, Clerk of the Board

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

  
JEFFREY G. GREEN, County Counsel

YOSEMITE WEST WATER CONSERVATION PLAN

Yosemite West Maintenance District  
Mariposa County, California

Introduction

Because the water supply for the Yosemite West Subdivision has not been proven under either severe drought or full buildout conditions, it is prudent to establish in advance water conservation measures to be implemented: (a) when water usage exceeds the rate of water supply, or in the event of a prolonged power or equipment failure, and (b) as part of a long-range, ongoing water conservation and cost reduction effort.

The plan presented herein is based, in part, on the established Wawona Water Conservation Plan of the National Park Service.

PART I -- BACKGROUND INFORMATION

Water Supply

The water supply for Yosemite West is obtained from two underground sources.

The original source consists of three relatively shallow wells located in close proximity at about the 5950-foot elevation near the junction of Hennes Ridge Road and Hennes Circle Road. The water production of these wells has severely declined since originally placed in service in about 1968. Periodic water shortages resulted in prolonged building moratoriums on four separate occasions. In recent years, these wells have been of marginal use during late summer periods.

In 1985, as part settlement of a lawsuit relating to the inadequate water supply, the developers of Yosemite West connected a well located near Indian Creek at the 4600 foot elevation to the existing system at the original well field. The connecting pipeline is about 10,200 feet long and has a booster pumping station near its midpoint. Due to the additional 1350 foot elevation difference, this well has about six times the pumping head of the upper wells and the resultant pumping cost per gallon also is at least six times that for the upper wells. This well was tested in October, 1984, and accepted as providing 110 gallon per minute (gpm) of sustained flow. However, this well has not been proven

under conditions of extreme drought and has been out of service for extended periods due to power and equipment failures.

Water storage for domestic equalization and fire fighting is provided by two tanks at the 6200-foot elevation. The original tank has a capacity of 150,000 gallons and the second, or newer tank, is of 180,000 gallon capacity. The capacity of the newer tank is limited to 150,000 gallons when both tanks are connected to the system, due to the top of the newer tank being above the overflow level of the older one.

There is approximately a 700-foot elevation difference between the tanks and the lowest lot in the Subdivision, so pressure regulators are included in the water distribution system. Without these regulators the pressure at the lowest lot would exceed 300 pounds-per-square-inch (psi), whereas the normal household water pressure should be between 45 and 60 psi.

#### Water Usage

The domestic water supply required of the developers by Mariposa County is 400 gallons-per-day (gpd) per lot or condominium unit. There are 293 lots and 48 condominium units for a total of 341 potential services. This would require a water supply of 136,400 gpd, or an average of 95 gpm. Water leakage occurs from virtually all water distribution systems, and is significantly higher from high-pressure systems. A loss rate of only 15 per cent brings the total requirement to essentially 110 gpm.

Water also must be kept in storage for fighting fires, and be rapidly replenished when used. The accepted rural requirement for isolated structures is a flow of 500 gpm (two hoses at 250-gpm each) for a duration of two hours. This is an equivalent volume of 60,000 gallons. To replenish this volume in a 24-hour period requires a flow of 42 gpm. Where larger structures, such as the condominiums, or multiple structures are involved, the fire flow requirement increases significantly. In the event of a forest fire, no water supply is truly adequate. There is, however, an existing agreement with the National Park Service permitting the use of the Yosemite West water supply for fire suppression.

In Yosemite West it thus is very appropriate to keep one water storage tank full at all times and in off-line reserve specifically for fire protection service. The tank can readily be placed in service during a fire by an authorized person or a qualified fire fighter. All domestic storage

or usage equalization then should be provided solely by the remaining storage tank. On a practical basis, this is a usable storage volume of 150,000 gallons.

## **PART II - EMERGENCY WATER CONSERVATION MEASURES**

### **Emergency Water Conservation Priorities**

During periods of water shortage the highest priority in water usage shall be given to full-time residents whose Yosemite West dwelling is their primary or sole abode, the next highest priority to part-time residents who spend significant time in Yosemite West, and the lowest priority to transients and other commercial users.

During these periods water shall be used primarily to meet the essential human needs for drinking water, food processing and sanitation, and for fire protection. Maintenance or replenishment of fire storage volumes is mandatory, even during periods of water shortage. All other water uses should be curtailed or eliminated.

### **Emergency Water Conservation Implementation**

Emergency water conservation measures shall be implemented whenever either (a) a power or equipment failure of long than two days duration prevents any water from being supplied by the well system, (b) the water level in the domestic storage tank is below the 3/4-full mark (75% full), or (c) the fire storage/tank is less than full (100% full).

Once implemented, emergency water conservation measures shall remain in effect, but increasing or decreasing phase-by-phase as appropriate, until the fire storage tank is full and the domestic storage tank is at least 3/4-full (75% full).

The time between implementation of emergency water conservation measures and their removal is defined as a period of water shortage.

### **Water Conservation Criteria**

In the event a power or equipment failure of long than two days duration prevents any water from being supplied by the well system, the following water conservation measures shall be increased in severity by one phase.

Phase I - Fire storage tank full, domestic storage tank more than 3/4 full (100% - 75% full). Year-round water conservation measures apply. Water usage per connected service should not exceed the basic allocation of 400 gpd.

Phase II - Fire storage tank full, domestic storage tank between 3/4 full and 1/2 full (75% - 50% full). Emergency water conservation measures apply. Water usage limited to no more than 300 gpd per full-time-resident service and 200 gpd per part-time-resident service. Transient rental units limited to renting no more than four days per week and 150 gallons per rental day.

Phase III - Fire storage tank full, domestic storage tank between 1/2 full and 1/4 full (50% - 25% full). Emergency water conservation measures apply. Water usage limited to 200 gpd per full-time-resident service and 100 gpd per part-time-resident service. Transient rental units prohibited from operating.

Phase IV - Fire storage tank full, domestic storage tank less than 1/4 full (less than 25% full). Emergency water conservation measures apply. Water usage limited to 100 gpd per full-time-resident service and zero gpd for all other services. Part-time-resident dwelling use permitted only if the resident uses no Yosemite West water. Transient rental units prohibited from operating.

Phase V - Fire storage tank less than full, domestic storage tank at any level. (a) If the domestic storage tank is more than 1/2 full (50% full) all Phase III emergency water conservation measures apply until the fire storage tank is refilled. (b) If the domestic storage tank is less than 1/2 full (50%) all Phase IV emergency water conservation measures apply until the fire storage tank is refilled. (c) If the fire storage tank is not refilled within a five day period from either well supplied or imported water, all water usage (other than for fire protection) from the Yosemite West water system shall be prohibited until the fire storage tank is refilled.

#### **Water Importation**

An individual dwelling unit may be exempted from the above emergency water conservation measures if the owner, at his own expense and with District authorization, imports water to the Yosemite West domestic storage tank in an amount at least equal to his measured total water usage. The water must be imported prior to the exemption and the exemption shall end when that measured volume is used by his dwelling unit. This volume shall not be included in storage measurements for Water Conservation Criteria purposes.

Water may be imported to the fire storage tank by the Maintenance District if so ordered by its Board of Directors. The cost of such importation shall be assessed

equally to all dwelling units, including the condominium units, connected to the Yosemite West water system and to all vacant lots in Yosemite West.

Any importation of water to the Yosemite West water system must be accomplished under the supervision of the County Sanitarian and conform to all applicable standards of the California Department of Public Health.

Importation of water by an individual for storage in a private water storage tank which is connected to the water system of a dwelling is prohibited without a certificate from the County Sanitarian verifying (a) that an acceptable back-flow prevention device is installed in that dwellings Yosemite West service connection which will prevent any of the imported water from entering the Yosemite West water system and (b) that other applicable public health requirements are met. Where a certificate is issued and water is so imported, users of that individual water supply forfeit all claim against other than the dwelling owner in the event of illness resulting from contaminated water.

Water importation in jugs or other containers, where the water is used directly therefrom without being placed within a dwelling's water system, is both permitted and encouraged during periods of water shortage. Such water may be used for any purpose. Water imported in this manner does not exempt the dwelling from any other applicable emergency water conservation measures.

#### **Dwelling Classification**

For purpose of applying the above emergency water conservation measures, it shall be necessary to classify each dwelling unit connected to the Yosemite West water system as being either a full-time resident dwelling unit, a part-time resident dwelling unit or a transient rental unit. The classification shall be made at least annually by appropriate County personnel. County records shall be used monthly to identify dwellings or condominium units which are included in a current transient rental permit, and those dwellings or units then shall be classified as transient rental units.

Each dwelling or condominium unit owner shall be notified of the classification assigned, and a complete listing of the classifications shall be provided to the Yosemite West Maintenance District Advisory Committee.

#### **Water Monitoring**

In Yosemite West water is a precious commodity. Knowledge of the amount of water provided and how it is used is

critical to proper water management decisions, including those set forth in this Water Conservation Plan, and thus to the continued availability of water to the residents of Yosemite West.

Water production shall be monitored at least on a weekly basis during Phase I conditions, twice weekly during Phase II conditions, and daily under all other conditions. Meter readings for each well shall be recorded in a log book and the average production of each well, in gpm, since the previous reading shall be determined and also recorded. Notation shall be made whether the well is cycling or in continuous use.

The water level in each well also shall be measured and recorded each time the well's meter is read. The water depth above the well pump intake shall then be calculated and recorded. This information is helpful in determining whether the well is holding its own and in alerting the Maintenance District to changing operational requirements and impending problems.

Water storage in the fire storage tank and in the domestic storage tank shall be monitored on the same day and on the same basis as the wells. The water depth in each tank shall be read and converted to a percentage of full value. Both figures shall be recorded in a log book. The person making the reading shall verify each time that the water level indicators are operable and are giving a true reading of water level.

Each dwelling in Yosemite West currently is required to have a water meter at its service connection. These meters shall be read bi-monthly, weather conditions permitting, during Phase I condition, bi-weekly during Phase II conditions, and weekly under all other conditions. The readings, the usage since the previous reading and the average per day usage, are to be recorded in a log book. Owners of dwelling units without water meters or with damaged water meters shall be required to immediately install or repair their water meter, or to shut off their water service.

Water imported to the Yosemite West water system shall be measured, in gallons, and recorded in a log book at the time of importation. Other data concerning the importation, such as authorization, funder, source, method, conveyor identification, and other data required by the County Sanitarian or the California Department of Public Health, also shall be recorded.

All records and log books shall be available for inspection by any member of the Yosemite West Maintenance District Advisory Committee.

### **Moratorium on Building Permits and Transient Rental Permits**

In the event that Phase III or more severe conditions continue for a period of more than ninety consecutive days, the Board of Directors of the Maintenance District shall declare a moratorium on the issuance of both building permits and transient rental permits.

Once declared, such moratorium shall be removed only when additional water supplies have been provided or other measures initiated which convince the District's Board of Directors that Phase III or more severe conditions lasting more than ninety consecutive days will not again occur.

### **Declaration Responsibility**

It shall be the responsibility of the Yosemite West Maintenance District to make all measurements and to maintain all records called for herein, to compare these with the Water Conservation Criteria, and to promptly and publicly declare any change in Water Conservation Criteria Phase.

### **Public Notification**

It shall be the responsibility of the Yosemite Water Maintenance District to post in a prominent manner in Yosemite West the current Water Conservation Criteria Phase and to assure that it remains posted. The applicable water conservation measures also shall be posted in a like manner.

In the event that Phase III or more severe conditions are declared, the District shall notify each dwelling owner by mail of that fact and of the applicable water conservation measures.

Upon adoption, a copy of this Water Conservation Plan shall be sent by the District to each property owner served by the Yosemite West Maintenance District. A copy also shall be sent to each new owner when the District records indicate that a change has occurred.

A copy of this Water Conservation Plan shall be kept on prominent display in each transient rental unit.

### **Enforcement**

It is the responsibility of each dwelling unit owner to read his own water meter on a regular basis and to adjust his own water usage to conform with this Water Conservation Plan.



It shall be the responsibility of the Yosemite West Maintenance District to determine if all provisions of this Water Conservation Plan are met and to enforce these provisions where they are not met.

### PART III -- YEAR-ROUND WATER CONSERVATION MEASURES

#### **Purpose**

Many water conservation measures are better accomplished on a year-around basis than on an emergency basis. The objective of all such measures is to prevent over-utilization of the limited Yosemite West water supply and to reduce operational costs.

#### **Mandatory Year-Around Water Conservation Measures**

In order to better conserve the limited Yosemite West water supply, the following conservation measures will be enforced year-round in the Yosemite West Maintenance District services area.

1. The Yosemite West Maintenance District shall thoroughly inspect the Yosemite West water system at least each spring and fall, and shall routinely inspect it on a visual basis. Major leaks will be repaired within two days, and minor leaks will be repaired within a two week period. Pressure regulation shall be continuously maintained so that no water main shall have more than 100 psi of pressure within it.
2. Piping and fixtures in all dwelling units must be maintained in good working order and without leaks. The dwelling's water supply must be shut off if major leakage occurs. Minor leakage shall be repaired within one week of discovery if the water supply remains on.
3. Only low-flow fixtures, as defined and required by California law, will be installed in dwellings connected to the Yosemite West water supply.
4. Outside use of water ordinarily should be kept to a minimum, and must be curtailed during periods of water shortage.
5. Wastage of water under any circumstances is prohibited.

#### **Voluntary Year-Round Water Conservation Measures**

A permanent water conservation attitude must be stimulated in the Yosemite West area for the Water Conservation Plan to be effective. Increases in water conservation protect the viability of the Yosemite West water supply, lower

operational costs, and permit additional property owners to exercise their right to construct dwellings at Yosemite West.

The following voluntary water conservation measures are recommended:

1. Think water conservation.
2. Landscape with drought and fire resistant vegetation. Lawns and gardens should be kept small and should be designed to conserve water. Irrigation should be kept to a minimum.
3. Water vegetation deeply in the late spring, rather than frequently during the summer or autumn. Retain the moisture by placing a layer of mulch around the trees and plants.
4. Water vegetation in the cool of the morning, rather than in the evening or on hot or windy days.
5. Equip all hoses with a shut-off valve at the nozzle end, and use the shut-off as much as possible.
6. Teach children that hoses and sprinklers are not toys.
7. Minimize the use of water to wash vehicles or decks, to car roofs, etc.
8. Use a broom to clean streets, driveways, gutters, decks, etc.
9. Check your water system for leaks by shutting off all faucets, etc., read your water meter and then read it again several hours later. Any change in reading indicates a leak exists which must be repaired.
10. Check your toilet tank for leaks by placing food coloring in the toilet tank. If the coloring gradually seeps to the bowl, a leak exists and possibly more than 100 gallons is being wasted daily.
11. Do not use the toilet to dispose of other than body wastes. About five gallons are used with each flush.
12. Install flow restrictors in faucets and shower heads.
13. Take shorter showers, shutting off the water between soaping up and rinsing off.
14. Turn a faucet off when nothing is under it. This applies to toothbrushes, razors, vegetables, wash cloths, etc.

15. Use automatic dish and clothes washing machines only with full loads.
16. During periods of water shortage, use paper plates and disposable utensils rather than regular dinnerware.
17. Lastly, as initially, think water conservation.