


TO: James L. App, City Manager

FROM: Meg Williamson, Acting Public Works Director 

SUBJECT: Emergency Water Contingency Plan

DATE: August 3, 2004

Needs: For the City Council to consider adoption of an Emergency Water Contingency Plan to address diminishing water storage levels.

- Facts:
1. The December 22, 2003 San Simeon earthquake damaged one of the City's 4-million gallon water storage reservoirs, reducing the City's storage capacity by one third.
  2. The City has 16 production wells that run throughout the year. During peak water use months, these wells cannot always produce enough to keep up with peak water use demands.
  3. Water storage reserves are critical when production cannot keep pace with peak demand. Peak demand varies from day to day, but over extended hot weather periods, storage begins to diminish.
  4. Water storage is also critical for maintaining adequate water pressure to various parts of the City and for accommodating unforeseen spike demands – such as for firefighting.
  5. In April of this year the City implemented a voluntary water conservation campaign to address the anticipated summer shortage due to a lack of storage capacity. All residents were asked to reduce their water use by 25%. Consumption records indicate that only a 3% water savings has been achieved over last year.
  6. Because there is no assurance that conservation goals will be met this summer, there is a need to establish an emergency contingency plan to prevent failures in our water delivery system.
  7. On April 20, 2004, the City Council adopted Resolution 04-78 declaring an Emergency Water Shortage in accordance with California Water Code. That declaration provides the authority to implement appropriate water regulation and contingency measures.
  8. The Emergency Water Shortage Contingency Plan (attached) contains a combination of voluntary and mandatory components for curtailing water use. The “triggers” for each water saving step are described in the plan.

9. In addition to establishing an emergency contingency plan, the City is pursuing the reactivation of dormant wells in the Salinas River bed to increase water production. An increase in water production will reduce the strain on water reserves during extended peak demand periods.
10. A temporary booster station (in the vicinity of Rolling Hills Road) is also being explored as a means of providing water pressure to higher elevation properties when/if the tank falls below normal safe levels. This emergency/temporary station would prolong the time before potable water and fire service might become critical in isolated areas of the city.

Analysis and

Conclusion: It is imperative that the City have a plan in place that can prevent system wide outages in the water delivery system, and which can provide for potable consumption and fire fighting. If water storage falls below 20 feet in the storage tank(s) it will be necessary to implement this plan.

Policy

Reference: California Water Code.

Fiscal

Impact: The fiscal impacts are unknown at this time.

Options: The following options are offered for consideration by City Council:

- a. Approve the attached Resolution 04-XX adopting the Emergency Water Shortage Contingency Plan.
- b. Amend, modify, or reject the above option.

Attachment:

1. Resolution adopting the Emergency Water Shortage Contingency Plan

RESOLUTION NO. 04-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES  
ADOPTING A WATER SHORTAGE CONTINGENCY PLAN  
DUE TO THE DECEMBER 22, 2003 SAN SIMEON EARTHQUAKE

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WHEREAS, the City water distribution system contains 12 million gallons of storage capacity; and

WHEREAS, as a result of the December 22, 2003, earthquake, the City lost use of one of its three above-ground 4 million gallon storage tanks ; and

WHEREAS, on April 20, 2004, in accordance with California Water Code Section 350 et seq., the City of Paso Robles adopted Resolution 04-78 declaring a water shortage emergency, finding that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the City to the extent that there would be insufficient water for human consumption, sanitation, and fire protection use; and

WHEREAS, until normal water storage/supply has been replenished or augmented the City intends to implement certain measures to provide water storage and supply for potable consumption and fire fighting.

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1. The City Council of the City of El Paso de Robles does hereby adopt the Emergency Water Shortage Contingency Plan (Exhibit A) that establishes thresholds and methods under which water use will be eliminated or curtailed to address the City's water shortage.

PASSED AND ADOPTED by the City Council of the City of El Paso de Robles this 3<sup>rd</sup> day of August 2004 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

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Frank R. Mecham, Mayor

ATTEST:

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Sharilyn M. Ryan, Deputy City Clerk

CITY OF PASO ROBLES  
EMERGENCY WATER SHORTAGE CONTINGENCY PLAN

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*August 3, 2004*

**A. Purpose:**

To prevent system wide outages and possible infrastructure damage to the City's water delivery system, and to provide potable water for consumption and fire fighting while the City repairs its water storage facilities.

**B. Description of Water Curtailing Methods**

Community Wide Water Conservation - Voluntary

Voluntary reduction in water use exercised on an individual user basis. No penalties apply if 25% goal is not met. This effort will continue through the summer and beyond.

Construction Water Flow Restrictors – Mandatory (already in place)

There are approximately 50 construction hydrants in use throughout the City. The water is used for dust control and related construction support. When a water truck is filling from a hydrant, there are impacts to the localized water pressure and a spike in demand. The installation of flow restrictors slows the rate that a water truck can fill, thereby reducing the negative impact on localized water pressure and smoothing out the demand spikes.

Construction Water Suspension - Mandatory

The suspension of construction water could save up to 275,000 gallons per day (based on 2003 use statistics). Suspension would affect dust control capabilities and would require water tank trucks to make arrangements for filling outside of the City.

City Irrigation Suspension - Mandatory

The City has already cut park irrigation schedules from 25-50%. It is estimated that emergency suspension of parks watering could save up to 500,000 gallons per day. However, shut down of irrigation cannot be sustained for extended periods without permanently damaging park facilities.

Public Partners Irrigation Suspension – Voluntary and Mandatory

There are several public agencies that are generally high water users (School District, Cemetery District, Housing Authority). The City will seek the cooperation of these agencies in voluntarily suspending their irrigation for limited periods of time. These irrigation suspensions would be coordinated with City irrigation suspensions to minimize long term impact to each agency's facilities.

If voluntary suspensions are ineffective, and water storage further drops to critical levels as established by the contingency plan, the City may make irrigation suspension mandatory for specific limited periods of time.

#### Community Wide Emergency Conservation Alert – Enforceable

At critical tank levels the City will issue emergency alerts to the public urging them to reduce consumption, including no watering of vegetation or washing of cars and driveways.

Compliance is still voluntary. However, City will have “police authority” to require compliance for blatant offenders. “Policing” could entail issuing warnings for visible water waste, followed by restrictors and/or meter shut offs if deemed necessary.

#### Landscape Irrigation Shutoffs - Mandatory

There are approximately 250 landscape meters (irrigation only) issued throughout the community. Some of these landscape meters are private properties that are generally high water users because of the amount of landscape area (example - apartment complexes).

If voluntary suspensions are ineffective, and water storage drops to critical levels as established by the contingency plan, the City may make irrigation suspension mandatory for specific limited periods of time for these private users.

#### Boil Water Orders

In the event that tank levels drop to a point where water pressure falls below 20 psi, the County Department of Environmental Health requires that the City implement specific health and safety notifications. Such an event would necessitate a “boil water order” based on back siphoning from non-potable connections. Boil water orders would apply to only certain specific pressure zones in the City.

#### Alternative Fire Fighting Measures

The ability to effectively fight fires for sustained periods is in direct correlation to the amount of stored water available. If stored water were depleted, Emergency Services would find it necessary to utilize Water Tenders (water tank trucks). Such a method would severely hinder firefighting capabilities. Declining water storage, where depletion is anticipated, would reasonably necessitate Emergency Services entering into contracts for stationing water tenders locally. These vehicles would otherwise be available on an emergency basis (actual fire), but would require long distance responses.

### **C. Water Shortage Contingency Plan**

City shall implement the following measures as described below based on Golden Hill Road water levels:

#### Activated Measures

- Community Wide Water Conservation - Voluntary
- Construction Hydrant Flow Restrictors – Mandatory
- City reduction in irrigation of park facilities by 25% - Mandatory

#### At 20 feet:

- City Irrigation Suspensions - Mandatory
- Partner Agency Irrigation Suspensions - Voluntary
- Private Irrigation Suspension – Voluntary
- Construction Water Suspension – Mandatory

#### At 15 feet:

- Community Wide Emergency alert to reduce – Police Power triggered
- Partner Agency Irrigation Suspensions – Mandatory
- Private Irrigation Suspension – Mandatory

#### At 10 feet:

- Boil water notices to higher elevation properties
- Alternative fire fighting means may be triggered