

COUNCIL AGENDA: MARCH 4, 2014

SUBJECT: WATER CONSERVATION

SOURCE: Public Works Department - Field Services

COMMENT: At the January 21, 2014, City Council meeting, Council approved Resolution 10-2014, a resolution of support of Governor Brown's declaration of a state of emergency due to drought conditions. The rainfall totals throughout the State are at record lows and the city of Porterville is now entering its third year of significantly reduced rainfall, with Lake Success storage levels remaining low and virtually no snow pack currently in the Southern Sierra Nevada Mountains. Council indicated that such drought conditions will have devastating impacts on the agricultural industry, which will have widespread adverse environmental, economic and social impacts on the people of California and the city of Porterville.

Governor Brown has declared that California is in a state of emergency, coming out of the driest year on record and facing water shortfalls. The summer months are approaching with typically higher water consumption by our customers. The Governor's message is that California residents need to voluntarily reduce their immediate consumption by 20%. As such, water conservation and awareness are a high priority. Media information and program participation by the community in the past have had a noticeable impact on the city's water consumption during peak usage months. The local media have covered the California drought conditions very well in the past couple of months and the residents of Porterville are already very well informed of the devastation the drought can cause.

Water shortages have been predicted to occur in the neighboring communities of Springville, Lindsay, Strathmore and Terra Bella due to their dependence on surface water. State agencies are working to make emergency accommodations to meet these communities' basic health and safety needs, but it is not certain how this will be accomplished.

The city of Porterville's water supply is produced entirely from ground water wells. We also have 10 million gallons of storage tank capacity, which helps with summer peaking demands.

While Porterville may be in a better position water wise right now, the drought impact will be felt statewide and could affect our ground water in the future. The water level in our 35 wells has dropped an average of 22 feet from the summer of 2012 to the summer of 2013. If the drought continues and water levels continue to drop, we may experience pumping problems in the next few years. However, the drop in water level noted

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Item No. 20

herein is not dissimilar in magnitude from what the city has experienced in past very dry periods. The city's aquifers have proven to be quite resilient and time and again have recovered satisfactorily during the wet years.

The City of Porterville is currently in Phase I of the City's Water Conservation Plan. Phase II applies during periods when there is a water supply shortage. Staff recommends that council move into Phase II of the City's Conservation Plan. Phase II implementation is as follows:
(see attached Water Conservation Plan for the other phases)

PHASE II

Applies during periods when there is a water supply shortage.

When water supply conditions start to deteriorate, it would be incumbent upon the City to implement mandatory water conservation provisions.

ACTIONS BY THE CITY:

I. Public Information Program

The City will pursue a more aggressive distribution of information than its efforts initiated in Phase I to promote public awareness of the need to conserve water with a stronger emphasis on the water shortage condition.

II. Water System Pressure Reduction

The City's water system may experience reduced water pressures during high usage periods. This may deter water use for nonessential activities and encourage scheduling of landscape watering to late nights or early mornings.

III. City Landscapes and Watering Schedules

All City parks, median islands and public facility landscapes will be watered during the late night or early morning hours to reduce impact on the water system during peak usage hours.

IV. Leak Detection - Water Waste

The City will continue in its proactive plan to audit water supply usage. All City staff will be reminded of the necessity of reporting any evidence of leaks or water waste for immediate action. There will be an emphasis on coordinated community efforts to reduce water waste.

V. Waste of Water Notices

City staff will issue "Waste of Water" notices to consumers identified as misusing water.

VI. Voluntary Odd/Even Watering Days

Increase public education on program initiated from Phase I.

VII. Continuation of all Conservation programs from Phase I

ACTIONS BY THE GENERAL PUBLIC:

I. Conservation Efforts:

The general public will be strongly encouraged to utilize those water conservation measures contained within the City's public information program.

II. Restaurants:

Notices will be sent to all restaurants within the city limits requesting support of water conservation efforts by serving water to customers upon request only.

III. Lawn and Landscaping Watering:

All residential, commercial and industrial landscape watering should be reduced to a minimum and avoided between the hours of 5 a.m. to 10 a.m. and 5 p.m. to 10 p.m.

IV. Vehicle Washing and Sidewalk Hosing:

- A. Vehicle washing should be accomplished either by automatic car washes that recycle water or with buckets and hoses equipped with a shut-off nozzle.
- B. Per Section 25-5 of the City Municipal Code, "The consumer shall use reasonable care to prevent the waste of water, shall not allow water to run or waste from his property onto streets or highways, shall not use water in washing sidewalks, building entrances or lobbies, or other properties to such excess that water shall flow in street gutters beyond the frontage of the properties occupied by them."

Porterville has always been a community which promotes ideals, such as Water Awareness, in coordination with the *California Water Awareness Campaign* that was created as a result of the last major drought from 1987 to 1992. To help conserve our precious water resources, the City of Porterville Water Utilities Division is requesting that we start our water awareness campaign prior to the historical declaration of May being designated as Water Awareness Month. Staff is recommending an aggressive public outreach campaign utilizing education programs in our community. The campaign emphasis will be a need for water awareness and conservation developed through media campaign materials and water saving ideas. City staff wants to work to inform the citizens of Porterville of their responsibility to use water as a precious resource and as conservatively as possible.

At the last meeting, Council indicated they may want to make changes to the Water Conservation Plan. Modifications to the plan, if any, can be acted upon at this meeting, and will be brought back for consent approval at the March 18, 2014, Council meeting.

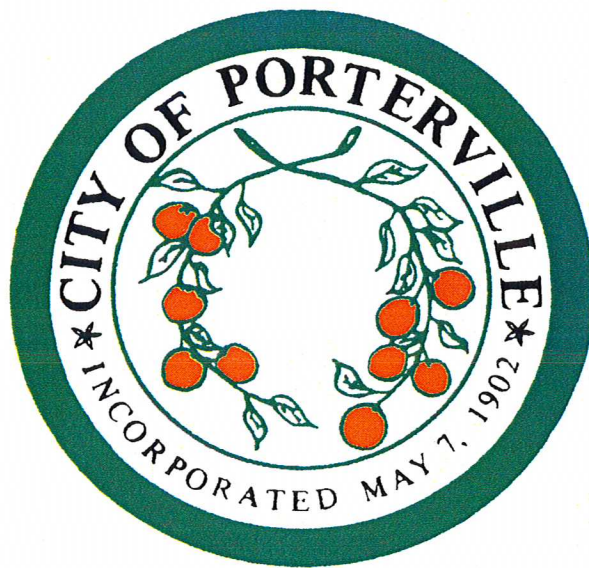
Staff recommends that Council urge everyone to conserve at least 20% of their water uses now and move into Phase II of the Water Conservation Plan, which will further emphasize the Governor's Declaration of a State of Emergency as we approach a time of seasonal demand.

RECOMMENDATIONS: That City Council:

1. Encourage the community to conserve 20% of their water uses; and
2. Move into Phase II of the City's Water Conservation Plan.

ATTACHMENTS: Water Conservation Plan
Water Conservation Materials

WATER CONSERVATION PLAN



APRIL 2009

WATER CONSERVATION PLAN

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PREFACE

The City of Porterville water system is municipally-owned with more than 14,800 service connections, 99% of which are metered, serving a population of over 51,500, with approximately 1,100 service connections outside the city limits. Water supplies for the City system are produced entirely from groundwater underlying the City, which is recharged from rainfall and runoff of the Western Sierra Nevada. The major stream contributing to recharge of the Tule Basin Aquifer underlying Porterville is the Tule River.

Storage capacity represents over ~~six~~ TEN* million gallons within the distribution system and ~~three~~ FIVE* hillside reservoirs, ~~two~~ THREE* with a capacity of three-million gallons and one with a capacity of FIVE hundred thousand*, and one with three hundred thousand gallons. *(To be Revised with next modification of Policy)

A telemetry system controls the operation of 22 of the City's 35 active well pumps to maintain system pressure under varying loads. The water levels in the reservoirs are also monitored and controlled by the computerized telemetry control system.

Water conservation and awareness have always been areas of concern for the Porterville community. Less than normal rainfall and runoff makes efforts to promote water conservation a high priority. In addition to the benefits of conserving water as a limited natural resource, additional benefits accrue to the community in the form of a reduced impact on the Wastewater Treatment Plant and a reduction in energy costs when water supplies are conserved.

It is vitally important that the Water Conservation Plan be a joint partnership between the City and the General Public in order to achieve optimal effect. The Plan has been developed in three phases with each phase defined in terms of the available water supply:

Phase I : Applies during periods when a normal water supply is available.

Phase II: Applies during periods when there is a water supply shortage.

Phase III: Applies during periods when there is a severe water supply shortage.

Actions within each phase have been defined as either actions to be undertaken by the City or by the General Public. Due to the number of variables which affect the water conditions in existence at any one point in time, a City staff analysis of those variables will be utilized in determining the transition of the City from one phase to a more (or less) stringent phase. At such time as staff determines that water supply conditions warrant a phase change, staff will present the request to the City Council for their approval.

This plan differs from other valley community plans because the City of Porterville is in a more favorable position of having almost all of its water customers metered, which allows the City to basically control the water conservation program.

CITY WATER SYSTEM

The City has always been diligent in its efforts to provide sufficient safe and affordable drinking water to the residents of the community. Water conservation has long been a permanent part of the City's water resource management program. Efforts to that end include:

NEW WELLS:

Over the past five years three new wells have been added to the City water system in order to serve the needs of the community. Two additional wells are planned for completion within the next few years.

TELEMETRY SYSTEM:

This system controls the operation of the well pumps to maintain system pressure under varying loads. Water levels in the reservoirs are also monitored and controlled by the computerized telemetry control system. Water is usually pumped to the reservoirs during the off-peak usage hours for later use by consumers. This system was designed for use by the City's most efficient and productive wells with additional energy cost savings.

RESERVOIRS:

The City currently operates and maintains ~~three~~ FIVE* hillside reservoirs - ~~two~~ (2) THREE (3)* with a capacity of three-million-gallons and one (1) with a capacity of 550,000* gallons and one with a capacity of 305,000 gallons. The ~~two~~ THREE* largest reservoirs are usually filled during off-peak hours and then release water during the high usage hours. There is also a 300,000 gallon reservoir located at the Airport which is also part of the City system, the reservoirs increase the City's ability to maintain system pressure during peak demand and fire flow situations. ~~Site acquisition has been accomplished for the City's third proposed three million gallon reservoir.*~~ *(To be Revised with next modification of Policy)

METERIZATION PROGRAM:

With over 99% of all service connections metered, the City has a goal of 100% meterization. All new connections are required to have meters.

UTILITY BILLING NOTICE:

The City's computerized utility billing system provides consumers with their current and past water usage history for comparison purposes. While variations may be attributable

to a change known to the consumer (ie; additional persons in the home, addition of a swimming pool), it may also be the result of an undetected leak or other controllable occurrence.

WATER AUDIT/LEAKAGE DETECTION & REPAIR PLAN:

The City will continue in its proactive plan to audit water supply usage. Upon detection of the source of any leakage, corrective action will be taken immediately in order to promote the efficient use of the existing water supply and in turn reduce the energy required to operate the system.

NEW WATER LINE TESTING:

The City requires full pressure and leak testing of all newly constructed water lines.

FIRE HYDRANT TESTING:

The City Fire Department schedules their annual fire hydrant testing program during the early spring and late fall to avoid the peak water use season. Such testing is required to maintain the integrity of the fire protection system.

PHASE I

Applies during periods when a normal water supply is available

The effectiveness of any voluntary plan ultimately depends on the public's awareness of the need for the plan. Local residents have a history of commitment to their community and support of the public welfare. It is a reliance upon this tradition that makes the distribution of public information the cornerstone of the City's Water Conservation Plan.

ACTIONS BY THE CITY:

I. Public information Program

- A. Distribution of suggestions for residential, commercial and industrial water conservation and awareness.
- B. Coordination of public information with the local news media.
- C. City participation in Water Awareness Month (May).
- D. Lawn and Landscape Watering Guides will be made available upon request.
- E. City staff will coordinate with local nurseries to compile a list of low-water using trees and plants. The list will be made available at City Hall, the Corporation Yard, and the Parks & Leisure Services Department for local residents.
- F. Coordination with local schools to encourage young people to become aware of local water issues and conditions.

II. Project Review Committee

- A. The City's Project Review Committee (PRC) will include the evaluation of all submitted projects for water use and conservation efforts. The goal of City staff in cooperation with the developer will be to voluntarily reduce consumption of water used in the project.
- B. City staff will assist the developer in familiarization with the Xeriscape Concept, combining creative landscaping and efficient irrigation to save water and promote attractive alternatives to traditional, high-water use landscapes.

III. City Landscapes and Watering Schedules

- A. City parks, median islands, and landscaped public facilities will be watered during late night or early morning hours to the greatest extent possible.
- B. All new landscaping projects undertaken by the City will incorporate conservation design.

IV. Retrofit Bathroom Facilities

Water saving kits which contain toilet water conservation and low-flow shower head devices will be made available to City water consumers, both residential and commercial, upon request, as funds are available.

V. Fire Hydrant Testing

The City's fire hydrant testing program will be scheduled during non-peak water usage times to the greatest extent possible without impairing the integrity of the City's fire protection service.

ACTIONS BY THE GENERAL PUBLIC:

- A. The general public will be encouraged to utilize those water conservation measures contained within the City's public information program.
- B. *Voluntary Odd/Even watering program is encouraged as follows:*
 - 1. *No watering on Mondays*
 - 2. *Addresses ending in an Odd number will water on Tuesday, Thursday and Saturday; and*
 - 3. *Addresses ending in an Even number will water on Wednesday, Friday and Sunday.*
- C. *Advise Public to turn off sprinklers on rainy days.*

PHASE II

Applies during periods when there is a water supply shortage

When water supply conditions start to deteriorate it would be incumbent upon the City to implement mandatory water conservation provisions.

ACTIONS BY THE CITY:

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III. Lawn and Landscaping Watering:

All residential, commercial and industrial landscape watering should be reduced to a minimum and avoid watering between the hours of 5 a.m. to 10 a.m. and 5 p.m. to 10 p.m.

IV. Vehicle Washing and Sidewalk Hosing:

- A. Vehicle washing should be accomplished either by automatic car washes that recycle water or with buckets and hoses equipped with a shut-off nozzle.
- B. Per Section 25-5 of the City Municipal Code, "The consumer shall use reasonable care to prevent the waste of water, shall not allow water to run or waste from his property onto streets or highways, shall not use water in washing sidewalks, building entrances or lobbies or other properties to such excess that water shall flow in street gutters beyond the frontage of the properties occupied by them."

PHASE III

Applies during periods when there is a severe water supply shortage

ACTIONS BY THE CITY:

I. Public Information Program:

The utility billing system will begin to notify customers of restrictions on water use. The program to promote public awareness will be intensified with emphasis placed on communicating the mandatory water conservation requirements to the public.

II. Rate Structure Enhancement:

A 20% rate increase on all residential and landscape accounts will go into effect. This rate increase will encourage water conservation and will also serve as a provision to recover the lost revenue from water conservation.

III. City Landscapes and Watering Schedules

All City parks, median islands and public facility landscapes will continue to be watered during the late nights or early morning hours to confine impact on the water system to off-peak usage hours. **If it becomes necessary, watering of City parks and median islands will be suspended and evaluated each day.**

IV. *Continuation of all Conservation programs from Phases I and II in addition to Phase III regulations*

ACTIONS BY THE GENERAL PUBLIC:

- A. Landscape watering shall not be done between the hours of 5 a.m. to 10 a.m. and 5 p.m. to 10 p.m.
- B. Sidewalk and driveway washing will be prohibited.



Welcome to the Central Valley

CITY OF PORTERVILLE California



PUBLIC WORKS DEPARTMENT

The City of Porterville would like to thank all of its water customers for their past practices and efforts to conserve our water supply. We will, once again be asking customers for their cooperation by participating in the voluntary Odd/Even watering schedule, beginning May 1st. The schedule will be as it appears in the display below.

VOLUNTARY ODD / EVEN WATERING

MON	TUE	WED	THU	FRI	SAT	SUN
DO NOT WATER	OK TO WATER	OK TO WATER	OK TO WATER	OK TO WATER	OK TO WATER	OK TO WATER
—	ODD	EVEN	ODD	EVEN	ODD	EVEN

ODD ADDRESS **GREEN**
 EVEN ADDRESS **BLUE**

This plan requests you to water your lawn and shrubs according to your street address. If your address ends with an "odd" number, 1, 3, 5, 7 or 9 your watering days are Tuesday, Thursday and Saturday. If your address ends with an "even" number, 0, 2, 4, 6, or 8, your watering days are, Wednesday, Friday and Sunday. There is "NO" watering on Mondays and landscape watering should be reduced to a minimum. We are also asking that you avoid watering between the hours of 5:00 A.M. to 10:00 A.M. and 5:00 P.M. to 10:00 P.M. Should you have any questions or would like additional information, please contact the Field Services Division at 782-7514.

WATER CONSERVATION HELPS SAVE RESOURCES AND MONEY!



Welcome
to the
Good
Life

CITY OF
California
PORTERVILLE



DEPARTAMENTO DE SERVICIO PUBLICO

La Ciudad de Porterville quisiera agradecer a todos los clientes de agua por sus ultimos esfuerzos y practicas de conservar nuestra agua. De nuevo, pedimos a clientes su apoyo de participar voluntariamente en el programa de impar/par de regar, comenzando el 1 de Mayo 2008. El horario sera como aparece en la exhibición abajo.

VOLUNTARIO IMPAR/PAR REGAR

Lunes	Martes	Miercoles	Jueves	Viernes	Sabado	Domingo
NO REGAR	SI REGAR	SI REGAR	SI REGAR	SI REGAR	SI REGAR	SI REGAR
—	IMPAR	PAR	IMPAR	PAR	IMPAR	PAR

DIRECCIÓN: **VERDE**

IMPAR

DIRECCIÓN: **AZUL**

PAR

Este plan pide que usted riege su césped y arbustos según su direccion de calle. Si su dirección termina con un numero impar, 1,3,5,7 o 9 sus días de riego son Martes, Jueves y Sábado. Si su direccion termina con un número par, 0,2,4,6, o 8 sus días de riego son Miércoles, Viernes y Domingo. No se riega el Lunes y el riego del paisaje se debe reducir a un minimo. Tambien estamos preguntando que usted evite regar entre las horas del 5:00 A.M. al 10:00 A.M. de la mañana y de las 5:00 P.M. al 10:00 P.M. de la tarde. Si usted tiene preguntas o quisiera mas información adicional, llame la división de servicios de campo. 782-7514.

LA AYUDA DE CONSERVACION DE AGUA AHORRAN RECURSOS Y DINERO!



CITY OF PORTERVILLE WATER AWARENESS MONTH

With the longer days and warmer temperatures of Spring and the coming Summer months, our water usage increases in Porterville. To help conserve our precious water resources, the City of Porterville Water Utilities Division encourages its customers to join them in celebrating May as Water Awareness Month.

Educating our customers on the need for water awareness and conservation is an important component of our operations. Even the small acts of conservation at home can have a tremendous impact on Porterville's water supply.

You Can Conserve!

In honor of Water Awareness Month, the City of Porterville Water Utilities Division encourages its customers to make an extra effort in May to conserve water. Making minor changes will help us stretch our existing water supplies.

Run only full loads in the washing machine.

- *Water Saved: 800 gallons per month*

Wash dishes in dishwasher, not by hand.

- *Water Saved: 8-10 gallons per load*

Install water saving showerheads and take shorter showers.

- *Water Saved: 800 gallons per month*

When washing your car, use a shut-off nozzle on your hose.

- *Water Saved: 5-8 gallons per use*