

Section 7: Water Shortage Contingency Plan

7.1 Preparation for Catastrophic Water Supply Interruption

10632. The plan shall provide an urban water shortage contingency analysis, which includes each of the following elements, which are within the authority of the urban water supplier:

10632 (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

In 1991, the City established a Water Conservation Regulations Ordinance to define the City's official response in the event of a water shortage. A copy of this ordinance is included in Appendix D. Table 18 presents the preparation actions for a catastrophe discussed in the Water Conservation Regulations Ordinance.

Table 18: Preparation Actions for a Catastrophe

Examples of Actions	Check if Discussed
Determine what constitutes a proclamation of a water shortage.	✓
Stretch existing water storage.	✓
Obtain additional water supplies.	✓
Develop alternative water supplies.	✓
Determine where the funding will come from.	✓
Contact and coordinate with other agencies.	✓
Create an Emergency Response Team/Coordinator.	✓
Create a catastrophe preparedness plan.	✓
Put employees/contractors on-call.	✓
Develop methods to communicate with the public.	✓
Develop methods to prepare for water quality interruptions.	✓

7.1.1 Water Shortage Emergency Response

The City currently maintains seven of its nineteen production groundwater wells with backup power systems (diesel engines and gear head drives or generators). The standby power water pumping capacity is approximately 14,000 gallons per minute (gpm), which is less than the maximum-day demand rate. Thirteen PG&E circuits cover Woodland so that the likelihood of losing all nineteen wells is low. All wells with backup power units are in areas covered by different circuits. Therefore, the actual pumping capacity is greater than 14,000 gpm. In addition to the City wells with backup power, the City maintains a 300,000-gallon elevated storage tank that can provide some emergency water. Since the City is not located in earthquake zones 1 or 2, the likelihood of an earthquake is small. However, in the unlikely event of an earthquake, the City's wells are spread out throughout the city boundary and not every well will be affected, unlike

a centralized surface water treatment facility. The City would be able to start the undamaged wells by utilizing portable generators. Depending on the number of wells affected, the City may ask customers to reduce their water usage or begin water rationing. In a catastrophic or severe earthquake event, the City would coordinate efforts with Yolo County Emergency Services to request assistance from the neighboring communities, bottled water suppliers, or the State and federal governments. The City is currently in joint meetings and exercises with the Yolo County Emergency Services for flood and other catastrophic events.

Nitrate contamination of groundwater is a real threat and has already forced one City well to be taken temporarily out of service. To date, none of the City's wells have been negatively impacted by regulated volatile organic chemicals including PCE and MTBE in spite of the fact that at least 21 local sites have been identified as having MTBE in shallower level of the aquifer. A more complete assessment of the groundwater vulnerability will be completed at a future date under regulatory mandate.

7.1.2 Supplemental Water Supplies

The proposed surface water project for Woodland would rely upon the annual diversion of up to 15,000 AF of water from the Sacramento River. This diversion would be based upon the successful future granting of a water right under the terms of the 1994 surface water right filed with the SWRCB on behalf of the City and other parties. YCFCWCD submitted water right application 30358 on behalf of YCFCWCD, City of Woodland, City of Davis, Town of Winters and UC Davis for an annual diversion of 45,000 AF from the Sacramento River for municipal uses within Yolo County. For more information of the proposed surface supply see Section 3.3.2.

7.1.3 Water Transfers

The City has an interconnection with the County jail facility. In an emergency situation the City or the County can supply water to each other on a short-term basis. One industrial facility within the City has its own well and the City's water system is separated from this facility with a backflow device. In an emergency, it may be possible for the City to use this supply.

7.1.4 Long Term Additional Water Supply Options

YCFCWCD submitted water right application 30358 on behalf of YCFCWCD, City of Woodland, City of Davis, Town of Winters and UC Davis for an annual diversion of 45,000 AF from the Sacramento River for municipal uses within Yolo County. While no allocation of water among the parties was specified in the application, subsequent revisions to water plans made by each of the parties to the application led to a decision to allocate the water among three of the applicants, giving 15,000 AF to Woodland.

Surface water diverted under the 15,000 AF water right application could provide about 85% of the City's present total annual water demand and about 60% of the projected water demand at build-out in 2026.

7.2 Water Shortage Contingency Ordinance/Resolution

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

10632 (h) A draft water shortage contingency resolution or ordinance.

In 1991, the City established a Water Conservation Regulations Ordinance to define the City's official response in the event of a water shortage. A copy of this ordinance is included in Appendix D

7.2.1 Woodland Water Shortage Response

The City's Water Conservation Regulations ordinance establishes a four-stage plan to accomplish water conservation. After public notice and a hearing, the City Council may, by resolution, determine that drought conditions exist within the City. The City Council would then determine which stage in the four-stage plan (see Table 19) would become operative to accomplish the targeted water reduction goal. The four-stage plan includes voluntary and mandatory rationing, depending on the cause, severity, and anticipated duration of the water supply shortage.

7.3 Stages of Action

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

10632 (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply and an outline of specific water supply conditions which are:

Table 19: Water Rationing Stages and Reduction Goals

Condition	Stage	Customer Reduction Goal	Type of Rationing Program
Water Awareness	I	0-15 percent	Voluntary
Water Alert	II	15 percent	Voluntary
Water Emergency	III	25 percent	Mandatory
Water Crisis	IV	50 percent	Mandatory

Stage I - Water Awareness. Water consumers are encouraged to limit water consumption to a reasonable level necessary to maintain public health, business operations, and landscaping. All water consumers shall not waste water. Wasting water includes:

- Watering landscapes so that substantial amounts of water run off landscaped areas.
- Allowing water to escape through breaks or leaks within the user's system for more than 18 hours after detection.

Stage II - Water Alert. Water consumers are encouraged to voluntarily reduce normal water use by 15 percent. Recommended conservation measures include:

- Limit landscape irrigation to a maximum of 3 days per week.
- Equip all hoses or filling apparatus for non-irrigation purposes with an automatic shut-off nozzle.
- Limit hosing hardscape surfaces.
- Serve water only upon request to restaurant customers.

Stage III - Water Emergency. Water consumers are required to comply with the following conservation measures to achieve a 25 percent reduction in normal water use:

- Limit landscape irrigation to two days per week.
- Prohibit use of running water from a hose, pipe, or faucet to clean buildings, paved, tile, wood, plastic, or other surfaces.
- Restaurants with table service shall post a notice of drought conditions and not serve water except upon specific request by customer.
- Boats and vehicles washed only at commercial washing facilities equipped with water recycling equipment. Bucket and hose equipped with a self-closing valve are allowed.
- Hotels, motels, and other commercial establishments that offer lodging shall post in each room a notice of drought conditions.
- Prohibit operation and introduction of water into ornamental fountains.
- Any other regulations determined by the City Council after public hearing.

Stage IV - Water Crisis. Water consumers are required to comply with the following conservation measures to achieve a 50 percent reduction in normal water use:

- Water use conservation measures from Stages I, II, and III except as modified in Stage IV.
- Prohibit irrigation of any yard or other landscaped area containing lawn or turfgrass except by handheld bucket.
- Prohibit introduction of water into swimming pools or spas.
- Cover all pools and spas when not in use to reduce evaporative losses.
- Any other regulations determined by the City Council after public hearing.

7.3.1 Rationing Stages and Reduction Goals

Table 20 presents water rationing stages and applicable reduction goals.

Table 20: Water Rationing Stages and Reduction Goals

Shortage Condition	Stage	Customer Reduction Goal	Type of Rationing Program
Up to 15%	I	15%	Voluntary
15 – 25%	II	25%	Mandatory
25 - 35%	III	35%	Mandatory
35 - 50%	IV	50% or >	Mandatory

7.3.2 Water Shortage Stages and Triggering Mechanisms

As the water purveyor, the City must provide the minimum health and safety water needs of the community at all times. The current version of the City's Water Conservation Regulations ordinance addresses "drought" conditions only and does not distinguish between drought conditions triggered by lowered groundwater levels, infrastructure damage, water quality pollution or contamination, and disaster events.

This update to the UWMP presumes that "drought" conditions and the rationing stages may be triggered by a shortage of groundwater due to infrastructure damage or contamination or natural disaster or all of these. Table 21 details the recommended triggering mechanism for each rationing stage. Table 21 considers the following conditions:

- The City currently has a total of 19 wells (2000).
- Water demand based on maximum-day demand of 23,000 gallons per minute (2000-2005).
- The maximum-day demand would be reduced to accomplish the targeted water reduction goal.
- For year 2005, at least 5 wells were reserved for emergency backup and not included in determining the number of wells needed to meet a reduced maximum-day demand.

Table 21: Water Rationing Stages and Triggering Mechanisms

Percent Reduction of Supply				
	Stage I	Stage II	Stage III	Stage IV
	0-15%	25%	35%	50%
	Voluntary	Voluntary	Mandatory	Mandatory
Water Supply Condition				
Groundwater	First Dry Year	Up to 2 City wells out of service.	Up to 3 City wells out of service.	Up to 6 wells out of service.
<i>(Wells out of service due to infrastructure damage)</i>				
Water Quality	N/A	Up to 2 City wells out of service.	Up to 3 City wells out of service.	Up to 6 wells out of service.
<i>(Wells out of service due to water pollution or contamination; water quality does not meet primary drinking water standards)</i>				
Disaster Loss	N/A	Up to 2 City wells out of service.	Up to 3 City wells out of service.	Up to 6 wells out of service.
<i>(Wells out of service due to a natural disaster event)</i>				

7.3.3 Water Allotment Methods

7.3.3.1 Priority by Use

In the event that water rationing was required, priorities for use of available potable water during shortages would be based on legal requirements set forth in the California Water Code, Sections 350-358. Water allocations would be established for all customers according to the following ranking system:

- Minimum health and safety allocations for interior residential needs (includes single family, multi-family, hospitals and convalescent facilities, retirement and mobile home communities, and student housing, as well as fire fighting and public safety).
- Commercial, industrial, institutional/governmental operations (where water is used for manufacturing and for minimum health and safety of employees and visitors), to maintain jobs and economic base of the community (not for landscape uses).
- Permanent agriculture (orchards, vineyards, and other commercial agriculture which would require at least five years to return to production).
- Annual agriculture (floriculture, strawberries, other truck crops).

- Existing landscaping.
- New customers, proposed projects without permits when shortage declared.

7.3.3.2 Health and Safety Requirements

Based on commonly accepted estimates of interior residential water use in the United States, Table 22 indicates per capita health and safety water requirements.

Table 22: Per Capita Health and Safety Water Quantity Calculations

	Non-Conserving Fixture		Habit Changes ¹		Conserving Fixtures ²	
Toilet	5 flushes x 5.5 gpf	27.5	3 flushes x 5.5 gpf	16.5	5 flushes x 1.6 gpf	8.0
Shower	5 min x 4.0 gpm	20.0	4 min x 3.0 gpm	12.0	5 min x 2.0	10.0
Washer	12.5 gpcd	12.5	11.5 gpcd	11.5	11.5 gpcd	11.5
Kitchen	4 gpcd	4.0	4 gpcd	4.0	4 gpcd	4.0
other	4 gpcd	4.0	4 gpcd	4.0	4 gpcd	4.0
Total (gpcd)		68.0		48.0		37.5
HCF per capita per year		33.0		23.0		18.0

(1) Reduced shower use results from shorter and reduced flow. Reduced washer use results from fuller loads.

(2) Fixtures include ULF 1.6 gpf toilets, 2.0 gpm showerheads and efficient clothes washers.

gpcd = gallons per day per capita gpf = gallons per flush ULF = ultra low flush HCF = hundred cubic feet

7.4 Prohibitions, Consumption Reduction Methods and Penalties

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

10632 (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

10632 (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

10632 (f) Penalties or charges for excessive use, where applicable.

7.4.1 Mandatory Prohibitions on Water Wasting

As mentioned previously, the City's Water Conservation Regulations ordinance includes mandatory rationing under Stages III and IV. These stages prohibit various wasteful water uses such as daily lawn watering, washing sidewalks and driveways with potable water, and allowing plumbing leaks to go unconnected more than 18 hours after identification. Table 23 notes some additional recommended reduction methods.

Table 23: Potential Consumption Reduction Methods

Consumption Reduction Methods	Stage When Method Takes Effect			
	I	II	III	IV
Water Demand Conservation Program (See Demand Management Measure section)	•	•	•	•
Reduce pressure in water lines ^(a)				•
Restrict building permits			•	•
Restrict for only priority uses			•	•
Water shortage pricing			•	•
Plumbing fixture replacement	•	•	•	•
Incentives to reduce water consumption			•	•
Education program	•	•	•	•
Percentage reduction by customer type			•	•

(a) City currently operates the water distribution system to provide 35 psig, with a minimum of 20 psig for fire flow.

The Water Demand Conservation Program noted in Table 23 is described further in Section 6 with Water Demand Management Measures. For this program to be most effective, the conservation measures should be incrementally phased. In the event of a drought condition that triggers a water rationing stage, this program will only be effective if some of the water reduction measures were previously implemented.

7.4.2 Excessive Use Penalties

The Water Conservation Regulations also specify the type of penalties that would be assessed to the responsible party that violates the mandatory water restrictions set forth in the ordinance. The following enforcement measures would be imposed:

- Give written notice to water consumer of the City's intent to prevent further violations.
- Impose a fine of \$100 upon conviction of the fourth violation of ordinance.

Impose other measures designed to prevent the waste of water and to promote compliance with this ordinance.

7.5 Revenue and Expenditure Impacts and Measures to Overcome Impacts

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

10632 (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier...

10632 (g) [An analysis of the impacts of each of the] proposed measures to overcome those [revenue and expenditure] impacts, such as the development of reserves and rate adjustments.

The City does not currently have a set aside fund to cover short-term expenses and /or revenue losses that may be incurred during a declared water rationing stage but does have reserve fund available in case of an emergency. Meanwhile, the City may consider borrowing from the City's general fund to cover any expenses for repairs to City wells damaged from natural disaster or to cover any loss of revenue resulting from water rationing (by metered accounts). The City would use water revenues to pay back any loans from the general fund. Currently, the majority of the accounts are not metered and the lost revenue would not likely to have an impact on the water fund balance.

7.6 Reduction Measuring Mechanism

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

10632 (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

7.6.1 Mechanism to Determine Reductions in Water Use

Under normal water supply conditions, potable water production figures are recorded daily. Totals are reported monthly. During a declared water rationing stage, well output would be more closely monitored to determine usage changes. Water usage by commercial and industrial metered accounts would also be more closely monitored. Any changes in well output and water usage by metered accounts would be used to determine if reduction goals are met. If reduction goals are not met, the City Council would be notified so that corrective action could be taken.

Section 8: Water Recycling

8.1 Wastewater System Description

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (a) A. Quantification of the amount of wastewater collected and treated...

8.1.1 Participation in a Regional Recycled Water Planning

The City has explored reuse of shallow groundwater from dewatering facilities. Additionally, industrial water from a food processing facility is used to irrigate several hundred acres of agricultural crops

8.1.2 Water Reuse Association Membership

The City is not a member of any water reuse associations in California.

8.1.3 Wastewater Collection and Treatment in Woodland

The City manages wastewater collection and treatment for its own service area. Wastewater flow from the City (excluding storm water run-off), is collected and treated at its Wastewater Treatment Plant (WWTP). Average dry weather flow is currently about 6.8 million gallons per day.

City storm water is collected in pipelines and open channels. The storm water from the City discharges into the Cache Creek settling basin.

8.1.4 Wastewater Treatment Processes

The current wastewater treatment is located at the City's Road 103 facility. The WWTP includes the following processes:

1. Primary Sedimentation
2. Oxidation Ditches
3. Secondary Clarification
4. Chlorination/Dechlorination
5. Discharge

The facility was constructed in 1989 and upgraded in 1999 utilizing mechanical equipment. Currently, the facility is under expansion and construction for tertiary treatment. The expanded facility is designed to handle 10.4 mgd of average dry weather flow (ADWF) and 23 mgd of peak hour flow. The tertiary facility will include filtration and ultra violet (UV) light disinfection process instead of chlorination. Treated effluent from the wastewater treatment facility is discharged to a large unimproved channel which eventually drains to the Tule Canal on the east side of the Yolo Bypass.

The City also owns and operates an Industrial Wastewater Treatment Process that is used to treat wastewater from a tomato processing facility. This plant is located adjacent to the wastewater treatment facility. Cannery waste flows are treated using aerated treatment ponds followed by site application.

Table 24 provides a summary of current and project wastewater flow.

Table 24: Current and Projected Wastewater Flow

Treatment Influent	2000	2005	2010	2020	2025
Average Flow	7.4 MGD	7.4 MGD	10.4 MGD	13.25 MGD	13.25 MGD
Maximum Daily	21 MGD	21 MGD	23 MGD	35 MGD	35 MGD

8.2 Wastewater Disposal and Recycled Water Uses

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (a) A description of the methods of wastewater disposal.

10633 (b) A description of the recycled water currently being used in the supplier's service area, including but not limited to, the type, place and quantity of use.

10633 (c) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

10633 (d) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years.

Currently, the treated secondary effluent is suitable for specific agricultural use and the City will be able to provide unrestricted tertiary recycled water after the wastewater treatment plant upgrade. Based on the wastewater discharge requirements set by the California Regional Water Quality Control Board, the City will continue the tertiary treatment process until 2025. By mid-2006, the entire wastewater effluent will meet the unrestricted recycled water standards.

Currently, treated effluent from the wastewater treatment facility is discharged to a large unimproved channel which eventually drains to the Tule Canal on the east side of the Yolo Bypass. The City plans to continue to discharge to Tule Canal through 2025. Due to the high cost of installing purple pipes and tanks specifically for recycled water and the high cost of regulatory compliance of recycled water operations, the City is not able to use treated tertiary wastewater for agriculture, landscape, wildlife habitat, wetland, industrial, commercial, or groundwater recharge operations at this time. The City would consider recycled water uses when the infrastructure or the funding of constructing the infrastructure becomes available.

8.2.1 Recycled Water Currently Being Used

The City currently cooperates with Pacific Coast Producers (PCP), owner of a local tomato cannery, to operate a wastewater reuse program. Cannery wastewater is pumped to City-owned farmland east of County Road 103. Cannery process wastewater is used to irrigate almost 900 acres of crops. The reuse program with Del Monte will end when its canning facility in Woodland is closed.

The City does not provide any other recycled water service within the City. The City has studied recycling of wastewater and found it to be too expensive to be practical at this time but will continue to explore the options.

8.3 Encouraging Recycled Water Use

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (e) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

8.3.1 Woodland's Technical and Economic Feasibility Philosophy

Both economic and financial analyses should be conducted prior to implementing a project. An economic analysis considers all monetary costs and benefits to society, regardless of who pays the costs or receives the benefits. A financial analysis demonstrates financial feasibility of a project by evaluating who could pay or share the costs, and who receives or shares the benefits. Economic and financial feasibility do not always exist together for the same project - for instance, a project may be economically feasible from the broad regional or statewide perspective, yet financially infeasible from the local perspective.

Environmental impacts also have economic costs and benefits. The impacts should be identified and included in an environmental mitigation plan. Even though monetary estimates of environmental benefits and costs are difficult to make, these should be included, especially in cases where environmental enhancement and/or recreational opportunities play a major role in the justifying a project.

8.3.2 Marketing Strategy

The City has no formal marketing strategy for recycled water.

8.3.3 Proposed Actions to Encourage Use of Recycled Water

The City has discussed water reuse with Woodland Biomass, LTD., a local electricity producing facility. This facility owns and operates a cooling tower with a water demand of approximately 250-350 gallons per minute.

8.3.4 Actions Taken

The City completed a feasibility study to determine the benefit to cost ratio associated with reusing shallow groundwater from the Beamer Underpass Pumping Station at Woodland Biomass. The Beamer Underpass is located where Beamer Street crosses under the I-5 freeway. The underpass placed part of Beamer Street below the normal groundwater table. The pumping station was constructed to pump any collected groundwater into the City's storm drain system. The pump discharges into a box culvert located along the Court Street/Beamer Street storm drain trunk pipeline. This storm drain trunk pipeline empties into a channel adjacent to the Woodland Biomass facility.

Woodland Biomass currently uses City well water for its cooling tower. Based on 12 months of meter data (from July 1999 to June 2000), the Woodland Biomass facility received a total of 147 million gallons of City well water. The cooling tower used approximately 90 percent of the total (approximately 130 million gallons per year).

Based on August and October 2000 flow data, the Beamer Underpass pumping station removed an average of approximately 350 gpm of groundwater. The pumping station has a total pumping capacity of approximately 1,200 gpm. Based on historical pump operation data, the Beamer Underpass Pumping Station would have sufficient flows to meet the Woodland Biomass cooling tower flow requirements during "normal" weather years. During "drought" conditions, when shallow groundwater table levels were lower, underpass output was substantially less.

8.4 Recycled Water Optimization Plan

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (f) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems and to promote recirculating uses.

8.4.1 Plan for Optimizing the Use of Recycled Water

The City must address the water quality challenges of its influent and effluent before embarking on a comprehensive recycled water plan including a new source water, treatment of existing well water, or additional treatment of the wastewater.

Section 9: Water Service Reliability

10635 (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from the state, regional or local agency population projections within the service area of the urban water supplier.

The single dry year supply is estimated to be 100% of average, or normal water year supply. Because the City's supply is currently limited to groundwater, it is assumed that groundwater would continue to be pumped at a rate to meet demand. Single dry year demand is assumed to be 100% of demand, as it is assumed there would be no effect on customer usage until the second year of a dry year sequence.

The multiple dry year scenarios are based on 100% of average demand. Supply reductions reflect a no reduction in supply during the first year of a dry year sequence, a 10% reduction in the second year, a 15% reduction in the third year, and a 25% reduction in the fourth year. The fifth year is assumed to be a recovery year of projected average supply and demand.

Quantities in all tables are in acre-feet per year unless otherwise noted.

9.1 Projected Normal Water Supply and Demand

Projected supply during normal, or average runoff, year

	2010	2015	2020	2025	2030
Supply	42,823	49,274	55,726	60,027	60,027
% of projected normal	100	100	100	100	100

Projected demand during normal years

	2010	2015	2020	2025	2030
Demand	18,924	22,588	23,402	24,118	24,800
% of projected normal	100	100	100	100	100

Projected difference between supply and demand for planning period

	2010	2015	2020	2025	2030
Supply Totals	42,823	49,274	55,726	60,027	60,027
Demand Totals	18,924	22,588	23,402	24,118	24,800
Difference (supply minus Demand)	23,899	26,686	32,324	35,909	35,227
Difference as % of Supply	56%	54%	58%	60%	59%
Difference as % of Demand	126%	118%	138%	149%	142%

9.2 Single Dry Year Scenarios

This section presents the single dry year supply and demand comparison. The analysis reveals that there will not be any supply deficiencies during single dry water years projected to 2030.

9.2.1 2010-2030

Projected supply during single dry year throughout planning period

	2010	2015	2020	2025	2030
Supply	42,823	49,274	55,726	60,027	60,027
% of projected normal	100	100	100	100	100

Projected demand during single dry year throughout planning period

	2010	2015	2020	2025	2030
Demand	18,924	22,588	23,402	24,118	24,800
% of projected normal	100	100	100	100	100

Projected supply during single dry year throughout planning period

	2010	2015	2020	2025	2030
Supply Totals	42,823	49,274	55,726	60,027	60,027
Demand Totals	18,924	22,588	23,402	24,118	24,800
Difference (supply minus Demand)	23,899	26,686	32,324	35,909	35,227
Difference as % of Supply	56%	54%	58%	60%	59%
Difference as % of Demand	126%	118%	138%	149%	142%

9.3 Multiple Dry Year Scenarios

This section presents the multiple dry year supply and demand comparison. The analysis shows that there will be no supply deficiencies throughout the planning period.

9.3.1 2006-2010

Projected supply during multiple dry year period ending in 2010-AF/Y

	2006	2007	2008	2009	2010
Supply	39,382	40,242	41,102	41,963	42,823
% of projected normal	100	100	100	100	100

Projected demand during multiple dry year period ending in 2010-AF/Y

	2006	2007	2008	2009	2010
Demand	15,911	14,998	14,805	13,628	18,924
% of projected normal	100	90	85	75	100

Projected supply during multiple dry year period ending in 2010-AF/Y

	2006	2007	2008	2009	2010
Supply Totals	39,382	40,242	41,102	41,963	42,823
Demand Totals	15,911	14,998	14,805	13,628	18,924
Difference (supply minus Demand)	23,471	25,244	26,297	28,335	23,899
Difference as % of Supply	60%	63%	64%	68%	56%
Difference as % of Demand	148%	168%	178%	208%	126%

9.3.2 2011-2015

Projected supply during multiple dry year period ending in 2015-AF/Y

	2011	2012	2013	2014	2015
Supply	44,113	45,403	46,694	47,984	49,274
% of projected normal	100	100	100	100	100

Projected demand during multiple dry year period ending in 2015-AF/Y

	2011	2012	2013	2014	2015
Demand	18,924	17,032	16,085	14,193	22,588
% of projected normal	100	90	85	75	100

Projected supply during multiple dry year period ending in 2015-AF/Y

	2011	2012	2013	2014	2015
Supply Totals	44,113	45,403	46,694	47,984	49,274
Demand Totals	18,924	17,032	16,085	14,193	22,588
Difference (supply minus Demand)	25,189	28,372	30,608	33,791	26,686
Difference as % of Supply	57%	62%	66%	70%	54%
Difference as % of Demand	133%	167%	190%	238%	118%

9.3.3 2016-2020

Projected supply during multiple dry year period ending in 2020-AF/Y

	2016	2017	2018	2019	2020
Supply	50,565	51,855	53,145	54,435	55,726
% of projected normal	100	100	100	100	100

Projected demand during multiple dry year period ending in 2020-AF/Y

	2016	2017	2018	2019	2020
Demand	22,751	20,622	19,615	17,429	23,402
% of projected normal	100	90	85	75	100

Projected supply during multiple dry year period ending in 2020-AF/Y

	2016	2017	2018	2019	2020
Supply Totals	50,565	51,855	53,145	54,435	55,726
Demand Totals	22,751	20,622	19,615	17,429	23,402
Difference (supply minus Demand)	27,814	31,233	33,530	37,006	32,324
Difference as % of Supply	55%	60%	63%	68%	58%
Difference as % of Demand	122%	151%	171%	212%	138%

9.3.4 2021-2025

Projected supply during multiple dry year period ending in 2025-AF/Y

	2021	2022	2023	2024	2025
Supply	56,586	57,446	58,306	59,167	60,027
% of projected normal	100	100	100	100	100

Projected demand during multiple dry year period ending in 2025-AF/Y

	2021	2022	2023	2024	2025
Demand	23,545	21,320	20,257	17,981	24,118
% of projected normal	100	90	85	75	100

Projected supply during multiple dry year period ending in 2025-AF/Y

	2021	2022	2023	2024	2025
Supply Totals	56,586	57,446	58,306	59,167	60,027
Demand Totals	23,545	21,320	20,257	17,981	24,118
Difference (supply minus Demand)	33,041	36,127	38,050	41,186	35,909
Difference as % of Supply	58%	63%	65%	70%	60%
Difference as % of Demand	140%	169%	188%	229%	149%

9.3.5 2026-2030

Projected supply during multiple dry year period ending in 2030-AF/Y

	2026	2027	2028	2029	2030
Supply	60,027	60,027	60,027	60,027	60,027
% of projected normal	100	100	100	100	100

Projected demand during multiple dry year period ending in 2030-AF/Y

	2026	2027	2028	2029	2030
Demand	24,254	21,952	20,848	18,498	24,800
% of projected normal	100	90	85	75	100

Projected supply during multiple dry year period ending in 2030-AF/Y

	2026	2027	2028	2029	2030
Supply Totals	60,027	60,027	60,027	60,027	60,027
Demand Totals	24,254	21,952	20,848	18,498	24,800
Difference (supply minus Demand)	35,772	38,075	39,179	41,529	35,227
Difference as % of Supply	60%	63%	65%	69%	59%
Difference as % of Demand	147%	173%	188%	225%	142%

References

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<http://www.wrcc.dri.edu/summary/climsmnca.html>

Appendix A

List of Groups Who Participated in the Development of this Plan

Appendix A: List of Groups Who Participated in the Development of this Plan

City Council and staff

Public Works Director/City Engineer/Utility Engineers/Environmental Management

City Water Pollution Control Facility

City Planning Department

Consultants

Yolo County Environmental Health Department

Yolo County Flood Control and Conservation District

Reclamation District (RD) 2035

Yolo County Farm Bureau

Water Resources Association (WRA)

Members of the public

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Yolo

THE DAILY DEMOCRAT

a newspaper of general circulation, printed and published daily in the City of Woodland, County of Yolo, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Yolo, State of California, under the date of June 30, 1952, and in accordance with the provisions of Title 1, Division 7, of the Government Code of the State of California; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates to-wit:

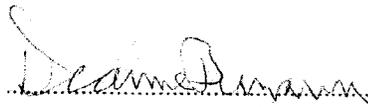
November 30, Dec. 6

all in the year 20⁰⁵.....

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date at Woodland.....

California, this 6th day of December 20 05.....


Signature

This space is for the County Clerk's Filing Stamp

Draft 2005 Urban Water Management Plan

Proof of Publication of

Notice of Hearing

City of Woodland

**CITY OF WOODLAND
NOTICE OF HEARING**

Notice is hereby given that the City Council of the City of Woodland at its regular meeting to be held on December 6, 2005, at 7:00 pm in the City Council Chambers, 200 First Street, Woodland will hold a public hearing to receive comments on the following:

Draft 2005 Urban Water Management Plan

A copy of the Draft Plan is available on the City's web site at www.cityofwoodland.org, or you may contact Cathy Lee, Associate Civil Engineer, City of Woodland, Public Works Department, 530-061-5885 for any questions, comments or input. All interested parties are invited to attend the hearing and express their opinion.

Pursuant to Section 65009(b)(2) of the State Government Code "If you challenge the above project in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at, or prior to, this public hearing".

Susan L. Vannucci, CMC,
City Clerk
DATED: Nov. 30 Dec 6, 2005

801-Nov. 30, Dec. 6, 2005

PROOF OF PUBLICATION

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
TO ADOPT THE URBAN WATER MANAGEMENT PLAN**

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the City is an urban supplier of water providing water to a population over 50,000, and

WHEREAS, the Plan shall be periodically reviewed at least once every five years, and that the City shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, the Plan must be adopted by December 31, 2005, after public review and hearing, and filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, the City has therefore, prepared and circulated for public review a draft Urban Water Management Plan, and a properly noticed public hearing regarding said Plan was held by the City Council on December 6th, 2005, and

WHEREAS, T City of Woodland will file said Plan with the California Department of Water Resources within 30 days of adoption;

BE IT THEREFORE, RESOLVED by the City Council of the City of Woodland, Yolo County, California as follows:

1. The 2005 Urban Water Management Plan is hereby adopted and ordered filed with the City Clerk; the Mayor is hereby authorized and directed to file the 2005 Urban Water Management Plan with the California Department of Water Resources within 30 days after this date;
2. The Mayor is hereby authorized and directed to implement the Water Conservation Programs as set forth in the 2005 Urban Water Management Plan, which includes water shortage contingency analysis and recommendations to the City Council regarding necessary procedures, rules, and regulations to carry out effective and equitable efficient water use programs;

3. In a water shortage, the Mayor is hereby authorized to declare a Water Shortage Emergency according to the Water Shortage Stages and Triggers indicated in the Plan, and implement necessary elements of the Plan;
4. The Mayor shall recommend to the City Council additional regulations to carry out effective and equitable allocation of water resources.

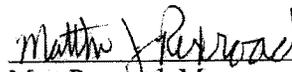
ADOPTED this Sixth day of December, 2005, by the following vote:

AYES: Council Members Flory, Monroe, Peart, Pimentel, Rexroad

NOES: None

ABSENT: None

ABSTAIN: None



Matt Rexroad, Mayor
City of Woodland

Attest:



Sue Vannucci, City Clerk

Date: December 6, 2005

December 6, 2005
Woodland, CA

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Woodland seeks input for new water plan

Daily Democrat

The city of Woodland is seeking public input for the city of Woodland's draft 2005 Urban Water Management Plan.

Updating the City's Urban Water Management Plan every five years is required under the Urban Water Management Planning Act.

The purpose of an Urban Water Management Plan is to ensure adequate reliable water supplies for planning purposes. The focus of the plan is to improve the link between information on current and future water supply requirements as they relate to decisions made by local cities and counties for comprehensive water supply planning.

The city's previous plan was completed in 2000 with input and comments from other agencies, interested groups and the community.

A public meeting will be held on Tuesday at the City Council meeting. For a copy of the draft plan, go to: <http://www.cityofwoodland.org/> or contact Cathy Lee, associate civil engineer, city of Woodland, Public Works Department, 661-5885 for any questions, comments or input.

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City seeks public views on draft water proposal

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The purpose of an Urban Water Management Plan is to ensure adequate reliable water supplies for planning purposes.

The focus of the plan is to improve the link between information on current and future water supply requirements as they relate to decisions made by local cities and counties for comprehensive water supply planning.

The Urban Water Management Plan also serves as an important source document for the General Plan; conversely, the General Plan was one of the source documents used as the city updated the current and past plans.

These planning documents are linked and their accuracy and usefulness are interdependent.

The draft 2005 Urban Water Management Plan describes and evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other information related to a public water system operation.

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A public meeting will be held on Tuesday, Dec. 6, at the City Council meeting. For a copy of the draft plan, go to: <http://www.cityofwoodland.org/> or contact Cathy Lee, associate civil engineer, city of Woodland, Public Works Department, 661-5885 for any questions, comments or input.

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Comments sought on city waste plan

Daily Democrat

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Appendix B

Resolution to Adopt the Urban Water Management Plan

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WOODLAND
TO ADOPT THE URBAN WATER MANAGEMENT PLAN**

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

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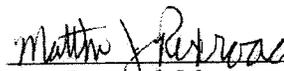
ADOPTED this Sixth day of December, 2005, by the following vote:

AYES: Council Members Flory, Monroe, Peart, Pimentel, Rexroad

NOES: None

ABSENT: None

ABSTAIN: None



Matt Rexroad, Mayor
City of Woodland

Attest:



Sue Vannucci, City Clerk

Date: December 6, 2005

Appendix C

Water Consumption per User Category

CATEGORY OF BUSINESS		DESCRIPTION	CODE	2005		2004		Well		Capacity in ac-ft/yr	
CATEGORY OF BUSINESS		DESCRIPTION	CODE	User Defined	Fix Read Date	Reading	Difference (ft ³)	In ac-ft/yr	subtotal	GPM	1 ac-ft/yr = 0.62 gal/min
Single Family Residential Property	Flat, Water & Sewer	4	1A Total	commercial		14,555,950	371,377	334.2	2,400	3,871.0	
Single Family Residential Property	Flat, Water Only	4A	1D Total	commercial		89,345	2.1	8.5	2,200	3,548.4	
Single Family Residential Property	Flat, Sewer Only	4B	1E Total	commercial		146,120	3.4	2.1	1,600	2,580.6	
Single Family Residential Property	Metered, Water & Sewer	4C	2 Total	Industrial		218,580	5.0	348.1	2,100	3,387.1	
Single Family Residential Property	Metered, Water Only	4D	2A Total	Industrial		3,660,104	84.5	5.0	2,000	3,225.8	
			2B Total	Industrial		18,455	0.4	84.5	1,600	2,580.6	
			3 Total	Institutional		4,130,171	94.8	0.4	2,000	3,225.8	
Multi Family Residential-Property Mgmt or Apts	Flat, Water & Sewer	5	3A Total	Institutional		2,400	0.1	94.8	1,400	2,258.1	
Multi Family Residential-Property Mgmt or Apts	Flat, Water Only	5A	3B Total	Institutional		4,699	0.1	0.1	2,000	3,225.8	
Multi Family Residential-Property Mgmt or Apts	Flat, Sewer Only	5B	3E Total	Institutional		1,306,422	30.0	0.1	2,000	3,225.8	
Multi Family Residential-Property Mgmt or Apts	Metered Water & Flat Sewer	5C	4C Total	SF		36,200	0.8	30.0	2,200	3,548.4	
Multi Family Residential-Property Mgmt or Apts	Metered, Water Only	5D	4D Total	SF		62,400	1.4	0.8	1,900	3,064.5	
			5 Total	Multi Fam		79,600	1.8	1.4	1,800	2,903.2	
Landscaping Accounts	Metered	7	5C Total	Multi Fam		9,193,388	211.1	1.8	1,800	2,903.2	
Landscaping Accounts	Flat	7A	5D Total	Multi Fam		328,300	7.5	1.8	1,800	2,903.2	
			7 Total	Multi Fam		23,765,071	545.6	7.5	2,200	3,548.4	
			Grand Total			57,988,682	1,331.2	545.6	2,000	3,225.8	
									2,000	3,225.8	2/3 total
									35,925	57,782	39,522
CATEGORY OF BUSINESS		DESCRIPTION	CODE	User Defined	Read Date	Reading	Consumption		Consumption/Demand	Demand in ac-ft/yr	
CATEGORY OF BUSINESS		DESCRIPTION	CODE	Field	Date	Read	Consumption		Gallons	1 ac-ft = 325,872 gallons	
Commercial-Retail, Office Space, Non Governmer	Metered, Water & Sewer	1	1A Total	commercial		42,197,395	968.7	38.4	284,816,936	874.0	
Commercial-Retail, Office Space, Non Governmer	Metered, Water Only	1A	1D Total	commercial		86,075	2.0	2.0	279,302,292	857.1	
Commercial-Retail, Office Space, Non Governmer	Flat, Water Only	1B	1E Total	commercial		183,540	4.2	4.2	227,917,812	699.4	
Commercial-Retail, Office Space, Non Governmer	Flat, Sewer Only	1C	2 Total	Industrial		3,001,237	68.9	68.9	226,933,272	783.3	
Commercial-Retail, Office Space, Non Governmer	Flat, Water & Sewer	1D	2A Total	Industrial		3,304,886	75.9	75.9	255,243,821	783.3	
Commercial Special Category	Metered Water, Flat Sewer	1E	2B Total	Industrial		871,750	20.0	20.0	308,349,434	946.2	
			3 Total	Institutional		7,865,909	180.6	0.1	484,735,083	1,487.5	
Industrial-Business Where Manufacturing Is Done	Metered, Water & Sewer	2	3A Total	Institutional		3,585	0.1	166.5	546,388,686	1,676.7	
Industrial-Business Where Manufacturing Is Done	Metered, Sewer Only	2A	3E Total	Institutional		7,250,617	166.5	1.5	649,856,361	1,994.2	
Industrial-Business Where Manufacturing Is Done	Metered, Water Only	2B	4C Total	SF		66,000	1.5	2.2	698,916,121	2,144.8	
			4D Total	SF		94,400	2.2	2.5	582,022,784	1,786.0	
Institutional-Schools, Govt, Churches, Hospitals	Metered, Water & Sewer	3	5 Total	Multi Fam		108,630	2.5	789.5	395,041,821	1,212.3	
Institutional-Schools, Govt, Churches, Hospitals	Metered, Water Only	3A	5C Total	Multi Fam		34,389,969	789.5	7.8	4,939,525,393	15,187.9	
Institutional-Schools, Govt, Churches, Hospitals	Flat, Water & Sewer	3B	5D Total	Multi Fam		339,550	7.8	7.8			
Institutional-Schools, Govt, Churches, Hospitals	Flat, Water Only	3C	7 Total	Multi Fam		32,170,616	738.5	3,065.2			
Institutional-Schools, Govt, Churches, Hospitals	Flat, Sewer Only	3D	Grand Total			133,519,862	3,065.2				
Institutional-Schools, Govt, Churches, Hospitals	Metered Water, Flat Sewer	3E									

NOTE: Commercial Special Category is an account with a sewer rate out of the ordinary such as a business that recycles water.

**Connections by Customer type
City of Woodland**

	1990	1995	2000	2005	2010	2015	2020	2025	2030
Single-Family	10,092	10,321	11,416	11,749	14,000	16,261	16,750	17,250	17,770
Multi-Family	200	204	220	754	1,682	2,610	2,690	2,770	2,853
Commercial	656	743	823	839	968	1,042	1,162	1,209	1,217
Industrial	27	33	24	26	39	42	46	48	49
Landscape and Recreation	100	167	211	232	290	313	349	363	365
	11,075	11,468	12,694	13,600	16,979	20,267	20,997	21,640	22,253

Growth

Single-Family	2.3%	10.6%	2.9%	19.2%
Multi-Family	2.0%	7.8%	242.7%	123.1%
Commercial	13.3%	10.8%	1.9%	15.4%
Industrial	22.2%	-27.3%	8.3%	49.0%
Landscape and Residential	67.0%	26.3%	10.0%	25.2%

Population	39802	42900	49151	53382	58093	62509	69719	72518	73000
Population/Comm'l Conn	60.67378	57.7389	59.72175	63.62574	USE				
Population/Industrial Conn	1474.148	1300	2047.958	2053.154	1500				
Population/Landscape Conn	398.02	256.8862	232.9431	230.0948	200				

275 gpcd

Water Use based upon population	MG	14.7	16.0	17.2	19.2	19.9	20.1
	AF	16,445	17,896	19,257	21,478	22,340	22,488

Appendix D

Water Conservation Regulations Ordinance

The Code of the City of Woodland, California

Preface

CHAPTER 1. GENERAL PROVISIONS.

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CHAPTER 4. AUCTION SALES OF JEWELRY.

CHAPTER 5. BICYCLES.*

CHAPTER 5A. BINGO GAMES.

CHAPTER 6. BUILDINGS.*

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CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-1. Purpose.

This article is enacted to establish the city response to drought conditions. This article establishes a four-stage plan to accomplish water conservation. Stage one, water awareness, is an ongoing program. Stage two, water alert, is intended to achieve a fifteen percent reduction in normal water consumption. Stage three, water emergency, and Stage four, water crisis, are intended to achieve subsequent reductions in normal water consumption by twenty-five percent and fifty percent, respectively. (Ord. No. 1202, § 1; Ord. No. 1186, § 1 (part).)

Sec. 23C-11-2. Declaration of drought condition and establishment of water conservation requirements.

(a) The city council may, by resolution and after a noticed public hearing, determine that drought conditions exist within the city. Based on this determination, the city council may determine that stages two, three, or four regulations included in this article shall become operative and shall remain in full force and effect until the council, by resolution, determines that a different stage is appropriate.

(b) Notice of the public hearing shall be given by publication at least seven days prior to the date of the public hearing. (Ord. No. 1186, § 1 (part).)

Sec. 23C-11-3. Stage one, water awareness.

All water consumers are encouraged to be aware of water consumption and use water wisely. Water consumption should be limited to a reasonable level necessary to maintain the public health, business operations, and landscaping. All water consumers shall not waste water. Wasting water includes the following:

(a) The watering of landscapes in a manner or to an extent which allows substantial amounts of water to run off the area being watered.

(b) The escape of water through breaks or leaks within the users system for any substantial period of time (eighteen hours after detection). (Ord. No. 1202, § 2; Ord. No. 1186, § 1 (part).)

Sec. 23C-11-4. Stage two, water alert.

All water consumers are encouraged to voluntarily comply with the following conservation measures to achieve a fifteen percent reduction in normal water use:

(a) Limit landscape irrigation to a maximum of three days per week. The director of public works shall establish a landscape irrigation schedule to be set forth in the resolution adopted by the city council to assist water consumers in their voluntary compliance.

(b) Equip all hoses or filling apparatus for nonirrigation purposes with an automatic shut-off nozzle.

(c) Limit hosing of hardscape surfaces except for health and safety purposes.

(d) Serve water only upon request to restaurant customers. (Ord. No. 1186, § 1 (part); Ord. No. 1192, §1.)

Sec. 23C-11-5. Stage three, water emergency.

Water consumers shall comply with the following conservation measures to achieve a twenty-five percent reduction in normal water use. Each of the stage two water use regulations shall remain in full force and effect and be mandatory except as modified by this section:

(a) Landscape watering shall be allowed on two days per week. The director of public works shall implement this provision through the establishment of an equitable landscape watering schedule to be set forth in the resolution adopted by the city council.

(b) The use of running water from a hose, pipe, or faucet for the purpose of cleaning buildings and paved, tile, wood, plastic or other surfaces is prohibited, except in the event the director of public works, or his designee, determines that such use is the only feasible means of correcting a potential threat to health and safety.

(c) All restaurants that provide table service shall post, in a conspicuous place, a notice of drought conditions, approved by the director of public works, and shall not serve water except upon specific request by the customer.

(d) Boats and vehicles shall be washed only at commercial washing facilities equipped with water recycling equipment or by use of a bucket and hose equipped with a self-closing valve that requires operating positive pressure to activate the flow of water.

(e) Operators of hotels, motels and other commercial establishments offering lodging shall post in each room and site a notice of drought condition, approved by the director of public works.

(f) The operation of and introduction of water into ornamental fountains is prohibited.

(g) Such other and further regulations as the city council may determine, after a public hearing. (Ord. No. 1202, § 3: Ord. No. 1186, § 1 (part).)

Sec. 23C-11-6. Stage four, water crisis.

Water consumers shall comply with the following conservation measures to achieve a fifty percent reduction in normal water use. Each of the stage one, two and three water use regulations shall remain in full force and effect and be mandatory except as modified by this section:

(a) Irrigation of any yard, or other landscaped area containing lawn or turfgrass areas is prohibited, except by handheld bucket.

(b) The introduction of water into swimming pools and spas is prohibited except to maintain the structural integrity of such facilities.

(c) Such other and further regulations as the city council may determine after public hearing.

(d) All pools and spas shall be covered when not in use to reduce evaporative losses unless exemption is granted by the director of public works. (Ord. No. 1202, § 4: Ord. No. 1186, § 1 (part).)

Sec. 23C-11-7. Fire and other emergencies.

Nothing in this article shall be construed to apply to use of water for purposes of extinguishing fires or addressing any other identified emergency. (Ord. No. 1186, § 1 (part).)

Sec. 23C-11-8. Unlawful to violate sections.

Upon adoption of a resolution by the city council declaring that a drought exists and that certain regulations set forth in this article shall be operative, it shall be unlawful for any person to fail to comply or otherwise violate any section or provision of said operative section or sections. (Ord. No. 1186, § 1 (part).)

Sec. 23C-11-9. Enforcement measures.

For each violation of any of the mandatory water restrictions as set forth in this chapter, there shall be assessed against the party responsible for the property on which the violation occurs, i.e.,

the owner, lessee, person in possession of said property, or the person reflected in the Woodland utility records as the party to whom the water bill is sent, the penalties contained in Chapter 23C, Article VII of this code, by the procedures set forth therein. (Ord. No. 1186, § 1 (part).)

Sec. 23C-11-10. Other penalties.

(a) In addition to other penalties and remedies set forth in this chapter, the director of public works may, and is authorized to:

- (1) Give written notice to water consumer of the city's intent to prevent further violations;
- (2) Impose a fine of one hundred dollars upon conviction of the fourth violation of this article and each subsequent violation;
- (3) Impose other measures designed to prevent the waste of water and to promote compliance with this article.

(b) Nothing in this article shall limit or be construed to limit the right of a consumer to seek reimbursement of charges imposed pursuant to this section from a tenant or other consumer. (Ord. No. 1186, § 1 (part).)

Sec. 23C-11-11. Remedies cumulative.

The remedies provided in this article are cumulative and are in addition to all other remedies provided by law. The enumeration of remedies stated in this article shall not preclude the application of any other remedies not specifically enumerated. (Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-1. Purpose.

This article is enacted to establish the city response to drought conditions. This article establishes a four-stage plan to accomplish water conservation. Stage one, water awareness, is an ongoing program. Stage two, water alert, is intended to achieve a fifteen percent reduction in normal water consumption. Stage three, water emergency, and Stage four, water crisis, are intended to achieve subsequent reductions in normal water consumption by twenty-five percent and fifty percent, respectively. (Ord. No. 1202, § 1: Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-2. Declaration of drought condition and establishment of water conservation requirements.

- (a) The city council may, by resolution and after a noticed public hearing, determine that drought conditions exist within the city. Based on this determination, the city council may determine that stages two, three, or four regulations included in this article shall become operative and shall remain in full force and effect until the council, by resolution, determines that a different stage is appropriate.
- (b) Notice of the public hearing shall be given by publication at least seven days prior to the date of the public hearing. (Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-3. Stage one, water awareness.

All water consumers are encouraged to be aware of water consumption and use water wisely. Water consumption should be limited to a reasonable level necessary to maintain the public health, business operations, and landscaping. All water consumers shall not waste water. Wasting water includes the following:

- (a) The watering of landscapes in a manner or to an extent which allows substantial amounts of water to run off the area being watered.
- (b) The escape of water through breaks or leaks within the users system for any substantial period of time (eighteen hours after detection). (Ord. No. 1202, § 2: Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-4. Stage two, water alert.

All water consumers are encouraged to voluntarily comply with the following conservation measures to achieve a fifteen percent reduction in normal water use:

- (a) Limit landscape irrigation to a maximum of three days per week. The director of public works shall establish a landscape irrigation schedule to be set forth in the resolution adopted by the city council to assist water consumers in their voluntary compliance.
- (b) Equip all hoses or filling apparatus for nonirrigation purposes with an automatic shut-off nozzle.
- (c) Limit hosing of hardscape surfaces except for health and safety purposes.
- (d) Serve water only upon request to restaurant customers. (Ord. No. 1186, § 1 (part); Ord. No. 1192, §1.)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-5. Stage three, water emergency.

Water consumers shall comply with the following conservation measures to achieve a twenty-five percent reduction in normal water use. Each of the stage two water use regulations shall remain in full force and effect and be mandatory except as modified by this section:

- (a) Landscape watering shall be allowed on two days per week. The director of public works shall implement this provision through the establishment of an equitable landscape watering schedule to be set forth in the resolution adopted by the city council.
- (b) The use of running water from a hose, pipe, or faucet for the purpose of cleaning buildings and paved, tile, wood, plastic or other surfaces is prohibited, except in the event the director of public works, or his designee, determines that such use is the only feasible means of correcting a potential threat to health and safety.
- (c) All restaurants that provide table service shall post, in a conspicuous place, a notice of drought conditions, approved by the director of public works, and shall not serve water except upon specific request by the customer.
- (d) Boats and vehicles shall be washed only at commercial washing facilities equipped with water recycling equipment or by use of a bucket and hose equipped with a self-closing valve that requires operating positive pressure to activate the flow of water.
- (e) Operators of hotels, motels and other commercial establishments offering lodging shall post in each room and site a notice of drought condition, approved by the director of public works.
- (f) The operation of and introduction of water into ornamental fountains is prohibited.
- (g) Such other and further regulations as the city council may determine, after a public hearing. (Ord. No. 1202, § 3; Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-6. Stage four, water crisis.

Water consumers shall comply with the following conservation measures to achieve a fifty percent reduction in normal water use. Each of the stage one, two and three water use regulations shall remain in full force and effect and be mandatory except as modified by this section:

- (a) Irrigation of any yard, or other landscaped area containing lawn or turfgrass areas is prohibited, except by handheld bucket.
- (b) The introduction of water into swimming pools and spas is prohibited except to maintain the structural integrity of such facilities.
- (c) Such other and further regulations as the city council may determine after public hearing.
- (d) All pools and spas shall be covered when not in use to reduce evaporative losses unless exemption is granted by the director of public works. (Ord. No. 1202, § 4: Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-7. Fire and other emergencies.

Nothing in this article shall be construed to apply to use of water for purposes of extinguishing fires or addressing any other identified emergency. (Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-8. Unlawful to violate sections.

Upon adoption of a resolution by the city council declaring that a drought exists and that certain regulations set forth in this article shall be operative, it shall be unlawful for any person to fail to comply or otherwise violate any section or provision of said operative section or sections. (Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-9. Enforcement measures.

For each violation of any of the mandatory water restrictions as set forth in this chapter, there shall be assessed against the party responsible for the property on which the violation occurs, i.e., the owner, lessee, person in possession of said property, or the person reflected in the Woodland utility records as the party to whom the water bill is sent, the penalties contained in Chapter 23C, Article VII of this code, by the procedures set forth therein. (Ord. No. 1186, § 1 (part).)

CHAPTER 23C. UTILITY SERVICES.

Article XI. Water Conservation Regulations.

Sec. 23C-11-10. Other penalties.

(a) In addition to other penalties and remedies set forth in this chapter, the director of public works may, and is authorized to:

- (1) Give written notice to water consumer of the city's intent to prevent further violations;
- (2) Impose a fine of one hundred dollars upon conviction of the fourth violation of this article and each subsequent violation;
- (3) Impose other measures designed to prevent the waste of water and to promote compliance with this article.

(b) Nothing in this article shall limit or be construed to limit the right of a consumer to seek reimbursement of charges imposed pursuant to this section from a tenant or other consumer. (Ord. No. 1186, § 1 (part).)