

# **WATER CONSERVATION AND DROUGHT MANAGEMENT PLAN**

**DATED 4/13/04**

**PAGOSA AREA WATER AND SANITATION DISTRICT  
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## **Section 1. Background**

The Pagosa Area Water and Sanitation District (PAWSD), successor to the Pagosa Water and Sanitation District formed in 1971, was reorganized in 1977 to provide water and wastewater service to the Pagosa Springs, Colorado area, located in Archuleta County in the southwestern portion of the state. Through an inclusion election held in 1992, the Town of Pagosa Springs and areas served by the former Archuleta Water Company were successfully included into the District's boundaries for water service only, which nearly doubled the District's boundaries at that time. For reference purposes, the PAWSD service area is characterized as District One, which generally is the area west of Pagosa Springs, and District Two, generally the areas north, south, and east and including the Town of Pagosa Springs. Twenty-one, full-time PAWSD personnel manage and operate approximately 290 miles of water line and 80 miles of sewer line. The PAWSD service area encompasses approximately 70 square miles. PAWSD currently has 2,630 acre-feet of existing usable raw water storage, with an additional 1200 acre-feet upon the completion of the enlargement of Stevens Reservoir. Currently, PAWSD serves nearly 6,000 single-family equivalent (SFE) units. It is estimated that Archuleta County has 11,000 full-time residents, while the District serves around 75% of the County. It should be noted, however, that this population number does not include a very significant transient population from tourism and property owners who reside in the community only on a part-time basis.

The predominate types of development served are residential and resort related commercial properties. District water service includes all potable treated water delivered through the central treatment and distribution system for domestic and commercial uses including residences, hotels and restaurants, shops, and other commercial enterprises. These categories also include lawns and other outdoor water uses associated with residential properties. Properties adjacent to some raw water reservoirs can be permitted, for a fee, to utilize the raw water for irrigation purposes.

For many utilities, including the District, water conservation is an important component of overall water supply planning. Actions to reduce water requirements, reduce system losses, and increased operating efficiencies are expected to result in many benefits to the District and its customers.

The effectiveness of this Water Conservation and Drought Management Plan will be closely monitored. As the results become available over time, demand projections to be used in planning studies will be updated to reflect the savings being achieved and expected to be achieved from conservation measures. Thus, it is expected that this water conservation program will play an important role in future water supply planning and may be modified as needed.

## **Section 2. Inventory**

### **2.1 Water Supply Sources/Storage**

#### Water Supplies:

The San Juan River Pipeline and Four Mile Creek, through the Dutton Ditch, are the primary raw water sources for District One. The District is in the process of securing a Special Use Permit from the U.S. Forest Service to construct a pipeline and eliminate the open ditch. District Two derives its water from the West Fork of the San Juan River. When necessary, water can be transferred from one service area to the other.

## Reservoirs:

To assure reliable water supplies, water is stored in reservoirs. PAWSD is comprised of five reservoirs or lakes: Hatcher (880 acre feet usable capacity), Stevens (530 acre feet usable capacity), Pagosa (920 acre feet usable capacity), and Forest (300 acre feet usable capacity). Usable capacity for the fifth reservoir, Village, is not reflected primarily due to water quality issues, although in extreme conditions, this source could be utilized. In addition the surrounding golf courses, condominiums, time shares, and a hotel utilize Village Lake for raw water irrigation. Hatcher Reservoir receives its primary source of water from Four Mile Creek through the Dutton Ditch Extension and through the Perkins Ditch. The Dutton Ditch diversion is capable of diverting water to Hatcher Reservoir, Stevens Reservoir, or both. When Hatcher Reservoir is full, water is diverted to Stevens Reservoir from the Dutton Ditch. When Stevens Reservoir is full it spills to Pagosa Lake through the Linn and Clark Ditch. When Pagosa Lake is full it spills into Village Lake. From there it spills into Forest Lake. Depending on various factors, including time of year and lake levels, PAWSD can and does pump raw water from the San Juan River through the San Juan Pipeline to Village Lake, Forest Lake, or both. For water received from the West Fork of the San Juan River, a smaller reservoir (approximately 14 acre feet usable capacity) is located adjacent to the Snowball Water Treatment Plant.

## **2.2 Water/Wastewater Treatment Capacity**

### Water Treatment:

After water is collected, but before it can be used, it must first be treated at water treatment plants (WTP) to make it safe to drink and to remove unpleasant odors or tastes. PAWSD has four WTP's that are operated as needed. District One has three WTP's: Hatcher, Stevens, and the San Juan. As their names imply, the Hatcher WTP (rated at 2 million gallons per day) treats water from Hatcher Reservoir, the Stevens WTP (rated at 500,000 gallons per day) treats water from Stevens Reservoir, and the San Juan WTP (rated at 3 million gallons per day) treats water from the San Juan River. District Two gravity feeds from the West Fork of the San Juan River to a reservoir adjacent to the Snowball WTP (rated at 2 million gallons per day). During 2003, the District produced and treated approximately 1,653 acre-feet of water. It should be noted that this is a substantial reduction compared to previous years, excluding the record drought year of 2002. This can largely be attributed to a stronger awareness of water conservation methods and practices and repair of leaks by District customers.

### Treated Water Storage:

In District One, the Hatcher WTP pumps water to the Hatcher Storage Tank (rated at 500,000 gallon capacity). The Stevens WTP supplies water to the Stevens Storage Tank (rated at 500,000 gallon capacity). Meadows Storage Tank (rated at 1 millions gallon capacity) also provides treated storage. When the San Juan WTP is in operation, it pumps water to the Stevens Storage Tank and Meadows Storage Tank. Two additional storage tanks (rated with a total 182,000 gallon capacity) are also in place. In District Two, the Snowball WTP supplies water to the Snowball Storage Tank (rated at 250,000 gallon capacity), the Cemetery Storage Tank (rated at 1 million gallon capacity), the Reservoir Hill Storage Tank (rated at 500,000 gallon capacity), the Putt Hill Storage Tank (rated at 150,000 gallon capacity), and two additional tanks (rated at a total 90,000 gallon capacity). When conditions warrant, District One facilities are capable of supplying water to District Two and vice-versa.

### Wastewater Treatment Capacity:

After distribution system water (primarily from areas within District One) has been used, it is collected and treated, and is then currently discharged to Martinez Creek. The PAWSD wastewater collection system is comprised of 21 sewer lift stations that pump to the main Vista Wastewater Treatment Plant. This treatment

facility is able to treat 4 million gallons of wastewater per day. The Highlands Lagoon System treats wastewater from the Hatcher and Highlands Subdivisions and certain surrounding areas.

## **2.3 Existing Water Conservation Measures**

### 1. Water-Efficient Fixtures

PAWSD first adopted a Water Conservation Master Plan in January 2000. The Plan contained directives pertaining to water saving fixtures. During 2003 various methods were employed to determine how effectively the U.S. Energy Policy Act (EPAAct) was being followed in our community. Due to allowing currently manufactured high use fixtures to be sold after the date of the Act, it was discovered that many relatively newly constructed commercial buildings had high use water fixtures installed. An active campaign was initiated and over 1500 toilet retro-fit kits were distributed during residential and commercial water audits and public events.

### 2. Low Water-Use Landscapes and Efficient Irrigation

The District installed a xeriscape demonstration garden, located at the 100 Lyn Ave offices, to provide customers with alternative low water use plant choices and the application of hard-scape in landscape planning.

A “Responsible Landscaping” seminar was presented by the District early in 2003. Due to the amount of public interest and enthusiasm follow up seminars are being planned for 2004 to address efficient irrigation and soil amendment.

During the 2003 planting and irrigation season, all of the area nurseries and landscaping firms were contacted to solicit their participation and support of wise water use landscaping. This was a very successful approach and increased the community’s awareness of water wise alternatives.

In addition, the District is encouraging managers of other public open space areas to evaluate the efficiency of current irrigation practices and to consider alternative landscaping. The District is also participating in establishing new raw water irrigation systems to Town and school activity areas, thus eliminating the use of potable water.

### 3. Water Efficient Industrial and Commercial Processes

The PAWSD service area is comprised mostly of residential and resort types of commercial businesses. Special recognition has been given through the semi-annual newsletter whenever a commercial business takes steps to reduce water use by means of more efficient equipment or reuse.

The motel/hotel industry was introduced to the “Project Planet” program materials. Approximately 500 Project Planet laminated, multiple use door hangers were distributed to the local motel/hotels. These information cards encourage guests to conserve water by reducing laundry as well as other water conservation tips.

Commercial customer water usage was analyzed, by type of business, and a personal visit was scheduled to meet with owners to deliver information regarding water use and related industry methods for water reduction.

### 4. Water Re-Use Systems

The Board of Directors approved a preliminary design study for the possible inclusion of a reuse facility in the recent upgrade of the Vista Wastewater Treatment Plant. After consideration it was determined that the facility was cost prohibitive at that time; however, the Board remains committed to considering re-use systems for the future.

## 5. Distribution Leak Repair

PAWSD actively pursues distribution losses and promptly repairs leaks. District customers are encouraged to repair service lines as well as any internal leaks promptly, and a reduced rate may be allowed when unintentional water loss is discovered and repaired.

The District also compares water production to water sales to monitor system loss.

## 6. Dissemination of Information

For several years the District has, in cooperation with the San Juan Water Conservancy District, prepared a static display at the local library during Water Week showing various water conservation methods and other water related materials. Brochures are also placed at a number of public establishments as well as the District office, and various age-appropriate materials are provided to the elementary and pre-schools. This program will continue on an annual basis.

During 2003 several new methods were employed to get information and useful materials out to the public; they included participation in various community events such as the Home Show, County Fair and 4<sup>th</sup> of July Parade.

An extensive newspaper and radio add campaign was developed relating primarily to outdoor water usage and water wise irrigation, soil amendment, and proper landscape planning.

The District participated in a water conservation educational program for local grade school students.

## 7. Water Rate Structures

PAWSD had an increasing water rate structure designed to encourage water conservation in existence but early in 2003 underwent a complete rate analysis with Integrated Utilities Group Inc. to design a structure that further encouraged water conservation by rewarding reduced usage. The new rate structure was adopted effective in July, 2003 and the customer currently pays for each 1,000 gallons of water used plus a minimal monthly service fee. Previously the service charge was a flat amount for up to 8,000 gallons per equivalent unit with an additional charge for each 1,000 gallons over the minimum. The new rate structure also allows for two additional rate tiers with increasing costs for each tier.

## 8. Regulatory Measures

The District has the authority to assess penalties for noncompliance with watering restrictions during mandatory water conservation levels.

Meetings with representatives of the Town of Pagosa Springs, Archuleta County and other regulatory agents are underway to establish policies related to water efficient landscaping, plumbing fixtures and prohibiting water waste. These meetings began in November, 2003; it is the commitment of the District to encourage policy development to reduce water usage overall, not just during times of short supply.

## 9. Incentives to Implement Water Use Efficiency Techniques

The first, of three, year full-scale residential toilet rebate programs targeting pre-1994 toilets is planned for 2004. This program will include a credit to be given against the customer's water account with verification that an approved toilet has been installed.

Continued dissemination of information regarding hot water recirculation pumps, magnetic water softening devices, drip and soaker landscape watering devices as well as other water efficient products is in place.

## **2.4 Customer Classes**

PAWSD currently serves approximately 4373 taps representing 5992 single family equivalent units. The majority (64%) of customers are single family residences. Commercial businesses, schools, churches and government offices represent approximately 17% of the customer base and multifamily and time shares represent approximately 19%. Growth during the past decade has been tremendous.

## **Section 3. Future Conservation Measures**

### **3.1 Role of Water Use Efficiency**

The District is actively supporting a water conservation educational program. Water conservation and wise use of our water resources will be a top priority. The ultimate success of water conservation programs depends upon the actions of the people who use the water. Development of a conservation ethic through public awareness and education is, therefore, necessary to the overall success of this, or any other conservation program. Water conservation is an important component of overall water supply planning. Actions to reduce water requirements reduce system losses, and increase operating efficiencies are expected to result in many benefits to the District and its customers, such as:

- Operation and maintenance costs that depend on water demand, such as pumping and chemical costs, can be reduced.
- Conservation measures can help reduce long-term water needs and thus reduce or delay the need for new water supply, transmission, storage and treatment facilities.
- Reduction of water demands means that more water remains in our streams and reservoirs providing in stream flows, water quality, aquatic life, recreation and aesthetic benefits to our customers and our community.
- Reductions in residential, industrial, and commercial water consumption will reduce wastewater flows and costs associated with the operation and maintenance of the wastewater treatment plants.
- Individual customers can benefit directly from lower water and sewer bills and lower energy costs due to decreased hot water usage.
- Conservation and efficiency in the use of a limited natural resource demonstrates the commitment of our community to environmental awareness and responsibility.

### **3.2 2004 Conservation Measures Planned**

With the Water Conservation Program activities accomplished in 2003 as the foundation, the following provides an overview of planned activities for 2004. Section 3.2.1 provides an outline of planned activities for the residential sector. Section 3.2.2 corresponds with commercial sector programs, while Section 3.3.3 outlines “other” programs.

#### 3.2.1 Residential Sector Programs

As with 2003, the priority for the 2004 Water Conservation Program will be public relations (PR) as it relates to water use, conservation, and efficiency in the residential sector. It is envisioned that the residential PR campaign may include, but not limited to, such activities as:

- Identification of water conservation literature and promotional materials for local distribution (i.e., Pagosa Springs Town Hall, Archuleta County Planning Department, Pagosa Lakes Property Owners Association, Archuleta County Extension Office, Chamber of Commerce).
- Extensive four-month (May to August) “Professor Drip” newspaper and radio advertising campaign related to water conservation, upcoming events, etc.
- Participate in local and appropriate events (i.e., 2004 Home Show, Water Week, Archuleta County Fair, Fourth of July parade).
- Water conservation presentations at local and appropriate group meetings (i.e., Home Builders Association, Archuleta County Board of Realtors).
- Water Wise training at the local school(s);
- Conduct first, of three, year, full-scale residential toilet rebate program targeting pre-1994 toilets—program to include: planning, advertising (i.e., radio, newspaper, bill inserts), implementation, and follow-up.
- Conduct first, of three, year, full-scale residential water audit program targeting pre-1994 homes—program to include: planning, advertising (i.e., radio, newspaper, bill inserts); implementation, and follow-up.
- Coordinate with the Southwest Colorado Work Force to employ local youth over the summer with residential water audits.
- In response to the first and very successful and well-received “Responsible Landscaping Workshop,” conduct another one in early 2004 with keynote speaker, Ken Ball.
- Coordinate with the Southwest Colorado Work Force to employ local youth over the summer with Xeriscape projects.
- Conduct an outside water reduction workshop (i.e., gardening, efficient irrigation) for the residential sector.

### 3.2.2 Commercial Sector Programs

Having analyzed the top PAWSD commercial accounts’ water usage and visited the majority of them in 2003, including dissemination of industry specific information packets, it is envisioned that the primary commercial sector program areas for 2004 would include, but not limited to:

- On an annual basis, re-visit the top PAWSD commercial accounts, including all of the hotels/motels and restaurants.
- Conduct commercial facility water audits, including on-site inventory of water use; calculation of all water-related costs; identify and evaluate water-efficiency measures; evaluate payback periods; prepare and implement an action plan; track and report progress.
- Coordinate workshops or training sessions related to commercial sector water efficiency improvements and best management practices.
- Identify and coordinate potential ‘performance contracting’ options for the commercial sector.
- In an effort to reduce pollution runoff into the stormwater system, work with local carwashes to implement successful ‘charity carwash events’ at their facilities, including an extensive education and advertising campaign.

### 3.2.3 “Other” Water-Related Programs

The scope of “other” water-related programs to support PAWSD is boundless. Possible areas, topics, or issues could include, but again are not limited to:

- Contact other organizations (i.e., Southwestern Water Conservation District, Division of Water Resources, etc.) involved with water conservation programs for possible joint project coordination.
- Contact various trade organizations (i.e., American Water Works Association, Western Area Power Association, etc.) involved with water conservation projects to determine what programs or services may be available to assist PAWSD.
- Continue biosolids 'beneficial use' research.
- Research water efficient washing machine rebate program.
- Research the water efficient dishwasher rebate program.

#### **Section 4. Public Process**

The Board of Directors of the Pagosa Area Water and Sanitation District adopted a Water Conservation Master Plan in January of 2000. Through a number of events, including the completion of the San Juan River Diversion Pipeline and Water Treatment Plant Project and the record drought of 2002, modifications to the Plan were appropriate. Early in 2003 the Board directed that a volunteer committee be organized to consider the most effective methods of education and information dissemination to effect changes in the way the community views water conservation and water use efficiency. In an unprecedented move and in response to severe drought conditions, the Pagosa Area Water and Sanitation District Board of Directors hired a Water Conservation Program Director in the spring of 2003. The motivating force behind this hire was to provide a proactive approach to water conservation projects on behalf of PAWSD and implement certain measures noted in the 2000 Water Conservation Master Plan. It should be noted that this hire was a first in the history of the PAWSD and represents an unmatched position in the four-corners area. The result of this approach has been to further enhance public awareness and involvement in water conservation efforts in the area.

The Board of Directors considered various changes to the 2000 Water Conservation Master Plan and determined that more specific direction was required during times of drought and revised the Water Conservation Levels from the previous Plan to include District Wide Water Restriction Triggers and related Water Conservation Level actions list. This process has been discussed at District Board Meetings and has been available to the public, in draft form, for comment since May of 2003. The Board now wishes to incorporate that draft document as the Drought Management element of the Water Conservation and Drought Management Plan and seek further public comment for a period of not less than 60 days prior to its adoption by the Board.

## Section 5. Program Implementation

<b>MEASURE</b>	<b>START DATE</b>	<b>END DATE</b>	<b>PAWSD COSTS</b>
<b>WATER EFFICIENT FIXTURES</b> Retro-fit program for pre 1994 toilets Conduct full-scale residential toilet rebate program	2003 2004	On-going 2004	\$ 800 7,665
<b>LOW WATER USE LANDSCAPES / IRRIGATION</b> Xeriscape demonstration gardens Responsible landscaping seminars Demonstrations at community events “Professor Drip” newspaper and radio campaign Work with SW Colorado Work Force to employ local Youth with Xeriscape projects	1996 2003 2003 2003 2004	On-going On-going On-going On-going 2004	10,000 3,000 Minimal costs 1,800/yr Self supporting
<b>WATER RATE STRUCTURES</b> Rate Study Analysis and resulting rate adjustments	2003	As Needed	20,000
<b>DESSEMINATION OF INFORMATION</b> Publications for brochure displays – public areas and events “Water Wise School Educational Kits Commercial and Residential Water Audits	1992 1998 2003	On-going On-going On-going	2,500/yr 2,500/yr 2,500/yr
<b>REGULATORY MEASURES</b> Discussions with Town and County Officials, and State Plumbing Inspector regarding Plumbing Codes and other ordinances	2003	On-going	Minimal Costs
<b>OTHER MEASURES</b> Water Conservation Program Director	2003	On-going	17,500/yr

## **PAGOSA AREA WATER AND SANITATION DISTRICT DROUGHT MANAGEMENT PLAN**

4/13/04

The entire southwestern area of the United States has experienced an extended drought period, water reservoirs have been depleted and annual snow pack has been at less than normal. In addition to these natural phenomena, distribution issues can also adversely affect the delivery of potable water such as a major or series of minor leaks in the distribution system. Another area of concern is the contamination of raw water supply through manmade pollutants or natural biological agents. As you can see, wise management of our water resources is a many sided issue and prudent planning is our best tool to assuring our community of a safe and reliable source of domestic water.

The Board of Directors of the Pagosa Area Water and Sanitation District adopted a Water Conservation Master Plan in January of 2000. Through a number of events, including the completion of the San Juan River Diversion Pipeline and Water Treatment Plant Project and the record drought of 2002, modifications to the Plan are appropriate. The revised Plan essentially has three components. The first of these components involved the establishment of specific “trigger points” to guide the Board and staff in determining the level of water conservation and drought management. The second component of the Plan details the recommended guidelines for action during each level of water conservation and drought management and the third component includes the financial incentive structure to be imposed during each level. This Plan is a guideline for operations and management of water resources and actions during periods of low water supply. It is not intended to address the most severe drought and should such conditions exist, or others as conditions may warrant, this Plan may be altered or amended by the Board of Directors. In addition, certain commercial and irrigation uses of the District’s raw water resources are the subject of a separate contractual agreement, and the guidelines contained in this Drought Management Plan may only apply to such uses within the context of that agreement.

The District is actively supporting a water conservation educational program. Water conservation and wise use of our water resources should be a top priority for all. The ultimate success of water conservation programs depends upon the actions of the people who use the water. Development of a conservation ethic through public awareness and education is, therefore, necessary to the overall success of this, or any other conservation program. Water conservation is an important component of overall water supply planning. Actions to reduce water requirements reduce system losses, and increased operating efficiencies are expected to result in many benefits to the District and its customers, such as:

- Operation and maintenance costs that depend on water demand, such as pumping and chemical costs, can be reduced.
- Conservation measures can help reduce long-term water needs and thus reduce or delay the need for new water supply, transmission, storage and treatment facilities.
- Reduction of water demands means that more water remains in our streams and reservoirs providing in stream flows, water quality, aquatic life, recreation and aesthetic benefits to our customers and our community.
- Reductions in residential, industrial, and commercial water consumption will reduce wastewater flows and costs associated with the operation and maintenance of our wastewater treatment plants.
- Individual customers can benefit directly from lower water and sewer bills and lower energy costs due to decreased hot water usage.

- Conservation and efficiency in the use of a limited natural resource demonstrates the commitment of our community to environmental awareness and responsibility.

The Board of Directors continues the commitment regarding reduction of system losses, to reduce un-metered use within the District, and encourage irrigation with raw water. Other recommendations by the Board will be addressed through various regulatory and community planning entities. A strengthened commitment toward an active and vital water conservation educational program remains with future plans for a toilet retro-fit incentive program.

In direct response to drought conditions experienced recently, the Pagosa Area Water and Sanitation District has re-evaluated historical water usage and incorporated the lessons learned in the 2002 drought to develop an operational plan for District facilities and present a guideline for water conservation level indicators and drought management.

### **District Wide Water Restriction Triggers**

A firm water supply for this plan is defined as “adequate raw water facilities incorporated with conservation measures to provide the normal water demand without mandatory restrictions, plus a one year supply safety margin”. This plan describes how to maximize the existing facilities to meet the firm water supply and potential measures to be implemented if a one year safety supply margin cannot be provided.

Between March 1st and October 1st if: (1) the percentage (ratio) derived by dividing the “combined useable capacity of Hatcher, Stevens, Pagosa, and Forest Lakes” by the “estimated annual demand for the current year” is less than the percentages below and (2) the water supply into the reservoirs from Dutton Ditch and direct runoff does not appear to be adequate to fill the reservoirs, then the following restrictions associated with percentages should be implemented.

Restrictions would typically be triggered from March through October as conditions warrant. The application of the above mentioned period of time restriction is at District discretion based on anticipation of runoff or any other unforeseen event causing loss or reduction to the District’s water supplies.

- Ratio of 90% or less triggers Voluntary Status
- Ratio of 70% or less triggers Level One restrictions
- Ratio of 50% or less triggers Level Two restrictions
- Ratio of 40% or less triggers Level Three restrictions
- Ratio of 30% or less triggers Level Four restrictions

## **Voluntary Water Conservation Level**

The District will begin frequent observations of water levels in the reservoirs and direct flow rates in the river. Preliminary notification will begin to keep customers informed of current conditions and that if conditions responsible for the water depletions continue, mandatory water restrictions may be forthcoming. The District shall request that voluntary water conservation methods be employed.

### **All Customers**

Voluntary compliance with responsible outside water use is encouraged. Watering in the early morning hours or later in the evening is the most effective method of watering with the least amount of evaporative losses. Water slowly and thoroughly to encourage deep root growth. A lawn that is 'spoiled' by frequent shallow watering will require more water and be less resilient to drought conditions.

Let lawns and sod grow taller. Consider alternatives to big thirsty lawns.

All turf including new seed, sod or lawn watering with oscillating sprinkler systems should never be done during the warmest part of the day or during periods of high wind.

It's a good idea to plant native varieties of plants and other shrubs that don't need a lot of water. Use mulch in the garden and around shrubs to save moisture.

Consider drip irrigation systems or soaker hoses and keep these systems running efficiently. Repair or replace any leaky parts.

Manual application of gray water, water from bathing or washing, for watering plants, trees and shrubs is encouraged. (Be sure to comply with all local laws and regulations regarding water reuse.)

Use a broom or rake instead of water to remove leaves, clippings and debris.

When washing clothes, use the load selector to match water level to size of the load. Full loads are the most efficient use of water and energy. Presoak heavily soiled items and use detergent sparingly.

Do only full loads in the dishwasher and check all connections to make sure they are tight. Repair any leaks.

Washing vehicles should be done with a bucket of water, and use of water from an outside hose should always be controlled with a positive shut-off nozzle.

All businesses are encouraged to conserve water. Restaurants are encouraged to not serve water except at the request of the customer. Hotels could seek customer cooperation in reducing towel and sheet laundering.

Water waste is defined as; water pooling or flowing into barrow ditches, applying water to paved surfaces, failing to repair broken sprinkler heads, other irrigation equipment or potable water leaks, using water instead of a broom to clean paved surfaces, watering during rain or high wind and using excessive amounts of water. Water waste is always discouraged.

Other water conservation and responsible landscaping tips and information are available at the District office.

## **Water Conservation Level 1**

Watering Days: Irrigation (both with treated water or raw water) of lawns, trees, shrubs, vegetables and flowers will be restricted to between the hours of 6:00 pm and 9:00 am of the following day. Watering days are determined by property address. Addresses ending in even numbers are allowed to water on even number calendar dates. Addresses ending in odd numbers are allowed to water on odd number calendar dates. For example; a property owner with an address of number 242 Water Ave. would be assigned watering days such as May 2, 4, 6, and could water in the early morning hours until 9:00 am and/or after 6:00 pm that evening. The intent of these watering hours is to allow flexibility for customers who work either late or early in the day. Likewise an odd numbered address could water either in the morning or evening hours on the odd days.

### **All Customers**

Continue all measures initiated in the Voluntary Water Conservation Level.

No watering between the hours of 9:00 am and 6:00 pm on any day including watering days.

Manual application of gray water, water from bathing or washing, for watering plants, trees and shrubs is encouraged. (Be sure to comply with all local laws and regulations regarding water reuse.)

Flowers and vegetables may be watered with a hand-held hose or low-volume non-spray irrigation on any day.

Property owners with automatic sprinkler systems that require maintenance, timer setting, testing or any operation outside of watering hours, must notify the District office for permission. Testing during watering hours is highly encouraged.

Water waste is defined as; water pooling or flowing into barrow ditches, applying water to paved surfaces, failing to repair broken sprinkler heads, other irrigation equipment or potable water leaks, using water instead of a broom to clean paved surfaces, watering during rain or high wind and using excessive amounts of water. Water waste is always discouraged.

Vehicles may be washed at the owner's home on the designated watering day only with a bucket or a hose equipped with a positive shut-off nozzle between the hours of 6:00 pm and 9:00 am.

Power washing as an essential element of a business may be performed on any day or time of day but only so long as water waste does not occur.

Construction water may be used so long as there is no water waste.

Restaurants shall not serve water except at the request of the customer.

## **Water Conservation Level 2**

**Watering Days:** Irrigation (both with treated water or raw water) of lawns, trees, shrubs, vegetables and flowers will be restricted to between the hours of 6:00 pm and 10:00 pm of the same day. Property addresses 1 – 399 may water on Monday and Thursday between the hours of 6:00 pm and 10:00 pm. Property addresses 400 – and up may water on Tuesday and Friday between the hours of 6:00 pm and 10:00 pm.

### **All Customers**

Continue all measures initiated in the Voluntary Water Conservation Level.

Trees, shrubs, and flowers and vegetables may be watered by a hand-held hose or low-volume non-spray irrigation on assigned watering days between the hours of 6:00 pm and 10:00 pm.

All turf including new seed and sod may be watered only on watering days for 15 minutes per zone (or sprinkler head placement) between the hours of 6:00 pm and 10:00 pm.

Planting of new lawns from seed or sod is strongly discouraged.

Manual application of gray water, water from bathing or washing, for watering plants, trees and shrubs is encouraged. (Be sure to comply with all local laws and regulations regarding water reuse.)

Washing driveways and sidewalks is prohibited except for health or safety reasons.

Property owners with automatic sprinkler systems that require maintenance, timer setting, testing or any operation must comply with watering days and between the hours of 6:00 pm and 10:00 pm.

Water waste is defined as; water pooling or flowing into barrow ditches, applying water to paved surfaces, failing to repair broken sprinkler heads, other irrigation equipment or potable water pipes, using water instead of a broom to clean paved surfaces, watering during rain or high wind and using excessive amounts of water. Water waste is prohibited.

Vehicles may be washed at the owner's home on the designated watering day only with a bucket or a hose equipped with a positive shut-off nozzle between the hours of 6:00 pm and 10:00 pm.

Power washing as an essential element of a business may be performed on any day or time of day but only so long as water waste does not occur.

Construction water may be used so long as there is no water waste.

Restaurants shall not serve water except at the request of the customer.

Hotels shall not change sheets more often than every four days for guests staying more than one night.

### **Water Conservation Level 3**

Watering Day: (both with treated or raw water) of trees, shrubs, vegetables and flowers will be restricted to between the hours of 6:00 pm and 10:00 pm one day per week according to the following schedule. Property addresses 1 – 399 may water on Monday between the hours of 6:00 pm and 10:00 pm. Property addresses 400 and up may water on Friday between the hours of 6:00 pm and 10:00 pm.

#### **All Customers**

Continue all measures initiated in the Voluntary Water Conservation Level.

No outside water usage whether from treated or raw water sources will be allowed to water turf, lawns or sod.

Trees and shrubs may be watered by a hand-held hose or low-volume non-spray irrigation on watering day assigned according to property address between the hours of 6:00 pm and 10:00 pm.

Manual application of gray water, water from bathing or washing, for watering plants, trees and shrubs is encouraged. (Be sure to comply with all local laws and regulations regarding water reuse.)

Washing driveways and sidewalks is prohibited except for health or safety reasons.

Water waste is defined as; water pooling or flowing into barrow ditches, applying water to paved surfaces, failing to repair broken sprinkler heads, using water instead of a broom to clean paved surfaces, watering during rain or high wind and using excessive amounts of water. Water waste is prohibited.

Vehicles may be washed at the owner's home on the designated watering day only with a bucket or a hose equipped with a positive shut-off nozzle between the hours of 6:00 pm and 10:00 pm.

Power washing as an essential element of a business may be performed on any day or time of day but only so long as water waste does not occur.

Construction water may be used so long as there is no water waste.

Restaurants shall not serve water except at the request of the customer.

Hotels shall not change sheets more often than every four days for guests staying more than one night.

## **Water Conservation Level 4**

This is the most critical stage of water conservation; therefore, the most stringent measures for conservation will be enforced as follows.

### **All Customers**

Continue all measures initiated in the Voluntary Water Conservation Level.

No outside water usage whether from treated or raw water sources will be allowed.

Manual application of gray water, water from bathing or washing, for watering plants, trees and shrubs is encouraged. (Be sure to comply with all local laws and regulations regarding water reuse.)

Washing driveways and sidewalks is prohibited except for health or safety.

Water waste is defined as; water pooling or flowing into barrow ditches, applying water to paved surfaces, failing to repair broken sprinkler heads, using water instead of a broom to clean paved surfaces, watering during rain or high wind and using excessive amounts of water. Water waste is prohibited.

Any non-essential use of water would be strongly discouraged except for instances of health and safety.

Restaurants shall not serve water except at the request of the customer.

Hotels shall not change sheets more often than every four days for guests staying more than one night.

Vehicle washing, at personal residences or commercial facilities, may be prohibited.

## **FINANCIAL INCENTIVE: RATE STRUCTURE FOR EACH LEVEL**

**Voluntary Water Conservation Level:** Standard rate structure applies

**Water Conservation Level 1:** Standard rate structure applies with the addition of a Drought Surcharge per 1,000 gallons of use over 8,000 and up to 20,000 gallons of water per equivalent unit. The Drought Surcharge is increased per 1,000 for use over 20,000 gallons of water per equivalent unit.

**Water Conservation Level 2:** Two times the standard rate structure will apply to gallons used. The Drought Surcharge remains in place but is unchanged from that of Level 1.

**Water Conservation Level 3:** Three times the standard rate structure will apply to the gallons used. The Drought Surcharge remains in place but is unchanged from that of Level 1.

**Water Conservation Level 4:** Four times the standard rate structure will apply to the gallons used. The Drought Surcharge remains in place but is unchanged from that of Level 1.

### **Penalties for non compliance with watering restrictions and/or watering days:**

Repeated failure to comply could result in the District imposing penalties as specified in Section 10.4.1 of the District's Rules and Regulations. These violation charges will be added to the property owner's monthly water bill and if not paid in a timely manner, could result in the disconnection of service.

First Violation: Written warning, Water Conservation Level notification sheet delivered and educational information offered.

Second Violation: \$100 fine, Water Conservation Level notification sheet delivered.

Third Violation: \$250 fine, Water Conservation Level notification sheet delivered.

Fourth Violation: \$500 fine, Water Conservation Level notification sheet delivered.

**\*\*PLEASE NOTE THE ABOVE FEES AND USAGE STRUCTURES ARE SUBJECT TO CHANGE.**