



Water Conservation and Drought Contingency Plan

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NOTE: UPDATE TO THE 2019 WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN



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I. Introduction and Background

A. PURPOSE AND POLICY

The Green Valley Water Supply Corporation and its conversion to Green Valley Special Utility District (GVSUD), started as a rural water supply corporation back in 1963. Originally meant to bring water to the Marion area from a well in Comal County, GVSUD now has four operational wells, multiple sources and entry points serving approximately 47,600 persons in Guadalupe, Comal, and Bexar counties. Currently, GVSUD has three (3) wells in the Edwards Aquifer and one (1) Trinity Aquifer well from which it receives water. It also has water purchase contracts in place with Canyon Regional Water Authority (CRWA) through the Wells Ranch Project for groundwater and the Lake Dunlap surface water source as well as the Alliance Regional Water Authority groundwater project. Over the past 59-years, the GVSUD service area has experienced a steady increase of residential growth across the District.

GVSUD is empowered, among other things, to purchase, construct, operate, and maintain all works, improvements, facilities, and plants necessary for the supply and distribution of water. As a water service public Utility with the rights, powers, privileges, and authority established by the general laws of the State of Texas, particularly Chapter 51 of the Texas Water Code; GVSUD is subject to continuing supervision by the Texas Commission on Environmental Quality (TCEQ) and the Texas Water Development Board (TWDB) as well as federal agencies.

The TCEQ adopted revisions to Title 30, Texas Administrative Code (TAC), Chapter 288 - Water Conservation Plans, Drought Contingency Plans, Guidelines and Requirements in 2007. The TCEQ regulations require retail public water suppliers with 3,300 or more connections to submit a Water Conservation Plan to include specific quantified targets for water use savings to be achieved during periods of water shortage and drought. A Water Conservation and Drought Contingency Plan was originally prepared to meet the requirements of the TCEQ and the goals of GVSUD. This revised plan supersedes any prior Water Conservation and Drought Contingency Plan.

In order to conserve and protect the integrity of the available water supply with particular regard for domestic water use, sanitation, and fire protection, and to protect public health, welfare, and safety and minimize the adverse impacts of water shortage or other water supply emergency conditions, GVSUD has formulated these policies, regulations, and restrictions on the delivery and consumption of water.

The policies presented in this plan are needed to efficiently manage the water available to GVSUD for the benefit of all customers. Water uses regulated or prohibited under this Water

Conservation and Drought Contingency Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in the Drought Contingency Plan.

B. DESCRIPTION OF THE PLANNING AREA AND UTILITY SYSTEM.

1. Existing Water Supply and Service Area

GVSUD holds a Certificate of Convenience and Necessity, No. 10646. Green Valley Special Utility District is located northeast of the San Antonio Metropolitan Area and services connections in Guadalupe, Comal, and Bexar counties. The CCN service area encompasses roughly 95,776 acres and is split into different pressure planes based on elevation, sources and connections. The service area is divided by IH 35, with a smaller north section of 7,020 acres served by a single pressure plane. The larger southern service area extends from the west bank of the Guadalupe River near Lake McQueeney westward to the City of Schertz and Cibolo. The area includes portions of the cities of Cibolo, New Braunfels, Seguin, New Berlin, St. Hedwig, San Antonio, Marion, Santa Clara and Schertz due to city limit and extraterritorial jurisdiction expansion in recent years. The City of Marion is not served by GVSUD, however emergency interconnects are available when needed. IH 10 nearly bisects the 88,756 acre southern service area (GVSUD Service Area Map, Appendix A).

In the last 59 years, GVSUD service area has experienced a steady increase of residential growth and now services approximately 46,420 people with 16,579 connections as of July 2022. There has been consistent growth in the portions of Guadalupe, Comal, and Bexar counties that are serviced by GVSUD. Historically, the area has not seen a great deal of commercial growth. The majority of service expansion has been due to residential growth, creating more densely populated permanent residence areas. The majority of homes being built are single-family style residences with individual service connections and meters. Some new development has included irrigation systems for lawns. Due to the steady growth of the area, water use patterns have remained relatively steady (Historical Water Use Data, Appendix B).

2. Water System

Green Valley Special Utility District has three (3) wells in the Edwards Aquifer and one (1) well in the Trinity Aquifer from which it receives water. The permitted amount is 2004.4 ac-ft per year from the Edwards wells and 656 ac-ft per year for the Trinity well. 1,400.8 acre-feet of Edwards Aquifer well water is owned, and the remainder is leased water. The Canyon Regional Water Authority Wells Ranch Phase 1 Project provides 700 acre-feet of firm water to GVSUD and the Phase II Wells Ranch Project provides an additional 4955 acre-feet of water to GVSUD. Currently,

GVSUD purchases a total of 7,455 acre-feet from CRWA including the 1800 acre-feet from Lake Dunlap. As of 2022, there is approximately 11,306 acre-feet of water available to GVSUD annually. The district currently has 16,579 connections, and growth is estimated at 6 percent per year for the next several years. GVSUD also has water rights contracted through the Alliance Regional Water Authority that will be delivered in 2023. The remaining capacity in the water supply facilities is available to all potential customers within the service area on a first come-first served basis. The water system is served by a system of distribution lines, the largest transmission main being 30-inch. There are several ground and elevated water storage sites serving the numerous pressure plane zones in the service area. Capacity for storage is roughly 9,281,000 million gallons, and pressure is provided by booster pumps with a total of 29,780 gallons per minute. (GVSUD Service Area Map, Appendix A). GVSUD's water pumping and distribution system have been designed and constructed in accordance with the criteria of various regulatory agencies, including TCEQ. Currently GVSUD has options to secure additional water from local groundwater sources and negotiations are in process.

C. Overall Plan Goals

The plan has two components; the long-term Water Conservation Plan and the Drought Contingency Plan. The Water Conservation Plan is to establish policy and define five-year and ten-year goals, which will:

1. Ensure that demand for water does not exceed the amount of treated water available.
2. Provide the public with information to encourage water conservation and decrease wasteful practices.
3. Limit peak water usage during the summer months.
4. Maintain the average water usage per connection.
5. Limit unaccounted for water use to less than 15% of the water pumped.

The overall goal of the Drought Contingency Plan is to establish a set of procedures initiated by certain conditions to prevent loss of water supply to any customer during periods of high demand and/or low supply. To accomplish these goals, this plan will:

1. Establish trigger conditions.
2. Outline a management plan.
3. Specify public information and education policies.
4. State initial update and termination notice procedures.
5. State implementation and enforcement procedures.

1. COORDINATION WITH REGIONAL WATER PLANNING GROUP

The service area of the Green Valley Special Utility District is located within Region L of the State Regional Water Planning Group. GVSUD has also provided a copy of the Water Conservation and Drought Contingency Plan to the Texas Water Development Board. Due to widespread coverage of the San Antonio Express-News newspaper throughout the service area of GVSUD, water conservation goals, directives and information are coordinated with the City of San Antonio and New Braunfels conservation goals and schedules whenever possible.

II. WATER CONSERVATION PLAN

A. PLAN ELEMENTS

The plan has seven elements, all of which are equal in importance and the implementation of which will be periodically reviewed to ensure progress is being made in each area:

1. Education and Information

The single most effective means of educating the water consumer on the consequences of wasting water is providing relevant, timely information on the benefits of conservation and the means by which it can be accomplished. The Green Valley Special Utility District obtains excellent educational literature from the TWDB, TCEQ, Texas Rural Water Association, and the American Water Works Association. Literature is provided to customers through notes on customer bills, provided in the lobby at the office and online. Information on conservation and drought contingency stages is available on the GVSUD website (www.gvsud.org).

2. Conservation Oriented Rate Structure

To further water conservation, GVSUD has always used an increasing block rate structure for all customers. The rate includes 2,000 gallons of water in a base rate of \$31.41. The rate structure has block pricing that has a specified rate for every thousand gallons used. The rate structure for residential users has more blocks with the price increasing per block with levels that include:

\$0.00 per thousand gallons for 0 to 2,000 gallons

\$4.33 per thousand gallons for 2,001 to 5,000 gallons

\$5.59 per thousand gallons for 5,001 to 10,000 gallons

\$6.92 per thousand gallons for 10,001 to 15,000 gallons

\$8.42 per thousand gallons for 15,001 to 25,000 gallons

\$11.08 per thousand gallons for 25,001 to 50,000 gallons

\$13.86 per thousand gallons for over 50,000 gallons

3. Meter Repair and Replacement

Inaccurate metering is one possible cause for unaccounted water, and since meter readings form the basis for data gathering on distribution, usage and sales, maintaining accurate meters is a high priority. It is generally recognized that meter wear favors the customer. GVSUD currently has approximately 16,579 metered accounts with the majority of accounts being residential and using 5/8" or 3/4" meters. The meters will be changed out every 10-15 years or approximately every two million gallons. Meters are read monthly, and every effort is made to identify malfunctions which result in abnormally high or low readings. Master meters are checked monthly and changed out as conditions warrant. Well meters are checked monthly and calibrated annually. Customer meters are also tested at their request or when issues are identified.

4. Periodic Review and Evaluation of Data

GVSUD routinely monitors production rates and consumption (Historical Water Use Data, Appendix B). This monitoring is not only used for billing purposes to calculate water purchases, but also to satisfy TCEQ regulatory requirements to account for production quantities and individual customer usage on a monthly basis. The results of water meter readings are prepared and analyzed to determine trends of usage, water accountability, and production requirements both near term and future. From this information an evaluation of system operation is made, and appropriate action is taken to correct system deficiencies when found.

5. Leak Detection, Prevention, and Repair

An important element in the operation of an efficient water system is the reduction of water loss. It is the goal of this program to keep the amount of lost water below 15%. Unaccounted for water presently averages approximately 15% (Historical Water Use Data, Appendix B). An accounting of the amount of water pumped through the distribution system versus the amount of water sold is kept on a yearly basis. Each major service at purchase points or wells has a calibrated master meter which is carefully monitored. A significant increase in water loss, or losses greater than 15%, will trigger an investigation for the cause. Leaks are detected by visual inspection or through the use of standard leak detection equipment when necessary.

6. Pressure Control

High pressure may cause small openings in a water main to leak a large amount of water in a short time. GVSUD uses in-line pressure reducing valves to isolate key areas of the service area and eliminate high pressure in those areas. In addition, customers may install individual pressure regulating valves to back up the large reducers and to reduce their in-home pressure to less than 80 psi.

7. Standard Conservation Practices

GVSUD also uses the following conservation practices:

- a. Promoting off-peak irrigation, between the hours of 8:00 p.m. to 10:00 a.m., year-round.
- b. Encouraging retrofit of existing fixtures to water savings types.
- c. Encourage the use of the 2018 Uniform Plumbing Code which includes pertinent sections of state law restricting the use of non-water saving fixtures in new construction.
- d. Recommending water-wise and alternative landscaping which uses less water.
- e. Utilizing a SCADA (supervisory control and data acquisition) system to monitor equipment performance at each plant site

B. WATER SAVINGS GOALS

Green Valley Special Utility District has reviewed and developed quantifiable five-year and ten-year targets for water savings as required by the TCEQ in Title 30, Chapter 288 of the TAC. GVSUD will use 2021 as the baseline year with five-year goals to be achieved by 2026. The ten-year goals are to be achieved by 2031.

Key elements of these targets are conservation and reduction in water loss as measured by water usage per capita per day.

GOAL#1

Reduce real water losses in the distribution system by performance of proactive procedures to include improved response time and efficient leakage management.

Five-Year Target (2026)

To reduce unaccounted for water to 14% or less. Evaluate additional SCADA needs and upgrades.

Ten-Year Target (2031)

To reduce unaccounted for water to 14% or less. The District is currently compiling a GIS system to identify and locate infrastructure within the system to isolate leaks more efficiently and inventory valves and equipment for future replacement. The system wide water model has also been recently updated to include all developer and CIP project components.

GOAL #2

Promote individual and residential water conservation to decrease per capita usage of water. Currently per capita usage is 90.7-gallons/day.

Five-Year Target (2026)

Reduce per capita usage to 89-gallons/day or less.

Ten-Year Target (2031)

Reduce per capita usage to 88-gallons/day or less.

C. BEST MANAGEMENT PRACTICES

After review of GVSUD's water usage patterns and annual consumption, the following Best Management Practices (BMP's) have been identified to help conserve water. Goals for these BMP's have been set up in accordance with the guidelines of the TWDB.

BMP #1

Continue to refine the conservation oriented incremental block rate structure to discourage the inefficient use or waste of water.

Near-Term

- 1) Annual review of consumption patterns and seasonal use.

Long-Term

- 1) Update and review five-year goals and adjust conservation practices as needed.

BMP #2

Review water usage by schools and develop educational programs to promote water conservation.

Near-Term

- 1) Review existing curriculum to see if the local school district is offering water conservation related material.
- 2) Evaluate local, regional, and state resources available, to determine applicability to GVSUD's local water conditions.

Long-Term

- 1) Present programs on water conservation benefits and sponsor water fairs with emphasis on conservation.

BMP #3

Develop outreach programs which can help to promote water conservation in the community.

Near-Term

- 1) Provide builders with information packets which advise water conservation within the home

and landscape.

- 2) Send out lawn watering guide annually.

Long-Term

- 1) Develop a community outreach program on water conservation and watershed protection.
- 2) Continue to update customer packets and website.

BMP #4

Analyze the benefits of reducing unaccounted for water by performing water audits on the system.

Near-Term

- 1) Perform an initial leak survey to uncover leaks in distribution system.
- 2) Develop and perform a proactive distribution system water loss program.
- 3) Minimize water losses through replacement of deteriorating water mains and appurtenances.

Long-Term

Perform annual water audits of the distribution system to obtain statistics and adjust water loss program as necessary.

BMP#5

Improve accuracy of meters in system by increased maintenance efforts and replacement.

Near-Term

- 1) Semi-Annually conduct calibrations of meters for all treated water deliveries. Calibrate well meters on an annual basis.
- 2) Monitor meters for accuracy on a regular schedule and repair or replace the meters on a 10-15-year cycle program.

Long-Term

Continually monitor existing and new service meters to maintain a proactive water loss program.

D. CONSERVATION PLAN IMPLEMENTATION

The Board of Directors of Green Valley Special Utility District will adopt this Water Conservation Plan through formal resolution (Formal Resolution, Appendix C) and implement it through direction to the general manager, staff, and consultants. Enforcement will be provided by discontinuation of service to those persons not in compliance, or written warnings and fines

assessed by GVSUD.

GVSUD will require through contractual arrangements, that any other political subdivision or utility obtaining water from GVSUD adopt a water conservation plan approved by the TCEQ equal to or more restrictive than this plan.

E. ANNUAL REPORTING AND REVIEW

An annual report describing the implementation, status, and effectiveness of the Water Conservation Plan will be submitted as required to the Texas Water Development Board. The General Manager and the GVSUD engineer will review this plan annually and make recommendations to the Board of Directors on any updates or amendments which may be required.

III. DROUGHT CONTINGENCY PLAN

A. DECLARATION OF POLICY, PURPOSE, AND INTENT

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the Green Valley Special Utility District (GVSUD) hereby adopts the following regulations and restrictions on the delivery and consumption of water through a resolution (Formal Resolution, Appendix C).

Water uses regulated or prohibited under this Drought Contingency Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section J of this plan.

B. PUBLIC INVOLVEMENT

Opportunity for the public to provide input into the preparation of the Drought Contingency Plan was provided by GVSUD by means of scheduling and providing public notice of a meeting to accept input on the plan.

C. PUBLIC EDUCATION

GVSUD will periodically provide the public with information about the Drought Contingency Plan, including information about the conditions under which each stage of the plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by the means of utility bill inserts, public notices, newsletters, and on the website (www.gvsud.org).

The single most effective means of educating the water consumer on the consequences of wasteful water usage is by informing the customer of the consequences of improper water usage and detailing the necessary means of curtailing such usage. An excellent source of educational literature is available through the Texas Water Development Board (TWDB). GVSUD works effectively with its related regulatory agencies in the distribution of beneficial water usage information.

1. Continuing programs will consist of four activities:
 - a. A fact sheet explaining the Drought Contingency Plan will be developed and posted to the

District webpage each year.

- b. New customers will be provided with "Homeowner's Guide to Water Use and Water Conservation" and specific information about drought stages.
 - c. A website post will advise water customers that the Homeowner's Guide is available through GVSUD.
 - d. Conservation brochures will be available to district customers at least once a year, and more often during dry conditions in the office lobby or via pdf on the website.
2. Long-Term programs will consist of six activities each year; after the first year.
- a. A brochure emphasizing new or innovative means of conserving water will be distributed to customers by website post.
 - b. An article or website post will target one particular household, water using utility, or item and method for conserving water (dishwasher, shower, toilet, laundry).
 - c. An article correlated to conservation and seasonal outdoor water use will be published to the website.
 - d. Distribution of Homeowner's Guide to customers will continue.
 - e. New customers will be advised of Conservation Programs and provided with a copy of Homeowner's Guide.
 - f. An information packet on water-wise landscaping will be given to home builders. GVSUD will make resource materials available from the TWDB and other agencies or organizations that develop pertinent information or data.

D. AUTHORIZATION

The General Manager or his /her designee is hereby authorized and directed to implement the applicable provisions of this Drought Contingency Plan upon determination that such implementation is necessary to protect public health, safety and welfare. The General Manager, or his/her de signee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this plan.

E. APPLICATION

The provisions of this Drought Contingency Plan shall apply to all persons, customers, and property

utilizing water provided by GVSUD. The terms "person" and "customer" as used in the plan include individuals, corporations, partnerships, associations, and all other legal entities

F. DEFINITIONS

For the purposes of this Drought Contingency Plan, the following definitions shall apply:

Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: water use, which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants and office buildings.

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by GVSUD.

Domestic water use: water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

Industrial water use: the use of water in processes designed to convert materials of lower value into forms having greater usability; and value.

Landscape irrigation: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

Non-essential water use: water uses that are not essential or not required for the protection of public, health, safety, and welfare, including:

- a. irrigation of landscape areas, including parks, athletic fields, and golf courses, except as otherwise provided under this plan;
- b. use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;

- c. use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- d. use of water to wash down buildings or structures for purposes other than immediate fire protection;
- e. flushing gutters or permitting water to run or accumulate in any gutter or street;
- f. use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
- g. use of water in a fountain or pond for aesthetic purposes except where necessary to support aquatic life;
- h. failure to repair a controllable leak(s) within a reasonable period after having been given notice;
- i. use of water from hydrants for construction purposes or any other purposes other than firefighting or flushing.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

G. CRITERIA FOR INITIATION AND TERMINATION OF DROUGHT RESPONSE STAGES

GVSUD's General Manager or his/her designee shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of the Drought Contingency Plan, and determine when the specified "triggers" are reached.

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water source under drought of record conditions or based on known system capacity limits.

Stage 1 Triggers - MILD Water Shortage Conditions

Requirements for Initiation of Stage 1

Customers shall be required to conserve water and adhere to the prescribed restrictions on certain water uses, as defined in this plan when:

1. The Guadalupe-Blanco River Authority (GBRA) and/or Canyon Regional Water Authority (CRWA) announces the initiation of Stage 1 triggering conditions for Canyon Reservoir users.

Requirements for Termination of Stage 1

Stage 1 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days as applicable.

Stage 2 Triggers - MODERATE Water Shortage Conditions Requirements for Initiation of Stage 2

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses defined in this plan when:

1. Average daily water consumption reaches 80% of the contracted distribution capacity for three consecutive days.
2. Extremely hot weather conditions or water system delivery limitations exist for 5 consecutive days or more.
3. Equipment, such as non-redundant storage tanks or pumps, must be taken out of service for more than one day.
4. Part or all of the distribution system is disabled or compromised by damage from accident or weather but can be restored within 5 days.
5. Storage capacity does not return to normal levels within a 24-hour period.
6. The GBRA/CRWA announces the initiation of Stage 2 triggering conditions for Canyon Reservoir users.

Requirements for Termination of Stage 2

Stage 2 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days, or until the system has returned to normal operational levels following restoration of the distribution system or equipment after repairs or maintenance. Upon termination of Stage 2, Stage 1 becomes operative unless otherwise directed.

Stage 3 Triggers - SEVERE Water Shortage Conditions

Requirements for Initiation of Stage 3

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this plan when:

1. Average daily water consumption will not allow storage levels to be maintained.
2. System demand exceeds available high service pump capacity.
3. Any two conditions listed in the moderate conditions classification occur in the same 24-hour period.
4. The GBRA/CRWA announces the initiation of Stage 3 triggering conditions for Canyon Reservoir users.

Requirements for Termination of Stage 3

Stage 3 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days.

Upon termination of Stage 3, Stage 2 becomes operative unless otherwise directed.

Stage 4 Triggers - EMERGENCY Water Shortage Conditions

Requirements for Initiation of Stage 4

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 4 of this plan when:

1. Major water line breaks, or pump or system failures occur, which causes unprecedented loss of capability to provide water service.
2. Water system or source is contaminated either accidentally or intentionally. Severe emergency conditions will be declared immediately upon detection.
3. The GBRA/CRWA announces the initiation of Stage 4 triggering conditions for Canyon Reservoir users.

Requirements for Termination of Stage 4

Stage 4 of the plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days, or until the system has returned to normal operational levels following restoration of the distribution system or equipment after repairs or maintenance. Upon termination of Stage 4, Stage 3 becomes operative unless otherwise directed.

H. ACTIONS REQUIRED FOR DROUGHT RESPONSE STAGES

GVSUD's General Manager, or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section G of

this plan, shall determine that a mild, moderate, severe, or emergency condition exists and shall implement the following notification procedures:

Notification of the Public:

GVSUD's General Manager or his/her designee shall notify the public by means of the following methods as appropriate to each condition:

1. Publication in a newspaper of general circulation.
2. Direct contact by notes placed on customer bills.
3. Public service announcements on television or radio, or through signs posted in public places throughout the service area.
4. Notification through the use of telephone networks to neighborhood associations and other public entities.
5. Posting on the GVSUD website (www.gvsud.org).

Additional Notification:

GVSUD's General Manager or his/her designee shall notify directly, or cause to be notified directly, the following individuals and entities as required:

1. Members of the Board of Directors.
2. Fire Chief and/or County Emergency Management Coordinator(s).
3. Cities within the GVSUD Service Area
4. State Disaster District/Department of Public Safety.
5. TCEQ (required when mandatory restrictions are imposed).
6. Major water users.
7. Critical water users (i.e., hospitals).
8. Parks / street superintendents & public facilities managers.

Stage 1 Response - MILD Water Shortage Conditions

Target: Achieve a 20% reduction in total water use.

Best Management Practices for Supply Management:

GVSUD shall:

1. Reduce or discontinue flushing of water mains.
2. Notification of customers by mail with suggestions for ways to reduce usage.
3. Field personnel to monitor and report excessive usage.
4. Initiate water use restrictions.
5. Issue warnings as necessary.

Water Use Restrictions for Reducing Demand:

1. Water customers will be required to limit the irrigation of landscaped areas and non-essential water use as defined in this Drought Contingency Plan to Mondays and Thursdays for water customers with a street address ending in an even number (0, 2, 4, 6, 8), and Tuesdays and Fridays for water customers with a street address ending in an odd number (1, 3, 5, 7, 9), and to irrigate landscapes only between the hours of 12:00 a.m. to 10:00 a.m. and 8:00 p.m. to midnight on designated watering days.
2. All operations of GVSUD shall adhere to water use restrictions prescribed for Stage 1 of this plan.
3. Water customers will be requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 Response - MODERATE Water Shortage Conditions

Target: Achieve a 30% reduction in total water use.

Best Management Practices for Supply Management:

GVSUD shall:

1. Reduce or discontinue flushing of water mains.
2. Reduce or discontinue irrigation of public landscaped areas; use of reclaimed water for non-potable purposes will be allowed.
3. Notification of customers by mail with suggestions for ways to reduce usage.
4. Field personnel to monitor and report excessive usage.
5. Initiate mandatory water use restrictions.

6. Issue warnings and fines as necessary.
7. Ensure all production equipment is operating at maximum capacity.
8. Activate interconnects and purchase water from neighboring utilities if available.

Water Use Restrictions for Demand Reduction:

Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

1. Irrigation of landscaped areas with a hand-held hose, a faucet filled bucket, a watering can of five (5) gallons or less, a drip irrigation system, a hose-end sprinkler or an automatic irrigation system shall be between the hours of 12:00 a.m. to 10:00 a.m. and 8:00 p.m. to midnight on designated watering days as follows:

<u>Last Digit of Street Address</u>	<u>Irrigation Day</u>
0 or 1	Monday
2 or 3	Tuesday
4 or 5	Wednesday
6 or 7	Thursday
8 or 9	Friday

If there is no street address associated with the property, such as a parkway, or if there is more than one street address associated with a single contiguous property, the irrigation day is Wednesday.

2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 12:00 a.m. to 10:00 a.m. and 8:00 p.m. to midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
3. Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or spas is prohibited except on designated watering days between the hours of 12:00 a.m. to 10:00 a.m. and 8:00 p.m. to midnight.

4. Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support; aquatic life or where such fountains or ponds are equipped with a recirculation system.
5. Use of water from hydrants shall be limited to firefighting related activities necessary to maintain public health, safety and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special approval from the GVSUD.
6. Use of potable water for irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours of 12:00 a.m. to 10:00 a.m. and 8:00 p.m. to midnight. However, if the golf course utilizes a water source other than that provided by GVSUD, the facility shall not be subject to these regulations.
7. All restaurants are prohibited from serving water to patrons except upon request of the patron.
8. The following uses of water are defined as non-essential and are prohibited:
 - a. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
 - b. use of water to wash down buildings or structures for purposes other than immediate fire protection;
 - c. use of water for dust control;
 - d. flushing gutters or permitting water to run or accumulate on any gutter or street; and
 - e. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Stage 3 Response- SEVERE Water Shortage conditions

Target: Achieve a 35% reduction in daily water demand. Best Management Practices for Supply Management:

GVSUD shall:

1. Reduce or discontinue flushing of water mains.
2. Reduce or discontinue irrigation of public landscaped areas; used of reclaimed water for non-potable purposes will be allowed)

3. Notification of customers by mail with suggestions for ways to reduce usage.
4. Field personnel to monitor and report excessive usage.
5. Initiate severe mandatory water use restrictions.
6. Issue warnings and fines as necessary.
7. Prohibit nearly all outside watering unless using recycled water.
8. Prohibit non-essential uses.
9. Ensure all production equipment is operating at maximum capacity.
10. Activate interconnects and purchase water from neighboring utilities if available.

Mandatory Water Use Restrictions

Under threat of penalty for violation, all requirements of Stage 2 shall remain in effect during Stage 3 except:

1. Irrigation of landscaped areas shall be limited to designated watering days, as defined in Stage 2, every other week beginning on the second Monday after Stage 3 has been declared. Irrigation will occur on the designated watering day between the hours of 12:00 a.m. to 10:00 a.m. and 8:00 p.m. to midnight, and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.
2. The filling, refilling, or adding of water to swimming pools, wading pools, and spas is prohibited.
3. The use of water for construction purposes from designated fire hydrants under special approval may be reduced or eliminated.
4. The watering of golf course tees is prohibited unless; the golf course utilizes a water source other than water from GVSUD.

Stage 4 Response- EMERGENCY Water Shortage Conditions

Target: Achieve a 40% reduction in daily water demand.

Best Management Practices for Supply Management:

GVSUD shall:

1. Discontinue flushing water mains.
2. Discontinue irrigation of public landscaped areas unless area is using recycled water.
3. Activate inter-connections and purchase water from neighboring utilities if available.

Water Use Restrictions for Reducing Demand:

Under threat of penalty for violation, all requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

1. Irrigation of landscaped areas is absolutely prohibited.
2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is absolutely prohibited.
3. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Water Allocation

In the event that the triggering criteria specified in Section G of the Drought Contingency Plan for Stage 4 have been met, GVSUD adopts the following priorities in the allocation of available water resources:

1. Domestic indoor water usage only for drinking, bathing, cooking, hygiene, etc.
2. Domestic indoors water usage plus livestock and domesticated animals.
3. Domestic indoors water usage plus livestock and domesticated animals plus a reasonable amount of outdoor usage, i.e. car washing, watering house foundations, flower beds with drip or leaky pipe irrigation.
4. Domestic indoors water usage plus livestock and domesticated animals plus a reasonable amount of outdoor usage defined above plus spray irrigation of lawns and residential yards not to exceed one-third acre.
5. Domestic indoors water usage plus livestock and domesticated animals plus a reasonable amount of outdoor usage defined above plus spray irrigation of commercial properties, ball fields, parks and residential yards exceeding one-third acre.

Water rationing restrictions are automatically waived during emergencies such as firefighting or a situation endangering human life.

I. ENFORCEMENT

For the first violation of a rationing provision a written warning shall be issued. GVSUD may install a flow restrictor in the customer's service line for the second violation. The cost of this shall be the actual cost to do the work and not exceed \$100.00.

For subsequent violations, GVSUD may terminate service for up to 7 days and charge for the service call to restore service. These provisions apply to all customers of GVSUD.

Additional Penalties for Violation of Water Conservation Practices

GVSUD adopts the following additional penalties for violations of noticed water conservation practices and water rationing restrictions:

All penalties are based upon each noticed drought or water conservation-causing event. Each time all involuntary water use restrictions are lifted; a new cycle begins and each customer/member has a violation count of zero.

For violations of Outside Watering Usages:

First Offense:	Written Notice
Second Offense:	\$10.00
Third Offense:	\$25.00
Subsequent Offenses:	\$50.00

For violations of directive to reduce percentage usage up to 20,000 gallons consumption (residential):

First Offense:	Written Notice
Second Offense:	\$10.00
Third Offense:	\$15.00
Subsequent Offenses:	\$20.00

For violations of directive to reduce percentage usage over 20,000 gallons consumption (residential):

First Offense:	Written Notice
Second Offense:	\$20.00
Third Offense:	\$50.00
Subsequent Offenses:	\$70.00

For violations of directive to reduce percentage usage (non-residential):

First Offense:	Written Notice
Second Offense:	\$20.00
Third Offense:	\$50.00
Subsequent Offenses:	\$70.00

J. VARIANCES

The General Manager may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Drought Contingency Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance or if one or more of the following conditions are met:

1. Compliance with this plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the plan is in effect.
2. Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with GVSUD within five days after the plan or a particular drought response stage has been invoked. The GVSUD staff will make every effort to work with customers to establish a satisfactory solution to water use problems. All petitions for variances shall be reviewed by the General Manager or his/her designee, and shall include the following:

1. Name and address of the petitioner(s).
2. Purpose of water use.
3. Specific provision(s) of the plan from which the petitioner is requesting relief.
4. Detailed statement as to how the specific provision of the Drought Contingency Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.

5. Description of the relief requested.
6. Period of time for which the variance is sought.
7. Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this plan and the compliance date.
8. Other pertinent information.

Variances granted by GVSUD shall be subject to the following conditions, unless waived or modified by the General Manager or his/her designee:

1. Variances granted shall include a timetable for compliance.
2. Variances granted shall expire when the Drought Contingency Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this plan occurring prior to the issuance of the variance.

Appendix A: Green Valley Special Utility District Service Area Map

Appendix B: Historical Water Use Data

Table 1- Historical Water Use

Year	GVSUD Water Service Connections⁽¹⁾	Total Water Pumped (ac-ft)⁽¹⁾	Water Usage per Connection per Year (ac-ft/yr)
2012	9274	2737	0.30
2013	9621	2739	0.28
2014	10046	3053	0.30
2015	10723	3266	0.30
2016	11645	3529	0.30
2017	12329	4141	0.34
2018	13331	4129	0.31
2019	13990	4293	0.31
2020	14358	5170	0.36
2021	15698	5502	0.35
Average Water Usage (ac-ft/connection/yr)			0.32
⁽¹⁾ Information provided by GVSUD			

Appendix C: Formal Resolution

RESOLUTION

WHEREAS, Green Valley Special Utility District (GVSUD) is a Texas Water Code Chapter 65 special utility district and a state-certificated retail public water utility;

WHEREAS, GVSUD pumps water for resale to the public from the Edwards Aquifer;

WHEREAS, GVSUD pumps water for resale to the public from the Trinity Aquifer;

WHEREAS, GVSUD purchases water for resale to the public from various groundwater sources and a surface water source;

WHEREAS, GVSUD is required by 30 TAC Chapter 288 and other legal authorities to have and to implement a Water Conservation and Drought Contingency Plan (WCDCP) approved by the District's Board of Directors;

WHEREAS, GVSUD's WCDCP must be revised and updated periodically; BE IT RESOLVED:

1. The attached revised WCDCP is approved by the GVSUD Board of Directors and adopted as the formal WCDCP of the District.
2. The General Manager is directed to file a copy of this WCDCP in the permanent records of the District and to file copies with the Texas Commission on Environmental Quality, Texas Water Development Board and all other required governmental entities.
3. The General Manager is directed to take all actions necessary to implement the WCDCP as adopted.

Adopted this ____ of _____, 202__, by vote of ____ for, ____ against and ____ abstaining.

Attest:

Board President

Board Secretary/Treasurer