



**SMARTER  
ABOUT  
WATER**

Harris-Galveston Subsidence District

# Water Conservation Program Strategic Plan

2023 - 2027

## Background and Purpose

The Harris-Galveston Subsidence District (HGSD) was created by the Texas Legislature in 1975 to regulate groundwater resources to prevent subsidence in Harris and Galveston Counties. HGSD's Water Conservation Program (WCP) was developed to provide education and tools for the efficient management and use of the community's water resources. HGSD is specifically authorized in its enabling legislation to utilize HGSD resources to promote water conservation. Over time, the program has evolved into not only a robust educational resource that reaches tens of thousands of students each year, but also an important provider of actionable information to guide water use and change water use practices.

Since 1994, HGSD has partnered with local cities, regional water authorities, municipal utility districts and other water industry professionals to bring the Water Conservation Education Program to more than 1.3 million students across the region. The program is well respected by educators because it engages students with hands-on, experiential learning activities, complete with a take-home laboratory and student workbook. The program provides educators with a turn-key curriculum that includes a teacher guide, online resources, and follow-up activities, fulfilling a significant need in conservation education. The interactive program offered by HGSD allows the participating students to acquire the knowledge and skills needed to make relevant connections and develop their own water ethic. The Water Conservation Education Program is funded directly through HGSD's Groundwater Credit Program, in which water users can purchase sponsorships at a set rate to receive groundwater credits per sponsorship.

HGSD's WCP expanded in 2017 to include a focused effort to educate end users about efficient water use related to outdoor irrigation in collaboration with Texas A&M University's Water My Yard program. HGSD maintains four (4) Water My Yard weather stations that collect real-time climatic data on humidity, wind speed, temperature, and solar radiation. An algorithm then combines rainfall data from local weather stations and rain gauges combined with user-defined criteria, such as the type of sprinkler, and computes how much water that yard needs. The Water My Yard app generates personalized, weekly watering recommendations. HGSD worked with the Galveston Bay Foundation, who received a grant from the U.S. Environmental Protection Agency in 2019, to develop an outreach campaign for the program that was implemented during the summer of 2021. The campaign included large print billboards placed throughout the Houston area as well as television and radio broadcasts to increase awareness about the Water My Yard program. The goal of the campaign was to increase the number of Water My Yard subscribers and ultimately irrigation water efficiency.

In partnership with the Fort Bend Subsidence District, HGSD initiated the Smarter About Water website that provides water conservation resources for homeowners, teachers, business owners, and residents of the Gulf Coast region. The website promotes education and an increased water conservation ethic.

In 2019, HGSD's WCP was expanded to include a Water Conservation Grant Program. The objective of the Grant Program is to support HGSD's mission of enhancing water conservation education and implementation of projects that result in water savings. In the first year of the grant program in 2020, five (5) grants were awarded for projects focused on water loss control measures, irrigation efficiency, and water conservation research. These projects received over \$160,000 in reimbursements. Then in 2022, five projects were selected, leveraging \$450,000 in matching funds towards water conservation projects in the Houston-Galveston region. The 2022 grant projects included implementation of advanced metering infrastructure, water loss control, and showerhead fixture replacements. In the fall of 2022, HGSD received grant applications focused on outdoor irrigation efficiency measures.

## Strategic Planning Process

Strategic planning is one of the most effective approaches to ensuring maximum efficiency and effectiveness in reaching targeted organizational goals, especially in an ever-changing political and socio-economic environment of diverse interests and backgrounds. Strategic planning involves the development of a collective vision, mission, and corresponding strategic themes and goals. As a result, organizational activities and initiatives take on a clear focus and accomplishing important goals becomes more attainable.

HGSD, governed by a board of 19 appointed directors and operated by a small professional staff, is tasked with the mission of regulating groundwater withdrawal within HGSD to cease and prevent land surface subsidence. This multi-faceted mission includes effective and reasonable regulation of groundwater use, identification and quantification of available alternative water supplies, promotion and education of water conservation strategies, and effective and decisive enforcement to ensure long-term compliance.

Water conservation is an important part of managing our groundwater resources. Given the recent changes to and importance of the Water Conservation Program as well as the vast options available for water conservation adoption across the region, HGSD has an opportunity to strategically adapt and expand the WCP to further deliver on the vision and mission of HGSD. This Strategic Plan sketches out HGSD goals, actions to achieve those goals, and needed resources. To this end, this Strategic Plan is designed to serve as roadmap for HGSD's Water Conservation Program, ultimately outlining key initiatives and actions in the short, mid, and long term.

## Mission

A mission statement represents a brief overview of an organization's purpose, identification of those it serves, and the expected results of their actions. It galvanizes the organizational culture and forms the basis for the organization's philosophy and direction.



### Water Conservation Program Mission

Promote water conservation in our region through leadership, education, research, and support of water

## Vision

A vision is an articulation of the organizational culture, structure, and direction. It represents an organization's targeted destination and includes the ability of members to perceive changes in the organization. As a result, the vision is a comprehensive depiction of how the organization will look in the future.

### Water Conservation Program Vision

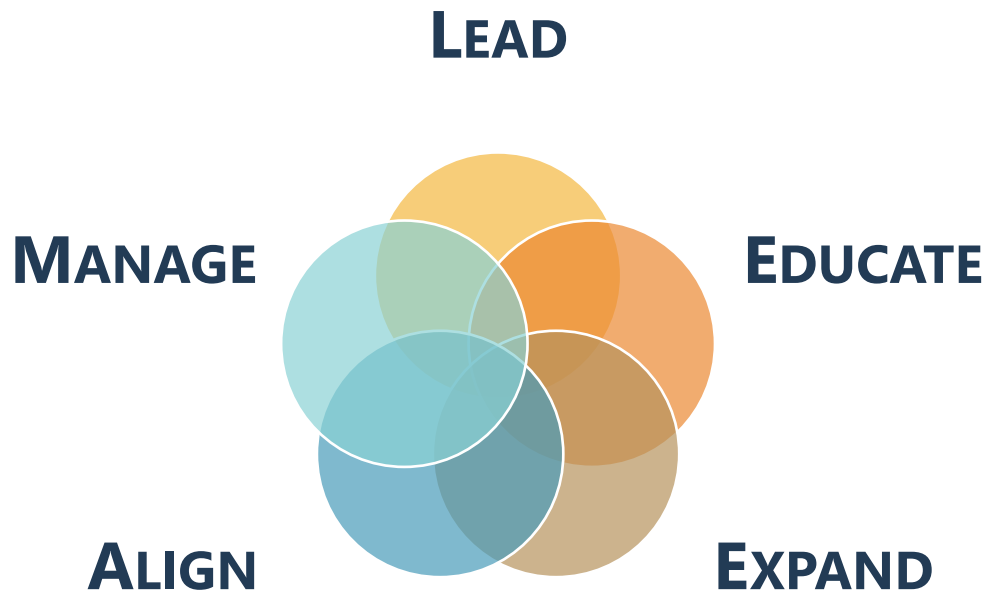
To empower communities to make changes towards a future where water is valued, and water conservation is a lifestyle.



## Water Conservation Program Strategic Goals

The District identified five overarching, strategic goals to guide the WCP into the future:

1. **Lead** the region in water conservation.
2. Continue to **educate** the region on effective water conservation and subsidence.
3. **Expand** the reach of the WCP to target additional water users.
4. **Align** the WCP to the District's mission and Regulatory Plan.
5. Develop District resources to successfully implement and **manage** the WCP.






**Strategic Goals and Objectives**

# Goal 1 | LEAD


*Lead the region in water conservation.*

## Objective 1.1 | Demonstrate Water Efficiency at HGSD Facility

 Leading by example builds trust within the community and models the behavior that is desired in others.


Implementation Actions	Timeline
a. Install WaterSense fixtures and other water saving devices in HGSD building.	1-3 years
b. Convert HGSD landscaping to drought tolerant, native plants.	1-3 years
c. Establish native plant demonstration gardens.	4-7 years

## Objective 1.2 | Participate in National and Regional Conferences

 Actively participating in events with a focus on water management and conservation not only establishes HGSD as a leader but also inspires and educates HGSD staff.

Implementation Actions	Timeline
a. Attend Texas Water and Water for Texas.	Annually/ Biannual
b. Participate in the Gulf Coast Water Conservation Symposium.	Annually
c. Participate in other regional and local conferences.	Annually

## Objective 1.3 | Collaborate with Regional Entities

 Communicating with local organizations, agencies, universities, and water providers on water conservation initiatives will strengthen relationships and promote change.

Implementation Actions	Timeline
a. Collaborate and find opportunities to leverage and improve the Water My Yard app.	1-3 years
b. Identify opportunities for and participate in regional coalitions.	4-7 years

## Goal 2 | EDUCATE

*Continue to provide effective water conservation and subsidence education.*

### Objective 2.1 | Modernize and Expand School Program



The school program has been and will continue to be the keystone activity of HGSD.

Implementation Actions	Timeline
a. Refresh the grade school education kits once every five years.	3-5 years
b. Expand program to target high school students.	4-7 years
c. Collect data to support analysis of education program success and water conservation savings.	1-3 years

### Objective 2.2 | Expand and Promote Conservation Educational Resources



Information and education are critical components to the success and effectiveness of conservation programs.

Implementation Actions	Timeline
a. Expand participation in the Water My Yard application.	1-3 years
b. Maintain, expand, and promote SmarterAboutWater.org.	1-3 years
c. Develop and/or promote content, such as videos or demonstrations that inspires others to value water and conserve.	4-7 years

### Objective 2.3 | Develop Inspirational Water Education Exhibit




Museums offer urban dwellers unique educational experiences that inspire generations. An exhibit focused on water promotes conservation and the sustainable use of natural resources.

Implementation Actions	Timeline
a. Develop a vision for a water education exhibit.	1-3 years
b. Solicit and identify partnership and funding opportunities.	4-7 years

## Goal 3 | EXPAND


*Expand the reach of the Water Conservation Program to target additional water users.*

### Objective 3.1 | Continue and Refine the Grant Program

 The Grant Program allows HGSD to reach additional end users of water and fund projects that result in water savings.


Implementation Actions	Timeline
a. Establish and execute a communication strategy aimed at improving grant program participation.	1-3 years
b. Establish focused programmatic guidelines for the Grant Program.	1-3 years

### Objective 3.2 | Benchmark the Spectrum of Conservation Programs

 Water conservation adoption has progressed at varying levels across the United States. Understanding what types of programs other similarly missioned agencies offer will be useful in focusing HGSD's WCP in the long term.

Implementation Actions	Timeline
a. Conduct research into the typical types of water conservation programs offered by entities of a similar nature to HGSD, documenting the types of programs offered and logistics of how the programs operate.	1-3 years
b. Document programs of interest to HGSD.	3-7 years

### Objective 3.3 | Establish Excellence and Leadership Awards

 Acknowledging organizations, agencies, community members, and students who exhibit positive conservation attitudes and behaviors will inspire others and promote positive change.


Implementation Actions	Timeline
a. Research and document existing leadership programs from across the Region or from similar entities across the United States.	1-3 years
b. Design and implement program to recognize community leaders, water districts, and students who demonstrate water conservation.	1-3 years



## Goal 4 | ALIGN


*Align the Water Conservation Program to HGSD's mission and Regulatory Plan.*

### Objective 4.1 | Evaluate Subsidence Impacts of the Groundwater Credit Program

 Groundwater credits are an important component of HGSD's WCP and a critical tool in HGSD's Regulatory Plan that provide flexibility to permittees.

Implementation Actions	Timeline
a. As a part of the 2023 Joint Regulatory Plan Review, document the potential impacts of widespread, long-term use of the groundwater credit program on subsidence.	Every 5 years
b. Update the groundwater credit program to mitigate potential impacts on subsidence.	Every 5 years

### Objective 4.2 | Assess the Groundwater Credit Program

 The use of groundwater credits affords permittees flexibility in maintaining permit compliance.

Implementation Actions	Timeline
a. Explore opportunities to improve the administration of the groundwater credit program.	1-3 years
b. Engage stakeholders to understand their needs and consider updating the groundwater credit program based on the best available research to uphold HGSD's mission.	Every five years

### Objective 4.3 | Update the Water Conservation Sponsorship Program


 The sponsorships fund HGSD's Water Conservation Program, which targets efficiency in water use.

Implementation Actions	Timeline
a. Assess and validate water conservation savings per distributed educational kit.	1-3 years
b. Assess and validate water conservation savings per dollar spent on issued grants.	3-5 years
c. Specify a methodology for regularly conducting valuation on the cost per groundwater credit, considering the cost of alternative water supplies; using the method, regularly evaluate the value of a groundwater credit.	5-15 years

## Goal 5 | MANAGE


*Develop HGSD resources to successfully implement and manage the Water Conservation Program.*

### Objective 5.1 | Establish Annual Budget Process and Programmatic Workplan

 The WCP funding varies from year-to-year and is dependent upon sponsorship dollars received, which can be specified towards specific programs.


Implementation Actions	Timeline
a. Develop a budget for each element of the program.	1-3 years
b. Create a workplan that documents regular activities that occur throughout the fiscal year, including actions in this Plan.	1-3 years

### Objective 5.2 | Develop Internal Tools, Guidelines, and Processes

 Modifications to the WCP and implementation of the objectives within this Plan may require additional resources. The creation and utilization of tools to streamline workflows will assist HGSD staff in efficiently managing and executing the WCP.

Implementation Actions	Timeline
a. Create a process and tool to track progress towards key strategies.	3-5 years
b. Research management strategies of similar programs and consider the implementation of key strategies for the WCP.	5-8 years

### Objective 5.3 | Revisit Strategic Plan

 Unexpected changes are likely to occur. The strategic plan should be revisited periodically to adapt.

Implementation Actions	Timeline
a. Every five years, conduct an internal review meeting to assess the goals and strategies in the Strategic Plan and adapt/revise as needed.	4-7 years