

## Surface Water Supply Project

# SWISP

Winter

2021

WHCRWA  NFBWA  
**SURFACE WATER  
SUPPLY PROJECT**



### Construction Update

Project construction began in 2020 and is expected to be completed by 2025. All construction will be completed in segments, and the waterline will be built one segment at a time.

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### 2021 Project Groundbreaking

To commemorate the beginning of construction of the large diameter waterline, the WHCRWA and NFBWA held a small groundbreaking event

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### Why is this project Necessary

Learn more about the Surface Water Supply Project

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[www.SurfaceWaterSupplyProject.com](http://www.SurfaceWaterSupplyProject.com)



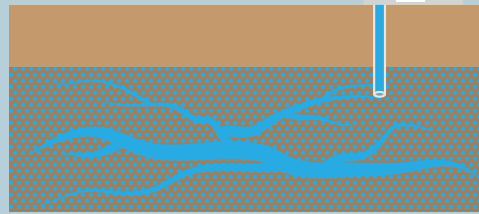
# Why is this project necessary?

The Surface Water Supply Project is needed to conserve groundwater and reduce land subsidence.

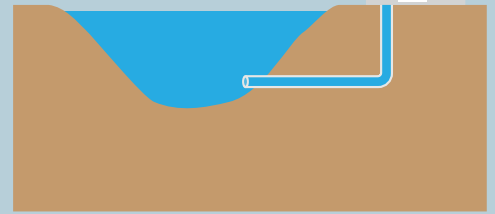
## Drinking Water

Our drinking water comes from two sources: surface water and groundwater. Surface water is water stored above ground, such as in a river or lake. Groundwater is the water beneath Earth's surface in underground aquifers. In the greater Houston area, sustained pumping and withdrawal of groundwater causes land subsidence.

### Groundwater



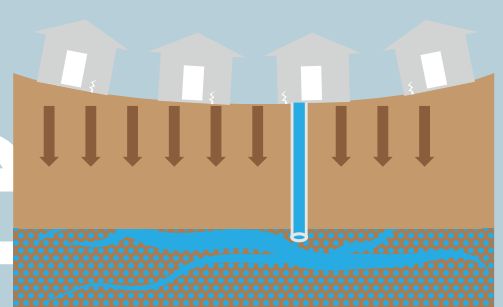
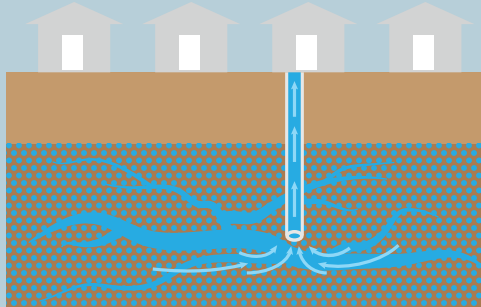
### Surface Water



## Groundwater and Land Subsidence in our Area

Land subsidence is sinking of the land surface. Pumping large amounts of groundwater causes the ground to settle, lowering the elevation of the land. From 1906 to 2000, as much as seven feet of subsidence has been measured in northwest Harris County.

### Land Surface **BEFORE** Land Surface **AFTER**



# To conserve groundwater a



The West Harris County Regional Water Authority (WHCRA) was established in 2001 to supply surface water to the western region of Harris County. The WHCRA service area includes approximately 120 municipal water providers within the boundaries of the WHCRA and seven located outside of the WHCRA boundaries. As mandated by the Texas legislature, the WHCRA has several objectives:

- To acquire and provide a reliable supply of surface water
- To conserve, preserve, protect, and recharge groundwater resources
- To facilitate compliance with subsidence district requirements
- To encourage water conservation

If you would like to find out more information on the WHCRA visit [www.whcra.com](http://www.whcra.com).

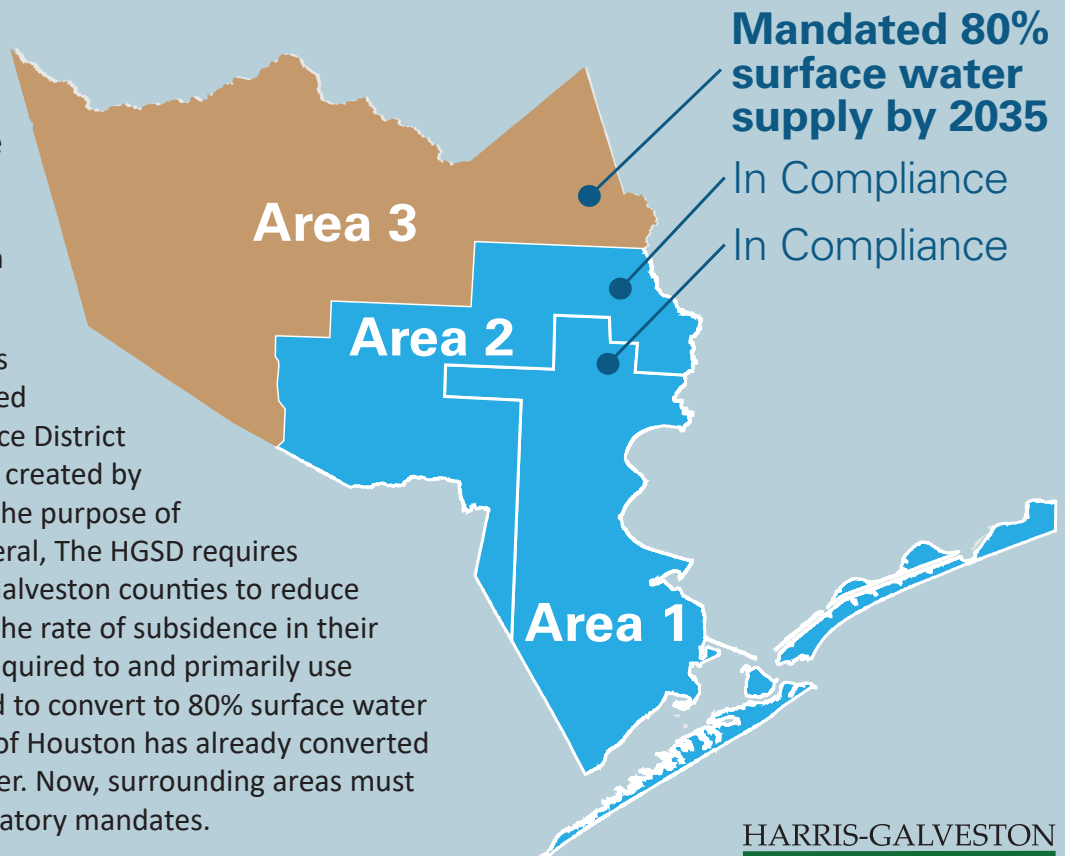
Land subsidence is sinking of the land surface. Pumping large amounts of groundwater causes the ground to settle, lowering the elevation of the land. From 1906 to 2000, as much as seven feet of subsidence has been measured in northwest Harris County.

Groundwater withdrawal in Harris and Galveston counties is regulated by the Harris-Galveston Subsidence District (HGSD), a special purpose district created by the Texas Legislature in 1975 for the purpose of reducing land subsidence. In general, The HGSD requires all water suppliers in Harris and Galveston counties to reduce groundwater pumping based on the rate of subsidence in their area. Areas 1 and 2 are already required to and primarily use surface water. Area 3 is mandated to convert to 80% surface water supply by 2035. Most of the City of Houston has already converted from groundwater to surface water. Now, surrounding areas must follow suit in meeting these regulatory mandates.

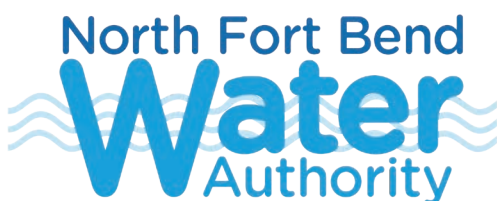
The WHCRWA provides service to a large portion of Area 3, which is still largely dependent on groundwater. To comply with the conversion requirements of the HGSD, the WHCRWA is delivering the Surface Water Supply Project. The project will also allow the NFBWA to comply with Fort Bend Subsidence District groundwater reduction requirements. This project will help to reduce land subsidence and will meet the water needs of a rapidly growing population.

#### How can I stay informed about the Surface Water Supply Project?

The Surface Water Supply Team provides multiple opportunities for you to receive information about the Project. Visit [www.surfacewatersupplyproject.com](http://www.surfacewatersupplyproject.com) for project information, or you may call our project hotline at 1-844-638-SWSP (7977) for updates. You may also reach us by email at [info@surfacewatersupplyproject.com](mailto:info@surfacewatersupplyproject.com). If you would like for the Project Team to make a presentation to your local organization (either in-person or virtually), give us a call or email us today!



# and reduce land subsidence.



The North Fort Bend Water Authority (NFBWA) was established in 2005 to supply surface water to the northern region of Fort Bend County. The NFBWA service area includes approximately 69 utility districts and two cities, Fulshear and Arcola. Although this project is directly sponsored by the WHCRWA, the NFBWA is funding approximately 45 percent of the total cost and is a beneficiary of the surface water to be provided by the Surface Water Supply Project.

If you would like to learn more about the NFBWA visit [www.nfbwa.com](http://www.nfbwa.com).

# The Surface Water Supply Project

To meet the Harris-Galveston Subsidence District (HGSD) and Fort Bend Subsidence District's (FBSD) groundwater reduction requirements for 2025 and beyond, the West Harris County Regional Water Authority (WHCRWA) has partnered with the North Fort Bend Water Authority (NFBWA) to construct the Surface Water Supply Project. The Surface Water Supply Project is needed to conserve groundwater and reduce land subsidence. Land subsidence is the sinking of the land surface. Pumping large amounts of groundwater causes the ground to settle, lowering the elevation of the land. This project will help to reduce land subsidence and will meet the water needs of a rapidly growing population.



Once complete, surface water from Lake Houston will be supplied to retail water providers such as Municipal Utility Districts (MUDs), Public Utility Districts (PUDs), and Water Control and Improvement District (WCIDs). The West Harris County Regional Water Authority and the North Fort Bend Water Authority by way of the City of Houston's Northeast Water Purification Plant through over 55 miles of pipeline and two large pump stations. These transmission pipelines will vary in diameter from 42 inches to 96 inches, depending on the pipeline segment.

## Construction Update

Project construction began in 2020 and is expected to be completed by 2025. All construction will be completed in segments, and the waterline will be built one segment at a time. The tentative timelines for each segment are still under development and some construction schedules have not been finalized yet.

You can find updated timelines for construction at [www.surfacewatersupplyproject.com](http://www.surfacewatersupplyproject.com). The construction for each segment will aim to minimize impacts to any given area for extensive amounts of time. Delivery of surface water to WHCRWA and NFBWA residents through this line is scheduled to begin in 2025.



*Meadowglen Open Cut Seg 3-A4*



As construction moves along the project alignment, residents, business owners, and anyone traveling in the vicinity of the pipeline alignment may experience detours, access issues, and other construction activities associated with large-scale linear projects. To minimize these impacts, much of the pipeline will be installed within existing pipeline corridors. Public safety, ease of access, and well-marked detour information will be a priority throughout the delivery of the project.

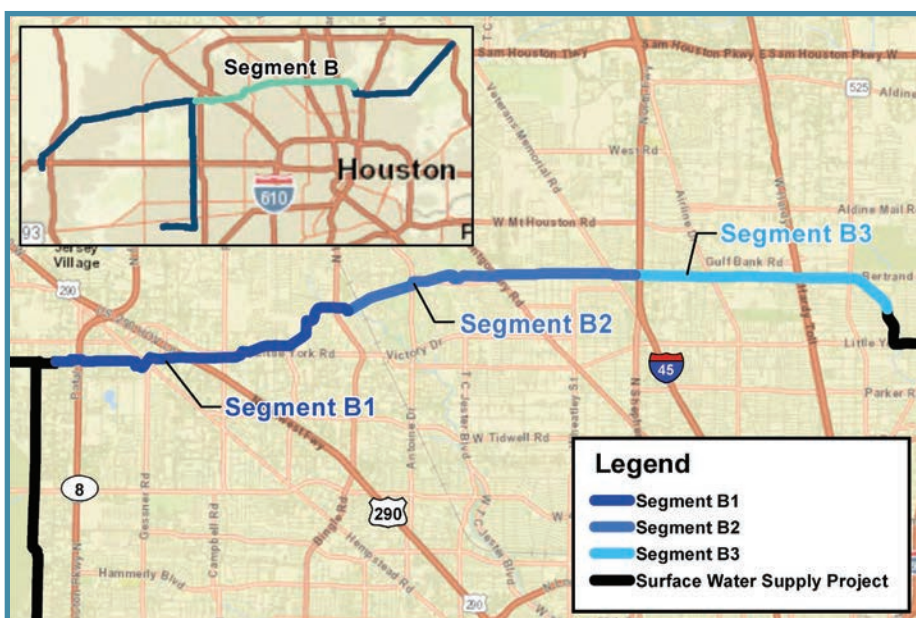
Project team members are committed to communicating proactively with your community. For more information about construction in your area, please visit: [www.surfacewatersupplyproject.com/construction](http://www.surfacewatersupplyproject.com/construction).

## Segment A



Segment A: Segment A1 and A2 is currently in the final design phase is anticipated to be bid in early 2022. Construction is anticipated to begin by mid-year of 2022.

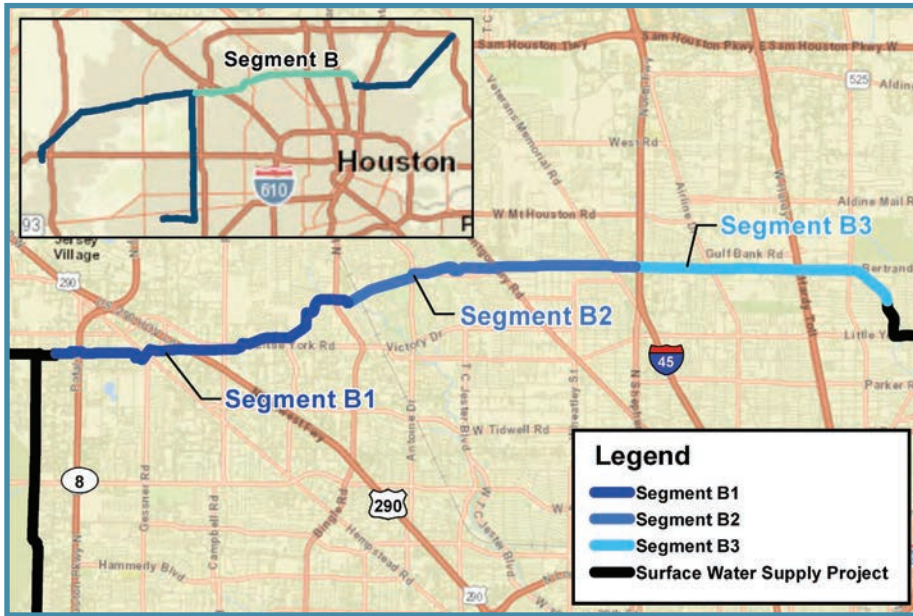
## Segment B



Segment B: Segment B is divided into three segments, Segment B1, B2 and B3. All three are currently obtaining final agency approval, and advertisement is anticipated by fall of 2021.



# Segment C



Segment C: Segment C has been divided into two segments, C-1 and C-2, for construction. Construction of these segments began in early 2021 and up-to-date construction information is available online at [www.surfacewatersupplyproject.com](http://www.surfacewatersupplyproject.com).

## Segment C1 Construction Photos 10-2021



*Carrying waterline near Windsong*



*East Side of Fry Rd*



*Installing 66-inch waterline in Tunnel*

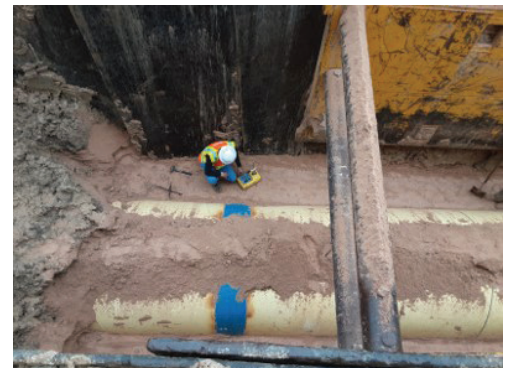
## Segment C2 Construction Photos 10-2021



*Handling Pipe within Concord Bridge*

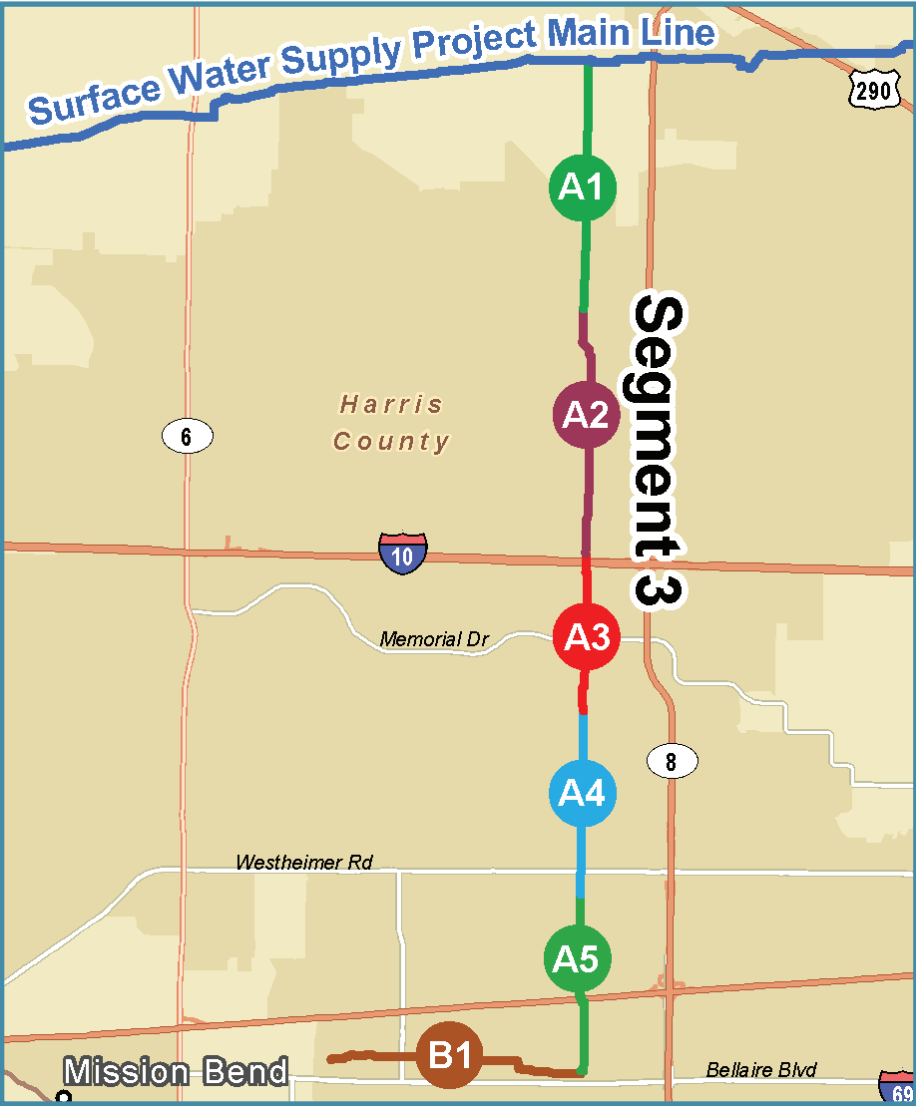


*Installing Joint Wrappers*



*Testing Embedment on Waterline*

# Segment 3



Segment 3 is divided in six segments. Segments 3-A1, 3-A2 and 3-A3 have been awarded. Segment 3-A2 will begin construction in late fall of 2021. Segment 3-A4 is complete and Segment 3-A5 and B1 are obtaining environmental clearance prior to finalizing design.

## Segment 3-A4 Construction Photos



Meadowglen Pit



Meadowglen Pit Overhead

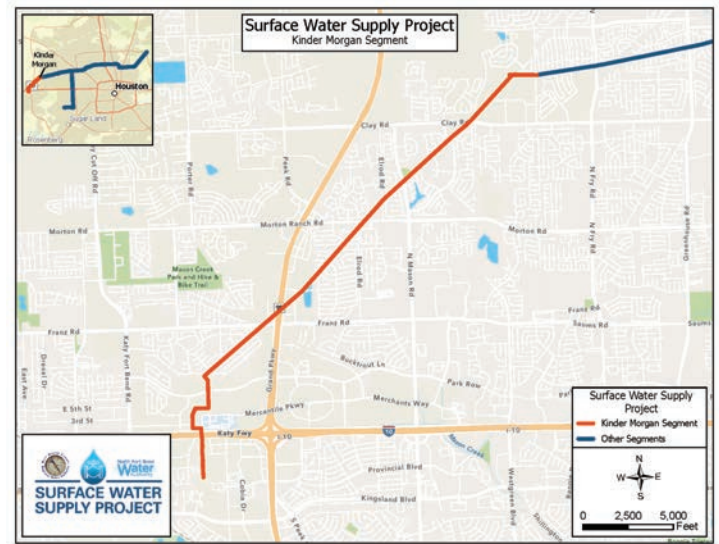


Westchase Trail Repair



# Kinder Morgan Segment

Kinder Morgan is a 66-inch welded steel water line running along a Kinder Morgan Pipeline corridor. The project was divided into six projects for construction. KM4 is the first project expected to go to advertisement in the fall of 2021. The remainder of the projects will follow in 2022.



## Two Types of Construction

There are two types of waterline construction utilized on the Surface Water Supply Project, open cut and tunneling.

### Open cut



Open-cut construction involves excavating a trench from the surface, completing work within the trench, and then backfilling to restore the surface to pre-construction conditions.

### Tunneling



Tunneling involves excavating and installing the pipeline through an underground tunnel, while leaving the surface comparably undisturbed.



# 2021 Project Groundbreaking

To commemorate the beginning of construction of the large diameter waterline, the WHCRWA and NFBWA held a small groundbreaking event on May 6, 2021, for Segment C2 of the Surface Water Supply Project. In order to comply with health and safety protocols due to the COVID-19 pandemic, the ceremony was held as a small, invitation-only event with the water authorities' board members and contractors for the project. The ceremony included the traditional turning over of dirt, and the signing of a pipeline section by board members and contractors.



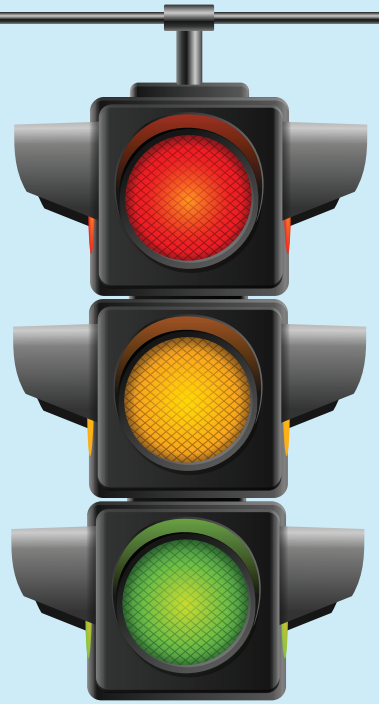
# Traffic Impacts

During construction, communities may notice road closures or traffic impacts associated with the ongoing construction of Segment C. The WHCRWA is committed to ensuring that construction impacts are minimized whenever possible. For updated road and lane closure information and other related resources, please visit our website dedicated to traffic updates:

[www.surfacewatersupplyproject.com/traffic](http://www.surfacewatersupplyproject.com/traffic)

## Project Safety

Safety is a key consideration for the Surface Water Supply Project Team, as contractors will be required to maintain safe job sites with regular facility and property inspections along the corridor. As necessary, contractors will be required to repair damaged roadways impacted by construction. Access to churches, schools, businesses, and other properties will be maintained throughout construction. SWSP Program Managers will coordinate with these entities and local emergency services in advance to determine any necessary road closures, identify and proactively communicate appropriate detours, and phase construction to minimize disruptions.



## Funding for the Surface Water Supply Project

This project is funded through bonds issued by the WHCRWA and the NFBWA. A significant portion of these bonds will be sold to the Texas Water Development Board (TWDB) through a state-wide program for financing water projects. The total project costs are estimated to be more than \$1 billion, and this project is funded solely by the water authorities. The water authorities' interest payments and repayment of principal on the bonds to the Texas Water Development Board will be supported by each water authority's sale of surface water to their customers and pumpage fees charged on well water pumped within the water authorities. No residents outside of the water authorities' groundwater reduction plan will pay for the Surface Water Supply Project.





# FAQ

## Frequently Asked Questions

### How was the alignment chosen for the Surface Water Supply Project?

The WHCRWA negotiated with the City of Houston to purchase additional surface water. The agreement between the City and the WHCRWA stipulates that the water must originate at the City of Houston Northeast Water Purification Plant, thereby excluding other regional surface water sources. To deliver the water from the required source, the WHCRWA took great care to choose a route that considers area residents, businesses, and existing infrastructure. The WHCRWA spent years researching and refining the route and worked with elected officials to choose the most cost-effective alignment with the least impacts to the community as a whole.

### How many waterline segments will be constructed?

The project is currently in the final stage of design and is anticipated to be constructed in multiple segments, as determined by approved construction areas. The number of construction segments, as well as tentative construction timelines for each segment, is still under development.

### How long will construction take in my area?

Although construction of the project is slated to occur from 2020 to 2025, no specific area is expected to be impacted for the entire four-year period. For updates regarding construction schedules, please visit [www.surfacewatersupplyproject.com/construction](http://www.surfacewatersupplyproject.com/construction).

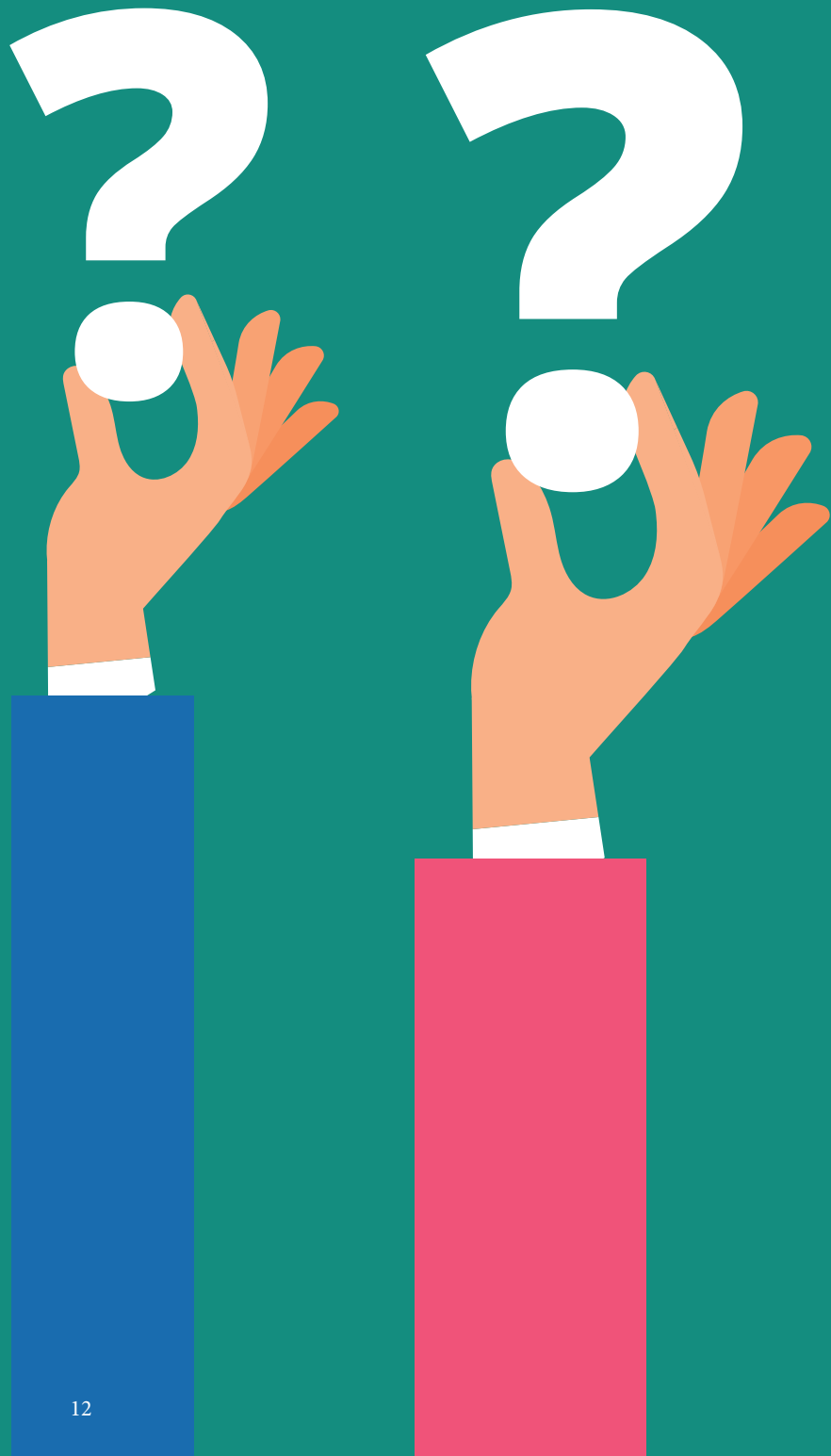


## **Are there any delays or detours expected during construction?**

During construction, residents, business owners, and anyone traveling in the vicinity of the project alignment may experience detours, access issues, and other construction activities associated with large-scale linear projects. To minimize these impacts, the majority of the pipeline will be installed within existing pipeline corridors. The public's safety, ease of access, and well-marked detour information will be the priority throughout the life of the project. The WHCRWA is committed to communicating proactively and continuously with the public about this project.

## **How will you restrict access to the construction areas?**

Contractors will be required to maintain safe and secure job sites, meaning that access to construction sites will be restricted. In areas where tunneling is required, the tunnel shafts must remain open; however, construction fencing will restrict access to the area surrounding tunnel shafts.







**TAKE THE  
GUESSWORK  
OUT OF  
IRRIGATION  
DECISIONS!**



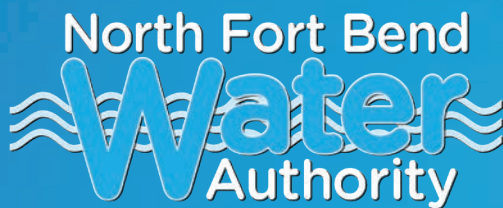
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SAVE MORE**

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WATERING RECOMMENDATIONS**

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**Follow our progress as we  
continue to ensure reliable,  
long-term water supplies for  
west Harris County  
and north Fort Bend  
County residents.**



**[www.SurfaceWaterSupplyProject.com](http://www.SurfaceWaterSupplyProject.com)**