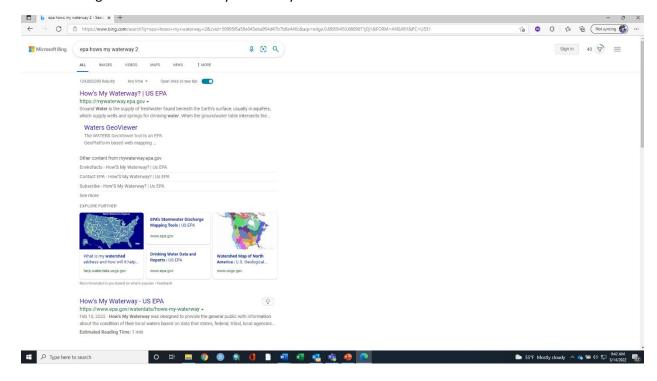
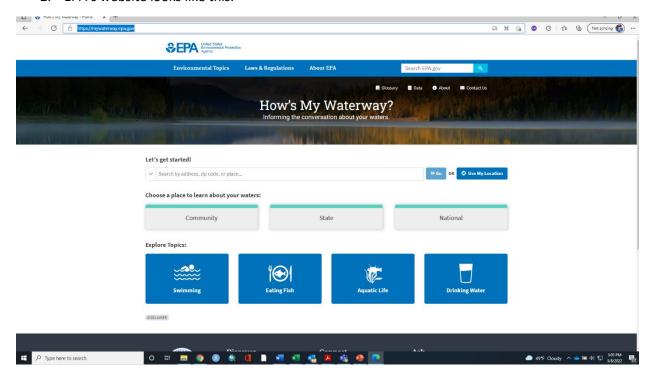
## EPA How's My Waterway?

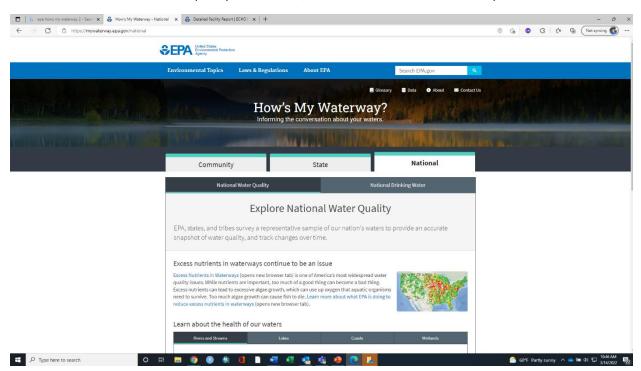
1. Navigate to 'EPA How's My Waterway 2"



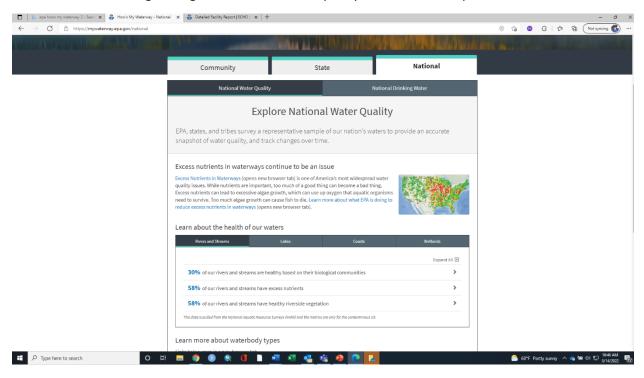
2. EPA's website looks like this.



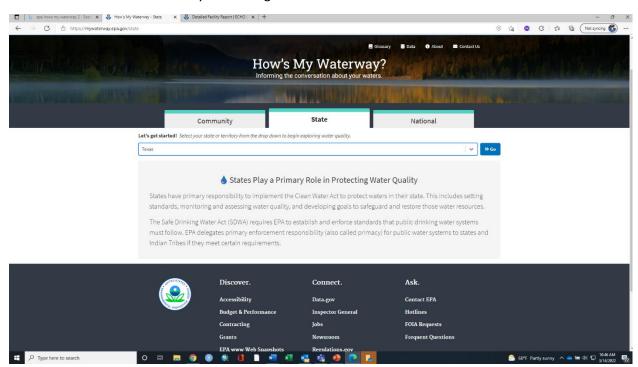
3. You can look at water quality on a nation, state, or local level. We will explore all of them.



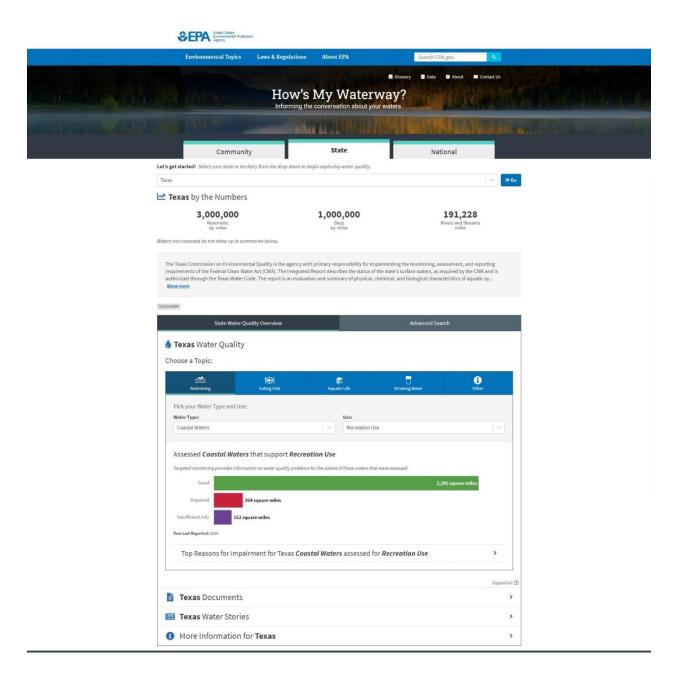
4. National level gives high overview of water quality from National Aquatic Resources studies.



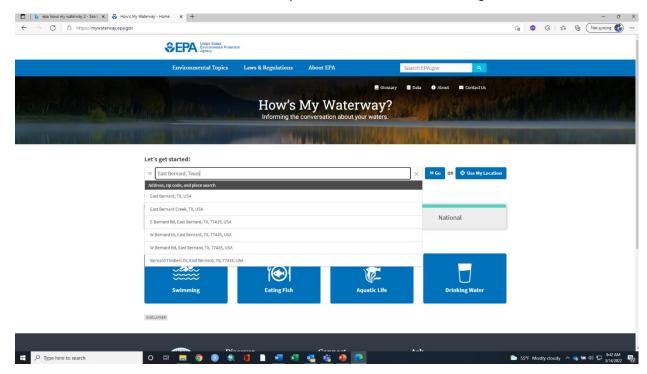
5. The state tab will allow you to navigate to a state



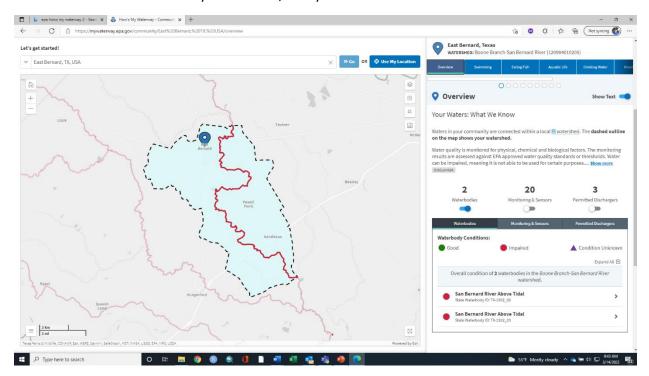
6. There is a bit more information under the states tab.



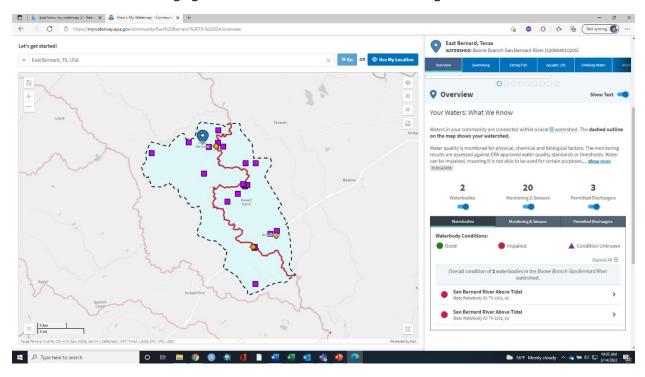
7. On to the local areas. Enter the area you are interested in in the navigation bar.



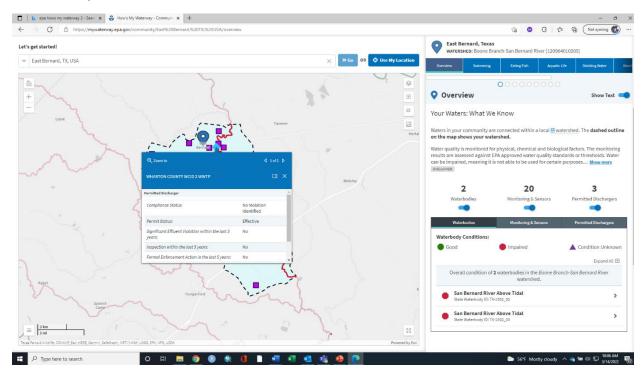
8. The website will show you the town/area you searched with the delineated watershed.



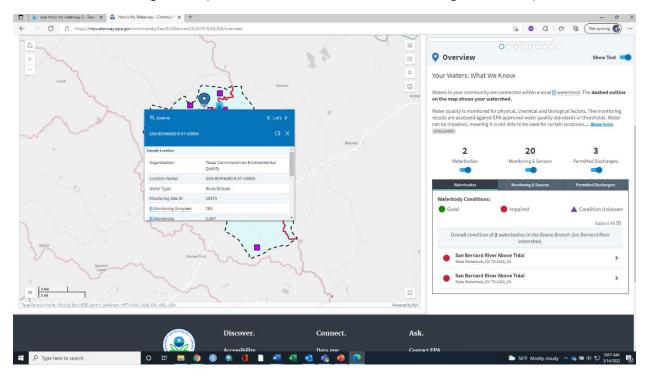
9. By clicking the 'monitoring stations' and 'permitted dischargers' button you can see what entities are discharging to the watershed and where monitoring has occurred.



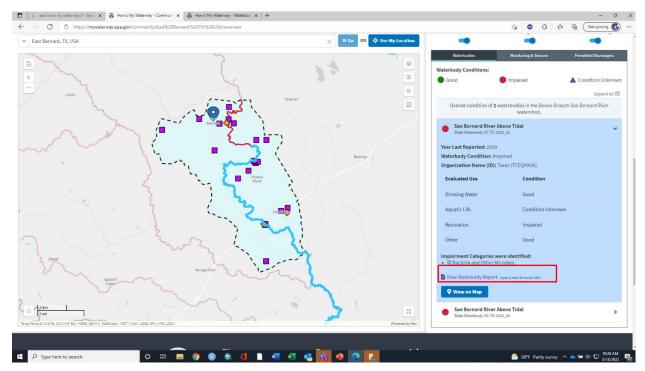
10. By hovering over each symbol and left clicking brings up an info windows showing some information about the permitted discharge.... (Information about the facility can be accessed here)



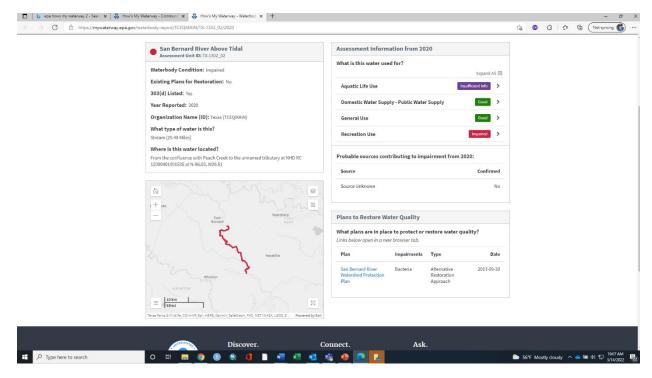
11. ...or monitoring station (data from this station is accessible through this screen)



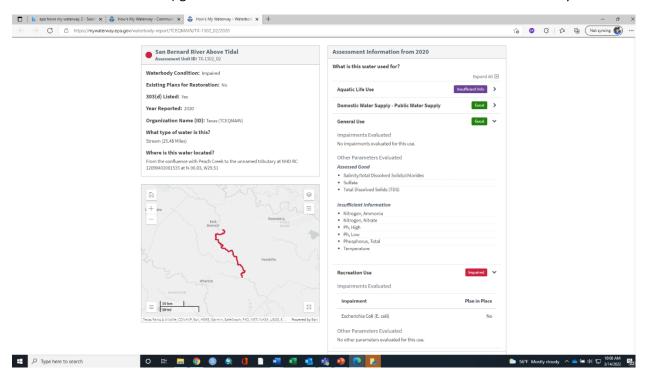
12. By hovering over the river/stream segment and left clicking you can get to the watershed report.



13. The waterbody report.

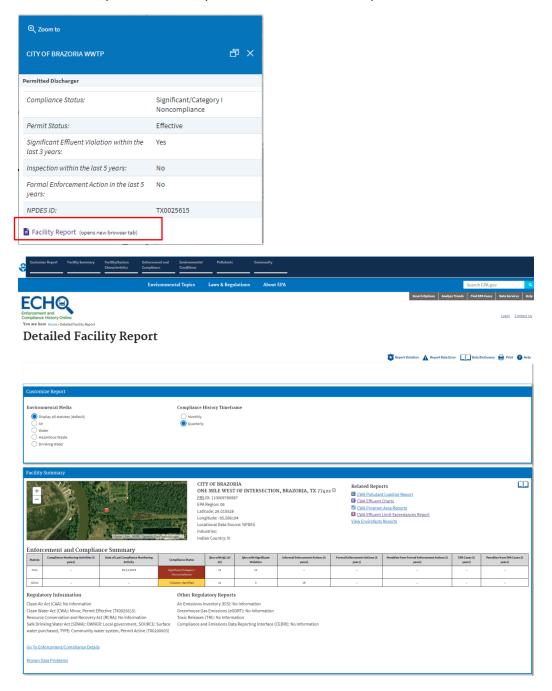


14. Click the buttons on the right hand side (aquatic life use, domestic water supply, general use, and recreation use) gives information about the state of this section of the waterbody.



## EPA Enforcement and Compliance History Online (ECHO)

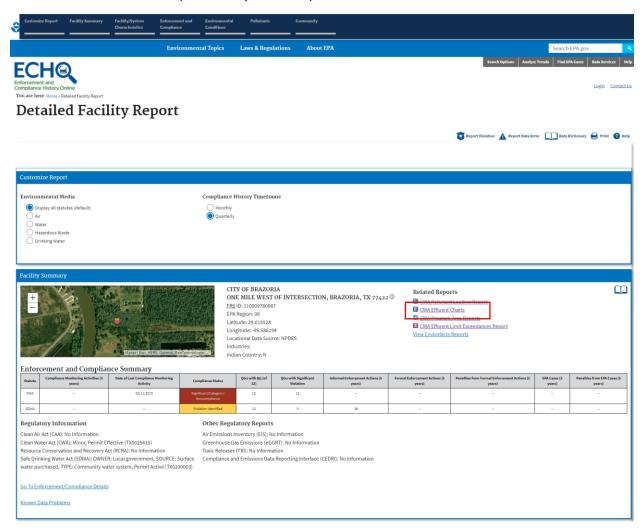
1. When you open up a permitted discharge window from the How's My Waterway website you can go to 'Facility Report' at the bottom of the window. This link will take you to the EPA's ECHO database Detailed Facility Report for that individual permit. This example is not to single out any individual entity but to demonstrate the capabilities of the database.



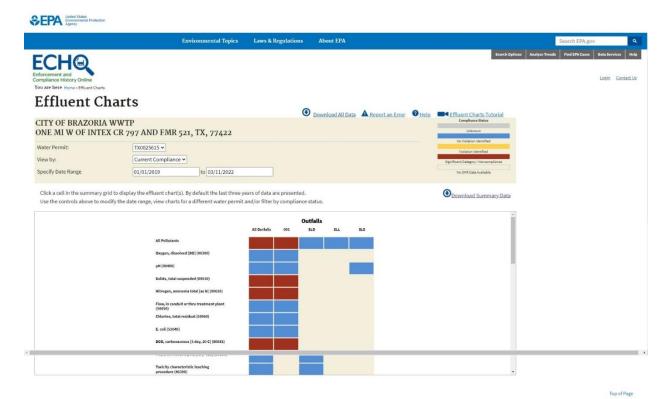
2. Scrolling further down the initial page for the facility shows the different types and levels of non-compliance by quarter for the previous three years.

Three-Year Compliance History by Quarter										Download	Data 🔲						
Statute	Program/Pollutant/Violation Type			QTR1	QTR 2	QTR3	QTR4	QTRS	QTRG	QTR 7	QTRS	QTR9	QTR 10	QTR 11	QTR 12	QTR 13+ ①	
	CWA (Source ID: TX0025615)				01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01- 03/11/22
	Facility-Level Status				Significant/ Category I Noncompliance	Violation Identified											
	Quarterly Noncompliance Report History			Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit	Effluent - Monthly Average Limit		
	Pollutant	Disch Point	Mon Loc	Freq													
► CWA	BOD, carbonaceous (5 day, 20 C)	001 - A	Effluent Gross	Mthly	19%	20%	30%				33%	90%				80%	180%
► CWA	BOD, carbonaceous (5 day, 20 C)	001 - A	Effluent Gross	NMth	12%	90%		8%			112%	152%				27%	112%
► CWA	E. coli	001-A	Effluent Gross	NMth							507%						
► CWA	Flow, in conduit or thru treatment plant	001 - A	Effluent Gross	Mthly	75%	73%	16%	23%	54%					86%	26%	16%	
► CWA	Nitrogen, ammonia total [as N]	001 - A	Effluent Gross	Mthly	216%	724%	400%	350%	450%	550%	425%	450%	380%	475%	175%	300%	350%
► CWA	Nitrogen, ammonia total [as N]	001-A	Effluent Gross	NMth		200%	240%	106%	150%	220%	176%	280%	130%	170%	50%	116%	130%
► CWA	Solids, total suspended	001 - A	Effluent Gross	Mthly	169%	376%	7616	28%	64%	47%	53%	100%	40%	133%	105%	34%	
► CWA	Solids, total suspended	001 - A	Effluent Gross	NMth		8%	39%	63%									
	Permit Schedule Violations																
CWA	itatus/Progress Report									07/15/2020	12/14/2020						
CWA	Status/Progress Report										10/15/2020- 12/14/2020						
CWA	Status/Progress Report												04/15/2021	08/06/2021			
CWA	Status/Progress Report													07/15/2021-08/06/2021			
CWA	Status/Progress Report														10/15/2021-11/03/2021		
	Late or Missing Discharge Monitoring Report (DMR) Measurements			MR)													
	Counts of Late DMR Measurements						36	1									

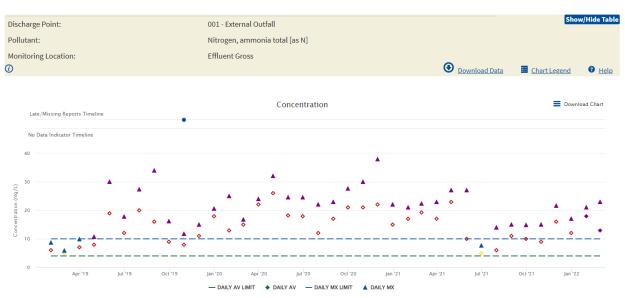
3. Scrolling back to the top we can look at the effluent data more closely by clicking the 'CWA Effluent Charts' link (outlined by a red box).



4. Clicking the 'CWA Effluents Chart' link brings us to charts page and gives us to option to see and download the discharge monitoring data that each facility is required by permit to submit to the TCEQ and EPA. Effluent parameters are listed along the left side of the page. Parameters that are noted with a blue box are in compliance and red boxes means non-compliance.

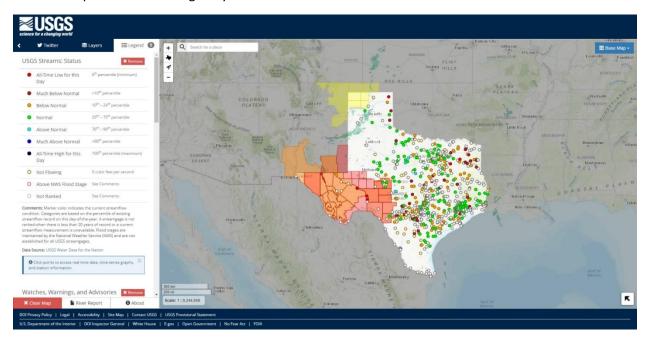


5. When we select one of the red boxes a chart below the list or parameters appears and is populated with the data for that parameter. This chart shows daily average (diamonds) and daily maximum (triangles) for ammonia-nitrogen. There are links to download the data and for a chart legend.

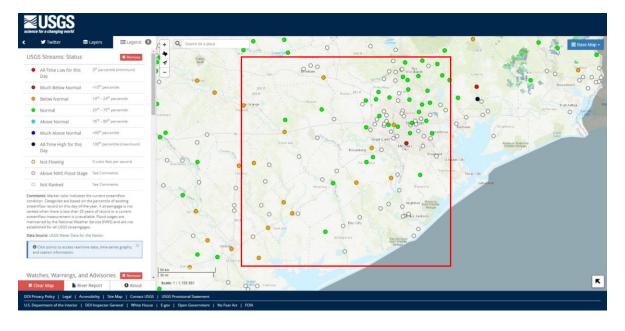


### USGS - Texas Water Dashboard

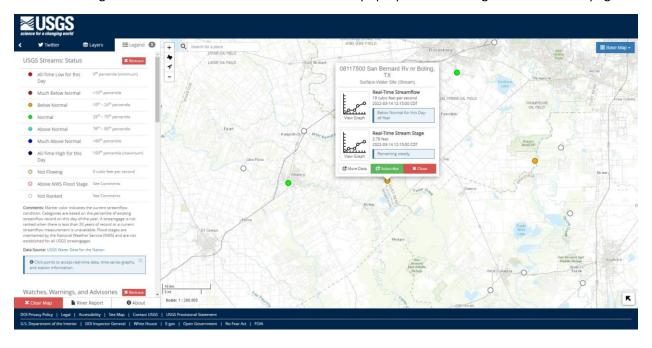
Searching for "USGS Texas Water Dashboard" or following this link (<u>USGS - Texas Water</u>
 <u>Dashboard</u>) will bring you to the Texas Dashboard. This is an interactive map that can take you to specific sites managed by the USGS in Texas.



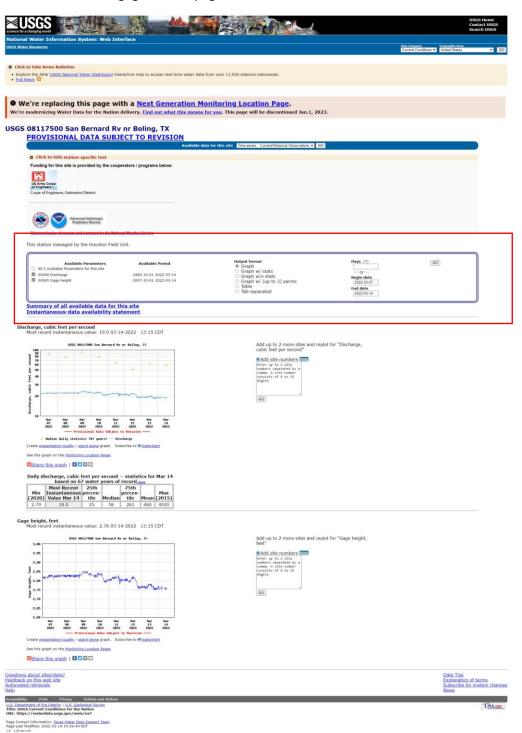
2. Using the mouse wheel to zoom into our area of interest we can start to see the placement of the stations on the various waterbodies. We are currently looking at the San Bernard watershed.



3. Zooming in even further gives more detail and we can select a station we are interested in. By clicking the "More Data" tab at the bottom of the pop-up window brings us to this site's page.



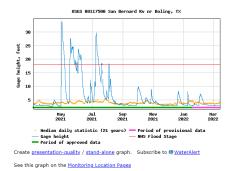
4. Each USGS gage station page shows what information is available for that station.



5. By changing the date, we can see what the flows have been like in the San Bernard River at Boling, Texas. I have put in the dates to look at the last years' worth of flow data.

This station managed by the Houston Field Unit. Output format
O Graph
Graph w/ stats
Graph w/o stats
Graph w/ (up to 3) parms
Table Days (372) GO Available Parameters Available Period All 2 Available Parameters for this site □ 00060 Discharge
 □ 00065 Gage height 1990-10-01 2022-03-14 2021-03-07 2007-10-01 2022-03-14 End date 2022-03-14 O Tab-separated Summary of all available data for this site Instantaneous-data availability statement Discharge, cubic feet per second Most recent instantaneous value: 19.0 03-14-2022 13:15 CDT USGS 08117500 San Bernard Rv nr Boling, TX Add up to 2 more sites and replot for "Discharge, cubic feet per second" Add site numbers Note
Enter up to 2 site
numbers separated by a
comma. A site number
consists of 8 to 15
digits GO edian daily statistic (67 years) — Period of Discharge Estimated discharge Create <u>presentation-quality</u> / <u>stand-alone</u> graph. Subscribe to <u>ⓐ WaterAlert</u> See this graph on the Monitoring Location Pages Bhare this graph | ■ ■ 

Gage height, feet
Most recent instantaneous value: 2.76 03-14-2022 13:15 CDT

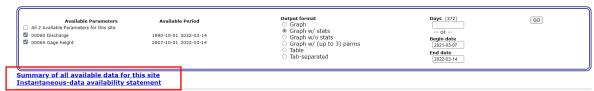


Add up to 2 more sites and replot for "Gage height, feet"

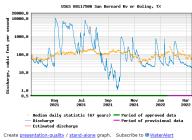
Add site numbers the factor of the feet of

#### 6. And you can also access a summary table for the data at each site.

This station managed by the Houston Field Unit.



Discharge, cubic feet per second Most recent instantaneous value: 19.0 03-14-2022 13:15 CDT



See this graph on the Monitoring Location Pages

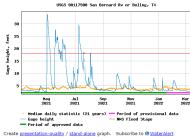
Share this graph | f ☑ □ □ Daily discharge, cubic feet per second -- statistics for Mar 14

based oil of water years of record more											
	Most Recent	25th		75th							
	Instantaneous			percen-		Max					
(2020)	Value Mar 14	tile	Median	tile	Mean	(2015)					
2.79	19.0	25	58	261	460	4920					

Add up to 2 more sites and replot for "Discharge, cubic feet per second"



Gage height, feet
Most recent instantaneous value: 2.76 03-14-2022 13:15 CDT



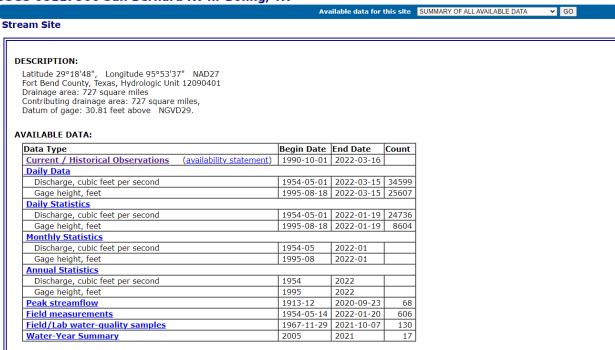
See this graph on the Monitoring Location Pages

Add up to 2 more sites and replot for "Gage height, feet"

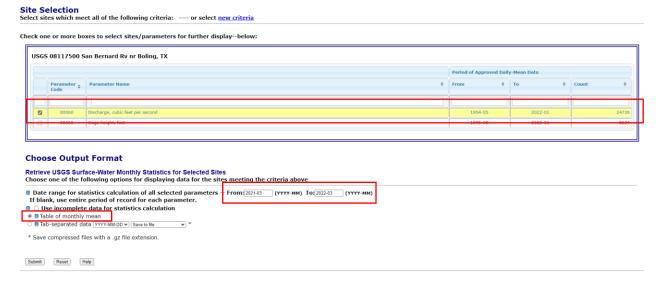


7. Here is what the summary data looks like





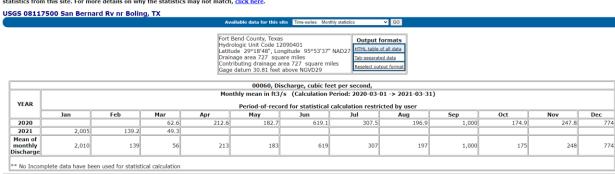
8. Drilling down further we can look at daily discharge and gage height data and the daily, monthly, annual statistics as well as any field measurements or water quality samples the USGS collected at the site. I have chosen to look at the monthly statistics. I picked "Discharge" and entered in the dates for the last year and asked for a table of the monthly means.



9. The data is returned to us in a table format showing the monthly means from March 2020 through March 2021.

#### **USGS Surface-Water Monthly Statistics for the Nation**

The statistics generated from this site are based on approved daily-mean data and may not match those published by the USGS in official publications. The user is responsible for assessment and use of statistics from this site. For more details on why the statistics may not match, click here.

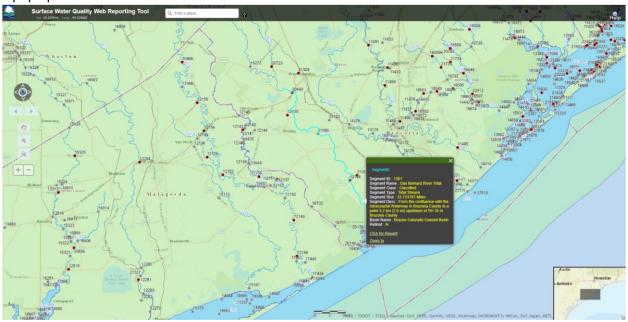


# TCEQ Surface Water Quality Web Reporting Tool

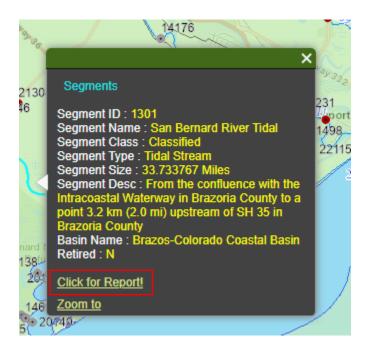
1. The TCEQ Surface Water Quality Web Reporting Tool can be used to download batches of water quality data by TCEQ segment.



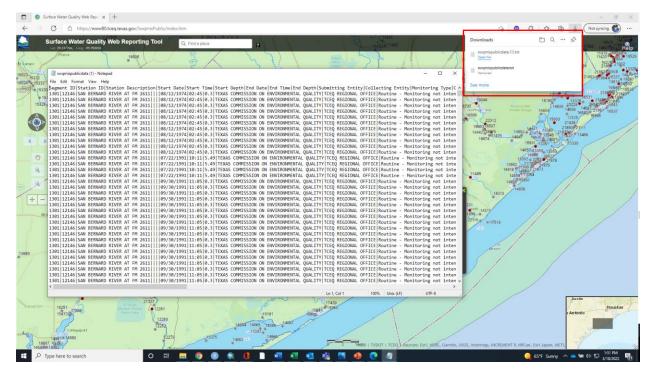
2. Using the mouse wheel, you can zoom to the San Bernard River. As the user gets closer the data layers appear showing streams and monitoring locations. Clicking on the stream will open a pop up window.



3. In the pop-up window is a link titled "Click for Report".



4. Clicking this link will download the water quality data for that Segment (1301). Depending on what browser you are using the browser will let you know when the data is downloaded. I am using Edge here and by opening the file in the browser pop up the file opens in Notepad.



For any further questions please contact Marty Kelly (TPWD – Water Resources) at (512) 389 – 8214 or email at marty.kelly@tpwd.texas.gov