

Galveston Bay Status and Trends:

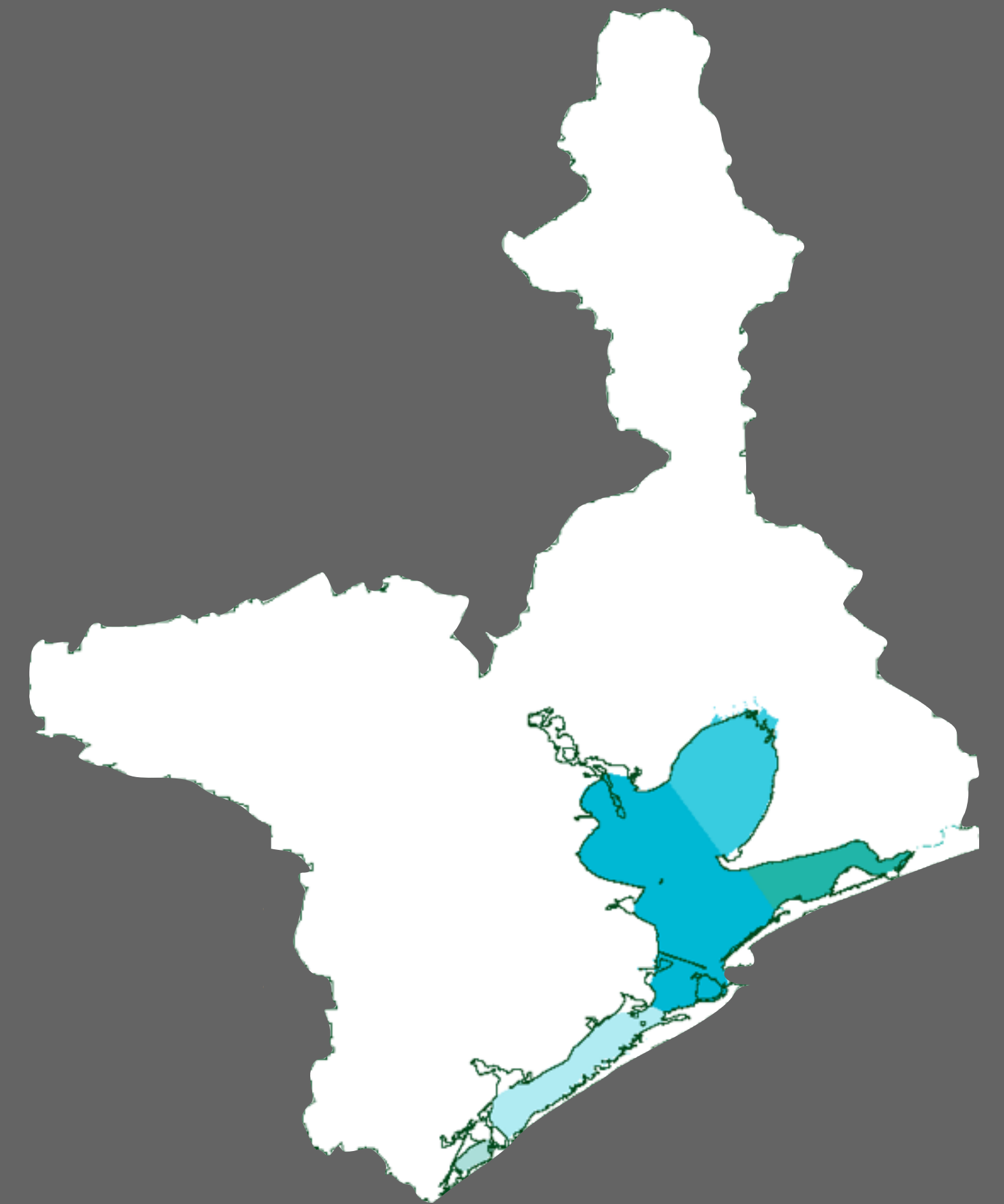
Building off a history of success

Helen Walters, William Mobley, Sam Brody, Ph.D.

Center for Texas Beaches & Shores. Texas A&M - Galveston Campus

Stuart Carlton, Ph.D.

Texas Sea Grant College Program



Acknowledgements



Updating the Galveston Bay Status and Trends

What is the Galveston Bay Status and Trends?

What is worth keeping? How can we build off the success?

Classic website

www.galvbaydata.org



A collection of data

Living organisms & their habitats

Galveston Bay Status and Trends

Home | **State of the Bay** | Water & Sediment | Living Resources | Habitat | Seafood Safety | Ecosystem Services

You are here: [Home](#)

Indicators of Bay Health

Welcome to the Galveston Bay Status and Trends website. The website serves as an entry to data describing Galveston Bay and its surrounding watershed. Please use the navigation area above to explore the status and trends of Galveston Bay resources and the indicators of bay health that interest you.

Why Do We Need to Manage the Bay?

Whether you live on the shore of the bay, Galveston Island, or on the west side of Houston, the Houston-Galveston region is defined by its coastal location and proximity to Galveston Bay. A healthy bay and watershed which are managed wisely provide a unique environment to all who live, work, and play in the Houston-Galveston region. Managing bay and watershed resources to promote wise use and protection will sustain those resources for generations to come. In order to manage bay and watershed resources successfully, we need to understand ecosystem processes and the impacts of human uses on bay resources. Status and Trends and indicators of bay health are information tools which facilitate sound management of the Galveston Bay Ecosystem.

Why Do We Study Status and Trends?

Certain aspects of Galveston Bay and the surrounding watershed can be examined to assess the overall health of the complex bay ecosystem - these are referred to as Indicators of Bay Health. Important indicators of bay health include: water and sediment quality, populations of native and nonnative fish and wildlife, quantity and quality of diverse habitats, and the amount of freshwater flowing into the bay.

Since Galveston Bay exists in a large metropolitan area, one must also look at the status and trends of human uses of the bay and watershed ecosystems including: recreational and commercial fisheries harvest, seafood safety, transportation and shipping, recreation, and commercial and residential development.

While each indicator provides insight into one aspect of bay health and each can be examined independently, all are interconnected. Therefore, it is very important to have an integrated, ecosystem-level understanding of the state of Galveston Bay using data from various sources. Information describing the indicators of bay health is routinely gathered by many agencies and organizations at the federal, state, and local level. The Galveston Bay Status and Trends project gathers, manages, and analyzes the data and makes them available through one website.

The State of the Bay
A characterization of the Galveston Bay Ecosystem
Third Edition
A publication of the Galveston Bay Estuary Program

[About](#) | [Reports](#) | [Maps](#) | [Contact Us](#)

sitemeter

Grouped by data type

User chooses location, parameter

Water and Sediment Quality Data Portal

Parameter Descriptions: Data describing six types of water and sediment quality parameters can be accessed via the Galveston Bay Water and Sediment Quality Data Portal:

Water Quality:

- Conventional parameters (temperature, salinity, pH, etc.)
- Nutrients (ammonia, nitrate-nitrite, total phosphorus, etc.)
- Pathogens (fecal coliform bacteria, E. coli, Enterococci)

Sediment Quality:

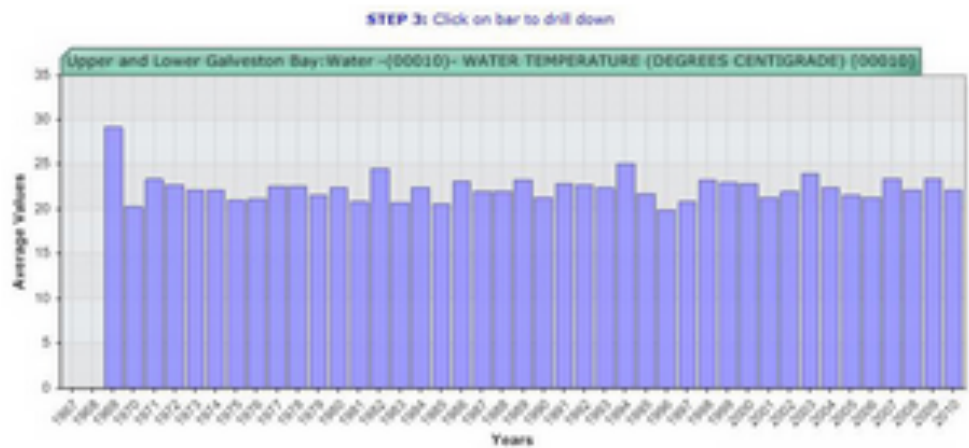
- Industrial organics (naphthalene, PCBs, etc.)
- Organic pesticides (chlordane, DDT, dieldrin, lindane)
- Heavy metals (Arsenic, cadmium, lead, mercury, etc.)

How to Access the Data:

STEP 1: Select a Subbay or Tributary



STEP 3: Click on bar to view chart



STEP 2: Select a parameter



STEP 4: Download Dataset for current selection

STEP 4: Download Dataset for current selection

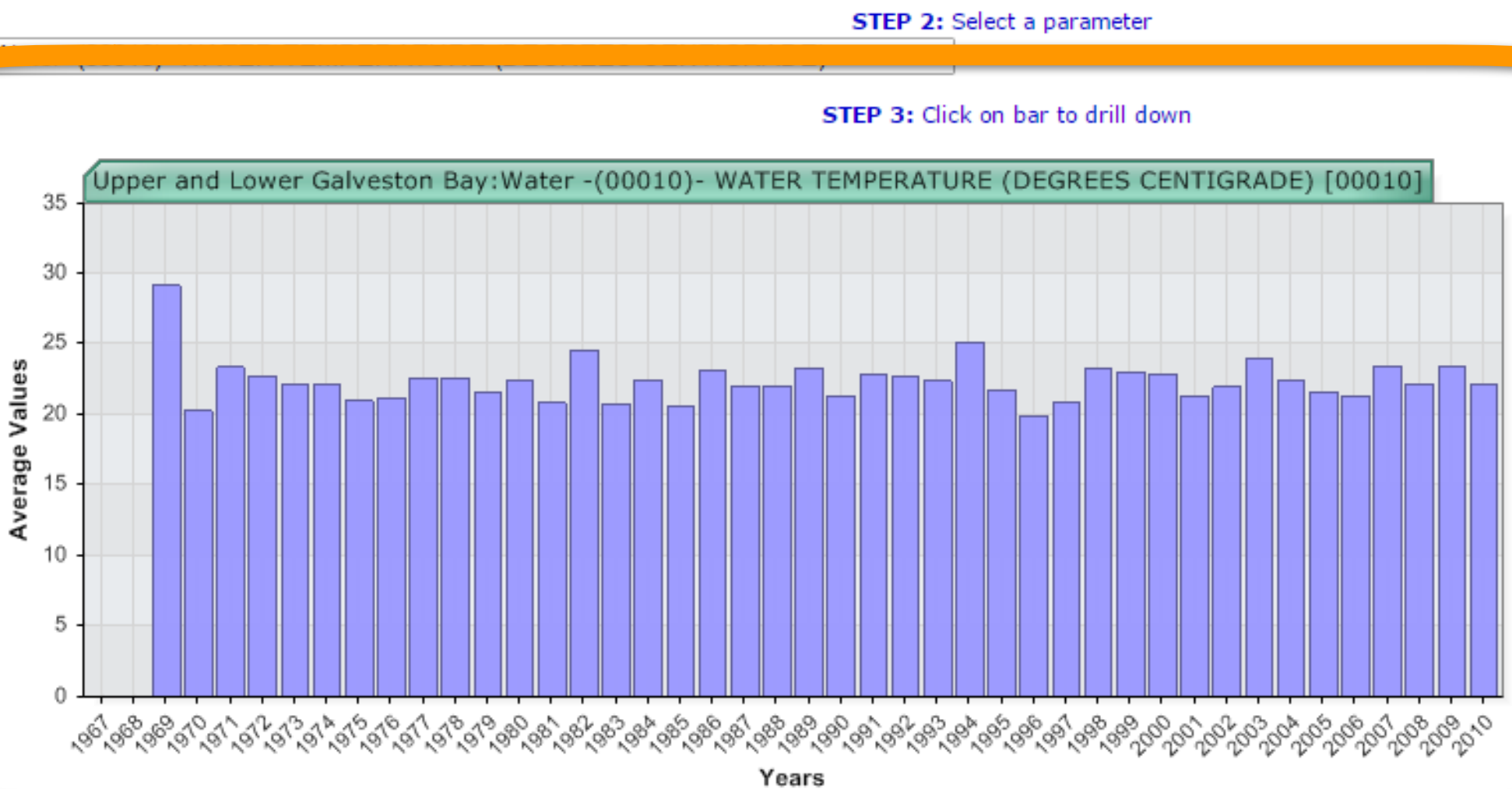
[Export Data to Excel](#)

Average Values	
Years	Average Values
1967	0.00
1968	0.00
1969	29.20
1970	20.28
1971	23.38
1972	22.74
1973	22.22
1974	22.09
1975	20.98
1976	21.17
1977	22.56
1978	22.65
1979	21.58

Graphed and charted in summary form

Primarily averages

Upper and Lower Galveston Bay Water -(00010)- WATER TEMPERATURE (DEGREES CENTIGRADE)



STEP 4: Download All years Data for current selection

Export Data to Excel

(*) Indicates Average Values were calculated with an insufficient sample size

Years	Sample Size	Std Dev	Flags
1968			*
1969	6	2.5	*
1970	13	9.59	
1971	12	5.31	
1972	14	6.32	
1973	21	6.2	
1974	24	5.73	
1975	24	7.59	
1976	23	7.57	
1977	24	6.99	
1978	28	6.93	
1979	24	7.35	
1980	21	6.57	

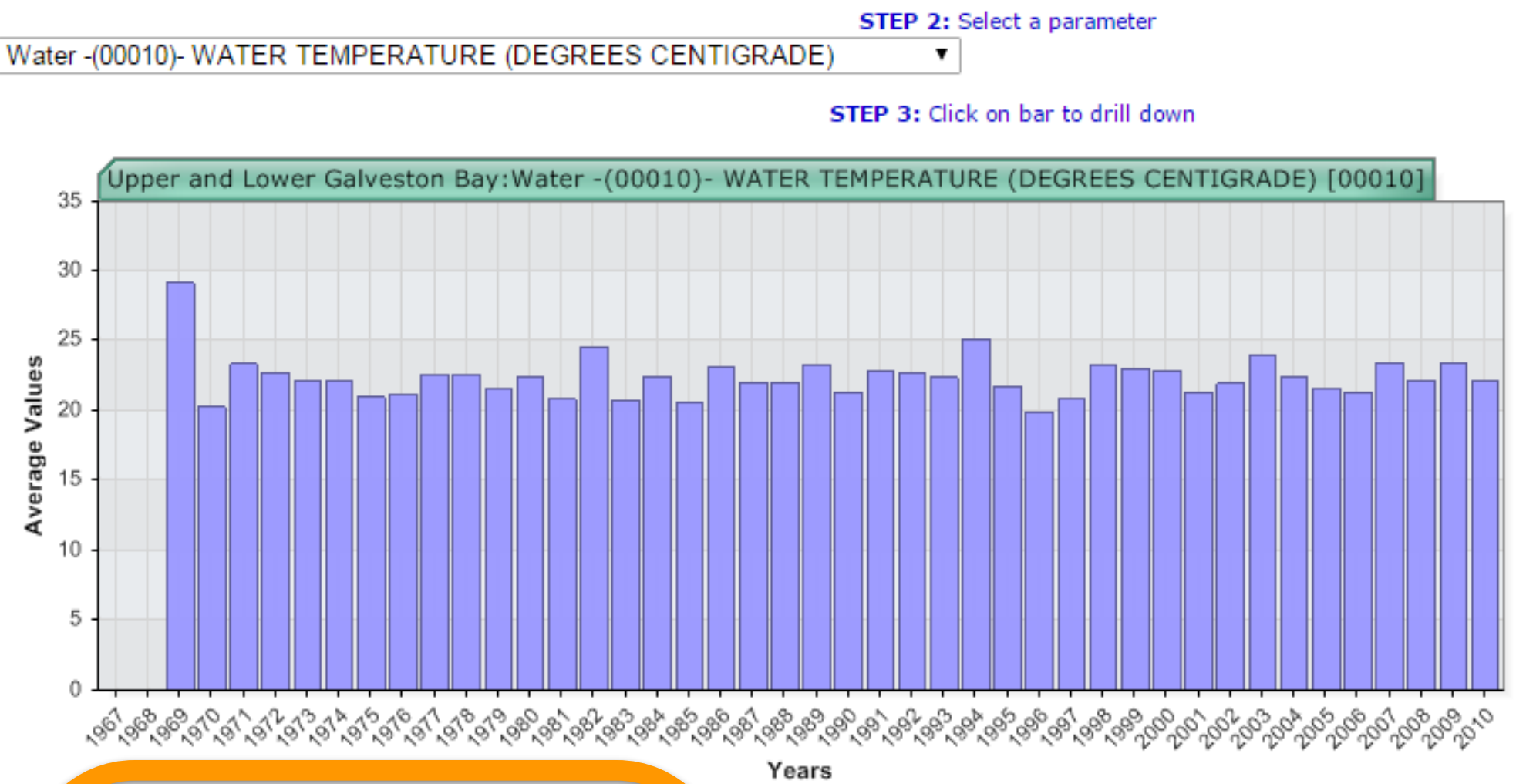
Average Values

Years	Average Values
1967	0.00
1968	0.00
1969	29.20
1970	20.28
1971	23.38
1972	22.74
1973	22.22
1974	22.09
1975	20.98
1976	21.17
1977	22.56
1978	22.65
1979	21.58

Data export is available

Experts can roll their own

Upper and Lower Galveston Bay Water -(00010)- WATER TEMPERATURE (DEGREES CENTIGRADE)



STEP 4: Download All years Data for current selection

Export Data to Excel

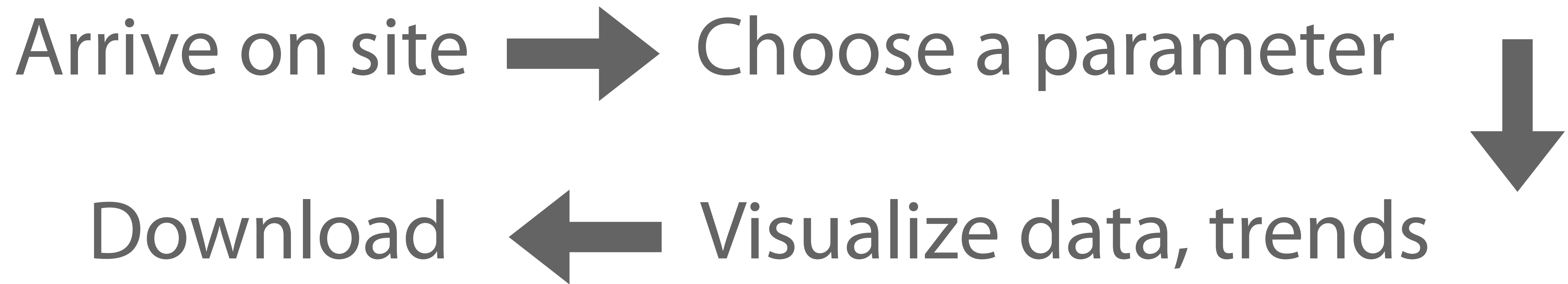
(*) Indicates Average Values were calculated with an insufficient sample size

Years	Sample Size	Std Dev	Flags
1968			*
1969	6	2.5	*
1970	13	9.59	
1971	12	5.31	
1972	14	6.32	
1973	21	6.2	
1974	24	5.73	
1975	24	7.59	
1976	23	7.57	
1977	24	6.99	
1978	28	6.93	
1979	24	7.35	
1980	31	6.57	

Average Values	
Years	Average Values
1967	0.00
1968	0.00
1969	29.20
1970	20.28
1971	23.38
1972	22.74
1973	22.22
1974	22.09
1975	20.98
1976	21.17
1977	22.56
1978	22.65
1979	21.58

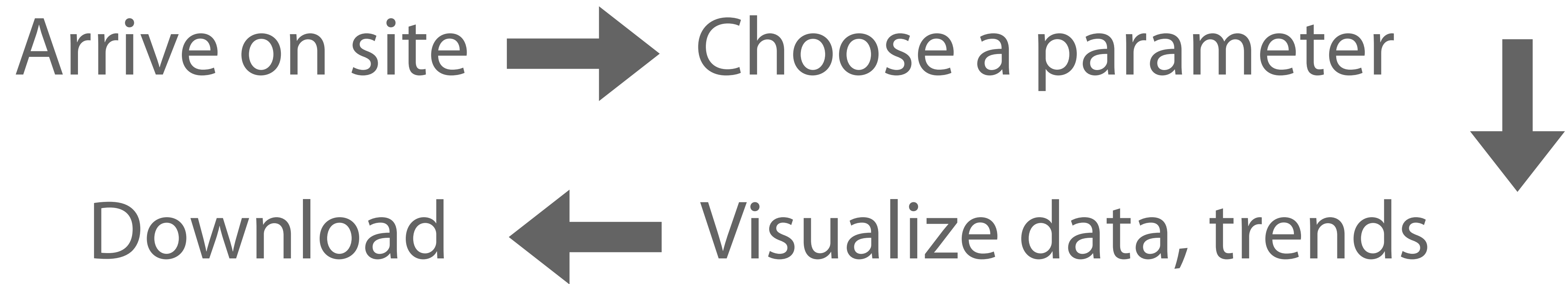
User flow

What might someone do with Status and Trends?

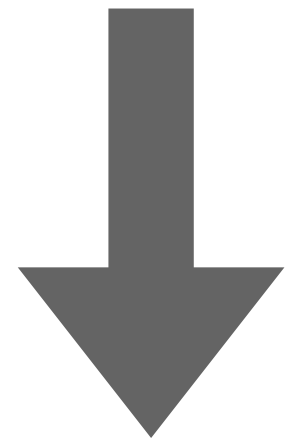


User flow

What might someone do with an updated Status and Trends?



Arrive on site → Choose a parameter



Download ← Visualize data, trends

Open formats

Detailed metadata

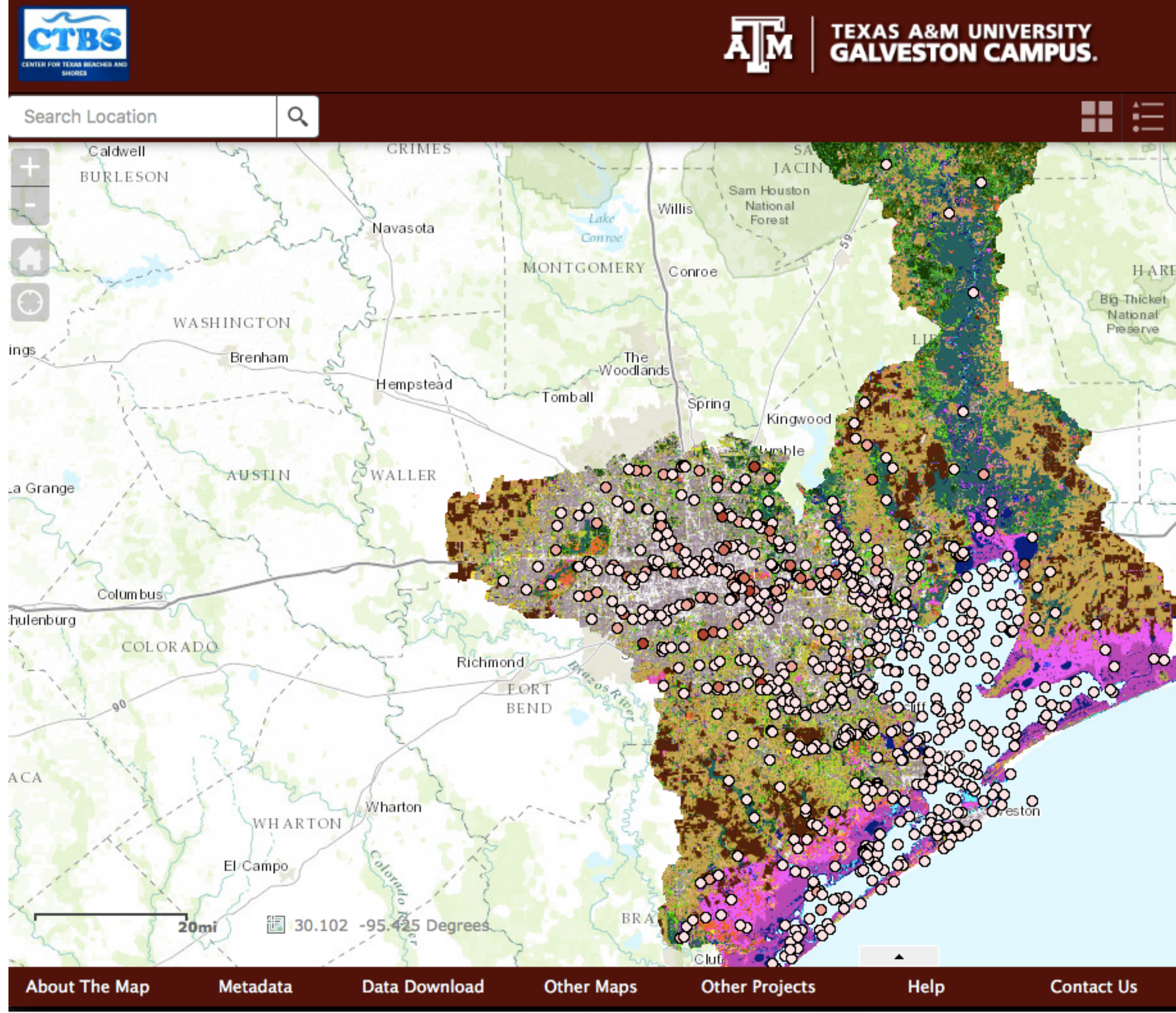
Compare w/other parameters

Geospatial query & analysis

Create maps

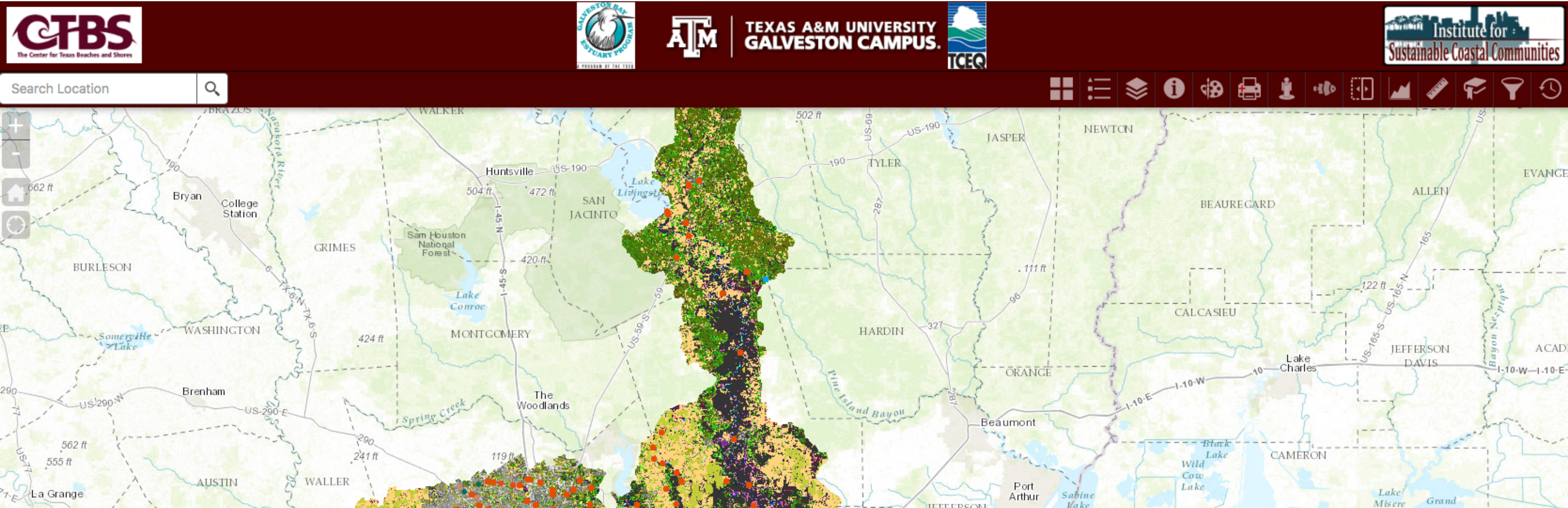
etc.

Demonstration



The new Galveston Bay Status and Trends

Power for experts, guidance for newbies



Thank you

