

Why Are the Bacteria Counts in My Stream So High?



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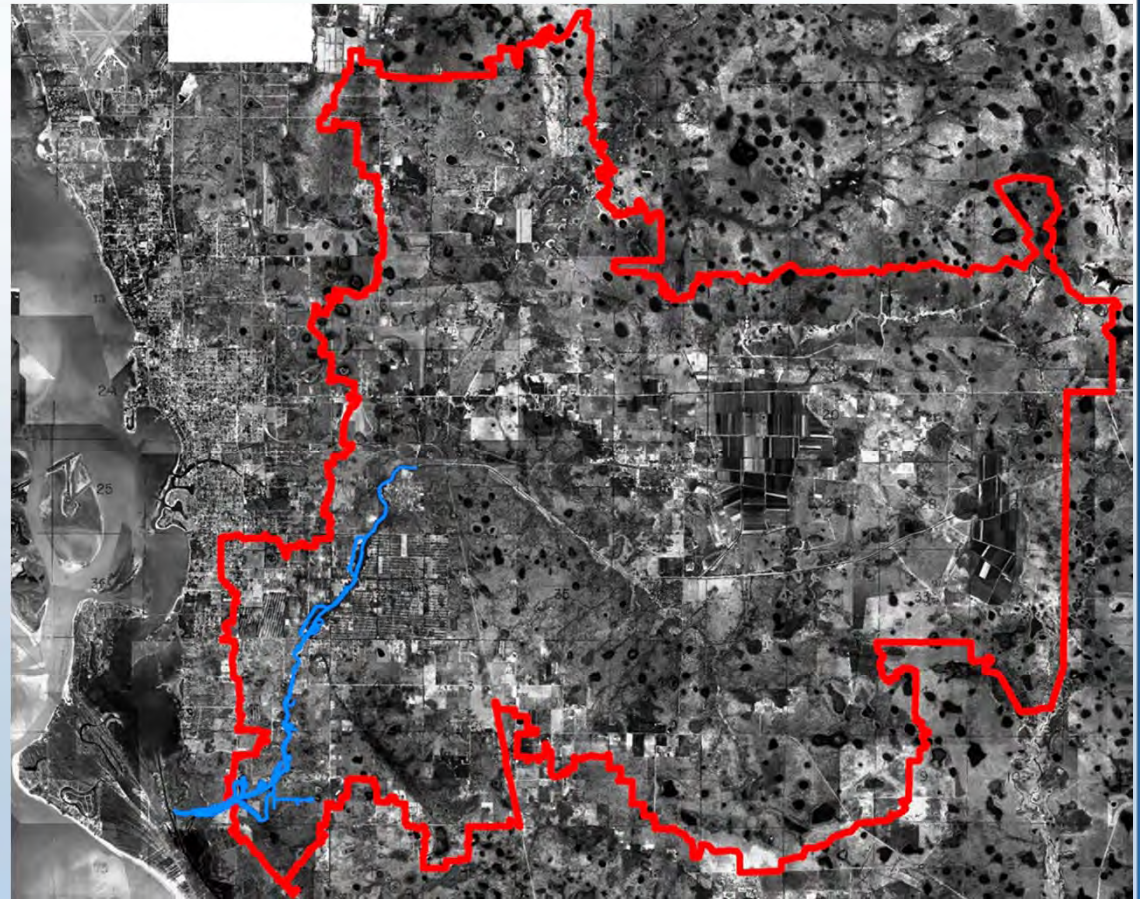
Phillippi Creek

Sarasota, FL

In the Beginning - Phillippi Creek Background

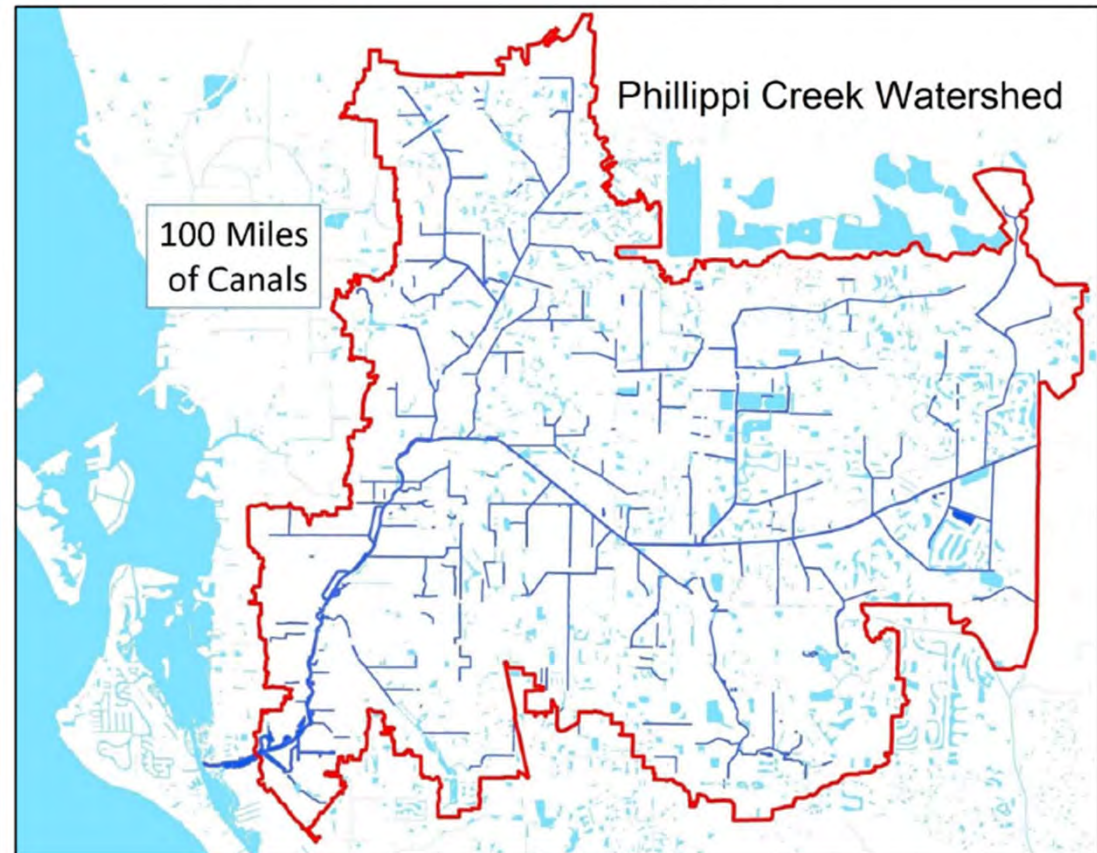
As early as 1948, there is evidence Phillippi Creek was channelized to accommodate widespread agricultural use.

By 1974, the watershed saw additional alterations with the conversion of some agricultural land to residential/industrial use, and the construction of canals for drainage and creation of water front property and access to the bays.



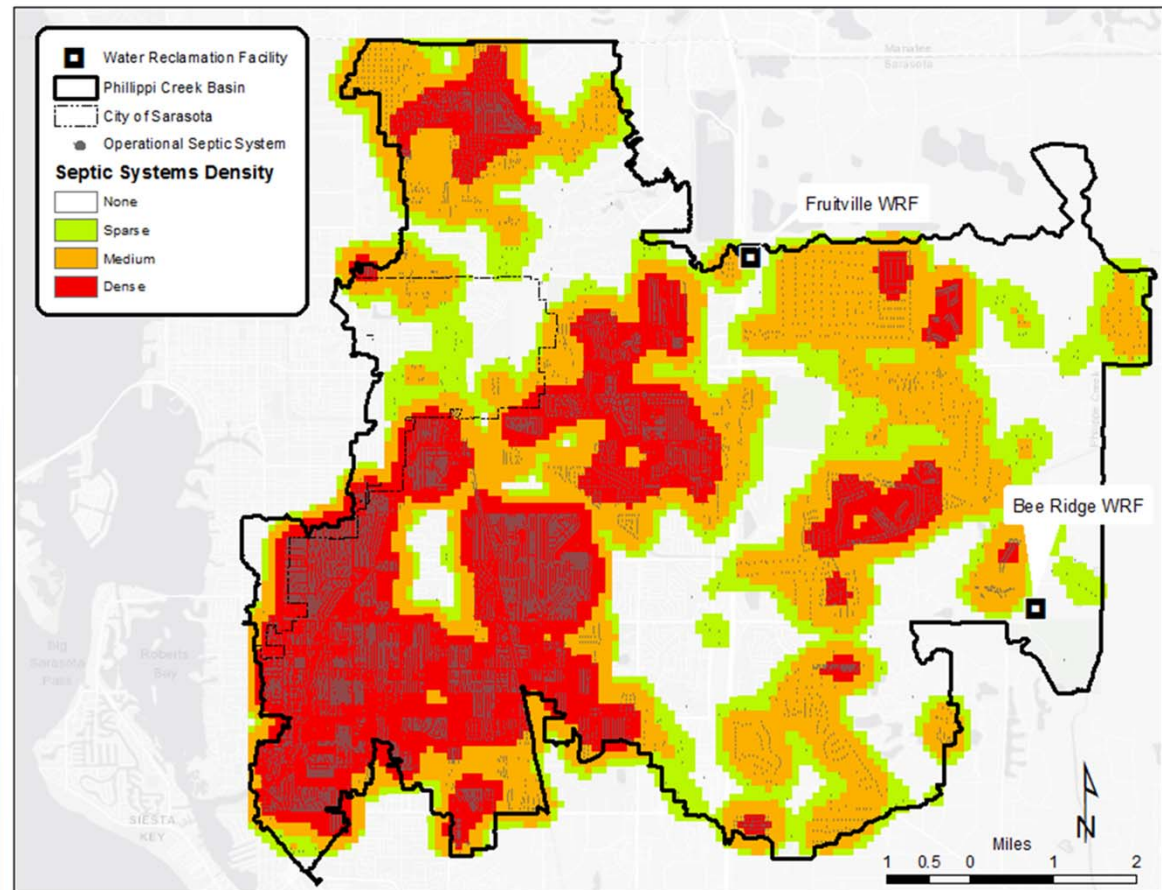
In the Beginning – the NEW Phillippi Creek Watershed

Since 1974 the majority of historic floodplain along the creek has been converted to residential and commercial use. Today, Phillippi Creek drains nearly 56 square miles of watershed that includes such land uses as residential (both high and low density) hobby farms, golf courses, and mixed industrial use.



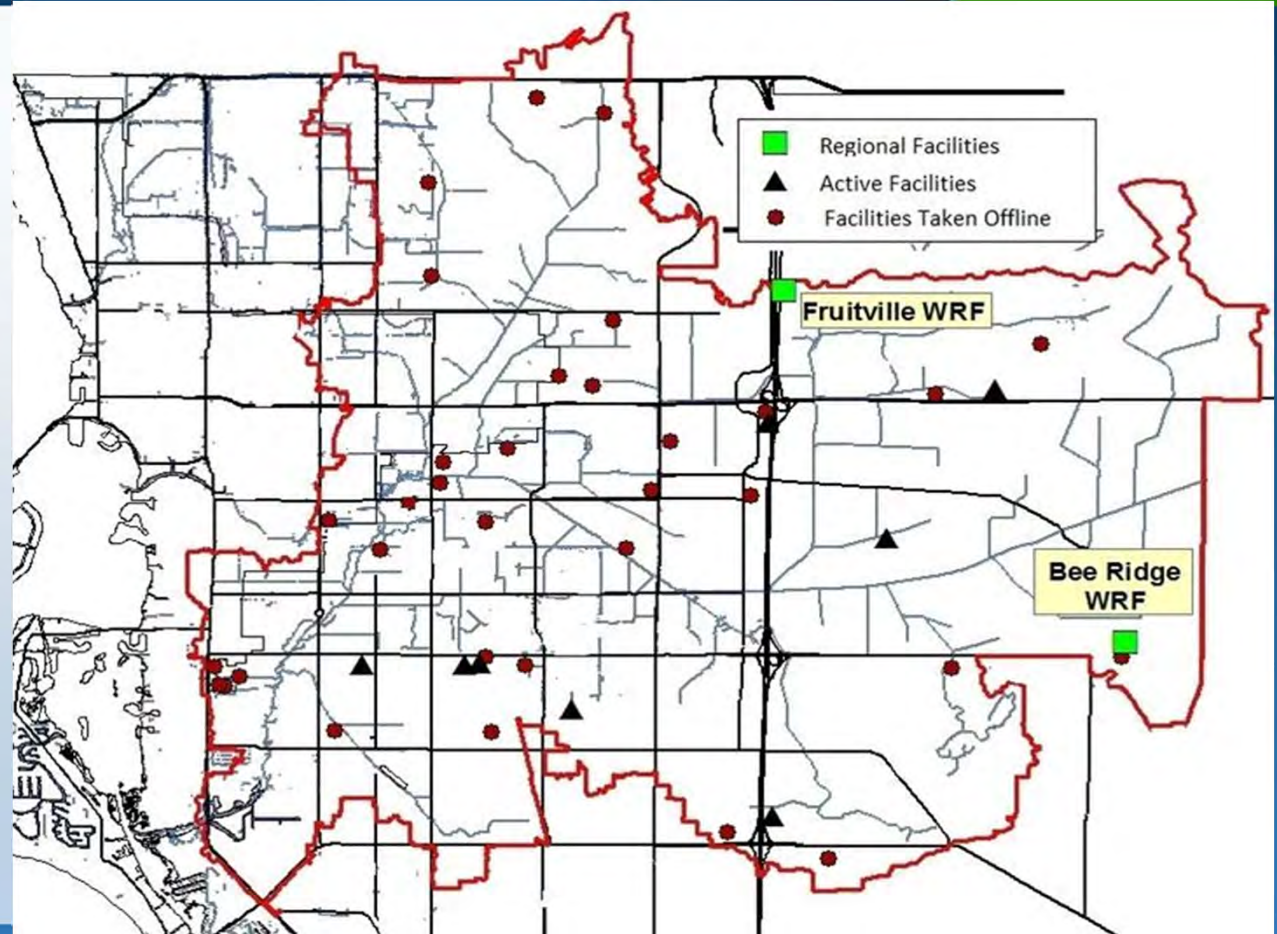
In the Beginning – Septic Tank Locations

Most of the building occurred prior to stormwater rules and sanitary sewer.



In the Beginning - Private Package Plants

It was common for communities to have their own on-site package plant



Beginning a Journey

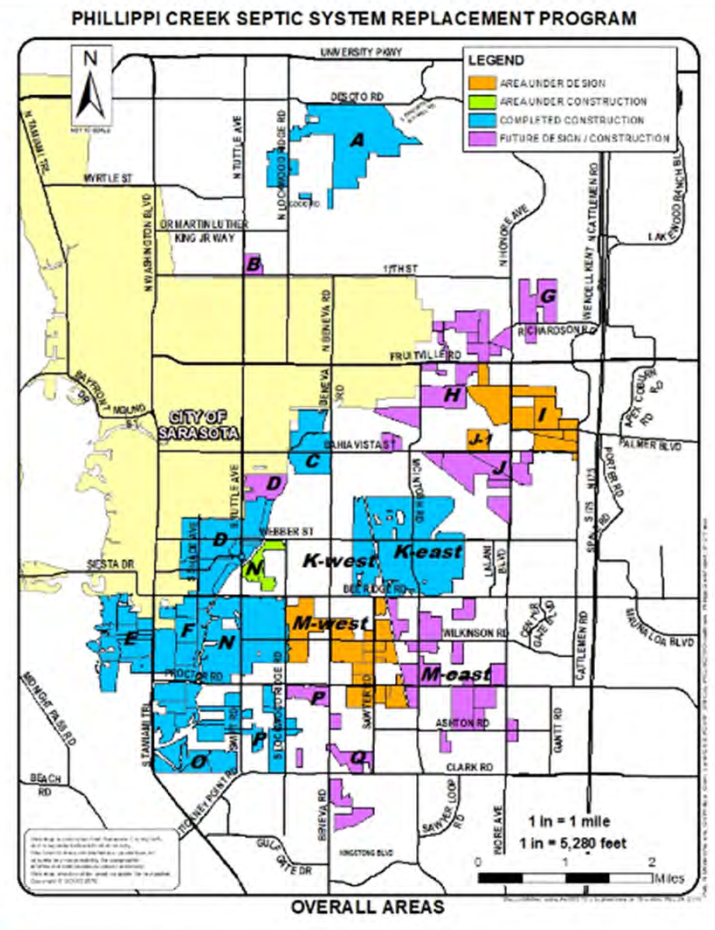
Phillippi Creek (WBID 1937) was verified impaired for fecal coliform bacteria as approved by the FDEP in November 1998 and is included on the 1998 303(d) list.

An EPA Total Maximum Daily Load (TMDL) was adopted for Fecal Coliform in 2010. This TMDL required a 98% reduction in bacteria.

....*“shall not exceed a monthly average of 200, nor exceed 400 in 10 percent of the samples, nor exceed 800 on any one day.”*

The Journey – Septic to Sewer

The replacement of On-site Septic Treatment Disposal Systems (OSTDS) in Sarasota County began in 2001 with 14,000 proposed to be pumped out and crushed in-place.



The Journey - Pet Waste Campaign

Pet waste was thought of to be a huge contributor to the bacterial problem.



pick it up!
THERE IS NO POOP FAIRY

The average dog poops **1/4 POUND** every day ... multiplied by 49,000 dogs in Sarasota County, that's **12 TONS.** It's estimated that 40% of people don't pick it up ... leaving **5 TONS of POOLLUTION** that can wash into our waterways. Every day.

1 Dog poop can transmit **PARASITES:** Parasite eggs can survive for years in your yard. *Warning: 200,000,000,000,000,000 parasites!*

2 Dog poop spreads harmful **BACTERIA:** A pound of poop contains 1 billion fecal coliform bacteria.

3 Dog poop releases **NITROGEN:** Nitrogen feeds algae blooms, which deplete light and oxygen from our waters — killing seagrass and fish.

The Journey – Septic Tank Care

Educating residents about their septic tank and the need for routine maintenance was emphasized.



Protecting Your Home, Caring for Your Septic System

Florida Department of Health, Bureau of Environmental Health

Your home is one of your greatest assets. In fact, for families of all kinds, it is a place of comfort and a source of great pride. But, did you realize that you can better protect the value of your home by taking good care of your septic system? Without a doubt, a key reason to maintain your septic system is money? Failing septic systems are not only expensive to repair and replace, they are something you can avoid.

Simple Steps, Long-lasting Results To avoid flushing thousands of dollars in repairs down the drain, keep your septic system in good working condition. This type of safe treatment of sewage prevents the spread of infection and disease and protects your water. Also, when a septic tank is working properly, it naturally removes most of the pollutants that can make you sick. If you follow these steps, your septic system will function to protect your health and your investment.

Remember the 3 Ps

PUMP

- Pump your tank at least every 3 to 5 years to help ensure it continues to work properly.
- Waste and kitchen garbage disposal material can build up over time, so pumping your system is an important step.
- Have your septic system inspected every 3 years by a licensed sewage disposal company to check for any problems.
- Having your system inspected and pumped on a regular basis is a bargain when you consider the cost of replacing the entire system.

PROTECT

- Do not drive over or park vehicles on your septic tank or drainfield.

- Plant only grass over and near your drainfield to avoid damage from roots.
- Make sure your gutter downspouts are directed away from the drainfield area.
- Fix leaky toilets and dripping faucets as soon as possible.

PREVENT

- Use your toilet to flush human waste only. Anything other than human waste can clog and possibly damage your septic system.
- Do not pour household products, such as cleansers, medicine, auto fluids, paint and lawn care products down the drain. These items can pollute surface and ground water, which supplies your drinking water. It may also end up in your local rivers, lakes and coastal waters.
- Compost your kitchen scraps rather than use your garbage disposal, to help your septic system last longer.

Do Not Waste Water Your system is sized on an expected average use of 50 gallons per person per day. Dripping faucets can waste about 2,000 gallons of water each year. Leaky toilets can waste as much as 200 gallons each day. Overloading your system with water is the number one cause of failure. So, remember to:

- Fill the bathtub with only as much water as you need.

- Turn off faucets while shaving or brushing your teeth.
- Run the dishwasher and clothes washer only when they are full.
- Make sure all faucets are completely turned off when not in use.
- Install water saving showerheads that release low levels of water.
- Make sure your toilets and faucets do not leak.

Do Not Overload Your Drainfield

- Keep roof drains and other rainwater or surface drainage systems away from the drainfield.
- Flooding the drainfield with too much water slows down or stops the treatment processes and can cause plumbing to back up.
- Distribute your laundry loads over the week.
- Your washing machine discharges 40 to 50 gallons every wash load and doing load after load on a single day can stress and overload your system.
- Consider composting rather than using a garbage disposal. This reduces the burden on your septic system while providing compost to make your garden grow.

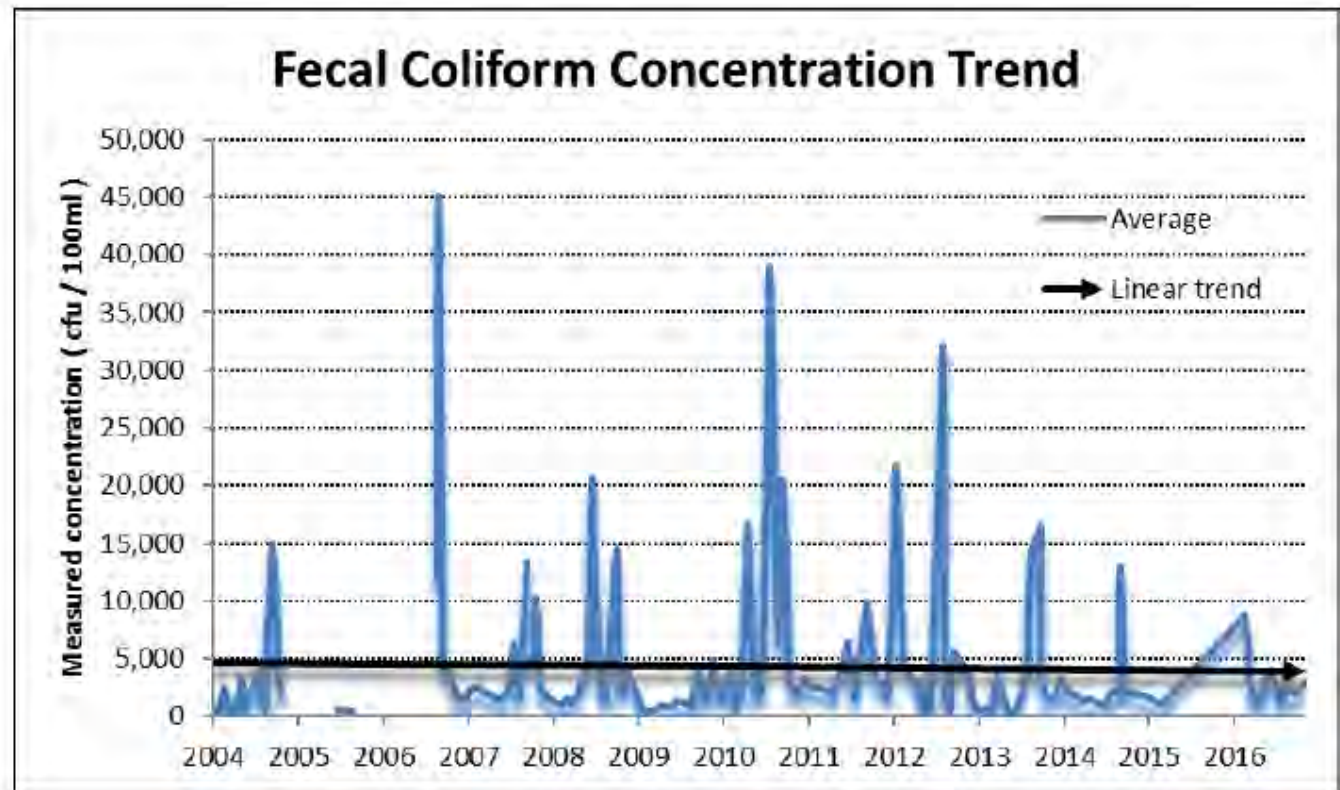
NEED MORE INFORMATION?

- For additional information on your septic system, contact the environmental health section at your county health department. You can also visit U.S. EPA sites: www.epa.gov/own/onsite or www.epa.gov/own/water-conservation.
- For a listing of licensed septic tanks contractors visit FloridaHealth.gov/healthy-environments/ and select "Onsite Sewage Programs."



The Journey - Trending in the Right Direction

Overall, the spikes have decreased, as well as the average count, however there is still a chronic exceedance.



The Journey – Keep Going!!!

WTW Walk the Watershed - 2016. At the encouragement of DEP, County staff conducted a Walk the Watershed exercise. This project involved gathering all stakeholders in the watershed for input.

- Staff from Sarasota County Utilities, Air and Water quality and Department of Health
- Staff from the City of Sarasota Utilities Department
- The residents close to the areas of chronically high exceedances

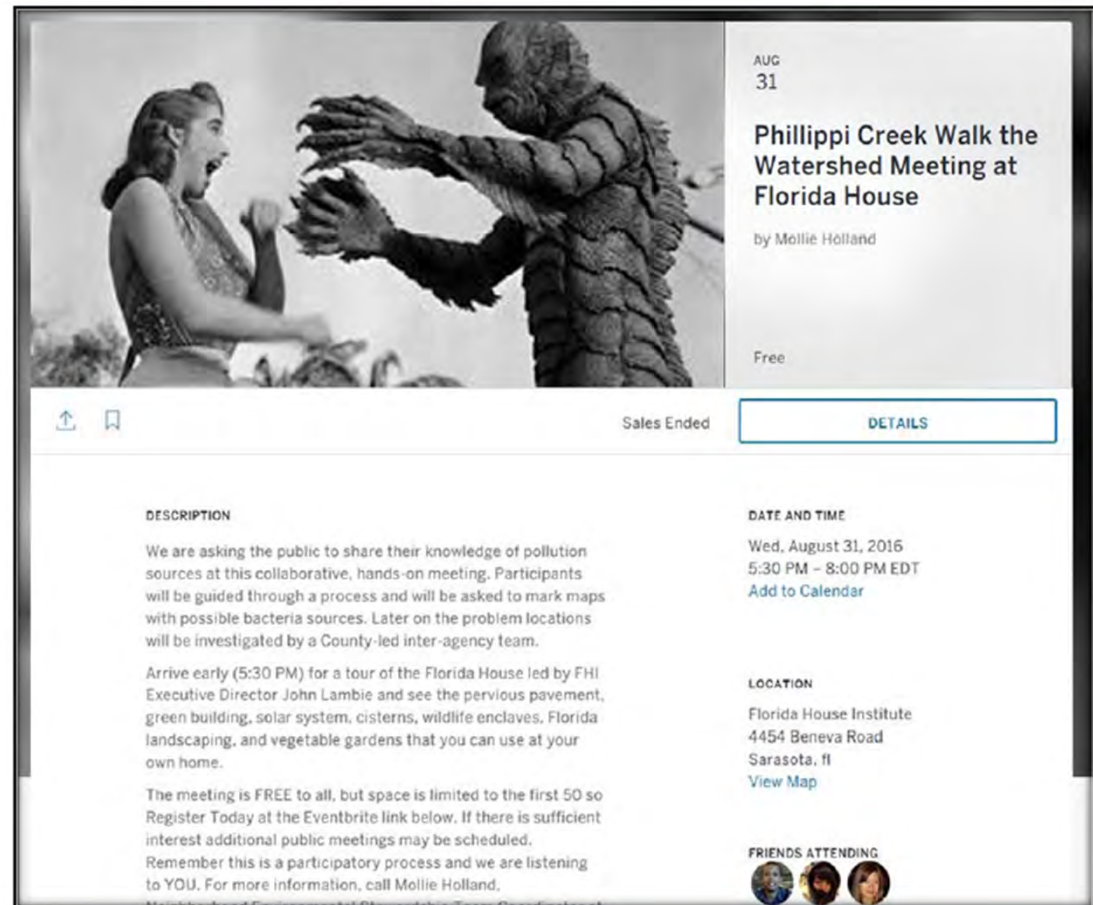
The Journey - WTW – Maps on the Table (Municipalities)

Under the watchful (and helpful!) eye of DEP, Sarasota County conducted the Maps on the Table exercise with staff from within the County, as well as the DOH and City of Sarasota.



The Journey - WTW – Maps on the Table (Municipalities)

Residents around the chronically high sampling areas were invited to the Maps on the Table session. Here they were broken in to teams – there were 4 maps of the area – and encouraged to scour the map and record any instances they might recall of potential sources.



AUG 31

Phillippi Creek Walk the Watershed Meeting at Florida House

by Mollie Holland

Free

Sales Ended [DETAILS](#)

DESCRIPTION

We are asking the public to share their knowledge of pollution sources at this collaborative, hands-on meeting. Participants will be guided through a process and will be asked to mark maps with possible bacteria sources. Later on the problem locations will be investigated by a County-led inter-agency team.

Arrive early (5:30 PM) for a tour of the Florida House led by FHI Executive Director John Lambie and see the pervious pavement, green building, solar system, cisterns, wildlife enclaves, Florida landscaping, and vegetable gardens that you can use at your own home.

The meeting is FREE to all, but space is limited to the first 50 so Register Today at the Eventbrite link below. If there is sufficient interest additional public meetings may be scheduled. Remember this is a participatory process and we are listening to YOU. For more information, call Mollie Holland.


DATE AND TIME

Wed, August 31, 2016
5:30 PM – 8:00 PM EDT
[Add to Calendar](#)

LOCATION

Florida House Institute
4454 Beneva Road
Sarasota, fl
[View Map](#)

FRIENDS ATTENDING



The Journey - WALK the Watershed

Based on results from the Public and Government Maps on the Table sessions, Staff from the Sarasota County and City of Sarasota Utilities conducted field investigations of areas of concern.



Sarasota County staff conducted additional sampling events trying to narrow down contributing areas

