

Engineering Department

Water Quality Discussion and Quarterly Project Update

City Engineer
Kathleen Weeden
June 2019



Water Quality

New Staff Added:

Jon Kramer, PE, Asst. City Engineer (June 2019)

Steve Berens, Stormwater Engineer (March 2019)

- ▶ **Stormwater Outfall Testing -**
 - ▶ Desk top pollutant modelling underway
 - ▶ Sampling - Need Rain
 - ▶ Draft Report Completed - recommendations being developed
 - ▶ Meeting Scheduled with Team 06/26/2019
 - ▶ Prioritize sampling & upgrade locations
 - ▶ Funding Options: Existing SWFWMD Grant plus Stormwater Funds and possible FDEP grants
- ▶ **Stormwater Rate Study - Data analysis initiated.**
 - ▶ Comprehensive system analysis underway
 - ▶ Stakeholder's Group once analysis complete

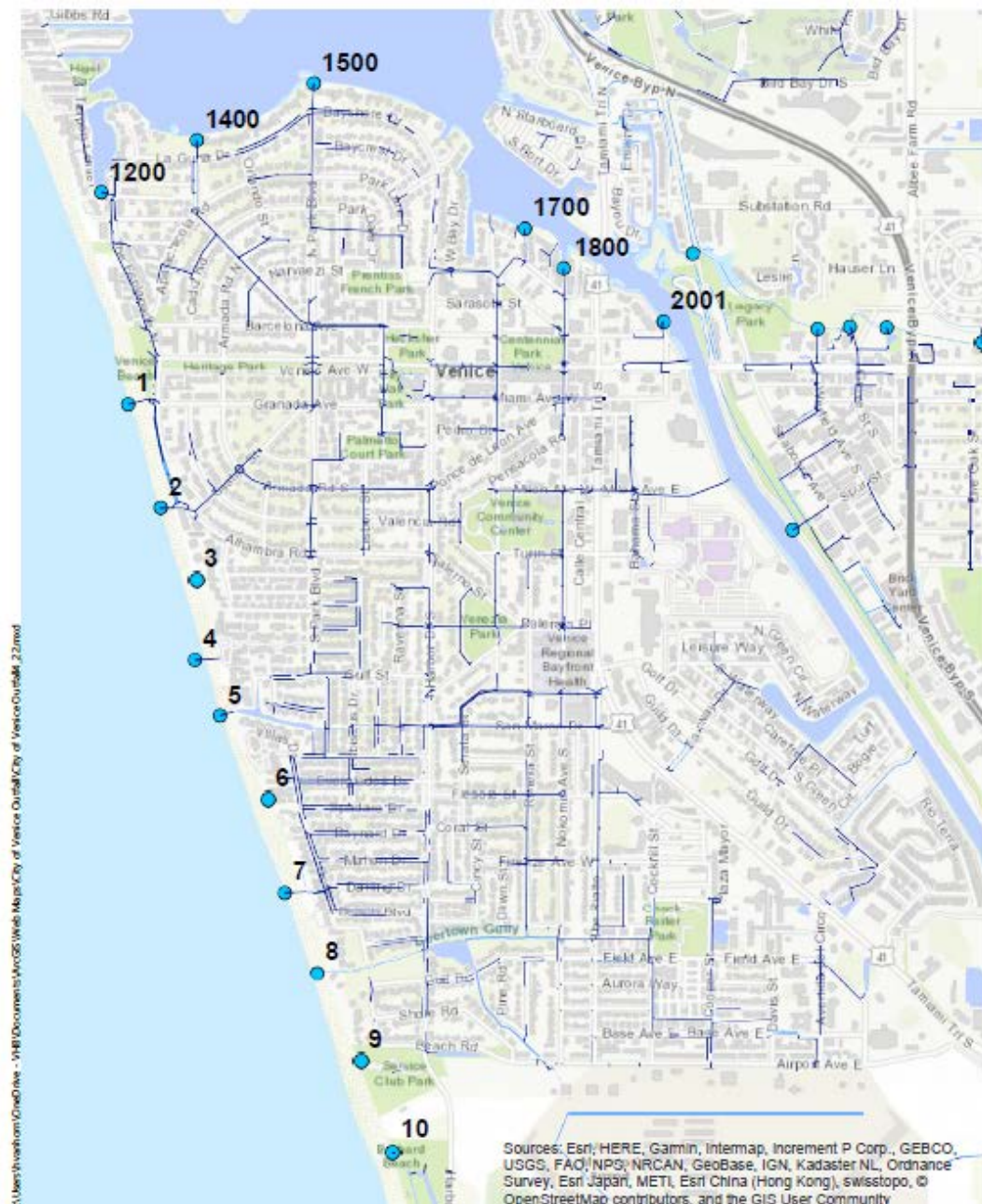
Sampling Locations

Sampling 01/24/19:
No Flow Outfalls
1, 2, 3, 4 & 5

Sampling 2/13/19:
No Flow Outfalls
1, 3, 4, 6, 7 & 9

Sampling 4/19/19:
No flow Outfalls
6, 7 & 9

Data analysis under way to set priority projects/monitoring



Stormwater Quality – Next Steps

- ▶ Elevated concentrations need further sampling/analysis
 - ▶ All sampling events are in compliance with State Water Quality Standards except:
 - ▶ Total Nitrogen (TN) values at most sites exceeded Estuarine Numeric Nutrient Criteria (NNC) of 0.42 mg/l (highest #1800 1.27 mg/l) but all below freshwater criterion of 1.65 mg/l.
 - ▶ Enterococcus (indicator organism tested by Health Dept.) above the state standard (130/100 ml) exceeded at all locations with highest concentration at #1200 (6,900), #1700 (6,800) and #2001 (27,000).
 - ▶ Fecal coliform bacterial above state standard (800/100 ml) for 8 of 10 sampling locations with highest concentration at #1700 (2,700), #2 (5,300) and #8 (2,500).



Stormwater Quality - Next Steps

- ▶ Install automated samplers at highest locations
- ▶ Design water quality projects
- ▶ Permit and Construct Improvements (with funding assistance from Legislative Appropriation and FDEP/SWFWMD Grants
- ▶ Continue to Increase Inlet Labeling and Public Outreach
- ▶ New Outreach for landscapers, pool discharges and fish tanks



Lawn Care BMPs for Landscapers



Prevent Pollution with BMP (Best Management Practices) to protect our water quality

Mowing

- It is illegal to dump grass clippings and leaves into the storm drains according to City Code Section 74-266

Fertilizing

- Do not apply fertilizer within 10ft of water bodies
- In the Winter use 50% slow-release fertilizer and no fertilizer in the Summer

Testing Turf

- Look out for disease, pests and pH imbalance

Let's work together to keep our waters clean!



Water Goat



Water Goats start at \$5,900 for small locations.

Netting could be installed on outfall pipes



Projects In Design/Evaluation:

- ▶ **Beach Renourishment** - Physical Monitoring Report underway.
- ▶ **Capri Isles Bridge** - 100% Design Plans in Final Review by FDOT (\$1 million FDOT funding/remaining Road Bond)
- ▶ **City Hall/Fire Station #1 Generator** - Grant Agreement executed. Design underway. Plan to request extension to match construction schedule and possible additional funding.
- ▶ **Lord-Higel House Parking Lot** - Design Work Assignment in Process
- ▶ **Mobi-Mat Installation at Venice Beach (ADA Improvements)** - Delayed to FY20 with request for Park Impact Fees. FDEP Permitting and Park Impact Fee Agreement pending.

Projects In Design/Evaluation:

▶ Phase II Paving - Road Bond - Bids ready to Advertise:

- ▶ Triple Diamond including Morse Ct.,
- ▶ Technology Way/Precision Drive
- ▶ Bird Bay South
- ▶ San Marco
- ▶ Hatchett Creek and Plumosa
- ▶ Pinebrook Way Area
- ▶ Tarpon Center - including Bike Lane Re-design

▶ Phase III Streets - any remaining streets (2020)

Note:

- ▶ Live Oak being paved with Live Oak Drainage Project.
- ▶ Sister streets included in Utilities Bid
- ▶ Gulf Coast Blvd. to be included in Utilities Bid - repairs underway.

Projects Preparing for Construction:

- ▶ Beach Outfall #7 - Obtaining Permits, In-house SW Crew
- ▶ Live Oak Drainage Project - Construction Bid Underway.
- ▶ Nokomis Drainage Project - Change Order Quote Underway with downtown Contractor Quality Enterprises
- ▶ Ridgewood Avenue Sidewalk - completion Complete.
- ▶ Venice Public Fishing Pier - Contract Awarded - scheduled to begin Late April/Early May

Projects Under Construction:

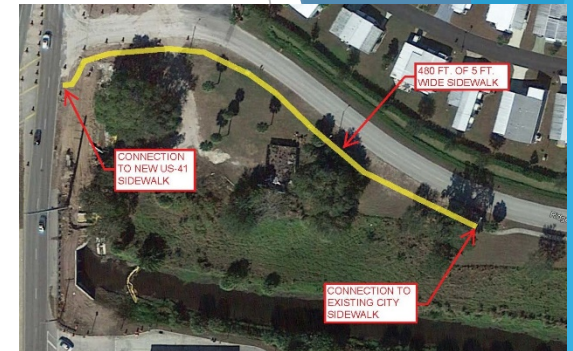
Venice Fishing Pier:

Completion in August (Weather Dependent)



Construction Complete:

► Nokomis Drainage Project - Part of Downtown Beautification



- Ridgewood Avenue Sidewalk
- Beach Outfall #7 - Completed in-house

Downtown Beautification Project:

- ▶ Project Substantially Complete
 - ▶ Lighted Crosswalks
 - ▶ Patterned Crosswalks
 - ▶ Thermoplastic Striping
 - ▶ Final Punchlist
 - ▶ FDOT Inspect
 - ▶ Grant Close-out





The City of Venice invites you to a
Ribbon Cutting Ceremony
for the
Downtown Beautification Project

Time: 11 o'clock in the morning

Date: Monday, July 8, 2019

Place: Centennial Park

Join us for a short ceremony in Centennial Park, followed by a ribbon cutting on W. Venice Avenue to officially present the downtown improvements to the citizens and visitors of the City of Venice.



*Please enjoy the rest of your day downtown
patronizing our unique shops and restaurants!*

*Special thanks to City Staff
and the project team!*



The background features abstract, overlapping geometric shapes in various shades of blue, primarily on the left and right sides, creating a modern, dynamic feel. The central area is a plain, light gray.

Questions?