



Creeks and Ditches and Swales – OH MY!

Pinellas County Public Works
Open Conveyance Maintenance Program

presented by Eric Fehrmann & Nancy Lamagna



Program Overview



Open Conveyance Maintenance Program

- Purpose and Goals
- Benefits
- Challenges
- Accomplishments
- Keys to Success



Purpose and Goals

- Alleviate flooding
- Reduce risk of property damage
- Comply with NPDES MS4 permit requirements
- 2-week response time



Benefits

- Reduce risk of flooding and property damage
- Improve ecological value
- Restore wildlife habitat
- Fewer requests from citizens
- Reduce pollutants in waterways



Improved Ecological Value



- Native plants for improved ecological value and wildlife habitat restoration

Challenges

- Easement encroachments
- Restricted access
- Storm season



Overcoming the Challenges



- Easement encroachments
 - Property owner education
- Restricted access
 - Temporary access
- Storm season
 - Scheduling



Restricted Access



- Sediment removal in a major drainage channel

Securing the Job Site



- Remove all equipment from waterway when done for the day!

Accomplishments



- Removal of over 15,000 cubic yards of sediments from over 80,000 linear feet of creeks, ditches and swales last year
- Inspected 10% of entire drainage system
- Maintain 1.5 miles per year with annual contract



Slope Stabilization



- Articulated concrete block and Flexamat™ for slope stabilization

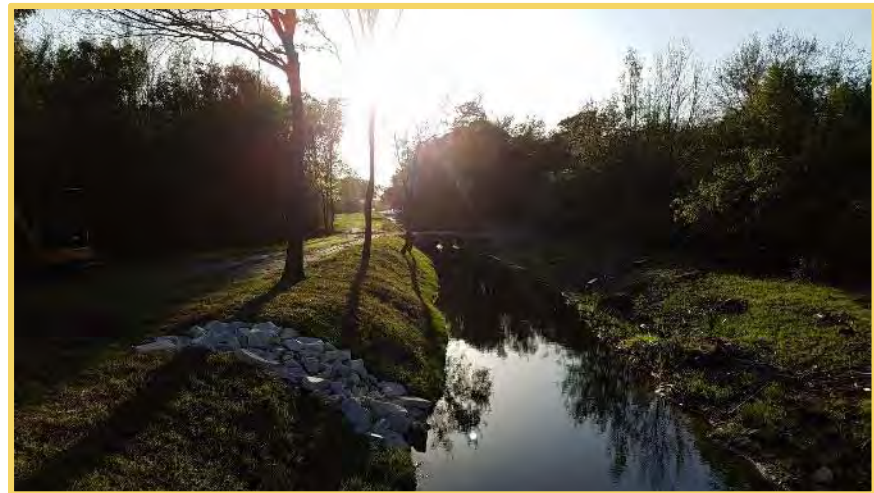
Soil Stabilization



Keys to Success



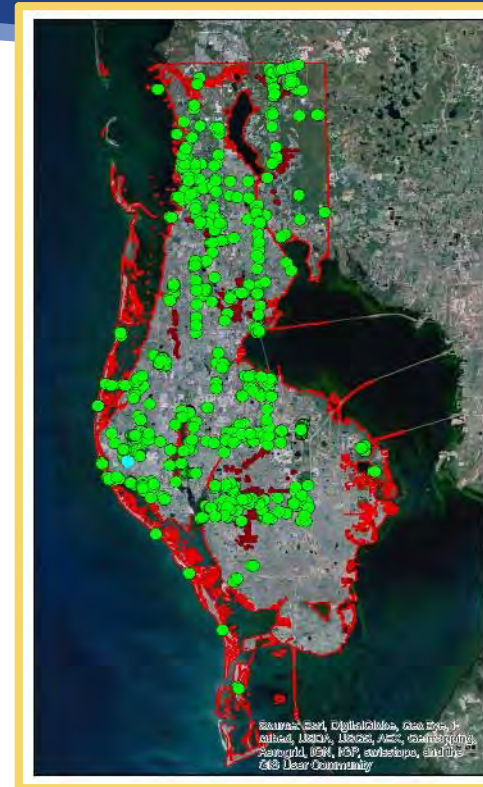
- Geospatial work management system
- Dedicated funding source
- Trained staff
- Annual contract
- Teamwork



Geospatial Work Management System



- Comprehensive approach within a watershed
- Maintenance history records
- Consider other work in area



Dedicated Funding Source



- Surface Water Assessment Fee
- Unincorporated areas
- Funds maintenance work, equipment costs and salaries
- \$15 million annually



Trained Staff



Open Conveyance Team

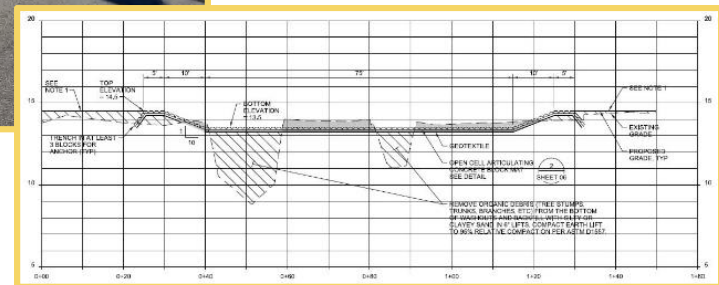
- 28 stormwater maintenance personnel
- 7 crews coordinated by an operations manager and a program coordinator
- 1 contractor managed by a professional engineer



Annual Contract



- Extension of in-house crews
- Permits and engineered plans
- Duration and special equipment
- Difficult access



Specialized Equipment



- Custom amphibious excavator and Mobitrac

Teamwork



Coordination with other sections is the key to success:

- Survey and Engineering
- Urban Forestry
- Vegetation Management
- Ecological Services
- Watershed Management
- Consultants
- Contractors



Before and After



Before and After



PINELLAS COUNTY PUBLIC WORKS

Open Conveyance Maintenance Program



<https://youtu.be/guaHOBLB4Wk>



Questions?



www.pinellascounty.org/publicworks





Contact Us



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