

Passaic Valley Sewerage Commission



Comprehensive
Water Resource
Management Plan

Rutgers Cooperative Extension Water Resources Program



Green
Infrastructure
Initiative

May 2013



PVSC's Plan for Reducing Combined Sewer Overflows (CSOs)

1. Increase Wet Weather Flow Capacity at PVSC
2. Reduce stormwater flows to Combined Sewer Systems by increasing Green Infrastructure throughout PVSC Sewerage District



PVSC's Plan for Increased Wet Weather Flow Capacity

- PVSC has been actively working towards increasing WET weather flow capacity to a maximum of **720 MGD**
- Multiple Capital Projects planned:
 - Several ongoing projects in different stages of development
 - Projects on hold due to damages from Superstorm Sandy – will resume as recovery progresses

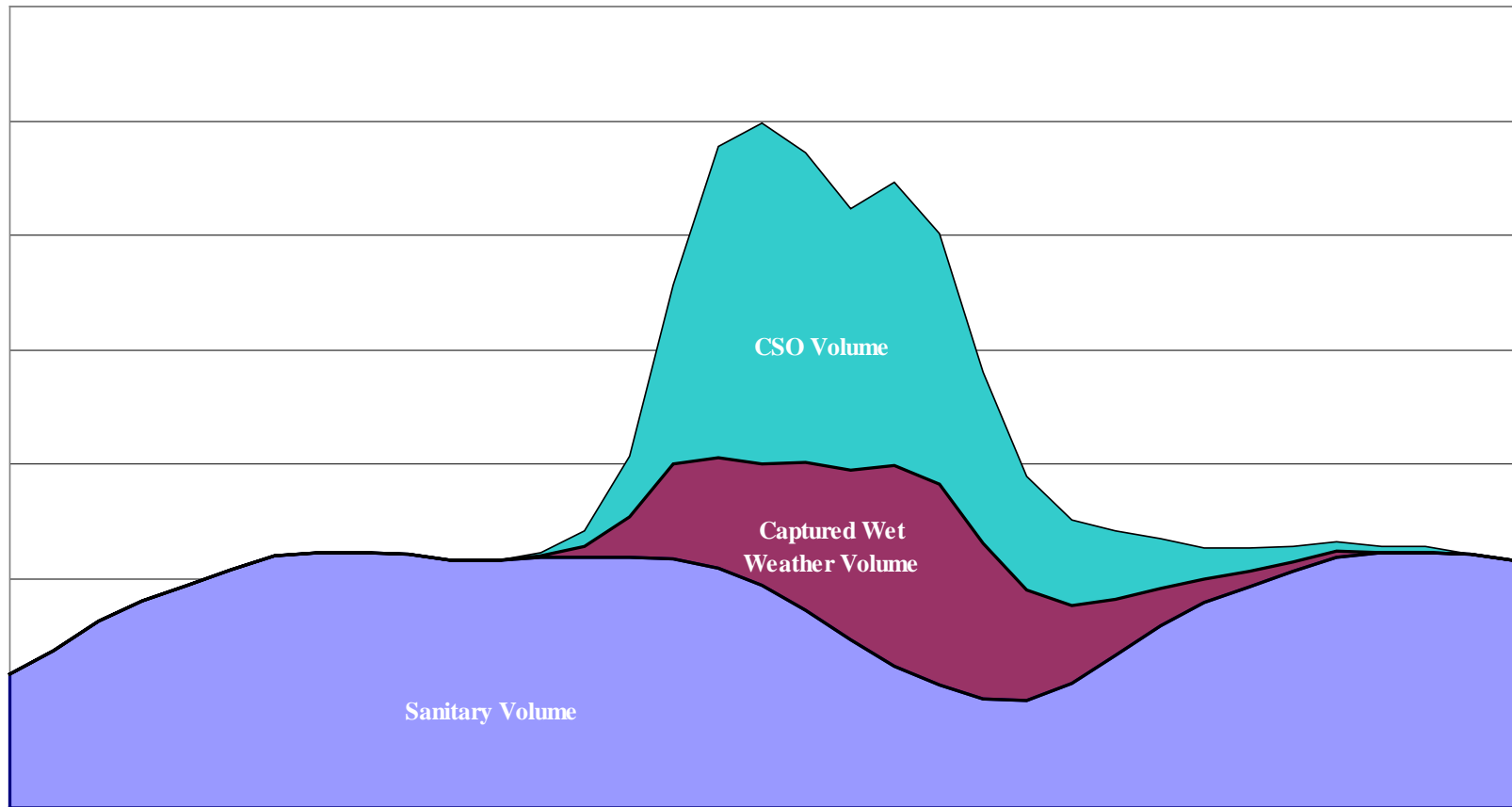


PVSC's Plan for Increased Wet Weather Flow Capacity

- Added benefit: PVSC will be able to treat sanitary waste from homes **AND** stormwater carrying various types of Nonpoint Source Pollution (fertilizers, oil/grease, etc.) at full Secondary Treatment levels

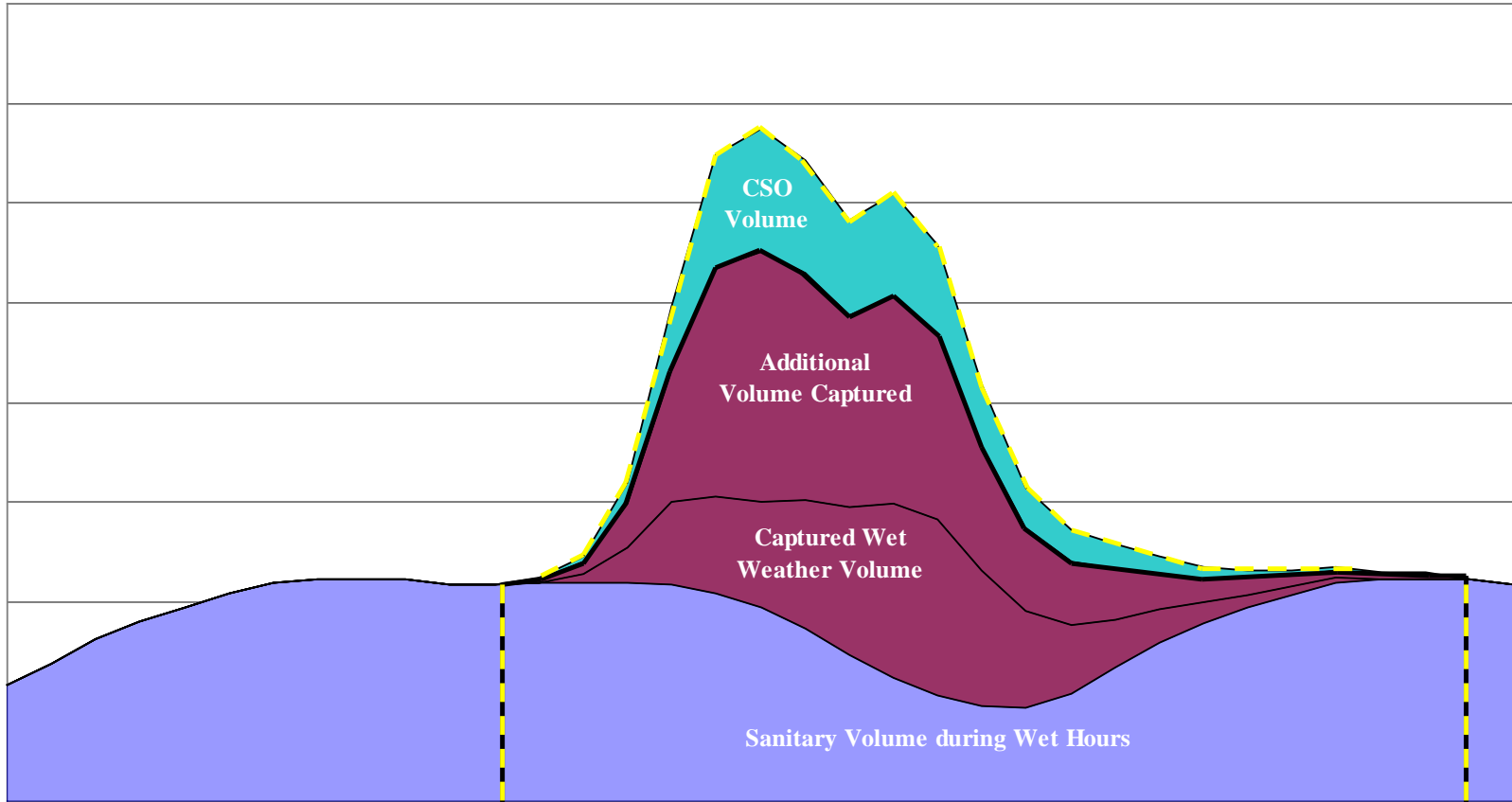


Current Wet Weather Flow Volume Captured at the Treatment Plant





Proposed Wet Weather Flow Volume Captured at the Treatment Plant

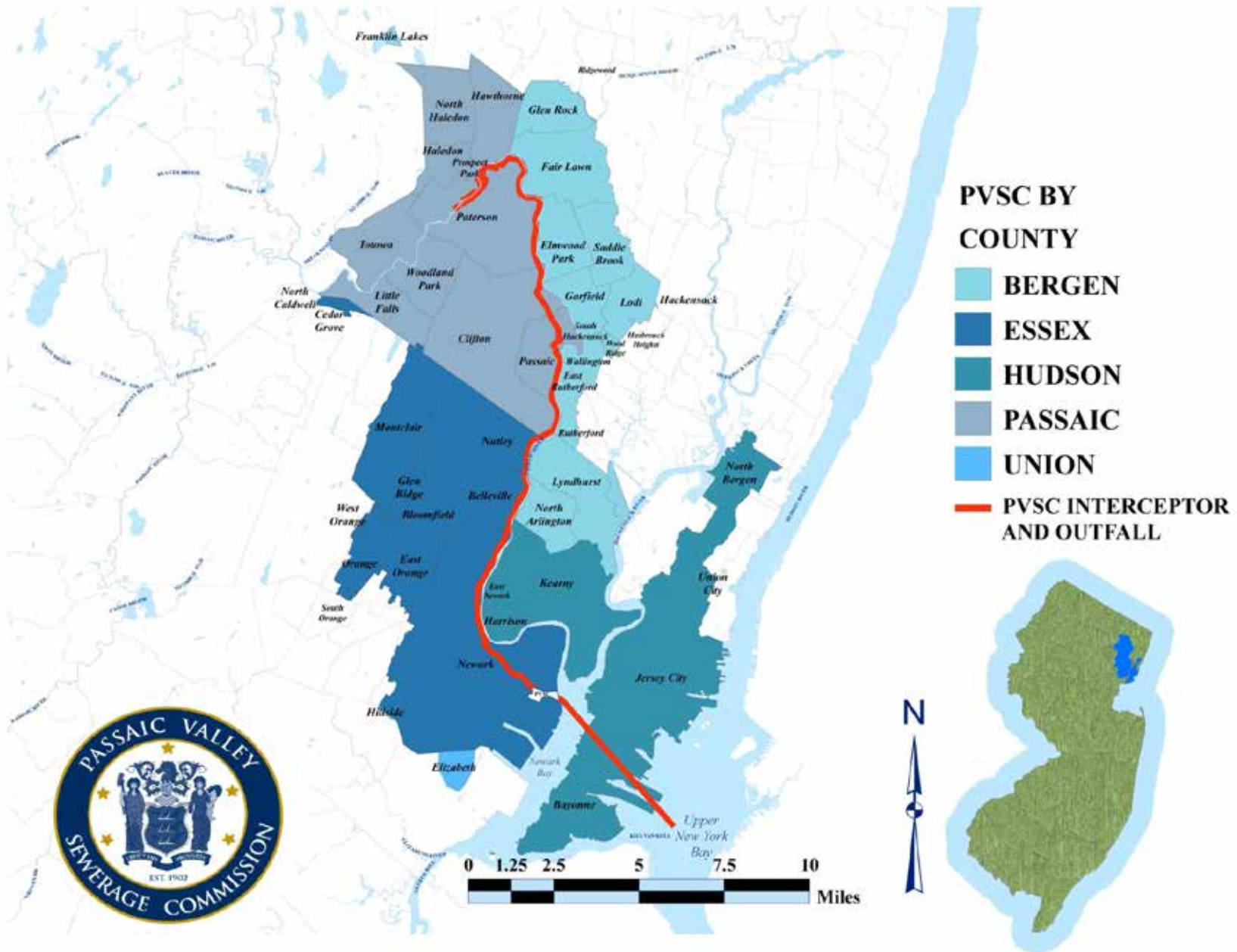




PVSC's Plan for Promotion of Green Infrastructure

- The PVSC Sewerage District
 - 48 municipalities in 5 counties
 - Includes both Separate and Combined Sewer Systems
 - 9 with Combined Sewer Systems
- Combined Sewer Overflows (CSO)s and stormwater runoff can impact ambient water quality
 - Can be partially alleviated with use of Green Infrastructure (GI)
- Green Infrastructure components will be required in CSO Long Term Control Plans

PVSC Sewerage District





PVSC's Plan for Promotion of Green Infrastructure

- PVSC is dedicated to leading efforts throughout the PVSC Sewerage District to:
 - 1) intercept stormwater runoff
 - 2) reduce Combined Sewer Overflows (CSOs)
 - 3) manage existing water infrastructure
 - 4) minimize frequent flooding events
- PVSC has entered into a partnership with Rutgers Cooperative Extension (RCE) Water Resources Program to achieve these goals



PVSC's Plan for Promotion of Green Infrastructure

- Green Infrastructure Program (Year 1)

3 Main Objectives:

- 1) Municipal Outreach and Education
- 2) Community-Based Technical Assistance
- 3) Green Infrastructure Demonstration Projects



PVSC's Plan for Promotion of Green Infrastructure

Objective 1 – Municipal Outreach and Education

May – June 2013

- Initial Stakeholder meeting
- Development of educational materials and distribution to municipalities
- Kick-off Event @ PVSC
- Program website to be developed and hosted by RCE Water Resources Program



PVSC's Plan for Promotion of Green Infrastructure

Objective 1 – Municipal Outreach and Education

June 2013

- 4 outreach sessions by county:
 - Bergen
 - Passaic
 - Hudson
 - Essex/Union

- Identify priority municipalities prepared to pursue a community-wide Green Infrastructure program



PVSC's Plan for Promotion of Green Infrastructure

Objective 2 – Community-Based Technical Assistance

July – December 2013

- Work individually with interested municipalities
- PVSC & RCE Water Resources Program:
 - Complete Municipal-Wide GI Assessment and Opportunity Analyses for 6-8 individual municipalities through cost-sharing agreements between PVSC and the municipalities
- Municipalities must:
 - Provide available mapping, digital data, and other resources as necessary
 - Commit resources to complete 2 GI demonstration projects detailed in the final municipal assessment



PVSC's Plan for Promotion of Green Infrastructure

Objective 3 – GI Demonstration Projects

June – December 2013

- RCE Water Resources Program will develop and install 2 Green Infrastructure demonstration projects with PVSC
 - 1st project on PVSC property
 - 2nd project within PVSC Sewerage District
 - Projects may include rain gardens, bioswales, porous pavement, rainwater harvesting systems
 - Demonstrate practical, cost-effective strategies that can be replicated throughout the PVSC Sewerage District



PVSC's Plan for Promotion of Green Infrastructure

Objective 3 – GI Demonstration Projects

April – December 2013

- RCE Water Resources Program will hold Green Infrastructure training workshop for PVSC staff and interested municipal representatives
 - Learn planning, design, construction, and maintenance of Green Infrastructure projects
 - Opportunity to assist with construction of 2nd Green Infrastructure demonstration project



PVSC's Plan for Promotion of Green Infrastructure

- Plan to renew partnership with RCE Water Resources Program for multiple years
 - Continue to expand use of GI throughout PVSC Sewerage District

TOGETHER, we can improve **water quality** **AND** **quality of life** through the use of **Green Infrastructure**



Questions?



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