

People as Part of Stormwater Infrastructure:

Integrating Education and Partnerships
into a Large-Scale Sustainable Stormwater
Management and Watershed
Enhancement Program

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Outline



- Tabor to River program overview & background
- Why people are key component of green stormwater infrastructure
- Methodology
- Lessons learned
- Recommendations

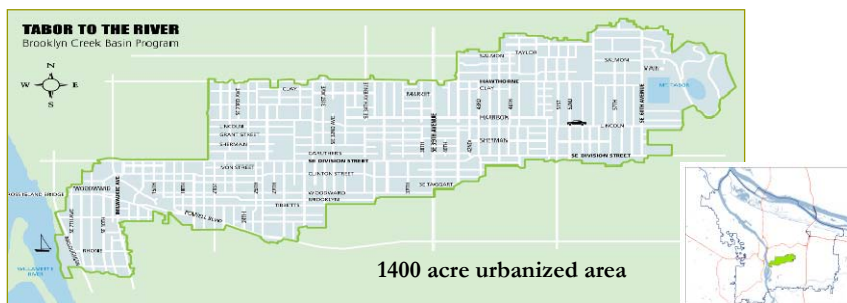
Program Mission

- ❑ Integrate watershed approach into a system capacity and pipe rehabilitation project
- ❑ Implement solution to address multiple objectives of watershed health
 - improved water quality and hydrology
 - sewer system improvements
 - healthy native vegetation
- ❑ Develop a replicable framework

TABOR *to the* RIVER Program Overview

BROOKLYN CREEK BASIN PROGRAM - sewer and green stormwater improvements for clean rivers

- ❑ Integrated approach
 - Plant nearly 4,000 street trees
 - Add 500-600 sustainable stormwater facilities
 - Repair or replace 81,000 feet of sewer pipe
 - Remove invasive plants from some areas
 - Encourage community action on private property



Tabor to the River Background

Why the Tabor to the River basin?

- Combined sewer system
- Sewer Backups
- Flooding
- Structurally Deficient Pipes
- Water Pollution

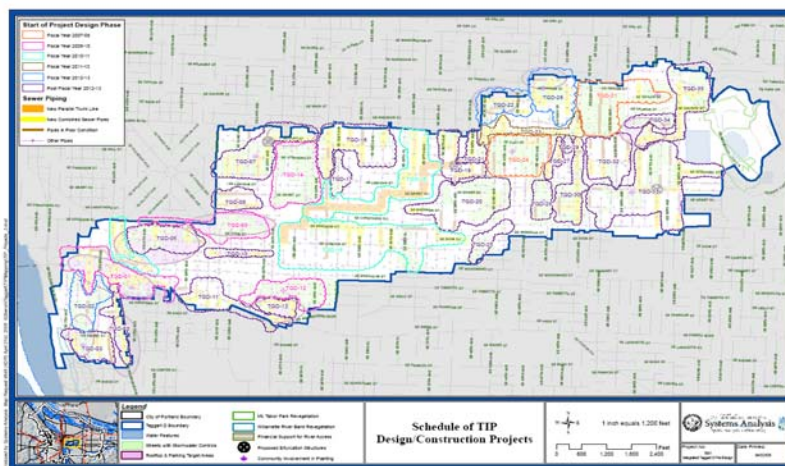


Why an integrated approach?

- Changing city culture
- City effort to control stormwater on-site
- History of successful pilot projects
- Bureau managers initiated integrated approach



35 program areas constructed over 10+ years



How did we get here?

- ❑ Sustainable Stormwater Management
 - Test cases
 - Worked one-on-one with neighbors
 - Proved they worked
 - Built with grant money
 - Volunteer property owners
- ❑ Incorporated facilities into City-funded projects
- ❑ Database of interested property owners
- ❑ Outreach



Why people are part of infrastructure

- ❑ Adjacent property owners are ultimately the stewards of trees and green stormwater facilities
- ❑ All actions matter
- ❑ We all have a part to play in watershed health



Overall outreach strategy

- ❑ Determine evaluation methodology
- ❑ Assess baseline community knowledge & best means to engage in program
- ❑ Create opportunities for all learning styles
- ❑ Foster partnerships: residents - agencies – academia – business – community – organizations
- ❑ Involve community in long-term stewardship of project infrastructure

Multiple Outreach Strands

- ❑ Overall education on watershed function & stormwater management
- ❑ Outreach to properties adjacent to green stormwater facilities
- ❑ Incentives for private onsite stormwater management
- ❑ Tree planting & invasives removal funding & resources
- ❑ Classroom lessons & planting events for K-12 schools



Direct Outreach Strategies

- ❑ Engage all community facets
 - Community events
 - Tree plantings
 - Bike, boat and walking tours
 - Workshops & presentations
 - Public meetings
 - Neighborhood & business association meetings
 - Property owner meetings



Outreach with property owners

- ❑ Education is integrated into project outreach
- ❑ Intensive communication throughout
- ❑ Participate in choosing plants



Partnerships

- ❑ Work directly with more than 20 partners:
 - Non-profit organizations
 - Local businesses
 - Business & neighborhood associations
 - Universities & K-12 schools
 - Other City bureaus & bureau programs
- ❑ Mutually beneficial & cost effective
- ❑ Shared events, cross-marketing, broader audience



University Partnerships

- ❑ Collaborate on community assessment research
- ❑ Research assistant cost-sharing program
- ❑ Coursework incorporates Tabor to River program as case study
- ❑ Student assistance with mapping, event implementation

At a Glance 1st Year Outreach ...

- ❑ Reached **17,000 households** through the newsletter
- ❑ Engaged almost **1,000 people** at over **30 outreach events**
- ❑ Developed and fostered **20 partnerships**
- ❑ Fulfilled **131 information requests**
- ❑ Responded to **200+ property owner/resident inquiries**
- ❑ Worked directly with **105 adjacent property owners** to place and design facilities
- ❑ Created **8 communication resources**



What's next?

- ❑ Social marketing
- ❑ Foster more partnerships
- ❑ Program evaluation
- ❑ Targeted outreach
- ❑ Mobile outreach
- ❑ Facility construction & celebration



Lessons Learned

- ❑ Education is a key component of green stormwater infrastructure projects
- ❑ Know your audience – evaluation
- ❑ Address all styles of learning with varied outreach methods – bike tours, newsletters, peer-to-peer
- ❑ Partner with all components of community and help to connect them to each other
- ❑ Have fun



Recommendations

- ❑ Develop & foster partnerships
 - Neighborhoods
 - Universities
 - Businesses & Organizations
- ❑ Provide green stormwater education long before construction outreach
 - Pay for it upfront or later
- ❑ Offer technical assistance
- ❑ Outreach through partner venues
- ❑ Focus on plants & gardening to gain community interest
- ❑ Use pilot projects to highlight function & appeal



Thank you



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