

CWSRF Green Project Reserve Webcast Training Series

Please remember to call the audio conference center so you can listen to today's presentation:

A copy of today's presentation can be downloaded from the Eventbuilder.com [meeting](#) page:

Funding Green Stormwater Infrastructure Projects with the ARRA Green Project Reserve

Clean Water State Revolving Fund Team
Office of Wastewater Management

United States Environmental Protection Agency
Washington, DC



May 21, 2009

Getting to Know Live Meeting



- Having problems with the audio or Web portion of today's event: Contact Customer Care by pressing *0 on your telephone keypad
- Press "control H" on your keyboard to toggle your screen between regular view and expanded view
- Want to submit a question? Send it to us via the Question and Answer console. Also, at the end of the presentation we will allow for "live" questions.
- Handouts can be downloaded via the Encounter registration page



Presenters for Today...



- ❖ Stephanie vonFeck – Green Project Reserve Team Lead, US EPA, OWM, CWSRF Branch
- ❖ Jennifer Molloy – Green Stormwater Infrastructure Team Lead, US EPA, OWM
- ❖ Clark Wilson – Office of Policy, Economics, and Innovation, USEPA, Smart Growth Program
- ❖ Jeff Nejedly – Washington Department of Ecology, Clean Water State Revolving Fund
- ❖ Bill Hashim – Washington Department of Ecology, Clean Water State Revolving Fund



Just a Reminder...



❖ Goals of this Webcast Training:

1. Introduce the ARRA Green Project Reserve
2. Learn about the many types of green stormwater infrastructure that are fundable by the Green Project Reserve
 - Learn about the types of environmental problems that are best solved by green stormwater infrastructure
3. Hear Washington State's perspective on funding green stormwater projects



Just a Reminder...



❖ Target Audience:

1. State CWSRF
2. EPA Regional Staff
3. Regional and State stormwater, energy efficiency, water efficiency, and nonpoint source colleagues
4. State Associations



Just a Reminder...



- ❖ We will take questions periodically pause for Question and Answer Sessions
- ❖ It is easier for us if questions come in one by one, rather than all at once during the Q&A sessions, so do not be afraid to submit your question as soon as it comes to mind!



Handouts Available to Download



- ❖ Copy of Presentation



Polling Question



- ❖ How many folks do you have on the line with you today?
 - A. 1-2
 - B. 2-4
 - C. 4-6
 - D. 6-10
 - E. 10 or more

1. Introduction to the CWSRF ARRA Green Project Reserve





Introduction to the CWSRF



- ❖ What is ARRA?
- ❖ What is the Green Project Reserve?
- ❖ Funding green stormwater infrastructure with the CWSRF
- ❖ Questions and Answers



2. ARRA



- ❖ Legislation enacted by Congress in response to the recession that began in 2008
- ❖ Designed to stimulate economic growth and job creation
 1. One way to create jobs is for the Federal government to invest in the construction of public infrastructure



ARRA and the CWSRF



- ❖ Congress recognized the CWSRF programs' proven ability to deliver Federal funding to high priority, high benefit projects
- ❖ Congress appropriated \$4 billion dollars to the CWSRF programs in 2009-2010, in addition to the annual appropriation



ARRA and the CWSRF



- ❖ Special requirements for the use of ARRA funding by the CWSRF:
 1. Abbreviated funding cycle
 - Projects under contract or construction before February 17, 2010
 2. Creation of a Green Project Reserve (GPR)
 3. Grant/loan forgiveness/negative interest allowed
 4. Buy American provision
 5. Fair wage provision
- ❖ EPA guidance for ARRA can be found at
www.epa.gov/recovery



ARRA SRF Green Reserve



- ❖ 20% of each state's capitalization grant must be used for "Green Reserve" projects
- ❖ Green Reserve projects must be under contract or construction by February 17, 2010



ARRA SRF Green Reserve



- ❖ Project types eligible for Green Reserve funding:
 1. Projects with water efficiency components
 2. Projects with energy efficiency components
 3. Green (stormwater) infrastructure projects
 4. Environmentally innovative projects



Green Infrastructure



- ❖ Many projects have been funded by CWSRF programs throughout the country
- ❖ Communities often find green stormwater infrastructure projects to be low-impact, sustainable alternatives to traditional stormwater projects



Example: Cohasset, MA



- ❖ CWSRF loan to treat stormwater runoff prior to entry into the town's sewers
- ❖ 45 rain garden bioretention cells and several vegetated swales across town
- ❖ Resulted was:
 1. Reduction in the level of contaminants in collected stormwater runoff
 1. Reduction in collected runoff volume





Example: Rockville, MD



- ❖ \$1.4 million CWSRF loan funded the planning, design, and restoration of the main stem of Watts Branch
- ❖ Repayment from Rockville's Stormwater Fund
- ❖ Restoration included:
 1. Enhancing existing wetlands
 2. Restoring a stream buffer
 3. Stabilizing 4,000 feet of eroding stream bank
- ❖ Upgrading storm drain outfalls
- ❖ Protecting existing gas and sewer utilities



Example: Seattle, WA



- ❖ \$2.7 million CWSRF loan to install natural drainage elements in the High Point urban retrofit project
 1. Bioswales
 2. Compost amended soil reservoirs
 3. Porous pavement
- ❖ Help protect water quality in an urban creek with an endangered salmon population
 1. 10% of Longfellow Creek watershed restored to conditions comparable to rural creek



Reminder: the CWSRF Programs are Flexible



- ❖ Can provide many types of assistance
- ❖ Can provide assistance to a variety of borrowers
- ❖ Can accept many different income streams for repayment of loans

- ❖ This is particularly useful for green and alternative infrastructure projects



Assistance Types



- ❖ States use funds to provide assistance using a variety of delivery types:
 - Direct loans
 - Pass-through loans
 - Loans via state, county, and local governments
 - Linked deposit loans
 - Sponsorship programs
 - Purchase of local debt
 - Insurance
 - Guarantees
- Plus:
- Grants
 - Loans with principal forgiveness of negative interest



Eligible Assistance Recipients



- ❖ Many different types of organizations are eligible for CWSRF financing, including:
 - Municipalities
 - Publicly owned wastewater treatment works
 - Privately owned wastewater treatment works (in national estuary areas)
 - State agencies
 - Nonprofit organizations
 - Homeowners
 - Farmers



Repayments Sources



- ❖ States have the flexibility to access income from many sources as repayment for assistance, including:
 - Usage based wastewater bill charges
 - Special assessments
 - Home owner association assessments
 - Stormwater district fees
 - Farming revenues
 - Non-profit membership fees
 - Home owner fees
 - Landfill fees
 - For profit company revenue
 - Property tax revenue



Question & Answer Section

Have a question?

**Submit it using the Q&A console or use
the Live Audio function.**

For more information:

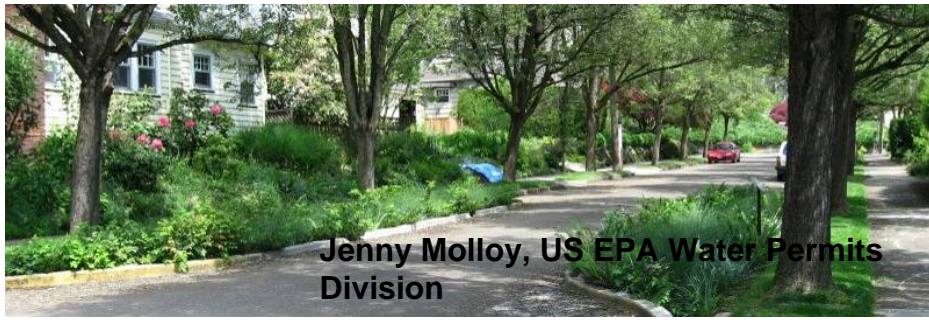
❖ See:

<http://www.epa.gov/ow/eparecovery>

http://cfpub.epa.gov/npdes/home.cfm?program_id=298

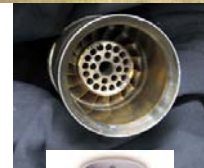


Managing Wet Weather with Green Infrastructure



Many wet weather management practices ARE NOT green infrastructure

- ❖ Extended detention practices such as stormwater basins, CSO tunnels and underground proprietary devices
- ❖ Catch basin inserts such as swirl and vortex devices
- ❖ End-of-pipe treatment devices such as sand filters and oil & grease separators



Many wet weather management practices ARE NOT green infrastructure

- ❖ Extended detention basins, CC
tunnels and underground
proprietary
- ❖ Catchment inserts, swirl
and vortex devices
- ❖ End-of-pipe treatment devices
such as sand filters and oil &
grease separators



Green Infrastructure Practices

infiltration – evapotranspiration - harvesting



- ❖ Amended soils
- ❖ Impervious cover removal
- ❖ Bioretention
- ❖ Permeable pavements
- ❖ Green roofs
- ❖ Cisterns & rain barrels
- ❖ Trees & expanded tree boxes
- ❖ Reforestation & restoration
- ❖ Redevelopment
- ❖ Infill development
- ❖ Alternative parking & street designs
- ❖ Water Conservation

Bioinfiltration



Open Swales



Parking Lot Island Infiltration Areas



Rain Gardens



Planters



Permeable and Porous Pavements



Green Roofs



Green Walls



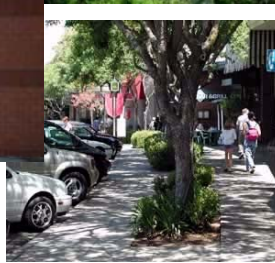
Pocket Wetlands



Vegetated Buffers & Landscaping



Tree, Canopy & Urban Forestry Programs



Rainwater Harvesting



Infill Development

- ❖ Takes advantage of areas that are already served by transportation and infrastructure



- ❖ Accommodates development that might otherwise occur on greenfield sites

- ❖ Can be coupled with site design practices such as green roofs to effectively manage stormwater

Redevelopment

Sites for redevelopment are already typically covered by impervious surfaces. Redevelopment offers an opportunity to significantly reduce runoff from the existing condition.



Innovative Parking

- ❖ Structured parking provides the same amount of parking using less land
- ❖ Modifying size & configuration
- ❖ Reducing number of spaces/perviousness through:
 1. Shared parking
 2. Parking lifts
 3. Unpaved overflow lots



- ❖ Can be coupled with site design practices such as infiltration trenches, pervious pavement or green roofs to effectively manage stormwater

Street Design

- ❖ Connectivity to reduce car trip lengths
- ❖ Multiple modes of transportation
- ❖ Narrower roads/ less pavement
- ❖ Sidewalks to facilitate more walking



Water Conservation

- ❖ High efficiency fixtures and appliances (low-flow toilets, urinals, showerheads, faucets)
- ❖ Water recycling and reuse of wastewater from sinks, kitchens, tubs, washing machines, and dishwashers for landscaping, flushing toilets, etc.
- ❖ Waterless technologies (composting toilets, waterless urinals)
- ❖ Rain harvesting (rain barrels, cisterns)

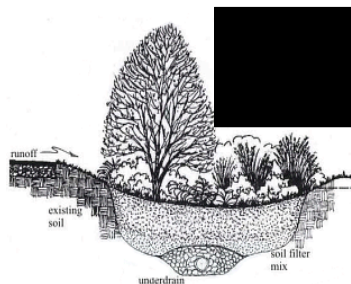


Design for Maximum Retention

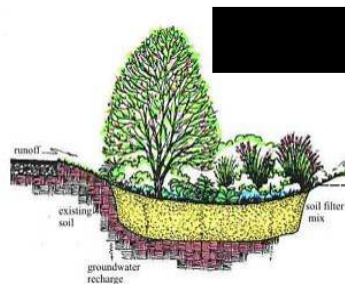
Filtration

vs

Infiltration



Underdrain



Overflow/Diversion

Underdrained systems are flow-through systems, and discharge water from even small 'design storms'.

Designs to Maximize Retention



Designs to Maximize Retention



Designs to Maximize Retention



Green Infrastructure within the Street ROW



Clark Wilson, US EPA Smart Growth Division

Green Infrastructure

- ❖ Involves an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services.
- ❖ Uses soils and vegetation to infiltrate, evapotranspire, and/or recycle stormwater runoff.
- ❖ Can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also *providing communities with aesthetic and quality of life benefits.*



www.wrtdesign.com

Photo by Paul Rider

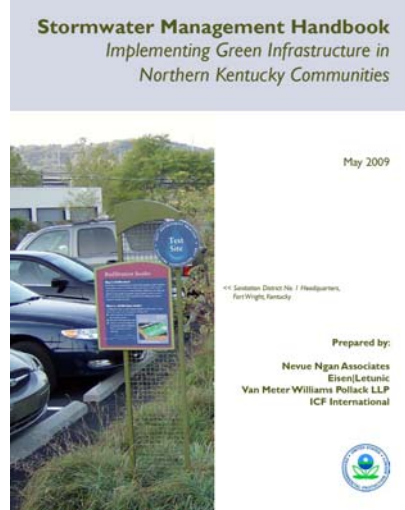
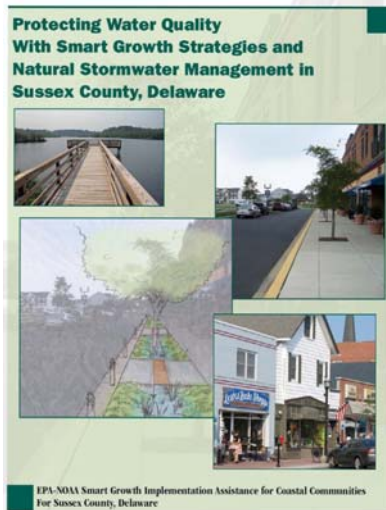








EPA Technical Assistance Program



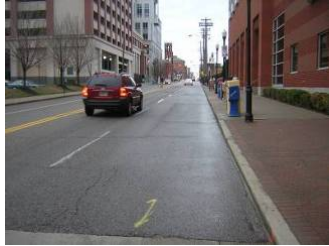
www.epa.gov/smartgrowth/publications.htm

Northern Kentucky Sanitation District No.1



Covington, KN - Northern KN SD1 Technical Assistance
Source: Kevin Perry, Nevue Ngan and Associates

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SW 12th Street Portland, OR



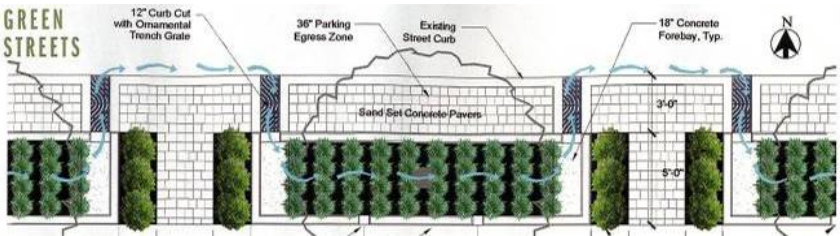
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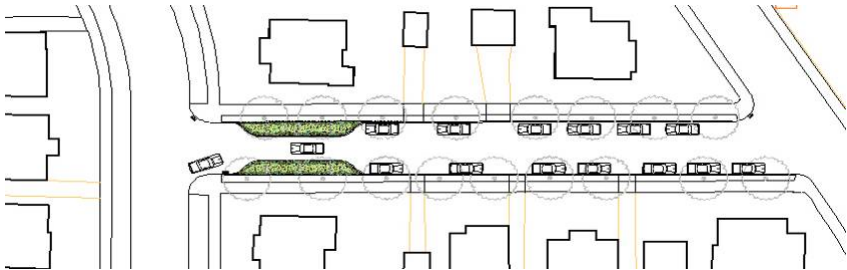
Designer: Kevin Perry, City of Portland Bureau of Environmental Services

SW 12th Street
Portland, OR



Designer: Kevin Perry, City of Portland Bureau of Environmental Services

NE35th & Siskiyou
Portland, OR



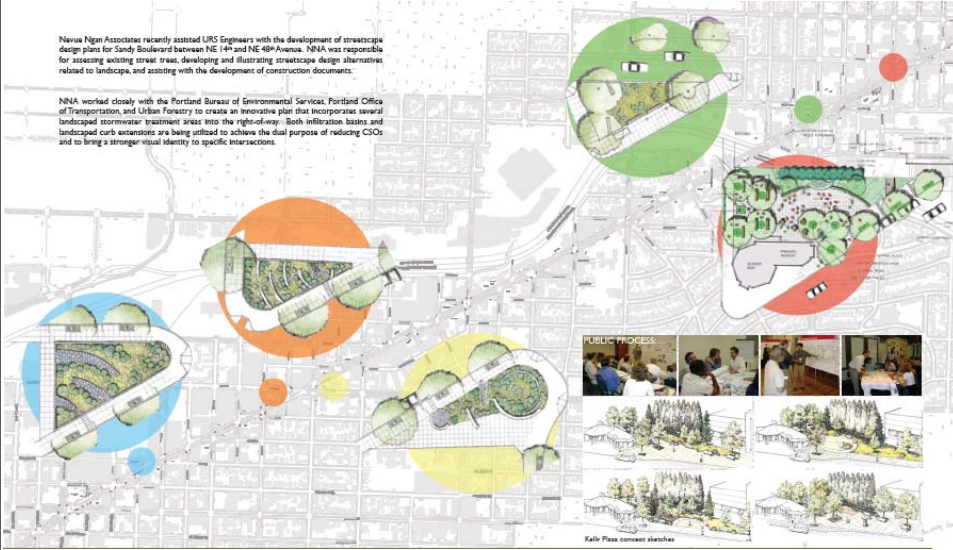
Designer: Kevin Perry, City of Portland Bureau of Environmental Services

NE35th & Siskiyou Portland, OR



Designer: Kevin Perry, City of Portland Bureau of Environmental Services

Sandy Boulevard Portland, OR



Nevue Ngan Associates recently assisted URS Engineers with the development of streetscape design plans for Sandy Boulevard between NE 14th and NE 40th Avenue. NNA was responsible for assessing existing street trees, developing and illustrating streetscape design alternatives related to landscape, and assisting with the development of construction documents.

NNA worked closely with the Portland Bureau of Environmental Services, Portland Office of Transportation, and Urban Forestry to create an innovative plan that incorporates several landscaped stormwater treatment areas into the right-of-way. Both infiltration basins and landscaped curb extensions are being utilized to achieve the dual purpose of reducing COCs and to bring a stronger visual identity to specific intersections.



Kalle Plaza concept sketches

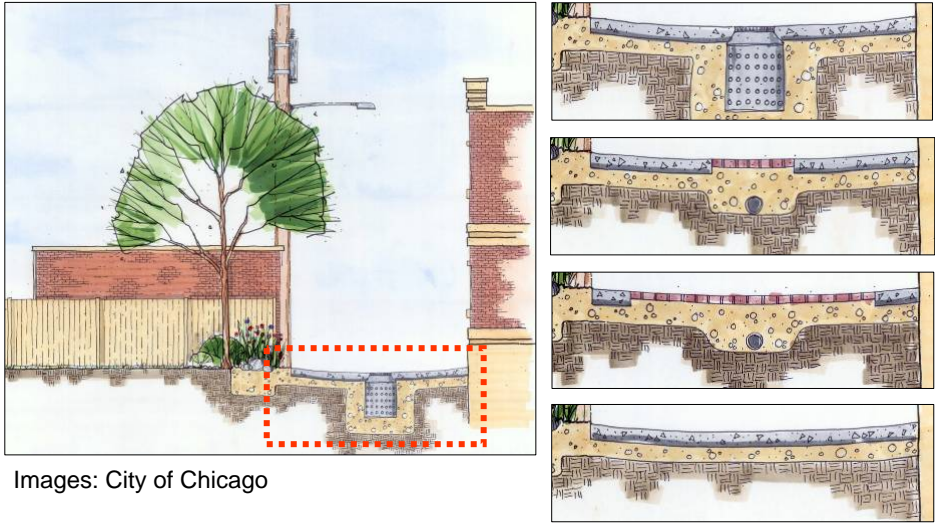
Designer: Nevue Ngan & Associates with URS Engineers

Sandy Boulevard Portland, OR



Designer: Nevue Ngan & Associates with URS Engineers

Chicago Green Alleys



Images: City of Chicago

Chicago Green Alleys

Before:

- ❖ Alleys flooded without connections to the city stormwater drains.



After:

- ❖ Water infiltrates through permeable pavement or infiltration basins, alleviating basement flooding of adjacent properties as well as reducing alley runoff.

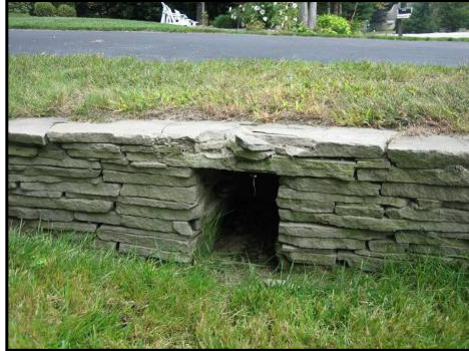


Shotwell Alley San Francisco, CA



Coordinator: Jane Martin, PlantSF

Wells, ME



High Point, Seattle New Columbia, Portland



New Columbia

SERA Urbsworks

- ❖ Newly redeveloped, showcasing smart growth approaches
- ❖ Network and facility design planned as part of total neighborhood
- ❖ BMPs for natural storm water drainage integrated into the public way

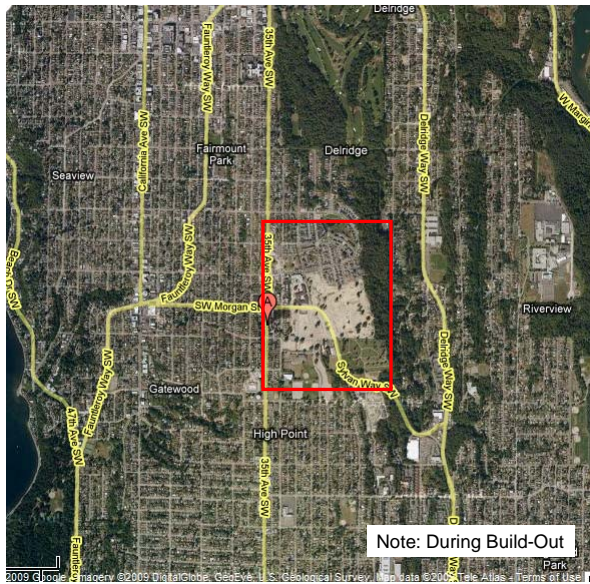
High Point, Seattle New Columbia, Portland



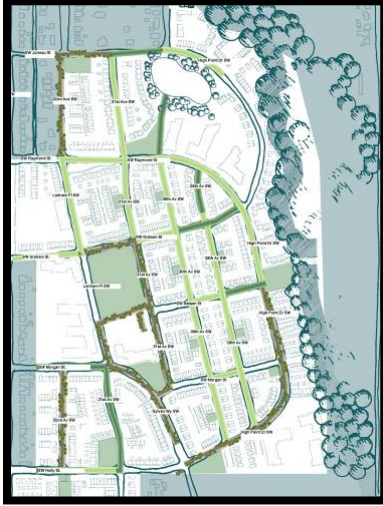
- ❖ Reconstructed public housing: Federal HOPE VI program
- ❖ Circulation system planned as part of total neighborhood
- ❖ BMPs for natural storm water drainage integrated into the public way

Top: High Point, Harrison Rue
Bottom: New Columbia, E. Greenberg

High Point Seattle, WA



High Point Seattle, WA



- ❖ Roads sized like surrounding older network
- ❖ Connectivity increased
- ❖ Bike network

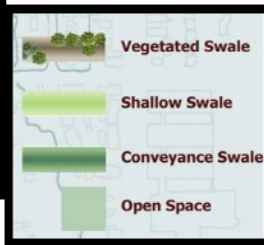


Image: Seattle Public Utilities

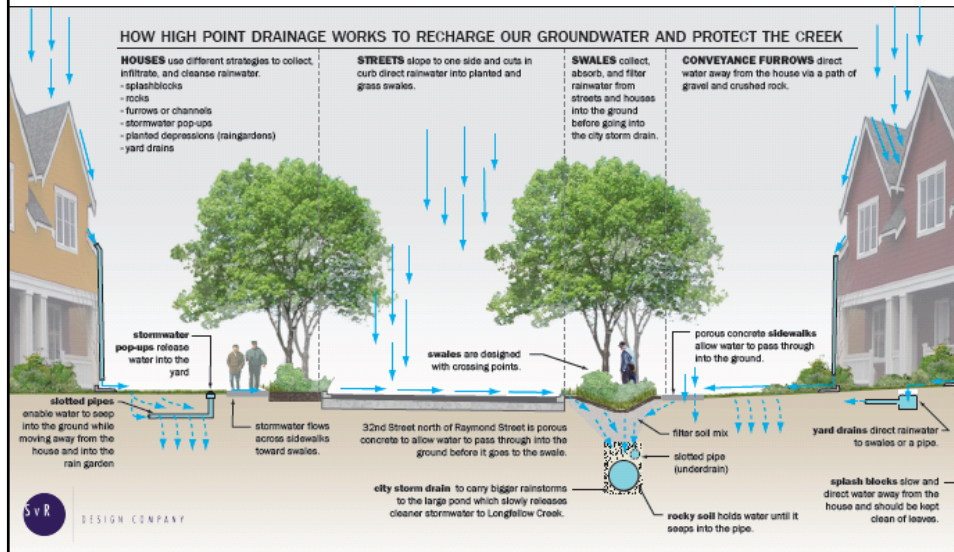
High Point Seattle, WA



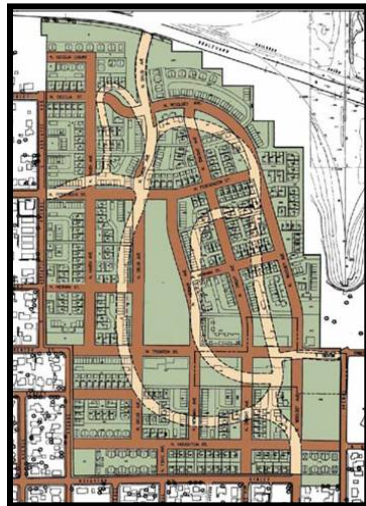
- ❖ Newly redeveloped, showcasing smart growth approaches
- ❖ Network and facility design planned as part of total neighborhood
- ❖ BMPs for natural storm water drainage integrated into the public way

Image: Harrison Rue

High Point Natural Drainage



New Columbia Portland, OR



- ❖ 82-acre site
- ❖ Redeveloped to a mixed-use, mixed income community
- ❖ Street plan design for social and economic integration of the site into the broader community

SERA / Urbsworks

New Columbia Portland, OR

- ❖ 101 pocket swales, 30 flow-through planter boxes and 41 public infiltration dry wells
- ❖ 98% of stormwater retained on-site



Image: Marcy McInelly,
SERA-Urbsworks

Headwaters at Tryon Creek Portland, OR



- ❖ Redevelopment
- ❖ Affordable housing
- ❖ Senior housing
- ❖ Commercial uses
- ❖ Creek daylighting
- ❖ Green building
- ❖ Off site circulation improvements

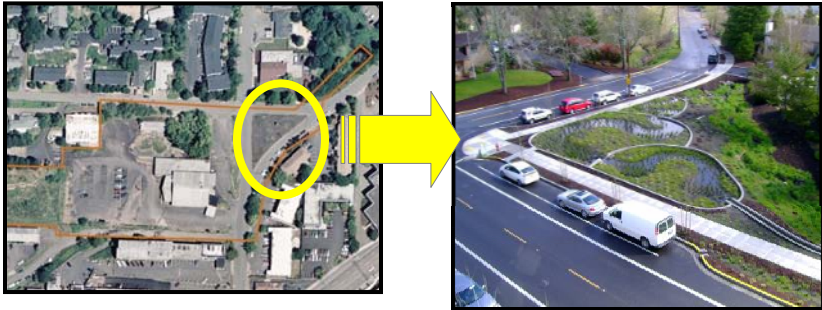
Portland Bureau of
Environmental Services

Headwaters at Tryon Creek Portland, OR



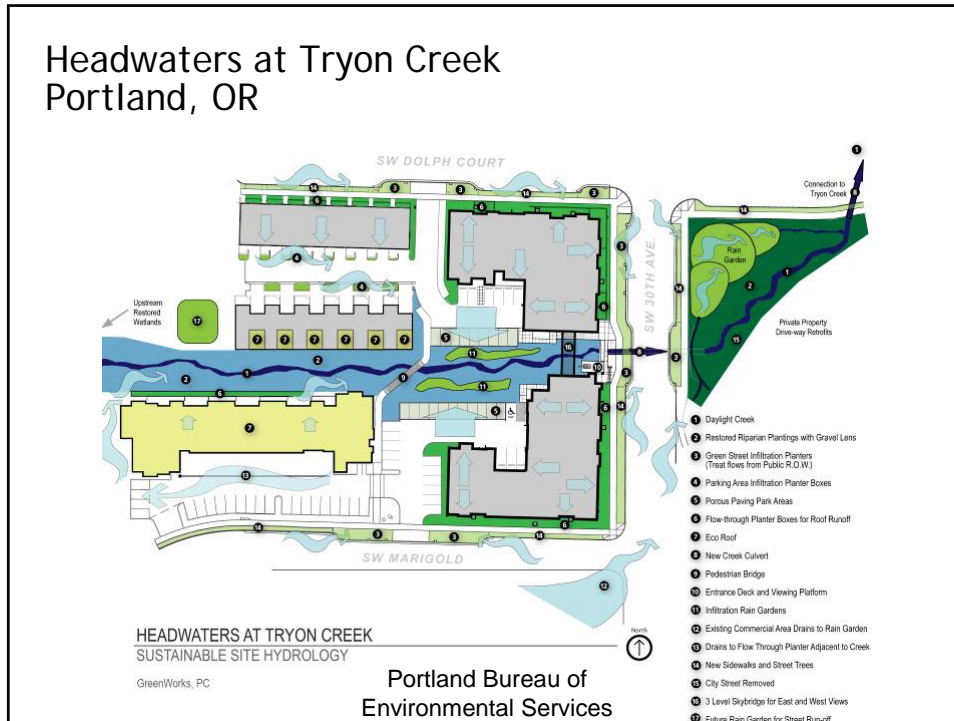
Headwaters at Tryon Creek Portland, OR

Isolated triangle and “free right” lane transformed into stormwater feature with improved walkability



Portland Bureau of Environmental Services

Headwaters at Tryon Creek Portland, OR



Headwaters at Tryon Creek Portland, OR



Portland Bureau of
Environmental Services

- ❖ Participation by Local neighborhood association and Tryon Creek Watershed Council
- ❖ Developer participation in all aspects of project
- ❖ Support from Portland Development Council

Luma and Downtown Streets Los Angeles

A fresh approach to downtown L.A.'s streets as part of a new
condominium project



Jack Coyier, Ankrom Moisan Architects

Luma and Downtown Streets Los Angeles



Luma and Downtown Streets Los Angeles



Jack Coyier, Ankrom Moisan Architects

- ❖ Streets transformed to provide an appealing setting for downtown redevelopment
- ❖ Buildings are LEED-Gold certified
- ❖ Dedicated row width devoted to public realm instead of travel lanes

Luma and Downtown Streets Los Angeles



Jack Coyier, Ankrom Moisan Architects

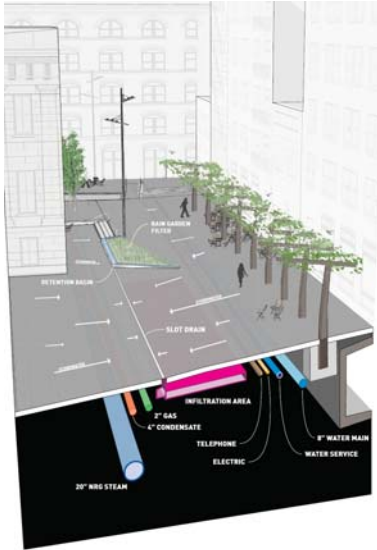
- ❖ Nearly-continuous planters along major downtown streets
- ❖ Rain gardens both functional and aesthetic
- ❖ Resulted in effort to change downtown street standards (ongoing)

Old Mint Plaza
San Francisco



CMG Landscape Architects, San Francisco

Old Mint Plaza
San Francisco



CMG Landscape Architects, San Francisco

Old Mint Plaza
San Francisco



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Old Mint Plaza
San Francisco



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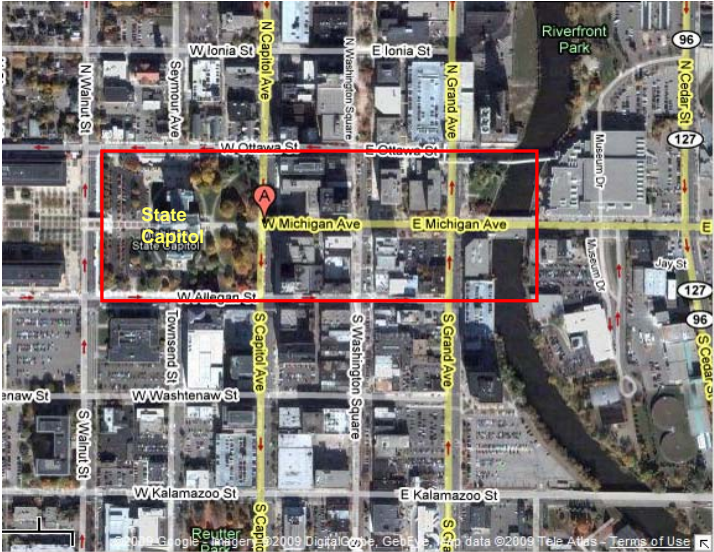
Michigan Avenue Lansing, MI



- ❖ Creation of attractive, walkable streetscapes as part of the City's combined sewer overflow (CSO) project
- ❖ Six downtown blocks included in initial project

Tetrattech

Michigan Avenue Lansing, MI

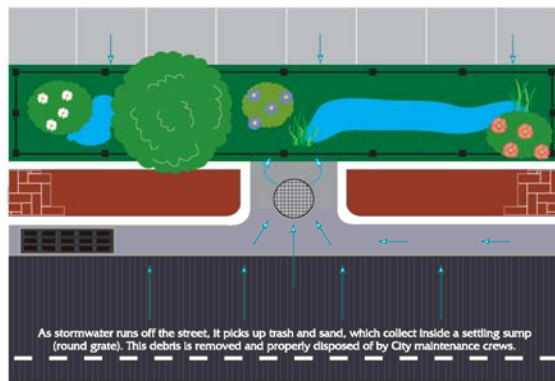




Tetrattech

STORMWATER DESERVES A TREAT

IMPRESSION'S
Walking
Tour
Slide 1 of 10
SCIENCE CENTER



Urban stormwater traditionally flows to a storm drain and enters the river without treatment. Here on Michigan Avenue, stormwater is first routed to these engineered rain gardens (bioretention areas) for treatment.

Treatment begins with the removal of trash and sediment (the most common pollutant in runoff). Stormwater then flows to the engineered rain gardens, which contain selected plants and soil that help remove pollutants. Treated stormwater not absorbed by the plants flows to an underground pipe that discharges into the Grand River.

You can help by:

- Putting cigarette butts in an ashtray, not on the street
- Telling friends about rain gardens
- Keeping your car well-maintained and leak-free



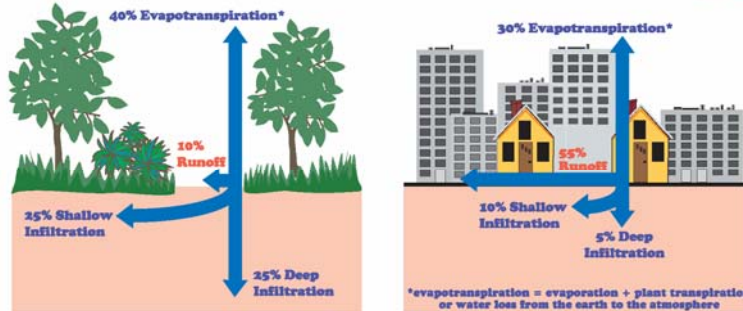
Vig Bertram, Mayor



WHERE DOES RAIN GO?

Urban landscapes are mostly hard—pavement and roofs. These are “Impervious” surfaces that rain can’t penetrate. Green landscapes are softer—forests and meadows. These “pervious” surfaces easily absorb rainfall.

IMPRESSION 3
Walking Tour
Slide 3 of 10
SCIENCE CENTER



A typical city block generates five times more runoff than a woodland area of the same size. This polluted water enters rivers, lakes, and wetlands without treatment. Runoff is the number one source of water pollution in the United States!

Engineered rain gardens (bioretention areas) help reduce runoff in urban areas. You can help by directing your roof downspouts away from the road and into a rain garden or rain barrel.



12th Street Kansas City



- ❖ Rain gardens and bulbouts installed in downtown’s government district, calming traffic while greening the street

Copyright © Assassi | BNIM
Architects

12th Street Kansas City



Two rain garden bulbs are 300 feet apart in Downtown's government center, with tree trenches formally aligned along the street.

Image: Jim Schuessler, BNIM Architects

12th Street Kansas City

The project introduces trees, flowering plants and grasses into a previously-bare streetscape (shown above).

The rain gardens narrow 12th Street and slow traffic

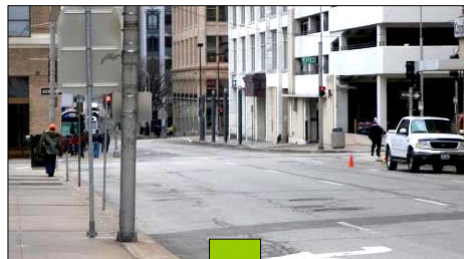
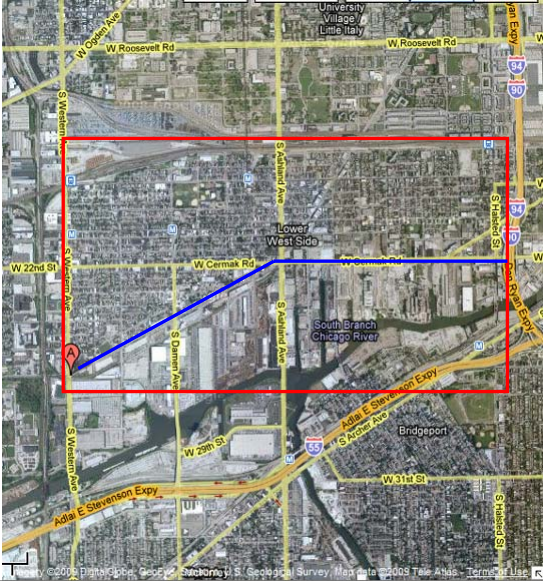


Image: Jim Schuessler, BNIM Architects

Cermak / Blue Island Streetscape Chicago

- ❖ Improving an older industrial street and railroad corridor –
- ❖ Both streets: designated arterials and designated truck routes
- ❖ Introducing new sustainable techniques and streetscape elements
- ❖ FHWA's only "Eco-logical" grantee in urban area








Cermak / Blue Island Streetscape Chicago



Cermak / Blue Island Streetscape Chicago

- ❖ \$14.5 million project
- ❖ New sidewalks, curb and gutter
- ❖ Utility undergrounding
- ❖ New signal controllers
- ❖ All new lighting
- ❖ All new landscaping including bioswales
- ❖ Permeable pavers
- ❖ Resurfaced parking lanes

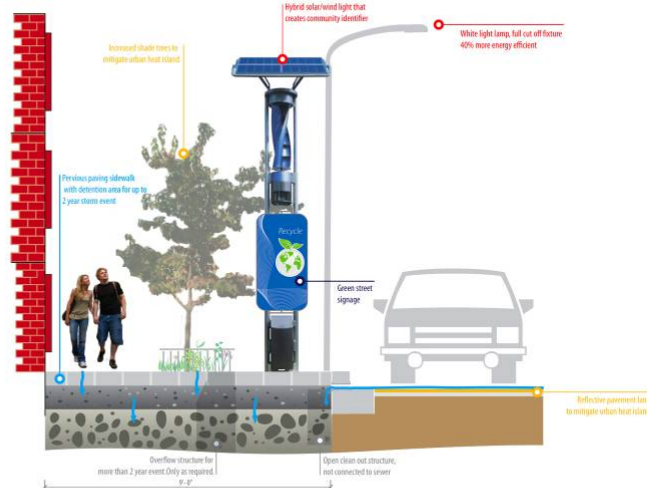
Cermak / Blue Island Streetscape Chicago

Project Sustainable Goals		Stormwater Management Divert 100% of two year storm event from city storm system through the use of pervious pavements, bioswales and recharge of Chicago River
		Water Efficiency Limit or eliminate use of potable water sources for irrigation, Specify Native or Climate-adapted, drought tolerant plants for all plantings
		Transportation Improve bus stops with signage, shelters where possible, and lighting; facilitate use of bikes with lanes along Blue Island, and strategically located bike racks. Significant upgrades to sidewalks for pedestrian mobility and ADA accessibility.
		Energy Efficiency Meet an energy reduction baseline below the streetscape baseline; select optimal street lights for energy efficiency; use reflective surface on sidewalks/roadways to improve lighting; use renewable energy on designated fixture; use white light throughout the streetscape.
		Recycling Divert 90% of Construction Waste from Landfills, Specify new materials with a minimum 10% Recycled Content. Attain 40% of all material from sources within 500 mile radius of the project site.
		Urban Heat Island Reduce ambient summer temperatures on streets and sidewalks through use of reflective pavements on roadways, light colored materials on sidewalks and use of trees for shading
		Education Provide public outreach materials/self-guided tour brochure to highlight innovative, sustainable design features of streetscape

Cermak / Blue Island Streetscape

LEGEND

- Recycled content**
Over 20% of construction materials from landfills, specify new materials with a minimum 20% recycled content
- Energy conservation**
Meet an energy reduction baseline below the streetscape baseline, select optimal street lights for energy efficiency, use reflective surfaces on sidewalks/courtyards to improve lighting, use renewable energy on designated feature
- Storm-water management**
Over 100% of two year storm event from city storm system through the use of permeable pavements, bioswales and storage of Chicago Rain through existing outfall
- Urban heat island mitigation**
Reduce ambient summer temperatures on streets and sidewalks through use of reflective pavements, permeable, light colored materials on sidewalks and use of trees for shading
- Public transportation**
Improve bus stops with signage, shelters where possible, and lighting. Facilitate use of bikes with lanes along Blue Island, and strategically located bike racks
- Water efficiency**
Limit or eliminate use of potable water where feasible. Specify Native or Climate-adapted, drought tolerant plants for all planting
- Education**
Provide public outreach materials/ self-guided tour booklets to highlight innovative, sustainable design features of streetscape
- Monitoring**
CDD is partnering with MWHD (Metropolitan Water Reclamation District)



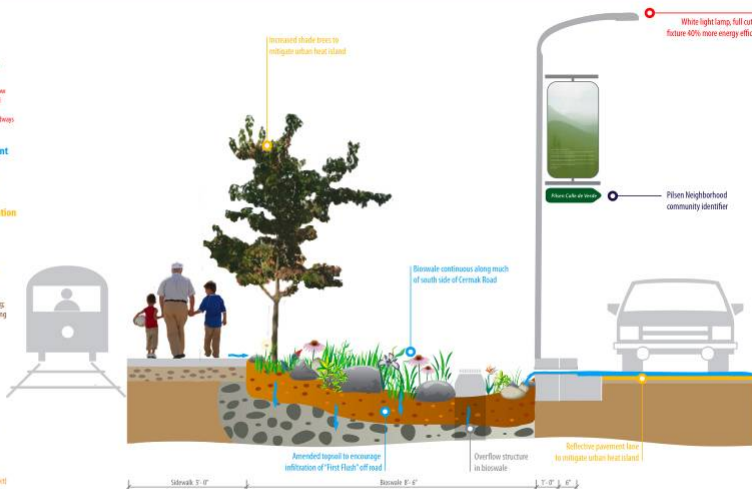
STREETSCAPE ALONG CERMAK ROAD

CDOT Wight & Company Soodan & Associates, Inc. Phoenix Architects Mactec

Cermak / Blue Island Streetscape

LEGEND

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Meet an energy reduction baseline below the streetscape baseline, select optimal street lights for energy efficiency, use reflective surface on sidewalks/courtyards to improve lighting, use renewable energy on designated feature
- Storm-water management**
Over 100% of two year storm event from city storm system through the use of permeable pavements, bioswales and storage of Chicago Rain through existing outfall
- Urban heat island mitigation**
Reduce ambient summer temperatures on streets and sidewalks through use of reflective pavements, permeable, light colored materials on sidewalks and use of trees for shading
- Public transportation**
Improve bus stops with signage, shelters where possible, and lighting. Facilitate use of bikes with lanes along Blue Island, and strategically located bike racks
- Water efficiency**
Limit or eliminate use of potable water where feasible. Specify Native or Climate-adapted, drought tolerant plants for all planting
- Education**
Provide public outreach materials/ self-guided tour booklets to highlight innovative, sustainable design features of streetscape
- Monitoring**
CDD is partnering with MWHD (Metropolitan Water Reclamation District)



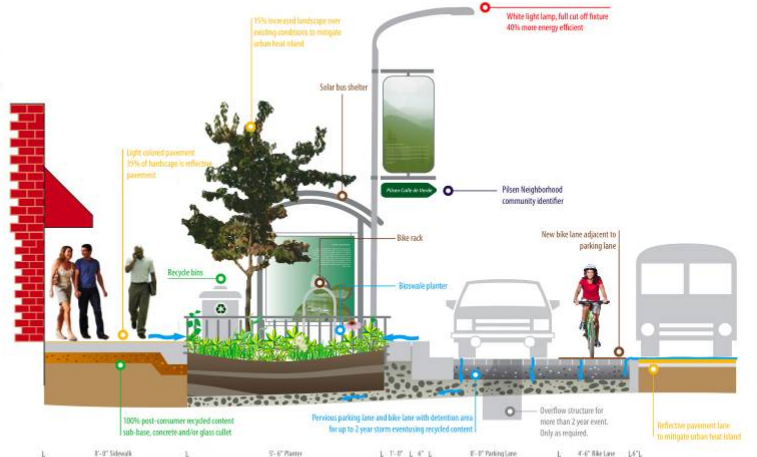
BIOSWALE AT CERMAK ROAD

CDOT Wight & Company Soodan & Associates, Inc. Phoenix Architects Mactec

Cermak / Blue Island Streetscape

LEGEND

- Recycled content**
Select with a recycled content. Select materials, specify recycled content with a minimum 20% recycled content.
- Energy conservation**
Place energy reduction strategies before the street design. Use high-efficiency lighting. Use reflective surfaces on overhead housings to improve lighting and minimize energy on equipment. Use.
- Storm-water management**
Direct 50% of low-year storm event flow to stormwater through the use of permeable pavements, bioswales and storage of storm flow through existing outfall.
- Urban heat island mitigation**
Reduce urban heat island temperature on other side of sidewalk through use of reflective pavements on roadways, light colored and permeable sidewalks and shade trees (if available).
- Public transportation**
Improve bus stops with signage, shelters, where possible, and lighting. Encourage use of bikes with lanes along Blue Island, and strategically located bike racks.
- Water efficiency**
Limit or eliminate use of potable water sources for irrigation. Specify fixtures or items adopted, drought tolerant plants for all plantings.
- Education**
Provide public outreach materials and signage to increase neighborhood awareness, sustainable design, and use of bike racks.
- Monitoring**
100% compliance with WQRP (Watershed Water Reduction Program).



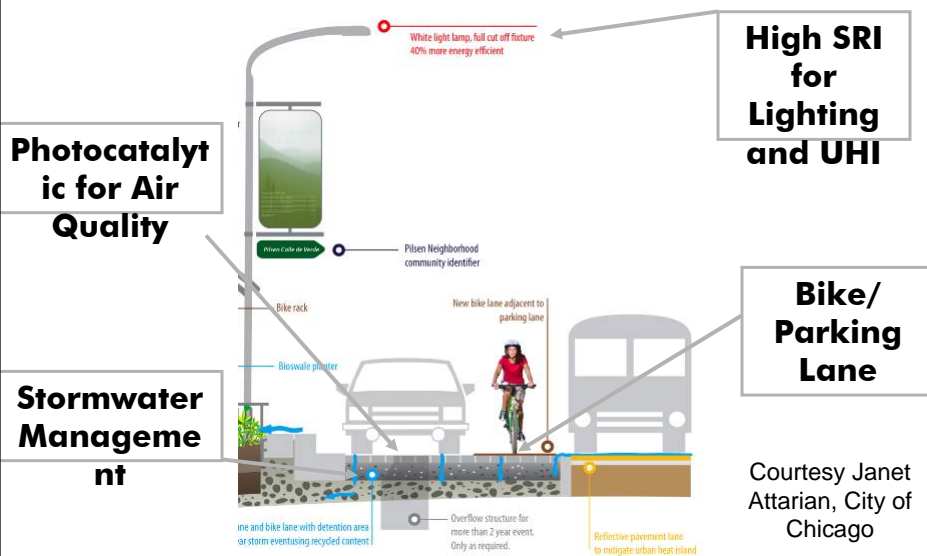
STREETSCAPE ALONG BLUE ISLAND AVENUE



Wight & Company
Soodan & Associates, Inc.

Phoenix Architects
Mactec

Integrated Design Example: Permeable Pavers



Courtesy Janet Attarian, City of Chicago

Resources

www.epa.gov/smartgrowth

www.epa.gov/greeninfrastructure



Question & Answer Section

Have a question?

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the Live Audio function.

Washington State's Green Projects funded through the Recovery Act



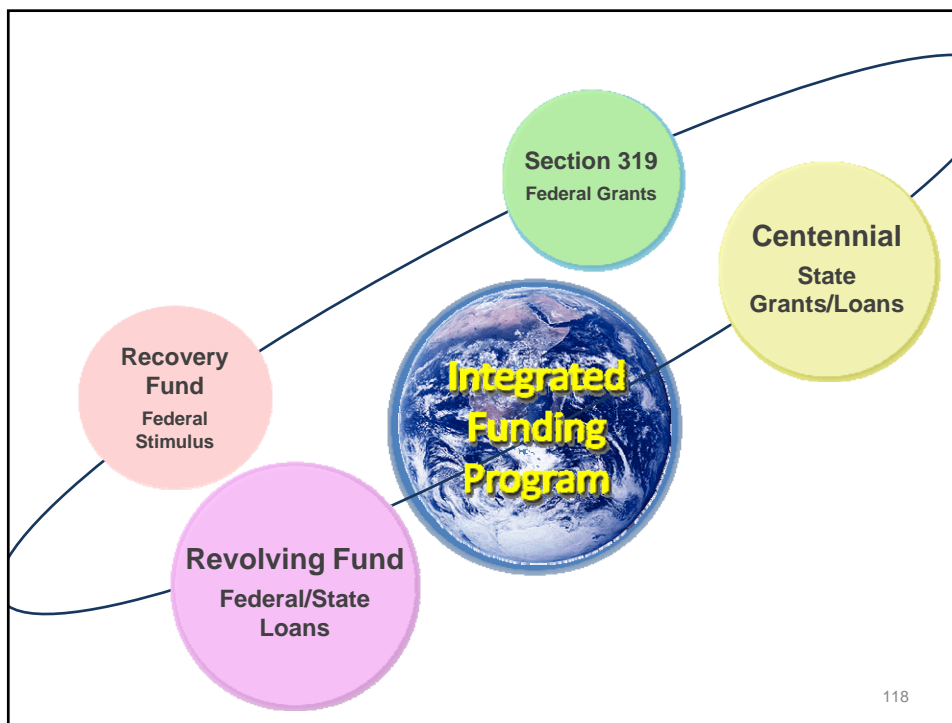
Funding Program Goals

- ◆ To prevent and clean up water pollution to improve and protect Washington's water quality.
- ◆ To help communities make sustainable choices that reduce and prevent water quality problems.
- ◆ To provide water quality partners with technical and financial assistance.
- ◆ Implement the American Recovery and Reinvestment Act of 2009

Funding Sources

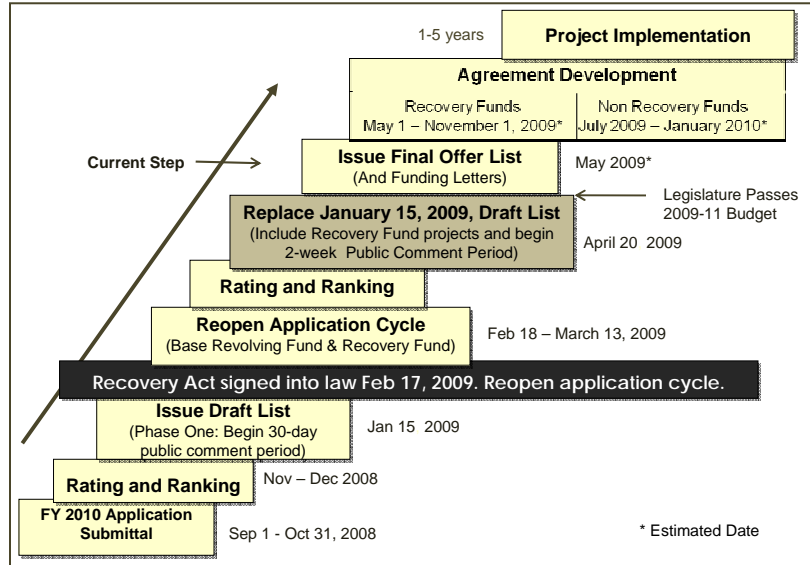
- ◆ Centennial Clean Water Program (Centennial): **Funded from the Water Quality Account (e.g. cigarette tax dedicated to water quality) and State Building Construction Account (bonds). Note: the Water Quality Account may be eliminated through 2009 legislative action and funding moved to General Fund.**
- ◆ Clean Water Act Section 319 Nonpoint Source Fund (Section 319): **Allocated through the General Fund - Federal (federal funds issued through the Environmental Protection Agency [EPA]).**
- ◆ Water Pollution Control Revolving Fund (Revolving Fund): **supported by EPA Capitalization grants, state matching funds, and principal and interest repayments on existing loans.**
- ◆ Recovery Act Water Pollution Control Revolving Fund (Recovery Fund): **supported by an EPA Capitalization grant made possible through the Recovery Act.**

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FY 2010 Funding Cycle Timeline



List Development Process

Integrated funding approach

- ◆ One application
- ◆ One set of guidelines
- ◆ Combined rating and ranking
- ◆ One application cycle with two phases (this year only)
 - ◆ Phase One – September 1 to October 31, 2009
 - ◆ Phase Two – February 18 to March 13, 2009

FY 2010 Draft Offer List Statistics

198 applications for funding received

- ◆ **79 applications from Phase One application process plus 119 from Phase Two, supplemental Recovery Act, application process**
- ◆ **\$700 million in total grant and loan requests, provisos and prior commitments including:**
 - ◆ \$26 million in grant request,
 - ◆ \$670 million in loan request
 - \$116 million of the loan requests were for the Green Project Reserves category (Green Projects)

Of the 56 projects proposed for funding totaling \$142M

- 7 Recovery Act Green Projects totaling \$13.8M
- 9 nonpoint activity Revolving Fund loan projects totaling \$11.6M

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Funding Green Projects

Washington State has a long (20+ years) history of funding projects that control non point sources of pollution. Over the years Ecology has funded projects such as:

- ◆ On-site septic repair/replacement local loan programs
- ◆ Low impact development for stormwater
- ◆ Riparian and wetland restoration
- ◆ Education and outreach
- ◆ Agricultural BMP installation
- ◆ Water quality and effectiveness monitoring
- ◆ Watershed planning

Revolving Fund and Nonpoint

The Nonpoint community has generally resisted applying for loans because of its inability to secure repayment.

- ◆ Some applicants have overcome financial hurdles to make Revolving Fund loans work for non point projects
- ◆ Others continue to seek only grant funding where there is no stable source of repayment
- ◆ Washington State used the Recovery Act funding as an opportunity to bridge the gap by offering a 50 percent forgivable principal loan for “green reserve” eligible projects
 - ◆ This provided incentive to applicants and resulted in high demand for funding of high priority water quality projects

Nonpoint Revolving Fund Successes

Some applicants have overcome financial hurdles to establish very effective loan programs that protect water quality:

- ◆ Around 15 years ago Skagit County borrowed Revolving Funds to start the state’s first on-site septic repair local loan program.
 - ◆ Approximately \$5 million over the past 5 years
 - ◆ Six other Puget Sound counties have also set up similar ongoing programs
- ◆ Spokane Conservation District, which has an assessment, borrowed Revolving Funds to set up local loan programs for purchasing no-till drills/direct seed equipment.
 - ◆ Approximately \$8 million over the past 7 years
- ◆ Seattle Public Utilities received several loans to build natural drainage/low impact development stormwater projects.

State Funding Initiatives

Washington State Legislature has been proactive in providing funding incentives for moving environmental and water quality protection programs forward.

In state fiscal year 2007, the Legislature provided funds for:

◆ **Low-Impact Development (LID) Stormwater Management Grants Program**

- ◆ \$2.5 million funding 10 projects

◆ **Special Phase II NPDES Stormwater Grants Program**

- ◆ \$9 million funding 35 local government projects

◆ **Puget Sound On-site Septic Repair and Replacement Financial Assistance Program**

- ◆ \$1.5 million in State Centennial grant funds linked with \$5 million in Revolving Fund loan funding to encourage establishment and expansion of septic repair and replacement programs

State Funding Initiatives, cont.

In state fiscal year 2008, the Legislature provided funds for:

◆ **Stormwater Management Implementation Grants Program**

- ◆ Focus on retrofit and LID
- ◆ \$20 million funding 35 projects

◆ **Local Government Stormwater Grants Program**

- ◆ Focus on meeting Phase II stormwater permit requirements
- ◆ \$9 million provided in \$75,000 grants to 115 local governments

◆ **Reclaimed Water Grants Program**

- ◆ Focus on encouraging reclamation/reuse for water short areas and ecological benefits
- ◆ \$5 million funding 10 feasibility studies and 5 construction projects

Green Project Reserve

Green Project Reserves Category	# of eligible applicants in Phase I	# of eligible applicants in Phase II	Total eligible loan amount requested	Total Recovery Act funds offered
Water Efficiency	0	9	\$39,504,087	\$207,802
Energy Efficiency	0	14	\$26,712,486	-0-
Green Infrastructure	5	31	\$50,911,445	\$11,122,578
Environmentally Innovative	1	11	\$14,296,175	\$2,300,000
Totals	6	65	\$131,424,193	\$13,630,380

Recovery Act Green Project Examples

- ❖ The City of Vancouver will transform 26 city owned acres into functional wetlands and riparian forest. The City will use this area to intercept and treat stormwater runoff. Stormwater controls will include LID techniques, bioretention, groundwater infiltration, and greenspace protection.

Recovery Act Green Project Examples

❖ Clark County will protect and enhance 40 acres of critical habitat and wetlands. The site was chosen as a critical area to protect Whipple Creek from stormwater runoff from anticipated future development. This project includes a variety of practices to manage and treat stormwater runoff. Practices include protection of wetland complexes, riparian area rehabilitation, and other techniques to restore natural hydrology.

Recovery Act Green Project Examples

❖ The City of Olympia will develop the southern 10 acres of city owned park land. Low impact development features include: a water quality treatment wetland, bio-retention ponds, a 5000 square foot rain garden and biofiltration swales, a new parking lot with porous pavement, and water harvesting and re-use for irrigation. The project area will be lowered 3 feet to add 12-14 acre feet of storage for stormwater runoff and provide enhanced treatment for 840 acre feet of runoff per year.

Other applications we received included:

- ❖ Numerous projects to retrofit city streets with LID techniques;
- ❖ Hydromodification and riparian restoration to manage wet weather;
- ❖ Water reclamation and reuse;
- ❖ Several green cogeneration projects;
- ❖ Facility retrofits for energy savings.

Conclusion

- ◆ **Washington State has a history of looking into the future, and by doing so, our local governments and special purpose districts were well prepared to answer the call of EPA's Green Project Reserve Program.**

Contact Information

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**Thank you for attending
today's Webcast!**