

#### Walkable Watershed

healthy waters: healthy communities

#### Webinar: Making the Connection San Francisco Bay Pilot

October 28, 2015 10:30am – 12:00pm



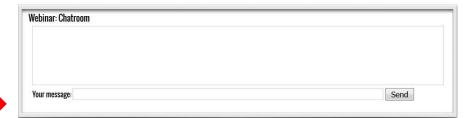


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Marcus Griswold San Francisco Bay Walkable Watershed Coordinator, Skeo Solutions



Miranda Maupin
Manager, Community
Planning & Revitalization,
Skeo Solutions



Alisa Hefner Mid-Atlantic Walkable Watershed Coordinator, Skeo Solutions



**Vernice Miller-Travis**Senior Associate,
Skeo Solutions



Michelle Kokolis
Anacostia Executive
Watershed Manager,
Metropolitan Washington
Council of Governments



Jen Baker Sustainability Analyst, City of Raleigh Office of Sustainability



**Dhanya Sandeep**Urban Planner,
Raleigh Urban Design Center



Welcome (Marcus Griswold, Skeo Solutions)

Walkable Watershed Concept and Strategies (Miranda Maupin, Skeo Solutions)

Community Snapshot: Lower Little Rock Creek Watershed, Raleigh, NC (Alisa Hefner and Jen Baker and Dhanya Sandeep, City of Raleigh)

**Community Capacity Building** (Vernice Miller-Travis)

Discussion and Q&A (Next steps)

Closing

#### **Poll Question**

# Walkable Watershed Concept and Strategies

Miranda Maupin



#### What is Walkable Watersheds?

An approach to watershed planning that *links* environmental and social equity goals.

Based on the principal that high quality water goes hand-in-hand with high quality of life.









#### What is Walkable Watersheds?

Leverages the potential of water to serve as a significant revitalizing force for communities.

Integrates the *flow of water* and people into a cohesive strategy to improve the overall health of a community and the surrounding watershed.





#### Common Community Challenges

- Neglected creeks and watersheds
- Substandard infrastructure to support walking and healthy lifestyles
- Lack of cohesive community vision and capacity to guide investments
- Lack of connectivity and relationships between community, agencies and resources.





#### Common Planning Challenges

Planning tends to focus on one topic at a time (parks, watersheds, transportation)



Integrate planning across programs at neighborhood scale

Technical analysis is *not* always integrated with stewardship programs.



Local governments and nonprofits can face challenges engaging marginalized communities due to distrust and disinvestment.



Integrate technical and stewardship goals



Bring everyone to the table by listening to community goals and concerns.



#### Walkable Watershed Process

- Bring stakeholders together.
- Develop a shared understanding of both the technical and the community based issues.
- Identify strategies that improve conditions for both pedestrians and water quality.
- 4. Unify strategies into a cohesive vision to leverage funding and partnerships for implementation.



#### Strategies

Integrating walkability and stormwater improvements



- "Enable **safe** access for all users (including pedestrians, bicyclists, motorists and transit riders of all ages and abilities)
- "And enhance water quality by cleaning stormwater runoff.





Safe Crossings

Stormwater treatment can be integrated with safe pedestrian crossings.



Mid-block Stormwater Bump-out

#### Corner Stormwater Bump-out



Source: City of Philadelphia Green Streets Design Manual



#### Stormwater Flow – On Street

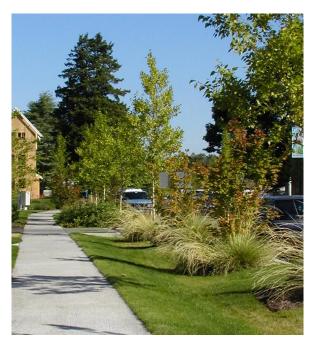
**Swales** are grassy or vegetated channels that safely hold and direct water from one place to another. They can be located adjacent to streets and parking lots to slow and clean the water before it flows to the creek.



Curb extension retrofit



Water-filled planted swale during 25-year storm event



Grassy swale



#### Stormwater Flow – Off Street

Rain gardens are planted areas that are sunk into the ground to collect rainwater runoff from impervious urban areas (such as roofs, driveways and parking lots). Rain gardens can be added to front yards, public spaces and vacant lots.



Integrated into a community park



*In public spaces with* educational signage



Terraced rain gardens provide a visual attraction



Celebrating and enhancing community connections to urban waterways provides multiple benefits.



Greenways provide access to waterways and recreational areas



Signage celebrates a community's legacy and connection to waterways



### Celebrate the Watershed

Stormwater strategies can be designed to celebrate the watershed and highlight how rainwater flows through the neighborhood.



Bridge reflects skeleton of native fish





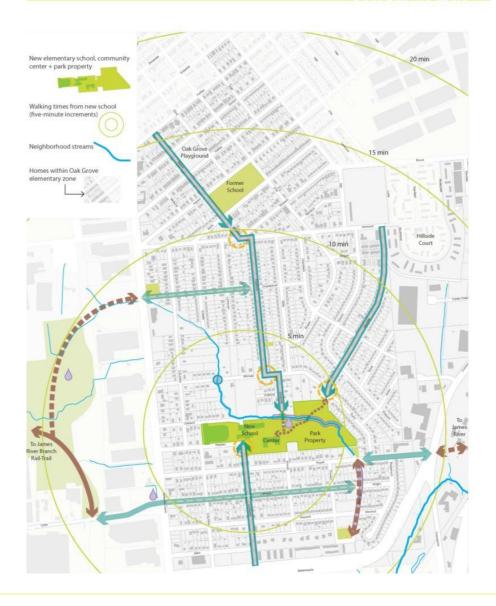
On street murals and painted storm drains



Signage



- Combine strategies into a larger concept plan that represents a shared vision among diverse stakeholders.
- " Provides a roadmap to guide investments and engage a range of partners and funding sources.



#### **Poll Question**

#### Community Snapshot: Bellemeade Neighborhood Richmond, VA

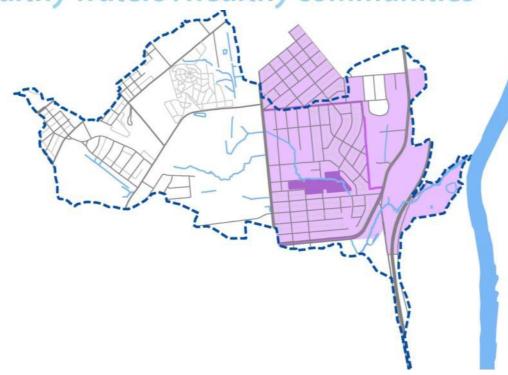
Alisa Hefner Michelle Kokolis





### BELLEMEADE WALKABLE WATERSHED DEMONSTRATION PROJECT

healthy waters: healthy communities





















- The Bellemeade neighborhood is underserved - many streets lack sidewalks and proper drainage.
- "The neighborhood is bisected by an urban stream that has been neglected.
- The residents are mostly low income and African American.







#### Watershed + Schoolshed

The school district was developing a new elementary school adjacent to the creek – potential to be a community center and revitalizing force.

The City of Richmond was developing a Stormwater Master Plan to improve water quality, mitigate flooding and reduce stream bank erosion.









Community-based solutions grounded in technical analysis that result in partnerships for implementation.



## Water flow challenges









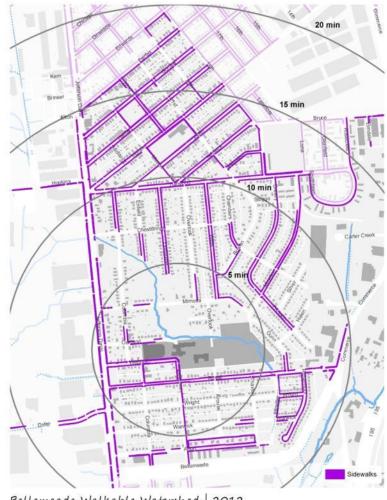






#### Pedestrian flow challenges

- Many of the streets around the school lack sidewalks
- Especially within the 5-10 minute walk radius
- Although most students live within a 15 min walk – almost all students are bused to school.



Bellemeade Walkable Watershed



A watershed tour and working session brought together a range of stakeholders to identify strategies for improving the watershed and walkability in the neighborhood.





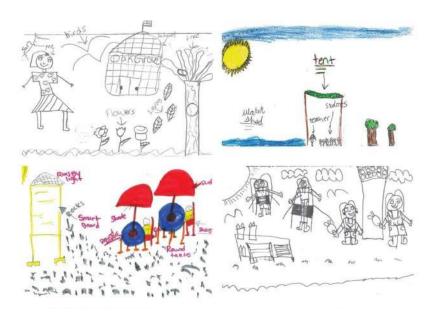






#### Engage the students

5<sup>th</sup> grade students identified the priority walking routes to school and community center.









Building on student priorities, the concept plan outlines 3 major green connections to the school and community center.







Strategies that promote learning

#### **BELLEMEADE CONCEPT PLAN**



Neighborhood Connectivity
Safe Routes
Watershed Health
Vibrant Open Space
Education + Awareness
Community Building



- " All school sidewalks funded
- Strategies included in City'sStormwater Master Plan
- " Leveraged additional implementation funding
  - . National Fish & Wildlife Foundation
  - . EPA Urban Waters
- " Pro bono park concept plan
- Sparked local non-profit and volunteer activities





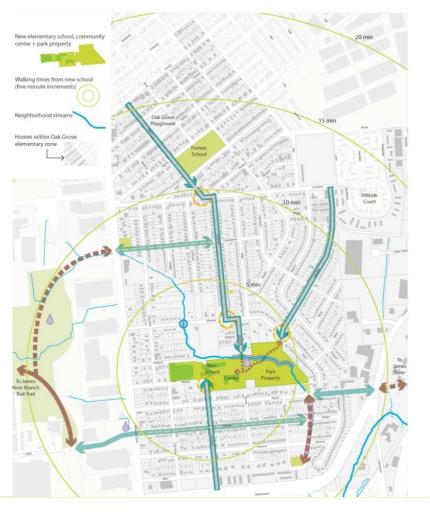
Images: James River Association



#### Road Map to Investment

CONCEPT PLAN

The Bellemeade
Concept Plan
combined community
needs with locality
needs and 2 years later
continues to provide
an action plan for long
term investment.





#### Road Map to Investment

Initially funded projects include the formation of a watershed coalition, stream restoration, a bioswale, buffer planting and outreach & education activities









#### Road Map to Investment

- The Walkable Watershed plan is serving as a tool to identify new partners and fund additional projects in the community
  - Green Jobs opportunities: GroundworkRVA is training high school students on park maintenance. Once trained they will maintain the community park
  - Tricycle Gardens is working with residents to create a community garden
  - JRA has received funding to provide trash cleanup kits to the churches, school and community center and to provide students with kits to grow their own vegetable plant at home
  - . CBF received funding to install educational signage and an additional bioswale



#### Watershed Replicability

#### Also in the Chesapeake Bay

- Charlottesville, VA building on existing planning efforts to identify early wins that meet multiple program goals.
- *Lynchburg, VA* integrating stormwater improvements and walkability with Safe Routes to School program.
- Cortland, NY restoring a community's connection to their downtown waterfront.
- Petersburg, VA launching in Spring 2015.

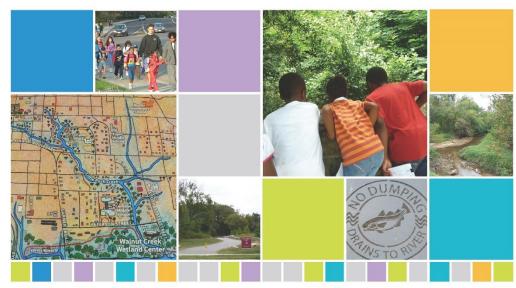


City staff and community stakeholders tour watershed to better understand issues and work together to identify opportunities.

#### **Poll Question**

Community Snapshot:
Lower Little Rock Creek Watershed
Raleigh, NC

Alisa Hefner Dhanya Sandeep Jen Baker



#### **Walkable Watershed Concept Plan**

for the lower Little Rock Creek Watershed

Raleigh, NC | September 2014



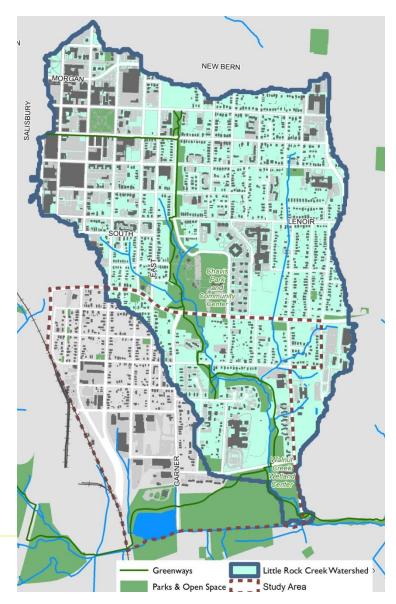
Develop a concept plan to improve water flow and pedestrian amenities in lower Little Rock Creek Watershed.





All the land area where rainwater drains to Little Rock Creek.

- The Little Rock Watershed includes downtown, Chavis Park, the greenway and surrounding neighborhoods.
- "Stormwater in this area flows through a network of pipes and ditches to the creek, and eventually the Neuse River.





### Community Challenges

- Pedestrian safety crossing intersections
- Missing sidewalks on major pedestrian routes
- Narrow street right-of-ways
- Flooding and mud on sidewalks/greenways
- Perception that walking in neighborhood and greenway is not safe
- People may be unaware there is a creek or see the creek as a nuisance







#### Water Flow Challenges



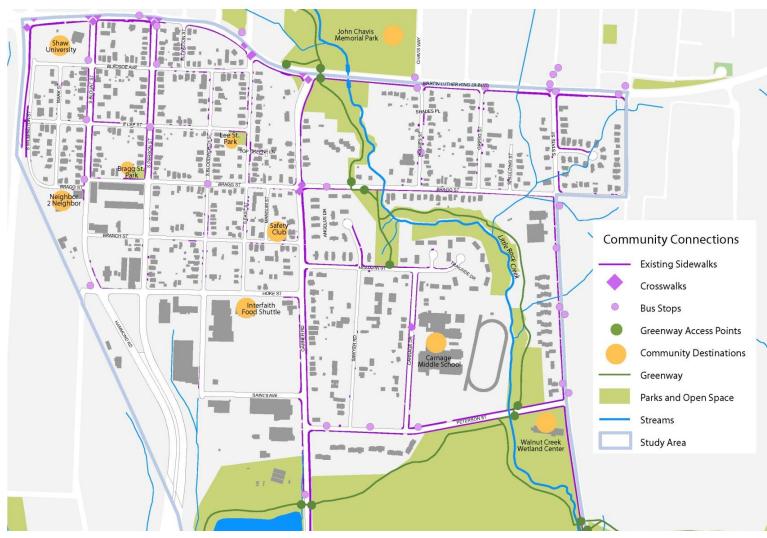




- " Litter and illegal dumping
- " Erosive flows
- " Polluted water
- " Local flooding



## Community Connections



# Creek and Greenway





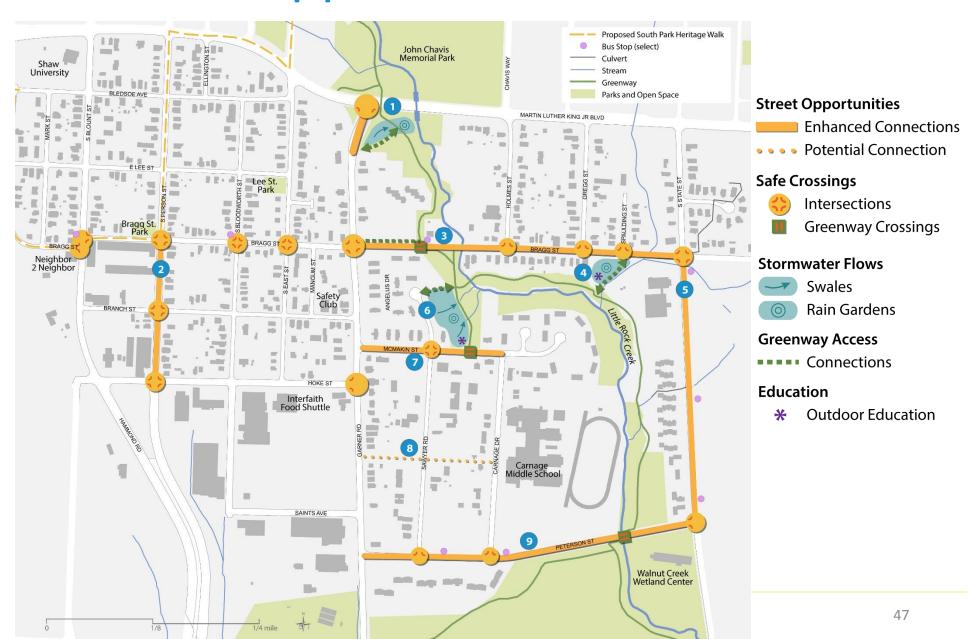
#### **Potential Opportunities**



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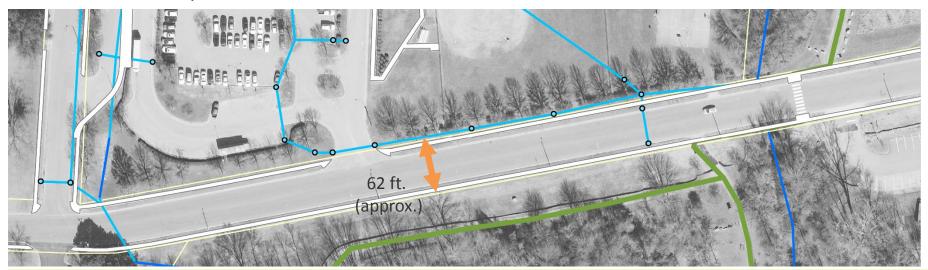


### 9. Peterson Street Current Conditions

- No sidewalk on north side of street west of Carnage Dr.
- " School buses park along north side daily."
- " Local youth walk/bike to Walnut Creek Wetland Center.
- " Street stormwater is piped to creek.
- Street may be wide enough to incorporate additional improvements. Identified for bike infrastructure improvements.

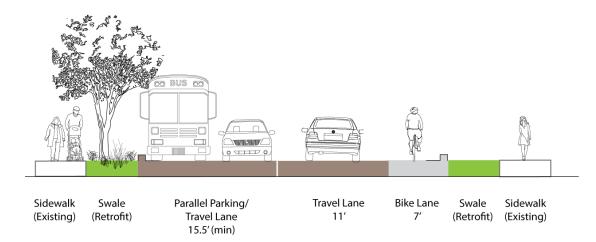


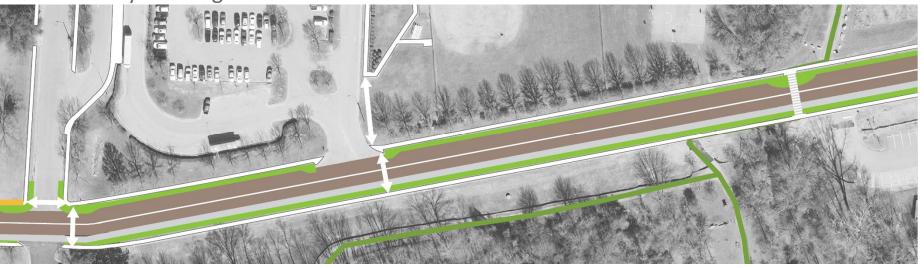




### 9. Peterson Street Potential Opportunities

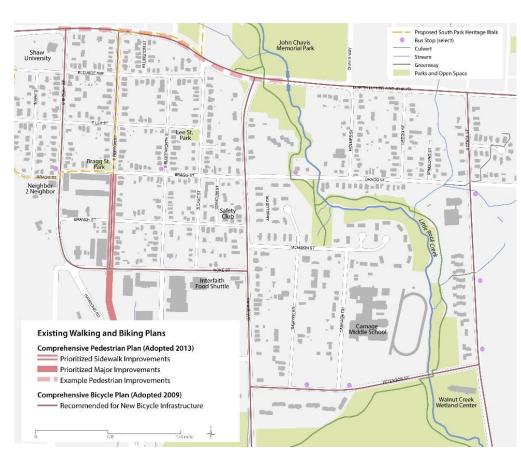
- Add bike lane.
- Add swale to improve stormwater draining from Carnage Street and middle school.
- Add swale to existing planting strip on south side.
- Extend sidewalks to Garner.
- Include planted sidewalk bump outs at Greenway crossing.





# Integrating Existing Plans and Projects at the Neighborhood Scale

- Transportation Plan
  - . Pedestrian Plan
  - . Bike Plan
  - . Corridor Study
- Parks and Greenway Plans
- GreenInfrastructure/LowImpact DevelopmentTask Force





#### Cross-Departmental Team

- Office of Sustainability
- Community Development
- Transportation Planning
- Stormwater Management
- Planning and Development
- **Community Services** Department
- Parks, Recreation and **Cultural Resources**
- Raleigh Urban Design Center
- **Transportation Operations**







"The integrated approach of the Walkable Watershed process inspired a unique collaborative process across City departments, creating positive connections that will drive some early wins and long-term leveraging of existing programs. It was truly remarkable to see colleagues who do not typically work together coalesce around this effort. The Walkable Watershed project has helped us build a strong foundation for future cross-departmental planning processes."

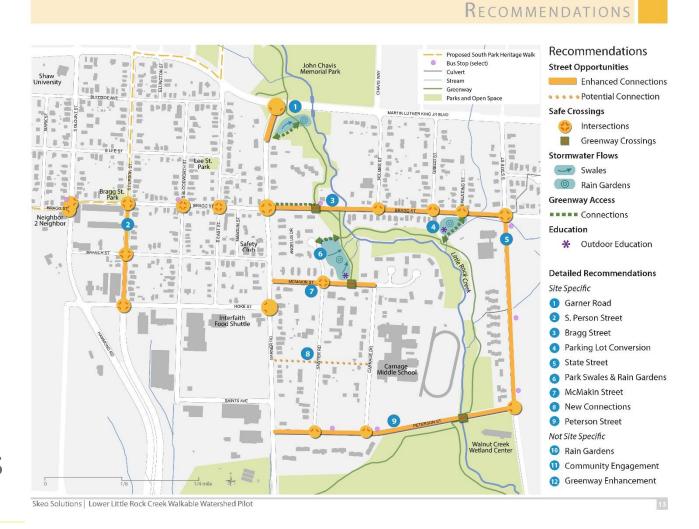
City Manager Ruffin L. Hall



#### Partnerships for Implementation

#### In Raleigh...

- City team formed
- Partnering organizations identified
- Moving forward with near-term opportunities





# Looking Forward



#### **Poll Question**

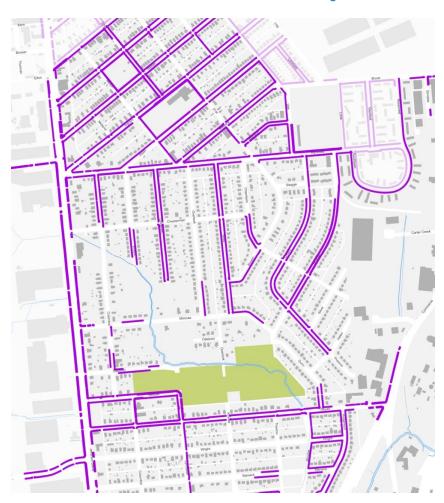
#### **Community Capacity Building**

Vernice Miller-Travis



#### Environmental Justice Principles

- Forgotten rivers often flow through forgotten communities.
- These neighborhoods may lack the most basic amenities.
- Finding common ground for communicating the message of watershed restoration is key.





#### Community Outreach Challenges

Local government staff and watershed organizations sometimes face challenges in engaging these neighborhoods who have a history of mistrust, broken promises, lack of investment.





#### **Poll Question**



#### Often in urban communities...

- " Waterways can be seen as a liability (flooding, erosion)
- Waterways are not seen as an asset (illegal dumping, forgotten)
- Lack of formal venue to voice concerns











#### Community Perspective

"The stream vegetation is an eye-sore, a nuisance, and a safety concern."

"Piping the stream would be a better option."

"I can't believe there's a creek behind all those weeds."







#### What is Equitable Development

- **Equitable development** is an approach to creating healthy, vibrant, communities of opportunity.
- Equitable outcomes come about when smart, intentional strategies are put in place to ensure that everyone can participate in and benefit from decisions that shape their neighborhoods and regions.

- PolicyLink



The Public Leadership Group for the Chavis Park Master Plan in Raleigh, NC.



#### Bringing Community to the Table

- Engage a broad range of stakeholders.
- Reach out to trusted and respected community leaders.
- Understand that community members may have grown weary or cynical over time.
- Walkable Watershed process provides a vehicle to bring people to the table to share vision and goals.





#### Understand Community Needs

Start with the community's broader goals and concerns. Ask questions.

- What community amenities are missing or need improvement?
- What makes walking challenging?
- What do you think of the creek? Then identify strategies to both address community issues and watershed goals.







# Pecatonica River East Side Neighborhood, Freeport, IL







Top Left: Flooding (ca. 1914-1940), source:

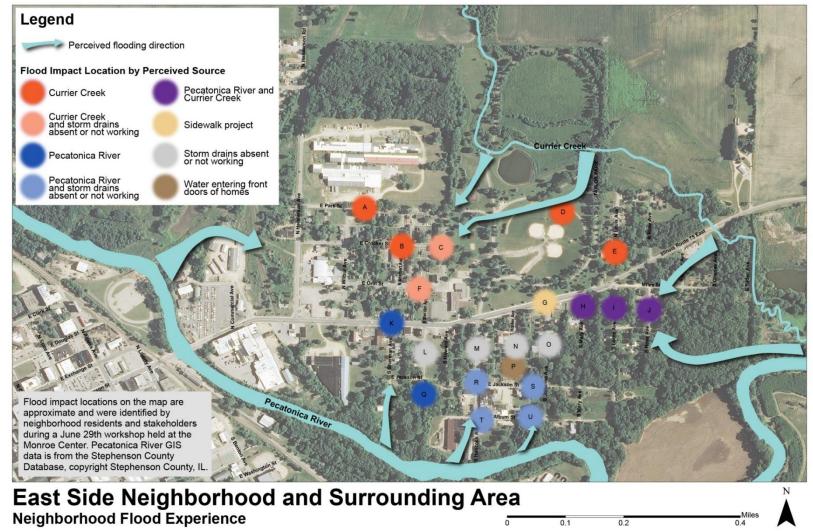
http://www.robertbike.com/wienand-photo-album;

Bottom Left: Flooding (2013), source: http://www.journalstandard.com

Top: Flood damage inspection (2010), source: FEMA



### Flood Experience Map



#### **Poll Question**



### Connections and Capacity Building





**Cross-department** 





**Community Building** 





Youth Involvement



#### Summary of Capacity Building

- Engage broad range of local stakeholders, including children and young people
- Begin by asking about community's concerns and goals
- Validate community's experience and expertise
- Look for mutual opportunities to address community concerns and watershed goals

- Opportunity to build connections between community and local government.
- Also connect various government departments and agencies, and that can lead to problem solving and resource identification.
- A Walkable Watershed approach can be a vehicle to help build a shared vision for watershed and community revitalization.



#### Walkable Watershed Approach

- " Integrate across programs to achieve multiple benefits.
- Integrate technical and stewardship goals.
- "Bring everyone to the table by listening to community concerns.
- Develop a cohesive vision and concept plan to enlist partners.
- " Leverage multiple funding.
- " Generate fun and inspiration







What questions do you have about the San Francisco Bay Pilot?

What resonates for you about the Walkable Watershed concept?



#### Potential Funding Opportunities:

- " EPA Urban Waters Small Grants (due November 20, 2015)
- Stormwater Utility Fees
- " Proposition 1 Disadvantaged Community Assistance Programs (Needs Assessment, IWRM, Community Engagement, Planning)
- " Others?





#### **Marcus Griswold**

Walkable Watershed

San Francisco Bay Coordinator

**Skeo Solutions** 

mgriswold@skeo.com

www.skeo.com

www.walkablewatershed.com/sanfrancisco

bay