



Chester, Delaware & Montgomery Counties Regional Watershed Improvement Project



Stakeholder Forums January, 2012

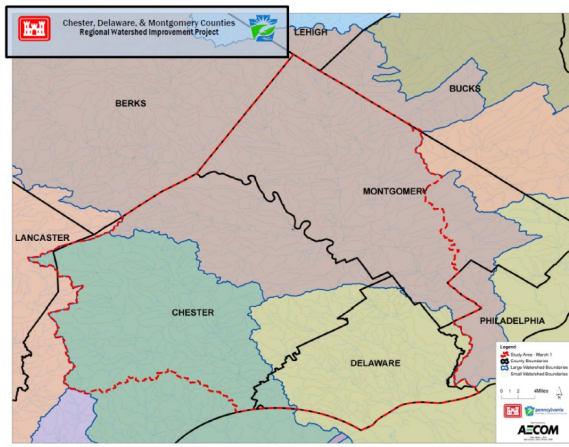
Prepared by:

AECOM Technical Services, Inc.
1700 Market Street
Philadelphia, PA 19103





Chester, Delaware & Montgomery Counties Regional Watershed Improvement Project



STAKEHOLDER FORUMs

Delaware County
January 26, 2012

Chester County
January 31, 2012

Montgomery County
January 31, 2012



Introductions



U.S. Army Corps of Engineers – Philadelphia District

- Erik Rourke
- Tricia Aspinwall

Pennsylvania Department of Environmental Protection

- Jay Braund
- Kevin Munley

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- Ross Gordon
- Suzanne Ciavola

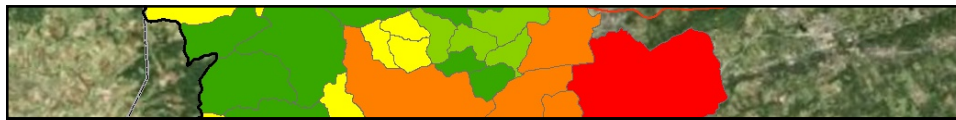




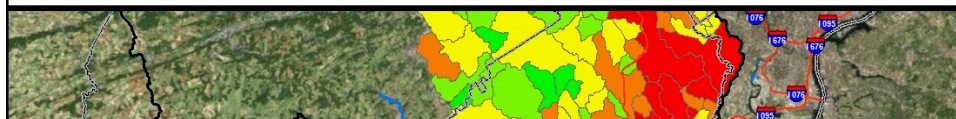
Meeting Agenda



- Introductions and Goals for Meeting (10 min)
- Program & Project Overview (20 min)
- Review of March 2011 Stakeholder Workshops (5 min)
- Overview of Prioritization Process (10 min)
- Overview of Decision Support Tool (15 min)
- Overview of Future Steps (10 min)
- Question & Answer Session (20 min)



Program & Project Overview





Program Overview



Section 566 Program Southeastern Pennsylvania Environmental Improvement Program

- Authorized by Section 566 of WRDA 1996, as amended
- Provides design and construction assistance to non-federal interests for water-related environmental infrastructure, resource protection, and development projects.
- All phases are cost-shared 75% Federal / 25% Local
- Funded at the sole discretion of Congress through Congressionally Directed Spending



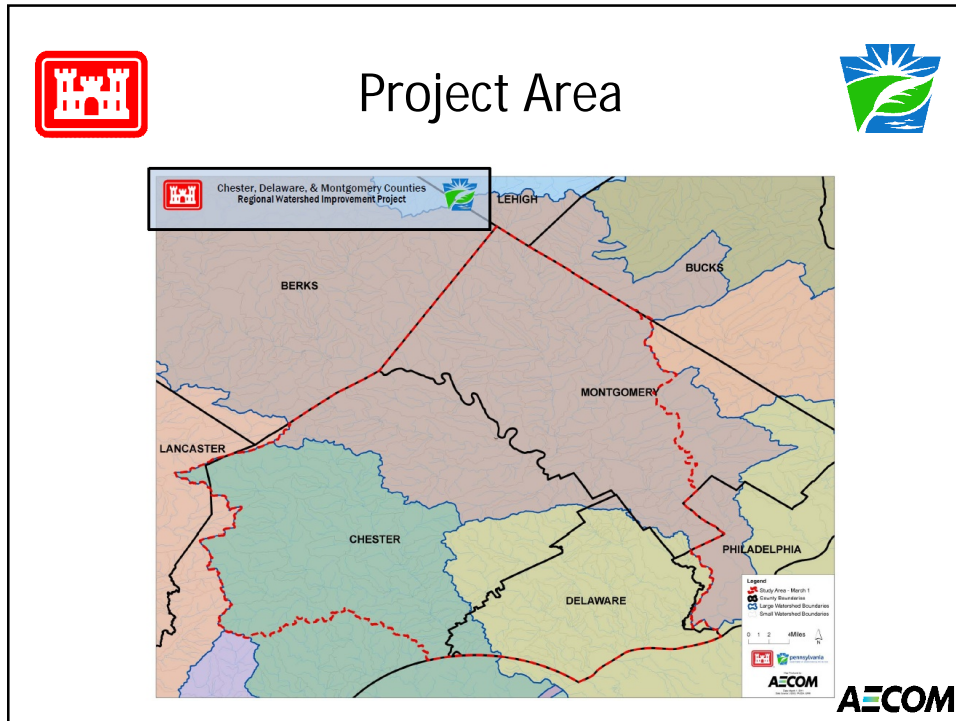
Project Overview



Chester, Delaware, and Montgomery Counties Regional Watershed Improvement Project

- Authorized and funded, via the 566 Program, through efforts of Congressional Representatives
- Collaboration of the U.S. Army Corp of Engineers (USACE) and the PA Department of Environmental Protection
- Created to accelerate implementation of priority regional watershed improvement projects addressing:
 - Flood risk management
 - Water quality improvement
 - Ecological restoration









Project Phases

Phase 1	<ul style="list-style-type: none"> Public Coordination & Involvement
Phase 2	<ul style="list-style-type: none"> Data Collection, Organization & Analysis
Phase 3	<ul style="list-style-type: none"> Identify Priority Areas for Watershed Improvements (Decision Support Tool)

Funding Status: Funded
Local Sponsor: PA DEP

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	<h2>Project Phases</h2>	
Phase 4	<ul style="list-style-type: none">• Project Alternatives Development	
Phase 5	<ul style="list-style-type: none">• Preliminary Project Design (30%)	
Funding Status:	Authorized but not funded	
Local Sponsor:	PA DEP	
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	<h2>Project Phases</h2>	
Phase 6	<ul style="list-style-type: none">• Final Engineering and Design (100%)• Environmental Permitting	
Phase 7	<ul style="list-style-type: none">• Construction	
Funding Status:	Authorized under 566 but not funded	
Local Sponsor:	New sponsor agreement required	
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Project Summary



- Program/Project is funding-limited and therefore cannot address all problems (must prioritize)
- Focus on regional, integrated solutions to address priority watershed issues
- Structured to facilitate implementation of priority projects as funding is appropriated by Congress
- Design/Build authority fast-tracks project completion compared to traditional USACE process

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Project Recap




- Decision Support Tool objectively identifies priority areas in greatest need for watershed improvements (Phase 3)
- Priority areas with local support are positioned to move into alternatives evaluation and preliminary project design (Phases 4 & 5)
 - 75% Federal / 25% Local cost-share
- Feasible projects with local sponsor(s) are positioned to move into final design and construction (Phases 6 & 7)
 - 75% Federal / 25% Local cost-share

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Current Status




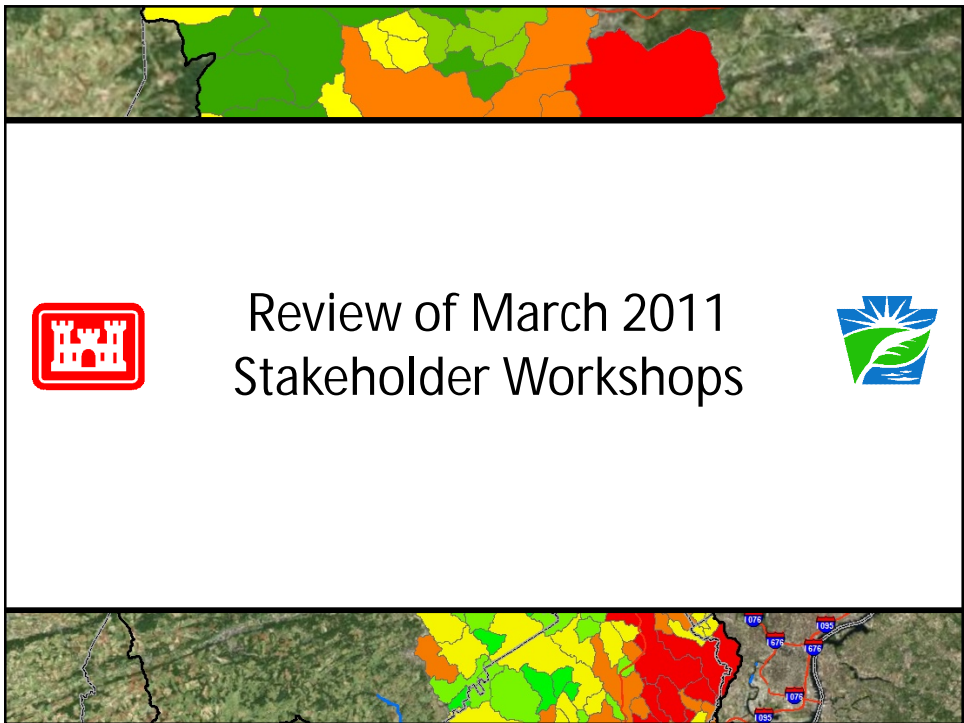
Phase 1	<ul style="list-style-type: none">• Public Coordination & Involvement• WORKSHOPS HELD MARCH 2011
Phase 2	<ul style="list-style-type: none">• Data Collection, Organization & Analysis• COMPLETED MARCH-DECEMBER 2011
Phase 3	<ul style="list-style-type: none">• Identify Priority Areas for Watershed Improvements (Decision Support Tool)• DRAFT FINAL PRIORITIZATIONS TO BE COMPLETE MARCH 2012

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Review of March 2011 Stakeholder Workshops







March Workshop Summary



Workshop Goals:

- Introduce you to the project
- Discuss issues facing region
- Identify priority concerns

Workshop Results

- Stakeholder Summary Report
- Available on Project Website:

<http://www.nap.usace.army.mil/Projects/spe/>

Chester, Delaware & Montgomery Counties
Regional Watershed Improvement Project

**Stakeholder Outreach
Summary Report**

April 18, 2011

Prepared by:
AECOM Technical Services, Inc.
1700 Market Street
Philadelphia, PA 19103

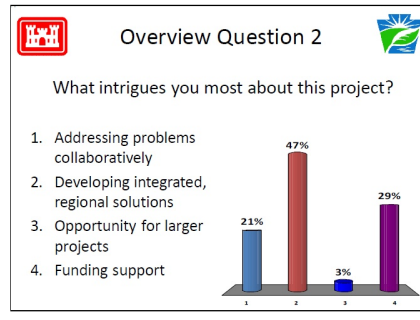
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Key Findings – Overall



- Issues facing each watershed and priorities in each watershed are very different
- Solid solutions exist but often lack funding & support
- Desire to move away from the band-aid approach
- Desire to address problems collaboratively using integrated regional solutions

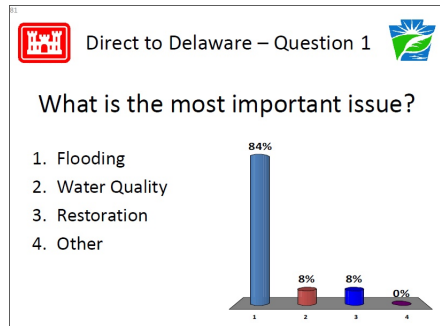




Key Findings – Delaware



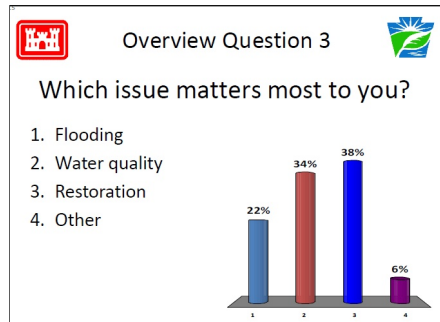
- Identified flooding as foremost concern
 - Minimize population impacted
 - Reduce flood damages
 - Control erosion
- Issues related to new development in upstream areas and aging infrastructure in downstream areas



Key Findings – Chester



- Equal interest in Flooding, Water Quality, and Restoration
 - Erosion and sediment control
 - Agricultural considerations
 - Flood risk management
- Issues related to new development and removal of natural stormwater control features such as buffers





Key Findings – Montgomery



- Identified water quality as foremost concern
 - Erosion and sediment control
 - Stream stabilization
 - Legacy sediment
- Issues related to increased volumes & rates of runoff and degradation of streams and riparian buffers

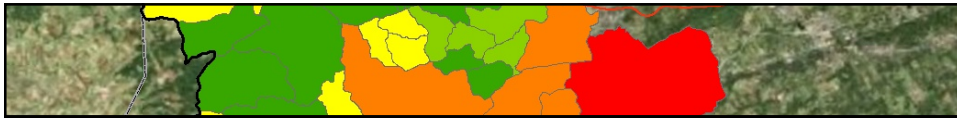
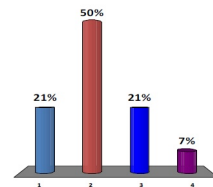


Overview Question 3

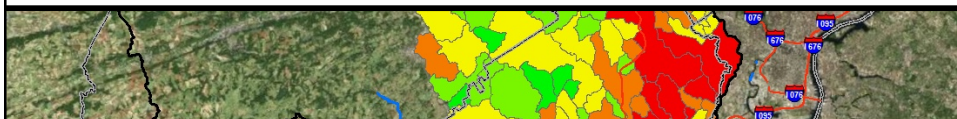


Which issue matters most to you?

1. Flooding
2. Water quality
3. Restoration
4. Other



Overview of Prioritization Process





Why Prioritization?



- With limited funds, must prioritize where investment is most needed
- Prioritization is 1st step in leveraging USACE resources

Keys to Prioritization

- Provide objective assessment of existing conditions and issues facing the project area
- Provide consistent decision-making framework

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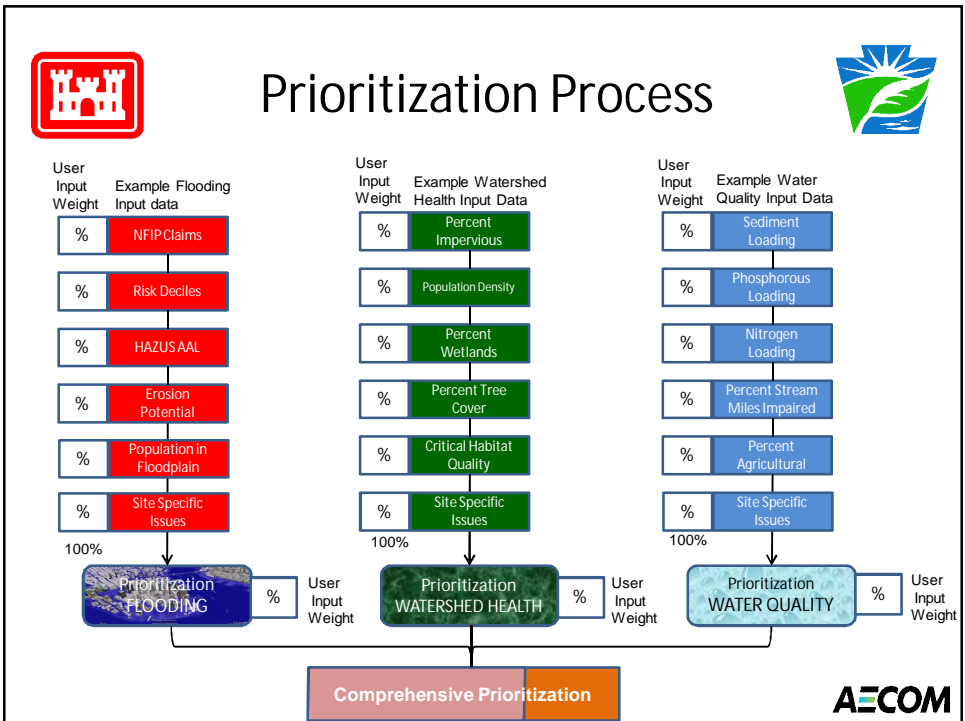
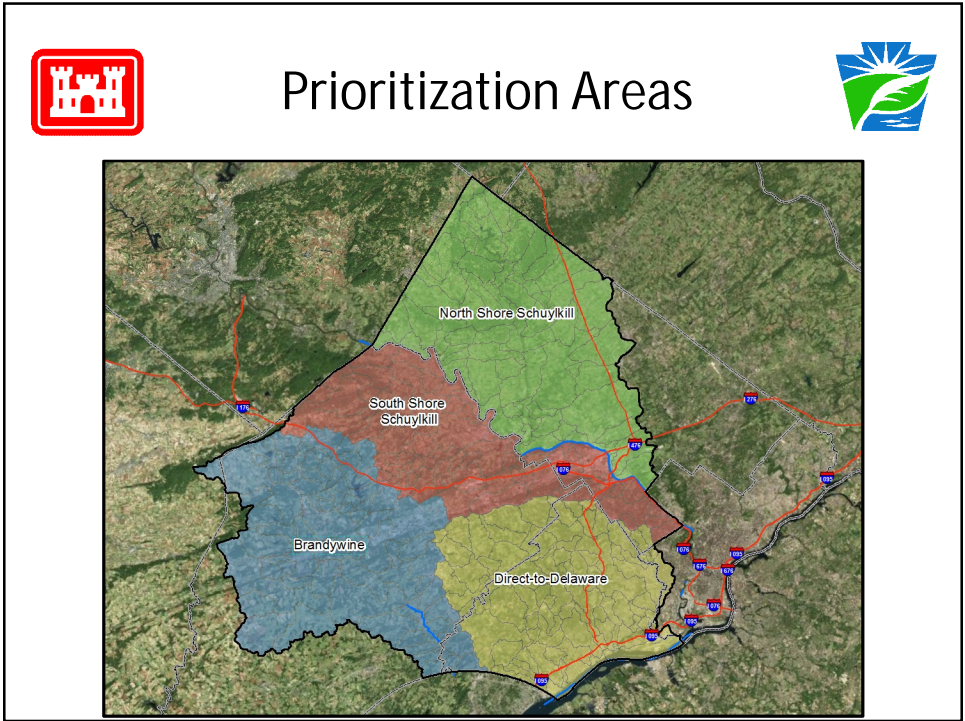


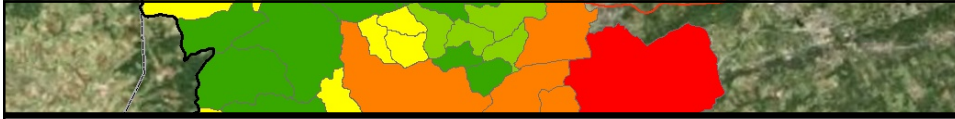
Prioritization Methodology






- Develop objective indicators to quantify key issues related to:
 - Flooding
 - Watershed Health
 - Water Quality
- Provide customizable weighting factors to account for differences in priorities and issues facing the watersheds
- Create unique prioritization lists for each major watershed area



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 Overview of
Decision Support Tool 



 Decision Support Tool 

DST Developed for Two Reasons:

1. Identify and prioritize areas where the USACE could assist in design and construction of priority regional watershed improvement projects
2. Provide useful planning tool to assist local entities in regional watershed planning

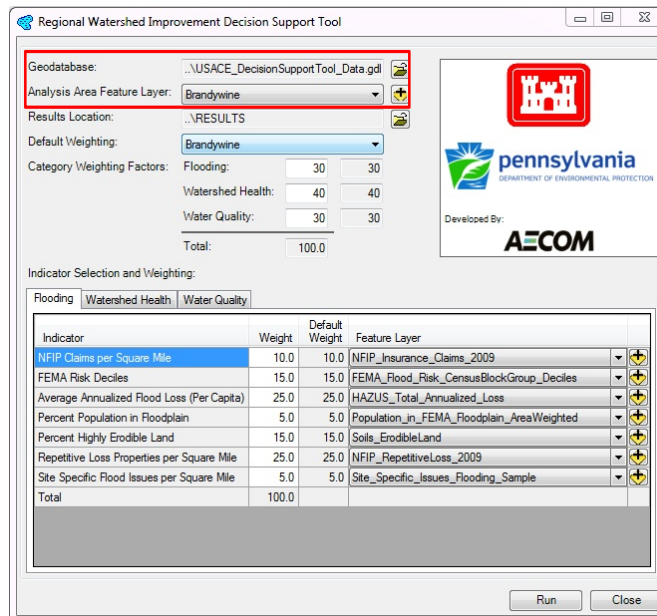
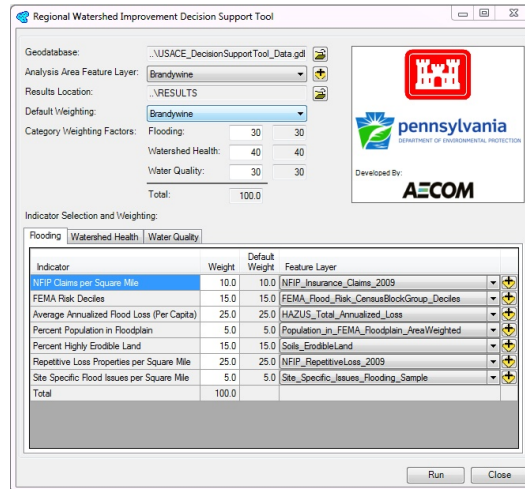
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Decision Support Tool



- Developed as an ArcGIS 10 extension
- Available for download on website
- All data included in provided geodatabase
- Automated for ease of use
- Detailed user manual provided
- Customizable by user



Regional Watershed Improvement Decision Support Tool

Geodatabase: ..\USACE_DecisionSupportTool_Data.gdb
 Analysis Area Feature Layer: Brandywine
 Results Location: ..\RESULTS
 Default Weighting: Brandywine

Category Weighting Factors:
 Flooding: 30 30
 Watershed Health: 40 40
 Water Quality: 30 30
 Total: 100.0

Indicator Selection and Weighting:

Indicator	Weight	Default Weight	Feature Layer
NFIP Claims per Square Mile	10.0	10.0	NFIP_Insurance_Claims_2009
FEMA Risk Deciles	15.0	15.0	FEMA_Flood_Risk_CensusBlockGroup_Deciles
Average Annualized Flood Loss (Per Capita)	25.0	25.0	HAZUS_Total_Annualized_Loss
Percent Population in Floodplain	5.0	5.0	Population_in_FEMA_Floodplain_AreaWeighted
Percent Highly Erodible Land	15.0	15.0	Soils_ErodibleLand
Repetitive Loss Properties per Square Mile	25.0	25.0	NFIP_RepetitiveLoss_2009
Site Specific Flood Issues per Square Mile	5.0	5.0	Site_Specific_Issues_Flooding_Sample
Total	100.0		

Run Close

Regional Watershed Improvement Decision Support Tool

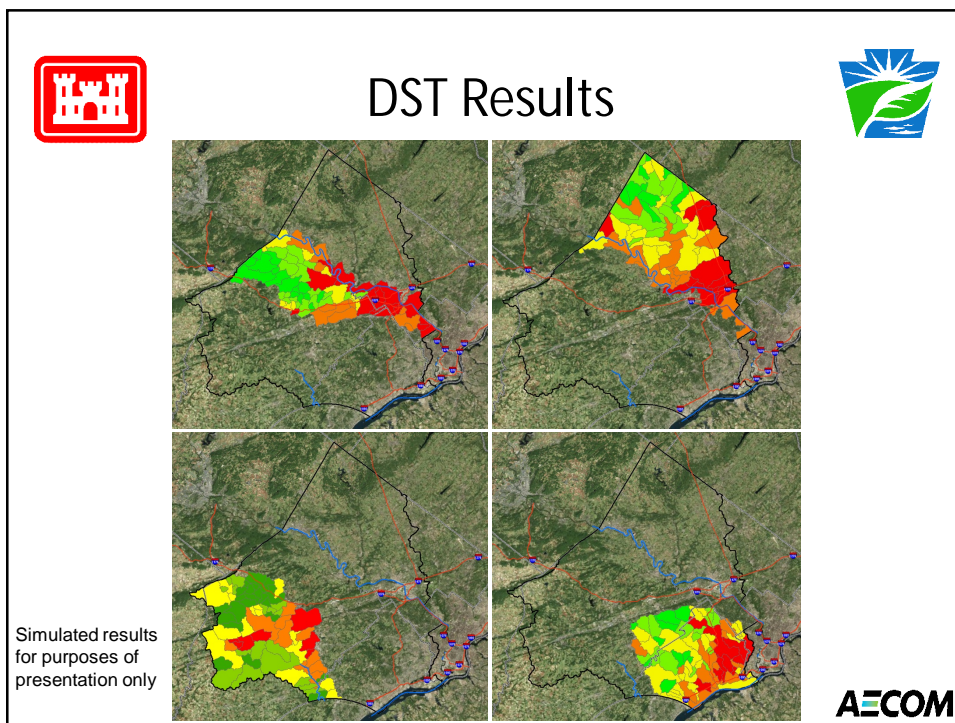
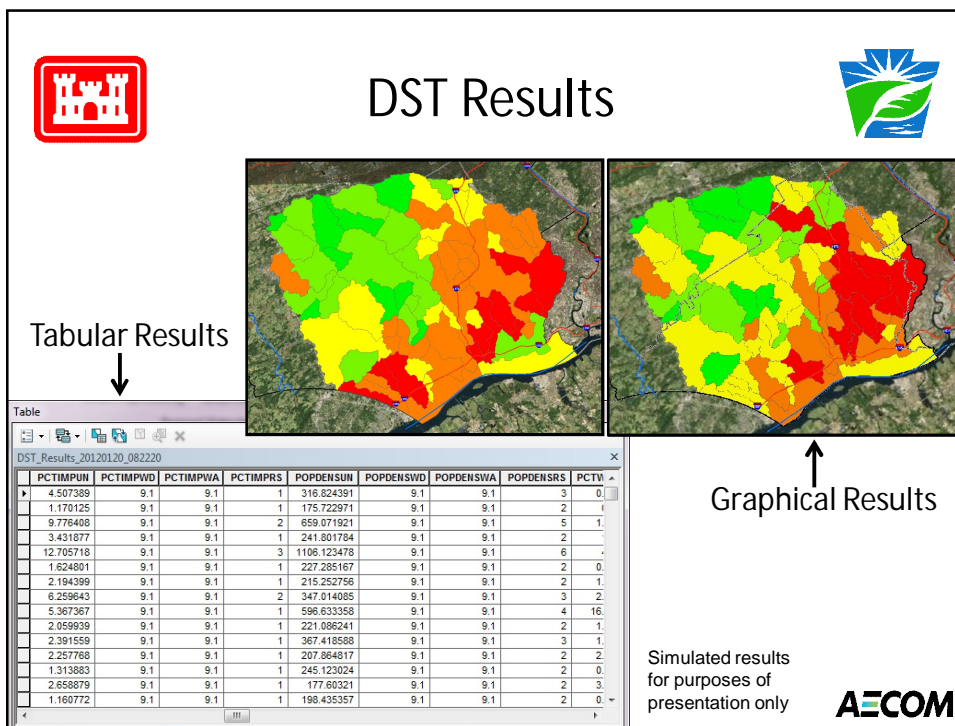
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Average Annualized Flood Loss (Per Capita)	25.0	25.0	HAZUS_Total_Annualized_Loss
Percent Population in Floodplain	5.0	5.0	Population_in_FEMA_Floodplain_AreaWeighted
Percent Highly Erodible Land	15.0	15.0	Soils_ErodibleLand
Repetitive Loss Properties per Square Mile	25.0	25.0	NFIP_RepetitiveLoss_2009
Site Specific Flood Issues per Square Mile	5.0	5.0	Site_Specific_Issues_Flooding_Sample
Total	100.0		

Run Close



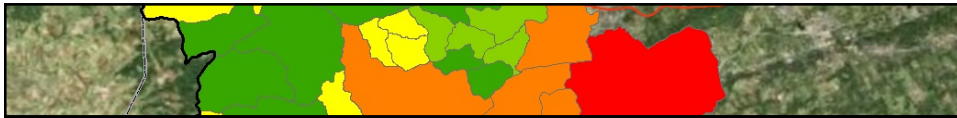


After Prioritization...

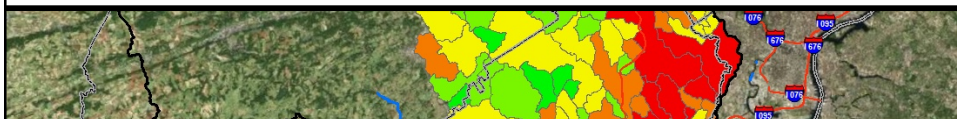


- Watersheds classified as priority are positioned for further consideration under the Project/Program
- To move into future phases, a watershed would need:
 - Identification and support of Local Sponsor(s)
 - Funding
- Exact ranking not as important as degree of local support and funding

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Overview of Future Steps





Upcoming Schedule



- March - Stakeholder Forums in each county to present Draft Final Prioritizations:
 - Delaware County – March 28, 9:00am
 - Chester County - TBD
 - Montgomery County – March 28, 2:00pm
- April – Comment period for Draft Final Prioritizations
- May – Release Final Prioritization Report via website

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Project Website



- After March Stakeholder Forums, website to include:
 - Download link for Decision Support Tool & User Manual
 - Draft Prioritization Report including maps and tables
 - Link to ArcGIS WebServer to view digital version of draft prioritizations
 - Comment submission instructions
- May release of Final Prioritizations, website to include:
 - Download link for Decision Support Tool & User Manual
 - Final Prioritization Report including maps and tables
 - Link to web-based ArcServer to view digital version of final prioritizations

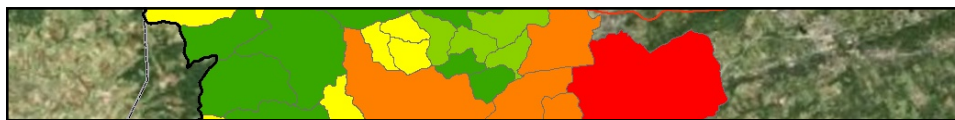
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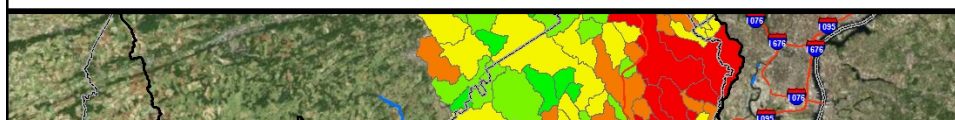
Future Steps



- Priority areas identified in Final Prioritization Report are positioned for progression into Phase 4 & 5 pending:
 - Identification and support of Local Sponsor(s)
 - Funding
- Project Alternatives Development (Phase 4) analyzes priority area(s) in detail to develop suite of feasible alternatives to address priority issues. Process recommends preferred option for Preliminary Project Design (Phase 5)
- All phases cost-shared 75% Federal / 25% Local



Question & Answer





Question & Answer



- Program / Project Overview
- Prioritization Process / Decision Support Tool
- Future Steps

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Question & Answer



- Program / Project Overview
- Prioritization Process / Decision Support Tool
- Future Steps

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Question & Answer



- Program / Project Overview
- Prioritization Process / Decision Support Tool
- Future Steps



THANK YOU



Category	Weighting Factor	Weighting Factor	Weighting Factor
Flooding	33.3	33.3	
Watershed Health	33.3	33.3	
Water Quality	33.4	33.4	
Total	100.0		

Indicator	Weight	Default	Indicator
2011 Contactor Service Mile	14.3	14.3	2011 American Clients_2011
2011 Risk Decade	14.3	14.3	2011 Storm Run_Construction_Decade
Percent Impervious Paved Area (Per Capita)	14.3	14.3	2011 Storm Run_Construction_Decade
Percent Population in Floodplain	14.3	14.3	Population_of_2011_Population_AreaWeighted
Percent High Quality Land	14.3	14.3	2011 Storm Run_Construction_Decade
Population per Square Mile	14.3	14.3	2011 Storm Run_Construction_Decade
Population per Square Mile	14.3	14.3	2011 Storm Run_Construction_Decade
Soil Specific Flooding hours per Square Mile	14.3	14.3	2011 Storm Run_Construction_Decade
Total	100.0		

Stay up to date at our website

<http://www.nap.usace.army.mil/Projects/spe/>



Stakeholder Participant List

	Delaware County Workshop	Montgomery County Workshop	Chester County Workshop
1	Al baldi Upper Darby Township	Amy Miller DVRPC	Barry Edwards West Sadsbury Township
2	Andrew Colket	Barry Wert, P.E., P.L.S. Metz Engineers Franconia & Lower Salford Township	Bob Struble Red Clay Valley Association
3	Ann Jackson Darby Creek Valley Associatio	Dan McCreary Upper Gwynedd Township	Brady L. Flaherty, P.E. Arro Group Easttown Township East Coventry Township
4	Anne Wolfe Delaware County Planning Department	Dan Shinskie Lansdale Borough	Craig A. Kologie, AICP CasVall Wallace South Coventry and Warwick Townships
5	Anne Murphy Executive Director Chester-Ridley-Crum Watersheds Association Ridley Creek State Park	Desiree Henning Dudley PA DEP	Craig Marleton Environmental Specialist
6	Arthur E. McGarity Crum Creek Watershed Partnership Chester Ridley Crum Watershed Association Swarthmore College	Douglas R. Blazey Elliott Greenleaf & Siedzikowski, P.C. PA Stormwater Coalition	Dan Crocker Chester County Water Resouces Authority
7	Brian J. Vadino Watershed Specialist Delaware County Conservation District	Drew Shaw, AICP Chief, Environmental Planning Montgomery County Planning Commission	Daniel H. Daley, P.E. Edward B. Walsh & Associates, Inc Uwchlan Township, East Caln Township, West Bradford Township
8	Craig Marleton Aqua Pennsylvania	Jake Ziegler Lansdale Borough	Dani-Ella Betz Chester County Water Resources Authority
9	Dan Seaton Delaware County Planning Department	John Embick	Darrell Becker ARRO Consulting, Inc. E. Whiteland Tonwnship
10	Daniel R. Lutz, P.E. Upper Darby Township	Jon Leshar Montgomery County Planning Commission	Drew Reif USGS
11	Dee Ross, Watershed Coordinator Partnership for the Delaware Estuary	Maria Donatucci State Representative	Don Vymazal II State Senator Andrew Dinniman
12	Douglas R. Blazey Elliott Greenleaf & Siedzikowski, P.C. PA Stormwater Coalition	Mike McLaughlin State Representative Kate Harper	James W. Hatfield, P.E. VanDemark & Lynch, Inc. Birmingham Township, Pocopson Township, and East Marlborough Township
13	Eileen M. Nelson Stantec	Richard Nalbandian Temple Univeristy Research Fellow Center for Sustainable Communities	James W. MacCombie, P.E., P.L.S Consulting Engineers and Surveyors, Inc.
14	F. Clark Walton, P.E. Walton, Mulvena & Associates	Robert Traver, PhD, P.E., D.WRE Villanova University	Jan Bowers, P.G. Executive Director Chester County Water Resources Authority
15	Julie M. Del Muto Delaware County Planning Department	Scott Greenly Associate Planner Upper Merion Township	Jane Fava Red Streams Blue Program Brandywine Valley Association Red Clay Valley Association
16	Karen L. Holm Manager, Environmental Planning Section Delaware County Planning Dept.	Stephen Burgo, P.E. Tredyffrin Township	Janie Baird Chairman of Newlin Township Board of Supervisors

Stakeholder Participant List

	Delaware County Workshop	Montgomery County Workshop	Chester County Workshop
17	Kate Goddard Doms Darby Creek Valley Association	Susan Harris Montgomery County Conservation District	Jeffrey W. McClintock, PE, CFM Township Engineer Calm Township
18	Kevin Andrews State Rep. Joe Hackett	Theodore Dmyryk, P.E. Pennoni Associates	John R. Weller, AICP Director of Planning & Zoning West Whiteland Township
19	Robin Mann DCVA	Erik Rourke Strategic Planner U.S. Army Corps of Engineers	Joe Roscioli West Whiteland Township
20	Steve Beckley Delaware County Planning Department	Tricia L. Aspinwall Project Manager U.S. Army Corps of Engineers	Kathy Miller Pocopson Township Stream Team
21	William J. Cervino Director of Code Enforcement Springfield Township	Jay Braund Special Projects Coordinator Department of Environmental Protection	Mark A. Gordon, CFM East Goshen Township
22	Zach Barner Environmental Planning Section Delaware County Planning Dept.	Kevin Munley Watershed Manager Department of Environmental Protection	Matthew VanLew Roadmaster East Brandywine Township
23	Erik Rourke Strategic Planner U.S. Army Corps of Engineers	Ross Gordon AECOM	Pete Goodman Valley Forge Trout Unlimited
24	Tricia L. Aspinwall Project Manager U.S. Army Corps of Engineers	Suzanne Ciavola AECOM	Randy Patry, P.E. Advanced Geoservices Charlestown Township
25	Jay Braund Special Projects Coordinator Department of Environmental Protection	Andy Wohlspurger AECOM	Rebecca Kennedy PECPA
26	Kevin Munley Watershed Manager Department of Environmental Protection		Rich Breitenstein Department of Environmental Protection
27	Ross Gordon AECOM		Richard J. Craig, P.E., CSM West Goshen Township
28	Suzanne Ciavola AECOM		Rick Smith Township Manager East Goshen Town
29			Robert Layman Westtown Township
30			Robert Wilpizeski Borough of West Chester
31			Ronald A. Rambo, Jr. West Brandywine Township
32			Scott T. Piersol Township Manager East Brandywine Township

Stakeholder Participant List

	Delaware County Workshop	Montgomery County Workshop	Chester County Workshop
33			Victoria Laubach Green Valleys Association
34			Wesley Horner Brandywine Conservancy
35			Erik Rourke Strategic Planner U.S. Army Corps of Engineers
36			Tricia L. Aspinwall Project Manager U.S. Army Corps of Engineers
37			Jay Braund Special Projects Coordinator Department of Environmental Protection
38			Kevin Munley Watershed Manager Department of Environmental Protection
39			Ross Gordon AECOM
40			Suzanne Ciavola AECOM
41			Andy Wohlsperger AECOM
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