NY Rising Community Reconstruction Program Committee Meeting 3

November 13, 2013, 7:00 – 8:30 pm

Schenectady County Community College

Student Activity Forum, First Floor Elston Hall

78 Washington Ave, Schenectady, NY

Agenda

1. Project Update, Review of 11/4 Public Meeting
2. Review of Schedule and required Deliverables
3. Refine strategies and projects
4. Proposed Plan to complete Risk Assessment, Benefits and Needs, Project Prioritization
5. Next Steps and Assignments

Public Meeting 11/4/13
Mabee Farm, Rotterdam Junction

- Approximately 50 attendees
- Short presentation
- Open House format
- Good participation
- Some new project ideas
- Constructive participation

Deliverable Review

- Finalize Strategies and Refine Projects, Complete Needs and Opportunities, Final Asset Inventory (November 29, 2013);
- Draft Risk Assessment, Benefit / Cost; Project Screening (December 27, 2013);
- Final Risk Assessment, Benefit/Cost, Project Screening (January 15, 2014); and
- Final NYRCR Plan (March 28, 2014).

For This Month, November

- Finalize Strategies
- Refine and Prioritize Projects
- Innovation Month!

Contents of Reconstruction Plan

Background & Vision

- Storm damage, key regional and community issues, community vision

Asset Inventory & Assessment of Risks

- Community assets, risks to those assets

Needs & Opportunities

- Community needs (pre- and post-storm) and opportunities for investment and action

Reconstruction Strategies

- Strategies to address needs & opportunities for six key components

Implementation Measures

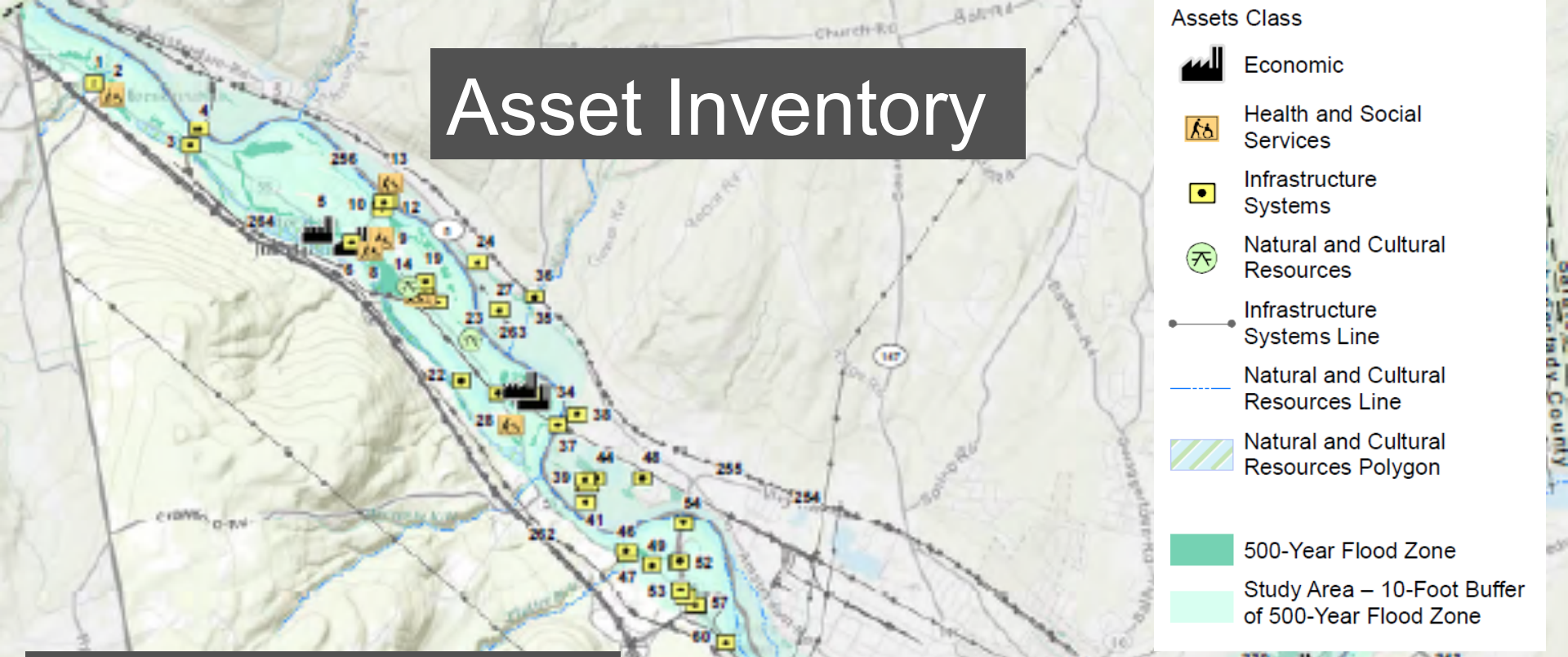
- Projects and actions to implement strategies, implementation schedule reflecting timing & responsible parties

Plan Development Process

- Project List: From other Plans and new projects from steps below
- Community Asset Inventory
- Risk Assessment
- Project Benefits Assessment
- Project Costs
- Benefit / Cost Analysis
- Final Project Selection

screening

Asset Inventory



Projects developed to protect and improve assets

Project Screening

	Screening Criteria for Plan Prioritization and Diversification				
Feasibility	Benefit / Cost	Funding availability	Regulatory feasibility	Reasonable timeline	Project owner capability
Community Benefits	Sustainability: conformance to Regional Plan	Economic growth opportunity	Environmental benefits	Community support	Innovation
Sectors Benefited	Health and Social Services	Housing	Infrastructure	Cultural Resources	Socially Vulnerable Populations
Co-Benefits	Cost-Share	Tourism	Transportatio n	Community Identity	Etc.

Risk Assessment

Benefit = Reduction of risk

		Outcome (magnitude of damage)			
		Negligible	Marginal	Critical	Catastrophic
Likelihood	Frequent	High	High	Extreme	Extreme
	Likely	Moderate	High	High	Extreme
	Possible	Low	Moderate	High	Extreme
	Unlikely	Low	Low	Moderate	Extreme
	No historic flood	Low	Low	Moderate	High

Risk Assessment Elements

- Identify possible projects
- For each project:
  - Identify assets that will be protected / improved
  - Rank "Outcome" of flooding as:
    1. Negligible
    2. Marginal
    3. Critical, or
    4. Catastrophic
  - Identify co-benefits

Outcome (magnitude of damage)			
Negligible	Marginal	Critical	Catastrophic
1	2	3	4

Risk Assessment Elements

Rank "Likelihood" of flooding

1. Unlikely, above 500-year flood
2. Possible, 500-year floodplain
3. Likely, 100-year floodplain or subject to recurrent flooding from drainage problems
4. Frequently floods

Likelihood	
Frequent	4
Likely	3
Possible	2
Unlikely	1
No historic flooding	0

Risk Assessment Scores

Risk = -outcome score x likelihood score

Likelihood	Outcome (magnitude of damage)			
	Negligible (1)	Marginal (2)	Critical (3)	Catastrophic (4)
Frequent (4)	4	8	12	16
Likely (3)	3	6	9	12
Possible (2)	2	4	6	8
Unlikely (1)	1	2	3	4
No historic flooding (0)	0	0	0	0

Benefit = - (Risk) + Co-Benefit

Cost Categories

- Cost estimates
  1. < $100,000
  2. $100,000 < $500,000
  3. $500,000 < $1,000,000
  4. > $1,000,000

  Cost share from other sources > 25%, deduct 0.5

  Cost share from other sources > 50%, deduct 0.7

  Cost share from other sources > 100%, deduct 1.0

Proposed Project Prioritization

1. Project Screening for feasibility, diversification of benefits, co-benefits, then…
2. Project priority = Benefit / Cost

Example

- Placing a berm around the Schenectady WWTP

Risk Assessment

Likelihood	Outcome (magnitude of damage)			
	Negligible (1)	Marginal (2)	Critical (3)	Catastrophic (4)
Frequent (4)	4	8	12	16
Likely (3)	3	6	9	12
Possible (2)	2	4	6	8
Unlikely (1)	1	2	3	4
No historic flooding (0)	0	0	0	0

Example

- Placing a berm around the Schenectady WWTP

Likelihood: 500 year flood = **2**

Likelihood	Outcome (magnitude of damage)			
	Negligible (1)	Marginal (2)	Critical (3)	Catastrophic (4)
Frequent (4)	4	8	12	16
Likely (3)	3	6	9	12
Possible (2)	**2**	**4**	**6**	**8**
Unlikely (1)	1	2	3	4
No historic flooding (0)	0	0	0	0

Example

- Placing a berm around the Schenectady WWTP

Outcome = Critical = **3**

Likelihood	Outcome (magnitude of damage)			
	Negligible (1)	Marginal (2)	**Critical (3)**	Catastrophic (4)
Frequent (4)	4	8	**12**	16
Likely (3)	3	6	**9**	12
Possible (2)	2	4	**6**	8
Unlikely (1)	1	2	**3**	4
No historic flooding (0)	0	0	**0**	0

Example

- Placing a berm around the Schenectady WWTP

  Risk = -6, Benefit = 6

Likelihood	Outcome (magnitude of damage)			
	Negligible (1)	Marginal (2)	**Critical (3)**	Catastrophic (4)
Frequent (4)	4	8	**12**	16
Likely (3)	3	6	9	12
Possible (2)	**2**	**4**	**6**	**8**
Unlikely (1)	1	2	**3**	4
No historic flooding (0)	0	0	**0**	0

Example

- Placing a berm around the Schenectady WWTP
  - Benefit / Cost = 6/?
  - Costs to be determined
  - Feasibility (engineering and approvals) to be determined
  - Project Owner: City of Schenectady?
  - Cost share?

Next Steps

1. Finalize strategies
2. Identify innovative approaches
3. Develop risk analysis
4. Estimate project costs
5. Determine project feasibility
6. Develop project priority list
7. Refine projects
8. Review Asset Inventory
9. Provide input on risk assessment outcomes, and co-benefits