



Reviewing Stormwater Collection Projects through a Sustainability Lens

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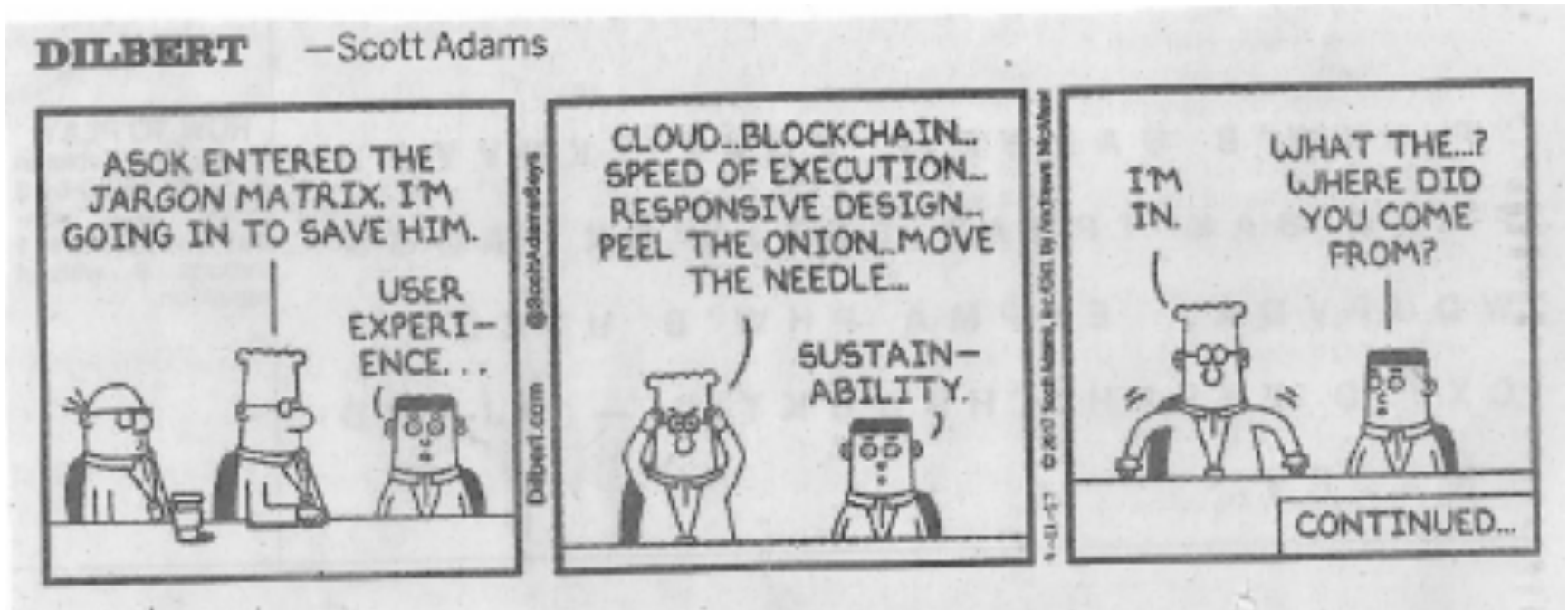




Agenda

- Defining Sustainability
- The Three Responsibilities
- Pettee Brook Case Study
- Sustainability Lens

The Definition of Sustainability



*"Jargoniest Jargon We've Heard All Year"**

AdvertisingAge[®]

The Definition of Sustainability

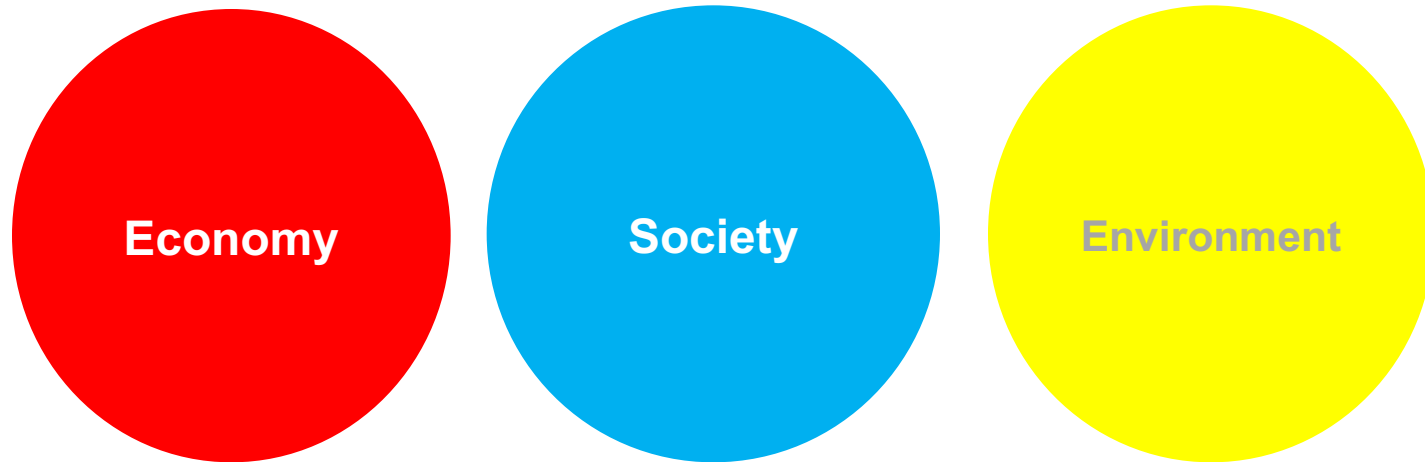


The Definition of Sustainable Development



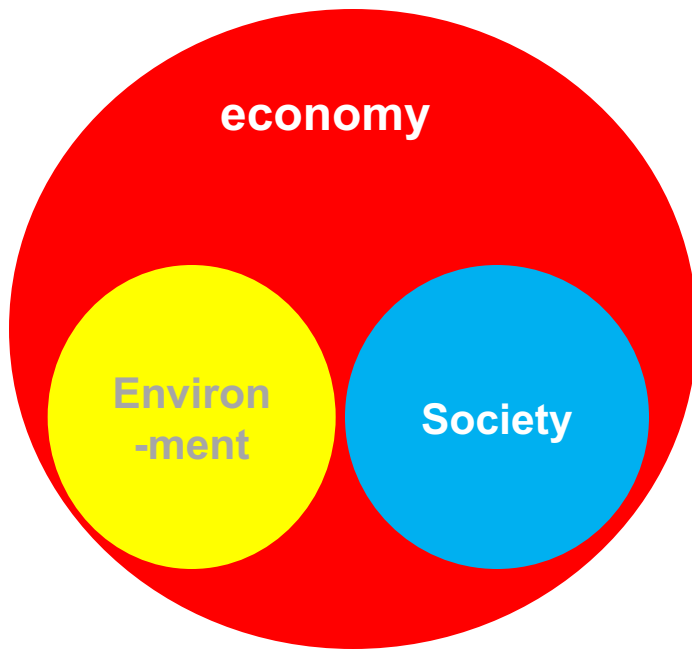
"meets the needs of the present generation without compromising the ability of future generations to meet their needs"

The Three Responsibilities



The Three Responsibilities

Economist's View



"The business of business is business"

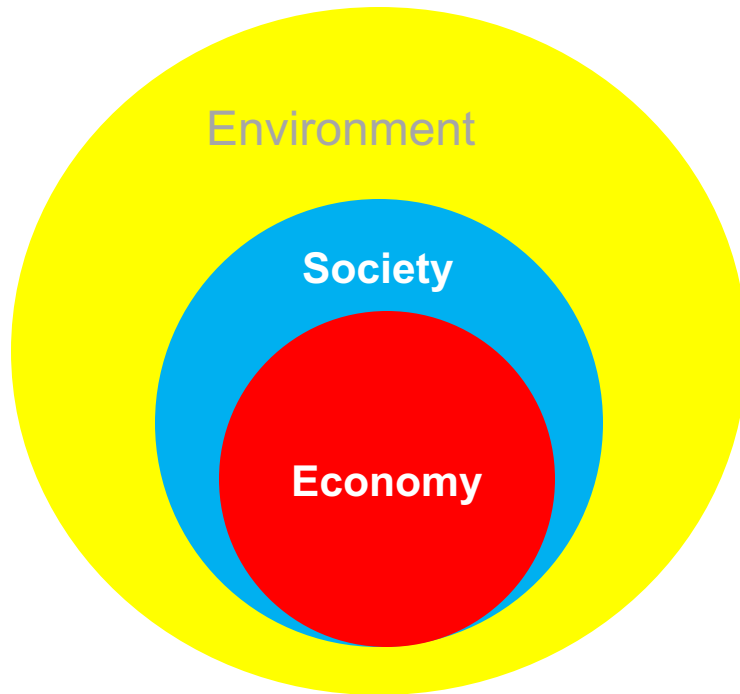
Milton Friedman

"The economy, stupid"

James Carville

The Three Responsibilities

Holistic View



“In nature nothing exists alone.”

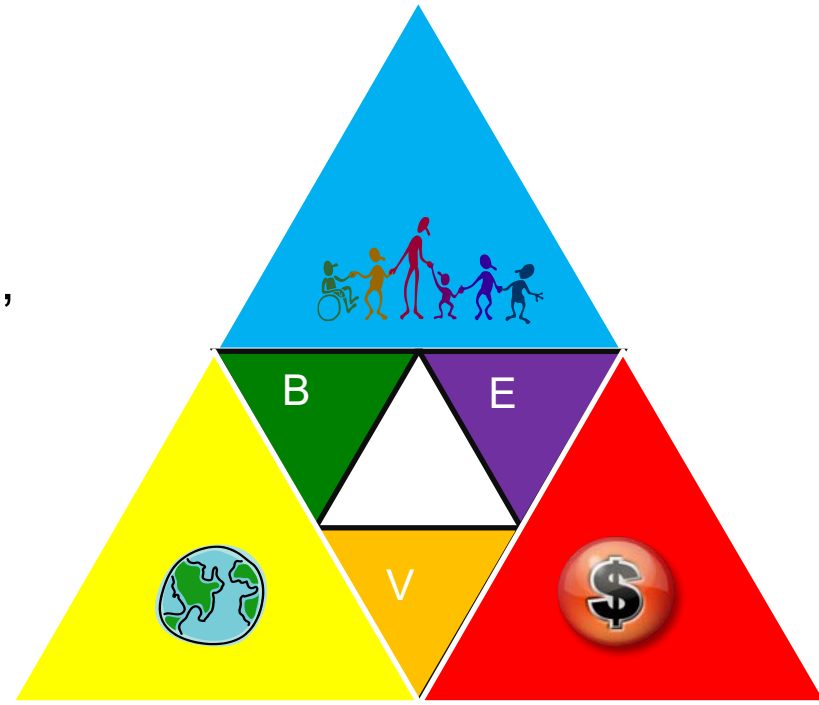
Rachel Carson, *Silent Spring*

The Three Responsibilities

The ability of an organization to **transparently manage** its **responsibilities** for

- environmental stewardship,
- social well being, and
- economic prosperity

over the long term.



The Definition of Sustainability



“When we try to pick out anything by itself, we find it hitched to everything else in the Universe”

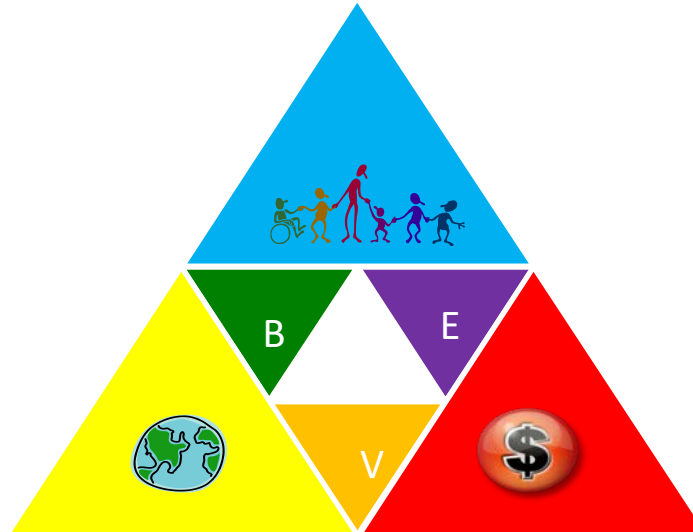
John Muir

Two out of Three is not Sustainable

Bearable

Socio-environment

- Public safety
- Access to resources
- Quality of life



Equitable

Socio-economic

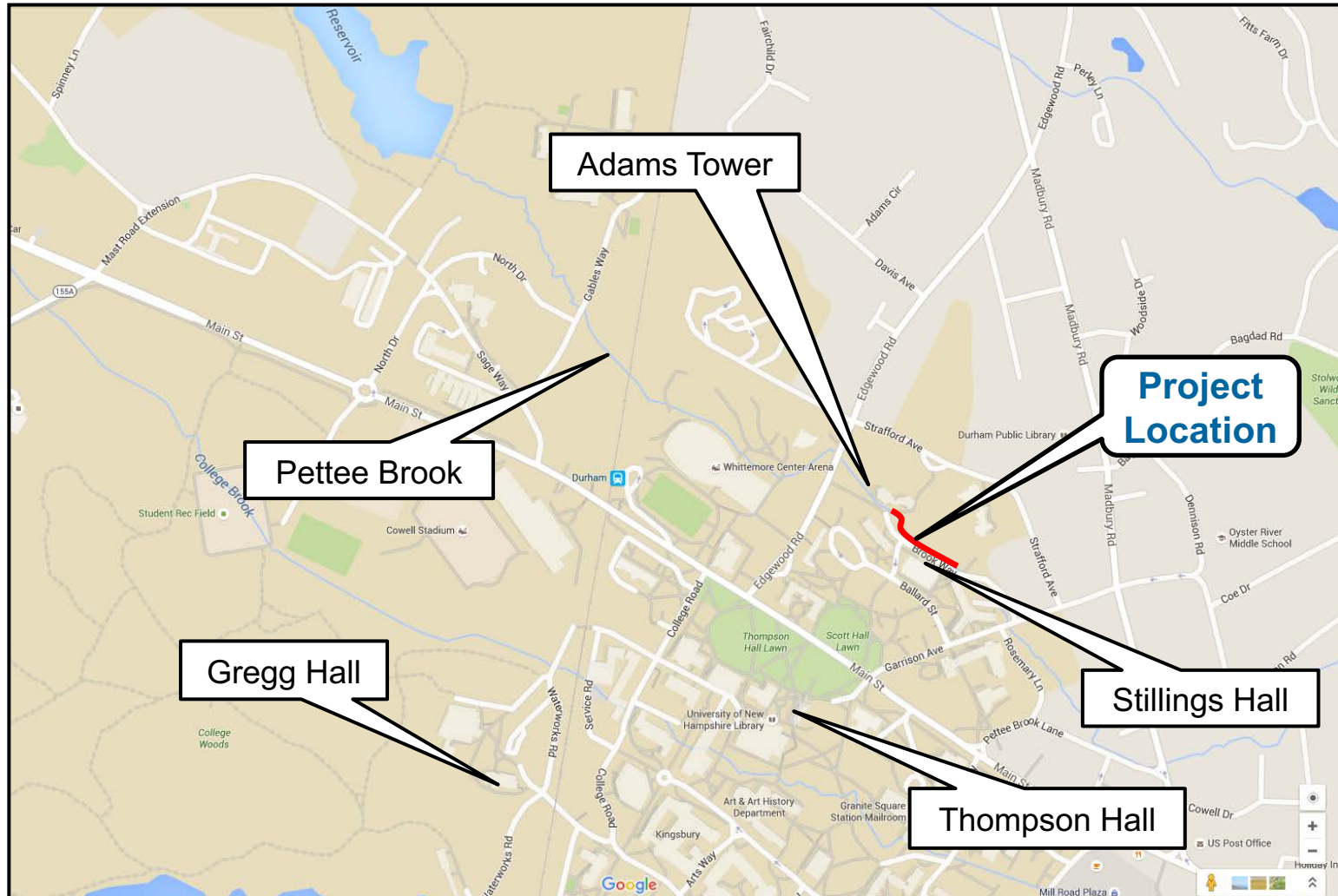
- Jobs
- Asset management

Viable

Enviro-economic

- Water conservation
- Energy conservation
- Resource protection

Pettee Brook – UNH Campus

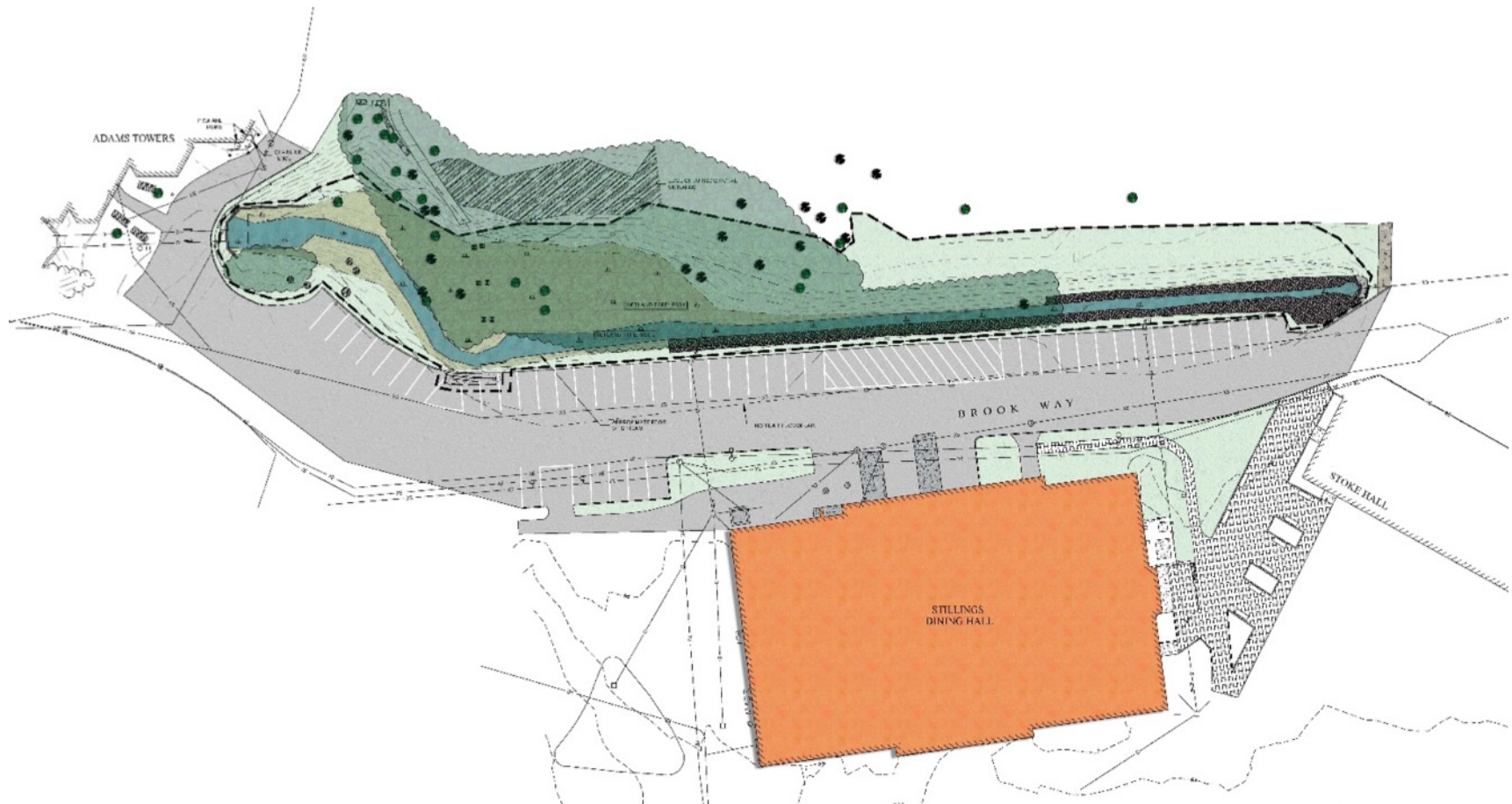


The Issues

- **Brook filled with sediment and trash**
- **Switched course and was eroding parking lot**
- **Flooding concerns**



Existing Conditions Plan



Existing Conditions



Existing Conditions

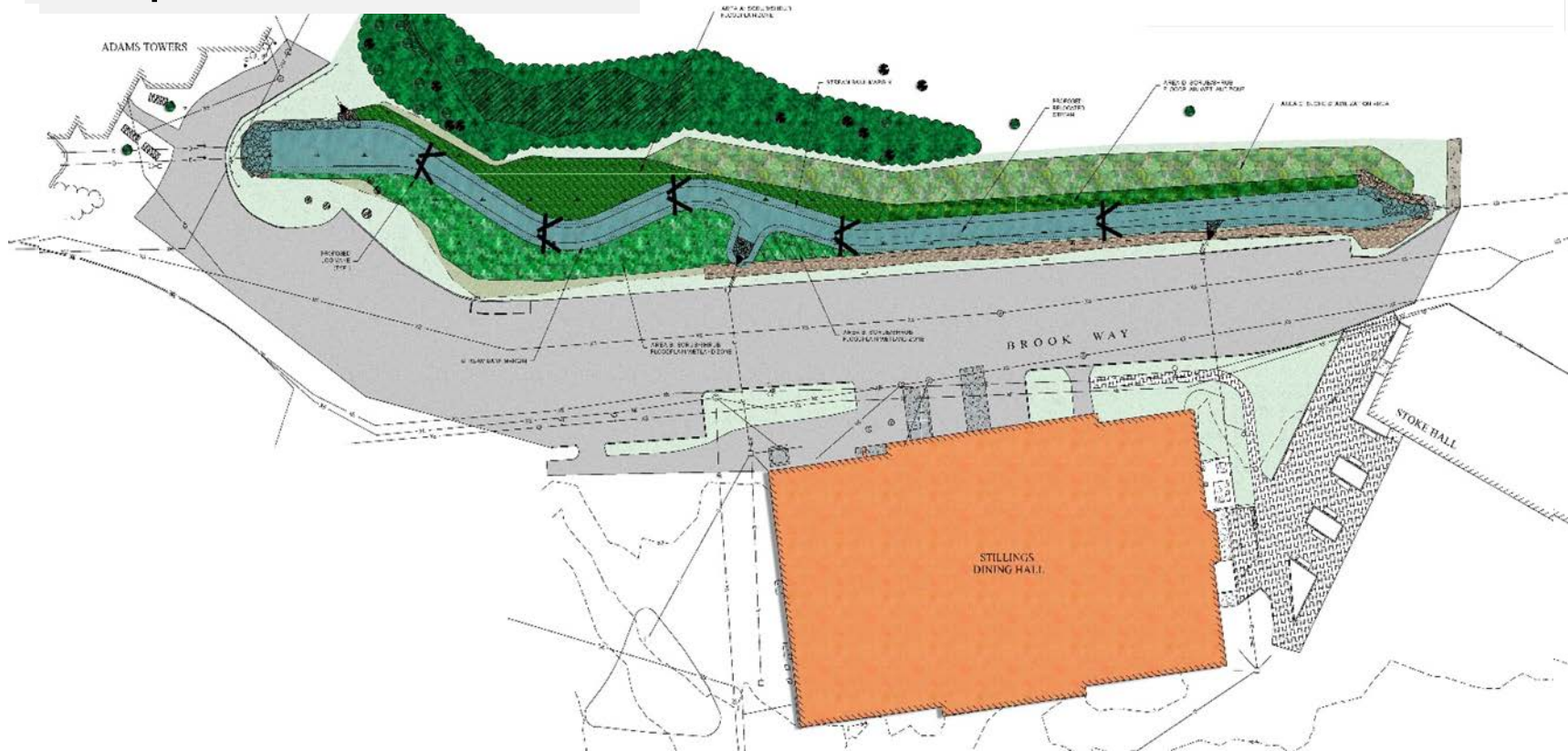


Existing Conditions

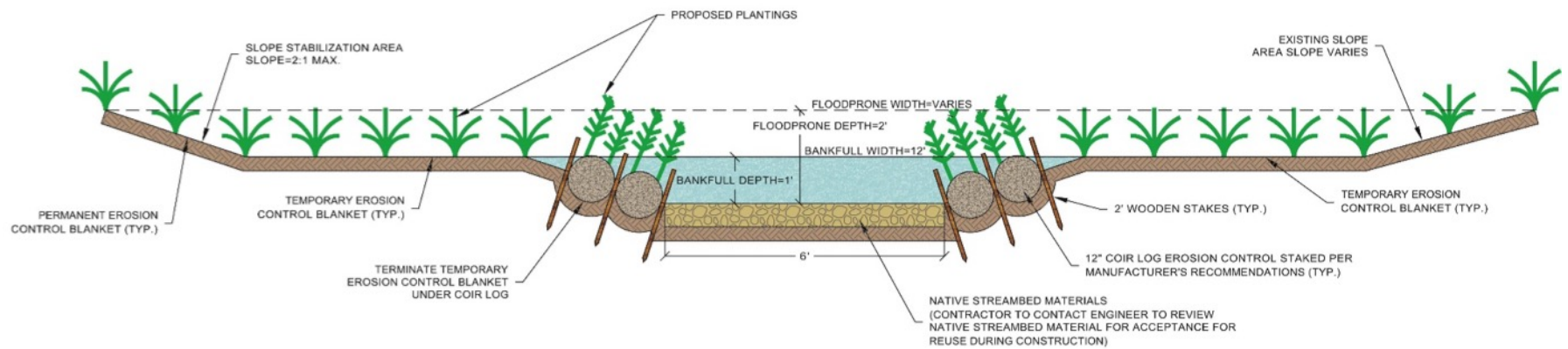


Existing vs. Proposed Conditions

Proposed Conditions



Typical Stream Channel Cross-Section



TYPICAL STREAM CHANNEL
CROSS-SECTION
NOT TO SCALE

Construction Process



Construction Process



Construction Process



Construction Process



Construction Process



Construction Process



Construction Process

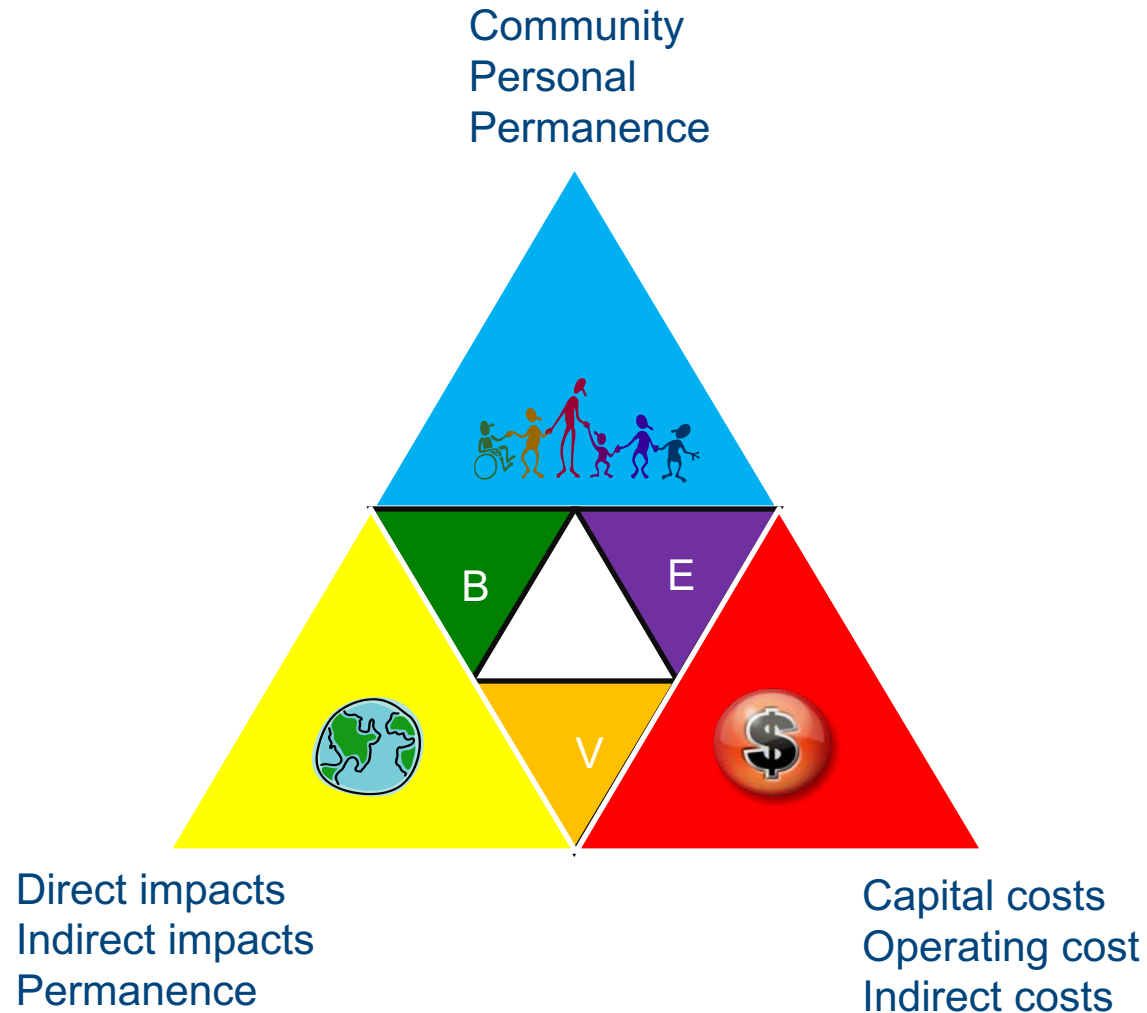


Pettee Brook Restored



Successful project
implemented by
motivated owner

Evaluating Projects and Options



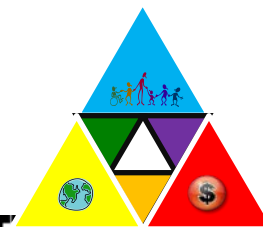
Evaluating the Options



#	Project/Initiative	Social	Financial	Environmental
1	Do Nothing	• Mosquito breeding • Lack of access due to brush • Visual eyesore • Stakeholder frustration	• No capital costs • Direct cost of repairs from flooding • Indirect costs for potential loss of personal property	• Lack of biodiversity • Buildup of sediments • Accumulation of trash

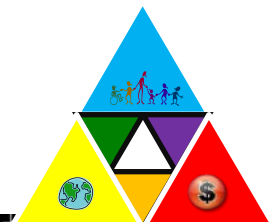
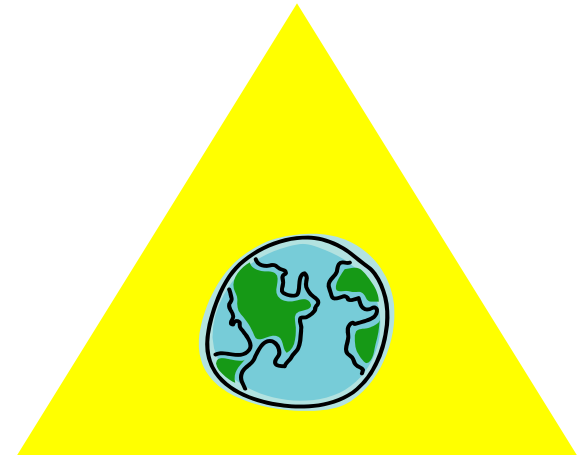
Social Well-Being Criteria

Social		
code	Title	Description
So1	Community Support	To what extent will the community support this project?
So2	Community Benefit	To what extent will the community benefit from this project?
So3	Permanence of Social Benefit	How long will the community realize the social benefits of this project?



Environmental Criteria

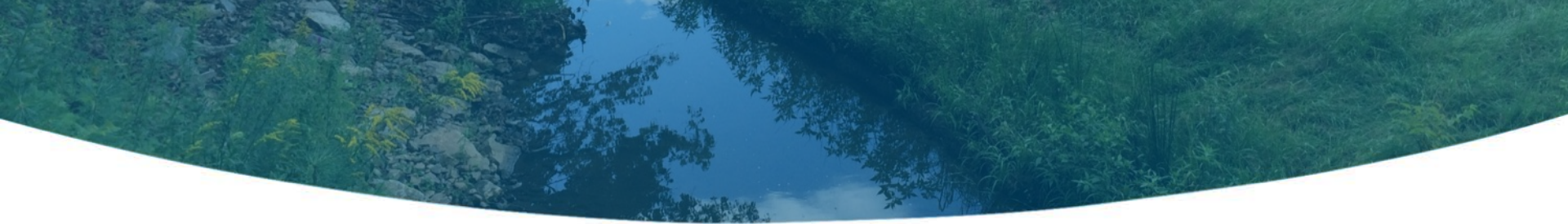
Environmental		
<i>code</i>	<i>Title</i>	<i>Description</i>
En1	Regulatory Aspects	What are the regulatory impacts of this option?
En2	Resource Impact	How will this project impact natural resources?
En3	Permanence	How long will the environmental benefits of this project be realized?



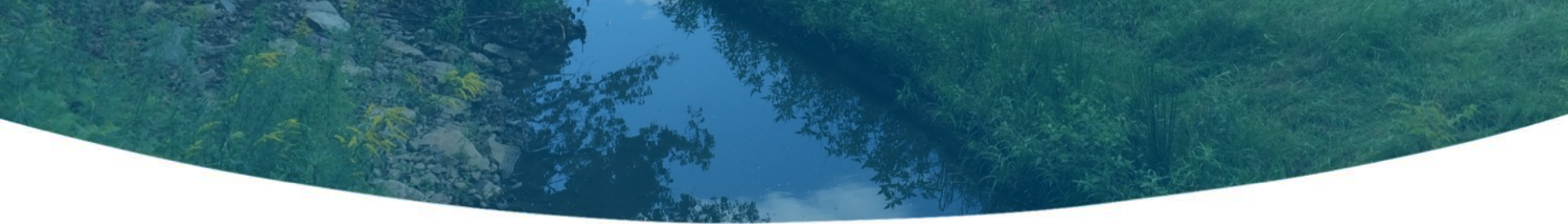
Economic Criteria

Economic		
code	Title	Description
Ec1	Capital Costs	To what extent will this project impact Capital costs vs the minimum required option?
Ec2	Operating Costs	To what extent will this project impact Operating Costs vs the minimum required option?
Ec3	Indirect costs	How significant might the indirect savings be if this project is executed





Questions?



Contact Information

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