Identifying Stakeholders for Ecosystem Service Analysis

Quantifying the Benefits from Nature, Incorporating Nature into Decisions

In the beginning . . .

In 2013 the TNC/Dow Collaboration identified the need for a tool to help Dow track progress towards their Nature Goal.

The resulting product was the ESII Tool . . .

ESII tool

www.esiitool.com

. . . Dow did good things

The ESII Tool focuses on measuring the production of ecosystem services by selected portions of the landscape

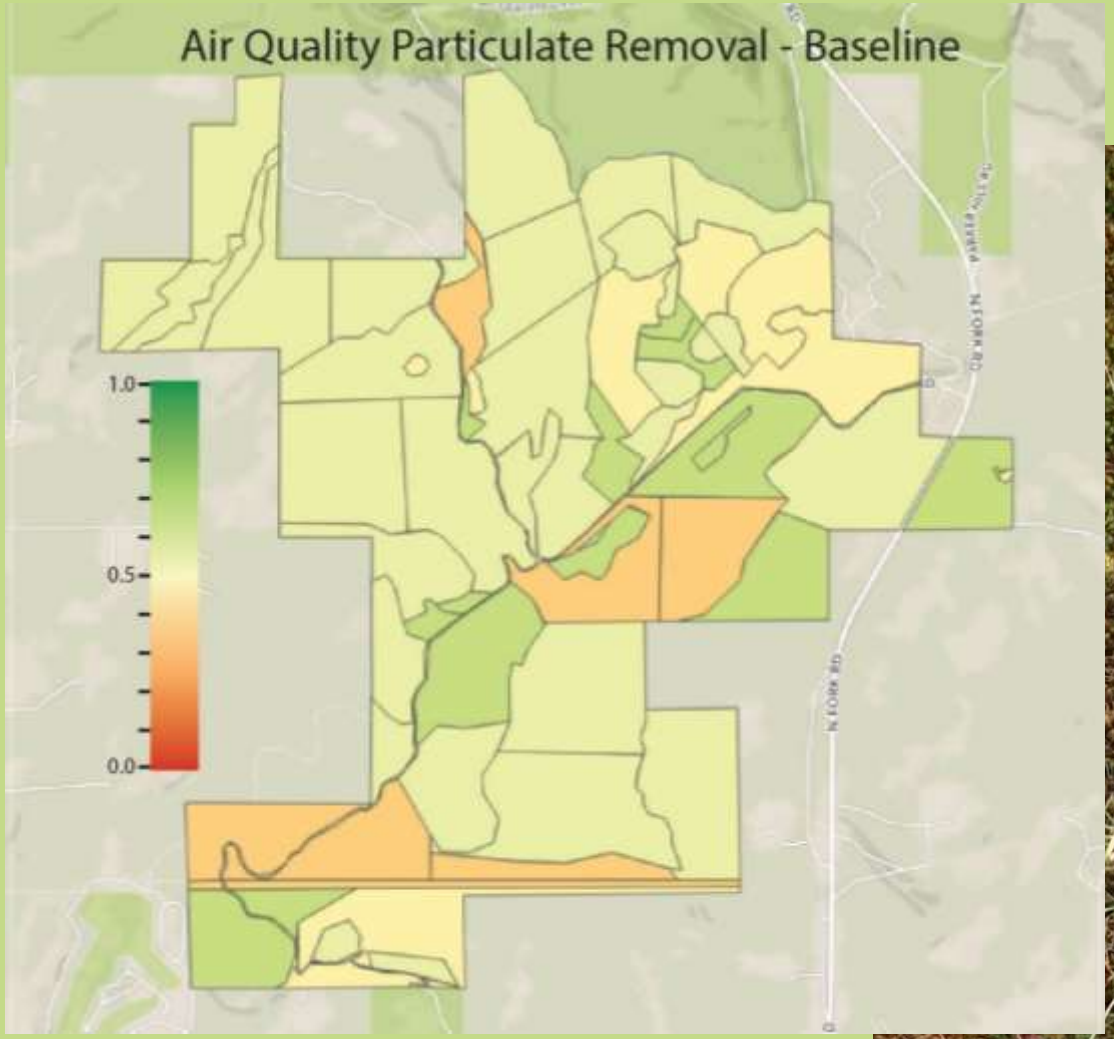
Dow is currently using the tool to measure progress toward their Nature Goal, and have made the tool free and available to the public . . .

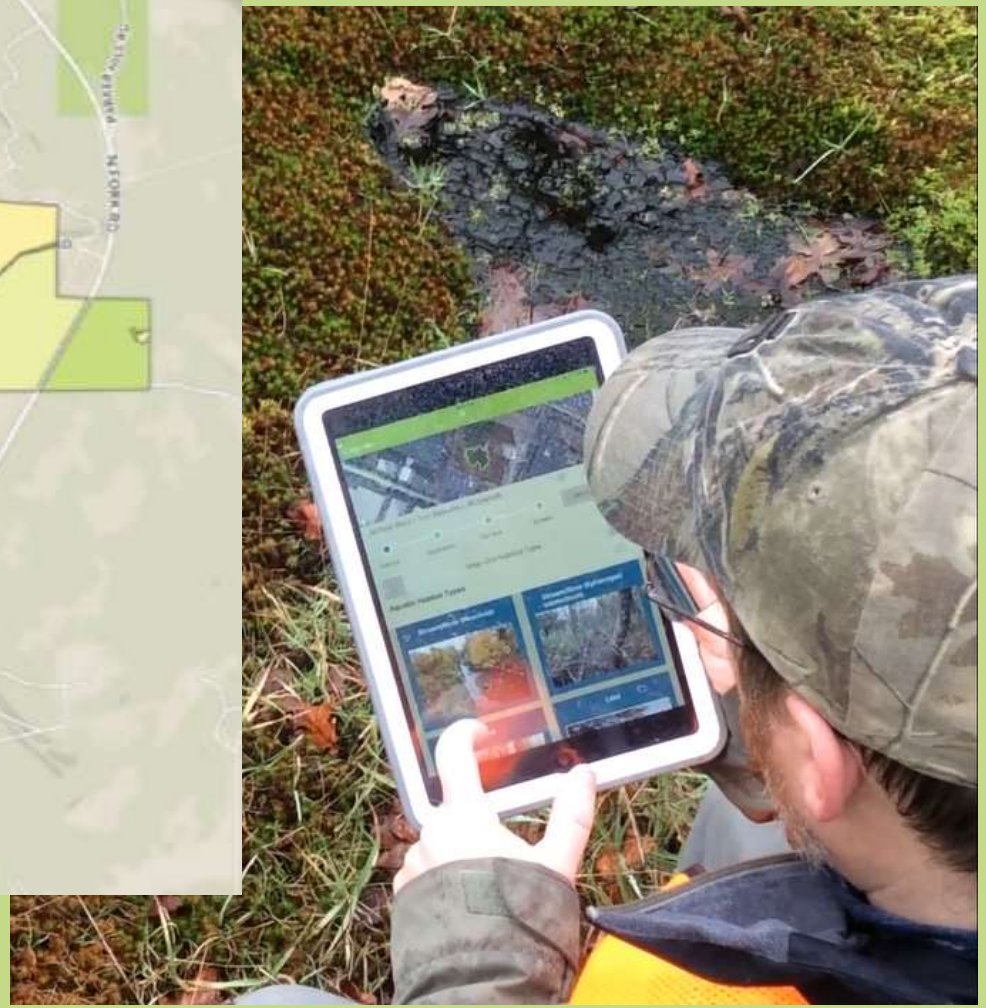
ESII tool

www.esiitool.com

Discussing the results . . .

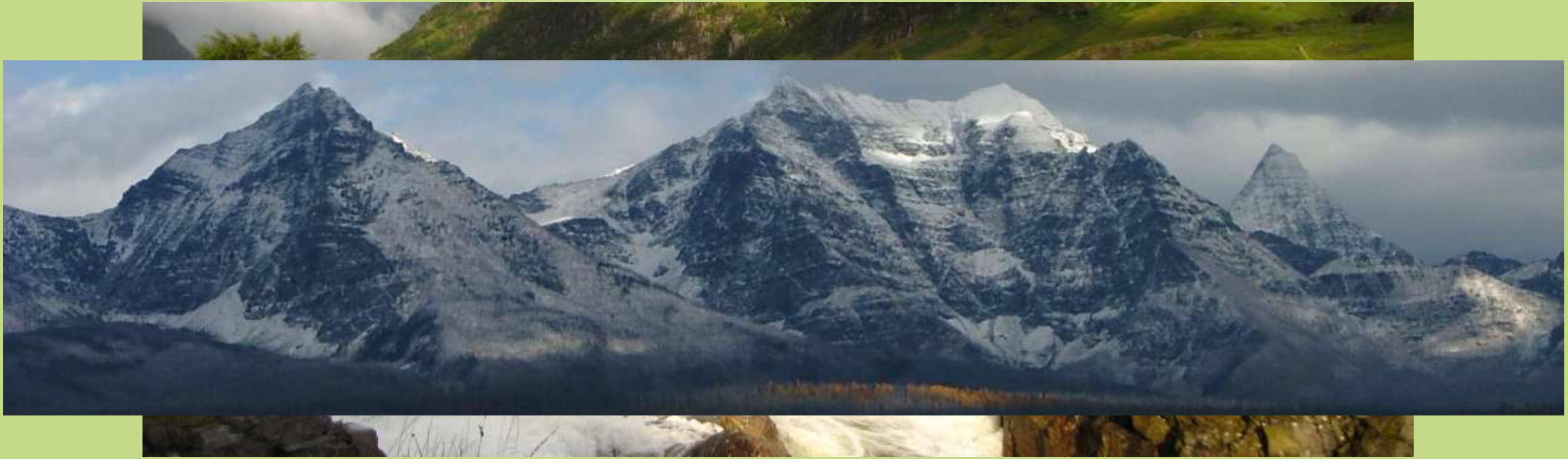
The ESII Tool focuses on measuring the production of ecosystem services from a selected area. The tool can be useful for stakeholder engagement . . .





Concepts behind the “ecosystem services flow” module . . .

- Services exist within “servicesheds”
- When services are produced on a site the benefits are often not static – the benefit is received or appreciated within a specific area

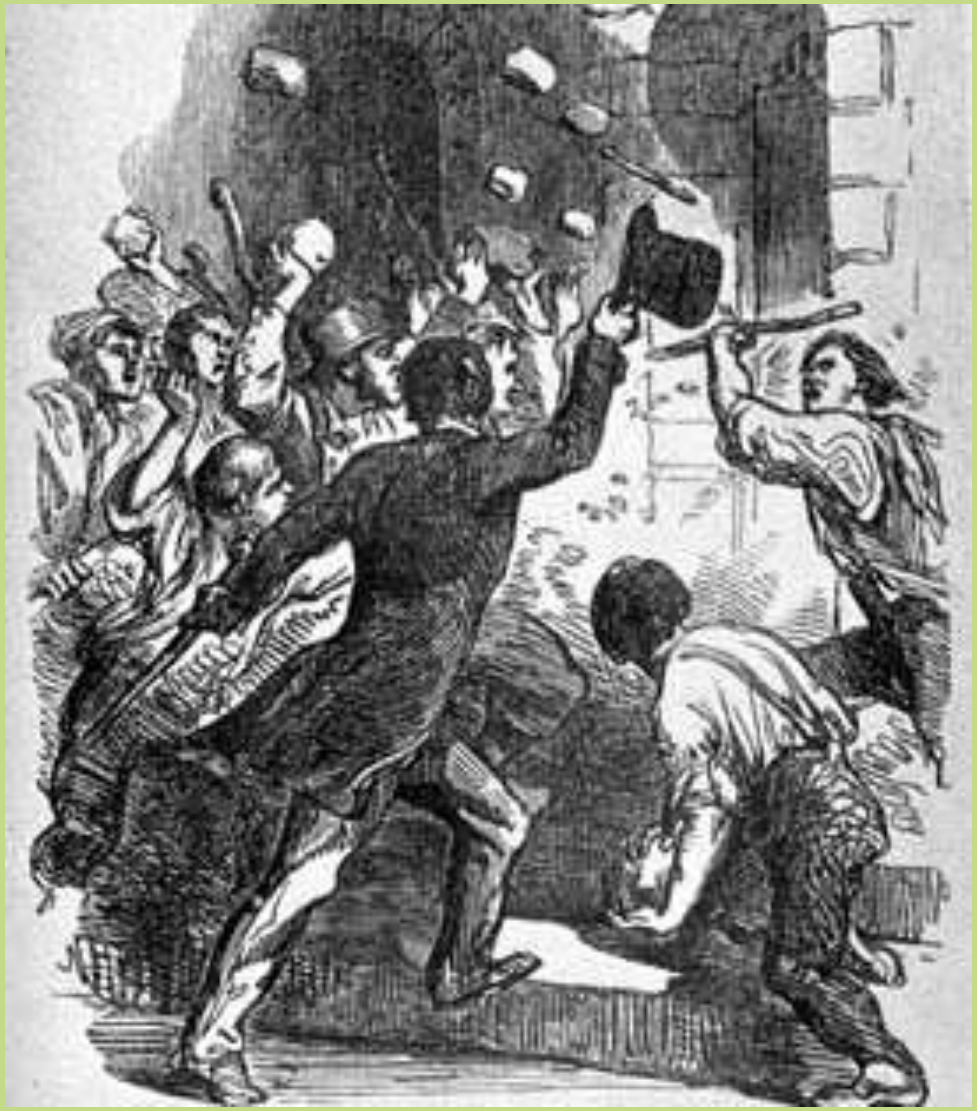


Concepts behind the “ecosystem services flow” module . . .

Even when the benefit is enjoyed on the sight (e.g., recreational benefits), we can often define an area within which the benefit is received

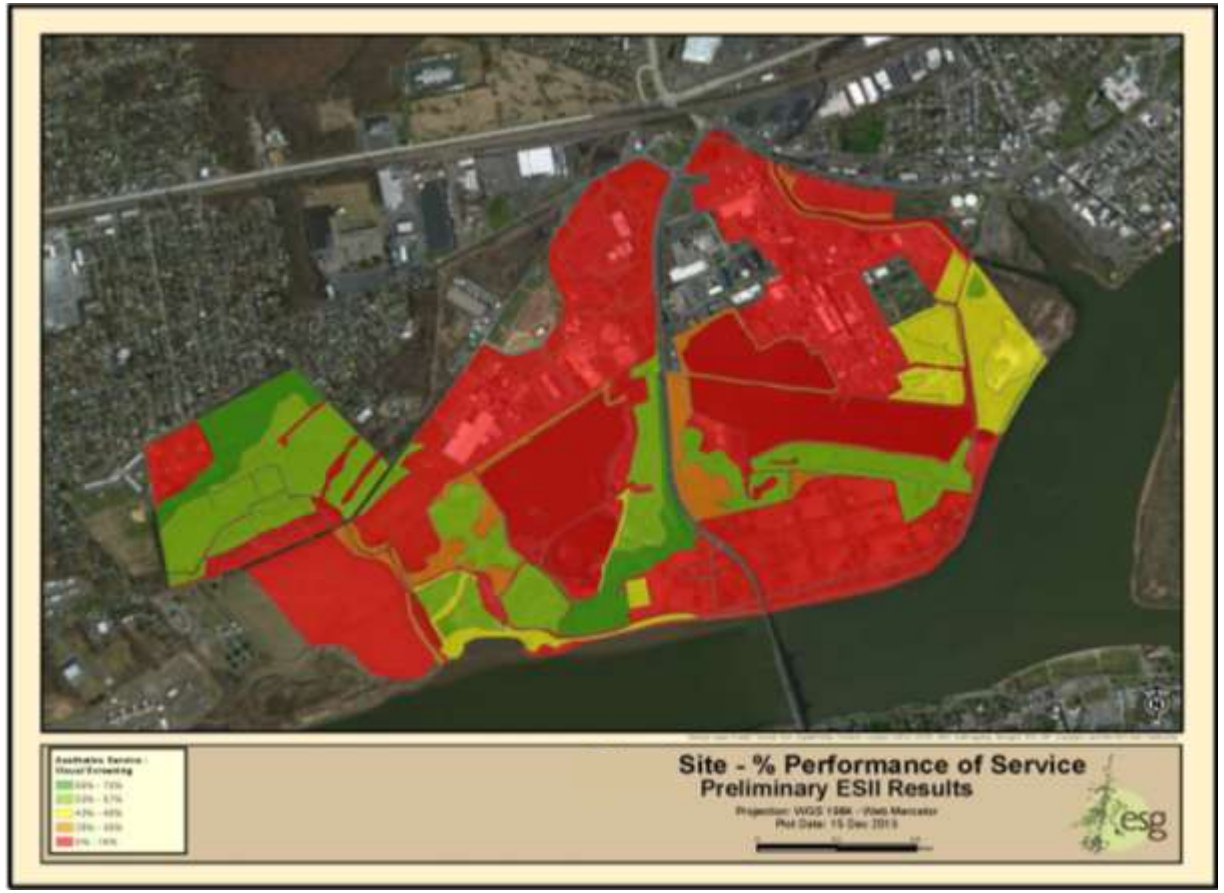
Concepts behind the “ecosystem services flow” module . . .

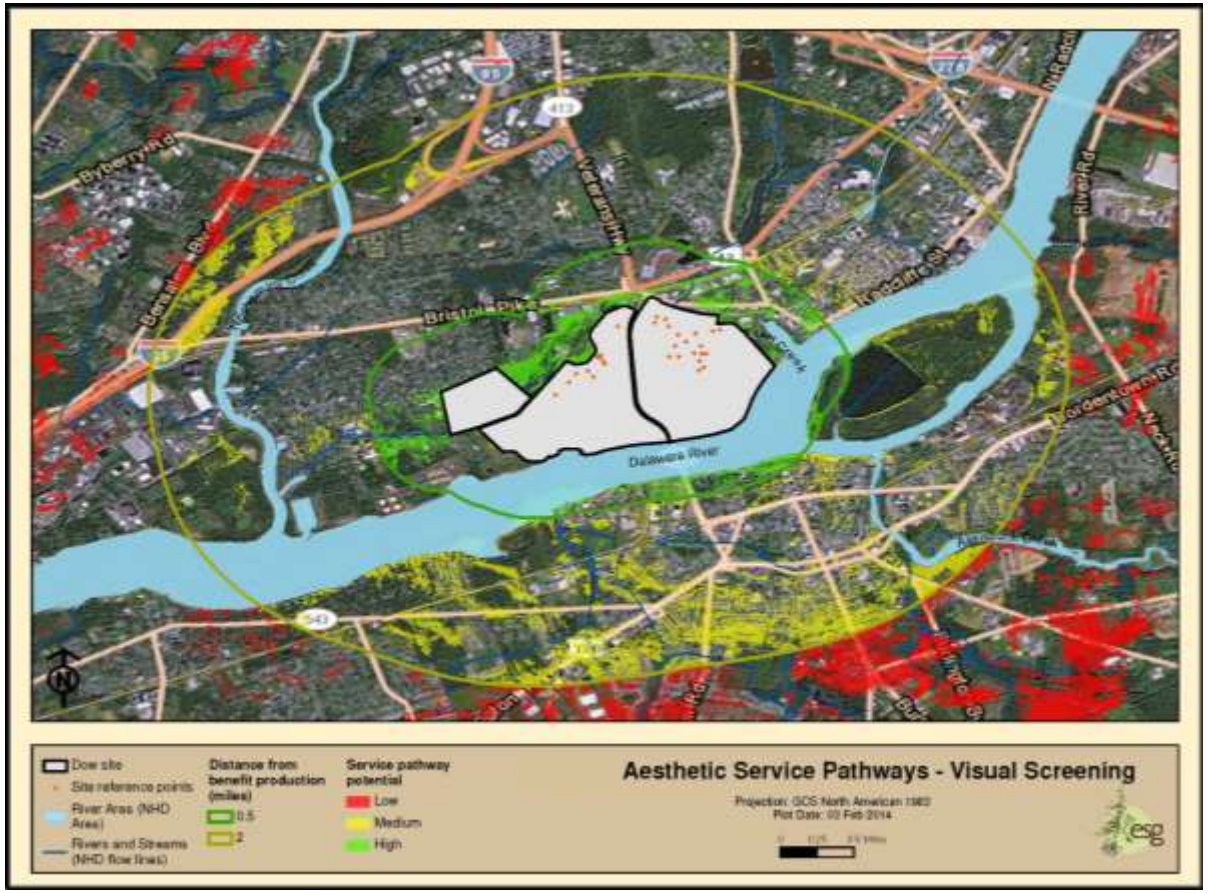
Understanding servicesheds and the movement of services within those sheds is key to finding your stakeholders before they find you . . .



ESII tool

Concepts behind the “ecosystem services flow” module . . .



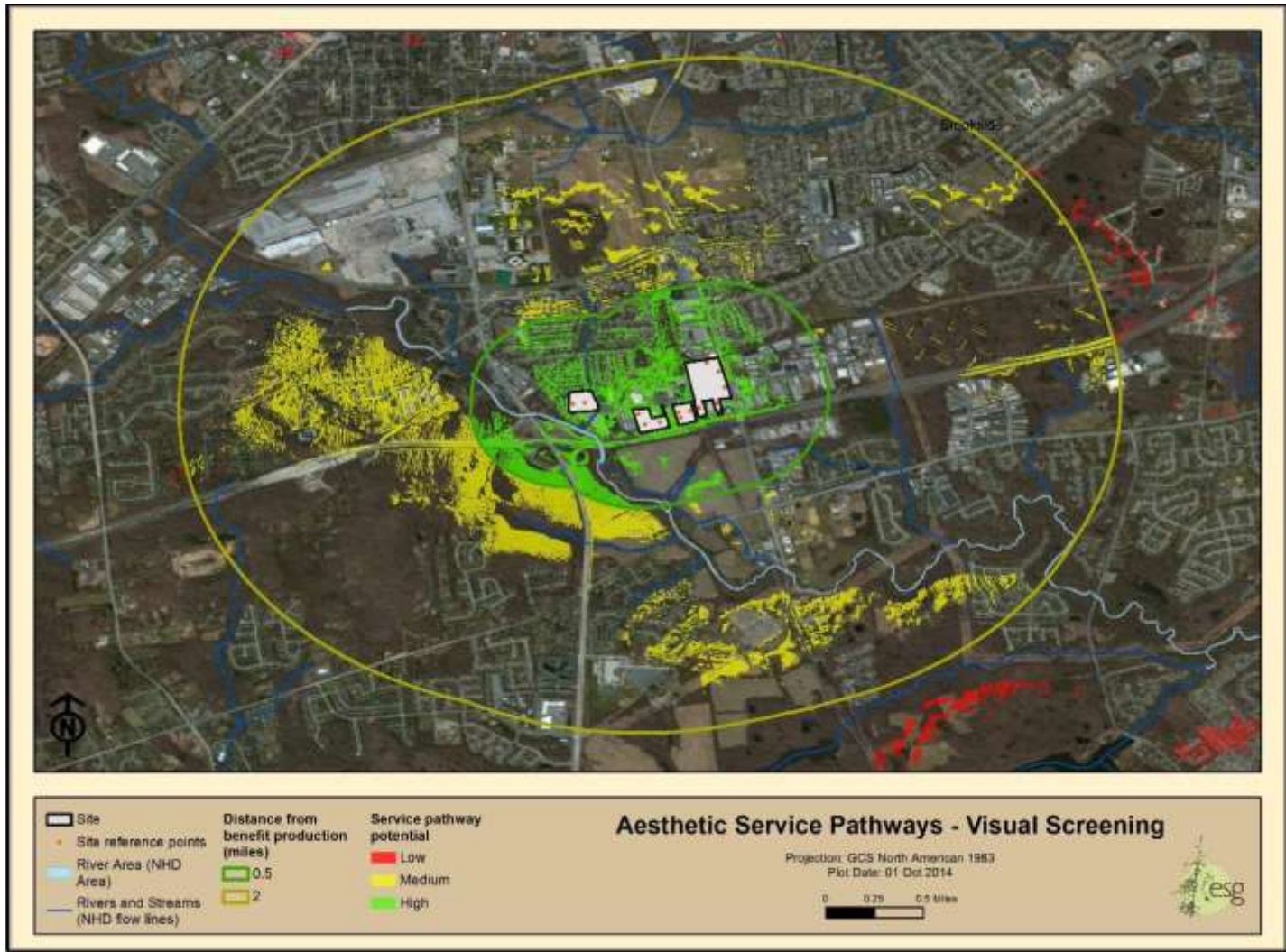


ESII tool

Concepts behind the "ecosystem services flow" module . . .

What questions are being answered when you track service flows?

- Where are potential stakeholders?
- What level of benefit are they receiving?
- What are the constraints for off-setting impacts?



ESII tool

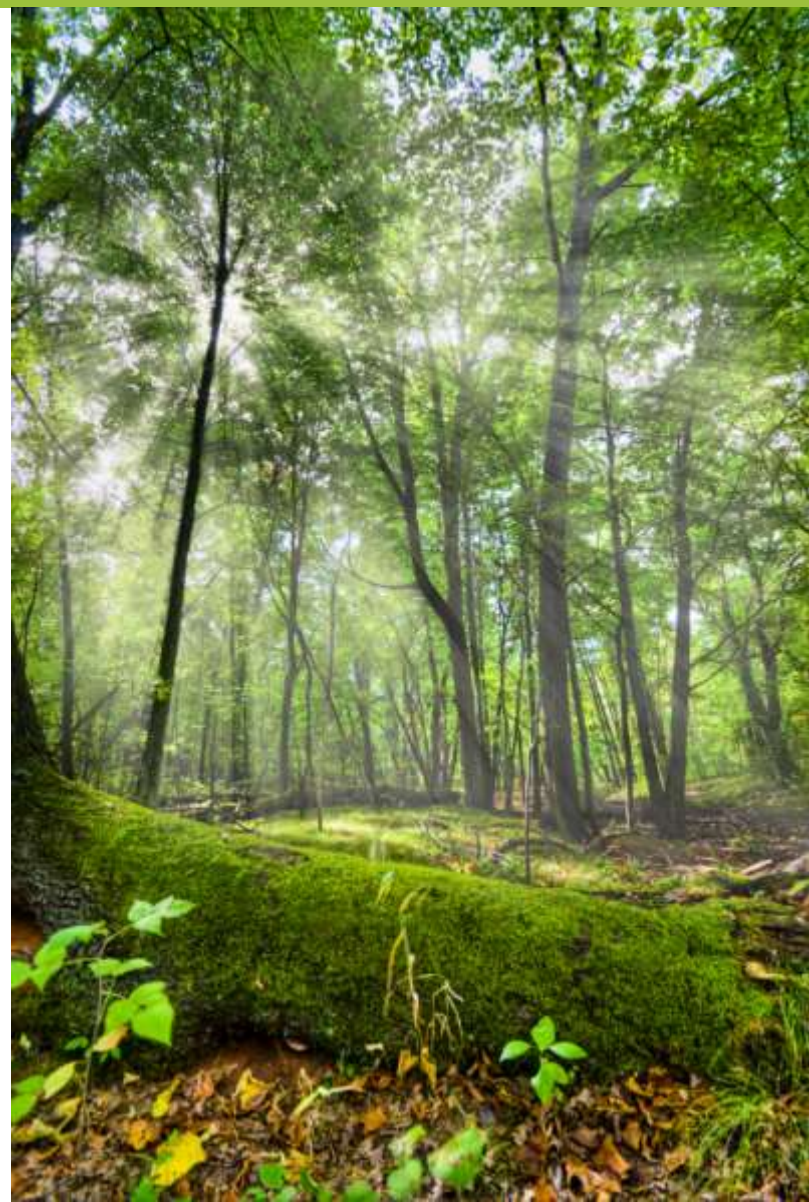
Approach

What defines serviceshed boundaries?

- Directionality? (air sheds)
- Elevation? (water services)
- Area of Interest? (recreation)
- Travel distance? (food provisioning, recreation)

What are the potential disruptive (positive & negative) influences?

Does the service dissipate over distance?



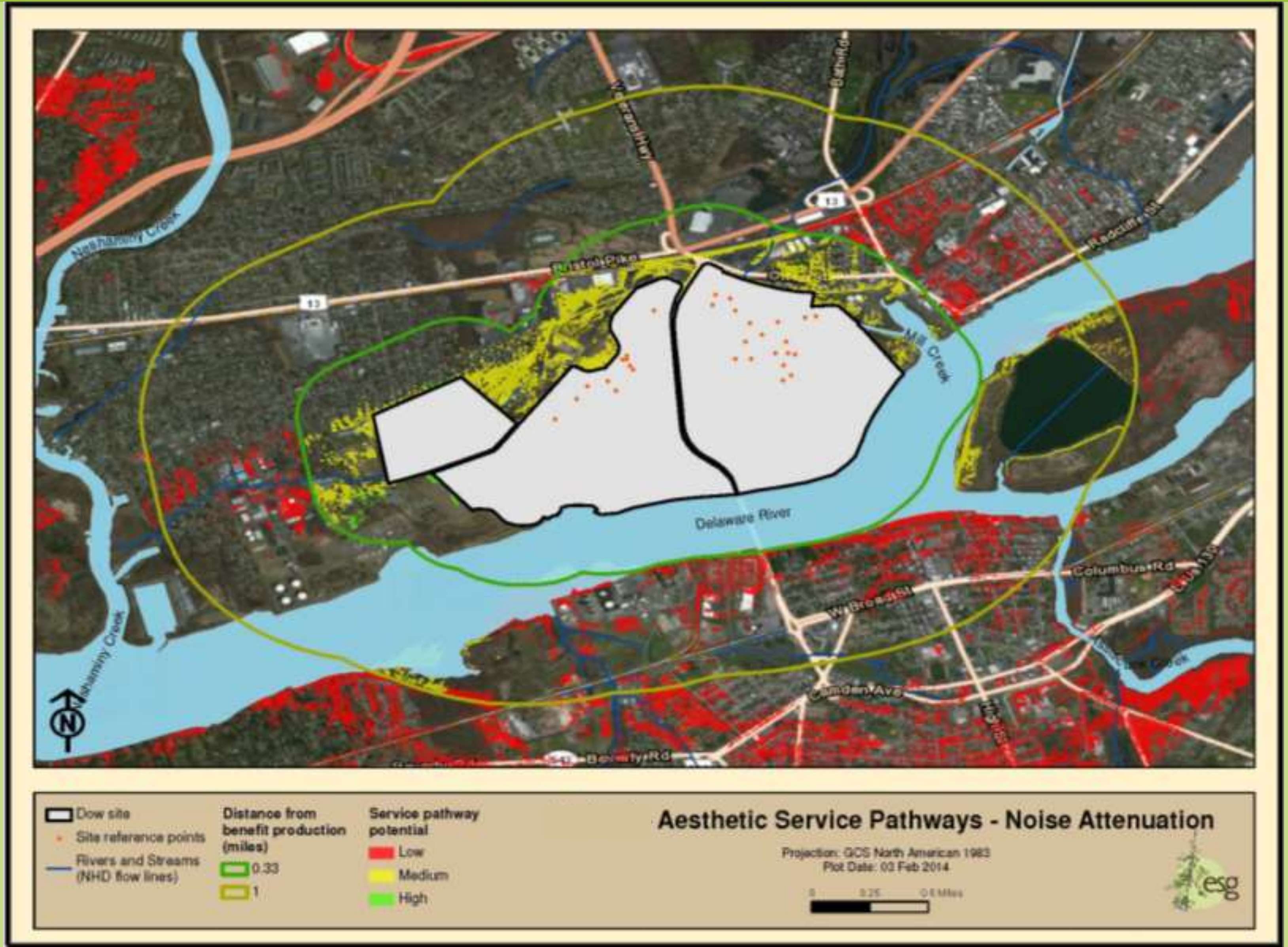
Approach

Distance from Benefit Production			
Distance	*0 to .3 mile*	*.31 to 1.0 mile*	*> 1.0 mile*
Likelihood of Service Transmittal	High	Medium	Low

Presence of Intervening Influence			
Topographic Relief	*No Obstruction*	*Partial Obstruction*	*Full Obstruction*
Likelihood of Service Transmittal	High	Medium	Low
Other Major Noise Sources[1]	*No Other Major Noise Sources*	*Other Major Noise Sources Present*	
Likelihood of Service Transmittal	High	Low	

[1]Additional noise sources over 70 decibels.

Approach



Nashaminy Creek
Bristol Pike
13
Mill Creek
Delaware River
Radcliffe St
Columbus Rd
W Broad St
Camden Ave
Neshaminy Creek
Dow site
Site reference points
Rivers and Streams (NHD flow lines)
Distance from benefit production (miles)
0.33
1
Service pathway potential
Low
Medium
High
Aesthetic Service Pathways - Noise Attenuation
Projection: GCS North American 1983
Plot Date: 03 Feb 2014
esg

Conclusions

Questions?

ESII tool

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