



# Assessing Appalachian Ecosystem Services

## Threats and Vulnerabilities

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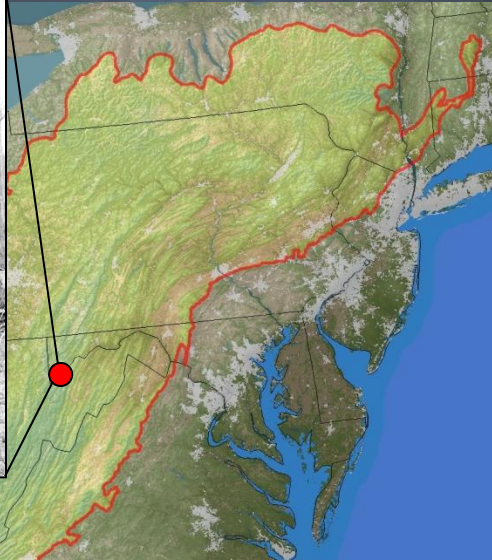


# Ecosystem Services

*Dobbin, WV  
Ca. 1910*



*e-WV*

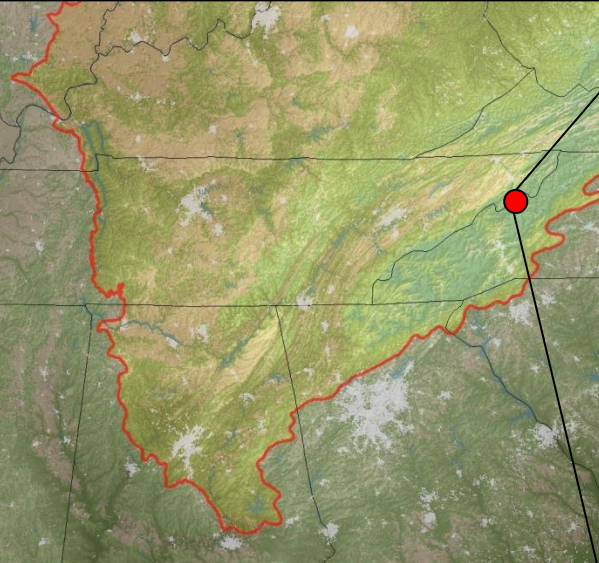


Conservation priorities:  
human benefits derived  
from natural systems

Benefits may be derived  
from highly transformed  
landscapes

*Sustainability* as long  
term goal

Human/natural  
landscapes where  
natural resources play  
crucial role



*Erwin, TN  
Ryan MaKee*

# Project Goals

Inventory existing assessment efforts

Identify knowledge gaps and limitations of existing approaches

Develop a framework for a comprehensive assessment

Identify priority resources

Identify threats and vulnerabilities

Assess prospects for sustainability



Landscape planning, Adaptive management

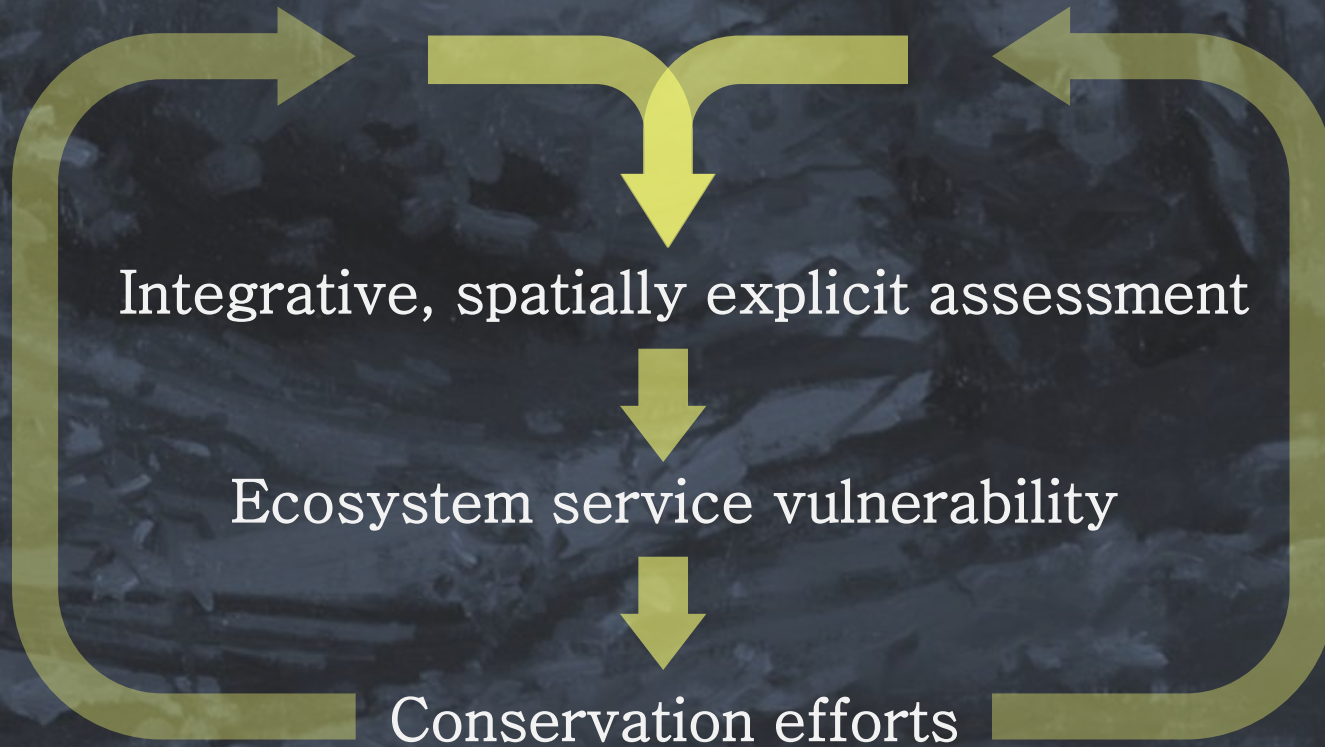
# Vulnerability

## Sensitivity

Resources respond to environmental stressors

## Exposure

Stressors vary over time and space



# Integrative assessment

What are the key resources?

Natural landscapes  
Nature recreation  
Resource harvest  
Water quality  
Carbon sink

What are the key stressors?

Land use change  
Energy development  
Climate change  
Forest pathogens  
Wildfire



Ecosystem service vulnerability

# Integrative assessment

What are the key places provisioning those resources?

What are the key stressors?



Land use change  
Energy development  
Climate change  
Forest pathogens  
Wildfire

Ecosystem service vulnerability

## Goals

Inventory existing assessment efforts

Identify knowledge gaps and limitations

Develop framework for a comprehensive assessment

Integrated spatial ecosystem services assessment

## Timeline

Fall 2014

Spring 2015

Fall 2015

Spring 2016

?

## Products

Online report and searchable database

Online spatial database and viewer

Published document

Multiple data and outreach deliverables

# Year 1 Workshops

Participant input

Key ecosystem services

Completed and ongoing projects within the LCC

Assessment framework

Fall 2014

Northern states

Winter 2014

Central states

Winter 2014

Southern states

Venue?

Venue?

Asheville

