

Valuation, Crediting and Decision-Making

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Valuation

This is the process of attaching value to different benefits and dis-benefits resulting from potential decisions. A benefit is something positive that originates from the decision. A dis-benefit is something negative.

Sometimes we can use this approach to contribute to mitigation planning and calculating credits for good actions.

Valuation

What are the impacts (positive and negative) of the decisions?

How do we quantify the impacts?

How do we value the impacts relative to each other?

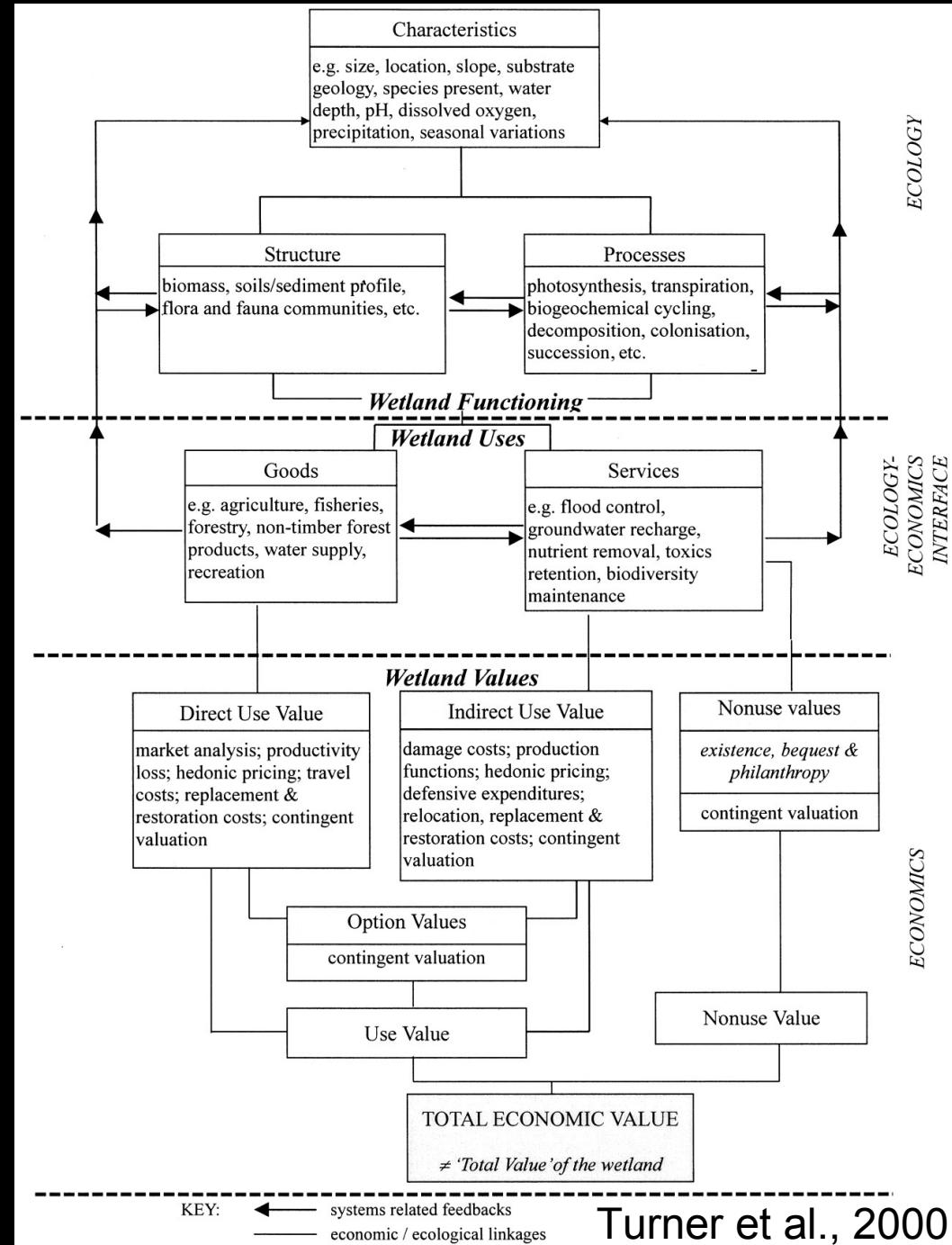
How do we use the values to optimize decisions?

How do we use values to help inform avoid, minimize and compensatory mitigation?

TRB Process Steps

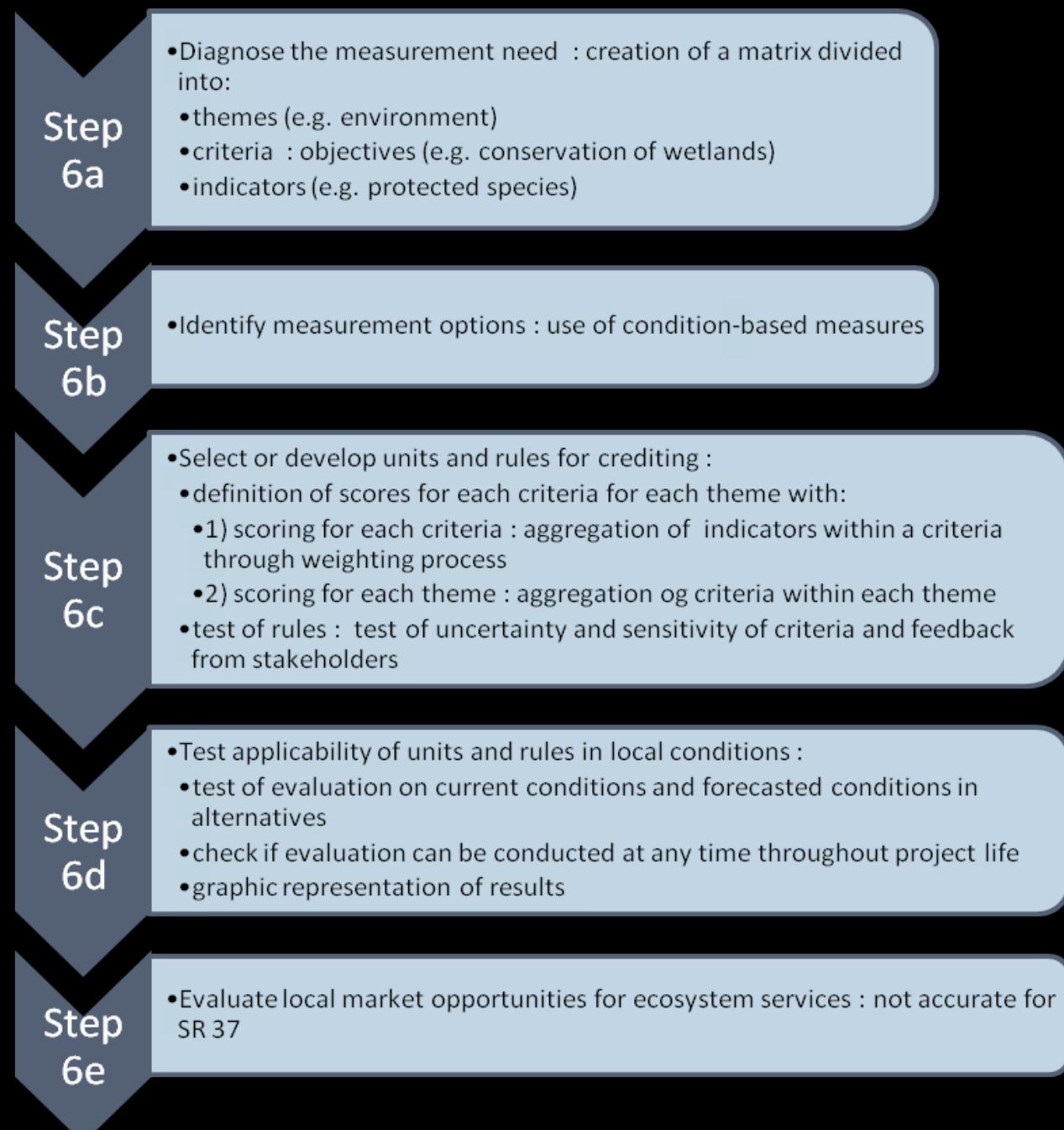
1. Collaborative partnerships
 - Planning region, partners, stakeholders, MOU building
2. Characterize natural conditions
 - Spatial data, endangered species, data sharing, conservation prioritization
3. Regional ecosystem framework
 - Combined conservation and transportation planning
4. Quantify land-use and transportation impacts
 - Cumulative effects assessment, location and extent of impacts
5. Establish ecological-stewardship actions
 - Select stewardship actions that have the least impact and avoid need for impact-compensatory mitigation as much as possible
6. Develop crediting strategy
 - Valuation of affected ecosystem attributes and services, develop system for comparison of transportation and ecological benefits
7. Develop permitting strategy
 - Adaptive management approach to permit and performance measurement
8. Implement agreements, conservation, transportation
 - Describe implementation of package consistent with stewardship principles
9. Update regional ecosystem framework

Finding the value of wetlands?



Transportation Research Board

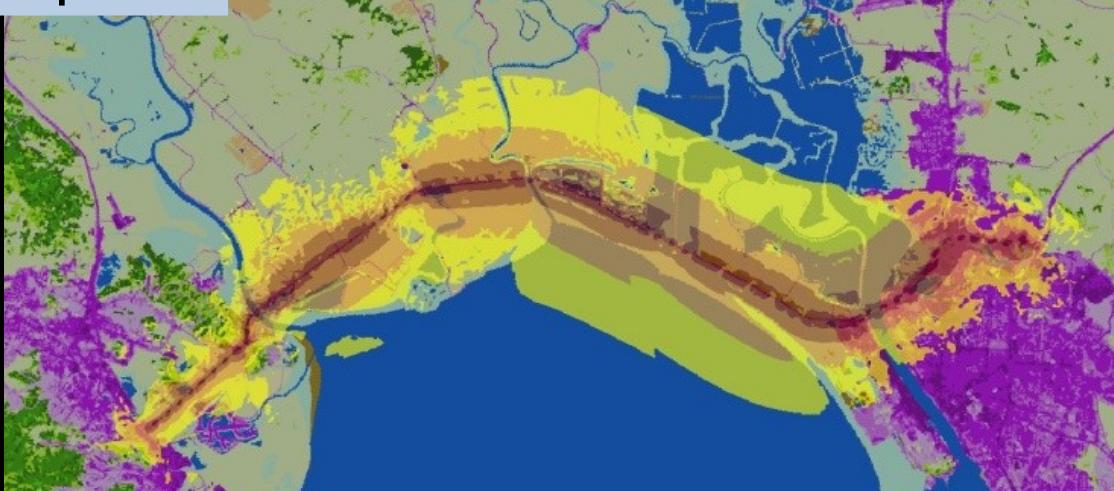
Step 6



Step 6a

Theme	Objective	Indicator
Transportation	Change traffic mode	Mode share (%countywide of drive alone) AADT
	Reduce recurring congestion	volume to capacity ratio LOS (0=A, 5=F)
	Improve travel reliability	travel time reliability incident occurrence/duration
	Improve safety	total accident rate injuries/death + property damage
Community	Improve accessibility	job accessibility destination accessibility
	Reduce noise impacts	number of residences/people exposed to excessive noise monetarized noise impacts (includes health)
	Improve air quality	vehicle emissions
Environment	Maintain or improve ecological functions of potentially affected ecosystems or habitat areas	loss of habitat natural resource plan consistency disturbance of wildlife (sound) losses of native plants/animals
	Maintain or improve water quality	water quality losses of riparian and floodplain habitats water resource plan consistency
	Avoid effects on wetlands	area wetland affected wetlands plan consistency
	Climate change: reduce risk to transportation infrastructure or indirectly from infrastructure, due to global climate change	infrastructure vulnerability/effects projected effects of sea level rise
	Minimize negative impacts on agricultural lands	acreage of affected agricultural lands
Land use	Transportation land consumption	amount of land converted to transportation uses
	Local-regional plan consistency	consistency of local land use policies with regional transportation-land use vision
	Cost	rough cost
Costs	Feasibility	feasibility of implementation
	Restoration cost	restoration costs

Step 6b



Measure impacts

Step 6c

General theme (themes suggested by TCAPP are : transportation,environment, economy and community)

Scoring of theme given by the aggregation of criteria

Classification of alternatives with graphic representation of performance of each alternative for each theme

Criteria: strategic objectives defined by stakeholders concerns and analysis of environmental, social and regulatory setting

Aggregation of criteria within the them through weighting process

Indicators : available data (e.g. on site measures)

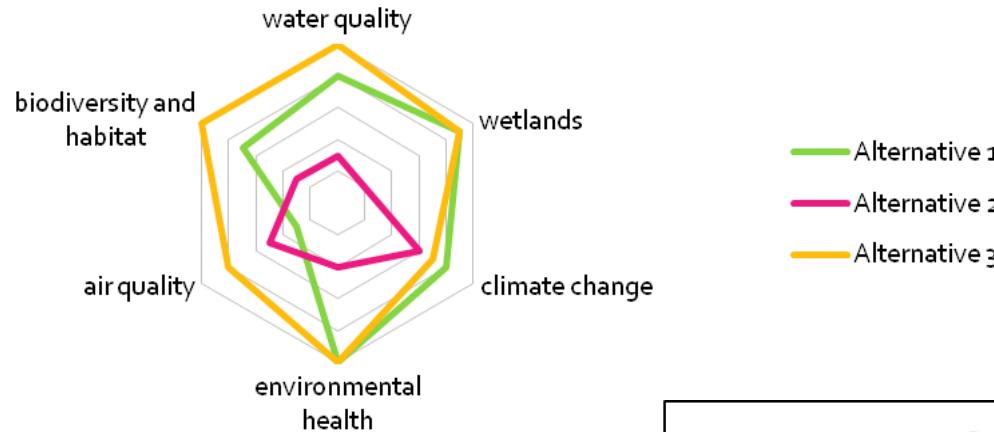
Normalizations of indicators

Aggregation of indicators within the criteria through weighting process

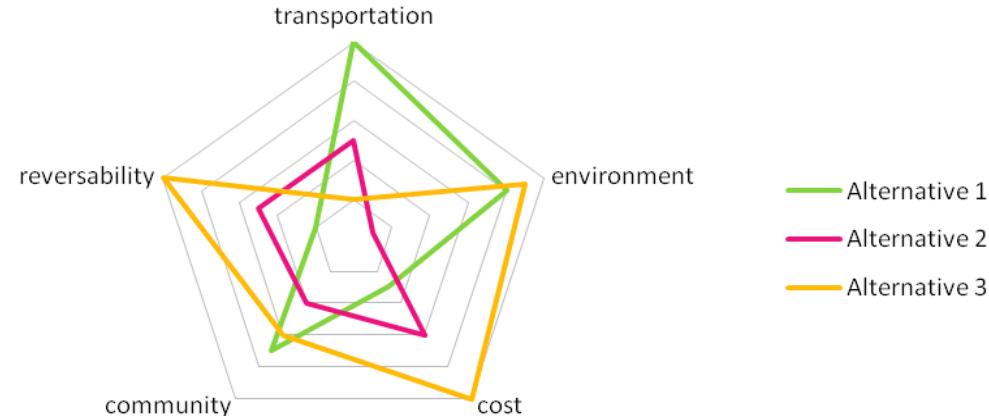
Step 6f

Use to assist decision-making

Performance of alternatives for the environment



General performance of alternatives



Valuation

Share what you think the impacts could be from different scenarios for the corridor.

Help us measure/quantify the impacts.

Give us your ideas about sources of data for the impacts.

Suggest the main considerations that would affect your opinion about the corridor's future.