METHODOLOGIES TO AVOID PUBLIC USE IMPACTS

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Introduction- Purpose of Study

- Discuss the need to conduct research on the recreational carrying capacity National Parks

- Park sustainability relies on economic and social sustainability

- Human-induced impacts can be substantial with changing/increased use

Social Carrying Capacity Definitions

- Wagar (1964): the level of recreational use an area can withstad while providing a sustained quality of recreation.

- Lime and Stankey (1972): the character of use that can be supported over a specified time by an area developed at a certain level without causing excessive damage to either the environment or the experience of the visitor.

- Shelby and Heberlein (1985): the level of use beyond which experience parameters exceed acceptable levels specified by evaluative standards.
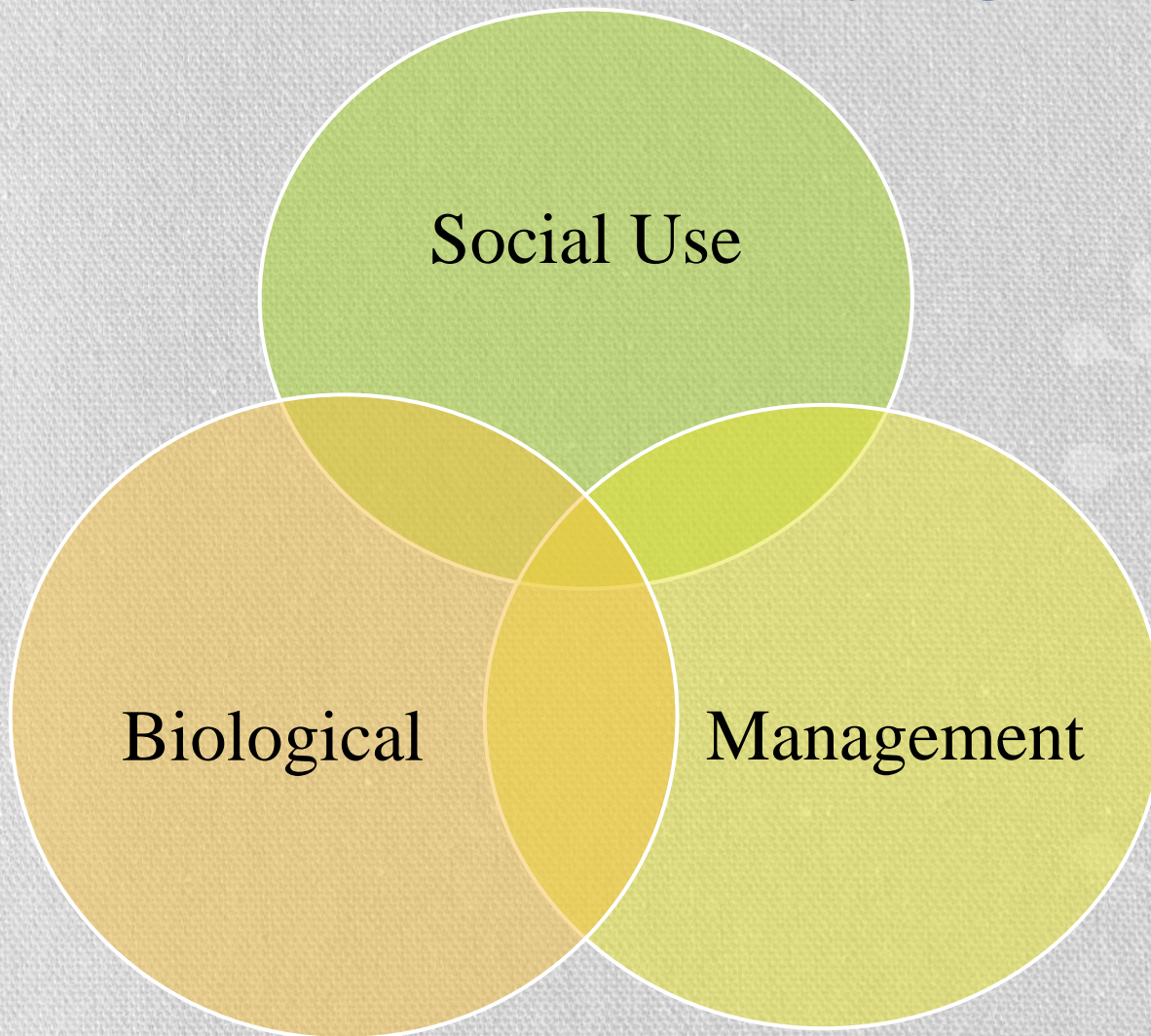
Why should we focus on this topic?

Managers must obtain the best possible data to make decisions.

Decisions about what public use is appropriate at what sites and during what period of time.

Social Carrying Capacity

Social Use

Biological

Management

→ Visitor monitoring and development of standards is crucial (Leung & Marion 2000; Oye 2011)

(Lucas 1973; Hendee et al. 1978)

Social Carrying Capacity Research Questions

- How to protect the quality of the natural environment and recreational experience in the face of changing/increasing recreational use?

- What types of visitor use/perception data can be used for selecting indicators and standards for management?

- How can relevant information be used to aid management decisions?

Azores Geopark

What is Needed in Carrying Capacity Studies

* Inventory of facilities and their capacities

* Measurement of use (amount, type, and pattern)

* Relationship between facilities and use of the setting

* Relationship between use level/pattern and indicators of quality of experience

* site-specific use and impact measurement
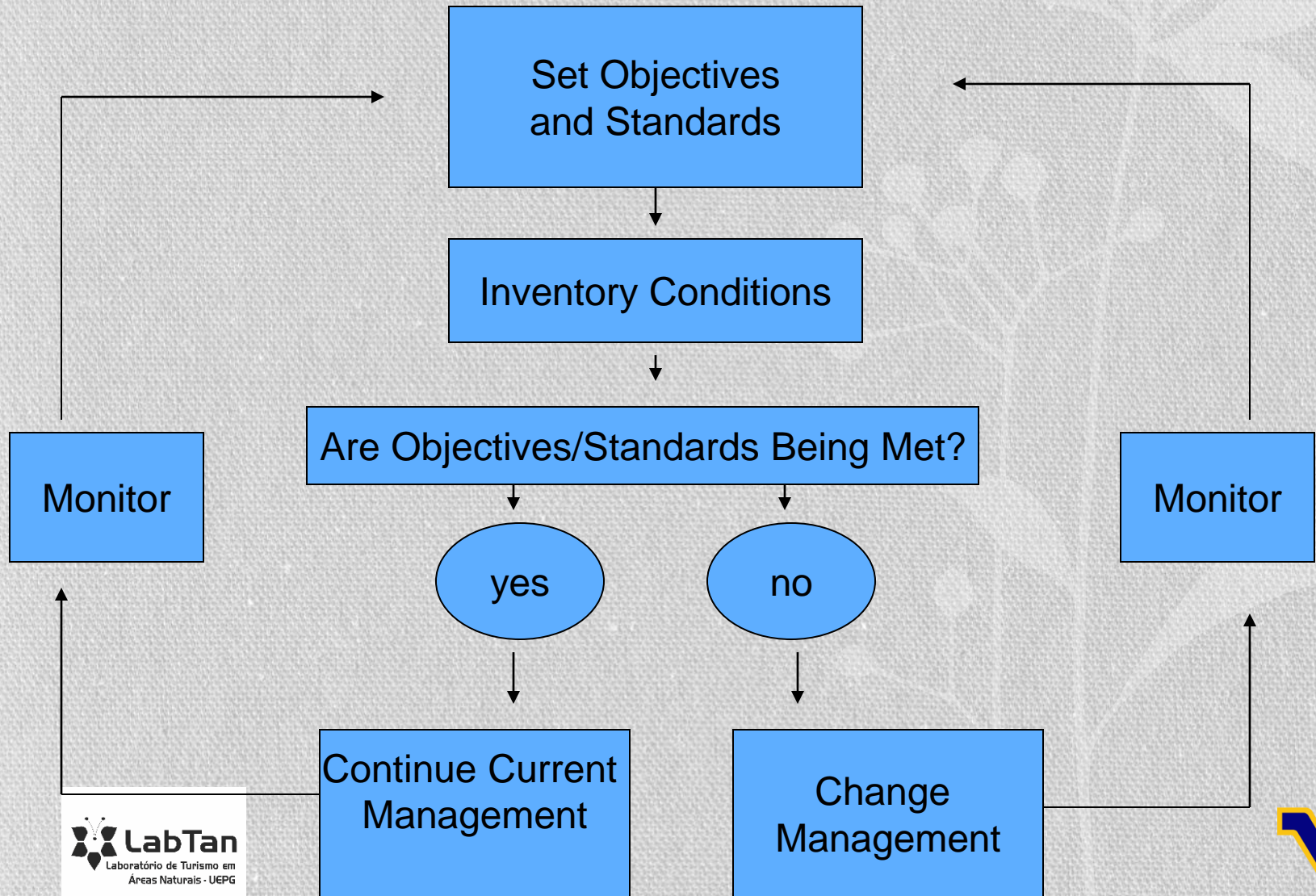
The Carrying Capacity Model
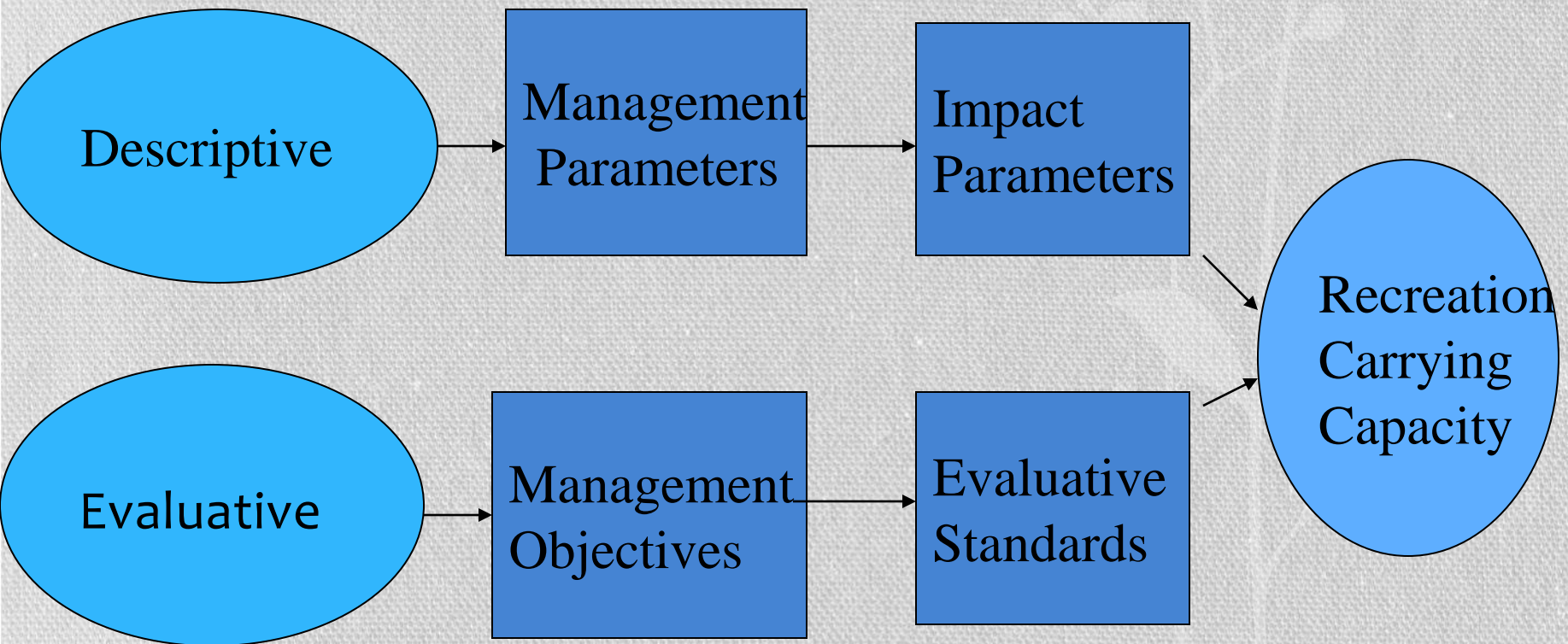
Carrying Capacity Frameworks

- Limits of Acceptable Change

- Visitor Experience and Resource Protection

- Visitor Impact Management

LAC/VIM Framework

ROS: Recreation Opportunity Spectrum

Prístino	Primitiva	Rústica/Natural	Rural	Urbana

ENTORNO SOCIAL

Visitor Use Management (VUM) Framework

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Council Vision

Providing a unified voice for excellence in visitor use management on our

Framework & Guidebooks

Visitor Use Management Framework

The purpose of the framework is to provide cohesive guidance for managing visitor use on federally managed lands and waters. The framework is a planning process for visitor use management and can be incorporated into existing agency planning and decision-making processes. It is applicable to virtually all visitor use management situations and conditions on federally managed lands and waters. The framework is applicable across a wide spectrum of situations that vary in spatial extent and complexity from site-specific decisions to large-scale, comprehensive management plans. It also may be used across multiple, tiered planning efforts.

In the framework guidance, great effort is taken to describe how to flexibly apply the framework. Of particular importance is the notion of a sliding scale of analysis, whereby the investment of time, money, and other resources in analysis is commensurate with the complexity of the situation and the consequences of the decision. The framework elements are:
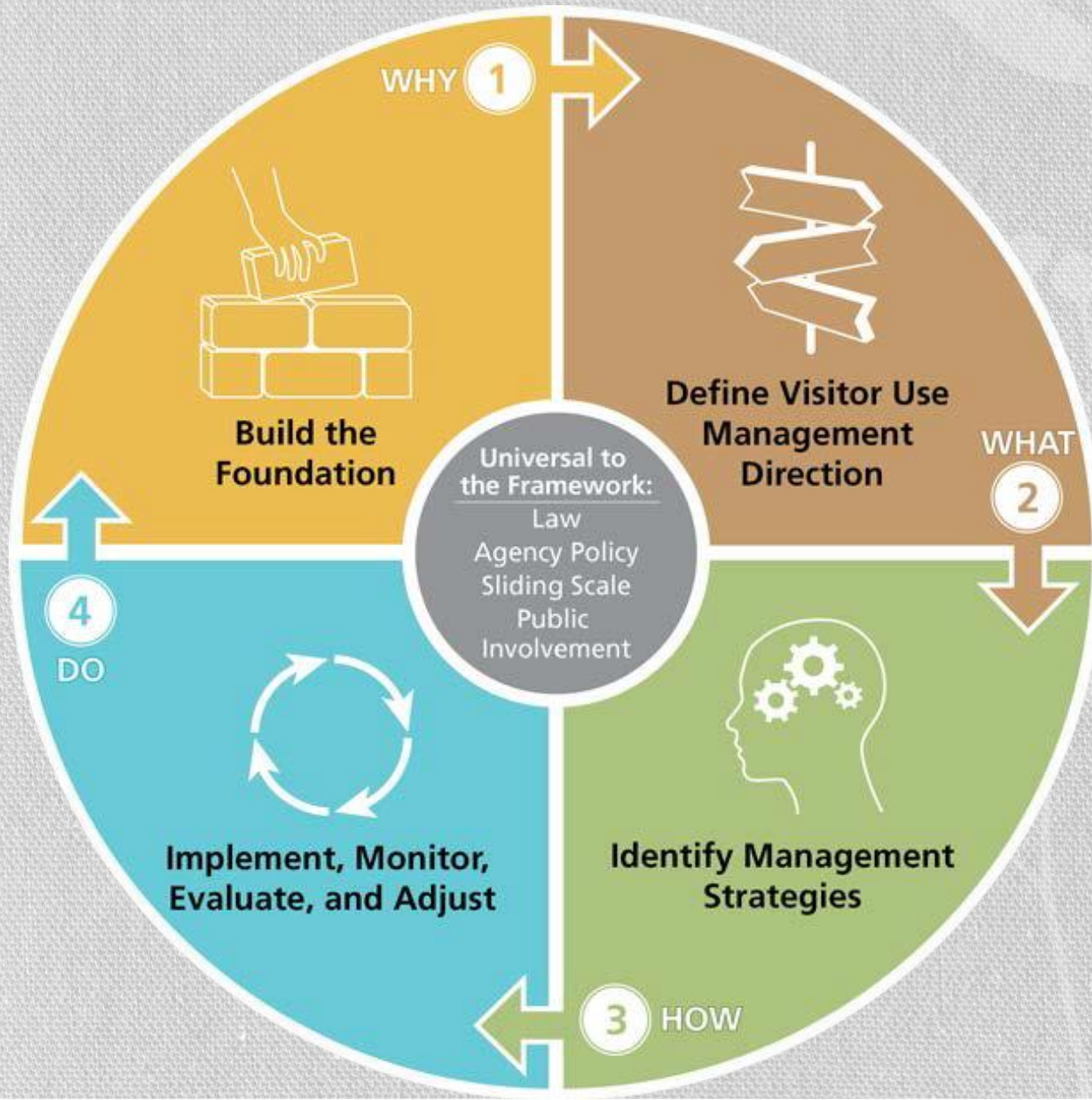
- Build the Foundation–Understand why the project is needed, and develop the project approach.
- Define Visitor Use Management Direction–Describe the conditions to be achieved or maintained and how conditions will be tracked over time.
- Identify Management Strategies–Identify strategies to manage visitor use to achieve or maintain desired conditions.
- Implement, Monitor, Evaluate, and Adjust–Implement management strategies and actions, and adjust based on monitoring and evaluation.

Please read the framework:

- Visitor Use Management Framework Primer

Visitor Use Management (VUM) Framework

VUM Process

1 WHY
Build the Foundation

Steps:

1. Clarify project purpose and need.

2. Review the area's purpose and applicable legislation, agency policies, and other management direction.

3. Assess and summarize existing information and current conditions.

4. Develop a project action plan.

Outcome: Understand why the project is needed, and develop the project approach.

2 WHAT
Define Visitor Use Management Direction

Steps:

5. Define desired conditions for the project area.

6. Define appropriate visitor activities, facilities, and services.

7. Select indicators and establish thresholds.

Outcome: Describe the conditions to be achieved or maintained and how conditions will be tracked over time.

VUM Process

3 HOW — **Identify Management Strategies**

Steps:

8. Compare and document the differences between existing and desired conditions, and, for visitor use-related impacts, clarify the specific links to visitor use characteristics.

9. Identify visitor use management strategies and actions to achieve desired conditions.

10. Where necessary, identify visitor capacities and additional strategies to manage use levels within capacities.

11. Develop a monitoring strategy.

Outcome: Identify strategies to manage visitor use to achieve or maintain desired conditions.

4 DO — **Implement, Monitor, Evaluate, and Adjust**

Steps:

12. Implement management actions.

13. Conduct and document ongoing monitoring, and evaluate the effectiveness of management actions in achieving desired conditions.

14. Adjust management actions if needed to achieve desired conditions, and document rationale.

Outcome: Implement management strategies and actions, and adjust based on monitoring and evaluation.

Why do we need a visitor monitoring process?

Difference	National Park	Geopark
Definition	Large areas of public land set aside for native plants, animals and the places in which they live.	Geographical area where geological heritage sites are part of a holistic concept of protection, education and sustainable development.
Purpose	Protect places of natural beauty, places important to aboriginal people, and places that show how people lived in the past.	Explore, develop and celebrate the links between that geological heritage and all other aspects of the area's natural, cultural and intangible heritages.
Management Principle	Promote the conservation of biodiversity, and protect aboriginal sites and historic assets.	Conservation of the geological heritages, education of geoscientific knowledge to the public, and sustainability on promoting local economy through geotourism

Source: Environment, 2014; NSW, 2012; GGN, 2010, 2014

Social Science Effort

- Best science available--Provides the scientific underpinnings upon which future decisions can be made
- Why specific decisions are made.

New River Gorge National River (USA)

LabTan
Laboratório de Turismo em
Áreas Naturais - UEPG

Visitor Monitoring Study

- Goal is to collect data to gain an understanding of the visitors who use the forest

- Understand visitor use patterns

- This includes socio-demographics, trip characteristics, as well as visitors' perceptions, motivations and satisfaction

Tapajos National Forest - Brazil

- By engaging the public in the gateway communities in and around geoparks, we can improve the level of satisfaction, and also the conservation of the park recreation sites.
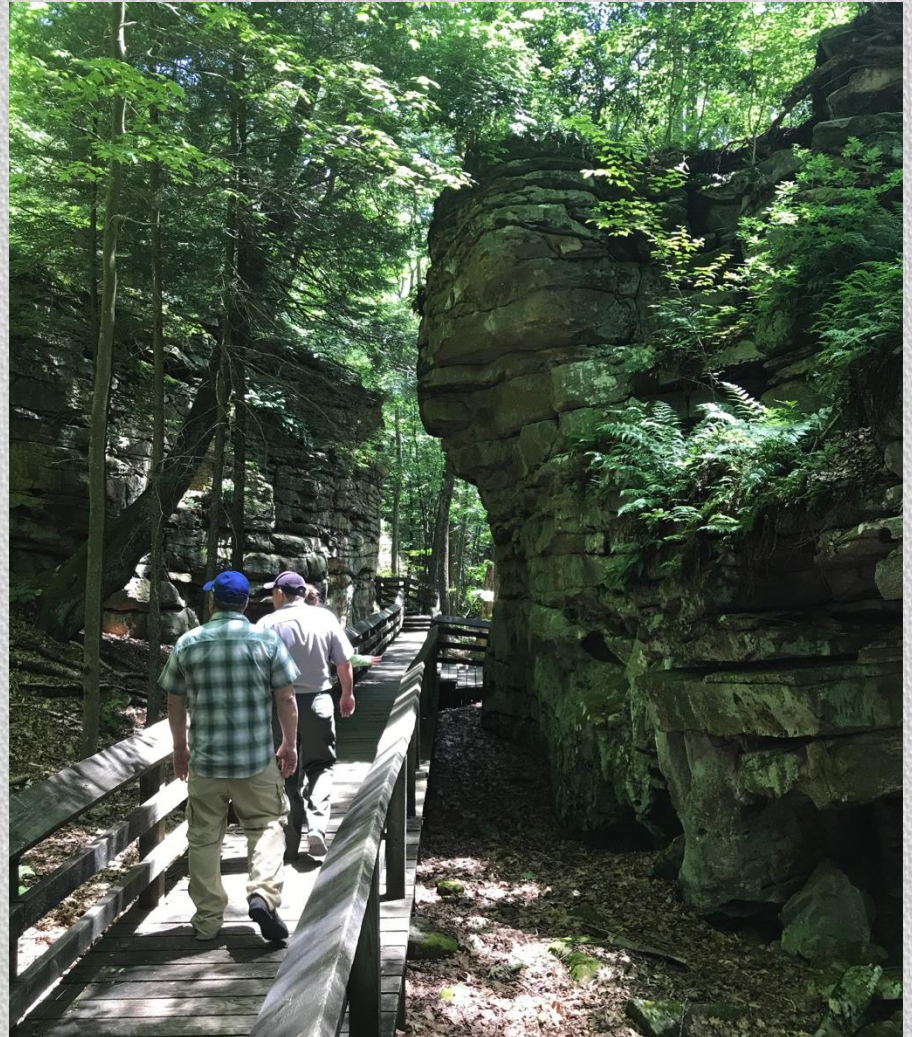
Conclusion—VUM can help

- Setting expectations for visitors--As a result of high use in many parks, recreationists will need accurate information about the sites they can visit, and the activities they can participate in that will help them achieve their experience goals and reduce conflicts with other visitors.

- Park managers need better data to help resolve site selection and other issues for infrastructure (e.g., developed day use areas, dispersed recreation areas) and to establish a solid basis for policy and regulatory decisions about visitor use on the park settings.

THANK YOU
VERY MUCH!