

.....Monitoring and Evaluation.....

Module 9

The objective:

- That participants be able to identify a minimal set of monitoring protocols that track:
 - the attainment of **outcome-based objectives**,
 - the maintenance of **setting character**, and
 - implementation of **activity planning framework commitments**.

Importance of monitoring and evaluation

- **Planning**: a dynamic, repetitive process
- **Ongoing data collection**: essential to the planning cycle
- **Feedback**: the first step in future adjustments
- **Adaptive management**: linked to monitoring and evaluation
- **RMP**: monitoring plan required

What's in your monitoring plan?

		<i>Quantitative</i> <i>Qualitative</i>	
<i>Inputs</i>	<i>System Structure</i>	<i>Outputs</i>	<i>Outcomes</i>
Management Marketing Monitoring Administration	Physical Social Operational	Activity Opportunities	Experience and Benefit Outcomes
Measures: Economy	Measures: Environment	Measures: Efficiency	Measures: Effectiveness
Administrative	Environment		Social

Objectives?

Activity-based Management

Recreation Resource Management

Objective

To ensure the continued availability of outdoor recreational opportunities which the public seeks and which are not readily available from other public or private entities.

To protect resources, meet legal requirements for visitor health and safety, and mitigate resource user conflicts.

So, What is Monitoring?

- H-1601-1 says that land use plan monitoring is the process of:
 - (1) tracking the implementation of land use planning decisions and
 - (2) collecting data/information necessary to evaluate the effectiveness of land use planning decisions

"Monitoring is the process of following up on management actions and documenting BLM's progress toward full implementation of the land use plan and the achievement of desired outcomes."

Implementation monitoring

"...the process of tracking and documenting the implementation (or the progress toward implementation) of land use plan decisions."

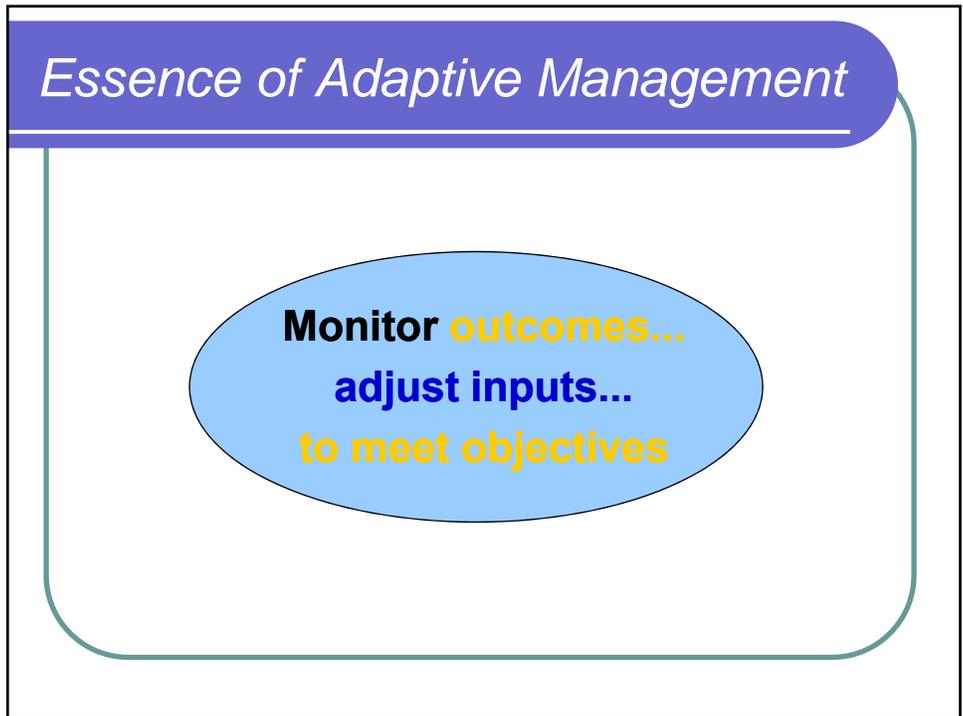
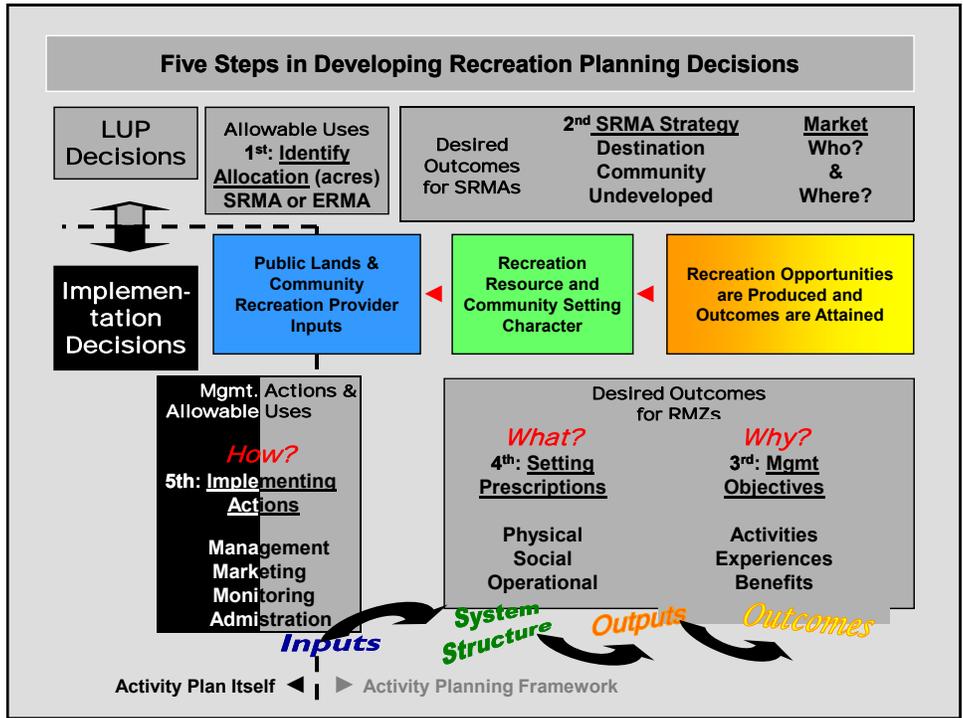
- ...results describe management actions proposed or undertaken to implement land use plan decisions.
- Annual reports document
 - which management actions were completed and
 - what further actions are needed to continue implementing land use plan decisions.

Effectiveness monitoring

"...the process of collecting data and information in order to determine whether or not desired outcomes (expressed as goals and objectives) are being met (or progress is being made) as the allowable uses and management actions are being implemented."

Advice on monitoring....

- Monitoring could be prohibitive.
- It is not necessary to monitor every management action or direction.
- Avoid unnecessary detail and unacceptable costs by
 - focusing on key monitoring questions and
 - proper sampling methods.
- Monitoring levels and intensities vary, depending on
 - the sensitivity of the resource or area and
 - the scope of the proposed management activity.



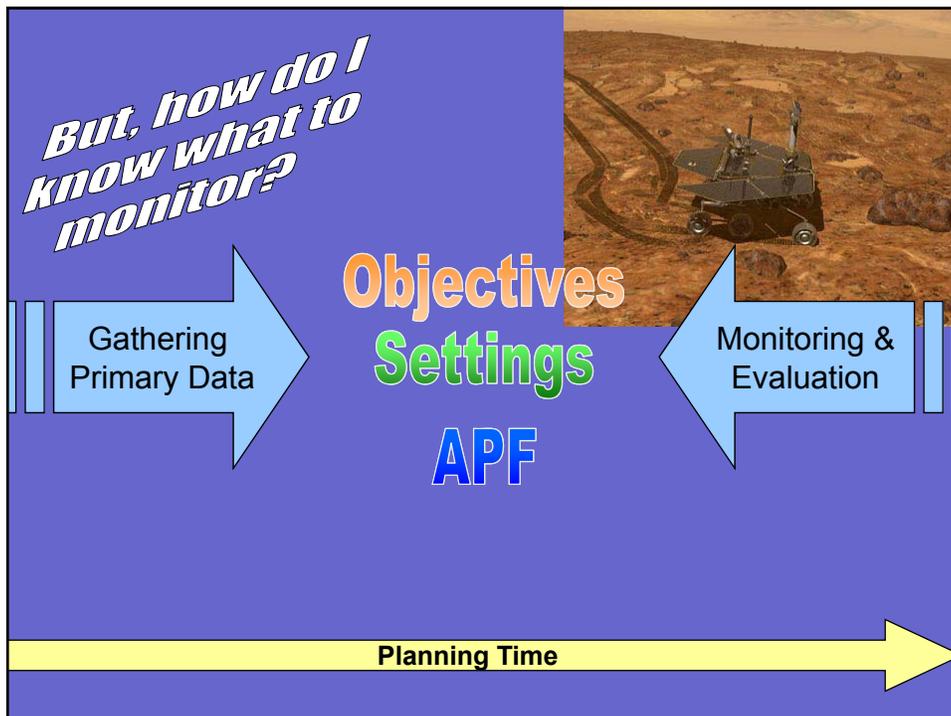
MCNCA Implementation/Monitoring

The preferred alternative selects an adaptive management approach that allows current management to continue until **LAC standards indicate action is necessary.**

For adaptive management and the LAC process to function successfully, BLM **management needs to recognize when predetermined standards have been reached.**

This can only be accomplished through careful monitoring of the physical and social settings.

Failure to identify when standards have been breached will result in degradation of the physical setting and a reduction in the ability of visitors to realize desired experiences and benefits.



What needs to be monitored?

- **Social Component**
- **Environmental Component**
- **Administrative Component**

Social Component

- The things we have to ask our customers for us to know if they are attaining targeted outcomes.
- How do we know what to ask?
 - Go to **outcomes-based objectives**
- What about indicators and standards?
 - Already included in the recreation management objective.

Colorado River Corridor

RMZ Objective

By the year 2010, manage this zone to provide opportunities for visitors to engage in Overnight flat-water boating for social group and family affiliation in a naturally-appearing red-walled river canyon, providing no less than 75% of responding visitors and affected community residents at least a "moderate" realization of these benefits (i.e., 3.0 on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4= total realization)

Indicator

COLORADO RIVER CORRIDOR (Zone 6)		
Management Objectives	By the year 2010, manage this zone to provide opportunities for visitors to engage in Overnight flat-water boating for social group and family affiliation in a naturally-appearing red-walled river canyon, providing no less than 75% of responding visitors and affected community residents at least a "moderate" realization of these benefits (i.e., 3.0 on a probability scale where 1=not at all, 2=somewhat, 3=moderate, 4= total realization)	
Outcomes		
Primary Activities	Experiences	Benefits
<ul style="list-style-type: none"> Overnight rafting, canoeing and kayaking Associated camping and wilderness hiking 	<ul style="list-style-type: none"> Savoring canyon-country aesthetics Enjoying easy access to diverse back country recreation Enjoying the closeness of family and friends Enjoying exploration Escaping everyday responsibilities for a while Enjoying mental and physical rest 	<p>Personal:</p> <ul style="list-style-type: none"> Restored mind from unwanted stress Greater cultivation of outdoor-oriented lifestyle Greater environmental awareness and sensitivity Renewed human spirit Greater outdoor knowledge, skills, and self-confidence Greater aesthetic appreciation More well-informed and responsible visitors <p>Household & Community:</p> <ul style="list-style-type: none"> Heightened sense of community pride and satisfaction Maintained and enhanced group cohesion and family bonding Improved functioning of individuals in family and community <p>Economic:</p> <ul style="list-style-type: none"> Maintenance of gateway community's distinctive recreation-tourism market niche or character Positive contributions to local-regional economic stability Increased local tourism revenue Increased work productivity <p>Environmental:</p> <ul style="list-style-type: none"> Increased stewardship and protection of River Corridor

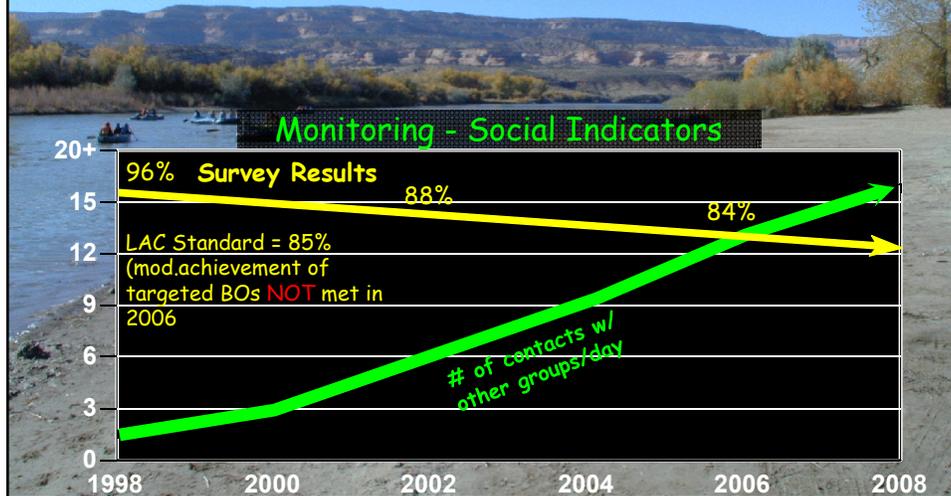
Limits of Acceptable Change - Recreational Monitoring

Indicators, Standards and Actions for Colorado River Zone

Value to be Maintained or Enhanced	Key Indicators	Mgmt Standard	Mgmt. Actions if Std(s) are not met (in preferred order of implementation)	Sampling Method/Frequency
Achievement of Benefit Opportunities	<p>Ability to realize the the following on-site psychological experiences</p> <ul style="list-style-type: none"> - Enjoy risk-taking challenges - Improving skills - Enjoying the closeness of family & friends - Enjoying learning outdoor recreational & social skills - Enjoying reflecting on personal & family values - Enjoying mental & physical rest 	<p>85% of responding visitors reporting being able to at least moderately be able (3.0 on a scale of 1-4) to achieve the benefit opportunities.</p>	<p>Management actions will be prescribed from resurvey results. Setting prescriptions will be changed to facilitate the achievement of targeted benefits.</p>	<p>Resurvey visitors every 5 years.</p> <p>Conduct focus group interviews</p>

Limits of Acceptable Change - Recreational Monitoring

- † monitoring social indicators in addition to resource conditions
- † develop early warning thresholds for LAC standards
- † eventually arrive at a social carrying capacity *tied to our objectives*



Environmental Component

- The things that we can directly observe
- How do we know what to observe?
 - Go to **setting character** prescriptions
- What about indicators and standards?
 - Already provided in the recreation setting prescriptions

Colorado River Corridor RMZ Setting Prescriptions



COLORADO RIVER CORRIDOR (Zone R) Setting Prescriptions						
Physical <ul style="list-style-type: none"> North of the river is <u>middle country</u> and south of the river is <u>back country</u>. The corridor is natural in appearance, although there is a railroad track within the corridor on the north side of the river. The corridor is presently unimproved w/ potential for low key improvements. 	Social <ul style="list-style-type: none"> Group size up to 25 Expect 15-29 encounters per day and eventually in the 30+ range during the peak use times There is some <u>evidence of camping</u> along the banks 	Administrative <ul style="list-style-type: none"> Brochures are available and information is posted at the launch site. <u>Nothing is available beyond the launch site</u> Agency presence and enforcement is randomly present Motorized use allowed in concurrence with State regulations 				
Remoteness attribute <table border="1"> <thead> <tr> <th>Back Country</th> <th>Middle Country</th> </tr> </thead> <tbody> <tr> <td>>½ mile from any kind of road, but not as distant as 3 miles, and no road is in sight</td> <td>On or near 4WD roads, but at least ½ mile from all improved roads, though they may not be in sight</td> </tr> </tbody> </table>			Back Country	Middle Country	>½ mile from any kind of road, but not as distant as 3 miles, and no road is in sight	On or near 4WD roads, but at least ½ mile from all improved roads, though they may not be in sight
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Management and Marketing Actions <ul style="list-style-type: none"> Develop interpretive plan that includes all aspects of interpretation, education, and public outreach Provide educational information through sources other than on-site posting Explore development of volunteer program with nearby communities/river users to assist with monitoring needs 						
Administrative and Monitoring Actions <table border="1"> <thead> <tr> <th>Administrative Actions</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td> Camping <ul style="list-style-type: none"> No car Portable dispersed use All open fire pan (no fires rings) No wood fires Dispersed use not designated unless monitoring shows unacceptable impacts Continue voluntary campsite reservation system at launch site as long as practical Shooting <ul style="list-style-type: none"> No discharge of any projectile (i.e. target shooting) Hunting <ul style="list-style-type: none"> Hunting allowed in conformance with CDOW regulations Permits <ul style="list-style-type: none"> See Special Recreation Permit Program in Chapter 2 </td> <td> <ul style="list-style-type: none"> All dogs need to be on leash in high-use areas Dogs under voice control elsewhere Travel mgmt. signage must adhere to BLM Colorado Uniform Sign Standards Group size is limited to 25 people Visual Resources Management <ul style="list-style-type: none"> Class I – south of the river Class II – north of the river Monitoring Actions: <ul style="list-style-type: none"> Assure objectives are being met and settings are being maintained Monitor implemented actions and evaluate A mandatory, no-fee, self-registration system would be implemented for the entire CCNCA by January 1, 2010 to contribute data on visitor use, group size, and other trends to support adaptive management of the CCNCA. </td> </tr> </tbody> </table>			Administrative Actions	Other	Camping <ul style="list-style-type: none"> No car Portable dispersed use All open fire pan (no fires rings) No wood fires Dispersed use not designated unless monitoring shows unacceptable impacts Continue voluntary campsite reservation system at launch site as long as practical Shooting <ul style="list-style-type: none"> No discharge of any projectile (i.e. target shooting) Hunting <ul style="list-style-type: none"> Hunting allowed in conformance with CDOW regulations Permits <ul style="list-style-type: none"> See Special Recreation Permit Program in Chapter 2 	<ul style="list-style-type: none"> All dogs need to be on leash in high-use areas Dogs under voice control elsewhere Travel mgmt. signage must adhere to BLM Colorado Uniform Sign Standards Group size is limited to 25 people Visual Resources Management <ul style="list-style-type: none"> Class I – south of the river Class II – north of the river Monitoring Actions: <ul style="list-style-type: none"> Assure objectives are being met and settings are being maintained Monitor implemented actions and evaluate A mandatory, no-fee, self-registration system would be implemented for the entire CCNCA by January 1, 2010 to contribute data on visitor use, group size, and other trends to support adaptive management of the CCNCA.
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Administrative Component

- The things that we have to hold ourselves accountable for; actions we've committed to take to achieve outcomes.
- How do we know what these are?
 - Go to implementing actions (Mgmt., Marketing, Monitoring, Admin. Support).
- What about indicators and standards?
 - Already resident in the Activity Planning Framework

HOW DO YOU MEASURE SUCCESS?

Now success is measured not by

WHAT YOU DO

but by the

POSITIVE BENEFITS REALIZED

from what you do.



Evaluation.....

“Evaluation is the process of reviewing the land use plan and the periodic plan monitoring reports to determine:

- *whether the land use plan decisions and NEPA analysis are still valid and*
- *whether the plan is being implemented.”*
(H-1601-1)

Land use plans...

...are evaluated to determine if:

- decisions remain relevant to current issues
- decisions are effective in achieving desired outcomes,
- any decisions need to be revised,
- any decisions need to be dropped from further consideration, and
- any areas require new decisions.

Adaptive Management

H-1601-1 formally defines it as:

“... a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or to re-evaluate the outcomes.”

Monitoring Strategy

H-1601-1 says, “A **monitoring strategy** must be developed as part of the land use plan that identifies:

- indicators of change,
- acceptable thresholds,
- methodologies,
- protocols, and
- timeframes

...that will be used to evaluate and determine whether or not desired outcomes are being achieved.”

Consider priorities & practicalities when setting up a monitoring program

- Get baseline information early
- Start simply; keep the program manageable
- Collect information in the most cost-effective manner
- Prioritize key monitoring questions
- Priority should be given to a monitoring program that provides information...
 - on whether Key Objectives are being achieved
 - useful in Guiding Ongoing Decision-making

Other considerations; Monitor...

- Monitor..
 - conditions with the most significant or vulnerable values.
 - conditions of other values considered to be good indicators of change.
 - to gain information that can help resolve important management issues.
 - to provide feedback on big expenditure management items/programs.

Summary

- Monitoring only 'Inputs' (blue) and 'Settings' (green) will allow you to measure no 'Outcomes' (yellow)
- Monitoring is the process of:
 - tracking the implementation of land use planning decisions and
 - collecting data/information necessary to evaluate the effectiveness of land use planning decisions

Summary

- What should we monitor?
 - Social - **Outcomes**
 - Environment - **Setting prescriptions**
 - Administrative - **Implementing Actions/APF**
- Land use plans are evaluated to determine if:
 - decisions remain relevant and are effective in achieving **desired outcomes**,
 - any decisions need to be revised, or dropped from further consideration,
 - any areas require new decisions.

Summary

- Get baseline information early.
- Start simply; keep the program manageable