



# **Integrating Science, Management and Planning**

## **Role and Contributions of the Watershed Condition Assessment Program**

**Jeff Albright**

**2008 NPS Aquatic Professionals Meeting**

**Fort Collins, Colorado**

**February 12, 2008**

Monday Morning...

Welcome Back!

## Things To Do



Staff Meeting



This Week's Brushfire



Meet Visitor Needs



Region/WASO Demands



Keep Resources Unimpaired

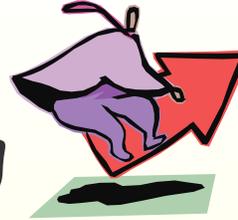


And Restore Them  
Too!

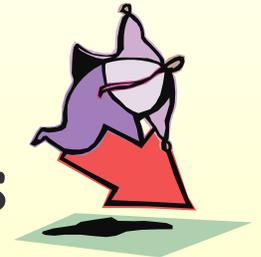


# Some Resource Mgmt Challenges

Existing or Emerging  
Issues and Concerns



Park-Based Staff and  
Funding To Address Problems



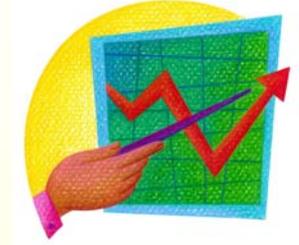
Increasing Complexity:  
Inter-Connected Problems Require  
Coordinated Solutions



# Sources of Scientific Data & Expertise

## NPS Sources:

- ➡ Inventory & Monitoring
- ➡ Park, Region, WASO



## Partner/Collaborator Sources:

- ➡ Federal, State, Local Agencies
- ➡ NGO's, Universities, Etc.

How Do We Make Sense (Get Best Use)  
of Existing Data from Many Sources?



# Overall, how well are we doing in bringing science into park planning and decision making?

**Tactical Science:** Addresses Immediate, High-Priority Mgmt Issues or Information Needs

**Strategic Science:** Helps Frame Longer-Term Resource Mgmt Goals, Priorities, Strategies

# Needed: Tactical AND Strategic Science

## Longer-Term Goals

**What Natural Resource Features, Conditions, Processes are Most Important?**

## Priorities

**What to Focus On,  
Immediate to Mid-Term?**

## Strategies

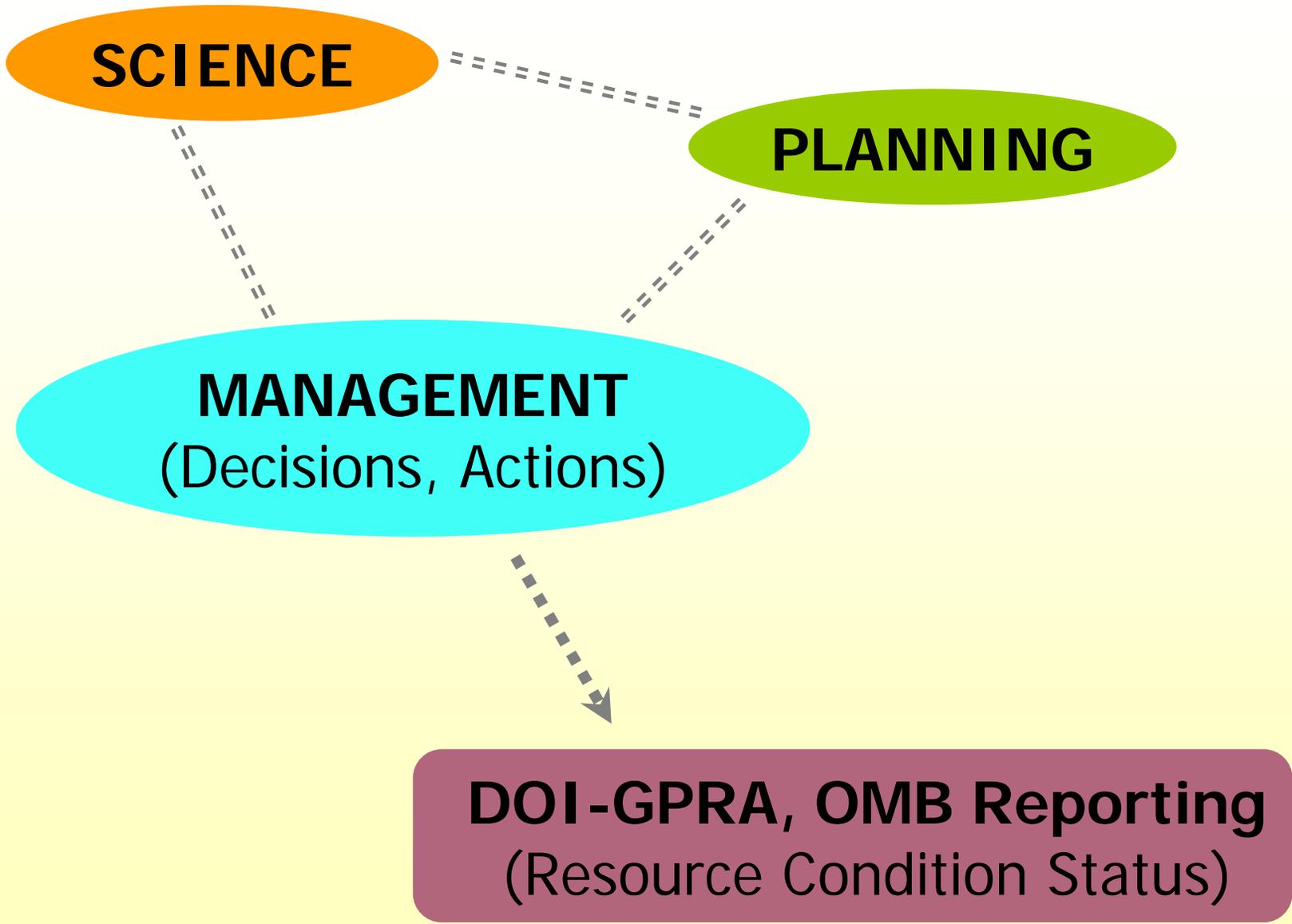
**Coordinated Solutions  
to Related Problems.**

**Do we have a clear framework (vision and practical plan) to link NPS science and planning; to help parks implement resource mgmt goals, priorities, and strategies that meet their needs?**

**Rico-Chico Effort:** I&M / Intermountain Region task group and meetings (Bingham et al.)

**Pilot RSS Projects:** RSS = Resource Stewardship Strategies (Denali NP & Preserve, others)

**WASO 'Connect The Dots' Effort:** Stay Tuned



## NPS Mgmt Policies 2006 (p. 35)

The National Park Service will preserve and protect the natural resources, processes, systems, and values of units of the national park system in an unimpaired condition to perpetuate their inherent integrity and to provide present and future generations with the opportunity to enjoy them.



### NPS Nat. Resource Mgmt Policies:

❖ **Preserve & Protect Natural Resources, Systems, Values**

...In an **Unimpaired Condition**

...To Perpetuate **Inherent Integrity**

## NPS Mgmt Policies 2006 (p. 21)

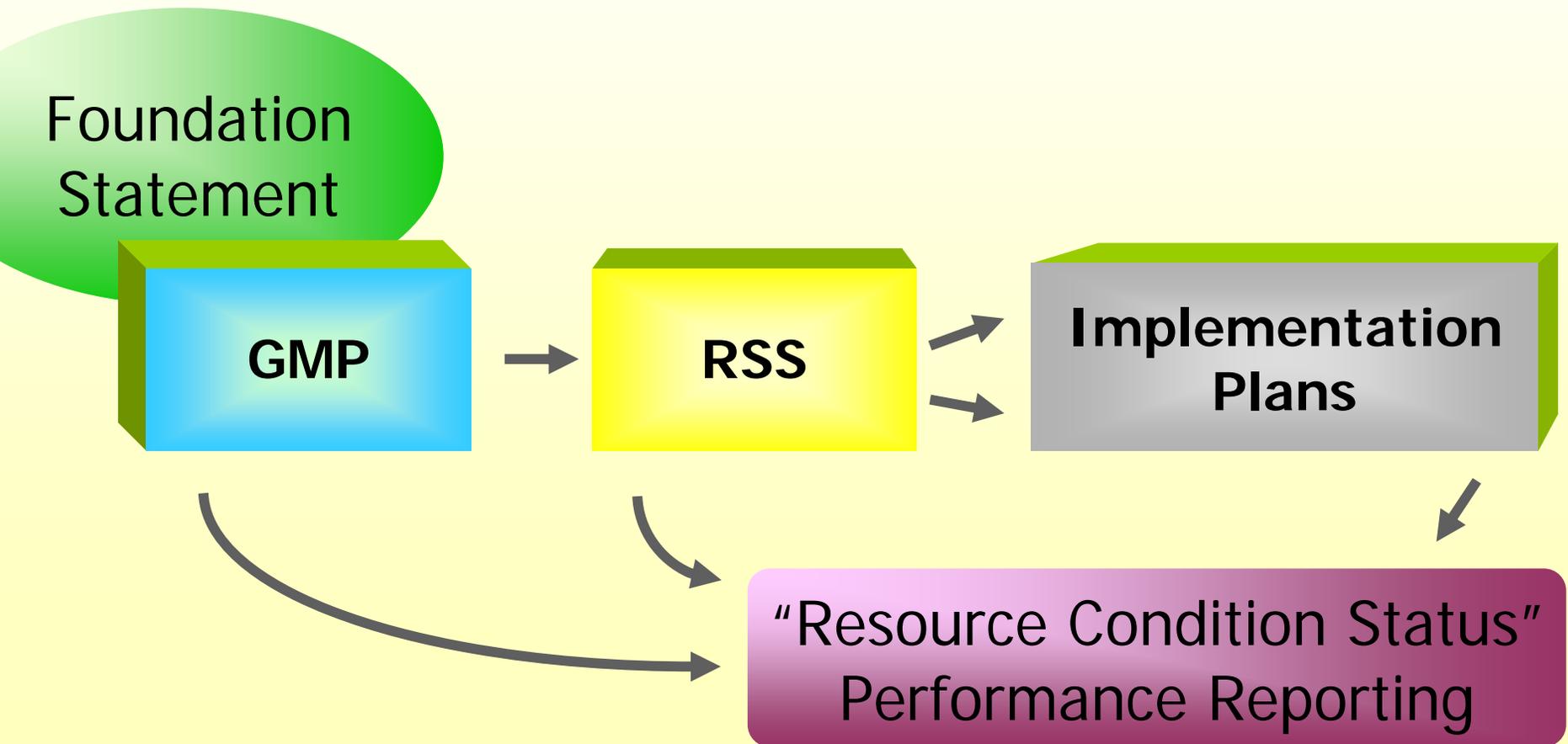
Park planning helps define the set of resource conditions, visitor experiences, and management actions that, taken as a whole, will best achieve the mandate to preserve resources unimpaired for the enjoyment of present and future generations. NPS planning processes will flow from broad-scale general management planning through progressively more specific strategic planning, implementation planning, and annual performance planning and reporting, all of which will be grounded in foundation statements.



### NPS Planning Policies:

- ❖ Define 'Desired Conditions' for Park Resources/Values
- ❖ Starts Broad-Scale, Progresses to Detailed & Specific
- ❖ Grounded in the Park's Foundation Statement

# NPS Resource Planning & Performance Reporting



# Science Inputs to Park Planning

## For Impt. Park Natural Resources:

☞ Regional/Historic Resource Conditions

☞ Level of Scientific Significance

☞ Distinguishing Features,  
Attributes, Processes,

☞ Location Info & Maps

☞ Resource Condition  
Influences

Foundation  
Statement

GMP



# Science Inputs to Park Planning

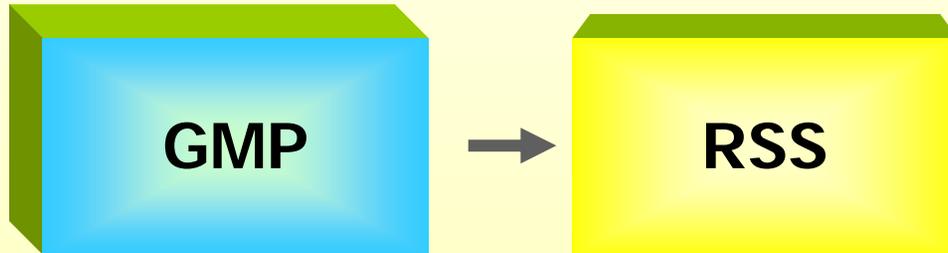
**For Those Same Nat. Resources:**

☞ **Appropriate Indicators, Measures**

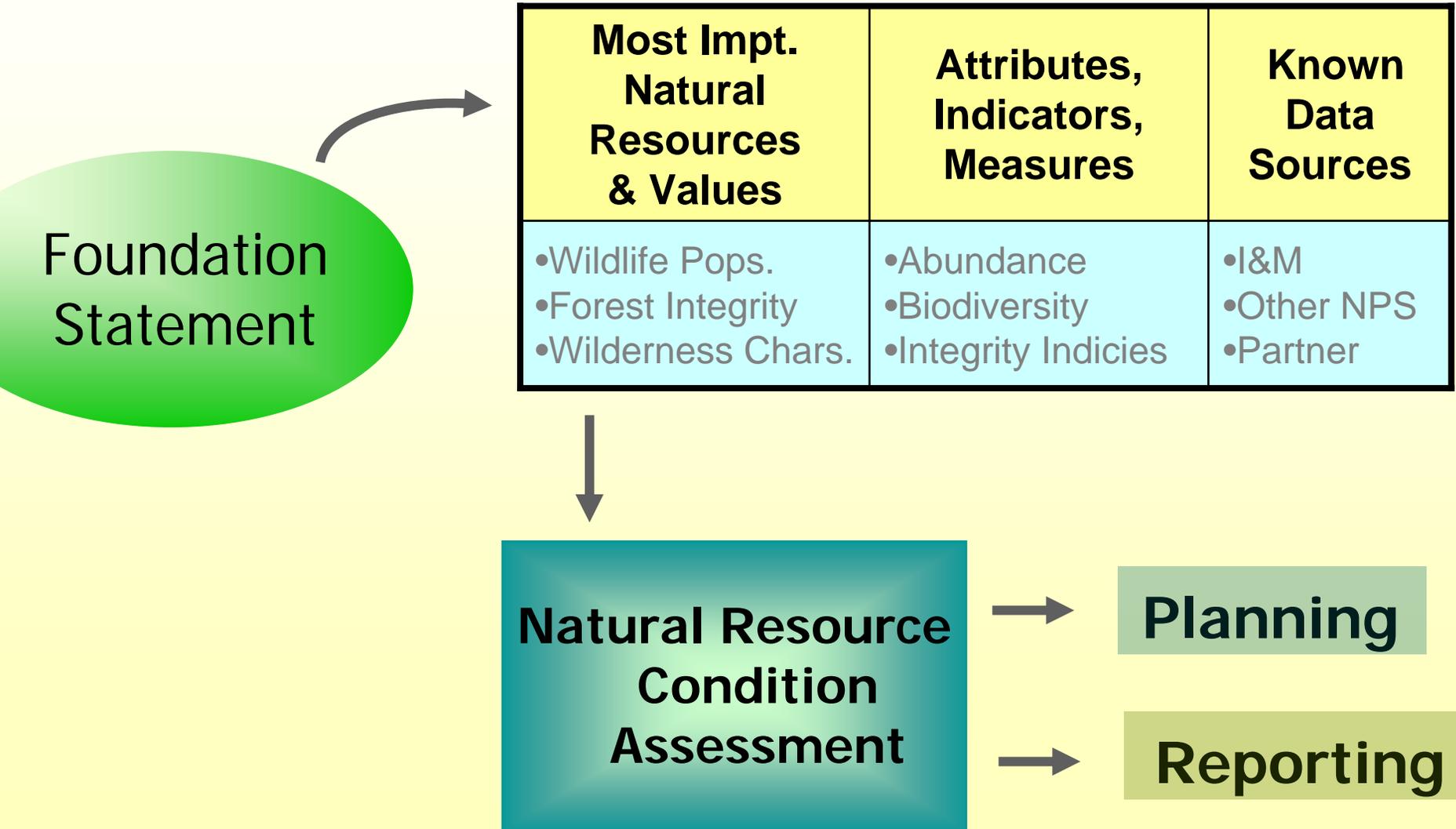
☞ **Current Resource Conditions**

☞ **Critical Data Gaps**

☞ **At-Risk Resources**



# The Minimum to Strive For



**Is it a Watershed Assessment...**

**Ecological Condition Assessment...**

**Park Condition Assessment...**

***OR WHAT??***

**(Answer: It's a Natural Resource  
Condition Assessment)**

## I&M Program

vs.

## WCA Program

- Long-Term Ecological Status & Trend Monitoring Program
- Focused on a Modest Set of Nat. Resources (Vital Signs)
- Feeds Science Data & Expertise into Other NPS Programs, Parks
- Rigorous, Statistical, Repeatable Science

- A General Level NR Condition Assessment for I&M Parks(fy06-14)
- Focused on Strategic Subset of Indicators & Datasets (I&M, Other)
- Develops Specialized Products for Park Planning & Reporting
- Existing Data + Best Professional Judgment



# WCA Program Plan (FY06-14)

 **Fund a Similar, General-Level Resource Condition Assessment at Each I&M Park**

 **Rely on Existing Data + Best Prof. Judgment**

 **Provide an Interdisciplinary Synthesis & Translation of Diverse Data from Varied Sources, Resulting in Science-Based Info Needed For:**

- **Park Planning (GMP, RSS, etc.)**
- **Park Performance Reporting (DOI-GPRA, OMB)**



# Some Considerations

 **Not Just a WASO Effort: Regional Science Programs Oversee and Manage WCA Projects in Their Region**

 **Want to Build On Existing NPS Successes In Doing Natural Resource Assessments**

**(e.g., Coastal/Marine and NERI Assessments)**



# Some Considerations



## Building on NPS Assessment Successes:

- **Where Possible, Take a Spatial Approach in Assessing and Reporting on Resource Conditions (GIS products)**
- **Strive to Rollup Key Findings, to Report on “Overall Condition Status” by Individual Park Areas (e.g., by park watersheds, ecosystem/habitat types, park mgmt zones – whatever works best for that park)**

# Would This Be Useful--Written Report + GIS Coverages:

<b>Important Park Nat. Resources</b>	<b>Current Resource Condition Status</b>	<b>Resource Condition Influences</b>
<b>INFORMED BY:</b>  <b>Park Enabling Legislation &amp; Mgmt Documents</b>  <b>Park I&amp;M Vital Signs</b>	<b>Multiple Sources &amp; Types of Data</b>  <b>Interdisciplinary Synthesis and Translation of Best Available Science</b>  <b>Provides Snapshot-in- Time Resource Condition Summaries or Ratings</b>  <b>Documents Logic and Critical Data Gaps</b>	<b>Highlights Existing and Emerging Threats and Stressors of Concern Likely to Park Managers</b>  <b>Helps Document At-Risk Park Resources and Areas</b>



## **Current WCA Program Need: Define Acceptable Assessment Approach(es) and a Standard Set of Products:**

- **Short List of Approved Assessment Methods and Techniques?**
- **GIS Tools to Help Depict Current Resource Condition Status, Currently Impacted Areas, At-Risk Park Areas**
- **Standard Set of Reporting Products That Still Leave Flexibility for Regions and Parks**

Science-Based  
(Condition-Based) Mgmt



## Reminders:

1) DSS Software Demo Tonight @ Social hour

2) WCA Session Tomorrow @ 1:15pm

3) Ecological Assessment Methods Database,  
On Web: <http://assessmentmethods.nbii.gov>

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