

Colorado River Management Plan Grand Canyon National Park 2006



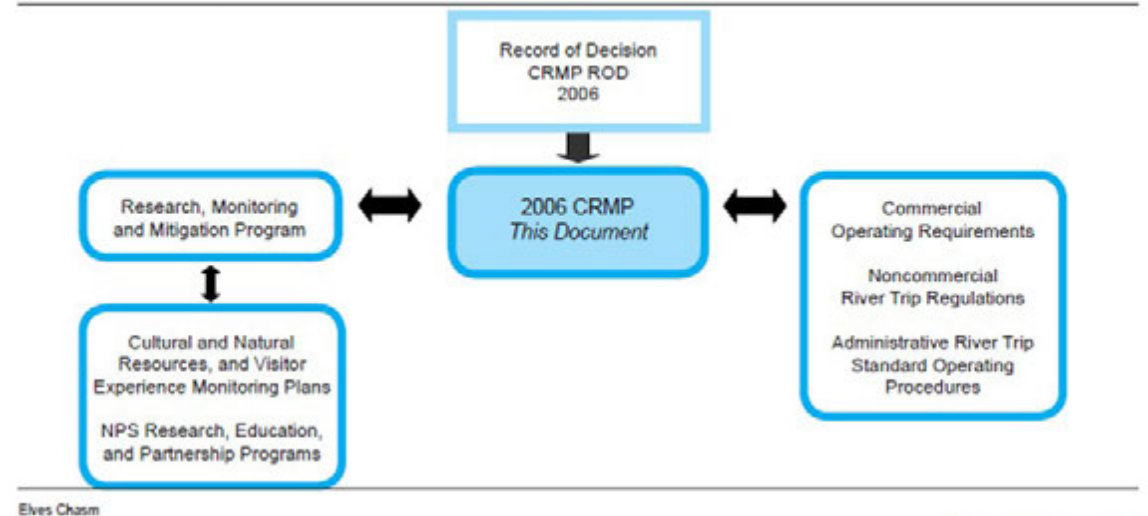
“The Colorado River Management Plan is primarily a visitor use management plan that specifies actions to conserve park resources and visitor experience while enhancing recreational opportunities on the Colorado River through Grand Canyon National Park”



Colorado River Management Vision Statement

- The Colorado River corridor in Grand Canyon National Park will be managed to provide a wilderness river experience in which visitors can intimately relate to the majesty of the Grand Canyon and its natural and cultural resources. Visitors traveling through the canyon on the Colorado River will have the opportunity for a variety of personal outdoor experiences, ranging from solitary to social, with as little influence from the modern world as possible.
- The Colorado River corridor will be protected and preserved in a wild and primitive condition

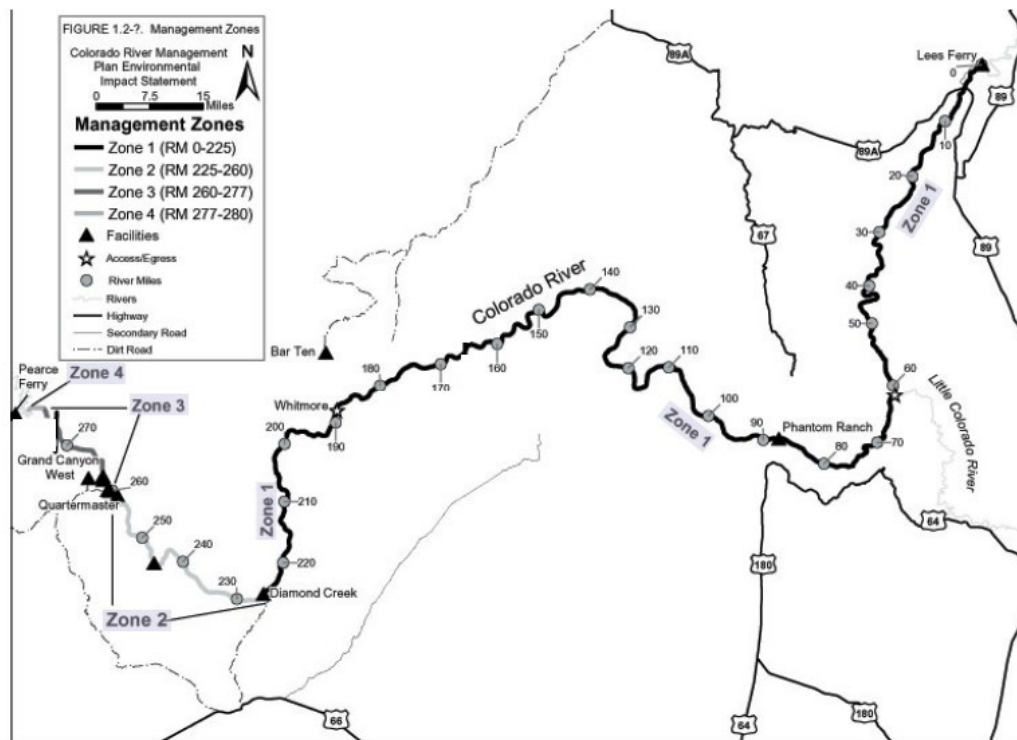
Figure 1
Relationship of CRMP and Implementation Planning Documents



Elves Chasm

Grand Canyon National Park 1

Management Zones



- Zone 1: Lees Ferry to Diamond Creek (RM 0 to RM 226)
- Zone 2: Diamond Creek to Quartermaster Canyon (RM 226 to RM 260)
- Zone 3: Quartermaster Canyon to Lake Mead NRA boundary (RM 260 to RM 277)
- Zone 4: GRCA boundary to Lake Mead take-out areas (RM 277 on) managed by Lake Mead NRA

CRMP User Capacity Framework

Changes in levels of use were based on a carrying capacity strategy that looked at the number and size of camps, the condition and threats to resources, and the wilderness experience parameters including number of on-river and attraction site encounters.

Acknowledgement that no one standard could be used to determine a carrying capacity



- Physical resources: Number, size, distribution of camping beaches
- Social conditions and wilderness experience variables including on-river, campsite, and attraction site encounters
- Natural/Cultural Resource conditions

Administrative River Trip Types

- Resource Management
- Visitor Protection
- Maintenance
- Glen Canyon Dam Adaptive Management Program
- Scientific Research- external
- Tribal
- Partners and Volunteers
- Education



Integrated Resource Monitoring Program-

What are the effects of Colorado River users on:

- Natural Resources?
- Cultural Resources?
- Visitor Experience?
- Wilderness Character?

Effects are evaluated through Monitoring and Assessment.

Mitigations can be made using Management Actions.

Colorado River Resources Monitoring Program

How do administrative activities and river users affect park resources in the Colorado River Corridor?
(Stressors)

Effects

- Resource Damage
- Site Disturbance
- Quality Degradation
- Crowding & Congestion

Natural Resources

- Water Quality
- Wildlife
- Vegetation
- Air Quality
- Soils

Visitor Experience

- Quality of Recreation
- Range of Services

Cultural Resources

Historic Sites
Prehistoric Sites
Traditional Cultural Properties

Wilderness

Character

Primitive & Unconfined
Recreation
Non-Mechanized Use
Solitude

CRMP Mitigation & Management

- Interdisciplinary approach: Recreation, Vegetation, Trails, Cultural Resources, and Rangers
- Site assessments: Evaluate camps and attraction sites for adverse impacts
- Work projects: Base work on cyclic assessments of sites throughout the corridor

Management Actions can take a variety of forms:

- Education
- Trail delineation and repair
- Revegetation of social trails and OHWZ campsites
- Archaeological site mitigations
- Adjustment of launch calendar

Natural Resource Condition Assessments

- Impacts include: campsite proliferation in OHWZ, social trailing, vegetation damage, trail erosion, archeological site damage, etc.
- Treatments include: trail delineation & repair, revegetation of social trails and OHWZ campsites, archeological site mitigations, etc.



Visitor Experience Monitoring Program

- Quality of visitor experience (temporal & spatial)
- On site impacts: River encounters, attraction site encounters, campsite competition, hiking exchanges, launch/take-out congestion, safety
- Off-site impacts: permit system, use statistics, etc
- Help determine management actions needed to address unacceptable social conditions



Monitoring Wilderness Character

- Involves a collective assessment of resource conditions (affects of human use)
- Quality of visitor experience – opportunities for solitude or an unconfined type of recreation
- Considers impacts of administrative use and activities



Accomplishments

- Completed 115 campsite and attraction sites assessed
- Installed multiple long term monitoring photo points at 36 sites
- Completed mitigation actions at 39 sites including: Trail maintenance & realignment, Campsite delineation, Pruning, Social trail obliteration, OHWZ Campsite obliteration, Planting



A few projects....



Results: Lower Gorge GTS- April 2009

In coordination w/ Hualapai Resources & River Runners Staff, NPS, Western River Expeditions and GCRG



Campsite improvement techniques involved moving rocks to establish campable sites and some minor vegetation trimming

Results: Soap Creek Camp (RM 11.3R)

In 2008, completed Phase I

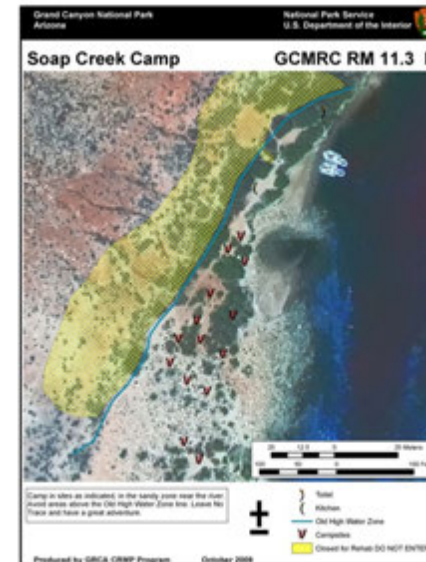
- Collected native plant cuttings and seed
- Established new campsites near river
- Obliterated vast network of social trails
- Obliterated log constructed staircase

In 2009, completed Phase II

- Began 125 square meter campsite closure with active planting
- Planted 65 native nursery and salvage plants
- Installed 8 experimental ollas
- Began watering experiments between traditional berms and olla irrigation

In 2010, started Phase III

- Planted another 265 native nursery and salvage plants
- Installed 22 new ollas
- Replaced mortality from original planting and continued watering experiments

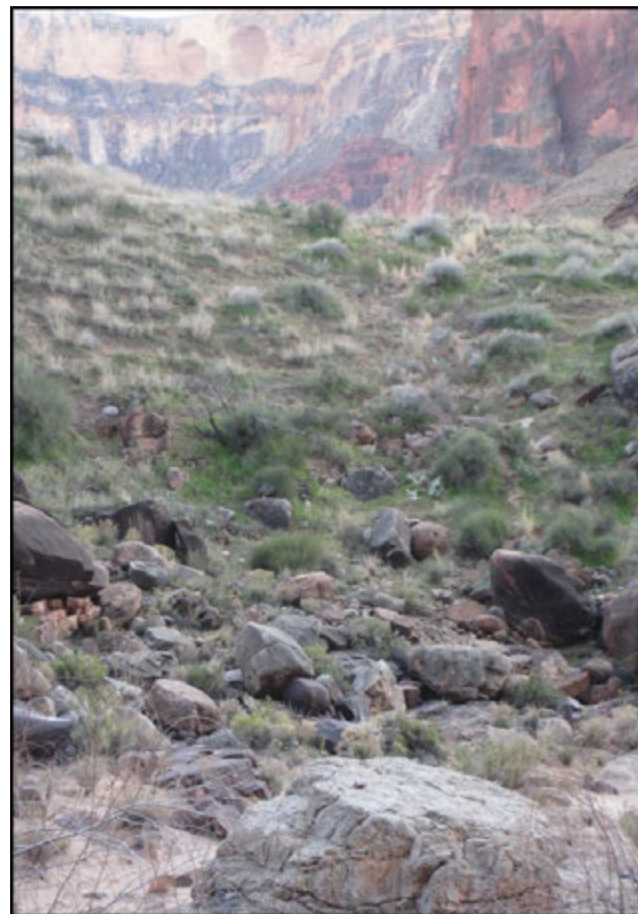


Owl Eyes Project: March 2009

- Issues: Trailing up steep slope causing unnecessary damage to native vegetation and accelerated erosion of landscape
- Solution: Restore landscape to prevent further degradation with people who care that have strong backs and big hearts.



Owl Eyes Project: Before and After



Colorado River & Tributaries Research & Monitoring

- Trails Monitoring & Rehabilitation
- Vegetation Research, Monitoring, & Removal/Re-vegetation
- Campsite Monitoring
- Wildlife Research & Monitoring
- Cultural Resources Research, Inventory, Protection & Preservation (historic and prehistoric)
- Visitor Experience Research & Monitoring



Campsite Monitoring -- Lower Tapeats Camp RM 133.7

Top- Bottom: 1952, 1995, 2006, 2008 (after a high flow experiment)



Invasive Tamarisk Management Project Summary

- Tamarisk control in side canyons began in 2002
- Tamarisk removed from over 130 project areas using hand tools and herbicide
- 287,281 tamarisk trees removed from side canyons along 217 miles of river
- Over 45,000 volunteer hours (\$911,250) donated
- Provided hands-on stewardship opportunities
- Botanists documented 15 new plant species
- Project received international recognition



Questions?

