

February/March 2013 CRMP Mitigation

TRIP REPORT

Prepared by:

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Report Date: 2/23/2014

Trip Objectives

The main objectives of this trip were as follows:

- Complete mitigation treatments (such as obliteration of social trails, excess tent pads, and cyclic pruning and maintenance) at campsites, attraction sites and access trails within the Colorado River corridor,
- Complete campsite assessments and prescriptions for future mitigation work,
- Monitor and retake photopoints of past treatment areas to evaluate effectiveness of treatment methods,
- Develop and evaluate rapid assessment methods for monitoring campsite and attraction site conditions,
- Continue to offer opportunities for cross-training among interdisciplinary NPS staff,
- Train and prepare three vegetation staff to assume responsibilities as Mitigation Program crew leaders on future CRMP mitigation trips.
- Continue to build relationships with commercial guides through the Cooperative Resource Conservation Program

Treatment sites planned for the February trip were Upper Saddle, Unkar Delta, and the Tapeats-Deer Creek complex.

Additional Objectives

Wildlife

- Retrieve bighorn sheep GPS collar that automatically released near Fern Glen, collect sheep pellet samples for population estimates, and monitor status of 5 additional collared bighorns.

River

- Provide logistical and preplanning support for CRMP trips. River district personnel are responsible along with the CRMP project leader for safety oversight.

- River district contacted 26 private permit holders during this CRMP mitigation trip. Contacts provide visitors with river running advice, preservation and resource stewardship techniques and resource interpretation.

Trails

- Assessment of backcountry trails for planning future river supported trail maintenance projects
- Assessment and routine maintenance of backcountry composting toilet facilities,

Cultural

Vegetation

- Develop, refine and field-test rapid assessment protocols for vegetation at attraction sites and camps for the CRMP Mitigation program.
- Continue training for vegetation staff on mitigation protocols and procedures.

Logistics and Personnel

Table 1. Trip Participants		
Name	Affiliation	Role
Dave Loeffler	V+RP River Crew (NPS)	Trip Leader/Boatman
Chris Bothers	FMD Trail Crew (NPS)	Trails Supervisor/Boatman
Pat Phillips	CANX	Boatman/TL/Laborer
Pauly Borichevsky	CANX	Boatman/Laborer
Kelly Williams	CANX	Boatman/Laborer
Jenn Boyd	CANX	Boatman/Laborer
Scott Jurnigan	CANX	Boatman/Laborer
Todd Chaudhry	S+RM Senior Ecologist	Monitoring Pilot (upper)
Michael Kearsley	S+RM Biologist	Monitoring Pilot (upper)
Vanya Pryputniewicz	S+RM Rec Planner	Project Leader
Melissa McMaster	S+RM Plant Biologist	Monitoring Pilot/CRMP Veg Lead Trainee
Adam Dockery	FMD Trail Crew	Trails Crew Leader/Laborer
Gayle Nance	S+RM Vegetation Crew Leader	Monitoring Pilot/CRMP Veg Lead Trainee
Jeremy Pribyl	S+RM Cultural Resources Specialist	Archaeologist/Laborer
Katie Sandbom	S+RM Vegetation Crew Leader	CRMP Veg Lead, trainee (Upper)
Brandon Holton	S+RM Wildlife Biologist	Bighorn Research (Lower)

Table 2. Trip Itinerary

Date	Day	River Mile	Work Location	Project Details	Campsite Name
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1/31/2014	-1		Flag/South Rim	Boatmen meet CANX at Lees Ferry	
2/1/2014	1	11.3	Lees Ferry	Introductions and CRMP Orientation, Veg pilot monitoring	Soap
2/2/2014	2	30.6	Transit	Transit; Arch talk, project scoping (Trails), Veg pilot monitoring	South Canyon
2/3/2014	3	47.5	Upper Saddle	Transit; project orientation, materials gathering, photopoints, Veg pilot monitoring at Hansborough's grave, Bert's boat, and Saddle	Upper Saddle
2/4/2014	4	47.5	Upper Saddle	Social trail obliteration , pruning, Veg pilot monitoring at falls and at camp	Upper Saddle
2/5/2014	5	73	Unkar Delta	Project orientation pruning	Across Unkar
2/6/2014	6	73	Unkar Delta	Trail delineation	Across Unkar
2/7/2014	7	73	Unkar Delta	Trail delineation, Veg pilot monitoring at camp	Across Unkar
2/8/2014	8	79	Hance, Transit	Transit, photopoints and mit monitoring Hance, Veg pilot monitoring at Hance	Hance
2/9/2014	9	92.1	Transit, exchange	Phantom Exchange 10:00 am, Hikers out: Chaudhry, Kearsley, Sandbom, Brennan; hiking in: Holton	Trinity
2/10/2014	10	108.1	Transit	Veg assessment at Granite	Hotuata
2/11/2014	11	131.7	Transit	Transit (Set up for Tapeats/Deer),	Below Bedrock
2/12/2014	12	137.6	Deer Creek Complex	Backcountry campsite and trail assessment, cyclic trail maintenance,	Football
2/13/2014	13	152	Ledges	Transit, Veg pilot monitoring	Ledges
2/14/2014	14	167.6	National	Transit, Veg pilot monitoring	Fern Glen
2/15/2014	15	188.4	Whitmore	Cyclic maintenance/pruning; arch monitoring, Veg pilot monitoring	Whitmore

2/16/2014	16	209	Granite Park	Transit, Veg pilot monitoring Evening discussion and future trip planning.	Granite Park
2/17/2014	17	225.9	Transit	Transit, Veg pilot monitoring	Diamond
2/18/2013	18	225.9	South Rim	Early Takeout	Home!

Results and Observations

CRMP Mitigation Program

Planned Mitigation Projects

Upper Saddle:

Social trail obliteration

8 trails obliterated (Total of 33 m²)

60 live plants

Erosion control central camp area

1 cu yd rock/cobble

30 cu ft sand

8 live plants

Pruning

Intracamp connecting trails – 340 linear meters

Cyclic Trail Maintenance

Rocking and pruning - 1800 linear meters

Installed 4 stone steps

Unkar Delta

Social trail obliteration

1 trail -7m²

Trail delineation

176 lf rock lining

2 rock staircases exiting the active drainage

3 cairns (2 stacked rock; 1 single stone marker 1m x.2m x.2m)

Cyclic Trail Maintenance

Rocking and pruning -1700 linear meters

Tapeats – Deer Creek Complex

Cyclic Trail Maintenance

Rocking - 3200 linear meters

Pruning – 1600 linear meters

Mitigation assessments and/or mitigation monitoring completed at:

Soap Creek
Berts Beach
Upper Saddle
Unkar Delta
Cardenas
Hance
Granite
Above Crystal

Photopoint installation and repeat documentation completed at:

Repeat documentation: Soap Creek

Upper Saddle
Unkar Delta
Hance Camp
Deer Creek

Photopoint monitoring not completed at Cardenas due to occupancy of site by a private trip.

Installation:

13 new photopoints along Unkar Delta Interpretive Loop Trail to document pre- and post-work site conditions

AAB repeat photos taken at 7 camps

North
Grapevine
Clear Creek
Zoroaster
Tuckup
Hualapai Acres
220 mile

AAB Tamarisk Timeline Photos at 16 camps

Soap
Hot Na Na
North canyon
Berts beach
Upper Saddle
Hance
Trinity
Granite
Above Crystal
Hotauta
Below bedrock

Football field
Keyhole
Upper Ledges
Fern Glen
Granite Park

Completed Pilot Rapid Assessments at 12 campsites or attraction sites:

Granite
Lower Granite
Above Crystal
Hotauta
Below Bedrock
Ponchos
Football Field
Backeddy
Keyhole
Tuckup
Fern Glen
Granite Park

Stirred and completed toilet maintenance at:

Tanner Backpacking Camp
Tapeats Creek
Deer Creek

Cultural Program

- Report unavailable

Trails Program

- Report unavailable

Vegetation Program

- Completed field-tests of new vegetation camp site rapid assessment protocols at eight camps: Across from Unkar, Hance, Hotuatu, Football, Backeddy, Tuckup, Fern Glen, and Granite Park.
- Completed field-tests of new vegetation rapid assessment protocols for attraction sites at six sites: Saddle Canyon, Elves Chasm, Fern Glen, Whitmore Panel, Cabin across from Pumpkin Springs, Three Springs
- Final protocols for vegetation monitoring at camp sites includes 1. Documenting tamarisk health in terms of % green, % defoliated and % dead. This data will be used to make recommendations for priority areas to begin planting native trees to replace dying tamarisk, 2. Conduct a 15 minute species search. Staff will record every plant species present in the entire camp. Exotic plant species will be

categorized and high priority species will be treated immediately. Staff will document medium and low priority species and formulate a plan of action for each site, 3. Measure and monitor vegetation encroachment into the campable area. This will be done by measuring the edge of the campable area and any vegetation islands within that area.

- Final protocols for vegetation monitoring at attraction sites includes:
 1. Record all species found in a 100m² polygon at the attraction site, 2. Photo-documentation of the attraction site, 3. Record all plant species found within 2 meters of each side of the trail to the attraction site.
- We were concerned about the potential for error when choosing the center point of the campable area, but post-trip analysis of the data collected at the campsites indicated a very low rate of error between observers in the data.
- We pulled 692 Sahara mustard (*Brassica tournefortii*) from a sand spit near river mile 36, 11 African mustard (*Malcolmia africana*) and 107 Sahara mustard from the trail up Saddle canyon and clipped 6 seedheads from a Ravenna grass (*Saccharum ravennae*) from just below Backeddy. We also located another Ravenna grass just about Tapeats rapid on river left and a potential pampas grass (*Cortaderia sp.*) in the narrows along the river above Deer Creek.
- We documented a new population of *Mentzelia hualapaiensis* at the spring at Ledges Camp.
- There has been a report of a date palm at a spring above Doris rapid. We were able to locate the spring from the river and determine the best way to access the site on a later trip.

Wildlife Program

Successfully retrieved bighorn sheep collar and downloaded data. Monitored presence of 5 radio collared sheep, and opportunistically collected pellet samples and visual observations.

General

Additional tasks and accomplishments include:

- River district staff contacted 26 private permitted trips
- Beach cleanup (ground fires, human waste, surface litter)
- Frequent informal presentations on resource management areas of concern to guide trip participants and visitors.
- Provided opportunities for cross-training of park staff
- Developed a framework for a Wilderness Monitoring and Mitigation Assessment Program and conducted a pilot survey at Deer Creek

Problems Encountered and Solutions

The professional guides supplied by Canyon Explorations/Expeditions under our CRCP program made this trip run very smoothly.

Follow- up Actions

Continue to work through our CRCP agreement to outfit at least one mitigation trip per year. The late winter/early spring timeframe should become the default timing for our co-op requests to ensure the greatest likelihood of getting a wide range of outfitters to participate.

Seek ways to accomplish campsite mitigation assessment and monitoring work on other administrative river trips throughout the year, so that mitigation trips are fully dedicated to multi day hands-on projects at high priority sites that are otherwise inaccessible or logistically infeasible except by river.

Work toward development of a comprehensive, integrated Backcountry/Wilderness Resource Monitoring and Mitigation Program that meets target range for desired resource conditions.

Continue seeking cost-effective hybrid options for accomplishing this work, such as greater volunteer involvement, continuing cross-training opportunities for other park staff and partners, and “surgical strikes” on hiker-accessible sites utilizing limited river support.

Implement continued work at Unkar Delta through logistic support of other administrative trips (arch blitz, trails maintenance, GTS?) in the absence of CRMP funded mitigation trips.

Create a draft “peer evaluation” questionnaire to help program managers, project coordinators, and trip participants identify strengths and areas for improvement in field leadership staff involved with CRMP mitigation trip.