

Sierra Crest – Bench Lake Ranger Station
End of Season Report 2010
Christopher J Miles

This was my second season as a backcountry ranger and it was a great pleasure to have spent it once again at the Bench Lake Ranger Station on the Sierra Crest. I stayed healthy, explored new territory, rehabbed many campsites and fire rings, discovered archeological sites and generally had a great time. I completed projects in the area, met a lot of nice people, gave out all kinds of information and assisted with med-evacs.

I arrived June 20th at the station after hiking in over Taboos Pass. From the top of the pass to the Ranger Station there was 100% snow cover and it was a long afternoon spent getting there. My season was June 20th- September 21st, 2010.

Visitor Services

Month	Visitor Contacts	Miles	Comments
June	55	22	
July	320	150	1 med-evac
August	480	161	3 med- evac
September	224	101	1 stock evac
Totals	1079	433	

Law Enforcement

I gave numerous warnings for people camped on vegetation this year. Unlike last year these were scattered throughout the patrol area. I placed a Rehabilitation Site sign at the small lake south of the station (Lake Spam) and had only one party at the beginning of the season camp there. Everyone moved without incident after I talked with them about their choice of campsites.

I recommended one citation for abandoned property and one written warning for an illegal campfire near Marion Lake.

SAR

There were two SARs' in my area this year. The first occurred in July on Split Mountain. The individual was located on the east side of the crest by INYO Search and Rescue. The second SAR occurred in the Muro Blanco during Labor Day Weekend. The individual walked into the South Fork Trail Crew camp on the second day of the search.

Medical

There were three med-evacs from the Bench Area this year. I also arranged one stock evacuation for an individual this year. In addition I assisted 115 with a med-evac from the Rae Lakes area.

7/10/2010	Ankle injury	Palisade Lakes
8/12/2010	Abdominal	Bench Ranger Station
8/16/2010	Wrist Fracture	¾ miles N of SF Xing
8/28/2010	AMS/HAPE	Arrowhead Lake
9/3/2010	Exhaustion/stock evac	Bench Ranger Station

There were two minor medical incidents this year at the Bench station. One was a laceration to the thumb and the other was an ankle injury. Both of these were Treat and Release and self-evacuations. I also gave out an Ace bandage. There were no fatalities in the Bench Area this year.

Weather

The weather this year was great. It started out cold and damp with early season thunderstorms and low temps. There was a touch of snow during the first week that I was out at the station. It warmed up a bit but temperatures were a bit cooler than last year. I think this had to do with the lingering snow. The middle of July saw lots of thunderstorm activity with lots of lightening and a few days of rain. There were many lightning strikes in the area. It even tried to snow here at the station. While this did not amount to much, there was white on some of the higher ridges in the area.

The beginning of August again saw lower than normal temperatures with nighttime temps going down into the lower 30's and the daytime temps in the mid 60's and a couple days where temps were in the 50's. The last week of August was very cold with nighttime temperatures down in the 20's and daytime highs in the 30's and 40's. Again it tried to snow around the 30th with minimal success.

The week after Labor Day weekend again was very cold with temperatures down into the 20's. It also tried to snow again during this period. Snow level was forecasted to be around 9000 feet. I ended up with a slight dusting of snow around the station on the 9th of September.

Fires

The Sheep Fire in Cedar Grove lasted through the middle of July and well into September. The first two weeks of August saw a lot of smoke in the area during the late afternoon and evening. During the first week of September the fire reached 3,000 acres and the afternoons here at Bench became very smoky. Smoke from the Sheep fire continued to impact the Bench area until the end of my season. The last report I had heard was that the fire went to over 7,000 acres and the smoky afternoons continued to hamper the view until I left the station on the 21st of September.

Unlike last year we did not receive fire updates during the season. I had many visitors ask about the smoke and was unable to give them much information beyond the fact that there was a fire in Cedar Grove. It would have been a great help in answering questions if there were regular fire

updates for this particular fire.

Use Patterns

Generally in the Bench area, 90% of the people I contacted were walking the PCT or the JMT. Of the other 10%, most folks were either coming in over Taboos Pass or doing various loops out of Cedar Grove, Bishop Pass or Kearsarge Pass. Taboos Pass saw increased use due, in part, to other Trail Head quotas being filled forcing visitors to use the pass as a last resort.

Lakes Basin saw significant increase in use this year. I saw many visitors returning from there or going to the area throughout the season. Dumb-bell Lakes and Amphitheater Lake also saw increased use this year with parties using various routes such as Amphitheater Pass, Frozen Lake Pass, Cartridge Pass and Dumb-bell Lakes Pass. I am thinking that Ropers High Route must have been published again somewhere as I talked to a lot of visitors during the course of the season going that way. I talked to a number of parties during September that were using the Lakes Basin area even that late in the season.

Early season, June 17th- July 20th, is the time for PCT hikers heading north to Canada. This year the traffic was late and spread out as the snow conditions were challenging well into July. I even saw a few PCT folks on the trail in Mid-August and even September who had gotten turned around by the snow earlier in the season. Mather Pass seemed to give folks the most difficulty. The snow lingered on the North side into the end of July and the South side can often be steep and hard when there is snow on it.

I saw two Boy Scout troops this year. One group was in the area towards the end of July and camped at Lake Marjorie where they climbed Mt. Pinchot. The other group camped at Bench Lake near the trail and close to the lake. After a short conversation with the later group they moved their camp to a more appropriate campsite. The later group continued their trip over Pinchot Pass and exited Kearsarge Pass.

Kings Canyon Trail Crew arrived in the area during the first week of August and had a camp on the South Fork of the Kings River. They did maintenance in the area and their efforts were concentrated on the JMT north of the South Fork Crossing and on Mather Pass. They also did a bit of work on the Taboos Pass trail while in the area.

They kept five head of stock in the area throughout the season and pushed them down the Muro Blanco to graze so as not to impact commercial grazing in the area.

This year I also had two ACE (American Conservation Experience) crews in the area. They arrived shortly after the Kings Trail Crew and were camped on the old Taboos Pass trail near their work site. They were putting plugs of grass into the old trail that passes through the meadow. Their work looks great and will go a long way to helping restore the natural state of the Taboos meadows. They also assisted in doing a short trail reroute of the new Taboos Pass trail near the Bench Ranger station. They hoped to complete the project by the end of the season. As of the 21st of September the reroute looked great.

I saw a few guided groups this year. Two trips came through with Southern Yosemite Mountain Guides and one trip came through with Sierra Mountain Guides. Both Southern Yosemite

Mountain Guides trips were stock supported. The second SYMG group had to cut their trip short due to the fact that their stock had gotten through a fence in the LeConte area and was unable to be located for a few days.

Stock use

Stock use in the area seemed to increase this year with Rock Creek Pack Station being the heaviest user. They had four trips with an average of fourteen head per trip. All of these trips were full service and the packers did a great job of cleaning up their camps and scattering manure. They also did one spot trip into the Upper Basin area during the first week of September with five head.

Sequoia Kings Pack Outfit also had one spot trip into the area during the second week of September.

Rainbow Pack Station had two trips into the area and also did a good job of cleaning up their camps. One trip was a Korean hiking group with 15 people including the packer. This group received considerable attention due to the fact that they had tried to circumvent the 15 person group size limit before even entering the park. While they were in the Bench area they seemed to be complying with the group size limit.

High Sierra Pack Station had one trip through the area this year in the beginning of September. They were supporting a Southern Yosemite Mountain Guides trip.

Three Corner Round was again in the area and did a decent job with their camp. Evidently they had a wreck on their way out over Sawmill Pass and lost a Burro. Literally, lost one. It was still on the loose at the beginning of September.

I saw one private party in the area with three Llamas going south to Cottonwood Pass. They grazed across from the station and did a good job cleaning up their camp.

I asked stock groups in the area to hand graze the small meadow at the South Fork Crossing, which helped with conditions. I even had one group drive their stock up to the Bench lake Junction meadows to graze. I ended up asking one group not to graze the South Fork Crossing Meadow during the second week of September.

The South Fork Crossing meadow is a small meadow, which received a lot of use this year. It received about 70-80 stock nights and this is about the limit of what it can handle. All of the packers did a good job of not leaving their animals in the meadow overnight and either high-lined their stock for a few hours in the evening or hand grazed the animals before tying them up in camp for the night. This is a meadow that needs to be watched carefully by the Bench Lake ranger so that it does not get overgrazed. As I mentioned above it should receive no more than 80 grazing nights and this is at the upper limit. 65-70 nights depending on the year is a more appropriate estimate for this small meadow. There are places in and amongst the trees in the area where stock could be grazed when this limit is reached and the stock can also be pushed up to the meadows near the station to graze. Whether this last option is viable at all times and on a regular basis will have to be determined by the Bench Ranger.

Kings Trail Crew did a great job in monitoring the meadows they were using down the Muro Blanco. Cody (b) (7) did not overgraze any of the meadows down there and moved his stock before any damage could be done.

Natural Resources

Bear Activity

I had one report of a bear at Palisade Lakes area this year. I also heard of a bear on the east side of the Taboos Pass trail in early September. Otherwise it was a quiet year for the bears.

Wildlife

This year there was an abundance of bird life around the station. Cassins' Finches were very populous through most of the season and would often feed right outside the cabin in the evenings. Hermit Thrushes, Juncos, Yellow Rumped Warblers, various Fly catchers and of course the ever present Clarks Nutcrackers rounded out the bird life in the area. Raptors began appearing in the middle of August. I had two Golden Eagle sightings this year. Near Taboos Pass I observed a Raven chasing a Golden Eagle from the area and I also observed a Golden Eagle soaring above the station. I saw many different types of Falcons and Hawks and even saw a hawk chasing a coyote, probably from a kill.

I was lucky enough to see 12 Big Horn Sheep this year. Early in July I saw an ewe, a lamb and two young rams on Pinchot Pass. Later in the month I saw eight rams on Coliseum Mountain. They all looked healthy from my vantage point.

I heard and saw many Pika throughout the patrol area as well as Marmots, Golden Mantled Ground Squirrels and chipmunks. Alas no Wolverine....

There were many coyotes near the station this year. I believe they may have a den to the south above the station, as I seem to remember hearing them in the same area last year. They must be happy in the area feeding on rabbits, marmots and the like.

I saw many Garter snakes this year and also many Bluebirds on both sides of Pinchot Pass. I spotted a Jack Rabbit near Taboos Pass and many Mule deer. I had a report of one male deer charging a resource person in Upper Basin. The incident resolved with the deer not really putting much effort into the chase.

Vegetation

Sky Pilots, Jeffery's' Shooting Stars, and Larkspur were the most abundant flowers I observed this year. Sky Pilots thrive on the north side of Pinchot Pass to the extent that if you were not careful the smell would knock you over. Larkspur was in abundance in the meadows along the old Taboos Pass Trail. Taboos Pass had a ton of Alpine Paint Brush towards the middle of August. The old trail displayed Larkspur, Indian Paint Brush, Monkshood, Jeffery Shooting Stars and lots of various smaller flowers.

The alpine forest of Lodgepole and Western White Pine was spectacular. Unlike last year I did not see very much cone production on either the White Pines or on the Lodgepole Pines. The meadows in the area all looked well and I only delayed the Taboos meadows to grazing. By

the time stock began to appear in the area all the grasses at the South Fork were in good shape. The meadow system near the Bench Station was also in good shape by the time I saw the first stock group.

Cultural Resources

All of the archeological sites that I visited this year seemed to be in good repair and I believe I may have found a few more. (b) (3) (B)

[REDACTED]

[REDACTED]

(b) (5)

[REDACTED]

[REDACTED] This year I found a tape measure near one site and also saw a fifteen year old beginning to collect pieces (no points) near the ranger station. He had just begun and when asked, immediately put back what he had gathered (a very small amount).

Backcountry Facilities

Ranger Station

The Bench Lake Ranger Station is in good repair and looks even better now with the correct set of tent poles for the new tent that was purchased last year. Thanks Deb! The platform is in fairly decent shape and received a coat of sealer this year. There is enough sealer for another coat at the end of next season and this will go a long way in helping to preserve the platform. The solar system works very well and charges all batteries and the satellite phone very well. During the cold snap in early September I charged a few batteries for the Frog Crew and in the morning the light on the Controller went to orange (indicating the solar batteries were at half charge). By September 21st the light on the controller had gone back to green. I am not sure if the colder temperatures have anything to do with this or not.

Currently there is a pit toilet with a seat. While it is able to withstand use from one ranger during the summer months the Bench station is very high and cold. I dug a new pit this season and believe that by filling it in at the end of the season it will help with the breakdown of material.

This year while 312 was visiting the station we put a large rock step outside the front of the platform, which worked great. It should last many years and is very sturdy.

The Bench Station is a very workable set up. With a few Fire Logs the wood stove can keep the station warm and comfortable during cold weather and with the various tarps that are at the station I was able to have a shaded area for the kitchen. The storage facilities are adequate for food during the season and for the camp at the end of the season. The whole camp fits in three Knaack boxes, one regular bear box and two 50-gallon drums.

Signs

Most signs in the area are in good shape. The only signs in poor repair are the old wooden signs atop Taboos and Sawmill Pass. On the Taboos Pass sign there is a lot of carved graffiti on it and the white painted letters have faded. It really is too bad because I think that the sign is a neat sight when you get to the top of the pass. It's classy, despite the graffiti. A pint or two of white paint would easily refresh the lettering on both of the signs and would be worth consideration.

While mileage on all signs in the area continues to be a topic of some humor to back packers I found that all signs were within a half mile of the actual mileage according to a GPS unit.

All fire closure signs are in good repair.

I placed a sign at "Lake Spam" (lake just south of the station) asking people not to camp near the lake on the fragile grass and only had one group decide to camp there in the early season. What a treat. This sign should remain in place indefinitely.

I think that an information board near the Ranger Station Sign with campsites and general information would be useful for visitors coming through the area. Another possibility would be to have one at the Ranger Station instead. In the event that I am on extended patrol this information could serve visitors very well.

Trails

Trail Activities

Trail crew did a great job maintaining the area trails this year. The trail going over Mather Pass received considerable attention this year. Walls that had blown out in years past were repaired and rebuilt and large boulders in the trail bed were removed. The old Taboos Pass trail received a much needed rehabilitation effort by ACE crews (American Conservation Experience). The trail bed was returned to its natural state with grass plugs from the area. With winter moisture the plugs should take well and continue to grow. Having a park Vegetation specialist on the project helped tremendously and the project looks great.

A short re-route of the existing Taboos Pass trail was begun near the Ranger Station and looked well on its way to completion as of the 21st of September. Again this was an ACE project and the crew did an amazing job with the trail. It is well graded and well planned out.

Problem Areas

There are a few areas in the Bench Patrol area that could use some looking at. The first is a part of the JMT at Lake Marjorie that goes through a very wet area (see pictures). There were deep hoof prints along the trail in this area all year long. It would be a great idea to look at a small re-route of the trail in this area.

Another place on the trail that could use a look at is on the JMT north of the South Fork Crossing about 1.5 miles. This area of trail traverses a beautiful meadow and is becoming a very braided trail. As the tread gets deeper visitors merely step to one side and create, in essence, a new trail. Trail crew did a good job filing in the rut but it would look better if the trail were completely re-routed and the current trail rehabilitated. There seems to be many of these areas

along the JMT but this one, I think, needs some attention.

The trails in the area are generally in good shape. I think a trail crew in the area every year, maybe for two weeks or so, would be beneficial for the area. There is a bit of smaller maintenance projects that could be done. These projects are mostly cleaning up the various smaller washouts present on the trails in the area. The Bench Lake trail could use a little attention as well as a couple of spots going north on the JMT and also south. There is a spot on the Taboos Pass trail that could definitely use some work. It is a rut about a foot deep or more and about 20 feet long about $\frac{3}{4}$ of a mile from the station. While not huge problem areas these should be attended to.

Camp Areas Conditions

Campsites are generally in good shape with the most impacted areas being Lake Marjorie, South Fork Crossing, Bench Lake and Upper Basin. Most issues in the area are illegal fire rings and people camping on vegetation. I believe most of the illegal fire rings that appear do so during the period when the PCT hikers are coming through before rangers are mobilized. (b) (7)(F), (b) (7)

(C) I rehabbed many campsites this summer, which a lot of times meant removing old fire rings and scattering the ashes. There were a few that I closed using rock bombs and generally they stayed closed.

Both Bench Lake and Striped Mountain Lakes saw moderate use this year with Striped Mountain Lakes being used the least. I saw many parties camped at Bench either to fish in the lake or to climb Arrow Peak. Most visitors used one of two campsites at both the west and east end of the lake.

The most impacted and used campsite at Bench Lake continues to be the site at the far SW end of the lake. I again destroyed and rehabbed the area where people like to have fires. (b) (7)(F), (b) (7)(C) It is really a shame as there is a large standing rock that is blackened from all the fires over the years and this scar will remain for a very long time. I am thinking of closing this site for next year. I did not see too many visitors camped in this site this year.

Sanitation

Again, I saw very little in the way of errant toilet paper this year. People seem to be pretty good about taking care of it properly. I advised visitors to carry out their TP and almost all told me (of course) that they were already doing so. As I didn't find too much, the message seems to be getting out.

I assisted 115 with the digging of a new pit toilet at Woods Creek Crossing this year and it should last a few seasons before it needs to be dug again. There are no other pit toilets in this patrol area.

I dug a new pit toilet at the Bench Station this year and it worked well.

Fire Rings

Total obliterated: 20

The Bench area is unique in that there are only a very limited number of areas where fires are permitted. I allowed fires west of the trail at the South Fork Crossing on the south side of the river. Most people I talked to didn't even like to have fires so this was not a problem.

In the beginning of the season I destroyed many fire rings at Ansel Adams tarn near Twin Lakes. I patrolled that area three times this year and did find a few new rings that I had to obliterate. I also did a patrol to Woods Lake this year and destroyed four fire rings in various locations around the lake.

I did find numerous fire rings on the Cartridge Pass Trail above 10,000 near the lakes on the south side of the pass. I obliterated and cleaned out these fire rings of the various foil and other objects in the ashes. I also obliterated three fire rings in Lakes Basin near the "L" shaped lake. I cleaned out the three fire rings at the South Fork Crossing twice this year. It seems that most visitors do not need/want a fire. At least not where they can legally have one.

I think one way to mitigate illegal fire rings would be to send a NPS representative to the annual PCT kickoff in Campo. My thought is that many of the illegal fire rings we find on the JMT during the season are built and used by PCT'ers. Maybe a stronger message needs to be sent to this group of users. They visit the park at a time when Rangers are not yet in the field and it is often cold and wet.

Firewood Availability

Firewood availability is ok down at the South Fork Crossing and generally pretty scant in the higher elevations.

Food Storage

There are no food storage lockers in the Bench Patrol area. Most all visitors I contacted had canisters. Of the ones that didn't, all groups that I contacted were doing a sufficient job hanging their food.

Food storage at the Ranger Station is great. With three Knaack boxes it is easy to get a full seasons supply of food in the lockers.

Permit System

Trailheads

The two closest trailheads to the Bench area are the Taboos Pass trailhead (10 miles) and Roads End out of Cedar Grove (25 miles). Taboos Pass saw an increase in use this year. Sawmill Pass saw limited use this year. Mostly I saw people exiting that way. There were quite a few visitors doing loops from Kearsarge to Taboos and vice versa and also from Taboos north to Bishop Pass.

Issuing Offices

I saw many types of permits this year. The most common permits were those issued for the JMT/PCT. I also saw many more permits issued out of Cedar Grove this year. Mostly for visitors doing Ropers High Route or loop trips through the Middle Fork of the Kings. I also saw

a fair number of permits issued out of the East Side offices where visitors were coming in over Taboos to climb in the Palisades and go into Lakes Basin. Taboos Pass is quickly becoming known as a quick way into the High Country. Regardless of the steepness of this trail, people are using it to access remote areas of Kings Canyon.

Communications

(b) (7)(E), (b) (5)
[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

Recommendations

The Bench Ranger Station is an extremely important station. It fills a large gap in coverage between the LeConte station and Rae Lakes, a distance of 36 miles. The patrol area is large, exposed, and busy not to mention remote. I contacted over one thousand visitors this year, participated in five different medical situations and assisted many visitors at the station. There is a large concentration of archeological sites in the patrol area, which need looking after. A ranger presence in the area is definitely warranted. This Ranger station should be staffed full time every summer.

There is a lot of PCT traffic that the park misses in the early season. I believe that at least a few stations if not all, be mobilized at the beginning of June to catch some of this traffic. Currently we do a pretty good job of seeing much PCT traffic, however, it would be worth thinking about getting out there earlier.

I recommend sending a NPS representative to the PCT kickoff in Campo to help discuss park regulations with this group of users. It seems that most of the illegal fire rings on the JMT are built and used by this group. They are in the park at a time when Rangers are not in the field and it is usually cold and wet. Sending a NPS representative to the kickoff might help to mitigate this

issue.

In regards to the rehabilitation efforts on the old Taboos Pass trail, an interpretive sign should be placed at the trailhead, in conjunction with Inyo National Forest, explaining a little about the project and asking visitors to use their LNT principles regarding cross-country travel in order to prevent another use trail from appearing. This is a very fragile meadow system and there is a reason that the new trail was constructed.

In regards to grazing in the Taboos meadows, I believe the use of this area for grazing should be re-evaluated. These meadows are high alpine sites that often are soft throughout the summer. I have not seen any stock grazing these meadows in the two years I have been at the Bench station and I do not think this would impact any stock users at all. I have seen hoof prints in these meadows, however, mostly due to travel through them. This year I asked all pack trains to use the new trail due to rehabilitation efforts and all companies contacted complied with out a question. Most pack trains go to the South Fork to camp and graze anyhow so closing these meadows should not cause any trouble with the pack stations. I am referring specifically to meadows 46-5 on the meadow maps.

The rain-fly for the main tent needs to be sent to Montana Canvas to be repaired. A few big wind days ripped some of the stitching and instead of putting duct tape on these rips, the fly will last longer if it is repaired correctly.

The Bench station, while a very workable set up does have a moderate footprint. The installation of a small cabin, similar to what is being put at Rae Lakes would reduce the footprint of this important station. A small cabin would probably be able to fit in the existing footprint of the tent platform without much alteration and in fact might even be smaller than the current footprint of the platform (the current platform is 15'x16'). The Knaack boxes could be brought closer to the station or removed altogether if this were the case. The only outside item would continue to be a picnic table, two 55 gallon drums for trash, and a pit toilet. This is just a little food for thought.

NEEDS FOR NEXT YEAR

3 boxes Prest-O Logs (something non-toxic)

Fire Starter (Lightning Nuggets)

Log Book

Stand for solar panel

Dimensions: Panel-19 5/8" wide (inside width)

Model #: MGX60

Serial #: FW95L16681818

Have pole to use for stand. Inside diameter: 2 3/8"

New Flower and Plant ID book (Falcon guides Western Wildflowers)

New Regulator for O2 tanks

CFR Booklet

Mouse traps (2)

Burlap sacks (10)

New tarp for kitchen area (large with reinforced corner grommets, brown)
Wild Ideas carbon fiber bear canister
Long handled lighter (butane)
1 roll cover all plastic sheeting (black)
Trail maintenance and construction handbook (same as trail crew uses)
Spark arrester for chimney (mostly to prevent rain from entering the stove in storms)
Send in rain-fly for main tent to Montana canvas for repair.
Base station for radio (sent out at the end of 2010 for modification)
P-cord

INVENTORY

3-hand sanitizer
1 dish soap (environmentally friendly and full)
1 laundry detergent (one quarter full)
7 small sun block
4 boxes matches
35 Lightning Nuggets (fire starter)
10 Fire Logs
Various lighters
1-gallon bleach
16 rolls toilet paper
2 packs brown paper towels
1 & 3/4 gallon white gas
1 full propane tank (large)
2 shovels
1 small shovels
1 Restoration site sign
1 Ranger station sign
1 hacksaw
1 rip saw
1 regular hand saw
2 Pulaski
1 come along
1 flat blade shovel
1 rock bar
1 broom
2 solar showers
1 sledgehammer
1 Coleman Cook stove (2 burner)
1 Coleman Oven
1 propane cook stove
2 water jugs (2 and 5 gallon)
2 Coleman Lanterns (1 white gas 1 propane)
Various kitchen supplies
1 working pressure cooker
1 Medium cast iron skillet
2 MSR Simmerlite stoves

- 2 Garcia Bear Canisters
- 3 Green Coleman Propane canisters
- 1 Slumber Jack Sleeping bag (synthetic)
- 1 large Eureka Tent
- 1 Sierra Designs Clip Flashlite tent
- 1 large Brown Tarp (old, needs to be replaced)
- 1 wall tent and frame (new 2009, frame new 2010)
- 1-box small trash bags
- 1 washbasin
- 1 mountain maytag
- 1 washboard
- 3 steel 5 gallon buckets
- 1 wood stove
- 1 roll away table
- Solar panel
- 1 antenna
- 2 solar batteries (new 2008)
- 1 inverter (new 2009)
- 1 charger (new 2010)
- 1 fluorescent light (solar)
- 1 cot mattress
- 1 foam bedroll
- 1 cot
- Various office supplies
- 4 boxes AA batteries
- 1 roll flagging
- 1 Katahdyn Base Camp water filter.
- 17 AAA batteries
- 40 AA batteries
- 1 tube Shoe Goo
- 1 tube Barge cement

MEDICAL SUPPLIES

- 4 roll 2" tape
- 1 roll 1" tape
- 1 Box Nitrile gloves
- 7 Nasal Cannulas (2 old)
- 3 Non-rebreather masks
- 1 box band-aids (100 ct)
- 2 Tube Glucose
- 7 Ace Bandage
- 2 Emergency blanket
- 1 instant cold pack
- 5 Triangular bandages
- 4 8"x 10" combine pads
- 1 10"x 30" Trauma dressing

9 triple antibiotic ointment
17 alcohol prep pads
1 catheter (for irrigation)
Butter fly bandages
Various feminine products
1 Pocket mask
2 Micro shields
8 4x4 bandages
2 regular thermometers
1 Hypothermic thermometer
3 Sam Splints
2 pairs shears
2 BP Cuffs
2 Stethoscopes
2 tweezers
Tylenol packets
1 Betadine solution
1 Epinephrine kit (expired)
2 packs sterile latex gloves
1 Pair goggles
1 box benadryl
5 2x2 bandages
11 3x4 bandages
1 Scotchcast Kit (4x15 splint)
3 various size roller gauze
moleskin
1 box blister band-aids
5 wire splints
11 gauze compresses (from 2" to 4")
2 packs oral re-hydration salts
2 rolls 1" tape
1 Padded fiberglass splint
2 abdominal pads
2 O2 tanks (Jumbo D)
1 regulator (should be replaced)
2 C-collars

CAMPSITE REHAB

Site #	UTM	Action
46-2-11	370971 x 4095796	Obliterated Fire Ring
46-2-21	371089 x 4094602	Scattered ashes. Naturalized with duff.
46-2-22	371129 x 4094525	Obliterated Fire Ring-Otherwise site looks good
46-2-23	371254 x 4094231	Obliterated Fire Ring and naturalize site with duff
46-2-26	371457 x 4093635	Rehabbed Fire ring site and naturalized site
46-2-28	371611 x 4093473	Obliterated Fire Ring and scattered pile of firewood, naturalized site
46-2-31	371621 x 4093336	Obliterated Fire Ring
46-2-38	371622 x 4092917	Completed
46-2-48	371208 x 4092326	No site found
46-2-5	371499 x 4093986	Site looks good. Not used for along time. Removed rocks form old Fire Ring. Plants growing in old Fire Ring.
46-2-8	371147 x 4094917	No evidence of old camp. Fully-grown in and no Fire ring.
46-4-1	374033 x 4092488	No site found. Area looks good.
46-4-9	372840 x 4092487	Did not find much evidence of camp. Area looks good and saw no parties camped there this year or last.
46-6-28	370941 x 4092042	Obliterated Fire Rings
46-6-29	370719 x 4091930	Obliterated Fire Ring
46-6-30	370479 x 4091790	Obliterated Fire Ring

46-6-31	369918 x 4091498	Obliterated Fire Ring
46-6-33	368940 x 4090970	Cleaned up old trash. 3x3 piece of metal still there. Is this the Gravestone?
46-6-34	368798 x 4090854	Reduced Fire ring to three rock ring, cleaned out old ash and picked up trash
46-6-4	369248 x 4090035	Obliterated new Fire Ring this year and continued cleanup of site. Cleaned up ashes and picked up trash. Rehabbed fire ring site. Many visitors like to camp here.
R-0974	371034 x 4095584	Obliterated Fire Ring
R-0978	371472 x 4093756	Rehabbed by Mother Nature. Large tree fell into site. No longer possible to camp here.
R-0996	370181 x 4091599	Obliterated small fire Ring
R-1003	372034 x 4090930	Obliterated small fire Ring
R-1005	372233 x 4091458	Removed more rocks from old fire ring. Scattered ashes.
R-1006	371849 x 4091416	Ashes scattered. Site looks good and is closed.

Charlotte End of Season Report Durkee & Meier 2010

General Summary

Although not a full El Nino year, it was a very late and cold spring. The hike over from Onion Valley on 6/21 was about 80% snow cover past Flower Lake. There were a lot of PCT through hikers on the trail and camped at Onion getting resupplies (about 30 in 2 days at Onion). On arrival, the cabin was in great shape – no bear break-ins and left clean by the Snow Survey. (b)

(7)
(C)
(b)
(7)
(E)

Although a steady stream of people, the season was fairly quiet: few medicals or SARs, camps were mostly clean though there were a number of fire rings from early season hikers (likely PCT).

Visitor Services

	June	July	August	September	October	Total
Visitor Contacts	290	750	1040	830	30	2940
Miles Hiked	37	150	210	190	25	610
Stock	0	1 private party w/4 animals; (b) (6) w/15 (brought feed)	(b) (6) w/15 (brought feed); London w/17 grazed Charlotte Mdw.	1 private party w/2 animals	0	Only about 17 animals grazed Charlotte Mdw for 1 night. No others used that meadow.

Comments on visitor use patterns

There's good news and bad news: it's not just aging baby boomers anymore. There seems to be a definite increase in late-teens/early 20s hikers. A new and younger user group is, overall, a good thing. Unfortunately, they're not very well grounded in minimum impact or the philosophy of National Parks and Wilderness. Educating visitors is, of course, why backcountry rangers are so highly paid. Still, I've been finding more needs for signs – e.g. "campsite closed: too close to water"; "don't camp on vegetation" and other educational reminders that are both on their Wilderness permits as well as verbally emphasized at the trailhead. This change in demographics and behavior again indicates the importance of Wilderness Permit issuers and backcountry rangers in educating visitors in Wilderness care.

There also seems to be an increase of PCT through hikers. Although they probably only total about 300 reaching this part of the PCT, they are also often lacking in a good understanding of minimum impact techniques. A disproportionate number of them seem totally unconcerned with anything other than their daily mileage and will build illegal fires, ignore food storage

requirements (though a majority now carry canisters, a few are convinced that “stealth camping” and sleeping with their food will work) and even leave garbage in bear boxes. The information they receive with their permit is totally inadequate to emphasize the differences of a National Park Wilderness vs. the USFS. In addition, I’ve seen several PCT permits issued to people who are meeting the bare requirements (trip > 500 miles) and who have absolutely no local regulations attached to the permit.

John Muir Trail use also continues to be high compared to, say, 5 + years ago. Most JMT hikers do, though, obey minimum impact regulations. There are still a significant number who leave “extra” food in bear boxes as well as put food caches in bear boxes and hidden along the trail. Of the 5 caches left in the Charlotte/Kearsarge area this year (which, good news, is down from about 20 last year) only 1 person picked hers up (and she received a citation). Each cache found was confiscated and hauled to the ranger station. Each box has a sign to that effect as well as one put on the USFS bulletin board at Onion Valley trailhead. A metal sign on the Onion Valley NPS sign is needed stating this more clearly and obviously.

Law Enforcement Incidents

Citations: 7: 2 dog; 1 dog off leash; 2 fire (1 via Pilewski); 1 no permit; 1 food cache/Supt. Condition

Warnings: 140: (camping on meadow; washing in stream/lake; camped too close to water; food storage; no permit (but not yet camped).

SAR: Medivacs: 2 (1 stockevac: “exhaustion”; 1 due to fall from horse: CHP 40)
Searches/Assist: 5 (4 separated party; 1 SAR at Bench Lake area).

Fires: None

Ranger Station:

The station is in good structural shape. The new roof weathered the winter very well and there were no attempts to break in by bears since closing down last fall. The windows are the only part of the cabin needing attention. They really need to be totally replaced. The suggestion has been made that new caulking is necessary. This won’t do much for their overall efficiency and is a really low priority. There are ½” gaps in most all the windows where they meet the casements, none of them are counterweighted and none is able to be locked very securely. Everything else is in good shape: solar, outside paint, roof, interior structure. A new pit toilet was dug in a flurry of flying dirt by the dynamic team of Deb Brenchley & Evan Norwil, with Durkee leaning on a shovel from above and giving cogent advice.

The Snow Survey shed is badly in need of shingle repair from bear and weather damage. Also, there are huge gaps in the structure that allow Douglas squirrels access as well as, potentially, other squirrels. This is not a huge problem, but I’m afraid that, rather than fix the gaps, the snow survey will just put out rat poison with the potential to kill not only the squirrels but any animals that prey on them. This is what they’ve done in the past and are still doing in the Kern despite repeated warnings. Erika sent them a memo recently making it absolutely clear that rodent poison will not be allowed in NPS cabins.

Wilderness Protection

Maintenance needs: the trail from the Bullfrog Junction to the top of the switchbacks is badly in need of repair. New walls, waterbars and better tread need to be worked on. Erosion is increasing and sections do not appear to be safe for stock traffic because of the danger of some waterbars giving away under their weight. The drift fence at Charlotte is also in bad shape and needs a full replacement. Posts are rotting, wire is stapled directly onto about 10 green trees; wire is being enveloped by growing trees and maintenance is becoming increasingly difficult. As such, it's less able to protect Charlotte Meadow effectively and there have been several instances where a very few animals have gotten around the fence and tracked onto the fragile sphagnum mosses of the meadow. These tracks persist for at least > 5 years.

Meadow Management

Over the last decade, opening dates for meadows have quite often been delayed because of still-wet meadows. This seems to happen often enough that, for the benefit of pack stations, an additional data set might be considered and tested. I suggest that temperatures and precip following the May snow survey be factored in and tested against known years to see if it would be predictive. Average weekly temperatures at 10,000 feet less than, say, 40 deg. and xx number of days of precip might be useful for packers to have a better idea to schedule trips.

Corie and I discussed a possible fence combination in Upper Bubbs that might reduce impact on the more fragile and open alpine meadows towards Center Creek. When the now-closed Upper Bubbs meadow was open, stock users tended to camp between the two fences (the lower one at Vidette is now removed). Now, though, they may camp at about the 10,000 ft. line and push their animals above the fence about ¼ mile above that camp. In past years, I have often walked off-trail in the meadows on both sides of Bubbs Creek from Center Creek down to the upper fence. These are a series of stringer and pocket meadows that are outstanding examples of pristine short-haired alpine meadows. Previously, there would be no sign of stock in those meadows – especially on the west side of the creek. For the most part, stock disperse enough over these meadows so there is no concentration of grazing impacts – ie removal of grasses. Such use is likely well within current stock management grazing guidelines. However, these formerly pristine meadows now show tracks and manure throughout. This is, of course, perfectly within policy but if there's an alternative that allows use and grazing in less open areas, then that ought to be considered to preserve the pristine character of these otherwise unused meadows.

Ideally, stock could be kept in the more wooded and drier areas immediately above the closed Bubbs meadow (Coffee Pot Meadow) up to maybe ½ mile beyond the current fence. This would give stock users about 1.5 miles of grazing as well as make it easier for them to find and gather their stock in a small area. The forage available in this area would be adequate to the use level it's received over the years. See Map 1.

Consider New Approach To Human and Stock Impact for Wilderness Stewardship Plan

We should use the opportunity afforded by the Wilderness Stewardship Plan to consider an entirely new way of determining the true impact of both hikers and visitors on stock-supported trips.

Currently, we manage the relative impact of stock and humans very differently. Paradoxically, considering the purpose of Wilderness to “provide for the enjoyment” of *human* visitors, we are effectively treating stock as a user group with all the rights of humans. If a human digs a hole in

a meadow or picks flowers, that person can be cited. If a horse eats those same flowers or creates a long-lasting roll pit in a meadow, it's an accepted part of our stock management policy.

Meadow management for stock use is inconsistent in that it is the only resource in a National Park that is managed on a sustained yield philosophy as the USFS might do with timber or grazing allotments. Meadows are not managed and preserved for their aesthetic qualities for all park visitors. Instead, policy is to control grazing based on a seasonal removal of grasses based, partly, on that meadow's ability to recover the following season and the possible impact on species composition over the long-term. True, a meadow's aesthetics (sight, sound, smell)¹ benefit as a result of grazing restrictions, but it is not the primary management reason for either monitoring or subsequent restrictions.

We need to develop a management policy that recognizes the potentially major differences in impacts and the very reason stock is allowed in the first place: as a way to bring visitors into their National Park and Wilderness. Stock can be justified in a National Park Wilderness only to the extent that the animals further Wilderness qualities: either by supporting the maintenance of wilderness trails or facilities or by allowing visitors to experience Wilderness by being transported into it by stock. For decades, we have been caught in a loop where stock numbers essentially justify themselves, independent of how they contribute to the Wilderness enjoyment of visitors.

To a certain extent, the Minimum Tool Policy deals with NPS use of stock in Wilderness. For stock-supported visitors, though, what is the relative ecological footprint of a single hiker vs. that of a single stock-supported visitor? The basic idea, of course, is that each is allowed and encouraged to visit their National Park, but each has a significantly different impact that needs to be examined and quantified so that a carrying capacity can be developed. At the very least, we need to get a true picture of the ecological impact of a foot-only visitor vs. a stock-supported visitor. To do this, we need to quantify the total ecological impact of both human visitors and stock.

Using existing data and techniques, it is possible that something like an Ecological Footprint Constant can be developed to represent the relative impact of one hiker on the land. The same can then be done for a single stock animal. Variables to compare might be:

- Manure/feces per day; estimate how much is within, say, 100 feet of water. Quantities (in weight) for both human and stock per day can pretty easily be estimated. We have good data on where both people and stock go, where they camp, how long they stay in the Wilderness, and the trails they travel.
 - Giardia or cryptosporidium deposited as a percentage of that total (work done on Yosemite's Glen Aulin trail by Atwill of UCD has measured manure weight per unit distance as well as the percent of stock that carry human-transmissible

¹ Sight: a meadow allowed to go through an entire growth cycle, from green shoots to bronzed flowers in the fall; Sound: the susurruration of grasses in a breeze, the nesting of various birds in tall grasses and their associated sounds; Smell: the fresh smell of a meadow throughout the seasons, uncontaminated by the smells of horse manure or urine.

pathogens). The same estimates are possible for humans based on public health data.²

- Nitrates and phosphorous runoff as a result of manure and feces within X distance of water sources. Are either or both taken up by vegetation, held in soil or do they run directly into water sources and from what distance?
 - Compare relative abundance of nitrate/phosphorous indicators (algal growth) in lakes with human only vs. stock/human lakes. It's also quite possible that data on Wilderness lakes for those elements exist from previous studies. Anecdotal evidence suggests that higher algal blooms occur where there's a higher concentration of stock use. It is rare to see such algal blooms in pristine or most hiker-only lakes.
- Impact zones of stock camps vs. backpacker-only camps can be derived from the recent campsite inventory. Total square footage of each, where known, as well as other factors like social trails, vegetation percentage can be used.
- Mechanical impact of each: it might be possible to survey and quantify hiker-only social trails, sitting spots, stream bank erosion from stream crossings and compare to stock-caused roll pits, stream bank erosion and trails generated when stock is released to graze.
- Removal of vegetation by each user group: historical citations and anecdotal data from wilderness rangers can quantify flowers picked, branches cut or even grass removed for beds (a rare thing nowadays, but does still happen). This would be compared to the well-established biomass transects for meadows, which would be the base data for estimates of totals throughout all meadows of the parks.

This and other data might be combined to create a Wilderness User Constant for one individual on foot. Assuming the data shows that stock has a greater ecological impact, a number representing stock impact would be a multiplier of this Constant. Next, park user data would show how many visitors require how many stock and human packers per trip. Experience suggests at least two animals and one additional person (packer) per stock-supported trip per visitor. So, as a possible example, if a single animal is determined to have (purely for example) 10 times the impact of a single human, then a person on a stock supported trip (requiring 2 animals and one additional person) could have about 21 times the impact as a single person.

Finally, it is equally important that a Wilderness Stewardship Plan make a stronger statement on the importance of aesthetics as a Wilderness quality and how impacts from both hikers and stock supported visitors affect those qualities. Mitigations need to be examined for both user groups either to support existing carrying capacities or to show a need to determine new carrying capacities based on the above and other data.

Perhaps there are other approaches that accomplish the same thing. It is critical, though, that stock management be tied directly to how animals further Wilderness values and to what extent that contribution justifies the associated impacts.

² (b) (6) [Yosemite Packstock and Microbial Water Quality Project](#), 2001 – 2004. NPS Investigator Annual Reports at: <https://science.nature.nps.gov/research/ac/search/iars/larSearch>

IBP/Concession contacts & comments

All IBP & Concession groups had their permit compliance confirmation with them, as well as required ID. Pine Creek Pack Station (Onion Valley) was in and out of the Charlotte area regularly and did a good job with all their drop-offs and getting garbage out.

Bear incidents

For at least the 2nd year in a row, I know of no bear/human food incidents in the area. The use of bear canisters and bear boxes continues to be an outstanding success. For about the last 4 years or so, bears have not been routinely checking campsites as part of their normal foraging pattern. They may now wander through occasionally, but it now seems more random rather than intentional. They are definitely no longer specifically seeking out human's food. Although I think we can get rid of several bear boxes in the Kearsarge/Bubbs Creek area, we should continue to make them available. A significant number of hikers are unable to fit all their food in their canisters on days #1 and, occasionally, #2 of their hikes – especially JMT hikers getting a resupply. If these people end up hanging their food, there's no question bears will once again return to campsites as a significant source of food.

Wildlife Observations

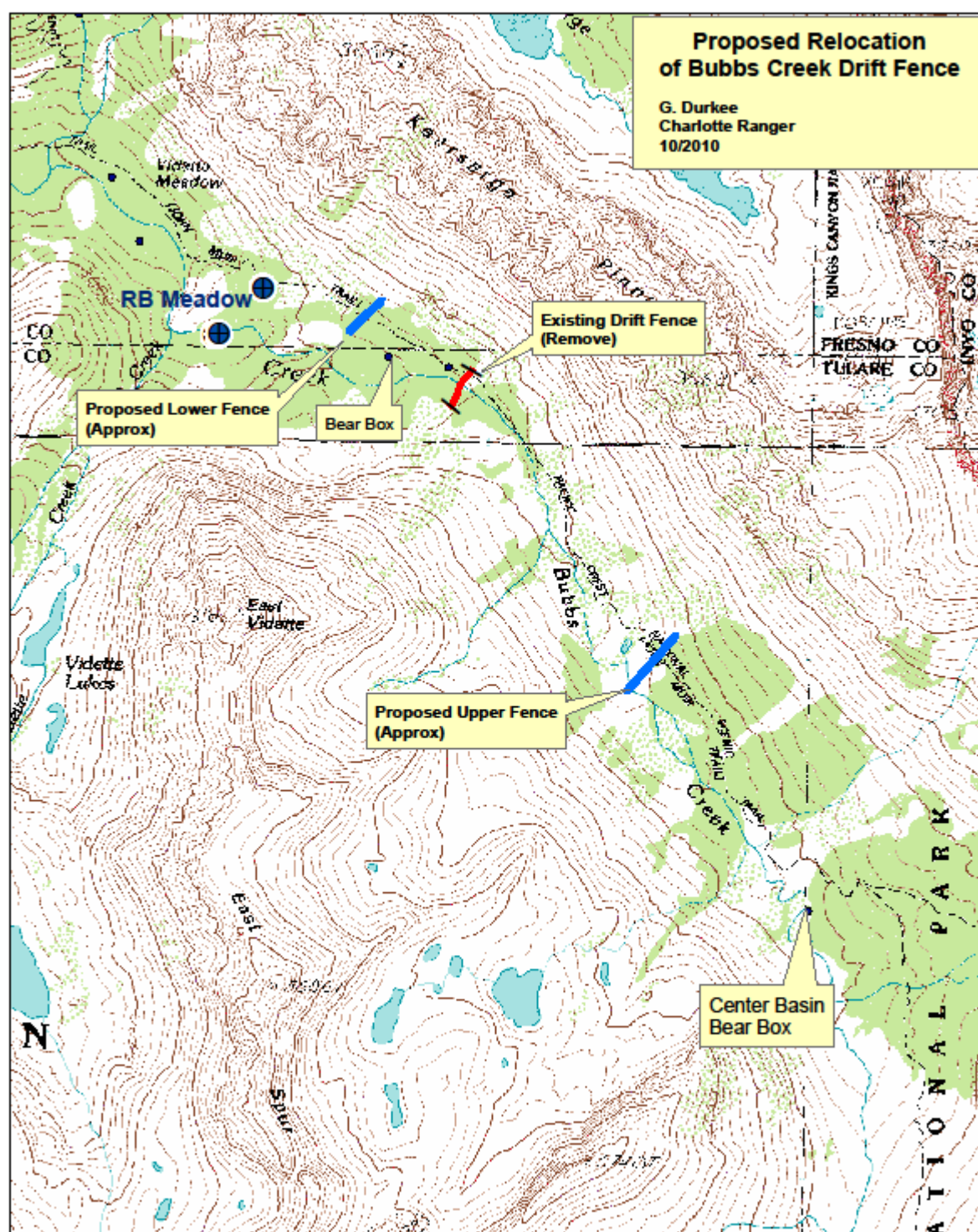
A good year for Douglas Squirrels. Lots of them around this year compared to what seemed a low population 3+ years ago. There seemed to be a number of Whitebark and Lodgepole where small branches (approx. 2" to 5") were stripped of their bark and huge numbers of dead needles and small branches littered the area at the base of the tree. It's not clear what's going on, but I suspect the Douglas Squirrel – possibly low on food because of the very late spring and eating the cambium layer of twigs?? Pikas also seem to be in the same elevation habitat and numbers that I've observed in this area for the past several decades. However, the cone crop for this year seems seriously delayed. As of late September, very few cones are being cut on Lodgepole, Whitebark or Foxtail.

The yellow-legged frog populations at the small ponds near Wheelbarrow Camp (11,200 on JMT) are doing very well with no sign of Chytrid. The same is true of the very small population at the shallow ponds above the Kearsarge high trail I found 2 years ago. Both are very isolated but seem to have been stable for decades, with no nearby populations to repopulate should they crash – another sign of their relative stability and luck... .

Recommendations

1. Work with PCT Association to make sure long distance PCT hikers receive the regulation sheet specific to each area they're going through – especially Yosemite and Sequoia Kings. A strongly worded cover letter on their responsibility to follow those rules wouldn't be a bad idea.
2. The Charlotte drift fence absolutely has to be entirely replaced. There's still about 10 trees where the fence is stapled directly to the tree and wire growing into it. The pole gate rotted and collapsed this year, a number of posts have to be dug as well as broken ones replaced. It'll take a crew of 4 about four or five days as well as several rolls of brand new wire – total replacement: not stitched together again.

3. Remove Upper Bubbs drift fence and replace with two: one within $\frac{1}{2}$ mile south of the current one; a second one about $\frac{3}{4}$ mile north. This would protect the stringers and pocket meadows going upstream to the Center Creek area which are now receiving stock impacts (See Map).



Consumables On Hand & Needed: Charlotte for 2011

Left at station:

- 1 120v battery recharger
- 1 radio battery; 2 clam shells
- 1 doz each AAA & AA batteries
- 2 light sleeping bags
- 1 large tent (Knaack Box)
- 1 Thermarest (Knaack Box)
- $\frac{3}{4}$ + tank propane
- 2 Gal White gas
- 2 containers (BBQ) fire starter
- **Two empty propane tanks in right hand walk-in at Hole in the Wall
- 1 box & 1 plastic tub food (approx 1 week)
- 5 Propane canisters
- 3 Toilet Paper
- 2 National Geographic SEKI maps
- Assorted hiking guides, wildlife guides, Sierra Nevada Natural History
- Dishes & pans etc good

Need:

- 2 canvas or other chairs
- Map quads (2 each)
 - Mt. Clarence King
 - Kearsarge Peak
 - Mt. Williamson
 - Mt. Brewer

- 2 Tanks propane
- 10 Burlap bags
- 20 large plastic trash bags
- 5 paper towels
- 15 TP

Books:

- Place Names of the Sierra
- Probably need 20+ presto logs, depending on what snow survey left
- Another box of quick light $\frac{1}{2}$ rounds from Amazon



2010 END OF SEASON REPORT HOCKETT MEADOW RANGER STATION

A. GENERAL SUMMARY

I arrived on foot, at Hockett on Saturday June 26, with VIP Don McDonald. We had attempted to ride our stock in on Thursday, but snow and high water creek crossings finally turned us around at the junction of Tar Gap and Atwell trails. We spent Friday, June 25th at Atwell and conducted a 3 hour stock safety session with Karl Pierson and his MK ranger staff of 5. On Saturday, park packer Sonny Ward rode with Don and I to Corner Creek and dropped us off where we put on our packs and began our hike in the snow. He returned our stock to the Atwell corrals.

Snow drifts were on average about 2 to 3 foot deep. There were some places on the trail that allowed us to bypass the deep areas but mostly we just trudged on with our hiking poles. The drift at Horse Creek's south bank was almost 5 foot, requiring us to shovel steps into the drift in order for us to climb up and out of the creek. Hiking is not a routine event for Don or I and hiking in the snow was a first for both of us. We agreed early on that some day we would laugh about this.

When we arrived at the station, Hockett Meadow was almost a lake, water visibly standing over nearly half of the meadow, mostly on the west side. The cabin and tack shed were clean and in good shape, some bagged garbage and trash hanging on the walls. One bag of garbage was on the window frame and mice were able to get a small hole started. Not too big of a mess yet. Preparing the station for the season, turning on the utilities; gas, water and electric, went without a hitch.

During the next week and a half, Don and I hiked around to the various meadows and camp sites and determined that opening dates for the Hockett Plateau would be delayed until July 13. Use of the stock camps by stock users would require the packing in of feed. We then hiked out to Atwell on July 3rd for lieu days and returned with our saddle horses and two mules on the 8th, packing some supplies for us and pellets for the stock. We went back out on the 10th, returning on the 11th with more feed and

supplies. We supplemented our stock while we were on patrol by allowing them to graze an hour or so on the trails edge, or up in dry slopes off trail.

Opening dates were delayed several times, with most meadows opened on July 28th. Visitor use, both hikers and stock group numbers were down from previous seasons. Overall the summer was a relatively quiet one, and as an example, there was one seven day period when Don was out (with his wife at the coast) that I saw absolutely nobody. I had traveled everywhere on the plateau, even to Quinn and back and didn't see a soul. And that brings us to.....

B. VISITOR SERVICES

a. Contacts

- i. 153 Backpackers
- ii. 44 Day Hikers (3 to Hockett, the remainder on the trail between Deer Creek and Atwell)
- iii. 25 NPS and USGS
- iv. 12 NPS with 25 head of stock, 15 private stock users with 20 head of stock. Commercial stock use (all Balch Park) consisted of 5 spot trips, and two full service trips. The spot trips were in and out, the two full service trips involved 16 people and 27 head of stock.

b. Law Enforcement

Several contacts made regarding food storage problems, both involving Balch Park Pack station. One contact for tying stock to trees.

c. Citations

None

d. Search, Rescue, Medical incidents

There was one event where I was contacted at Atwell by the supervisor of a SCA volunteer worker. She was complaining of a pulled muscle in her neck and shoulder area that limited her range of motion. The supervisor and volunteer drove to KDDH in Visalia and they returned to Atwell several hours later. She was given a muscle relaxant. The following week the same volunteer, complained of severe stomach pain on her lower stomach right side and was in and out of consciousness. MK rangers responded to the location (half mile past the east fork bridge. She was littered out, transported by ambulance, and again returned several hours later, doctors not able to find anything wrong. Her parents sent a plane ticket for her to return home.

e. Fatalities

None

f. Weather

It was a mild summer, only a day or two of light rain, some hail, and a lightning strike near the station. No fire or injuries.

g. Fires

A fire burning in the forest near Maggie Peak, and the Tehachapi fire caused some smoke and ash for several days in July.

B. USE PATTERNS

- a. Backpackers: Use was mixed, the majority using Hockett as their destination and then taking day hikes. At least 20 traveled from MK over Farewell and then up Wet Meadow, thru Hockett and back out to MK via Tar Gap, or the other way around. Several attempted the route from Hockett to Wet Mdw. and had difficulty with the trails in Wet Meadow and returned to Hockett. One of those groups doing the loop was a B.S.A group of 9 from Pennsylvania. The other half of their group on a separate permit, gave up at the Broder Cabin site, and returned to MK, and awaited the return of the successful group. Nice bunch of kids and adults. The troop conducted a flag raising ceremony at the station before leaving. After So.Fork Mdw was closed to grazing there was some use by backpackers at the campsite.

One spot trip by Balch Park was to the lower So Fork Crossing camp, one of the first times I had seen a large group there, (8) ladies. There was a food storage problem here, more details in camp areas section.

- b. Stock: Just a few private groups, and I believe there was at least one maybe two groups I missed while on the military trip. Two of the the private groups travelled with approved bear proof panniers. The other group did not but used a campsite with a bear box. This group was counseled on tying to trees, when there is a beautiful hitch rail to use. I provided them with a shovel and rake to rehab the dishes around 3 trees.

The opening of So. Fork Meadow for 70 nights of grazing went well. I posted signs at strategic locations announcing the opening, and explaining the formula used to calculate stock nights. Just as important when the meadow was closed (just 10 days after opening) the announcements to the forrest service stations were duly noted, and there was no group entering the park from the forrest with a permit for grazing at So. Fork Meadow.

- c. Administrative: The trail crew was delayed arriving at the Hockett, until July 13th. When they did arrive, Nick the packer brought the crew and their equipment, fed hay, and then left the next am. This worked for about 8 days. We then moved his stock in the evenings to the ridge above the station and to the west. This is the area that the stock always end up in the morning when they are turned out in the meadow the evening before. Nick was good about going up and catching them in the morning before the stock returned to the wet meadow on their own.

From Hockett the crew moved to Slims. Erik Frenzel and I had looked at the meadow and determined that the south end still had standing water. If we could exclude the stock from that area, with an electric fence the remainder of the meadow should be able to be grazed by 28th. While they were there I checked the meadow and method of enclosure, and after the crew left I inspected the meadow again. I saw some impact in the form of deep hoof prints, and some bank shearing from stock crossing. All in all the vegetation looked better than in years past. I have heard that Sylvia has looked at the meadow and feels that we may have opened it too early.

On a more positive note, It was great to have the Superintendent, Chief Ranger, and Chief of Maintenance ride with me from Atwell to Hockett and spend the night at the station. We had a good visit that evening, and the next morning I rode with them to South Fork Crossing, and they continued on to South Fork Campground in Three Rivers.

C. NATURAL RESOURCES

- a. Bear Activity: Lots of bear tracks and scat, but no sightings until mid July. Don and I were rehabbing camps on Touhy and So. Fork Crossings and saw a pair of large ones, one eating something and the other wanting to, but being chased away. After I put my camera away, Don saw what was being eaten, a pretty good size deer.
- b. Wildlife: Lots of deer all season, all shapes and sizes. Took photos of the herd, several large bucks, and a handful of fawns, several just minutes old. This year we saw and heard more coyote's than ever before. They were in the tree lines, behind the station, in the vacant trail crew camp. Once I saw one on top of the large pyramid rock at the lower end of the meadow, in the classic pose, baying at the sky, and his friends responding. By the time I could get my camera, he had jumped off the rock and crossing the meadow.
- c. Vegetation: The wet conditions all summer provided an abundance of wildflowers. The moist areas of the trails and meadows were a carpet of Shooting Stars.

D. CULTURAL RESOURCES

- a. Prehistoric sites: no new sites found, existing know sites were checked. Historic Sites: The Quinn Cabin is need of immediate attention. The south sill logs are rotting as well as the logs that serve as steps. Fortunately I hear that Thor will be at Hockett all next summer, making repairs at the Ranger Station and Quinn. The remains of the old Hockett ranger cabin in

the pasture are still there. I have spoken with Ward Eldridge about several reports I found in the station library. The reports are completed by calvary/army troops dated 1896. They write of their patrols, and often the troops rode from Summit Meadow to Tule lake, looking for ranchers grazing their livestock on park lands. The problem is that there is no Tule Lake in the Hockett area. One can ride from Summit Meadow east to Summit Lake, and thats about it. So the question posed to Ward is, did Summit have another name in the late 1800's? He would check his old maps, and suggested that Bill Tweed may be a source of information.

E. BACKCOUNTRY FACILITIES

- a. RANGER STATION: The station is in pretty good repair. It is nearly 80 years old, and does require a little attention . The walls on the east and west are settling causing the cabinets to pull away from the ceiling. The doors to the two bedrooms now do not shut because the door frames are no longer square. Some of the paneling on the kitchen walls are buckling. But again I hear Thor will be targeting the station and the Quinn cabin next summer.

The outhouse at Hockett seemed to survive the heavy use of last year. The high water may have helped in composting the waste. It looks like it will hold up for another season.

The water and solar system worked flawlessly all season. The average charge of the batteries was almost always at 14 volts. The hand pump still works in spite of its age. The pump was loosened at the flange on the countertop with the leather flapper gasket left in place. The handle was taped, and a tag attached, indicating the pump was not connected to the well. There are 3 drawers immediately below the pump and to the right of the sink. The top drawer is like most homes, it contains small hand tools, hinges, tape measure etc. The second contains lids for the pots and pans hanging above the sink and in the cabinet to the left of the sink. The bottom drawer has only two p-traps and a small cardboard box containing 3 new leather flapper gaskets for the pump. They should be in a safe, as they are the last ever made, or at least to be found in captivity.

- b. SIGNS: Still in need of a sign at Summit Lake. The verbiage and mileage is in my end of season report from 2007 or 2008. If the decision is made to open SF Meadow next year for a specific period of time, the signs that proclaim it's closure either need to be removed or covered until such time as the meadow closes. This year Steve in the sign shop provided me with a contact paper, writable surface on one side, and stickum on the other. He assured me that the tape would easily come off. It didn't. I presented the problem to Marci in the sign shop since Steve has retired. She will come up with a simpler solution next year for us to use. The alternative is to travel to the 6 signs located at the entrances to the park and remove

them. They are attached to the square tubing posts with a 2 1/2" strap and two 7/16 nuts that attach to the bolts fastened to the back of the sign. A simple procedure, except traveling to the signs would take at least two days. Then when the meadow closes replace the signs. Much easier to just tape over a closure sign, then peel it off when needed.

F TRAILS

- a. Trails remain in good condition throughout the area. Still a concern about the slick rock area at both ends of Deer Creek. Shoes and hooves are wet when stock travel over them, and they tend to slip a bit. On another note Don and I rode out once, and returned several days later, only to find a stock stopper log across the trail about a mile past East Fork Bridge. It took us about an hour to get our stock around this dangerous spot. The trail crew were up on Paradise Ridge, dropped down to Atwell and hiked up to the spot and took out the offending tree. Thanks guys.

The bridge known as Slims crossing still needs a few new planks to replace the piece of plywood covering a very wide gap between planks. The stock sometimes spook or shy at the piece of plywood in the middle of the bridge.

G. CAMP AREAS

- a. Conditions: Most camp areas are in good condition at the end of the season. Early in the season we patrolled to Summit Lake and could not find a single fire ring! The hitch rails were intact and there had been no grazing. We went on to SF crossing and took out a volcano there.
- b. Fire rings: We rehabbed 28 fire rings and obliterated 4 during the summer. That one at HorseCreek near the west side of the trail and close to the water returned again this summer. Billy Hancock saw it and extended a culvert directly to the spot after Don and I had obliterated the pit. See if it comes back next season.
- c. Sanitation: The aforementioned outhouse at the station should be good for next year surprisingly enough. The only camp that had a good deal of use was Rock Camp at SF Meadow, and the resulting TP roses were in huge bloom. Billy reports that the outhouse at Quinn needs some attention and he will try to get Thor the details of what is needed there. In the early season we hiked to Cahoon and inspected the pit toilets along the way. While they were in good shape after the winter, we discovered a 4 foot fire ring about 10 feet from one of the toilets. We removed it and just 3 weeks later we found a group of 7 camped there, having built a new fire ring.

Why? They thought there was always a fire ring there they said. They removed it when asked.

- d. Firewood Availability: Plentiful at all of the camps
- e. Food Storage: Most backpackers carried canisters. Almost all the stock camps have NPS bear boxes, the exceptions being the camps at SF Crossing and near Touhy creek. While on the subject of food storage I would like to note two events involving Balch Park Pack station. On July 22, Erick Frenzel called me on the radio and advised that he was at Rock Camp checking meadow conditions and found food and garbage scattered in the camp area near the bear box. I knew that a spot trip consisting of Donna Luellen of Lindsay and her family had been camped at Rock Camp for approximately a week and were scheduled to depart today. Erick said that he could gather the garbage up and put it in the bear box. He also took photographs. I knew that Nick Shew the son of Balch Park Pack Station owner Tim Shew had packed out the Luellen s. In the past I have observed that Tim would sometimes leave items behind that he thought could be used by other visitors. Things like cardboard boxes that could be used for kindling, or a full bag of BBQ briquets. I had mentioned this to Tim last year or perhaps the year before. After Erick reported his findings I had the wilderness office call the pack station. The office was told by a female that they would take care of the matter. They were told that the garbage would be in the bear box at Rock Camp. I knew that the pack station was coming in on Sunday the 25th of July to pack out a party (MacArthur) camped at Hidden Camp. Mr. MacArther advised that he had gone to Rock Camp to see if he could perhaps store the garbage in the bear box at his camp. The box was full of ants and he did not want to co-mingle the garbage with his food. He said he would remind the packer of the garbage at Rock Camp. Later on the 25 while on our way to Summit Lake, we found that the garbage had not been picked up. I asked the wilderness office to call and see what happened and why it was left behind. Leslie reported a short time later that the person she spoke with was not very pleased to be discussing the matter and was rather short with her.

From Summit Lake I called the pack station and spoke with Tim Shew. He advised that the garbage would have been scavenged up by animals in a few days, and that the permittee may have some responsibility for leaving the garbage out. He said that he would be in on Sunday, the 1st of August to pick it up. That was to long to leave the garbage in the bear box, so on the way back to Hockett from Summit Lake I stopped at Rock Camp, picked up the garbage and hauled it out on Saturday, the 31st of July.

On August 7th I was visiting a stock group at Rock Camp and Tim Shew rode into camp with several guests of his. He advised that he would be

camping at Hidden on thursday the 12th of August. I told him that the Park Superintendent, the Chief Ranger, and the Chief of Maintenance would be at Hockett Station and traveling around the campsites. On the morning of the 13th, I rode with the Superintendent, the Chief Ranger, and the Chief of Maintenance. We rode past Hockett Lakes and then down to the crossing of So. Fork River. A rather large group was camped at the site above the river. I bid the management team farewell as they continued on their ride out to Three Rivers and I contacted the campers. They were a spot trip, (Stienberg party of 8 from Coarsgold). They had several bear proof containers that I recognized as Balch Park's. They confirmed that they had been packed in by Nick Shew, and were not able to go to Rock Camp for one reason or another, and they were brought here, I observed two 48 quart ice chests in the camp kitchen area. The camp was very neat and organized. They confirmed that they took day hikes leaving the camp unattended. I advised them of the proper food storage procedures. Ms. Stienberg said that she had asked Nick the packer if they would have a chance to see the ranger and she said that his response was that "he never comes over in this area." Well he does and he did, and they just barely missed having the park senior staff members observe the violation.

On the morning of the 13th, the following day, I contacted Tim Shew at Hidden Camp and told him of my observations. He advised that Diane his wife had written the permit for Rock Camp, so the food could be stored in the bear box there, but something got changed and the party was spotted at SF Crossing. He felt that the park needed to put a bear box at that camp, and that he is trying to purchase enough bear proof dry boxes and ice chest boxes.

- f. Resource Project: When Don and I arrived at the beginning of the season we observed that the food storage cable at Horse Creek was down. One of the anchor trees had fallen during the winter, tearing the system apart. Don and I were able to effect repairs and attach the cable to a nearby tree. The only downside is that the old and down tree is pretty close to the base of the new anchor tree. I suppose a bear could climb up on the down tree and almost reach the cable. I spoke with Billy about the possibility of next year to cut about 6 feet off the base of the tree and roll it away from the anchor tree. He thinks they can do it.

- g. Permit System: NPS permits from MK were complete, but at least once a party commented to me that they had asked about water crossings and were told that they did not have that information. This in spite of repeated trail condition updates reporting water crossing conditions. While not an issue this year, I would still like to see MK RS notify the Hockett station of a large group or a stock group heading in that direction.

There were no permits issued by Forrest Service Ranger Stations for a closed meadow this year.

I. COMMUNICATIONS

(b) (7)(E), (b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

J. NEEDS FOR NEXT YEAR

Several spools of high tensile wire would be great. The current fence wire is pretty rusty and snaps in two with very little strain. We replaced one strand on the south pasture fence run with wire we found in the tack shed and it would help if the other strands could be replaced as well. It is my understanding that Thor will be at Hockett next summer, and if that is the case perhaps he or the trail crew could cut up some five foot fence posts, 5 inches round to replace the rotted posts in place along the south pasture fence line.

K. RECOMMENDATIONS

Included in the photographs submitted this year, are several photos that depict how to put up the flag pole, and how to route the coleman shower head. Use those to get an understanding of how to make them work. I did leave a flag at the station, it would be great if it was used next season. The shower works pretty good and beats jumping into the creek. Sylvia took a photo or two of Don and I dismantling the foot valve out of the well. It should give you and idea of how to put it back up in the spring. The Solar panel is in the east bedroom closet, and the well foot valve is a 5 foot long piece of white PVC with a 6 inch spring on one end, located on the north wall of the tack shed.

L. PERTINENT INVENTORY.

- One bag of alfalfa pellets
- One bag of oats with molasses
- One bag of COB(dry)

- 3 large propane tanks full
- 1 large propane tank used for approximately one and a half weeks.
- 7 rolls of TP
- 5 packs of PT
- 3 packs of sponges with scrub sides
- Plenty of pots and pans, cooking utensils, forks knives and spoons. There is 3 or 4 good size butcher type knives. 4 or 5 more steak knives would be helpful. Plenty of plates, saucers, platters, a strainer, and a few mixing bowls.

As in years past, I have always thanked my peers, and supervisors, for giving me the opportunity to work in such a beautiful place, and this year is no different. I have told many of you of the times when sitting on the porch of the Hockett in the evening, pondering why I am there, when someone hikes in from the trees, views the meadow and the cabin, looks at me and says, "wow, how does a person get a job like this?" So thanks to all of you for allowing me to enjoy the experience "of a job like this" It has been a genuine pleasure working for and with all of you.

Joe Ventura
Hockett Meadow Ranger

**Kern Sub-District
Kern Ranger Station
End of Season Report**



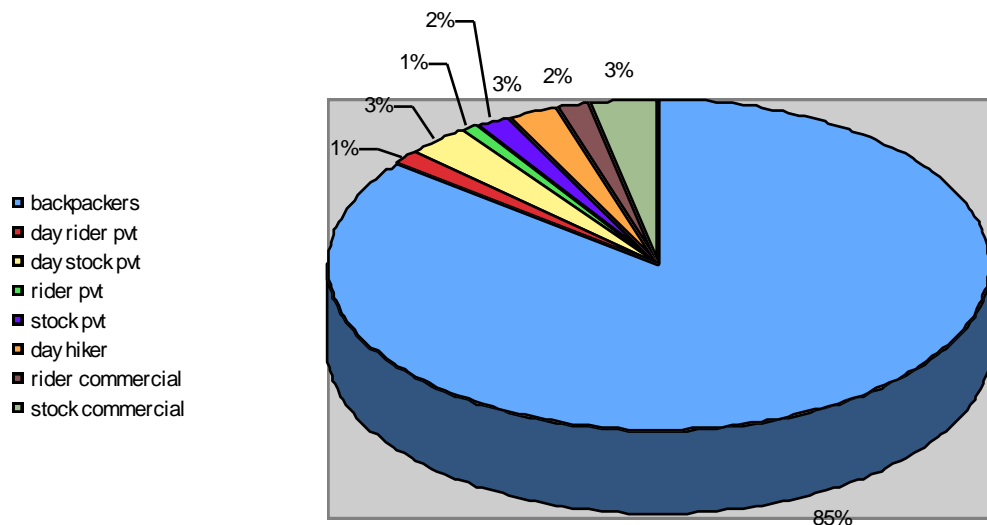
**Jessica Chacon Miles
2010**

A. Visitor Services

a. Contacts

It is absolutely amazing how different each season can be from one to the next. This season has been of no exception. In hopes increasing the effectiveness of the Kern ranger I spent the majority of my time based out of the Hot Springs. This area sees the most visitor traffic within my patrol area. Thus allowing me to increase my visitor contacts and educational opportunities. Overall, I feel that this move was very effective. Additionally, I spent a fair amount of my season roving around my patrol area as well as exploring various other areas where my patrol area overlapped with others. As a result I did not feel that the total number of contacts would fairly represent the amount of visitor contacts made within the Kern canyon. Below is a chart that depicts my overall visitation numbers, regardless of where I made the contact. Further listed below are the actual numbers broke down by area and type of user. My intent was to satisfy my curiosity as to how many people really do end up traveling through the Kern Canyon.

Visitor Distribution



Visitor Contacts

Backpackers

	June	July	August	September	TOTALS
Kern Canyon	0	23	113	27	163
JMT/PCT	22	0	160	52	234
Bench Lake	0	112	0	0	112
TOTALS	22	135	273	79	509

Day Riders Private

	June	July	August	September	TOTALS
Kern Canyon	0	6	0	2	8
JMT/PCT	0	0	0	0	0
Bench Lake	0	0	0	0	0
TOTALS	0	6	0	2	8

Day Stock Private

	June	July	August	September	TOTALS
Kern Canyon	0	16	0	2	18
JMT/PCT	0	0	0	0	0
Bench Lake	0	0	0	0	0
TOTALS	0	16	0	2	18

Riders (private)

	June	July	August	September	TOTALS
Kern Canyon	0	0	4	0	4
JMT/PCT	0	0	0	0	0
Bench Lake	0	0	0	0	0
TOTALS	0	0	4	0	4

Stock (private)

	June	July	August	September	TOTALS
Kern Canyon	0	0	10	0	10
JMT/PCT	0	0	0	0	0
Bench Lake	0	0	0	0	0
TOTALS	0	0	10	0	10

Day hikers

	June	July	August	September	TOTALS
Kern Canyon	0	10	6	0	16
JMT/PCT	0	0	0	0	0
Bench Lake	0	0	0	0	0
TOTALS	0	10	6	0	16

Riders (commercial)

	June	July	August	September	TOTALS
Kern Canyon	0	0	0	1	1
JMT/PCT	0	0	8	0	8
Bench Lake	0	0	0	0	0
TOTALS	0	0	8	1	9

Stock (commercial)

	June	July	August	September	TOTALS
Kern Canyon	0	0	0	4	4
JMT/PCT	0	0	16	0	16
Bench Lake	0	0	0	0	0
TOTALS	0	0	16	4	20

b. Law Enforcement

N/A

c. Citations

None issued. Contacted an individual who did not have a permit, I retrieved the necessary information and passed it along to my supervisor.

d. Search, Rescue, Medical Incidents

Other than a few minor medicals I did not have any individuals in dire need. Additionally, there were no SAR's within my patrol area. Near the end of the season there was a report of an almost overdue hiker in the Forrester Lake area (Rattlesnake Canyon). Fortunately the individual showed up at the Mineral King Ranger Station prior to initializing ground searching.

e. Fatalities

N/A

f. Weather

Temperatures were slightly cooler this season. During the month of July monsoonal flow persisted over the area for several weeks. This resulted in ample lightning activity along the rim of the Kern Canyon; accompanying this was a fair amount of moisture to the valley floor. By late summer the temperature extremes continued to bounce all over the place. It seemed as though there was a low-pressure system over the area every other week. In early September a cooling trend persisted over the area bringing a dusting of snow down to 9000'. A few hikers reported seeing a few snowflakes at Junction Meadow (elevation 8000').

g. Fires (natural, human caused not campfires)

Thankfully there were no fires within my patrol area, however there were significant smoke impacts early and late season. The fires early season were quite a ways south of the station (Forest Service) and the late season fire of significance was the Sheep fire (Kings Canyon). Smoke from this fire infiltrated my entire patrol area. In general, the smoke impact was mild in the lower reaches of the canyon and increased the further north one traveled.

B. Use Patterns

a. Backpackers

I don't feel as though there has been much of a shift in backpacker usage within the Kern Canyon this season. Backpackers are by far the highest use group within my areas and most are traveling on the High Sierra Trail. It seems as though the majority of use in the lower Kern (Rattlesnake Creek south to park boundary) is related directly to fishing. This pattern is very similar to last season, with the exception that the bulk of the visitation occurred about two weeks later. This is directly related to the water flow/levels of the Kern River. Interestingly enough it seemed that there were fewer people entering from the West, but this could be attributed to my lack of presence near the station area. Having spent most of my season north of Rattlesnake creek, I was able to see how consistently inconsistent folks were when camping along the HST (High Sierra Trail). I have always thought that Moraine Lake, the Hot Springs, and Junction Meadow were key camping locations for all. I was never really able to figure out what the use pattern was for the Hot Springs. Just when I thought the middle of the week was the busy time, I would only see people on the weekend.

b. Stock

Stock use within my patrol area was strange this season. Based on my observations (primarily in meadows) in Rattlesnake canyon it looked as though there was moderate to heavy use. The same can be said about Upper Funston meadow and the Maze. The majority of this use can be attributed to administrative use (trail crew). Aside from one day rider and the Backcountry Horsemen (who re-supplied the ACE crew) I came across two small private stock parties. The time that they spent in the canyon and the amount of animals does not amount to the use actually seen in the previously mentioned areas. There are several limiting factors that may be contributing to a decline in stock use: the presence of Velvet Grass (*Holcus Lanatus*) within the canyon and perhaps a continued decline in popularity of stock use.

c. Administrative

Aside from trail crew and the invasive weed crew (ACE) there was little administrative use in the Kern this season. The trail crew stayed in all the usual places for at least two weeks, with the exception of the Hot Springs (4 weeks). The ACE crew was based near the Kern ranger station. The bulk of their work was in the immediate environs as well as extending up to Lower Funston. In late August, Jeff Holmquest, surveyed meadows in Coyote creek canyon and Rattlesnake creek canyon for invertebrate species.

d. Commercial

I did not make contact with any commercial groups within my patrol area (not including Cottonwood P.S, who de-mobed my station). I did, however, receive by word of mouth (from other rangers) that there was substantive use in Rattlesnake canyon and Upper Funston early season (July). During the last week of July, Golden Trout Wilderness Pack Trains (GTWPT) conducted a spot trip into Rattlesnake creek. I unfortunately was unable to make contact with the packers, but did speak with their clients.

C. Natural Resources

a. Bear Activity

Bear activity was fairly active this season. Numerous cubs were sighted all over my patrol area. It was very enjoyable to hear the squeaks of the little ones as well as to watch mamma bear teach them good eating habits. They chose a good year, as for the meadows in my area were rich in lush vegetation. Near the end of the season I learned that bears just south of park boundary (Kern Lake) were getting rewarded for bad behavior from improperly stored food. I get very discouraged when I hear of or witness such events. We work so diligently in the park to educate the public on why proper food storage is a good thing and yet there seems to be a huge disconnect in some of the adjacent lands.

b. Wildlife



As one may expect the Kern Trench is crawling with all kinds of wildlife. The avian population is outstanding! I was fortunate to catch a glimpse of the resident Bald Eagle at Lower Funston. He was perched atop a snag overlooking a bend in the river; looking for lunch I assume. While enjoying a few moments on the banks of the Kern a King Fisher hastily flew upriver; a few moments later a Sharp Shinned Hawk buzzed my head only to land in the trees across the river. What I believed to be a Northern Goshawk

was preying upon a pika in the Willow chute. Poor little pika, I hope he made it. Beaver activity in the canyon is on the rise. Early season, I could hear them rhythmically chomping on the trees. Activity seems to be greatest in the lower part of the canyon (Rattlesnake Creek south). However, activity north of here was prevalent. Finally, I caught a glimpse, during mid-day, of a mountain pocked gopher just behind the station.



c. Vegetation

This season was the first “normal” snow pack that we have had in a few years. As a result of this moisture, the meadows and associated springs were fully charged this year. Just when I thought that the grass in the meadows of the Kern



Canyon couldn't get any taller they continued to grow. Come late season it was a bit challenging to walk across the meadow. The Lewis Camp Pasture received an intensive amount of use early in the season (admin – trail crew). Due to the majority of the meadow being fairly wet, areas that were drier got visited more than last season. Thankfully the meadows down here are fairly resilient and with mid-season moisture, the meadow came back nicely.

Velvet grass is still fairly abundant in the canyon. The tarping in conjunction with late season herbicide application (2009) may be starting to show some positive results within the small pasture (in front of ranger station). Due to logistical concerns and ACE crew limitations I feel that there was less effort placed on up-canyon sites. The infestation on the east side of the Kern River at the Big Arroyo confluence is growing and is in need of attention. An additional site that was discovered late last season (south of the Rattlesnake creek confluence) is also densely infested. In the future I would hope to see a continued effort with a strong emphasis placed on up-canyon sites.

On a happier note, I've seen plant species (mostly flowers) that I've never seen in the Kern Canyon let alone species that would persist well into late summer.

Snow plants persisted on the Kern River bottom until mid-July and blue-eyed grasses peeked out at the sun for most of the summer.

Cool spring temperatures set the stage for an everlasting wild flower season.

Rattlesnake canyon meadows received a fair amount of use this season. Use was primarily concentrated to middle Rattlesnake (Hilton camp). Not knowing what the residual



biomass results will be, I would guess that this meadow might be able to handle the same amount of administrative use, but less would be preferred. Other meadows in this canyon seem to have responded well to the moisture. Lower Funston meadow was not open to grazing this year due to a continued presence of velvet grass. The lack of grazing and general use of this area is starting to show; the canyon is rapidly reclaiming the area.



Upper Funston received ample amounts of grazing this season. Thus resulting in a late season closure. The Kern Bridge meadow (the maze) has also seen intensive use this season. Fortunately this area is very resilient. It would be great if in the future we could shift use around in this area to avoid closure or long-term damage.

D. Cultural Resources

a. Prehistoric & Historic Sites

All known sites were visited during the season. The condition of each was generally the same as the previous season. One exception is degradation due to environmental conditions (i.e., decay). One site historic in nature was located in

(b) [REDACTED] This site resembled an unfinished log cabin adjacent to Rattlesnake creek (b) [REDACTED] (3) An additional site prehistoric in nature is one of which I've been looking for and in years past have not been so lucky to find. (b) (3) (B) [REDACTED]

(b) (3) (B) [REDACTED]

(b) (3) (B) [REDACTED]

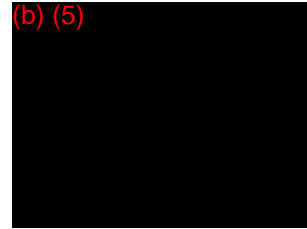
E. Backcountry Facilities

a. Ranger Station

Overall the condition of the Kern ranger station is fair at best. Structurally, the building is sound, however maintenance is long overdue. Maintenance completed this season is as follows: 1) painted interior floor, 2) painted cabinets

in kitchen area, 3) new hitch rail and many fence posts surrounding the big pasture courtesy of the trail crew. Work needed on the station is as follows:

1. Chimney to cook stove: interior pipe needs to be replaced (rusting and falling down); exterior pipe needs to be adjusted such that it not leaning at a severe angle. The seal at roof-line (or lack there of) needs attention. The area surrounding the chimney leaks.
2. Entire building needs to be re-chinked, including area above door line (this has never been chinked and provides easy access and habitat for rodents).
3. The stone fire mantel needs to be sealed off to the interior to prevent access (presently there is screen and wood serving as a temporary barrier).
4. Ceiling needs to be replaced. Water damage (from leaky stove pipe) and urine damage (from packrats and mice) are taking its toll. The ceiling is warping and reeks of urine on hot days.



b. Signs

Overall the signs in the Kern canyon are in good repair. Trail crew replaced an old decaying post at the Coyote creek trail junction with a split cedar rail. Looks great! The sign at the junction of the Kern River and the HST still need to be replaced. The sign suffered some damage in early 2009. I submitted a sign request form with pertinent information with EOS in. During my patrols this summer I found an old wooden sign just north of Tyndall creek in the Kern. The sign gave mileages to the next available forage. The sign really struck a chord within me as a realization of how different the use patterns were in the not so distant past.



c. Solar

The solar system at the station is working great and is super easy to set up. The batteries seem to be holding their charge. When arriving at the station they read 13.8V and when I left, the same holds true. My only concern with this set-up is that the panel mount is a little high. Although the panels are not heavy, they are rather awkward. This year as well as last I asked the trail crew to help me in erecting the panels. Unfortunately, come the end of the season there are not too many people around to ask for help.

d. Water System to Cabin

The water system to the cabin took a severe hit early this season due to high water flows in Coyote creek. The main rock dam has been reduced in size by about half. Additionally the main ditch (directly linking the creek to the irrigation ditches) has several blowouts. Early season I was able to patch the main ditch blowouts. Come late season there was not enough water being diverted into the main ditch from the pool in the creek. This will need to be attended to if the ranger in the cabin plans on having running water to the station.

F. Trails

a. Trail Activities

Within my patrol area there are roughly 40 miles of maintained trails. The general condition of these trails is average to good. Several of the known problem areas were attended to this season. Some areas were made worse due to mid-season rain events. As a result there was an increase in erosion of the trail bed. In some places trenching occurred with depths over 12 inches. Of the areas that I would deem to be in average condition are mostly maintenance issues (i.e., brushing, re-digging the trail bed due to sloughing, and rocking). Sections of trail near trail crew camps are receiving maintenance, however, sections beyond two miles (roughly) are not.

Several projects were accomplished; two of the most important include the intermediate steps and the notorious 'problem spot' on the switches, both located in Rattlesnake canyon. The usual dirtting project commenced near the end of the season as well as the removal of some trees obscuring the trail. Listed below are the accomplishments and needs (in the order of priority):



Accomplishments

1. Removal of downed trees
2. new platform built for latrine at Hot Springs
3. brushing, from station north for about 2 miles
4. intermediate steps and problem spot on Rattlesnake switches
5. dirtting project (just south of the Hot Springs)
6. replaced rotted out fence posts at Lewis Camp pasture and installed a new hitch rail at the station

b. Problem Areas

Over the past several seasons it seems as though the Kern River trail has been overlooked. Many of the maintenance issues do not necessarily need to be attended to annually, but that doesn't mean that they should never be completed. It is important to note that just because Lower Funston is closed to grazing, it does not mean that the entire area is closed to all use. I feel as though this is not understood, thus resulting in the camping area not being logged out in the last two seasons. Additionally, the drift fence gatepost is still in need of repair. I realize that the Kern River trail is by no means a high use trail and therefore is not high on the priority list of trail work. There is however a crew assigned to this area for several weeks during the summer. This park has a great reputation for its' trail system and the high level of maintenance kept. Lets not spoil that by allowing the Kern River trail seem as though we have abandoned it.

1. brushing of the Kern River trail (up to Junction Meadow); many shrubs and small trees are obscuring trail, forcing users off the trail
2. finish fixing hole in trail 1 ½ miles north of Rattlesnake creek
3. replace southern most drift fence gate



- post (has been lying on the ground for last two seasons)
4. $\frac{1}{4}$ - $\frac{1}{2}$ miles south of Rattlesnake creek (cut bank near 21" camp) has drainage issues and is eroding trail; would be ideal to divert creek/water off trail so it does not take the trail into the Kern River
 5. The trail bed at Wallace and Laurel creek (in the Kern), is not identifiable; the creek has over-run the trail, thus resulting in sections of the trail that resemble a streambed rather than a trail



G. Camp Areas

a. Conditions

All designated camping areas are in good condition, with the exception of Lower Funston. The camping area in Lower Funston is almost completely occluded with downed trees. In years past this area is logged out by trail crew, however, this has not happened for the last two consecutive seasons. There are very few areas where one can place a tent, let alone gain access to one of the two food storage lockers, due to a downed tree blocking access.

b. Sanitation

Sanitation in wilderness camps is always of an issue. The platform for the latrine at the Hot Springs was replaced early this season. Other areas within my patrol area are not of great concern, due to low visitation numbers and a climate that encourages decomposition.



c. Fire Rings

The number of used and unused fire rings present in the Kern canyon is a great indicator of the amount of visitation in years past. Today the use is nothing near what it once was particularly in the lower reaches of the canyon. I completed the campsite inventory/restoration project this season. Many of the sites that I worked on this season were difficult to find due mother earth reclaiming the land. A few new sites were discovered mostly in the Hot Springs area. All in all most other sites maintained well throughout the season.

d. Firewood Availability

As trees notoriously fall down here in the Kern canyon, there is an abundance of firewood availability.

e. Food Storage

Despite the increased use in food canisters among backpackers the food storage lockers are getting utilized just as much. During my travels I came across an abandoned food hang (improperly) at the confluence of Rattlesnake creek and the Kern. Unfortunately there was no one around for miles to place claim on the food. In general food storage does not seem to be much of an issue in the Kern.

H. Permit System

Trailhead rangers and permit issuing offices did a great job this season. They were definitely making good use of their trail days. I would like to see a continued presence of Mineral King Trailhead rangers in the Upper Rattlesnake area, the more eyes we have the better. There has been such a great emphasis of food storage and locations of where fire restrictions are. Unfortunately, it seems as though many backpackers have forgotten or have not been given the information as to the importance of extinguishing their fires prior to departure. I see this as a really big educational gap that can attribute to an escaped campfire. The latter would be detrimental to the Kern canyon.

I. Communications

(b) (7)(E), (b) (5)

[REDACTED]

J. Group Size Recommendation

I am a little on the fence about this recommendation. In general I do feel as though the larger the group, the greater the impact there is on the land and other users. Some landscapes are more sensitive than others and some areas are more susceptible to large groups. I don't feel that the recommendation should be "blanketed" over the entire park. This restriction should be specific to areas of high concern. By placing this limitation on the entire park we would be targeting user groups that are some of our most consistent users (i.e., BSA, church groups and school groups). Additionally, I think that is very important to encourage these "off-trail" user groups to practice Leave No Trace ethics.

K. 10 day patrol in the Bench Lake area (Kings Canyon)

In late July I was able to make a trip up north the Bench lake area for a 10 -day patrol.



This is an area of the park that I had not previously visited. It is so different than anything

in Sequoia NP. The canyons are very impressive. This area is rich in cultural sites, both prehistoric as well as historic. We (myself and C. Miles (b)) stumbled upon what we thought was a possible foundation for a wikkiup. Visitation in this area is unreal. During my 10 day visit I made over 100 visitor contacts, a big change from the Kern ranger station.

L. Recommendations

- Trail maintenance
 - Prioritized list of projects for the Kern canyon listed in the 'Trails' section
- Station maintenance
 - Prioritized list of projects for the Kern ranger station listed in the 'Backcountry Facilities' section
- Maintain ranger presence in the Kern canyon
 - It is important to maintain a presence in the canyon, but full a full time ranger is not necessary [particularly if budget constraints are of issue]
 - Placement of the ranger at the Hot Springs worked well in 2010 and would recommend similar emphasis in 2011
- Proceed with off-trail group size restriction
 - Please refer to section 'Group size recommendation'
- Base station for the Kern ranger station (antenna is already in place)
- Fire updates
 - Weekly updates on fires in the park as well as surrounding areas, especially if there impacts from smoke.

M. Pertinent Inventory and Needs

- a. See following pages**

- Maps (7.5" quads only)
 - Kern Peak 1
 - Kern Lake 3
 - Quinn Peak 2
 - Chagoopa Falls 4
 - Mt. Brewer 1
 - Triple Divide 1
 - Mt. Kaweah 3
 - Mt. Whitney 2
 - Johnson Peak 2
 - Mineral King 2
- Ideas pads (yellow) 5
- Post-it notes lots
- Pens lots
- Pencils 5
- Sharpies 3
- Batteries AAA ('09) 11
- Batteries AA ('09) 16
- Batteries AA box +'08 4
- Batteries AA Lithium '10 4
- Batteries AAA Lithium '10 4
- Batteries C box 1 ½
- Plain envelopes box 1
- Holey envelopes ~10 asst sizes
- Steno pads 3
- Pad o paper (8 ½ x 11) .5
- Black log book 1
- Green record log book 1
- Gov envelopes asst sz lots
- Paper lunch sacks lots
- SAR brochure 4 (few more in medical box)
- Sequoia Parks Foundation
 - Brochure lots
- Strapping/glass tape 1" 3
- Strapping/glass tape ½ " 1
- Masking tape 2
- Duct tape 3
- Scotch tape 2
- Flagging 5
- Sunscreen 4+
- Gloves (leather) asst sizes 6
- Paper towels 5
- Toilet paper 27
- Trash bags large ~15
- Trash bags small ¾ full roll
- Burlap sacs >10
- Cloth mattress cover 1
- Latex exam gloves 1/2 full box
- Bleach lots
- Foil lots
- Sponges (green/yellow) 4
- Spray bottles 2
- Propane

○ Tall	0
○ Short	3 full
• Fuel canisters (isopropanol)	
○ 8 oz full	5
○ 16 oz full	1
○ 16 oz > ½	1
• Kitchen matches	1 ½ boxes
• Bug dope (cutter roll sticks)	0
• Mouse traps	2 (need many more!)
• Inverter (new '09)	1
• Inverter (old – still works)	1
• Base charger	1
• Roll away table	1
• Deep cell batt (12.7V charge)	3
• Solar panel	1 (fixed unit)
• Dewalt cordless drill	1
• O2 Tanks D cylinder & reg	3 (1600psi, 1500psi, 1600psi)
• Vacu splint	1
• Lighter	1
• SAM spints	7
• C-collars	
○ Regular	1
○ No-neck	2
• NRB	
○ Old	2
○ New	3
• Nasal cannula	5
• BVM	0
• BP cuff	1
• Stethoscope	1
• Pocket mask	3
• Scotch splint	
○ 4 x 30	1
○ 4 x 15	1
• Ace bandages	5
• Eye dressing	5
• 4" bandage compress	5
• ice packs	2
• OPA	
○ #11	1
○ #7	1
• Lotion	1
• Shampoo	1
• Conditioner	1
• Dish Rack	1
• Pot pad holder	2
• Dish Soap	1 (¾ full)
• Ziploc Baggies	
○ Quart	0
○ Gallon	0
• Tuppies	lots
• '09 Species list	1
• Jepson's	1

- Various field guides
- Dictionary
- Medicine 4 mountaineering
- Where there is no doctor
- Various other assorted reading material
- Candles
 - Tea lights 3
 - Votives 2
 - Pillar ½ (short fatty)
- Cloths pins lots
- Steel wool 2
- SAR bag o ropes/webbing 1
- Vacume Splint 1
- Gun Safe w/key 1
 - Bullets (box) 3
 - Flexi cuffs 2

Needs

- Giant spatula
- Sibleys Western Field guide (birds)
- Stainless steel kettle
- Ladder
- Tool boxes (project tool shed organization)
- Large ladle
- Mop (real one)
- Mouse traps
- Enzymes for sump (septic system bacteria)
- 2 additional mattress covers

Facility Maint. Needs

- 3/4" plywood sheet (for bed frame/mattress)
- 1 x 12" pine (tack shed) X 5 pieces
- hose bib/faucet gaskets
- Galvanized compression fitting)
- high temp caulk (for stove pipe)
- roller brush w/ handle (to paint ceiling – already have paint)
- 1/2" & ¾" hose bibs (2 each)

LeConte Area
End of Season Report 2010
Rick Sanger

A. General Summary

This year, the station was staffed from June 22 to Oct 5. Winter precipitation levels were that of a "Normal" moisture year, but late snows left significant snow at season's start. VIP Suzanne Sanger was with me the entire season. She provided significant assistance in all my duties, from cleaning of fire-rings to emergency services. Her presence added a significant increase in my personal safety.

B. Visitor Services

Miles & Contacts:

Month	Miles	Vtr. Contacts
June	48	71
July	159	363
Aug	153	678
Sept	148	225
Oct	28	7
Tot	535	1344

Law Enforcement

8 citations (Dog in Wilderness; Group size, Improper food storage (3), no permit (3))

29 case cards only modestly represents the numerous warnings for camping on vegetation, fixing equipment, giving out minor medical supplies, teaching proper food storage technique, etc.

1 low-flier report

Search, Rescue, Medical incidents

MEDICAL

9/8 (b) (7), exhaustion

8/2, (b) (7), likely HAPE, medivac

7/16, (b) (6), blood in urine (done by suzanne sanger)

7/13, (b) (7), cold symptoms

7/13, (b) (7)(C), cold symptoms

7/12, (b) (7), ankle

7/9, (b) (7), ankle

8/10, (b) (7), angina, medivac coordinated from a distance,

SAR

7/16 ICE SAR in Darwin area

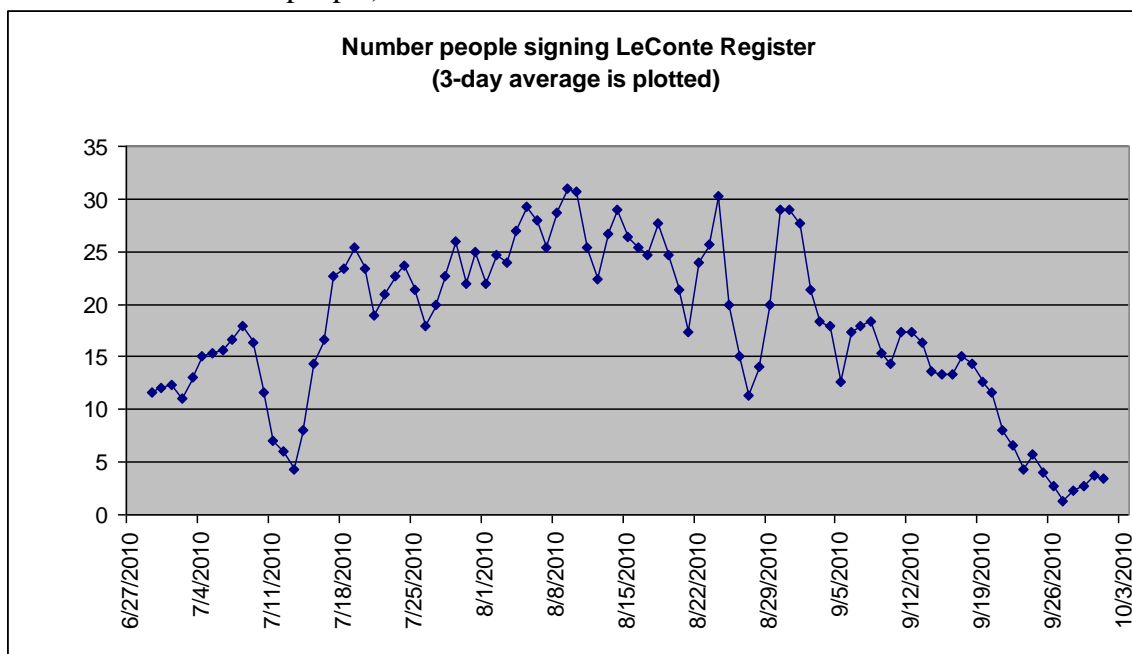
C. Use Patterns

Backpacking:

No change in area use. PCT hikers dominated contacts at the beginning of the season followed by a steady stream of John Muir Trail Hikers. The next most popular being north/south lake itinerary.

I did put a trail register out at the beginning of the season. I used left-over forms from several decades ago that were not well-designed for my purposes, but gave some interesting information non-the-less. I plan on redesigning the forms for next year.

The forms did NOT have an entry for “number of people in your party” so the graph below is ONLY the number of people actually signing the trail register. It gives an indication of use. Total number people signing log was 1706. (note I contacted 1337 people)



Also, next year's register will allow me to check what Dave Gordon and I have estimated as far as itinerary usage: (50% entire JMT (mostly north to south); 20% N. Lake to/from S.Lake; 15% in/out over Bishop; 10% all or part of PCT; 5% miscellaneous)

Stock Use:

We met over three private stock users (llama users in these cases) that did not have grazing report cards.

Stock use was dominated by Administrative resupplies of the trail crew (at Palisade's junction) and Rock Creek's large pass-thru trips (typically 15 head). Rainbow Pack Station ran numerous spot and resupply trips.

Kayakers:

I kept closer tabs on kayaker use in the area – 33 kayakers in 9 groups. I was able to follow one group down to Devils' washbowl in an effort to better understand what they were doing and how they were doing it. The resulting

report is in DVD form. A hard-copy version will be created to assist SAR efforts by correlating river features and kayaker-place-names with UTM coordinates.

Last year I noted a concern about abandoned kayaks. By discussing the issue with the kayakers, we've come up with an approach to the problem that I'll be discussing with future users:

- 1) location of kayak reported to NPS
- 2) location reported to other kayakers via blogs & internet postings
- 3) one group brings in a saw and cuts the boat up
- 4) subsequent groups stop and pick up a piece of the boat until it is gone.

There is significant motivation to carry out this plan to maintain their reputation as wilderness stewards and protect continued access to the river.

D. Natural Resources

Wildlife:

Individual sightings are detailed using wildlife observation cards. Of interest was a bear seen chasing a fawn with 30 feet of us (!).

Meadow Opening Dates:

The opening date of Grouse was delayed this year from July 15 to Aug 27 (it saw no use). Big Pete & Upper LeConte were delayed to Sept 20, but still had complicated boundaries of wet & dry that would have invited impact if they had actually been grazed.

Big Pete meadow was closed to commercial grazing this year (except by special permit).

Upper LeConte Meadow, Grazing Estimate

The closure at Big Pete Meadow, together with late opening dates (due to wet meadows, scheduled for Sept 20th) threatened to move stock activity to Upper LeConte meadows. Rock Creek's submitted itineraries included approximately 45 stock nights in this meadow.

I conducted a detailed ground survey of Upper LeConte on Sept 15. I conducted this survey with a GPS unit to more accurately estimate acreage. The area was divided into zones of similar nature, the perimeter of the zones were traversed, features noted, and photos taken.

The results of this survey show a grazing area of about 4.9 acres with very low production. Based on numbers alone, I roughly calculated a capacity of about 28 stock nights. However, I documented an extensive amount of fragile features, including including large carpets of deep sphagnum moss, overhanging stream banks, Yellow Legged frogs and Yellow-Legged frog habitat.

I feel that the extremely fragile alpine nature of the area and the documented features far outweighs any grazing benefits.

For this reason, I STRONGLY recommend that Upper LeConte be closed to grazing. Stock spending the night in the area should be on slick rock or scrim. (Scrim is a portable canvas-like ground cover that protects from high-line impact.)

Stock use above 10,000 ft:

Rock Creek Pack Station kept stock overnight in two locations in Dusy basin for a total of 90 head-nights. They high-lined in upper leconte about 30 stock-nights. They also stayed at least 30 stock-nights in Palisade Lakes meadows, where it is legal to graze.

In all these areas (Upper LeConte, Dusy Basin, and Palisade Lakes) high-lines were used. Unfortunately, perfect high line locations (two trees over slick-rock or gravel) do not exist, so despite the best intentions of the packer, damage to vegetation occurred at all these locations.

Where grazing was legal (palisade lakes) the vegetation was closely cropped and numerous droppings were visible from any vantage point. The “look and feel” was less that of an alpine meadow than of a pasture.

I asked (b) (7)(C) (owner of rainbow pack station) what he would do to mitigate this kind of impact. He suggested 1) don't camp in areas not suited to stock (and recognized these areas as falling into that category) or 2) high-line on slick rock.

Due to the lack of durable high-line locations, the limited size of these meadows and their fragile nature, stock impacts at these locations should be addressed by the wilderness management plan.

In the meantime, I recommend that mitigations to impacts be investigated, such as the use of scrim (a portable cloth that protects from high-line impact).

Big Pete, Little Pete – A new approach to opening dates using Hand Grazing:

Setting an opening date for grazing at these meadows has been a challenge due to the complicated boundary between dry areas ready to graze & areas that are still wet or those that never dry out.

We tried a new approach this year in an effort to address the needs of stock users. Rather than a strict closure until the entire meadow was dry, we allowed hand grazing before the meadow opening date.

This approach was well-received by several commercial pack outfits - and it worked.

Hand grazing can be done by leading the bell-mare and hoping the rest of the string will stay close by. One outfit asked their clients to help with the task of hand grazing, each client taking one mule. (b) (7)(C) suggested that another approach is to picket the bell mare in a good area and have an alert packer make sure the rest of the animals didn't wander into wet areas.

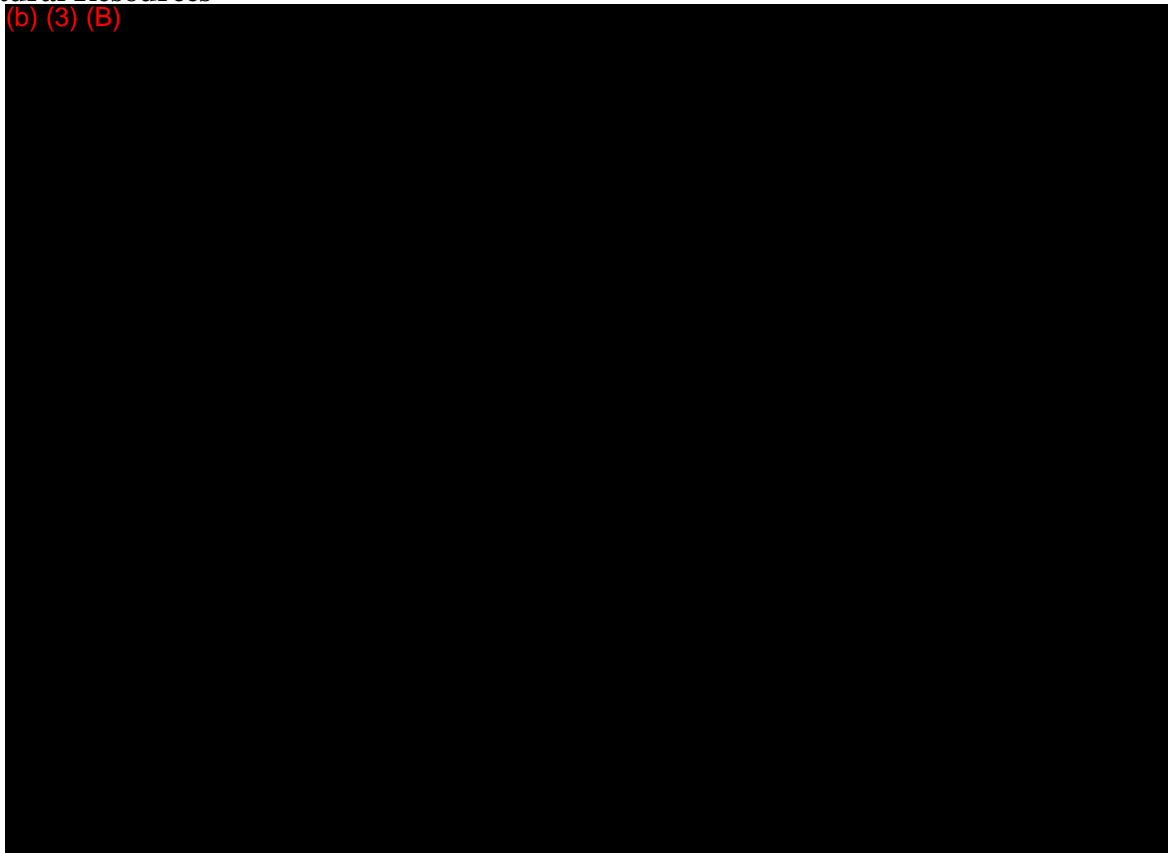
Dusy Basin:

This continues to be an area of significant impact. Tents on vegetation are common, and use-trails criss-cross the basin. As stated last year, I have not formulated any plan to begin addressing this impact, and am open to suggestions & guidance.



E. Cultural Resources

(b) (3) (B)



F. Backcountry Facilities

Incinerating Toilet:

As of July 31, 2010 the toilet was inoperable. This was after 17 days of use by 2 people. At some point the auger circuit became stuck “on” and

completely drained one of the two solar batteries, which was permanently damaged as a result (no longer useable).

During the period of usage, certain minor and major design flaws were noted. The most significant flaw is the auger which is ineffectual at reliably transporting waste to the incinerating chamber. This flaw would have been immediately apparent during manufacturer testing.

I believe the concept of the toilet has merit on a local level (minimizing human impact at LeConte) even though the impact on the macro level (the earth) is higher than using a pit toilet.

The control box has been removed from the unit for repair by the manufacturer. The manufacturer should be contacted to address the issues found.

The unit's solar panels were remounted directly to the roof of the shelter. This provided more sun than the steeply angled mounts that were shipped in with the unit.

Further details can be found in the accompanying report.

Signs:

A concerted effort was made in the late 90's to replace all old signs with the "new" anodized aluminum signs. It is worth noting that an old-style sign remains at the Kettle Dome entrance to the park.



G. Trails

Trail Work

It was great to have the Brian's/Edlin's crew in the area. They accomplished a great deal, and I was again impressed with the care and safety they use in accomplishing their work.

Here are my thoughts for future trail work:

I think it would be worthwhile to deploy a logging crew to Palisade creek earlier in the season. There are always a 20 or so trees down in this stretch of trail, and it sees use from a significant number of PCT hikers early in the season. An earlier logging run would head-off resource damage.

Also, there is a bog just above grouse meadow that forced hikers off the trail until mid-september, when the trail finally dried up. However, the areas hikers slogged through have Sundew, a rare carnivorous plant. This issue should be addressed. A trail re-route or a short (20 ft) boardwalk are two options worth considering.



The picture at right shows an exposed culvert in Lower Dusy Basin. An adjacent intermittent streambed may provide fill to recover the culvert.

H. Camp Areas

Campsite Restoration:

In addition to routine restoration, sites requested to re-visit from campground survey were visited & restoration work done. A separate file details work done in past years and tracks effectiveness of these efforts.

Campsite Locations made public?

Making the GPS coordinates of established campsites along major trails is an idea worth considering. While we encourage people to take the time to find an appropriate campsite, this often does not happen. Making acceptable sites known allows people to plan ahead and reduces the chance they'll make bad choices. A large percentage of my LE contacts have been moving folks off vegetation.

Also I've seen several John Muir books that have published campsite locations, some of which are ones that I've been trying to rehab. If we publish an accepted list, then the park would be back in the driver's seat.



Additionally, it might clarify whether camping within 25 ft of water is acceptable in a given location. (this is only allowed in an “established site” which is open to interpretation)

One way of organizing such a project would be to have the backcountry rangers earmark acceptable sites along major trails from the existing campsite inventory.

An offshoot of such an effort would be to compare published guides with a list of the NPS approved sites, and contact publishers so that future editions of their books could carry this information.

I. Permit System

J. Radio Communications

(b) (7)(E), (b) (5)



K. Operations

Junior ranger badges:

I have citations to give folks who are doing things exceptionally poorly. It would be really nice to have something to give to visitors who are doing something exceptional to help the wilderness: picking up toilet paper, cleaning out fire rings, etc.

Compendium Changes:

It might be worth making a small change to the compendium that addresses food storage (as shown below). Specifically, wording should not only address that food be stored in a bear-resistant container, but the container needs to be closed properly. (I’ve written some citations where the food was in the container but the container was not locked).

Wilderness Areas:

Food items must be stored in one of the following ways, in descending order of preference:

- In a pannier, steel drum with a locking metal lid, or a portable bear-resistant food storage container that is allowed by NPS for use in the Parks. (See **Attachment 6: 2010 SEKI Allowed Food Storage Containers for Use**. Note: listed panniers or canisters may be disallowed at any time due to failures in the field.)
- In a bear-resistant food storage locker.
- Suspended at least twelve (12) feet above the ground and ten (10) feet horizontally from a tree trunk, or other vertical support, using the **SEKI counterbalance technique**. (See www.nps.gov/seki/planyourvisit/bearhang.htm for instructions.)

Backpackers camping above treeline and parties using stock are exempt from this requirement, provided that a human, alert guard is maintained to safeguard food items.

Photo Cataloging

I cataloged my photos in the way described in last-year's report. This seems to work well.

Wilderness Food Impound Policy

I think it would be helpful to have a food impound policy for the backcountry. At present, if we come across a campsite with food left out and no safe way to store it, we must either leave the site or stay there until its owners return. I think rangers should have the option to impound some of the food. Then we could store what we could and take the rest away, continuing on our patrol to return at a later time.

L. Personal Equipment**M. Needs for next year**

First Priority

White gas	1 gallon
Washboard	1 ea
Chairs for station	1 low "beach" chair, 1 regular size camp chair with stiff cloth seat, not floppy like director's chair.

Katydyn Hiker: replacement filter **2 ea**

(NOTE: 12V sat phone charger is broken. Will charge on 120 volt charger)

gloves, green, large size, 2 pair

burlap bags (gunny sacks) for hauling trash, 14 ea

2 medium kitchen knives for cutting onions & veggies.

NPAs, 1 set for patrol first aid kit

Rubbing alcohol

Scotch tape, 1 roll & dispenser

Nitril exam gloves, 1/2 box of size LARGE

Winter sleeping bag for cabin (send out old one to be washed)

Garbage bags, small: about 30 ea

Sponge for sponge mop

Long lighter (for propane stove), 3 ea

AAA batteries RECHARGABLE! 6 ea
 Duct tape (5 rolls. Bring extra to station)
 Dish sponge (with green scrubby side) 3 ea
 Sun screen 2 tubes

Second Priority

Fencing wire for deer mdw drift fence.
 Old end of season reports (have:, 1985, 1986, 1999,2005, 2009, 2010)
 Regulator for coleman stove (see picture)



Third Priority

Old station logs (have,74,76 89, 92, 97)
 Overpressure plug, 800 877 0441 or www.gopresto.com, model 0136001

Equipment Request:

1 Lit Platypus with valve on end	

N. Recommendations

- I STRONGLY recommend that Upper LeConte be closed to grazing. Stock spending the night in the area should be on slick rock or scrim. (see section D: upper leconte mdw)

- small edits to forage guide (see section D above)

(b) (7)(E), (b) (5)

- Trails to install boardwalk in sensitive area above Grouse Meadow (see section G)

Consider making GPS coordinates of established camp locations public (see section H)

Consider wilderness food impound policy (section K)

- Review unfinished projects documented in "Status.doc"

O. Projects for Next Year

Rehab use trail on south side of Helen lake outlet
Continue to restore candidate sites
Replace a few more posts at Ladder drift fence
Re-wire deer mdw drift fence.
Find soda springs at confluence
Look for cabin shingles at palisades junction, ejection seat up nowhere drainage
Look for fumerole in blue canyon
Hardcopy of DVD report

P. Pertinent Inventory:

see "Inventory.doc"

Q. Routes done in 2009, 2010

(b) (7)(F)



McClure Ranger Station 2010 End of Season Report Ranger Dave Gordon

General Summary

This was a much-higher-than-normal snowpack season (about 140% of the normal spring snowpack in the northern portion of the Park, partly due to a colder/wetter spring) – this made for harder than usual crossings of passes and creeks. Visitation in the backcountry was low at first, then high after mid-July with an especially large proportion of hikers doing the JMT. There were also a near record amount of “PCTers” early season – estimates indicate about 500 having started, about half of which make it to McClure (the 1/3 way-point of the 2,650 miles). Bugs at McClure (mosquitoes and flies) were more prevalent than most seasons, lasting until early September – they seemed to have been especially bad above 10,500 ft.

Visitor Contacts / Patrols

	Visitor Contacts	Miles Patrolled
June (13 days)	115	65
July	396	166
August	606	147
September	199	136
October (5 days)	12	29
Totals	1,328	543

Contacts were mostly with backpackers, except for about two dozen day hikers contacted near Piute Creek and Lamarck Lakes. 23 stock groups were contacted (22 commercial, 1 private and no administrative) consisting of 82 stock users (including clients) with 147 horses/mules. Most commercial groups were from High Sierra Pack Station (11) with additional groups from Bishop Pack Outfitters (3), Rainbow Pack Station (2), Rock Creek Pack Station (3), Pine Creek Pack Station (2), and Muir Trail Ranch (1).

Law Enforcement

Almost every group contacted was checked for possession of a Wilderness Permit and asked how their food was stored at night. As with recent seasons, very few groups did not have bear-proof canisters and would hang their food – those groups were given instructions for proper hanging. 30 LE case cards were issued, which included 13 verbal warnings (2- tents on vegetation; 1- camp too close to water; 2- camp too close to trail; 1- stock manure not completely removed from camp; 7- inadequate food hanging). “Unknown suspect” infractions included: 14- illegal campfires and 2- camps (vacated) that had been too close to water. Notes were placed on tents at three campsites for being on vegetation, requesting that they move to bare ground. No citations were issued this season.

Search, Rescue, and Medical Incidents

Date	Location	Type	Disposition
7/16	Darwin Canyon	Search	Subject found by Inyo S&R
7/30	Evolution Meadow	Abdominal Pain	Helicopter Evac.

There were also case cards issued for nine “Visitor Assist – EMS”: 2- advice for mild AMS; 3- advice for sore knees; 4- analgesics and/or bandages/moleskin given to visitors.

Weather

The weather this summer was mostly typical with monsoonal thunderstorms in July and August. The most significant storm developed on July 16th, with a couple of hours of very heavy rain/hail in the afternoon producing flash flood debris into McClure and Colby Meadows, and completely covering the lower half of McClure Meadow with water (also covering the JMT near the Ranger Station). The season ended with a multi-day, wet monsoonal flow that coupled with a northwesterly cold front that produced significant snow in the backcountry.

Use Patterns

Visitation was high this summer, after a lower-than-average first month (late June/ early July), due to high snowpack and runoff. JMT hikers accounted for about 60% of contacts (mostly from Yosemite to Mt. Whitney). Other routes noted include about 20% N. Lake to/from S. Lake; 5% “PCTers”, early season; 10% to/from Florence Lake; 5% miscellaneous, including cross-country routes: Lamarck Col/ Darwin Bench, Davis Lake, upper Goddard canyon, Ionian Basin, McGee Lakes and Lake 11,106’. Wanda Lake to Goddard Canyon via Davis Lake and North Goddard Creek has been especially popular due to information found on the internet.

Organized groups encountered consisted of 9 Boy Scout troops, 1 Girl Scout troop, 2 high school groups, 3 Sierra Club (2 with stock support), and 2 Mt. Travel Sobek walking groups with stock support.

Stock usage was similar to last season, except no administrative groups were seen, and only one private group was contacted (administrative stock brought trail crew in/out of Goddard early season, but was not contacted).

Natural Resources

Only one bear was seen this season in upper Goddard Creek – no sightings reported by visitors. One Long-tailed weasel was observed early season at the Ranger Station, and many coyotes were seen or heard in Evolution Valley late season.

All meadows that were open to grazing were delayed in opening from the “Normal” year opening dates. McClure and Darwin Meadows were closed to grazing this season. Evolution Meadow was opened on 8/13 (6 week delay) and experienced light-to-moderate grazing. Colby Meadow was also opened on 8/13, but experienced heavy grazing, and was closed on 9/13 (after only one month) – in my opinion, the opening should have been delayed until 8/31, because numerous deep hoof prints and “die back” of closely cropped vegetation had incurred. RB monitoring was done at Evolution, McClure and Colby Meadows with the assistance of Sylvia Haultain and Pete Clum.

Ranger Station

About 250 pounds of construction remnants (metal scrap, hardware, etc.), steel trash cans, plastic buckets, a kitchen sink, and old paint cans were packaged and sent out as back-haul on the helicopter in June. Additionally, about 40 old, 7 ft. tongue-and-groove boards were removed from the attic, and

cut into wood stove kindling. The overall condition of the cabin, outhouse and solar system is good. Mice were trapped in the attic about three times a week, and in the living area about two times per month, throughout the summer. The cabin was stocked with about 15 rounds of split wood for emergency winter use.

Trails/Signs

Routine trail work was done by a trail crew for about a week in June on the JMT and Goddard Canyon trail: less than a dozen trees needed clearing; water-bars were shoveled.

The route over Lamarck Col was marked with rock cairns from Darwin Lakes to the Col on the Park side, and several key, large cairns on the northeast side near the snowfield. This was done in an attempt to direct hikers over the correct notch, and to consolidate travel on the loose talus/ scree on the southwest side, making for a more aesthetic and perhaps safer route.

Drift Fences

The two Evolution Valley drift fences are in fair-to-good condition and are fully functional with ongoing, routine repairs of gates, wires and fence posts.

The fence along the South Fork of the San Joaquin River is in poor condition, and was replaced this season with a pipe-gate at the south end of the second (steel) bridge that crosses the river. In late August, the pipe-gate was broken (snapped in two) by a mule traveling up canyon from Aspen Meadow – the mule crossed the bridge to the pipe-gate, couldn't back up, and pushed it to breaking. The broken gate was disassembled, as opposed to replacing it, because of this problem and safety concerns that some packers had regarding the tight turn of the trail on the north end of the bridge coupled with no place to tie off a string of stock while opening the gate at the other end. The nearby drift fence will need to be erected next summer after replacing several gate posts and some of the wire.

Camp Areas

62 campsites identified in the "Campsite Restoration Project 2010" were visited this summer with the aid of GPS. 23 of these sites were rehabbed/ contained, and 28 sites were obliterated with rocks, tree debris, and/ or large boulders. 11 sites required no action this season, having been worked on in 2008. Obliterated sites were either too close to water, too close to trail, or otherwise in a sensitive location. Several additional sites, not on the project list, were also obliterated for the same reasons.

212 fire pits were cleaned and/or reduced in size this season, and 68 fire pits were destroyed. Most of the 68 were illegal (above 10,000 ft.) fire pits at McGee Lakes, Darwin Bench, Evolution Lake, and upper Goddard Canyon. About a dozen destroyed fire pits were built in sensitive sites (granite slabs or meadows) or near an existing fire pit. 29 pits were destroyed in association with the "Campsite Restoration Project."

Permit System

Most Wilderness Permits that were issued to hikers came with regulations attached, and provided thorough minimum impact camping information – of course, not everyone reads "the fine print": many hikers do not know to pack out used toilet paper, to not burn foil/plastic containing food

packaging, or to not build or modify fire pits; some don't know not to erect a tent on vegetation, or how to hang food properly.

Communications

(b) (7)(E), (b) (5)
 [Redacted text block]

[Redacted text block]

Recommendations

1. As mentioned before, many hikers do not know that used T-P should be packed out. I suggest that large, opaque ziplock baggies be given out (one per person) with permits. Labels on the bags could have sanitation information (bury waste 6-8 inches at least 100 feet from water, etc.).
2. Colby Meadow experienced excessive grazing after only one month of grazing. Although Evolution Meadow is next in the annual rotation of meadow closures in Evolution Valley, both it and McClure Meadow are much healthier than Colby. Colby Meadow should be rested next summer (and possibly more than one season) to allow it to fully recover from grazing damage this season, and from the several previous years of low moisture/ growth.
3. The drift fence near the second bridge along the South Fork of the San Joaquin River is in poor shape, and requires post and wire replacement. This could be done by trail crew when they come in early season to clear the trails – it would take less than half a day with a chain saw.
4. A “permanent high line” could be erected at the Evolution Meadow stock camp. This line would minimize tree damage by stock that is not perfectly tied-off at camp. This also could be installed by trail crew on their annual June visit to Evolution Valley.
5. Instructions for hanging food by counter-balancing should be attached to permits when the group does not bring food canisters. Seven groups that had hiked into Evolution Valley from Florence Lake were given verbal warnings about not hanging their food properly – all were issued permits from USFS Ranger Stations, west of the lake.

McClure Ranger Station
Needs for 2010

8	rolls toilet paper
20	small, clear plastic bags
6	large, brown plastic bags
6	mouse traps
1	7 ½ gallon propane tank
1	fireplace lighter
2	hand sanitizers
4	kitchen sponges
10	CUA Monitoring forms
10	AUO time logs
24	AA batteries
8	AAA batteries
2	packages paper towels
8	4 oz. MSR propane/butane fuel canisters
1	kitchen broom (standard wood type)
1	gallon white gas
1	gallon unleaded gas (for chain saw)

McClure Ranger Station
Consumables Inventory (on hand October 2009)

9	gallons propane
4	propane canisters
6	rolls toilet paper
2	packages paper towels
3	quarts window cleaner
1	gallon simple green cleaner
1/2	gallon white gas (Coleman stove)
14	AAA alkaline batteries
6	AA alkaline batteries
4	AA lithium batteries
1/2	gallon bleach
1	quart laundry detergent
1	pint dish soap

**PEAR LAKE
END OF SEASON REPORT
2010
Christina Gooch**

A. General Summary

This season the Pear Lake Ranger Station was staffed from July 3 through September 28. Due to a heavy snow year, the Lakes Trail and many of the campsites did not fully melt out until early July. While I came out to the station for several weekends in June, I did not fully mobilize into the backcountry until July 3. As the snow rendered the trail impassible for stock, supplies were brought out to the station via helicopter on July 6.

This was a relatively quiet season in the Pear Lake area. There were no notable incidents in the area, and the late snowmelt resulted in lower visitation in June and early July. The area did still, however, see very high numbers of visitors throughout the rest of July, August and September. I focused more energy this season on staying local to the busy Lakes and Alta trails and campsites, attempting to make more contacts with overnight visitors. I was also able to get out on an average of 1-2 nights of overnight patrol per week, continuing to broaden my knowledge of the cross-country routes and destinations within the patrol area.

Statistics:

	Visitor Contacts	Miles	EMS	SAR	Fire Pits	OB Campers
June/July	773	221	0	0	8	3
August	827	201	0	0	3	3
September	638	180	0	1	0	2
TOTAL	2238	602	0	1	10	8

B. Visitor Services

a. Contacts

i. Day-Hikers and Backpackers

The majority of my contacts this season were day-hikers (about 60%). The Lakes Trail and the Alta Trail both continue to be extremely popular day-hiking trails, with Heather Lake and Alta Peak being some of the busiest spots. I also contacted roughly 300 backpacking parties this season (about 900 people), ranging in size from 1 to 15 members per party. Pear and Emerald Lakes on the Lakes Trail and Panther Gap, Mehrten Meadow, and Alta Meadow on the Alta Trail seem to be the most highly-used overnight destinations. Cross-country routes to the Tablelands, Moose Lake, and Alta Meadow were also popular overnight itineraries.

ii. Stock

I encountered very little stock in the Pear Lake area this season. There were two stock trips made to the Pear Lake station using (b) (6) pack station – one carrying gear for a private party backpacking into the Tablelands, and one carrying research equipment and winter supplies for UCSB's work at Emerald Lake. I also received a report of private

stock being taken on a day trip to Heather Lake. The ranger station was demobilized using NPS stock from Wolverton. As far as I know, there was no overnight stock use in the area this season.

iii. Groups

I encountered several organized groups staying in and passing through the area this season, including:

- Outward Bound (1) – passing through the patrol area as part of a 22 day trip.
- UC Santa Cruz (2) – first-year orientation groups, backpacking through Pear and Emerald Lakes, Moose Lake, and the Tablelands.
- Boyscouts of America (3) – at Pear Lake, Emerald Lake, and Panther Gap
- Walden West Outdoor Science School (2) – groups of 10-15 students (10-12 years old) staying at Pear Lake

b. Law Enforcement

I feel that having a non-commissioned ranger at Pear Lake worked well again this season. I encountered very few situations that I felt required a law enforcement officer on scene. When issues did arise, I was effectively able to work with frontcountry law enforcement in Lodgepole, who contacted parties and issued citations when necessary.

Out-of-bounds camping was the most common regulation infraction I encountered this season. 3 of these incidents occurred at Pear Lake, 4 at Emerald Lake, and 1 at Heather Lake. I also saw evidence of 1 illegal campsite at Aster Lake. Food storage violations at Pear and Emerald were the next most common infraction, for which I gave 6 verbal warnings. Out of the 300+ backpacking parties I contacted over the season, 6 parties had failed to obtain a wilderness permit. 3 of these parties had already spent the night out by the time I contacted them (resulting in 1 citation and 2 verbal warnings from Lodgepole law enforcement); I contacted the other 3 parties as they were hiking in and sent them back out to Wolverton (where they touched base with or were contacted by frontcountry law enforcement). Lastly, I did see a small amount of fire evidence at Pear and Emerald Lakes, but was unable to contact any of the responsible parties in action. I was able to contact a rule-ignorant party in the act of chopping up downed wood to build a fire, and had a successful educational discussion with them about fire regulations.

I also worked with front-country law enforcement to deal with a problematic group holding a bachelor party at Pear Lake. Several group members committed a number of violations (including camping without a permit, discharging a pellet gun, harassment of wildlife, and food storage) and were issued citations upon returning to Wolverton.

c. Search, Rescue, Medical Incidents

<u>Date</u>	<u>Location</u>	<u>Type</u>	<u>Evacuation</u>
none			

There were no searches or medical incidents in the Pear Lake area this season. I was called out to assist on a search near Bench Lake on September 5th, but the subject was found alive and well before my operational period began. I was also involved in several minor medicals and one body recovery in the front-country during the month of June.

C. Use Patterns

A hot press season for the Wolverton trailhead! Backpacker Magazine's February 2010 issue naming the Lakes Trail as the "West Coast Reader's Choice" hike and an article in the Fresno Bee proclaiming the Alta Trail as one of the best in the area both increased use on these already busy trails.

As previously mentioned, the Pear Lake area is a very popular destination for both day-hikers and backpackers. Many of the day-hikers I contacted stopped at the Watchtower or Heather Lake, while many continued all the way to Pear Lake. The majority of the backpackers on the Lakes Trail this season were coming from Wolverton and staying at Pear or Emerald Lakes. A significant number (around 20-30%) continued on to Moose Lake or the Tablelands, and a small percentage of those pursued longer cross-country routes, ending at Cedar Grove (via Cloud or Deadman Canyon) or Crescent Meadow (via Bearpaw). Most day-hikers along the Alta Trail were headed for Alta Peak, while most overnights along the Alta Trail stopped at Panther Gap, Mehrten Meadow, or Alta Meadow. Some continued through Alta Meadow to Moose Lake and out the Lakes Trail or vice versa.

The current quota numbers seem to be appropriate as the campgrounds rarely overfilled. The trailhead rangers did a wonderful job this season at keeping track of how many parties were destined for each campground and attempting to keep things from getting too crowded.

D. Natural Resources

a. Research Equipment

There are several active research projects in the Pear Lake area. I encountered the NPS water monitoring crew at Emerald Lake twice this season. On one occasion they were also collecting samples at Dome Lake, and on another occasion at Lonely Lake.

(b) (6) continues to maintain UCSB's instrumentation in Emerald Lake, and I met their crew at the lake on several occasions. They will be taking samples and staying at the Pear Lake station during the first week of October. There also remain weather stations near Dome Lake and near the lakes east of Pear Lake, as well as water monitoring stations in along the outlet of Dome Lake and in the lower Marble Fork. It should be noted that the instrumentation in the lower Marble Fork has been reconfigured, and no longer appears to be throttling the tree to which it is attached. All looks good.

I also encountered a USCB group studying the high-elevation distribution of small mammals (leader Craig Moritz). They were camped at Aster Lake, and had apparently obtained permission to camp at this otherwise restricted location for 3 nights. Until I came across them at the lake, I had not been aware that they would be in the area or camping at Aster. It would have been helpful to know of their plans in advance, particularly since they were bypassing the camping restrictions. It is my understanding

that the Wilderness Office knew beforehand of they dates the group planned to be in the area. If possible in future situations, a quick message on Round –Up regarding any pertinent research groups, etc, would be greatly appreciated!

b. Bear Activity

Once again I received very few reports of bear activity in the Pear Lake area. One bear was spotted along the Marble Fork near Aster Lake, and I encountered one bear at Heather Lake. Many visitors encountered bears lower on the Lakes Trail near Wolverton, and several were spotted near the Watchtower.

c. Wildlife

Coyote activity in the Lakes area was significantly lower this season than last. They were rarely seen in the campgrounds, while last season they boldly approached campers and their food on a regular basis. I only saw one coyote throughout the season, between Heather Lake and the upper Hump-Watchtower intersection. I saw a good bit of coyote activity there last season as well, so there may be a den in the vicinity. Their calls were only heard during the evening several times throughout the season.

Pikas were once again seen regularly along the Lakes Trail above the Watchtower, and were particularly abundant in the Pear Lake and ranger station areas.

Mouse activity in the cabin was much lower this season than last. I caught quite a few mice shortly after arriving to the station in late June; however, after my first week in the station the catchings tapered off, and I caught only 2 or 3 mice (and one shrew) throughout the rest of the season. The wood rat activity on the balcony was much lower as well, as was the marmot activity in the basement.

Marmots were once again abundant and bold in the Pear and Emerald camping areas, particularly during the month of July. Their activity starting tapering off significantly by mid-August.

E. Cultural Resources

F. Backcountry Facilities

a. Pear Lake Hut

The cabin seems to be in good shape. We seemed to have fewer rodent problems this season, which may be due in part to the rethinking done by the Historic Crew last October. The historic crew also installed a new front door lock, which is working well. The clivus was emptied last August, and currently has about a foot of waste in it. I would recommend emptying it next season.

b. Propane System

Some alterations were made to the propane system over the winter, and it all seems to be working fine. I also installed the propane alarm in the basement, hooking it into the main solar battery system. Future improvements to the propane system should include:

- Replacement of flexible copper lines with standard black iron pipe
- Building of a protective box to house the 4 propane tanks

c. Pear Lake Hut Roof

The station's new roof looks great and seems to be keeping the upstairs slightly more rodent-proof. Unfortunately, however, the Historic Crew left quite a bit of construction debris on the ground around the perimeter of the station, much of which I picked up throughout the season. Since the debris was left on the ground over the winter, much of it became buried and will probably continue to resurface for years to come. This was a disappointing discovery.

d. Solar Power

The station received 3 new solar-system batteries this season, and the solar equipment at the cabin seems to be working well. The battery charge rarely dropped below "green", and provided plenty of power for summer needs. The solar-powered 8v ice chest was also very useful, chilling the food by day and insulating it by night. This allowed fresh food to be stored significantly longer.

e. Phoenix Composting Toilets

The composting toilets at Pear and Emerald adequately served their purposes this season, and many visitors were pleased to have them available. The buildings at each lake received a new coat of paint on their doors, which had been looking quite dismal and worn. I also provided routine cleaning of the privies once or twice a week (sweeping, scrubbing, refilling wood chips, etc.).

Due to its dysfunctional solar mount, the Emerald Lake Phoenix remains in much worse shape than the one at Pear. The solar mount powers the ventilation fans in the collection tanks, thereby minimizing odors and fly activity (by causing the flies to be swept out the ventilation shaft). The Emerald privies were, therefore, consistently smellier than those at Pear, and were severely fly-infested.

The toilets were emptied last year, and therefore have relatively little waste in them. In my opinion it would still be wise to empty them again within the next season or two, in order to avoid having to empty and haul out massive amounts of waste at one time. Performing that charming task on a regular basis will keep the job much more manageable and pleasant.

f. Heather Lake Toilet

The Heather Lake pit toilet continues to be a mess. The structure itself is rickety and falling apart, and the pit looks more like a trash dump than a toilet. It has been reported in previous years that winter melt creates a stream flowing into and out of the pit, carrying all the sewage with it and leaving only trash. Apparently no better site for the toilet has been found.

Due to the high use of Heather Lake, getting rid of a toilet completely is not an ideal solution. However, I do recommend putting effort into finding a better spot to rebuild a pit toilet or finding an alternative type of toilet (vault?) for the area.

G. Trails

a. Trail Work

There were no trail crews in the area this season, but it sounds like there may be a crew stationed in the Hump area and Aster Lake area next season. A number of people complained about the Hump Trail, which gets fairly faint and hard to follow at the top of the Hump. Some work on this section could make it less confusing.

Recommendations for future trail work include the following:

- Rework and clarify the trail at the top of the Hump.
- Build stream crossing on Panther Gap trail to avoid continued meadow damage.
- Rebuild large, muddy area on Alta Trail (1/2 mile east of Panther Gap).
- Install water bars near top of the Hump Trail.
- Rebuild trail at Mehrten Meadow where camp use-trail has eroded the integrity of the main trail.

b. Trailhead Signs

Wolverton Trailhead – The signs at the trailhead could use renovation, and in my opinion should emphasize:

- Permits are required for overnight use, and are available at Lodgepole.
- No fires anywhere along the Lakes Trail (mention fine?)
- Active Bear Area. Bear canisters and bear lockers are the only effective food storage methods. Bear canisters are available for rent at Lodgepole.
- No pets allowed on trail.
- Watchtower vs. The Hump – a note recommending the Watchtower to all users except those concerned about heights and those riding stock. (Also good to include at the Hump-Watchtower intersection.)

c. Trail Signs

Heather Lake – The sign stating “Day Use Only – No Camping or Fires” seems to be a little too far from the actual lake for people to make a connection. The sign is currently posted just east of the Hump-Watchtower intersection, at which point the lake is not yet in view. I think the sign would be more noticeable and more effective if it were moved 200 feet down the trail (in view of the lake, close to the “Toilet” sign and an obvious OB campsite).

Pear and Emerald Lakes – The bulletin boards at the Pear and Emerald Lake campgrounds are worn and in poor shape. New campsite maps were posted this year, but the actual board should be replaced in the near future. The new boards should include the following information:

- Maps of the designated campsites
- No Fires (mention fine?)
- Permit required for overnight use

H. Camp Areas

a. Area Overview

The Lakes Area is an extremely popular camping destination, receiving high visitor use and impact each season. The visitor population encompasses a wide range of experience levels, attracting both first-time backpackers and devotees coming back for their 20th summer trip to Pear Lake. Due to the high-use the area receives, I think that the presence of bear boxes, composting toilets, and numbered campsites are essential for and effective at minimizing impact of this use.

The Alta Trail receives slightly less use. However, the absence of toilets, designated campsites, and frequent ranger patrols results in the Alta Trail receiving far more negative impact due to overnight use. As mentioned below, some camping areas along the Alta Trail receive enough impact to potentially warrant the posting of designated sites or the undertaking of some major campsite rehabilitation.

b. Conditions

i. Lakes Trail

Both the Pear and Emerald Lakes campgrounds stayed in relatively good condition this season considering the extremely high use they receive. I replaced quite a few of the numbered carsonite posts, making them easier to see (and less of an eyesore). I also replaced the Pear and Emerald campsite maps, which seem to have gotten washed away in the spring snowmelt.

Though the newly replaced campsite posts look better for the time being, it is my hope that eventually we can come up with an alternative to carsonite. The material does not appear to weather well, as it becomes discolored and splinters and breaks easily. I am not sure what a good alternative would be, as the rocky terrain makes it difficult to implant sturdier materials (eg, wood) into the ground; however, it is something to think about. It seems to me a waste of money to continue replacing the flimsy, tacky-looking carsonite posts.

There are also a few large pieces of waste that should eventually be flown or packed out of the area. These include a section of culvert next to the Pear Lake bathrooms, and the remains of the now defunct solar mount at Emerald Lake. These are both eyesores and serve no purpose in their current locations.

I feel that it is extremely important to keep the structures and installations (including toilets, bulletin boards, signs, campsite posts) in the Lakes Area in good condition. Neatness and care of our structures implies to visitors that the NPS makes the effort to respect and protect this high-use wilderness area, and therefore indirectly encourages visitors to do the same. I believe that folks surrounded by disintegrating campsite posts,

old culverts and building waste, and dirty, unmaintained bathrooms are much less likely to appreciate and respect the aesthetic value of the area, and more likely to leave behind trash, fire scars, and trampled vegetation.

ii. Alta Trail

The Alta Trail does not seem to receive as much attention as it ought to considering the amount of use it receives. There are a number of long-standing trail maintenance issues (noted later in this document) that have yet to be addressed. (b) (7)(E)

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Mehrten Meadow was a particular problem this season. Each time I patrolled in the area, this camping spot was a complete disaster – nearly devoid of vegetation in areas due to the careless placement of too many tents, messy and newly built fire rings built right next to established rings, and trash and human waste strewn about in abundance. More often than not, for me a trip to Merhten Meadow is a disheartening one. I'm not sure why this spot gets such abuse – perhaps it is because it is a relatively easy 5-mile walk in from Wolverton, and therefore attracts more inexperienced folks. I think that the establishment of numbered campsites could help tremendously with the tent impact. An informative sign on Leave No Trace ethics may be effective as well.

The other popular campsites along the Alta Trail (Panther Gap and Alta Meadow) showed some signs of impact this season, but are in relatively good condition.

c. Fire Evidence

I encountered significantly less fire evidence in the Lakes Area this season than last. I found most of this evidence upon my return to the Lakes early in the season, and I am guessing it was left over from the fall – created during that window of time after the ranger has left for the season and before the first snow has started falling, when the weather is cold and fires are particularly tempting. Throughout the season, only 3 new fires rings appeared (1 at Emerald, 1 at Pear, and 1 at Heather). I feel quite strongly that having a consistent ranger presence in the area reduces the number fire violations (and perhaps other types of resource damage, as well). I contacted far more of the backpacking groups in the campgrounds this season, and made a point to remind each one of them about the fire regulations and the reasons behind them. I think these simple, in-person conversations were effective and contributed to the decrease in fire activity. I still, however, also think that a signs dictating the fine amount for fires along with interpretive information about the reasons fires are prohibited would be effective and educational.

I also destroyed 2 fire rings at Big Bird Lake (too close to the water and shoddily constructed) and 2 fire rings at Upper Silliman Lake, and heard reports of 1 illegal fire near Frog Lake and several at Alta Meadow.

d. Food Storage

Most of the visitors to Pear and Emerald used the bear boxes in the campgrounds. Several carried canisters. I think the bear boxes at Pear and Emerald are essential for maintaining a high level of proper food storage. However, the boxes are in poor shape – they are difficult to open and close and they are not mouse proof. I would recommend replacing them (particularly the lower box at Pear Lake).

Almost all parties I contacted that were traveling cross-country (away from the bear boxes) were carrying canisters; the only parties that were not were 2 large groups from UC Santa Cruz, whose leaders claimed they'd be posting 24-hour food watches. In talking to several of the groups' students, however, I later found out there were no watches being posted whatsoever. The leaders then switched their story and claimed to be counterbalancing their food. I find it incredibly frustrating that an organized group focusing on wilderness education so flagrantly disregards food storage regulations. I discussed this issue with the group leaders both this season and last, and they claim that they refuse to carry canisters because they are out for too long (8 days) and can't fit all the food into the canisters. I mentioned the option of doing a resupply at Wolverton or at the ranger station (as do many other groups out for longer periods). The leaders were saddeningly blasé and unreceptive. I have written a letter to the UC Santa Cruz Wilderness Orientation director ((b) (6)) regarding the issue, and hope this will help facilitate a change in both practice and attitude.

I think it would be an excellent idea to make the carrying of canisters mandatory for all cross-country travel in the Tablelands/Moose Lake area.

I. Permit System and Trailhead

Nearly all of the backpackers I contacted this season left from the Wolverton trailhead, obtaining their permit at Lodgepole. I think the Lodgepole trailhead staff did a very good job informing and educating visitors about area rules and regulations.

Communication with the trailhead rangers was great this season. All three rangers (Ellyse Deldin, Dan Maturen, and Will Molland-Simms) were quick to inform me of large or unusual groups in the Pear area, and on especially busy weekends provided updates on party numbers and itineraries. This information was appreciated and was very helpful in planning patrols and making contacts.

Trailhead rangers also got out on the Alta Trail quite a bit this season, which I think was wonderful. As mentioned above, while technically within the Pear Lake Ranger's patrol area, it is difficult to patrol the Alta Trail as often as it should be patrolled considering the high amount of use it receives. I was able to meet up with trailhead rangers on several occasions along the Alta Trail, and teamed up with them in dealing with campsite messes and visitor problems (particularly at Mehrten Meadow). I really appreciated being able to work with them on these occasions.

I still think it is important and effective for the trailhead rangers to address large groups as a whole. There are many large groups (10+ members) that use the Lakes Trail, and

typically only one person in that group gets the permit and hears the spiel about minimum impact regulations, etc. I imagine that this information rarely disseminates through to the rest of the group. I would suggest that for parties of 6 or more, the trailhead ranger speak to the entire group (even if this means stepping outside the visitor center to where they are waiting) before issuing a permit.

J. Radio Communications

(b) (7)(E), (b) (5)
[Redacted text block]

[Redacted text block]

[Redacted text block]

K. Needs for Next Year

- 8 burlap bags (for trash)
- Paintbrushes (for campsite posts)
- 2 bags wood chips
- Mount for solar panel at Emerald toilet

L. Recommendations

Recommendations have been made throughout this document. Main points include:

- Empty clivus and Phoenix waste next season
- Create numbered campsites at Mehrten Meadow
- Continue having the trailhead rangers patrol the Alta Trail on a regular basis
- Renumbering and better delineating designated sites at Pear and Emerald.
- Move the Heather Lake “Day Use Only” closer to the lake.
- Replace or fix (**not remove**) lower bear box at Pear Lake.
- Inform visitors of the fine for fires (trailhead staff, sign in campground, sign in bathrooms)
- Have trailhead staff speak to *entire* group before issuing a wilderness permit if large parties are seeking a permit

- Provide wilderness rangers with a heads-up when research groups, etc, will be working in their area

M. Pertinent Inventory

As of 09/30/2010, pertinent inventory at the Pear Lake Station includes:

- 4 full and 1 half-full propane canisters
- 8 bags of wood shavings
- 3 old batteries from the solar system (to be backhauled in the spring of 2011)

All fire extinguishers and O2 cylinders were pressure tested at the end of the 2008 season. All other items from previous inventories remain, including EMS supplies, SAR gear (cache inventory was updated in 2008), winter SAR gear, sleeping bags and pads, and cabin living supplies.

Rae Lakes, Sierra Crest Sub-district 2010 End of Season Report Ranger Dario Malengo

A. General Summary

I hiked into the backcountry from Onion Valley on June 25, 2010, arriving at Charlotte Lake that evening. There was little snow on Kearsarge Pass and on the trail to Charlotte Lake, but I encountered much snow on the trail over Glen Pass the following day. Snow covered the trail three-quarters of the way to Rae Lakes. Pacific Crest Trail hikers left numerous tracks in the snow. I made new tracks to the upper switchbacks to make travel easier for those who followed, but some snow-related difficulty continued on Glen pass for two to three weeks, making passage difficult for many hikers. The snow was completely gone by August 1, allowing for the passage of livestock, which arrived shortly thereafter.

Visitation was slow for the first month and then much heavier. By August 1st, there were nearly One Hundred people camped in the Rae Lakes Basin every night. As usual, the heaviest use is in the upper basin, in the peninsula and in the isthmus area. As I discussed with 1-1-1, the impacts are within acceptable limits because of the large number of suitable campsites available. Visitation stayed heavy until just before Labor Day. From Labor Day through September 25th, use was quite steady, with 20-35 JMT hikers coming through daily, and about 10 to 20 staying overnight.

The other area that gets a lot of campers is Woods Creek Crossing. (b) (7)(E)

There are numerous fire pits that need maintenance frequently and the bear box needs checking for abandoned trash and food which happens frequently.

1-1-4 and myself dug a new toilet hole here on July 14th, and it seems to be helping with sanitation in the area. We are also experimenting with allowing visitors to burn their own toilet paper, so that the toilet last longer. This seems to be working out so far, but frequent monitoring is necessary.

B. Visitor Services

1. Statistics

	June	July	August	September	Total
Miles Patrolled	34	176	203	246	659
Visitors Contacted	108	440	1125	454	2127

Visitors are coming into the area from three directions: Rae Lakes Loop from Cedar Grove, Onion Valley over Kearsarge Pass, and on the John Muir Trail. The numbers of visitors are about equal from the three directions. The John Muir Trail hikers are on the increase every year.

2. Law Enforcement

The only infractions I encountered were campers camping on vegetation. I dealt with these by asking them to move camp to a more suitable area. Case Cards were made for these infractions. I did not observe any illegal fires at Rae Lakes this season. Two fire-pits were discovered that occurred before I arrived at Rae Lakes.

After I moved Camp uphill, someone opened an unlocked Knaack Box and took a small amount of food from three different food caches on the night of August 22nd. This was the first time I know of that anyone has stolen food from this ranger station.

The other fairly common infraction was that on several occasions campers abandoned trash in the bear box on the peninsula and at Woods Crossing. This has happened more this season than in the past. I suspect some JMT hikers may be doing this to lessen their load. Also, JMT hikers have been begging for food more so than any season in the past. We need to put the word out where they get their permits that we do not have food at our ranger stations and that leaving trash in the bear boxes is not acceptable.

3. Search, Rescue and Medical Incidents

On August 28th, 1-1-4 and I initiated a medevac on a 48 year old male suffering from possible HAPE. After entering over Baxter Pass and on his 3rd day at Arrowhead Lake, he could not go any farther. His pulse of 100 and respirations of 35-40 indicated that he needed to be flown out. 4-1-2 was the park medic on this medievac.

I was called at night to assist a man with altitude problems at the lower bear box. On evaluation of the patient, I decided that he would be alright overnight. In the morning he was better and hiked out by going down Woods Creek to Cedar Grove.

One SAR in the Bench Lake area was terminated on the 2nd day when the woman, part of a Korean hiking club, mistakenly went part way down the Muro Blanco, and then figured out her mistake and met up with the search group at the trail crew camp on the South Fork. I was sent to Paradise Valley to see if she made it that far.

4. Service Incidents

I assisted visitors in many ways, mostly with information. On three occasions in July I invited in hikers that were caught in thunderstorms and warmed them in my cabin. Two of these groups I loaned an extra tent for the night.

The fish crew from Sixty Lakes visited frequently on their way into Sixty Lakes. Having Rae Lakes to stop at on their way in made it easier for them to get to work. Emma and Mary were delightful company whenever they arrived.

Visitation trends as previously mentioned were mostly, Rae Lakes Loop, John Muir Trail and Onion Valley to Rae Lakes. Other routes taken were Baxter Pass (small number), Sawmill Pass, and a few up over Sixty Lakes Col from Gardiner Basin. I did not meet anyone coming into Rae Lakes from Dragon Pass.

5. Ranger Station

Construction has finally begun on the new Rae Lakes cabin. The old cabin has been demolished and the footing for the new cabin completed. Phil and Marty and Norma were here on two occasions to complete this work. The new cabin will be built next season.

I have moved camp one hundred and fifty yards uphill to a suitable location. There is an information board at the old site to indicate my presence. This site is quite acceptable until the new ranger station is completed. It has one of the best views of the whole Rae Lakes Basin. It has a four person tent for sleeping, a kitchen set up with a stove and counter, a wood stove for burning trash and warmth and a tarp overhead for bad weather.

C. Wilderness Protection

The Rae Lakes Basin is very busy from mid-July until just before Labor Day. Lower Rae Lakes is not as heavily used as upper Rae Lakes, even though there are many good camp areas. Arrowhead Lake and Dollar Lake get a lot of use; many hikers need to stop here after the long hill up from Woods Creek.

Some camp areas look a little used at the end of the season, but recover over winter and spring. Campers walking between camps and the lake shore trample the grasses down by the end of August. The JMT is passable for all of the way, but many areas below Dollar Lake need maintenance. I worked some areas above and below Arrowhead Lake to help with erosion control

Most of the fire-rings in the area are at Woods Creek Crossing. It takes constant maintenance to keep the fire-rings in this area maintained. I rehab them every two weeks and eliminate some when there gets to be too many. The problem here is that there is not any suitable wood left for burning. Campers are using huge stumps and logs thus increasing the size of the fire-pits. We should explore eliminating the use of fires here in order to keep the camps looking decent, and to keep a natural balance of dead and down wood. There are not a lot of good campsites above and below here, so Woods Crossing gets almost all the use, often as many as forty to fifty a night.

The lower and upper Castle Dome drift fences are in good condition. The Baxter Fence and the White Fork fences are in poor condition and need repairing.

The food storage lockers are in good condition. This season negligent campers left more garbage than in the past at the peninsula and Woods Junction boxes. We need to get the word out to the JMT hikers and others about this. At least in the boxes, the trash is easy to find and not hidden behind some tree.

2. Meadows

Opening dates were about one week too early, so I delayed them one week. Woods Crossing received a lot of use from the trail crew and Baxter received a lot of use from commercial users. Castle Dome only received light use this season.

3. CUA/Concession contacts and comments

The commercial users did a good job in dropping off visitors in suitable locations. They also did a good job in breaking camps and clean-up. The commercial users in this area were: Rock Creek Pack Station, Sequoia and Kings Pack Station, Rainbow Pack Station, and Rob from Florence Lake with Sea and Summit.

4. Signs

The sign for the JMT/60 Lakes junction has been ordered. A temporary sign has been installed for now. All boundary signs are in place.

5. Bears

No bear incidents were reported in this area for the second year in a row.

6. Wildlife

Wildlife observations included many mule deer, a black tailed weasel, many pika, and many birds.

7. Resource Issues

The most notable resource issue is the campfire and fuel consumption leaving no dead and down wood on the ground at Woods Crossing.

8. Resource Projects

I installed a series of check dams just below Arrowhead Lake for erosion control. I also put in another step just above Dollar Lake to lessen a big drop. At Arrowhead Lake, I opened a drain to keep water from eroding the trail. I repaired a blown out step above Arrowhead Lake to make trail safer for livestock. 1-1-4 and I dug a new toilet at Woods Creek. I sunk rocks in a few campsites too close to water, and I removed and rehabbed several fire-pits at Woods Crossing and along Woods Creek.

Fire-rings: All fire-rings in the area have been rehabbed. Many were removed from unwanted sites. (25 removed, 30 rehabbed)

Campsite Condition: All campsites in the patrol area have been monitored and maintained as needed throughout the summer. This required litter pick-up, burying TP, and in some cases sinking rocks to discourage camping in inappropriate places.

D. Recommendations

The Sixty Lakes trail needs a lot of new construction to get water off the trail and to check erosion. This is needed on both sides of the pass. There are many sections where water runs unchecked leaving

a deep erosion gully. It is also dangerous for livestock, particularly in two places on the Sixty Lakes side of the pass: #1 (upper spot) 373819 E and 4074646 N; #2 (lower spot) 373702 E and 407469 N (see photos). Due to the large number of hikers using this trail this trail should be a priority.

INVENTORY

- Kitchen: Pots, Pans, pressure cooker, and all necessary cooking gear
- Tools: saw, hammer, screwdrivers, fence pliers, hack saw
- First Aid: 3 D oxygen cylinders, bandages etc.
- Radio Batteries : 2, fully charged
- Storage Boxes: 2 Knaack Boxes, 2 flight boxes, 2 military boxes
- Solar system: 2 batteries and controller
- Tarps: 2 on hand

NEEDS

- 1 propane tank
- 3 boxes fire logs



Rae Lakes Temporary Ranger Station, August 2010



Junction of 60 Lakes and JMT/PCT, Sign request submitted.

End of Season Report

Rock Creek Ranger Station
June 23-September 27, 2010
Erika Jostad



Rock Creek drainage from Mt. Guyot

A. Visitor Services

a. Contacts

i. Backpackers/Day Hikers—2,292

ii. Stock:

1. Total Animal Use Nights—559, 116 used supplemental feed
2. Horses/Mules—445
3. Burrow—0
4. Llama—11
5. Commercial—393
6. Private—29
7. Administrative—29

b. Law Enforcement/Citations:

Several citations were issued for violations in the Rock Creek area this summer for abandoned property, improper disposal of garbage, commercial use and pet violations. A Sierra Nevada bighorn sheep, a federally listed species, was found dead at Upper Solider Lake. This is an area frequented by bighorn and a heavily travelled route into the Miter Basin. An investigation was conducted in conjunction with the California Department of Fish and Game who monitor the animals on their winter range east of the Park. All indications point toward the cause of death as an animal kill, possibly secondary to illness.

c. SARs and Medicals:

Date:	Location:	Type:	Evacuation:
7/25	Crabtree Pass	Medical: 52 yr. old man broken leg from fall crossing pass	Litter carry to Helicopter, ALS
7/26	Lower Rock Creek Crossing	Medical: 52 yr. old man with broken ribs and respiratory distress from a fall	Helicopter, ALS
8/21	Army Pass, Mt Langley	Search: 50 yr. old man day hiking Mt Langley did not return to camp in Cottonwood Lakes basin	Hasty ground search located hiker after he spent night out without gear



Rescue from Crabtree Pass. Rangers improving landing zone on snow in background (left).

d. Fatalities:

There were no fatalities in the Rock Creek area this summer.

e. Weather:

Snow continued to fall into May creating conditions more like a “wet” year rather than the “average” snowpack received in the Southern Sierra. Rain and/or overcast skies persisted through much of July. There were over a dozen days when temperatures were near 80 degrees. August was mild and warm. September was moderate.

f. Fires:

The Sheep fire in Cedar Grove burned throughout most of the summer. Smoke drifted into the Kern River drainage on several nights during August and September creating hazy conditions. Overall this fire did not significantly impact the district.

The Canyon fire was discovered in the Kern-Kaweah drainage in September. It was initially 2/5 acre in size and left to take its course. There were few days when smoke from this fire was notable in the area.

B. Use Patterns

a. Backpackers/Dayhikers:

Backpackers in the Rock Creek area are headed for Mt. Whitney via either the PCT or Crabtree Pass. The Miter Basin receives significant traffic as both a destination and an alternate route to Mt. Whitney. Solider Lake is a frequent weekend destination from the Cottonwood Lakes basin and a popular layover spot.

The majority of day-use is on Mt. Langley (where 10-50 people attempt to climb the peak each day). A small number of hikers and runners make the loops between Army Pass, New Army Pass and Cottonwood Pass, often with dogs in tow.



Kayakers hiking boats through Rock Creek to get to the Kern River at Junction Meadow

Stock:

There was significant overnight stock use in the patrol area this season with the highest numbers at Lower Rock Creek Crossing. This is attributable in part to later opening dates for the meadows of Upper Rock Creek, and in part, to the trail crew's two week stay in the area. Rock Creek Pack Station led several large full service trips through the district. Cottonwood Pack Station ran frequent spot trips into Upper Rock Creek and camped in Lower Rock Creek Crossing most weeks during the summer in support of Sierra Mountaineering Center trips to Mt. Whitney.

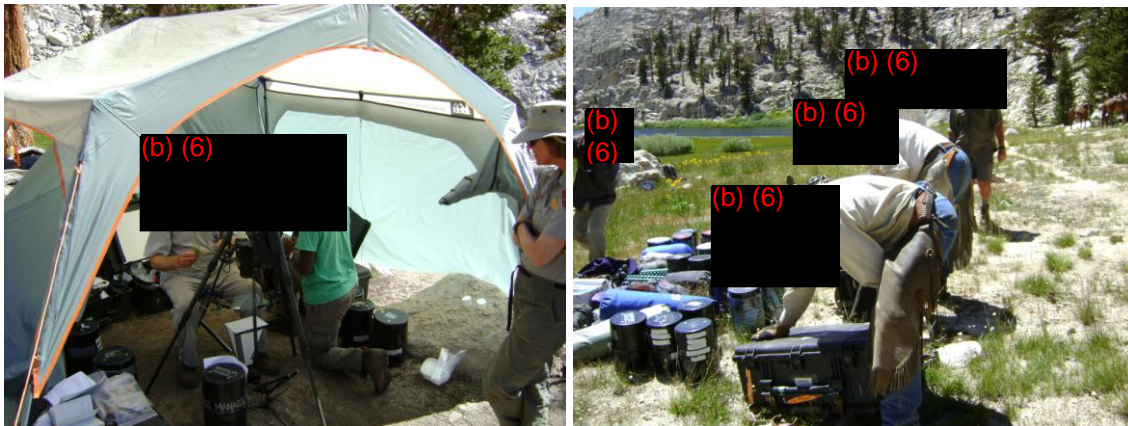


Stock parties visiting the Rock Creek Ranger Station

Two private stock parties stayed with horses at Rock Creek Lake, a third party stayed at Lower Rock Creek Crossing. Three private stock parties with llamas stayed at Rock Creek Lake and Solider Lake.

b. Administrative:

Rock Creek receives considerable administrative use due in part to several long term monitoring plots and proximity to the trailhead. This year was no exception with the majority occurring between early August and early September. On August 7th, Plant Ecologist, Sylvia Haultain, an interagency crew of botanists, a National Geographic photographer and his assistant began installation of a GLORIA (global alpine plant research plot) on Mt. Langley and associated sites in the Miter Basin. The installation was completed August 14th. Site visits were made to area meadows during the following week with Haultain.



National Geographic photographer (b) (5), (b) (7) at work documenting the GLORIA installation (left) and the mountain of gear to support the trip

A long term lodgepole pine monitoring plot was installed by USGS in Upper Rock Creek between August 18th-25th.

Two Bear Technicians visited the area in early September to investigate an “interesting burrow” near the Park boundary on Cirque Peak, thought to be a badger or possible wolverine den.

The Kern trail crew camped in the area with 14 head of stock from August 25th-September 7th to conduct maintenance.

In early September, the Chief Ranger/Military trip visited Rock Creek, staying at Lower Rock Creek Crossing on the 6th and Nathan’s Meadow on the 9th.

Plant ecology staff member, Erik Frenzel made a site visit to examine conditions and assist with residual biomass monitoring September 9th-10th.

Commercial:

Riding and hiking groups supported by Cottonwood Pack Station and Rock Creek Pack Station comprised the majority of the district’s commercial stock use. High Sierra Pack Trains also supported a walking trip in the area.

Several commercial hiking and mountaineering guide services lead trips in the area. These include Sierra Mountaineering Center (SMC), California Alpine Guides, Southern Yosemite Mountain Guides, the Sierra Club Outing Department, Outward Bound Adventures and Call of the Wild. SMC leads 1-2 trips each week during July through early September that spend two nights in Rock Creek.

c. Aircraft:

Military over-flights are common overhead in the patrol area and fly lowest along the sierra crest. I reported three low flying military aircraft this summer. The Park's improved relations with military representatives appear to have lessened low flying incidents.

C. Natural Resources

a. Bear Activity:

Bears were occasionally sighted in Rock Creek this summer. They were never a presence in backpacker camps, keeping largely to themselves. There is very high compliance with the area's bear canister requirement.

b. Wildlife:

Bighorn sheep observations were very common (near daily) in the Army Pass to Miter Basin area, with the majority of sightings in the meadow above Upper Solider Lake. On September 5th I watched a group of eighteen ewes and lambs in this meadow for an hour. They allowed me to share the meadow, initially grouping up but eventually dispersing to graze and lay down when they determined I was not a threat. A visitor reported seeing five bighorn rams just below the summit of Mt. Barnard in early September. See note in "Law Enforcement" section regarding the death of a bighorn at Upper Solider Lake.



Bighorn sheep grazing at Upper Solider Meadow 9/5. A ewe found dead in the same location 9/11.

Visitors reported watching a mountain lion cross Guyot Pass from north to south, mid-day in early September.

A coyote was seen most days by the ranger and visitors in Lower Rock Creek from mid-August through September. I watched the coyote hunt one morning in the meadow behind the ranger station and observed it catch two pocket gophers in three minutes.

A goshawk, possibly two, was in residence in Lower Rock Creek for most of the summer. A nest was not found but their presence confirmed by a wildlife biologist visiting from Sequoia National Forest.

c. Vegetation:

The snowpack of 2010 was rated near 100% of “normal” for the Kern drainage. Snow continued to fall into May so that conditions in meadows often looked more like a “wet” year with significant standing water and delayed plant growth. The opening dates for the Upper Rock Creek Meadows were delayed and stock parties primarily grazed Lower Rock Creek Crossing or used feed early summer. With moist conditions, all area meadows had productive growth after three dry years. I used repeat photography at area meadows to gauge the progression of plant growth and drying. This was very useful to determine opening dates for grazing.



Rock Creek Lake 6/30 (left) and 7/19 (right)



Rock Creek Lake 8/18 (left) and 9/14 (right)

Due to significant use, approximately 360 use nights, at Lower Rock Creek Crossing this meadow was closed to grazing for the remainder of the season in early September.

An invasive mint was noted for the first time in the tie up area at Rock Creek Lake Stringer in addition to previously noted species such as malva. This area should continue to be monitored for invasive species. Dandelion removal was conducted early season at the Ranger Station and Lower Crossing Meadows.



A junior ranger removing dandelions along the PCT in Rock Creek

D. Cultural Resources:

a. Prehistoric Sites:

(b) (3) (B) [redacted]
 [redacted]
 [redacted]
 [redacted] One party said they learned of the site from staff at Golden Trout Camp. In 2007 I discovered two men from the Golden Trout Camp looting this site. There is detailed local knowledge of prehistoric sites amongst staff and visitors to the Camp and they often venture into the Park to explore these sites. Lithic scatter is common throughout the Rock Creek drainage.



Obsidian point in Rock Creek (left). Part of “offering to the ancients” at (b) (3) (B) (right).

I found several pieces of obsidian that had been gathered at (b) (6) (b) and arranged into an “offering to the ancients” by a group of homeless youth being guided by Outward Bound Adventures. I took the opportunity to explain local Native American history to the children and leaders and we repatriated the obsidian as best they could recall to where it was collected from.

b. Historic Sites:

The only historic site is the ranger station, built in 1949 by the Department of Water Resources. It remains in good condition. See notes on “Ranger Station” below.

E. Backcountry Facilities:

a. Ranger Station:

The ranger station over-wintered well despite unauthorized winter use, reported by the Snow Survey. The surveyors noted use of the cabin between the February and March surveys. Food and firewood had been consumed and mice allowed to enter the cabin.

Several projects were completed by wilderness facilities maintenance mechanic, Dave Yemm. A new ladder to access the sleeping loft was built and installed to replace the original one that had rotted and become hazardous. The closet and attic space have been successfully mouse proofed and decades of nests and droppings removed. This is a significant improvement to sanitation conditions as rangers have long been exposed to ongoing rodent feces and urine.



Mouseproofing the food storage closet (left) and new ladder to sleeping loft installed (right)

The metal plate installed to cover the station wooden door seems to have solved the problem of winter break-ins. However, a more substantial lock is still needed so as to insure security.

The solar system was rewired and remains in good condition. The current batteries were installed in 2002 and should be considered for replacement.

b. Signs:

Area signs are in good condition. There are scratched letters on the sign at the PCT/Rock Creek junction and the fire limit sign below Rock Creek Lake that need to be covered with a black marker each spring. The letters become unnoticeable for the duration of the summer.

c. Other Facilities:

The stock demonstration camp's highline and boardwalk are in good condition. There is increasing use of this camp by large commercial parties with 15-20 head of stock. The highline is set up for 12-13 animals so that an additional highline gets put up by users in several locations adjacent to the fixed highline. An additional fixed highline would be appropriate to focus impacts in one location and meet the needs of current users. Highline materials are stored in a grain sack in the locked metal box outside the ranger station.

The drift gate upright on the south side is rotten at its base and should be replaced in 2011. This project should be coordinated with the trail crew.

F. Trails

a. Trail Activities (work accomplished):

The Kern Crew spent August 25th through September 7th in the Rock Creek area. During that time, they cleaned water bars on most of the district's trails, filled in erosion on the trail to Guyot Pass and improved the trail between Lower Solider Lake and Rock Creek Lake by removing rocks and installing checks. Three crew members camped at Lower Solider Lake in the backpacker camp during this time and the packer and a crew member camped with 14 head of stock at Lower Rock Creek Crossing.



Brushing Rock Creek trail north of Nathan's Meadow, before and after

Rangers conducted all the logging in the district early summer with a cross-cut saw and axe. Two fallen trees were cleared from the trail north of Guyot Pass, two trees cleared and hazardous roots cut out on the PCT and one tree cleared on the Rock Creek trail. Rangers brushed the Rock Creek Trail east of Nathan's Meadow.



Packing and clearing trail with a cross cut saw

Rangers cut the winter wood supply with cross-cut and had assistance from trail crew stock to move the wood to the station.



Ranger Station wood supply cut by hand

b. Problem Areas (prioritized):

Use-trails on Mt. Langley continue to be the most significant trail related problem in the Rock Creek area. According to the summit register, more than 1,000 people attempt to climb Langley each summer. During peak season, it is common to contact 50+ people a day on the mountain. Langley's popularity can be attributed to its height (over 14,000 ft.), to the ease of the climb (class 1-2), and that it is not subject to a permit system like Mt. Whitney.



The "trail" to Mt. Langley before it becomes braided on the steeper sections (left). A large group heading to the summit of Mt. Langley (right).

The impacts on Mt. Langley have been documented elsewhere (see 2008 Rock Creek End of Season Report and mapping). There continue to be safety concerns here as hikers become "lost" occasionally for hours or overnight on the myriad of use trails. On patrols to Mt. Langley I redirected over a dozen hikers to appropriate routes and conducted a hasty search, SAR #55, for a hiker who became lost on Mt. Langley and spent a night out with only a daypack.

(b) (5)

[REDACTED] In 2010 we instituted a recommendation for cross-country group size to be limited to eight per party. This recommendation had no practical effect in the field. There was an information/education problem as all groups I asked claimed to have no knowledge of the recommendation. There is also an enforcement problem as I received the rather frank response from visitors in large groups who stated “We’ll just get two permits then” if the recommendation becomes regulation. (b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Army Creek Crossing was washed out in the major rain event of October 2009. There is a 2’ deep trench in the middle of the trail, a parallel trail has been created and the Crossing continues to expand with erosion.



Army Creek Crossing in June (left) and August (right) with parallel trail and further erosion developing due to unrepaired water damage

G. Camp Areas

a. Conditions:

Guyot Creek, Lower Rock Creek Crossing, Rock Creek Lake, and Lower Soldier Lake remain the primary camping areas. These sites are in good condition throughout the summer due to frequent patrols.

Guyot Creek has seen an increase in use by large parties, with associated impacts, in the past few years. Several hikers have mentioned reading about Guyot Creek on the internet as a “staging area” before crossing Guyot Pass. This is a new phenomenon as the pass is not labeled on maps and ten years ago camping was infrequent at this site. I posted a map at the junction to the Ranger Station indicating area campsites and the difference in facilities/regulations (fire permitted/food storage locker at Lower Rock Creek but not at Guyot Creek). This had a noticeable effect on campsite selection for large groups in the area encouraging them to use more durable sites in Lower Rock Creek.

b. Sanitation:

Due to amount of traffic within the district, sanitation is an ongoing challenge. Visitors leave quantities of toilet paper, synthetic wipes and human feces in the campsites throughout Rock Creek. (b) (5)

[REDACTED]

[REDACTED] We ask visitors to pack out used toilet paper, though many hikers continue to barely bury their feces and toilet paper, if they bury it at all. The synthetic wipes are very popular and accumulate in popular campsites. They are dug up by animals and persist in the environment for decades. Many visitors simply don’t want to get intimate with their own eliminations and toilet paper nor do they want to discuss the matter with a ranger. There may be a lack of understanding as to why they need to—or how they’re supposed to—pack out their toilet paper. (b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

c. Fire Rings:

Fire rings are maintained at Lower Rock Creek Crossing, Nathan’s Meadow and along Rock Creek. They see frequent use during the course of the summer. They are enlarged by visitors but regular patrols keep them of reasonable dimensions.



Illegal fire removed from Army Creek Crossing 8/17

Removal of illegal fire rings is an ongoing patrol duty. They are found frequently at Army Creek Crossing and Solider Lake. In early summer PCT through hikers are inclined to use fires. Rock Creek is the first area on the trail (750 miles from the Mexican border) that they typically encounter wilderness areas with regulations and ranger presence and many use fires as a means of cooking.

d. Fire Regulations:

The 10,400' fire limit implemented in 2009 has reduced incidence of illegal fires in high elevation areas.

e. Food Storage:

The vast majority of visitors to the area are carrying a bear proof canister. A new development is that PCT through hikers are now generally carrying canisters. They typically pick them up at Kennedy Meadows and carry them north of Yosemite as they travel through several canister required areas. The food storage locker at Lower Rock Creek Crossing was replaced in early September. The old locker had a broken "piano" hinged door that opened down. The new locker is the larger grey model with two doors that open out. Lockers continue to be an attractant for caches and garbage.



Installation of replacement food storage locker at Lower Rock Creek Crossing

H. Permit System:

a. Compliance:

Wilderness permit compliance is near universal among backpackers and stock users. Additionally, most commercial users had their wilderness permits and commercial-use authorization forms on hand. There are still commercial groups who have valid CUA's however a guide may lead one trip in the Park each year and not be familiar with regulations or the need to carry a copy of the CUA. The Wilderness Office serves the valuable function of assisting to verify CUA compliance.

b. Issuing Office:

The issuing offices did a good job providing pre-trip wilderness travel information this summer. Visitors are generally well-versed in minimum impact practices and willing to comply with park regulations. There were a couple permits from the Kernville USFS office that were issued to visitors via fax. In one instance, a party had received their faxed permit in January. These visitors have no contact with an agency representative and receive no information pertinent to their trips. In this case, the group was not aware of a fire along their planned route. This circumvents one of the primary purposes of the wilderness permit which is pre-trip education.

I. Communications:

(b) (7)(F)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

J. Needs for Next Year:

Fuel:

6 small or 3 large propane tanks

Maps:

1 Trails Illustrated SEKI

Medical:

Size medium gloves

Other:

1 N100 mask (for cleaning station early season)
2 rolls duct tape
3 sponges
15 rolls toilet paper
1 thick roll strapping tape
1 thin roll strapping tape
4 pocket notepads
8 bundles paper towels
3 boxes matches
8-10 C-batteries for trail counter
15 burlap sacks
1 pencil sharpener
1 large carabineer (for highline)

K. Recommendations

Problem: High stock use at Lower Rock Creek Crossing, necessitating temporary closure to rest meadow.
Solution: Facilitate use of feed by providing knock-type boxes for storage at the Ranger Station. Reduce administrative stock use by taking stock to Horseshoe Meadow trailhead when trail crew works in the area.

Problem: Presence of invasive plants at Rock Creek Stringer Meadow camp.
Solution: Have Plant Ecology staff continue to monitor this area for invasive plants.

Problem: Storm damaged trail at Army Creek Crossing. Parallel trails have appeared and erosion expanded at the Crossing.
Solution: Have Kern Crew repair this site in 2011.

Problem: Toilet paper, synthetic wipes and feces unburied or left behind at popular campsites.
Solution: Implement trial "Pack out" TP program with opaque bags distributed at the trailhead and educational message.

Problem: Ranger station needs new locking mechanism to insure cabin security.
Solution: Have Thor replace the existing mechanism in 2011.

Problem: Multitude of use trails on Mt. Langley threaten bighorn sheep habitat, further erode alpine vegetation and pose visitor safety concerns.
Solution: Collaborate with trail crew to mark official route to summit and with Inyo National Forest to reduce quota.

(b) (7)(E)

L. Pertinent Inventory:

Fuel:

6 (full) and 6 (½ full) 8-oz. pocket rocket canisters
4 (full) and 4 (½ full) 4-oz. pocket rocket canisters
3 gallons of white gas
1 quart of ethanol
1 partial small propane tank

Maps:

2 Mineral King (7.5 min)	2 Cirque Peak (7.5 min)
3 Mt. Langley (7.5 min)	1 Triple Divide (7.5 min)
1 Kern Lake (7.5 min)	1 Kearsage Peak (7.5 min)
0 Kern Peak (7.5 min)	1 John Muir Wilderness and SEKI
2 Mt. Brewer (7.5 min)	0 Trails Illustrated SEKI
3 Johnson Peak (7.5 min)	1 Lone Pine (15 min)
2 Chagoopa Falls (7.5 min)	2 Kern Peak (15 min)
1 Golden Trout Wilderness	2 Mt. Whitney (15 min)
6 Mt. Kaweah (7.5 min)	1 Golden Trout-Sierra South
5 Mt. Whitney (7.5 min)	1 Inyo National Forest
1 Mt. Williamson (7.5 min)	

Cabin Supplies:

10 quart-size ziplocks	50 feet aluminum foil
14 lightsticks (for SARs)	8 new mousetraps
1 bundle paper towels	1 box matches
4 rolls toilet paper	2 notepads
2 bottles dish soap	1 roll duct tape
35 clothespins	2 packages kleenex
1 lost/found report book	5 CUA forms
1 employee medical evaluation packet	0 visitor contact log sheets
2 exotic plant observation forms	3 grain sacks
50 wildlife observation forms	20 large trash bags
20 BIMS forms	~50 small trash bags
4 burlap sacks	1 aluminum shovel head
20 sheets laminating paper	1 voltmeter
5 cutter insect repellent sticks	1 slingshot
4 bottles insect repellent	1 laundry brush
1 bag p-cord	1 bag cotton balls
4 bottles sunscreen	2 patch kits
1 box thumbtacks	2 jars contact cement
	4 pairs earplugs

First Aid Supplies (ALS):

2 lactated ringer's injection USP 1000ml (exp. 9/11)
7 nu gauze (2x2, 4-ply)
lots of alcohol pads
1 IV start kit with dermaframe transparent dressing
1 primary IV set
1 smallbore T-port extension set (exp. 9/2011)
1 sharps shuttle
1 sodium chloride-2ml, .9% (exp. 11/09)
2 18G, 1¼" protect IV (exp. 05/08 and 11/09)
1 20G, 1¼" protect IV (exp. 4/2010)
1 roll tape

First Aid Supplies (BLS):

17 run sheets	Lots of moleskin
10 follow-up instruction forms	3 nasal cannulas
3 SAR brochures	1 2"x5 yard gauze roll
27 knuckle bandages	2 4½"x4½ yard gauze roll
3 eye bandages	20 4x4" gauze pads
2 splinter out kits	10 emergency sunglasses
20 steri strips	3 pair small gloves
50 butterfly closures	1 box large gloves
1 readisplint-full arm	5 triple antibiotic ointment
20 3x4 in. sterile pads	25 2x3" gauze pads
11 4x30" scotchcast 2 splint	15 2x2" gauze pads 5 sterile q-tips
30 3x3" sterile gauze	1 bottle Caladryl
20 alcohol pads	1 pupil gauge
3 povidone-iodine pads	8 rolls athletic tape (various sizes)
1 pediatric non-rebreather	100 bandaids
1 4x15" scotchcast 2 splint	1 CPR microshield
3 adult non-rebreather	1 oxygen regulator
9 acetaminophen	2 c-spine collars
9 aspirin	1 cardboard splint
3 sam splints	10 menstrual pads

First Aid Supplies (Ready Bag):

1 adult non-rebreather
2 adult nasal cannula (1 on demand)
2 cliff bars
2 emergen-C drinks
Small bag Gatorade
1 CPR mask
1 air splint
1 c-collar
1 multi-trauma dressing
1 stethoscope
1 blood pressure cuff
1 sam splint
1 bag valve mask

1 cold compress
2 pair gloves
1 pen
2 rolls athletic tape
2 runsheets
various gauze pads
assorted medications

1 syringe
1 pair trauma shears
1 thermometer
1 oxygen regulator

Oxygen:

2 Jumbo D (1500 psi, 1400 psi)

Sierra Crest End of Season Summary
Summer 2010
Debbie Brenchley, Sierra Crest Sub-District Ranger

SIERRA CREST STAFF:

Dave Gordon	McClure Ranger Station
Rick Sanger	Le Conte Ranger Station
Suzanne Sanger	Le Conte VIP
Chris Miles	Bench Ranger Station
Dario Malengo	Rae Lakes Ranger Station
George Durkee	Charlotte Ranger Station
Paige Meier	Charlotte VIP
Charlie Stearns	Roving VIP
Evan Norwil	Roving VIP

VISITOR CONTACTS AND MILEAGE

	June		July		August		Sept		Oct		Total	
	visitors	miles	visitors	miles	visitors	miles	visitors	miles	visitors	miles	visitors	miles
McClure	115	65	396	166	606	147	199	136	12	29	1328	543
Le Conte	71	48	363	159	678	153	225	148	7	28	1344	535
Bench	55	22	320	150	480	161	224	101			1079	433
Rae Lakes	108	34	440	176	1125	203	454	246			2127	659
Charlotte	290	37	750	150	1040	210	830	190	30	25	2940	610
SDR			224	83	333	72	5	13	22	64	590	281
Total											9408	3061

LAW ENFORCEMENT:

Citations

Charlotte	7 (2 dog, dog off leash, 2 fire, no permit, food cache) + 140 warnings
Le Conte	8 (Dog, Group size, Improper food storage (3), no permit (3)) +29 case cards

Rangers gave verbal warnings for different issues and submitted case cards.

EMS AND SAR:

There were 17 SARs (10 helicopter medevacs) in the Sierra Crest. Of the Sierra Crest incidents, SARs 32, 35, 40, and 57 were lifesaves. There were 2 multi-day searches. The SDR assisted with 6 other SAR incidents in other areas. Large incidents in the Sierra Crest were supported by personnel from other sub-districts. There were 21 SARs, 15 helicopter medevacs in the Sierra Crest in 2009 and 16 SARs, 8 helicopter medevacs in 2008.

SAR	Incident	CI#	Date	Area	
10	short haul	10 0473	06/14/10	Heart Lake	Kearsarge Pass, Inyo side
15	Search	10 0629	07/02/10	Split Mtn	Spot, search on Inyo
20	Medevac	10 0690	07/09/10	Palisades	ankle
23	Search	10 0749	07/15/10	Lamarck Col	search with Inyo
30	Medevac	10 0868	7/27/10	Charlotte	head injury
32	Medevac	10 0919	07/30/10	McClure	abdominal pain
35	Medevac	10 0960	08/02/10	JMT/Middle Fork	HAPE
37	Search	10 0967	8/3/10	Dusy	spot
39	Medevac	10 1042	8/10/10	Grouse Meadow	chest pain
40	Medevac	10 1050	8/12/10	Bench Lake	abdominal pain
41	Medevac	10 1054	8/12/10	Castle Dome	SOB
48	Medevac	10 1111	8/16/10	Upper Basin	broken arm
56	Medevac	10 1214	8/24/10	Forester Pass	back pain
57	Medevac	10 1247	8/28/10	Rae Lakes	HAPE
60	Search	10 1292	09/04/10	South Fork	search
66	Medical	10 1426	8/14/10	Bubbs Creek	back pain
67	stock evac	10 1428	9/2/10	Upper Basin	exhaustion

SARs Sierra Crest personnel assisted with in other areas:

SAR	Incident	CI#	Date	Area	
14	search	10 0628	07/02/10	Shepherd Pass	Spot
17	recovery	10 0648	07/04/10	Mist Falls	drowning
22	medevac	10 0748	07/15/10	Roaring River	illness (CO)
61	medevac	10 1293	09/04/10	Blue Canyon	shoulder, fell off horse
68	medevac	10 1434	09/24/10	Woods Ck Trail	knee injury, crutches
74	Search	10 1540	10/20/10	Whitney	Search—3 people

TRAINING:

The law enforcement rangers started work in May, completing LE training and some field training. The seasonals were required to pass the PEB (25% score or higher in 3 categories).

(b) (6)

There were 2 days of wilderness training for seasonals. Topics covered during training included safety, ethics, residual biomass, meadow management issues, GMP and Wilderness issues, backcountry permits and fees, invasive species, wildlife issues, and other Wilderness management issues.

A full 24 hour EMT refresher was presented on June. The doctors from Community Regional Medical Center presented all the lectures and assisted with skill stations. Parkmedics Dalrymple, Jostad, Trotter, Waldschmidt, Corrao, Browne, and I assisted with hands on exercises. Thirty eight participants completed all requirements for the refresher. Another 15 people attended for continuing education hours.

MCI (multiple casualty incident) drill was given on July 14. The drill was at Grant Grove and used the amphitheater area. There were participants from USFS fire and USFS LE, Hume Lake Christian Camp, Hume Lake Fire District, and various divisions from the park service.

MOBILIZATION:

Winter took a long time to end and lingered well into April. With the snow pack at 140% of normal, mobilization was planned by helicopter. Rae Lakes and Charlotte had patches of snow in their station areas. Bench station was completely covered with snow.

The helicopter mobilization was completed over two days. The Monarch Station was included with Sierra Crest for efficiency. Total cost was \$11,297.

		Mob	Backhaul		
6/25/2010	McClure	816	250	1 flight	helitack bumped to LeConte
	LeConte	1285	66	2 flights	helitack bumped to Bench
	Bench	1094	360	2 flights	
6/27/2010	Rae Lakes	901	50	2 flights	helitack bumped to Charlotte w/100 lbs
	Charlotte	1609	100	2 flights	sling loads
	Monarch	745	100	2 flights	plus box delivered to LeConte
Total Lbs.		6450	926		

DEMOBILIZATION:

The trail crew packers were able to demob LeConte, Bench, Rae Lakes and Charlotte ranger stations. The Charlotte Ranger station demob was delayed a week due to a winter storm. The McClure Ranger Station was demobed by High Sierra Pack Station out of Florence Lake. Ranger Chris Miles drove to Florence, picked up the gear, and returned it to Grant Grove.

End of Season Demobilization

McClure	\$1,250.00	High Sierra Pack Sta (1 pkr, 3 mules)
LeConte	\$810.00	Trail Crew
Bench	\$585.00	Trail Crew
Rae Lakes	\$922.00	Trail Crew
Charlotte	\$2,070.00	Trail Crew
	\$5,637.00	TOTAL

VOLUNTEERS:

Volunteers Paige Meier, Suzanne Weber, and Evan Norwil supplemented Sierra Crest coverage. They worked over 1,399 hours for 207 days. They contacted 2580+ visitors and hiked 851 miles. We appreciate their time and assistance.

MCCLURE AREA:

Snow survey completed maintenance on the two snow courses (Colby and Emerald). The McClure ranger monitored their work.

A gate was placed on the middle bridge to replace the drift fence. Towards the end of the season a mule broke the gate. It was a good attempt at replacing a drift fence, but the access to the bridge makes closing and opening the gate difficult when with stock. The drift fence will need to be repaired and put back into operation in 2011.

McClure Meadow was closed this season as part of the meadow closure rotation. Colby Meadow was open to grazing this year, but had to be closed in September due to conditions. Colby Meadow has a lower capacity for grazing than the other meadows in the area. When the data from the residual biomass is analyzed there is a probability that it will be recommended to rest Colby from grazing for 2011. This will affect the 3 year rotation of Colby, McClure and Evolution meadows. A better rotation might be to rest Colby every other year (Colby, Evolution, Colby, McClure).

The rotation of meadow closures also increases the need to keep stock from wandering between Colby and McClure meadows. Ranger Gordon found a suitable location for a drift fence between the meadows. In 2011, more information will be gathered in order to complete the compliance process and assess the need.

Darwin Meadow was temporarily closed to grazing this year. The meadow tends to be very wet and has had impacts in previous years from deep hoof prints and shearing. The closure has been in place since 2008 and should continue for 2011.

LE CONTE AREA:

Big Pete Meadow was temporarily closed to grazing this season except by permission for groups going over Muir pass. Due to the wet season, the meadow stayed wet all season. The LeConte ranger made a compromise and allowed stock users to hand graze the dry bench areas around the meadow.

The incinerating toilet stopped working mid-summer. I talked with Trails Foreman David Karplus. He suggested that trails take over the maintenance of the toilet. I sent contact information for the manufacturing company to Karplus so he can work with them to resolve issues. It's best if the rangers don't tinker with the toilet, but let the trails program oversee the maintenance.

BENCH AREA:

This was another busy summer for the Bench area. The Bench area had 5 major SAR incidents, multiple minor SARs including a stock evacuation and a number of EMS calls. Just before Labor Day weekend, Ranger Miles received a call for a sprained ankle. He assisted the person to the station area, assessed the injury, and came up for a plan for evacuation. That evening, Ranger Miles received a call for a man who had “collapsed” on the trail. Miles coordinated with the local trail crew to respond. The man was not requesting medical attention. The next day Miles sent the sprained ankle on his way and then the man from the previous evening showed up requesting assistance with a stock ride out of the wilderness. Ranger Miles coordinated a pack station to come in to evacuate the patient, but it would take a couple days for the stock to get to the man. In the meantime, Ranger Miles received a report of a missing backpacker. Ranger Miles assisted in the successful two day search for the lost hiker.

Poor radio reception

(b) (7)(E), (b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(b) (7)(E), (b) (5)

[REDACTED]

Taboose pass trail work

Trail crew and ACE crews worked to rehab the old trail through the meadow below Taboose Pass. They did excellent work. The trail crew assisted with a few SARs.

With trail crew camped along the South Fork, the use trail going to the trail crew camp (downstream from the South Fork crossing) along the old Cartridge Pass trail has become more pronounced. This causes confusion with backpackers. The Bench Ranger was going to work to disguise the use trail, but we’ll need help from the trail crew if they are using the camp again next year.

The trail crew packers did a good job moving the stock around to different grazing areas. This kept the meadows below the junction in okay shape. The meadow right at the junction saw too much grazing by commercial stock and the meadow management recommended it be closed for the rest of the season as of the end of September. Setting up a monitoring site (residual biomass) may assist in managing this meadow.

RAE LAKES AREA:

Rae Lakes continues to be busy. The Rae Lakes ranger contacts a significant number of visitors.

A new hole was dug for the toilet at Woods Creek Crossing.

The 60 Lakes trail

The 60 Lakes trail has some sections that are difficult for stock to navigate. Stock is only allowed on the first 2 miles of trail. Kings Trail crew has been notified and will evaluate the trail in the summer of 2011.

The drift fence at Baxter needs maintenance. The meadow below the drift fence looked like it had more grazing this year than I have seen in the past.

Ranger station project

The old ranger station was torn down at the end of the season in preparation for the building project next season. Some of the ranger cache was placed up the hill in the interim. Things to consider for next season...

- Signs for visitors explaining project ("excuse our dust")
- Mob RS to upper site with sling load
- Medical plan for work on site

CHARLOTTE LAKE AREA:

Backpackers continue to leave food caches in the food storage lockers throughout the Kearsarge Lakes area. Most of the caches are for long distance hikers. The Charlotte Ranger removes the caches and leaves a note for the owners to pick it up at the station. Better information should be provided the public to discourage leaving caches.

The Charlotte drift fence needs to be replaced.

The drift fences in Bubbs Creek above Vidette may need to be relocated to better facilitate protection of some meadows and use of other meadows.

GENERAL:**Radio Communications**

(b) (7)(E), (b) (5)

Satellite Phones

(b) (5), (b) (7)(F)

Military Flights

Kings Canyon doesn't typically receive low level flights from the military. This summer,

low flying military jets were seen and heard in the Muro Blanco and Rae Lakes. The Bench and Rae Lakes rangers reported them to Fire Dispatch. The Rae Lakes Ranger said it was so loud he had to cover his ears to prevent hearing loss. There were 25 people at Rae Lakes last night and the Rae Lakes Ranger was kept busy fielding visitor complaints. The Bench Ranger was on the PCT and said the jets were eye level to him going down the valley.

Meadow Opening

Currently the District Ranger is the authorized official for closing a meadow to grazing before the end of the season. If a meadow opening is delayed, the decision is made by the Wilderness Ranger. It might be better if the Wilderness Ranger makes the recommendation to the Sub-district ranger or District Ranger, who would then make the decision on the delay of opening.

We should also look at the data from the past years for actual opening dates verses the proposed opening dates. By analyzing the data it might be possible to come up with more accurate opening dates for preseason. This would help the wilderness user with planning.

Firearms

All the wilderness rangers were trained on the new firearms regulations. The few contacts made with people carrying weapons all turned out to be law enforcement officers from other agencies. It would be good to review during training how to deal with LE officers carrying weapons.

Food Caches

There are a number of backpackers that leave food caches in food storage lockers to be picked up by long distance hikers. The website and trailhead information should be checked to make sure the correct information is provided. Some ranger stations are close enough that the rangers may impound the food and leave a note letting the person know where the food is located. It would be better if there was a written policy addressing food impounds.

Backpacker Impacts

This season I noticed a lot of backpacker impacts in different areas. I hiked in the McClure patrol area in August. Early one Thursday morning, at the Piute Bridge, every available space was taken by backpackers (12+ parties). For the next mile or more there were backpackers in places I don't normally see them. Many of the backpackers had fires. In October, I hiked from Twin Lakes to Rae Lakes. There were many campsites along Woods Creek (above the crossing) that looked trampled, well established way trails, and large fire rings. The slick rock waterfall above Woods Creek crossing used to just have a faint trail going towards the falls. Now there is a well established trail along with a campsite with fire ring and a fair amount of trampled grasses. The trail up to Dollar Lake also had many more identifiable campsites.

Upper Dusy Basin, Kearsarge Lakes, Rae Lakes, and Woods Creek Crossing are a few of the areas that receive significant use from backpackers and you can tell by just looking at them—large bare ground areas, toilet paper, way trails, and trash.

The campsite inventory project has helped to identify the camp areas and impacts. The wilderness rangers have done an excellent job checking the campsites and rehabbing those

indicated. The campsite inventory has identified how many campsites are there and how large they are.

We need better “tools” to determine the amount of use an area can take without having significant impacts. Should we select sites to monitor with radial transects or other measuring method, much like collecting residual biomass for meadows? Lower elevations could use some form of the firewood monitoring process that the Kern Rangers have used.

We are fortunate to have different “tools” (residual biomass, opening dates, and other policies) for meadow management. It may be useful to have more “tools” for identifying and quantifying impacts to camp areas.

RECOMMENDATIONS:

(b) (7)(F)

- [REDACTED]
- [REDACTED]
- [REDACTED]

(b) (5)

11

11

██████████

End of Season Report
Tyndall Creek Ranger Station 2010
Laura Pilewski

A. Visitor Services

a. Contacts

i. Backpackers (approx. 1900 contacts)

Virtually all visitors were respectful and followed the rules and regulations. There seemed to be less trash left behind than in previous years and most adhered to the fire restrictions. The JMT and PCT are increasingly popular. And, the Colby Pass trail has been written up in several publications and is also being rediscovered.

ii. **Day hikers**...saw lots on Mt. Whitney patrols. One person, Bob Burd (who has his own blog on peak "day hikes"), day-hiked Kern Point from the Shepherd's Pass trailhead. Just thinking of it makes me tired. Coincidentally, I saw someone a few days prior who had referred to Burd's website to do his "day hike" of Mt. Brewer but, more reasonably, in two days! Also, the famed Sorrenson was out again attempting to beat the record (his own?) of running the JMT. Impressive athletes. Everyone enjoying "wilderness" in their own special way, I guess.

iii. **Stock** Commercial groups had approximately 150 user nights and used primarily Tyndall and Wright Creek Meadows. The Kern Trail Crew had 15 head but only camped at Cold Springs and the lower Kern Kaweah (200 nights). Late season, private users grazed approximately ten nights. Overall, use was low and well distributed in my patrol area for a total of 360 nights.

b. Law Enforcement/ c. Citations

Although there were a fair number of illegal campfires in the area especially when the uninformed, very social PCT hikers came through early and late season, no one was caught "red-handed." Furthermore, Yosemite was still giving out old fire regulation information for Sequoia NP(11,200' limit). I believe the Wilderness Office tried to resolve this last summer 2009 to no avail. Come September 2010 this was still the case (see attached). Given the former no-fire regulations already in place especially around bear boxes, this only kept the Tyndall ranger busy destroying illegal fire pits regarding this matter.

Two verbal warnings regarding caching food in bear boxes was given. A couple notes on this subject. It's nice that it's now covered on the minimum impact sheet. But, how do we define "on-site use only?" In the Tyndall area, peak baggers in particular will often travel back and forth from their camp to use a box and the ranger will never actually see their camp. Some might confiscate food prematurely. Just "food for thought" for enforcement purposes. Also, I have heard that the commercial packers will leave food drops at Charlotte Lake Ranger Station. Some thru-hikers expressed that this is unfair to the private user who would like the same service (not sure this is indeed true or not but we should be consistent). Citation(s) were issued (ultimately by 311) to two folks who camped at Shepherd's Pass in order to climb Mt. Williamson. They lied about having a permit and had blatant food storage violations.



d. SAR & Medicals

Date	Location	Type	Evacuation
6/15	TCRS/Jct. Mdw	HAPE	helicopter*
7/2	Shepherd's Pass	head lac.?	self/INYO SAR**
7/28	Tyndall RS	SOB	CHP helicopter
7/29-7/30	Tyndall RS	hematuria	self
7/31	Mt. Whitney	lost/missing	INYO SAR
7/5	Wheelbarrow camp	head laceration	self
8/29	TCRS	poss. dehydration	self

*311&313 responded while we were still in training. Victim descended to Jct Mdw from TCRS, had SPOT device but never activated! A hiker notified dispatch by cell phone. Rangers followed clues in sand to Kern!

**SPOT activation on Shepherds Ps & Pothole. I responded from Kern Canyon. By the time I arrived they had self-evacuated.

SPOT devices: Jury is still out. Lots of people carrying them. They seemed less problematic this year although some still overact while others actually underreact! (Example HAPE victim)

e. Fatalities (n/a)

f. Weather

Due to an unseasonably cold spring, and a "normal" snowpack, there was plenty of snow on the ground for our arrival and creek crossings were seeming to peak shortly there after. I had to coordinate patrols for the first week so that I wouldn't get stuck on the north side of Tyndall creek away from my cabin, come afternoon. But, even on big snow years, given the location, one can creatively circumnavigate virtually all headwaters or hike loops in between dangerous crossings (i.e. south side of Tyndall Ck./west side of Wright Ck).

g. Fires

Two large fires produced smoke in the Tyndall area this season. First was one that swept through the Lake Isabella area. Second, the Sheep Creek fire which was lightning triggered, would occasionally dump smoke into the upper Kern. In September this one really kicked up and caused a few people to complain over the Labor Day weekend and a bit thereafter. Mid September, quite a bit of smoke would pour over the Kings-Kern Divide and the Colby Pass area. It continues to burn as we end our season out there.

C. Use Patterns



a. Backpackers

The JMT/PCT is still very popular. 313 & I had the pleasure of meeting "0:0," a guy who became blind later in life. He had just summited Whitney and was in the process of hiking the entire PCT! Quite the inspiration. He had some incredibly daunting obstacles of snow and high creek crossings ahead even for those who could see. But to my knowledge, he at least made it through the park!

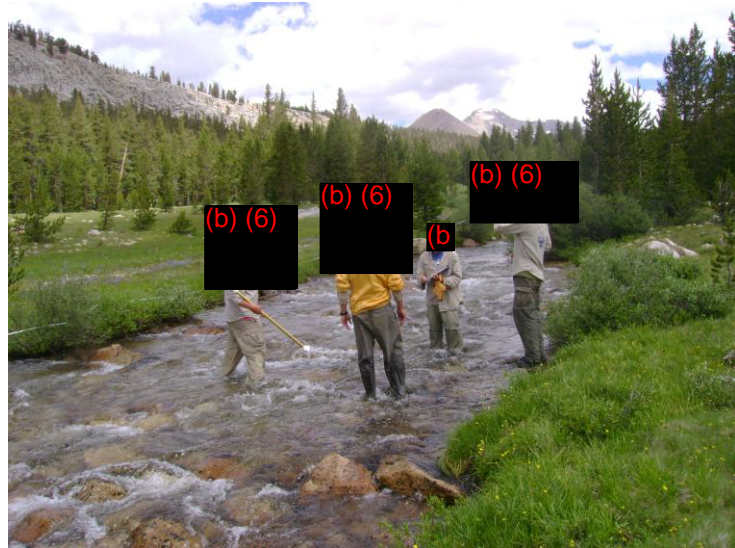
b. Stock

Virtually all stock use in the Tyndall area was commercial or administrative. Three small private groups came through late season (two horse/mule parties, one llama party).

Tyndall Creek by the station early season

D. Administrative/Research

They main area of research in the upper Kern and Tyndall plateau focused on water quality and runoff. The I & M Lakes crew came through. USGS Miller and Forester also did some water sampling in the area via helicopter support, however their main water reading stations were set up in the Crabtree area. I spent one morning working with Dave Herbst's crew from UCSC. They installed two devices in Tyndall Creek Meadow to measure water and atmospheric pressures for at least two years. They had also set up one other station in upper Tyndall and two in Upper Bubbs Creeks. Apparently, not much data has been gathered from these high pristine watersheds that have a high potential to be impacted by climate change.



USGS had a few folks surveying small mammals in the Shepherds Pass/Tyndall areas, also gathering baseline data for climate change. Danny Boiano's Frog crew would frequently pay visits to the ranger station between trips to Center Basin and Kern Point. Holmquist performed his invertebrate study in the core and reference (grazed and ungrazed) plots of Tyndall Creek. I assisted (b) (6) in reading the species composition of these two plots. Frenzel came through briefly to monitor the Wright Creek meadows. And last but not least I briefly met with Sylvia Haultain at Crabtree before her successful trek up Mt Whitney.

d. Commercial

Commercial use was almost exclusively along the JMT, about half were stock supported. A Sierra Club Outing wandered around the upper Kern. Once again, hours of contacts were recorded on CUA's this year to show how much time we spend with groups in the field.

D. Natural Resources

a. Bear Activity

Bear sightings were very scarce this year even along the JMT. I saw one grazing along lower Tyndall creek early season. There was one report from Junction Meadow in the Kern, but otherwise quiet. However, we should still stay vigilant about maintaining a strong presence in the Kearsarge area as this is usually an annual problem despite the use of canisters. Virtually all visitors who start these loop trips or who resupply there tell me that they do not fit all of their food in their canisters initially and resort to other unacceptable methods of food storage when away from the bear boxes. Of course, they will never admit this to the trailhead rangers.

b. Wildlife

My most unique sighting of the summer was that of a ring-necked duck eating what appeared to be insects (possibly including the thousands of drowned lady bugs caught in the melting ice) that were floating along with it on the lake at Shepherd's Pass. I am absolutely positive as to its identification as this species frequents the lakes of Pagosa Springs where I live the remainder of the year. It does not appear on our park species list as of yet!

Once again, pika were everywhere. Yippee! It seems there was at least one every half mile in the usual alpine habitat (talus, meadow, alpine lake). Finally, this cute white-tailed jackrabbit was my neighbor for most of the season.



Not a ring-necked duck!

c. Vegetation

I collected a few specimens for the herbarium: *Hackiela floribunda*, *Juncus hemiendytus* and *Linanthus oblongeolatus* which grows in abundance in the Tyndall area but was apparently lacking in the park herbarium.

Overall, the meadows in the Tyndall patrol area are in great shape. It would be nice to get a second opinion about Cold Springs. As usual, it only received administrative use. Given its location (lower elevation along the river) it regenerates quickly. However, even though the meadows may be dry enough to graze, the river banks are showing a lot of use.

Along these lines, one idea is for the trails program to rethink their strategy of stock and helicopter resupplies. There may be redundancy. High country meadows may be used more than perhaps necessary. I believe Kings crews used east side trailheads this year. Could Sequoia do the same? Trends of user groups have also changed. The order of the camps visited could be changed now to reflect meadow opening dates, snow melt and visitor use (i.e. priority along the PCT/HST for

logging, etc.). Also, those camps that already have Knack boxes could possibly store items so there wouldn't be as much to move (i.e. stove, propane, etc.).

Velvet Grass Notes: It sounds like Erin Degenstein and the ACE crew are making headway. I think it is a good idea to keep the tarping in the Kern in place for a minimum of five years to kill off the velvet grass seed bank. All tarping is in a very discreet place in an area that is infrequently visited. Also, I did find the time to do a cursory survey of the Cold Springs meadows and found no velvet grass.



E. Cultural Resources

a. Prehistoric

I had trouble locating a few sites on the (b) (3) (B) I believe they are incorrectly transcribed on the map (ex. two lie in a lake!) and I do not have the UTM's. Otherwise, the sites I visited with the Yosemite archeologist last year looked the same (just a few obsidian/chert flakes).

(b) (3) (B)

b. Historic

(b) (3) (B)

F. Backcountry Facilities

a. Ranger Station

The station is in great shape still. Dave Yemm continued work on flooring the attic. He also installed a light which is real handy up there. I found a hole in the chinking behind the bunk beds at the end of last season. A shaft of light hit me in the eye while on my hands and knees varnishing! That may have been the main portal for the mice as I haven't had one since I've sealed it this spring. Life here is much quieter without them marching around! I painted one more coat of varnish on the floor at the end of the season. And, I placed gravel around the new step that was placed there last year.

A couple of extra credit projects would be to paint the cupola (already have supplies) and make two new replicates of the historic(?) benches (see photos) for outside the cabin. One is gone (burned at some point in the past?) and the other is in pretty poor shape although visitors still attempt to sit on it.

b. Signs

All are in place and functional. I removed two signs this year along the lower Milestone Basin trail (1 old campsite restoration site sign and the "Contact nearest ranger for grazing Milestone Basin"). Also, 313 and I moved the "No fires above this elevation" sign from Wallace Waterfall Meadow to 10,400' along the HST next year.

That and the further rehab at the junction of the JMT/HST really helped minimize illegal fires there this year (only three all season).

G. Trails

a. Trail Activities/ Work accomplished

The King's CCC's crew did a great job along the north side of Forester Pass. They were very accommodating and managed to allow stock parties to pass through the construction zone after all, throughout the project. Bobby, Matley, and Agnes kept the crew smiling throughout the season.

Once again, the Kern Crew prioritized their busy schedule and, reasonably so, skipped their stay at Tyndall. Most trails still looked in pretty good shape. The crew spent most of their time repairing "the chute" along the lower Kern Kaweah that almost annually becomes washed out and impassable to stock. New rock walls were placed so now maybe it will hold for a while. Lorenzo Moreno and Beth did manage to come by and cut rounds for the cabin and haul away some trash. There was some washed out trail damage along the Shepherd's Pass trail (approx. 75') that should be addressed next year (see photos).

b. Problem areas

All truly bad areas are along somewhat less popular trails:

- 1) Brushing/ defining trail in Upper Kern Basin.
- 2) Re-routing trail adjacent to lake due south of pass south of Lake South America. Always a flooded meadow/trail early-mid season.
- 3) Super steep switchbacks just below tree-line Sequoia side of Colby Pass need steps and/or re-route with less grade.
- 4) Rehabbing old trails especially towards Shepherds Pass.

H. Camp Areas

All are looking pretty good, but need constant attention or rehab work in bear box campgrounds. I would recommend removal of the bear box below the Tyndall ranger station. Although I'm a strong advocate of them elsewhere, this one receives virtually no use and even less now that fires are not allowed below the ranger station. That is why it was occasionally used before (fires were not allowed upstream of here by the other bear box on the JMT). This camp area in general is rather poor due to widow makers and lack of flat ground without vegetation. I have already started rehab of this area. The bear box at the Frog Ponds could also be removed. I just don't see the need for three in one square mile of wilderness. The bear box along the JMT at Center Basin Creek, however, is, in my opinion, a very important location and it is in poor shape and may need replaced soon. Wallace Creek and Junction Meadow seemed to be less of a problem this year and stayed cleaner than usual.

I. Permit System

There should be a spring deadline for commercial permittees. Yosemite should update their SEKI info/regs. Most LNT could be consolidated for all agencies. The PCTA also could use the second half of their permit (which is presently blank) to include a LNT synopsis and, maybe, a sentence of info from each major agency one passes through along the PCT. Also, with the advances in GIS, perhaps, an easy to read fire regulation map of these routes could be made.

Group size: I do not have extremely strong feelings on this issue, especially if they fall within the trail quota. In certain areas, in particular on the Mountaineer's route on Whitney (INFS), however, I can see it being a safety issue. I would recommend researching previous permit records to see where and how often the group size exceeds eight in cross country zones to see which user groups will be affected. This may directly impact several historic users such as Three Corner Round, Outward Bound, Thatcher School, and the Sierra Club to name a few. Often, it is these groups who expose youth to the wilderness in a responsible manner and create future advocates for these places. To be honest, I rarely have seen large groups in cross country areas other than in the Miter Basin/Crabtree Pass areas in my fifteen years out here.

Trailheads overall did an outstanding job, especially those in Lodgepole. It would be nice to have a copy of or knowledge of the east side trailhead ranger's patrol schedules that way we can coordinate projects or patrols.

J. Communications

(b) (7)(E), (b) (5)

Campsite Inventory

I completed the rehabilitation of the remaining nine sites in Tyndall patrol area. I helped 313 clean up two can dumps we found last year during the inventory of the Wallace Creek drainage. Excellent efficient way to clean up the backcountry as the trends of old seem to have permanently changed. Not many private stock groups, way more leave no trace ethics, and more peak bagger camps vs. stock camps in these off trail areas. Thanks to Greg Fauth funding our program through this project. It seemed well worthwhile and will hopefully be repeated in the future. Anxiously awaiting updated maps for our respective patrol areas. They will be especially useful to those who are new to their beat.

K. Needs for next year

The Laws field guide to the Sierra Nevada by JM Laws (for all stations-except Tyndall)

Pulse Oximeters (all stations)

OPA/NPA's (all stations)

SAR headlamp

Camera (old one has spots on digital display)

Lightweight Crampons compatible with any boots

Ice axe leashes

Fix zipper on fanny pack for Osprey backpack

L. Recommendations/Projects for next year

Use bear box surveys from 2008 or survey others before considering the removal of any boxes (including aforementioned ones).

Remove unnecessary structures in wilderness:

Old bomb box with broken lid by Kern Hot Springs Trail Crew Camp

Bear box below Tyndall Ranger Station (b/c 3 within one mile!).

Bear box Frog Ponds (b/c 3 within one mile!).

Monitor & soon replace bear box Center Basin/JMT jct.

Move Knack box to Cons Crew Camp, SW corner, Tyndall Meadow pending Kern trail crew's approval of campsite placement.

Permits:

Research group size limit especially with regard to historical users/educational groups before making broad-based decisions.

Update PCTA permits

Update Yosemite permits

Have Min Impact Quiz instead of old verbose black&white can/can't do non-interactive version nobody reads!

Keep the tarping in the Kern in place for a minimum of five years to kill off the velvet grass seed bank.

Continue to utilize Cottonwood Pack station for administrative use on east side.

**End of Season Report
Crabtree Ranger Station
Rob Pilewski
2010**

A.



General Summary

This was my 19th summer working as a commissioned wilderness ranger at SEKI. I have been the Crabtree Ranger for 11 of these years and would be happy to return for the 12th. Crabtree is an interesting and challenging place to work. It was a busy summer for visitation (numbers up slightly from last season), though no major incidents occurred in the area. The focal point for most visitors to the area is Mt. Whitney.

I arrived at Crabtree on June 20th following a month of training and front country patrols. There was still a fair amount of winter snow on the ground due to a cool and wet spring. Crossing Trail Crest required an ice ax and crampons this season. Overall there were slightly wetter conditions compared to normal

with more snow and water than last season. I contacted many PCT thru hikers and observed signs of much use prior to my arrival. It would be useful to arrive at our backcountry outposts closer to the beginning of June rather than the end. The Crabtree patrol cabin was in good condition upon my arrival and the snow surveyors continue to take good care of the cabin in the winter. There was some concern that the Kern Stations had been broken into during the winter. This concern was voiced by winter snow surveyors, but I do not think the Crabtree Station was used by anybody but NPS personnel and State Snow Surveyors. There was a big search in the area last October and I think that the signs of use observed by the snow surveyors were caused by NPS searchers who stayed at the Crabtree, Rock Creek and Tyndall Stations during the search. The front door would be easy enough to breach and we are only asking for trouble by leaving it as such. I recommend reinforcing the cabin door to make it more secure.

B. Visitor Services

Visitor services are a primary duty of the Crabtree ranger. The high volume of visitors to the area each summer insures that much time will be spent answering questions, giving directions, and "educating" visitors on taking care of this National Park Wilderness. The public service that the Crabtree Ranger provides to park visitors can be rewarding and meaningful to folks in helping them enjoy our public lands. Wilderness rangers are in the unique position of contacting park visitors in a place where much effort was made to get to and being able to share the amazing

surroundings of the high sierra and our own personal experiences with them. Also, being the person wearing the badge, and the grey and green puts us in pretty high regard with most visitors even before introductions are made and gives us the opportunity to enrich the experience that visitors have at SEKI. The fact that wilderness rangers at SEKI live in the wilderness all summer long makes this possible.



a. Contacts

- i. Backpacker- 2,524
- ii. Dayhiker- 1,721
- iii. Stock- 241

b. Law Enforcement

A seasonal LE commission is an essential tool for the Crabtree ranger to have in the tool box. It is used daily on patrols and I strongly recommend that a commissioned ranger continue to be staffed at Crabtree. Education of park visitors continues to be my focus to gain compliance with NPS regulations. Sometimes issuing a citation is the appropriate action to gain future compliance. Visitors continue to abandon property in the area and in particular the bear boxes. Particularly at times of inclement weather people will abandon their belongings in an effort to "get out alive". This summer I packed out items including bear canisters, tents, and articles of clothing. I attribute this mostly to novice backpackers who do not put the proper thought into packing for their trip in the first place. I do not know what the solution to this ongoing problem is but an educational push at the permit stations to "pack it out" could not hurt.

The new fire regulations in the Kern (10,400' from 11,200') also increased the number of LE contacts pertaining to campfires. Several citations were issued for illegal campfires, but mostly we were left to clean up after the fact and the perpetrator had left the area before being contacted. PCT thru hikers are not getting SEKI regulations, or perhaps not understanding said regulations, and this resulted in numerous illegal fires in the Crabtree area this summer. I expect that as the years go by the fire regulations will take better hold and the incidents of illegal campfires in the Kern will be reduced.

There is a real issue with guide services operating on Mt. Whitney without the proper Commercial Use Authorization this year. Interestingly, the common retort from these groups is that "we are only in the park for a short distance and time". We need to have better communication with the Inyo National Forest concessions and ensure that all commercial operators who obtain permits to guide on Mt. Whitney with the USFS also must have a CUA with SEKI.



c. Citations

Citations were written in the area this summer for: illegal campfires, trespassing in the Mt. Whitney Hut (locked NPS side), pet (dog) in the wilderness, and abandoning property. As of this writing we are investigating an outfit for not having the proper permit to operate commercially in the Park. I think citations are most effective if possible to be issued in the field to the violator as opposed to mailed at a later date.

I issued verbal warnings for things such as: camping on vegetation, noise after "quiet hours", choice of highline areas for

stock, and camping too close to water. Sometimes, with the proper time allowed to educate visitors, a verbal warning is the appropriate action to ensure future compliance.

d. SAR & Medicals

It was a quieter than usual summer in the area for medicals. The Crabtree ranger spends much time dispensing band-aids, tape, moleskin, and advice for minor medical issues such as mountain sickness, blisters, sprains and strains.

*In July a man was evacuated from Crabtree Pass with a broken leg. He slipped on wet granite during a hail storm and broke his lower leg in numerous places. I responded on foot with the RP and 311 was flown to the site. We spent the night with the patient on the side of the pass as thunderstorms rolled overhead. It was fortunate that the weather cleared enough the following morning to evacuate. It was also very fortunate that the pilot found the snow field located nearby to be an acceptable landing zone. Great job Keith!!

*I responded to the summit of Mt. Whitney for a woman who was observed "vomiting" earlier in the day. The Inyo Sheriff's Office made the decision to respond from the east side so we thought it appropriate that we send someone up from our side. I carried the Gamow Bag and overnight gear and arrived at the summit at 0430 without locating anyone in need of medical assistance.

*A visitor reported that his friend and he had become separated on the way to Crabtree Lakes. I responded the following morning with the RP and found the separated party in good shape and happy to be reunited with his companion.

*316 and myself searched the Mt. Whitney area for a hiker who was 2 days overdue from returning to his car following a day hike on Mt. Whitney. Helicopter 552 searched from the air and I searched to the summit, while 316 searched the Arctic Creek drainage and the north slopes of Mt Whitney. This search occurred during the first real cold spell of fall when we had temperatures in the 20's and high winds. The prognosis did not look good, but the search had a happy ending when Inyo SO personnel found the

missing party below Lone Pine Lake on the east side of the mountain. He was weak and suffering from exposure but otherwise OK. Follow-up with the Inyo SO indicated that the hiker had spent the 1st night out on the summit ridge above 14,000' with little gear and no shelter. The temperatures were in the teens with a colder wind chill. Another fortunate one in the "Whitney Zone"!!

*I assisted a hiker who was having difficulty descending Mt. Whitney due to extreme fatigue. Her father, boyfriend, and I helped guide her to the Trail Crest where we were met by a USFS ranger who helped them get the rest of the way back to their camp at Trail Camp.

e. Fatalities

It was a busy season for the USFS on the east side of Mt. Whitney this summer. There were several fatalities and numerous incidents there. There were no fatalities in the Crabtree area this summer.

f. Weather

It was another dry summer in the southern sierra. There was a period of thunderstorm activity in mid July that brought isolated showers to the area. There were a few isolated thunderstorms in August, and a skiff of snow that fell the first week of September. I doubt that much more than an inch or two of precipitation fell at Crabtree this summer. The area was dusty and dry by season's end. Temperatures seemed to be slightly below normal for most of the summer, with a few significant cold snaps during the late season.

g. Fires

There were no wildfires in the Crabtree area this summer. Smoke from the Sheep Creek fire could be seen in the area if the winds were blowing out of the NW. I took some interesting photos from the summit of Mt. Whitney on one day in particular that started out clear and by mid afternoon the entire great western divide was obscured by smoke. There were many visitor comments from folks who travelled from the north about the "thick smoke" that filled the air north of Forester Pass.

C. Use Patterns

a. Backpackers

Backpackers constitute the majority of use in the Crabtree patrol area. This year the trend was towards the long distance hikes of the PCT and JMT. Southbound JMT hikers are perhaps the biggest user group in the area. It would be good to get the permit numbers from Yosemite NP and see if the numbers are flat or increasing as they seem to me to be. We also need to ensure that the Yosemite permit issuing stations are giving accurate information about SEKI. Permit information



observed this year still state that the fire elevation regulation for the Kern drainage is 11,200'. This is not correct. The fire regulation in the Kern is 10,400'.

The PCT thru hiker numbers continue to rise. I contacted more PCT hikers this season than in any previous summers. The trend seems to be that people first hike the Appalachian Trail (AT) and then attempt the PCT. The issue that we rangers face is that these 2 thru hikes are entirely different from one another. I contacted numerous PCT hikers, fresh off of their AT experience, who were completely clueless when it came to true wilderness hikes and travelling through big western national parks where there are "regulations". Many in this category did not know about permit regulations, fire regulations, food storage, etc. The NPS should have a good outreach program to ensure that these folks have the opportunity to be well versed in NPS issues and regulations. Going direct with the Pacific Crest Trail Association would be the best starting point as most PCT thru hikers obtain their permit via the internet from the PCTA.

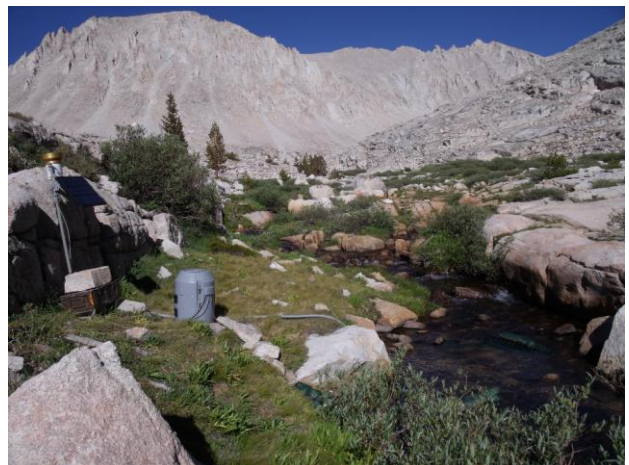
The loop trips from Horseshoe Meadow and Onion Valley to Whitney Portal continue to bring many backpackers to the area from mid July thru August. Most Boy Scout troops do their trips at this time and many parties of 15 are contacted heading for Whitney one way or another. The exit quota on Trail Crest is full during the busiest of the summer months resulting in more overnight use in the Crabtree area. I think we should continue to pursue the possibility of eliminating the exit quota with the USFS. This was mostly implemented as a way to deal with the human waste issue on the east side and now that we have the wag-bag program which appears to be working it may be an opportune time to take it up with the Inyo NF.

b. Stock

Stock numbers seemed to be about average this summer. Except for three private parties that spent almost 1 week in the area stock use was exclusively commercial and administrative. Stock parties continue to visit Crabtree to pack their clients in to climb Mt. Whitney. We should continue to work with all permit issuing stations to ensure they are giving out accurate NPS stock regulations. This is even more vital as we open and close meadows as part of our management program. We should make preseason visits to each of these locations. We can better enforce regulations in the field if we giving backcountry users the opportunity to know what those regulations are.

c. Administrative

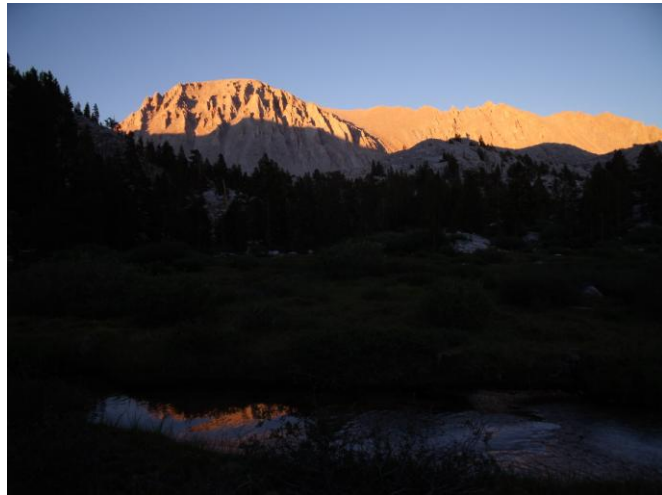
There was a good amount of administrative use in the area this summer. The Kern Trail Crew was camped at Sandy meadow for 7 days while they worked on



area trails. Lorenzo Moreno led the crew this summer and they did a fine job of doing maintenance on area trails. They had a spike camp up by Hitchcock Lakes and did some much needed work on the Mt. Whitney trail.

USGS water quality researchers moved into the Crabtree area in late July and will be monitoring water quality in the Crabtree area through the 2011 season. They set up monitoring sites at: Whitney Creek x3, Sandy Meadow x2, and Arctic Creek. They are doing water testing in the wilderness and have a portable lab set up at their camp which is 1/4 mile behind the ranger station. I worked with them throughout the summer, advising them on use patterns and appropriate locations for their monitoring sites. Please refer to photos for more information.

The Chief Ranger-Department of Defense trip to discuss military overflights of the SEKI wilderness was held the second week of September. There was good discussion about the impacts of military jet noise over the wilderness. This was also a good opportunity to meet with the Chief Ranger and Superintendent and discuss local issues.



d. Commercial

Commercial use in the area focuses around Mt. Whitney. Be it backpackers, stock users, or climbers, most commercial use occurs on or around Mt. Whitney. I will not list

all commercial users contacted this year in my report, but rather address the problem of Commercial Use Authorizations and enforcement of permit requirements in the field. As evidenced by our discussion this year at training there is still much confusion over who needs a CUA and what it takes to get one at SEKI. The big issue remains who exactly has a valid CUA? I contacted 2 commercial groups on Mt Whitney this summer that did not have valid CUA's at SEKI. It took some research to determine this (b) (7)(F)

Both of these groups had commercial permits with the Inyo National Forest and it should be apparent to the USFS that Mt. Whitney will be a big part of their business. If they want to guide clients to the summit they have to have a CUA because regardless of what route is climbed, the summit of Mt. Whitney is in Sequoia National Park. Better communication with the Inyo NF concessions office would ensure that we know who is planning on guiding on Mt. Whitney and whether or not they have the proper permit to operate commercially at SEKI. The best solution would be to put a date by which groups wanting to obtain a CUA at SEKI would have to fulfill the requirements and be issued a CUA. NO CUA's would be issued after this date and rangers heading into the field would be given a final list of all valid CUA holders for that year.

e. Military overflights

The noise from military overflights changes the experience of wilderness south of the Kings-Kern divide. Dialogue with the military bases in the vicinity of SEKI over the years has resulted in far fewer "deviations" (flights below 3,000' AGL over the park). Another issue is the sometimes constant noise of military jets over the park. Regardless if the jets are 2,000 AGL or 8,000 AGL the noise they create are an impediment to the wilderness character of the soundscape. Given the importance of the airspace over SEKI to the military and their mission I do not know what the solution is. Greg has done a good job of communicating our concerns to the military and setting up the DOD/Chief Ranger trips every year. We should continue to do so in an effort to minimize the impacts of military jet noise over the park.

D. Natural Resources

a. Bear Activity

There were no reports of bear incidents or even sightings in the Crabtree area this summer. The only sightings that visitors reported to me were in the first 10 miles of the High Sierra Trail between Crescent Meadow and Bearpaw and in Yosemite National Park. Most visitors are carrying bear canisters and have been given excellent food storage messages from the permit issuers.

b. Wildlife

Not much of note on wildlife sightings. The small mammals continue to make up the majority of sightings. The ubiquitous Pika continues to thrive at the high elevations. In the forest the chatter of the Douglas Squirrel and the acrobatics of the Golden Mantled Ground Squirrel make for some fine entertainment. There was a report of Bighorn Sheep being sighted around Mt. Barnard which is exciting if true. It would be great if their numbers were increasing and their range was expanding.

c. Vegetation

Monitoring area meadows is a big part of the Crabtree ranger's job responsibilities. Sylvia, our most respected plant ecologist, has done a fine job directing field rangers and managing meadows. This year it was a challenge to manage the Crabtree meadows as Upper Crabtree was closed to give it a rest after several years of heavy use, and Lower Crabtree and Strawberry were open to limited use. Strawberry was subsequently closed in early August after 50 stock nights and Lower Crabtree closed in late August after 60 stock nights. This put the pressure on Sandy Meadow which received about 300 stock nights. It is important to have good communications with area pack stations as we open and close meadows to ensure that grazing use is dispersed appropriately. The rangers of the Kern do a good job of communicating with one another regarding stock parties in our respective areas and subsequently passing area information on to the packers about where to camp and graze.



E. Cultural Resources

a. Prehistoric

No prehistoric sites were observed this summer at Crabtree. (b) (3)

(B)

b. Historic

The Mt. Whitney Hut is the only historic building in the Crabtree Patrol area. It is now 101 years old and the visitors seem to relish this fact and often ask questions about it and have their picture taken by it. I did some maintenance on the visitor side door which kept it functional for the summer, but it really should be replaced in the next year or so. Graffiti continues to accumulate on the walls, doors, and windows of the visitor's side of the hut. I think we should put a sign up inside the room informing visitors of the criminal nature of writing graffiti and the penalty for doing such. Otherwise, the Mt. Whitney Hut is in good shape. I do monthly inspections on the lightning diffusion system and all seems to be in order with it.



F. Backcountry Facilities

a. Ranger Station

The Crabtree ranger station continues to be a well functioning ranger station and will be for years to come. I know that it is slated for replacement but I feel like, having been the ranger here for 11 seasons; I should weigh in on this proposal. The current ranger station is a well built structure that will last for years in its present state with very little maintenance required. One visitor commented that the Crabtree Ranger Station was the "nicest ranger station they have seen" on their trip down on the JMT which included all of the ranger stations from Mclure Meadow south.

b. Signs

I placed one sign this year at Wallace Creek below the JMT at the 10,400' elevation in line with the new fire regulations in the Kern. I placed 2 signs on the Mt. Whitney hut, one concerning our SAR policy and, and one for visitors to make sure the door is closed over the winter to try and prevent further deterioration of the door and to keep snow from blowing into the hut. All other signs in the area are in good shape and placed in appropriate locations.

The one sign need is for the Mt. Whitney Hut. We should make up a sign that says- "Please do not write on walls, windows, or door. It is a crime and punishable by law". Or something to that effect. It could be plastic like the ones in the hut stating "Wooden Floor is an integral part of lightening diffusion system-Please do not remove."

G. Trails

a. Trail Activities/ Work accomplished

The Kern trail crew performed routine maintenance on area trails in August. They also cut firewood for the snow survey and helped with the aforementioned project on Mt. Whitney. Area trails are still showing the efforts of the Constructin crew who were in the Crabtree area for a full summer in 2007.

b. Problem areas

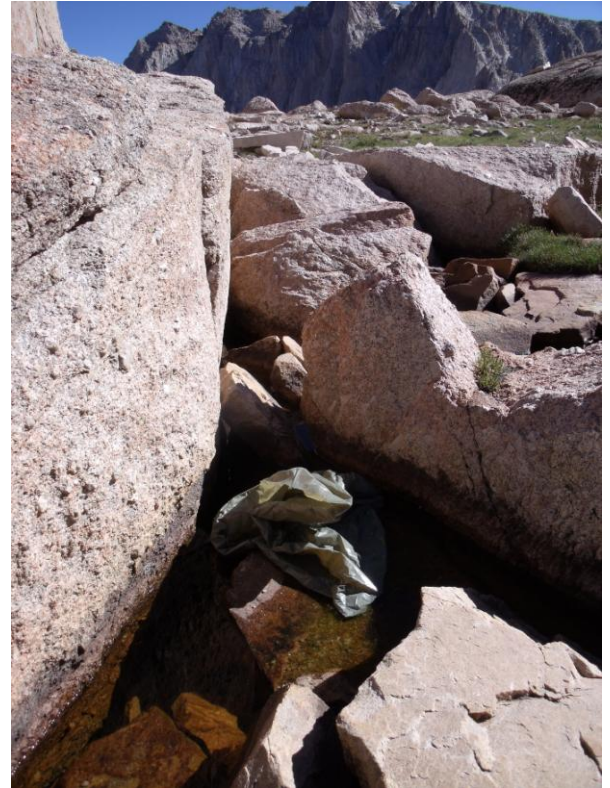
There were some big rocks that rolled onto the Whitney trail this winter, but are still easily passable to hikers. The dilemma of trying to move these rocks is the

constant traffic on the trail and the threat of blitzing the trail below with any runaway rocks that might start rolling. The trail is totally serviceable and will be for years to come with routine maintenance.

H. Camp Areas

Conditions continue to improve at Guitar Lake due to the wag-bag, pack out your poop, program. This is not to say that the impact from human feces is no longer an issue. I collected more full wag-bags this summer than in previous summers and those who are not exiting to Whitney Portal and subsequently not using wag-bags are still leaving toilet paper and feces in inappropriate places. I recovered a full wag-bag from the lake in the Arctic Creek drainage which, unfortunately, was just above the control site for water quality monitoring. I dispensed approximately 2,000 bags from Crabtree this summer and compliance has been pretty good. We should try and dispense more bags at permit stations and trailheads for visitors coming to the Whitney area. This is especially important for Lodgepole and Yosemite as hikers on the HST and JMT constitute a large portion of visitors who pick up their wag-bags at Crabtree. All other camp areas at Crabtree are looking good.

The camps around the bear boxes continue to be the most popular campsites. They are still used by many visitors and we should keep the ones in place that are already in use area. Bear Boxes serve the park resources as well as the park visitors and much effort has already been made to place them in their current locations.



I. Permit System

The permit system for hikers continues to function well. There were some issues with east side permit issuers telling hikers to pick up their wag-bags at Crabtree (rather than at the permit station). Since there is a limited supply of wag-bags at Crabtree and much effort to get them here it is better that folks pick up their wag-bags in Lone Pine. I think we should consider giving the permit station in Yosemite a nominal supply of wag-bags to dispense to southbound JMT hikers. They constitute a large volume of people who pick up bags at Crabtree.

As mentioned earlier in this report we need to do better in how we manage/permit commercial users who are entering the park from the Inyo NF.

The wilderness office did a great job this summer issuing permits and keeping visitors informed of conditions. A big thanks to Irene, Leslie, and Adrian for all of their hard work and support this summer!!

J. Communications

(b) (7)(F)



K. Needs for next year

*Place Names of the Sierra Nevada by Browning

*Dictionary

*see below for inventory and station needs

Crabtree Trail Counter Numbers 2010

7/01- 362

7/08- 511

7/15- 322

7/22- 382

7/29- 419

8/05- 420

8/13- 450

8/21- 348

8/28- 347

9/04- 221

9/11- 285

9/18- 143

9/25- 144

Total for 2011 from June 24 to September 11= 4,354

Wag-Bag count for summer 2010

1,800 distributed (down from 2,250 in 2009)--800 left at Crabtree for 2011 season

L. Recommendations

*Staff all Kern stations in 2011. It would be nice to have some staffing in the field during the 2011 hunting season, as we have been remiss in this important department for last several years. Crabtree has typically been a long season, going well into October and 2 of the last 3 seasons have seen significant incidents in the area with no ranger left in the field. I recommend extending the Crabtree ranger field season into October.

*Continue to work towards improving communications in 2011. Could we return to the effective communications we had in 2007??

*Work with concessions office to ensure more accurate information given to field rangers regarding CUA's.

*Work harder to ensure that hikers in the Crabtree area who are travelling in the "wag-bag zone" have been given wag-bags already and do not need to pick them up at Crabtree. This is not an attempt to stop our dispensing of bags at Crabtree, but rather minimize the number of bags we send to Crabtree each season to be dispensed.

*We need to look at the use of technology in the Wilderness and its implications to "wilderness character". I am surprised that this has not been taken up before. Actually, now that I think about it, there was concern when we began using solar power at our stations in the early 90's about "techno-creep" in the wilderness. Well, it has certainly "crept" and has changed the way it "feels" out here to be in the "wilderness".



M. Inventory

Propane (sm.)-1 (used 1 small and 1 lg. in 2010)
Propane (lg.)-2
Propane (Coleman)-depends on snow survey use
Pocket Rocket (sm.)-4 full, 4 partial
Pocket Rocket (lg.)-4 partial, 12 full (ample pocket rocket fuel for 2011)
White gas (gal.)-ample
Bear canisters-1 bear vault, 1 Garcia

TP-6

PT-4

Steno Pads-1 partial (1 needed for 2011)

Log Books-0 (1 needed for 2011)

8 1/2 x 11 Pads-1

Pocket Pads-3

Laminating Paper-ample

Pens-2 boxes skilcraft (ample)

Pencils-ample

7.5" Maps

Cirque Pk-1 needed for 2011

Chagoopa Falls-2

Johnson Pk-1

Kearsarge Pk.

Mineral King-1

Mt Brewer-2

Mt Clarence King

Mt Kaweah-4

Mt. Langley-3

Mt. Pinchot-1

Mt Whitney-1 (1 needed for 2011)

Mt Williamson-3

Triple Divide-4

Sphinx Lakes

Marion Peak-1

Recreation Map-1 (on wall of RS) (1 needed for 2011)

Whitney Summit Registers-handful at Summit and RS. More needed for 2011.

Duct tape-1.5

Strapping tape-1

Electrical tape-0

NRB-5

Nasal Cannula-3

D cylinder O₂-2 partial

Jumbo cylinder O₂--1 partial

Medical tape-2 rolls needed for 2011
Latex gloves-Ample
Ibuprophen-ample
Aspirin-ample
Acetaminophen-ample

Lithium- AA-6
AA batteries-50
AAA batteries-25 (8 Lithium)
C batteries-0 (need 8 for trail counter in 2011)
D batteries-Ample and not needed.

Lg. Trash bags-ample
Sm. Trash bags-6 (need 30 for 2011)
Burlap sacks-10 (ample for 2011)
Grain sacks (for firepits)-1
Shovel blade (for firepits)-1
Work gloves (sz/type)-leather large (2)

Sponges-0
Matches (boxes)-4 (ample 2011)
Snow seal-1 partial
Sunscreen-2 (2 needed for 2011)
Bug repellent-2

Aluminum foil- 1 full
Coffee filters-1 box needed for 2011
Coffee cone-2
Laundry Soap-1 partial (1 small needed for 2011)
Dish Soap-ample
Shampoo-ample
Conditioner-ample
Soap-needed for 2011 Lotion-needed for 2011
Aloe-Ample
Spices listed

RUN sheets-ample
AUO logs-ample
Wildlife Obs.-ample
Exotic Plant Obs.-ample
BIMS-ample
CUA/IBP-12 (need 24 for 2011)
Bear Box Loc.-ample

Road's End Wilderness Permit Station 2010 Year-End Report

Rangers

Tasha Barton
Tara Laase
Ian Duncan

Introduction

This year Road's End Permit Station was staffed from May 20th until September 30th. All of the Road's End staff was new to the trailhead ranger position this season. We worked great as a team and quickly caught on to our daily tasks. We hiked over 650 miles, made many visitor contacts, as well as cleaned the backcountry significantly. We assisted in a few search and rescues, and helped with the Sheep Fire this summer.

Permits Statistics and Use Patterns

The number of permits written this summer was relatively consistent with the number written last year. In June there were a total of 234 sold, 396 in July, 389 in August and 218 in September. During our backcountry patrols we contacted approximately 675 backpackers, and 565 day hikers. We came across 144 stock and 57 stock users. Our contact stats are slightly smaller than last year's; this is due to several reasons. In the month of June we were short handed on backcountry patrols because of a family emergency of one of the staff members. In late August and September the backcountry patrols were diminished due to the smoke from the Sheep Fire.

The Rae Lakes Loop is still the most popular hike leaving Road's End, as patterns have shown in the past. The majority of people choose to go clockwise, up Wood's Creek trail, which made it our most used trail this summer. A number of backpackers attempted Mt. Brewer, making their base camp either in the East Lake or Sphinx lakes area. Wag Bags were given to backpackers headed towards Trail Crest and Whitney; we gave out $\frac{3}{4}$ of the box. Copper Creek received quite a bit more use this year. It became a more popular trail in late August and September. This may also have been because of the smoke from the Sheep Fire. Lewis Creek was rarely used for backpacking, all though we did have a few groups attempt the Kennedy Loop.

Resource Work and Camping Areas

We did most of our backcountry patrols on the Bubb's and Wood's Creek trailheads, as these are the most traveled. Paradise Valley is very popular for 1 to 2 night backpacking trips, and backpackers doing the Rae Lakes loop; it receives a large volume of our traffic. The Bubb's creek corridor is almost as equally popular. Throughout the

summer we cleaned 174 campsites and 161 fire rings. We removed 35 illegal campfire rings and restored the areas where we found them. We also destroyed several pieces of man made furniture and walls most of them were made of rocks. We packed out an estimate of 172 pounds of trash this includes the abandoned food caches left in bear boxes. Signs were placed in most of the backcountry bear boxes this summer. They stated **“Remember the Rules of the wilderness. Pack out your trash”**. They appeared to help, although people were still caching food, maybe we should add no food caching to the signs.

In early June a new pit toilet was dug in Lower Paradise. This helped solve some major issues from last year with the bears digging in the pit toilet. All of the other backcountry toilets appeared to be ok, with the exception of the one at the JMT junction on Wood’s creek. I believe that pit toilet is redone every year by Dario Malengo, the Rae Lakes Ranger. The toilet at Sphinx Junction needs a new sign. There is a rock pathway going to it, and we have placed a work order with the sign shop for a new sign next year. Upper Paradise Valley would be a good place for a toilet because of the high volume of traffic it receives. All of the backcountry toilets could use a new seat. The current seats are rusty and jagged, and could potentially be dangerous.

The Leave No Trace signs were all updated and re-posted in Paradise Valley. The sign in Upper Paradise needs to be redone because many of the campsites have been moved. Campsite number 2 should be totally removed; or relocated on the north side of the trail with all of the other sites. It is almost all rocks and there is really nowhere to put a tent. All of the wooden signs in Paradise Valley could use some attention. They have been worn by weather and people.

A Bear Volt canister was broken into this summer in Middle Paradise Valley. We started advising people to put these types of canisters in the bear lockers while backpacking; because we were unsure if they would still be considered an approved canister. A few weeks later we were informed from the bear technician that the Bear Volt was still an approved canister and did not need to be placed in the bear lockers.

Charlotte Creek and Junction Meadow both need new signs. Charlotte Creek has a rock path headed down towards the bear locker, but people still are having a hard time locating it. A new Charlotte Creek Sign order has been placed with the sign shop. The Junction Meadow sign was tore down with what looks like a drift fence. I attempted to fix it but was unsuccessful. The post for the sign needs to be replaced, the sign its self should be restored.

The administrative ranger cache in Paradise Valley was inventoried and organized this summer. We brought down the unused and unwanted items, and replaced the broken ones. The propane stove works well although the valve leaks sometimes, and takes a little bit of fettling to get it to stop. The white gas stove needs a new pump. We thought we had fixed it, but later got report that it had stopped working again. It should be replaced next year, maybe with a butane stove. The poles and material from the large ripped up tent are still at the cache. We asked for them to be packed out when there is a chance. The administrative sign was ripped down; a laminated sign was made to replace it. I will put in a work order for a metal sign next season.

The Junction Meadow ranger cache was also inventoried and organized. This cache is much smaller, and could use another box to store things. It was hard to use this cache this summer because the trail crew had taken over most of the area. They were very

generous in sharing, but we felt like we may have been imposing on them. A new location for this cache may be a good idea.

Trails

The Mist Falls trail was flooded in late May early June, due to a high water season. Crampons were recommended for Glen Pass until mid to late June. The pass held snow until mid July. The Bubb's Creek crossing at Junction Meadow, going towards East Lake was impassable until August. The trail crew made a crossing up stream about 300 to 400 feet. A lot of backpackers were using the trail crew's crossing. We received a lot of suggestions on putting a bridge on that section of the creek. On the trails there were only a few downed trees early in the season that were cleared out quickly.

The trails in Cedar Grove have been very well maintained, and we rarely had complaints. When we did receive complaints it was usually about horse droppings on the trail, or inaccurate mileages on signs. There are two signs in particular that are humorously obvious. They are located on the south side of the Baileys Bridge. One of the signs is pointing towards Bailey's Bridge and says: "Road's End 2.0 miles". The sign on the opposite side of the trail no more than 10 feet away is also pointing towards Baileys Bridge, and it reads "Road's End 2.4 Miles". We have received comments and complaints regarding these signs this summer. One of them should be removed. For the most part we receive compliments on how well the trails are maintained in Kings Canyon.

Meadows and Stock Use

Most of the meadow opening dates were delayed this summer. A few private stock users were disappointed and had to make adjustments to their trip. We assisted the meadow monitors in taking pictures of Junction Meadow several times this season.

There was some confusion on stock permits for the Cedar Pack station. We were informed that the Cedar Grove Pack station groups are not counted in the daily quota, but still must obtain a permit from Road's End Permit Station. All other private and commercial stock should be counted in the quota. There was a donkey wreck north of the Wood's creek crossing, and one of the donkeys was separated from the party. The donkey has still not yet been located.

SARs /Medicals/ Sheep Fire

This summer the Road's End staff assisted in a few search and rescues. There were two large searches to be mentioned. On the July 4th weekend there was report of a body in the river near Mist Falls. The Road's End staff assisted in interviewing hikers, and also helped to recover the body. On Labor Day weekend there was a search for a woman in the Muro Blanco area. The Road's End staff was to be flown out and help with the search. Luckily the woman was located before the search was escalated to that level.

All of the staff members at Road's End hold certificates as either Wilderness First Responders, or Emergency Medical Technicians. Throughout the season Roads End staff assisted Cedar Grove Law Enforcement with minor medicals, and drove the ambulance. Each Road's End staff member handled at least one minor medical, and completed a patient care report.

The Sheep Fire started on July 16th from a lighting strike. Park management made the decision to let the fire burn because it was slow moving and healthy for the forest. In August the fire made its way to the road in Cedar Grove. The fire crews need a few extra hands on containing the fire. Tara Laase and Ian Duncan, both red carded, were able to assist with the fire.

Recommendations

Road's End Permit Station ran pretty smoothly this summer. There were a few bumps in the road in the beginning with the cash register not being programmed correctly. A new SOP has been written to hopefully avoid that next year. We did not have any trouble with the solar energy this year, as the batteries held up well. Power would be a great addition to Road's End, although I can't foresee that happening in the near future. Some more realistic recommendation are as follows:

- **A lap top and printer.** This could be useful for logging all of our backcountry patrols. Having the ability to print forms that we run out of on busy days would be beneficial. Updating standard operating procedures (SOPs) and other information would also be helpful. Filling out permits would be much more effective and twice as fast if it were done via computer, as it is done in many other parts of the park.
- **Entrance Fee collection.** We have a lot of people that enter the park after the Entrance Station has closed trying to pay us the entry fee. We think that collecting the entrance fee at Road's End would be beneficial for the park, and convenient for the visitors that show up after hours of operation.
- **New toilet seats.** All of the backcountry pit toilets could use new seats. Like I mentioned before, the ones on the toilets now are rusty, jagged and potentially dangerous.

 b
y

- **A restroom sign at Road's End.** There is not a sign on the restrooms indicating that they are restrooms. We believe that this would save a lot of confusion.
- **Move Upper Paradise Valley site #2.** This campsite is mostly rocks, with no real place to put a tent. A better location would be on the north side of the trail.
- **Utilization of the front room of the permit station.** This room could be used as a place for people to plan there trip. We often get visitors that want to look over maps and plan there trip as they are buying the permits. If the front room had a few maps, tables and chairs they could have more time to plan. This was done in the past, but there were problems with mouse droppings, and fear of people getting sick. The mouse problem would need to be solved first.
- **Message board.** We constantly find messages pinned up on the outside of the permit station. A message board would be beneficial for everyone.

Here are a couple pictures of fire rings that we cleaned:



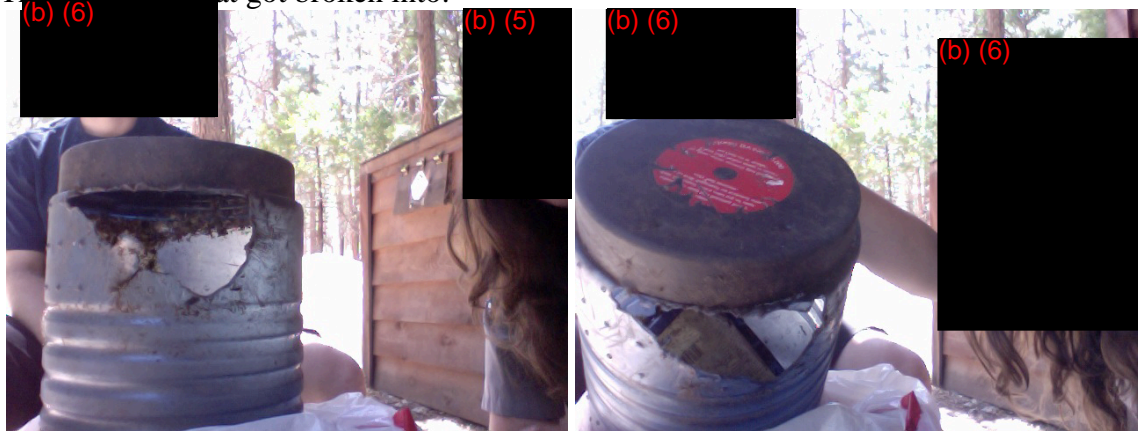
Pictures of illegal fire rings:
Before:



After



The Bear Volt that got broken into:



Some of the wildlife:



**ROARING RIVER RANGER STATION
END OF SEASON REPORT
2010**

A. GENERAL SUMMARY

I was on duty at Roaring River Ranger station from 7-8-10 to 10-7-10. During the season I patrolled 720 miles of trail. I patrolled 545 miles on stock and 175 miles on foot. I contacted 842 people during the season.

B. VISITOR SERVICES

a) Contacts

- i. 437 Backpackers
- ii. 103 Day Hikers
- iii. 186 NPS & USFS
- iv. 10 Hunters
- v. 56 NPS with 200 head of stock, 21 Private stock users with 37 head of stock and 29 Commercial stock users with 65 head of stock.

b) Law Enforcement

Many contacts were made concerning food storage, camping and grazing regulations. Verbal warnings for food storage.

c) Citations

Investigation and report for commercial stock trip and group without a commercial use permit for photography. Citations and actions pending.

d) Search, Rescue, Medical Incidents

Date	Location	Type	Evacuation
7/15	Roaring River	multi-symptoms/altered	Helicopter evacuation
7/	Comanche Mdw.	Forgot meds	Horse evac./Commercial
7/20	Roaring River	carbon monoxide/gas	monitored/O2/no evac
7/25	Roaring River	family emergency(NPS)	NPS horse evacuation
9/14	RRRS/Sugarloaf	NPS T.C./Fall from horse (ankle/foot/shoulder)	refused runsheet/stay @ RRRS/late T.C. horse Demob on 9/21
9/14	RRRS	butte & salve for nps horse/knee	walked out 9/16/vet check

e) Fatalities

None

f) Weather

It was a snowy winter, there was still a lot of snow in early June. Then the quick melt caused flooding into many of the high meadows in Cloud and Deadman Canyons, delaying meadow opening dates. Colby pass and Elizabeth pass held snow until mid August. The summer was hot and dry with only two light rains and dry lightening. The trails were dry and dusty most of the season.

g) Fires (natural, human caused not campfires)

7/18 Sugarloaf fire, 1.0 acre, lightning caused fire located 0.5 miles west of Sugarloaf Meadow at 8,300 feet. Was allowed to burn, but had very little activity.

7/17 Sheep Fire, lightning caused fire which grew to approx. 9,000 acres by Oct. It produced a lot of smoke which came into Roaring River regularly for most of the summer. It reduced visibility and had many hikers complaining during the summer. Some with breathing complaints as they crossed the high passes. It was reported that some backpackers turned around and left the area because with all the smoke near Sugarloaf they thought there was an uncontrolled wildfire in the area. Fire info/maps should be posted at all trailheads, especially for a fire that lasts this long and produces this much smoke. It was difficult for me to get fire information to post at RRRS.

7/? Marvin Pass Fire(FS), lightning caused fire located just east of Marvin Pass, burned across trail and concerned many hikers during the season.

B. USE PATTERNS

- a) Backpackers: Low use was noticed through the season with August being the busiest month. Some were waiting for the passes to melt out and the creek crossings to drop and be safer and then the smoke became an issue and probably sent many hikers to other areas of the park that had less smoke and better views. Most Backpackers did the Lodgepole/Elizabeth Pass Loop or Lodgepole/Colby Pass and on to Whitney. Beginners continued to hike in from Silliman Pass to Ranger, Lost or Seville Lakes or from Marvin Pass into Seville Lake. Many Day Hikers from the Sequoia High Sierra Camp over Marvin Pass to Seville or Lost Lakes, to Mitchell Peak or Kanawyer Gap and back via Rowell Meadow.
- b) Stock: Cedar Grove Pack Station was the first stock known to go into Roaring River and to Big Wet meadow near the end of June. Horse Corral Pack Station had a few trips into Roaring River and to Seville and Lost Lakes. These trips were spread over the summer. With the higher meadows being closed to grazing until Mid-August, most use was at Scaffold Meadow, Austin Trail Crew camp and Grave meadow. A few small private trips came to Sugarloaf meadow and Scaffold meadow.
- c) Administrative: The Trail crew skipped their normal camp at Comanche meadow and did less work on Kanawyer Gap and towards Silliman pass, some large trees were left uncut. The crew spent most the summer in the Roaring River area and then they moved to Ranger Meadow. The weed/thistle/cheatgrass crew was in Sugarloaf meadow this spring and the crew found more canary grass upstream from the campsite at Sugarloaf. I was able to go in with Jonathan so he could spray the newly found canary grass in late August. Meadow Monitor Corie came into the area to do most of the meadow monitoring in September and we worked on the new plots in Sugarloaf meadow. The Wilderness Interdisciplinary Trails Talking Expedition Stock trip (WITTE) came to Roaring River and the Whaleback in early October and I was lucky enough to spend some time with the group and discuss possible trail reroutes, work and improvements for the CCC crew to accomplish next season. Many CG and LP and GG employees came through. Tom Parrack came in during the fall trip and also rode with me to drop fences in Deadman and Cloud Canyons, see historic cabins, Basque Shepherd Arboglyphs and see possible future projects and area needs.

- d) Commercial: Outward Bound had many trips through the area, along with the two local pack stations. The Sequoia High Sierra Camp, north of Marvin pass, is continuing to send many people to Mitchell Peak, Seville Lake and Lost Lake or to Sugarloaf area on day hikes.

C. NATURAL RESOURCES

- a. Bear Activity: As usual, the wild bears of the area were seen in early July and then were elusive as more visitors came into the area. Two yearling bears were seen often near Scaffold meadow and lower Deadman canyon, the smaller of the two had an orange ear tag and I thought them to be the cubs of KO-4, who had a history of coming to the area with their mother last year. No problems were reported in the RR area. A black mother bear and black yearling were seen at or near Scaffold meadow. There were always bear tracks on the trail between the RR area and Sugarloaf all summer, though no sightings were reported.
- b. Wildlife: There were fewer deer seen around the station area and no bucks in the fall. Two mojave green rattlesnakes were seen between Sugarloaf creek crossing and Sugarloaf meadow.
- c. Vegetation: Wildflowers were fantastic this spring and throughout the summer!! (as the higher snowfields continued to melt!!) Lower elevation meadows opened on the scheduled dates but the mid and higher meadows were flooded and took longer to dry out due to large standing ponds. Delayed meadow dates and the biggest Mosquito year!!!! Mosquito problems lasted through September!! All regular Meadows were monitored in Sept. and the new plots at JR Pasture and Grasshopper Meadow. We also started the monitoring of the new plots at Sugarloaf Meadow this year. Most meadow grazing was limited to Sugarloaf, Scaffold, Austin TC Camp and Grave meadow until mid-August. Then with the trail crew using Ranger meadow in mid-Aug/Sept, this changed the private use and sent some larger groups back to small meadow areas like Austin TC Camp and Grave meadow. An unknown group must have used Austin TC Camp in June and left very deep hoof prints. I was unable to get to these meadows early as my stock arrived 2 weeks later than planned. These meadows have had lighter use the last few years, as I have been encouraging use to the larger meadows, like Ranger meadow and Big Wet meadow. So, most use was scattered as much as possible as conditions allowed. I tried to reduce my use of JR Pasture. The trail crew stock were not doing well on the West Side Pasture and broke through the wire gate fence numerous times and got into the small stringer meadow near the swinging gate fence. We found it was better and safer to have them at Scaffold and mine on that night at JR Pasture. A strong pole Corral with feeder should be constructed in a safe location near the RS and out of view of trails if early deployment is to occur in future or as a location to hold and only feed pellets. The Kings trail crew is also trying a different “baled feed” which might be a good idea to look into. I also supplemented with 8 bags of alfalfa pellets and Cob grain during the season.

D. CULTURAL RESOURCES

- a. Prehistoric Sites: no new sites were found, existing known sites were checked. Tom Burge said he has no sites officially recorded, perhaps these forms can be started for the area next season, along with GPS location and digital photos.

- b. Historic Sites: The old snow survey cabin remains about the same with no further damage. The (b) (3) (B) is also in the same condition as last year. The (b) (6), (b) (3) (B) had more damage to the roof this year. The shingles were set back in place over the holes for some protection, but this roof really needs to be repaired/replaced before damage is done to the main structure. This was one of the two (b) (6) cabins chosen in 1977-78 to be preserved. I believe Thor Rikshiem or his crew will be doing some work on it next year. The (b) (3) (B) sites are in their same condition. The (b) (3) (B), (b) (6) and sign are in good condition. It needs a ladder, so I can clear the pine needles off of it yearly and the nails have worked their way up and could be reset.

A group of three hikers came to Roaring River to search for the 3 military P-40's which crashed into the area in 1941. I helped them locate the crash site near (b) (3) (B). They spent many days searching for the crash site near (b) (3) (B) which wasn't located until 1959, it was not at the "GPS" location. They had only a couple of days left to search for the "never found" third plane, which is thought to be near the (b) (3) (B). It was not found, but they may continue the search next year.

E. BACKCOUNTRY FACILITIES

- a. Ranger Station: The heavier snow year caused a lot of drift fence damage throughout the Roaring River area. Some was repaired this year, but many posts need to be replaced next year. The visitor hitchrail at the RS was broken along with a lot of the new pole fencing that was repaired last year and the bulletin board. Hazard fuel reduction continues around the station, duff, limbs, old fire wood, old fence rails are being cleared. There are still a lot of limbs to cut and pine needles to clear next season.

There were many problems with the station refrigerator, propane lines and carbon monoxide poisoning this season. Even after it was worked on and vented to the outside, a strong unusual odor was smelled and was not "normal". Then the refrigerator quit cooling, although the light was on as if it were lit, but it leaked a bad odor and caused headaches whether it was lit or not. Perhaps it won't work right with this vent pipe? The new outside venting is attached to the wall and the refrigerator can't be moved, so I couldn't reach the shut off switch which is behind it. This was almost a deadly problem twice and continues to be a hazard, it needs work/repair or ? early next season. Thanks to all who helped us during the medivac and later and thanks for the help and good wishes. VIP Marshall and I really appreciated the help and concern. I hope that next year all stations/areas with possible similar problems are checked and tested with gas detectors and that carbon monoxide detectors are installed.

The solar at the station needs help. The charge controller has been faulty for 2 years now and needs a new one that can handle the three panels. It needs the readouts as it is very helpful to have the incoming numbers and outgoing to figure out what is working right or wrong with the system. The system which is usually on green (12 – 12.5) was on yellow and blinking red most of the season. I am usually able to leave it fully charged at 13.1 or so and in the green when I leave at the end of the season, which is better for the batteries. This year it was still on blinking red. (It was used by unauthorized people in the winter of 09 and the

batteries were drained and the wire crossed and not unhooked when they left.....I don't know what kind of damage this may have caused.

The Sugarloaf Fence is in terrible condition and needs to be rebuilt soon!! It needs about 25 new posts, drop posts added and wire taken off the trees. It is nailed solid to many trees. The Lackey Pasture gate needs to be rebuilt. 2 sections of fence at Lackey Pasture were built by Rex to keep stock from jumping the logs on the ground, which served as fence sections in the past. He made repairs to keep his stock in Scaffold and out of Lackey Pasture. Thanks Rex!! Trail crew help would be appreciated on many fence projects!! The Grasshopper Drift Gate is almost unusable and needs to be rebuilt, Karplus said he could send in the needed lumber. Trail crew James and I rebuild half of the Cement Table sliding rail gate posts and H brace this season. The Upper Deadman Gate needs a total rebuild and the west side of the Grave gate is in need of repair.

b. Signs: Some signs need to be combined on one post at junctions and others need added wording or need to be updated to the new signs and metal posts. What needs to be done to start this work? Also, what is happening with the GG trail sign requests? Are new signs being made? Are they ready to haul to site via mule or ?? This could be a great VIP project or ? I thought sign requests were sent in about 2 years ago? This could be a good spring project to take signs to needed locations and haul out the old and get the stock in shape or to train other riders.

F. TRAILS

- a. Adam led the trail crew this year. He and the crew were new to the area and they did some work. They did their regular trail maintenance and helped with some local projects. I cut out 10 small trees and 20 large trees during the early season. Some large trees were left by the trail crew and this caused resource damage from ride arounds or multiple unplanned reroutes. These need to be cut out next season. They are larger than what I normally cut out, so I need the trail crew to cut them out next year. The bog and drainage problem at Comanche Meadow camp did not receive any work this year and was much worse than normal. The trail crew packer and stock started an unplanned reroute to avoid the problem, but it cuts too close to the camp and the resource damage and multiple trails could be avoided if the area received a few hours drainage work or could be fixed like the lower section was a few years ago in about 2 days. I feel this work would have been accomplished had the crew stopped at their normal Comanche Camp for a week or two. The other skipped trees and unplanned reroutes/multi routes are also near this area. A large tree came down alongside the trail and it could have been limbed and cleared and the old trail bed maintained, but it was ignored and now has an unplanned, too steep reroute.
- b. Problem Areas: Drift Fences all need work. Sugarloaf Drift fence needs a total rebuild. If trail crew could cut fence posts, we might get a volunteer group to come in and work on this project or can the CCC crew help? Upper Ranger Mdw drift gate needs new gate rails and posts reset. Lackey Pasture needs regular maintenance. Colby Pass (dirt switchback section) needs 3 areas fixed, it is difficult to get pack mules past these 3 sections, I needs a rock removed, 2 areas need small retaining walls built. Many high

areas could use Cairns. The Avalanche Pass upper reroute is nice, but people are still getting lost on both sides without cairns, yes, even the trail crew workers!!

C. CAMP AREAS

- a. Conditions: Most camp areas are in good condition after summer clean up projects. Major camp clean ups needed at Lost and Seville Lakes.
- b. Sanitation: The outhouse near the RS is in fine shape. The one at the Trail Crew camp needs a riser and seat built and a back wall. Do we have access to new pit toilet seats? The round white enamel ones??
- c. Fire rings: 38 campfire pits were cleaned this season and 10 were obliterated. The worst buildup of fire rings continue to be at Seville Lake.
- d. Firewood Availability: Good availability at most camps.
- e. Food Storage: Many people come into this area as new hikers and don't carry canisters, but rely and plan around the use of bear lockers. People have been good at storing their food and other objects, with less food and gear being left in the lockers. Many people are starting long hikes from here and are using the lockers for their overflow good and trash that won't yet fit into their canisters. I feel that the crushed locker at Ranger Lake needs to be replaced as it received a lot of use. It was used most by groups coming in over Silliman pass long trips, where people need to store their extra food even if they are carrying bear canisters. If it is not going to be replaced, then arrangements need to be made to remove the crushed box.

H. PERMIT SYSTEM

- a. Trailheads: Most people had NPS permits from Lodgepole, Grant Grove or Cedar Grove and were well informed.
- b. Issuing Office: Most were NPS permits and well informed. Stock groups were less informed and many did not receive grazing cards or meadow specific information.

I. COMMUNICATIONS

(b) (7)(E), (b) (5)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

J. NEEDS FOR NEXT YEAR

A second radio for the VIP as we had this season is very helpful and important.

Station work/repair to solar and propane refrigerator.

The NPS stock needs to be ready to go right after ranger training is finished. The date was given in April for stock to be ready to go 2 days after EMT training was done and I requested early shoeing, this was not done. It is much safer for the stock if the shoes are put on a few weeks before they get heavy use- a variety of foot-related problems including hooves trimmed too short or broken pieces out of the hoof; this means more time until they can be used. I also kept in phone contact with 752, Greg Feltis at the corrals weekly or bi weekly as training progressed. I also told him the idea of getting the stock earlier than planned so I could train/ride the new horse and condition my stock either at Grant Grove or Cedar Grove, as I am working there on weekends. My stock was not ready to go when planned or wanted much less earlier as I had hoped. In 2009 they were 1 week late and in 2010 they were 2 full weeks late and the "new horse" was a month late.(Due to losing a shoe and it not being replaced until the horse went lame) Shoes were not put on the other stock until the very last thing. They barely arrived in time for the forth of July parade in Grant Grove and I had planned to get 2 or 3 trips of supplies into Roaring River before that and to check local trails and meadows for opening dates. The corrals still need to supply me with 2 good riding pads and 4 good pack pads, green would be best so we know they are ranger pads.(So I can quit using my own) The pack saddle for the new horse did not fit him, but is a good saddle for Mac. I need a good Horse Pack saddle (steep fork), so I don't have to provide one of my own, as I have for 10 years.(It would fit Red and a new horse?) The wade and afork riding saddles worked well again this season. I still need 2 matties replaced that were not returned in 2009.

Mike, my "safe" horse, who I could use for injured visitors, beginner riders ect, the horse that was returned thin and listless from the 2009 military trip and later had the fall into Colby lake was doing "ok" at the end of last season, but needed a vet check and continued care. This I am sad to say did not happen although I had left phone messages and verbal phone requests to Tyler Johnson, Greg Feltis, Dave Schifsky and Ned Kelleher. Greg Feltis said he was already had a runny nose after penicillin was stopped when they hauled him to Ash Mtn. I requested a vet check for his head injury, sinus area injury below eye which could also affect his molars and his near drowning, which could send fluid into his lungs or cause the running nose. No vet check was done, I feel he was neglected and put out to pasture to die. He did die in pasture last winter and is sorely missed. I feel bad that I did not have a trailer and truck available to me so that I could have gotten him the vet check that he needed. I had only 1 day left to work before being laid off and felt I had talked to enough people to get him medical help. I was wrong.

I was informed of his death during the winter. I was told I would get a replacement horse that was as solid as he was. This did not happen. I was told of a good ranch horse that was solid and that they would buy him.... Months later they had still not bought him.....They put it off until after "Bishop" and he had been sold. Then, at the last minute, in two days, they came up with a horse.....

The Appaloosa I named "Chance":

(A chance that he might work out, a chance that he would quit falling down, a chance that he might quit pulling back, causing wrecks and jumping creeks, a chance that he might fill out, heal from all the scars and bite marks.....a "Chance")

The horse apparently (I was not told until later) stepped out of the horse trailer at the ash mtn corrals and ran right into a post and almost knocked himself out. (The weird tongue thing was happening before this most recent head injury) He then freaked out and threw himself into a pipe and cable fence where he caused many self inflicted injuries. He has 1 cloudy eye, a strange tilt to his head and odd tongue habits. (He sticks it out oddly and chews on it) He doesn't seem to be used to a bit in his mouth, 10 x the odd tongue chewing) He's thin, ribby, scraped and scarred and has 4 white brittle feet. He lost a shoe, it was not replaced by the corrals and it caused him to be lame and unusable for a month. Then, he was thin, un-acclimated, out of shape and pulled back in the string, had never been on a trail, freaked out at every creek crossing, bogged, 10 x worse than any other new horse I've had and tries to kick me in the side of the head when you attempt to lift or clean his hind feet. Don't know his age, but he acts old, but has no common sense or trail skills. I had to buy a special \$45.00 halter (be nice) to keep him from pulling the string down or me out of the saddle when he pulled back or fell on the trail. I later noticed some really bad rear leg spasms that may have caused some of the falling. I tried to get him to drink more and made sure he always had salt. I grained him extra and packed him really light. Greg Feltis said he never rode him before he bought him.....he was the owner ride him one block on a dirt road by her house. Later, when he was used on the Maint. Trip, Karplus was riding behind Chance and saw his leg spasms and said it was more like a muscular dystrophy problem or ? and that the horse couldn't get his leg back down due to the spasm or joint lock up or pain. The horse was lunging/falling trying to save himself from a fall or would hop until the spasm passed. This was very exciting for Eric the rider. Later I ended up with him as my last ride out, since my good stock was with the maint. Group. Even after 2 days rest, his rear and front legs were spasming and I was pulling his head up to keep him from falling or going to his knees or I ready to jump off during the whole trip out. This horse needs to be replaced and it should not be used in the mountains or by any riders in SEKI. I feel like I have wasted a summers worth of headaches and training on a horse that can't physically do the job....and I'll have to start over again next year. Hopefully with a better healthier horse.

K. RECOMMENDATIONS

- a. Stock: see above: Healthy stock and Ready to go on time as scheduled.
- Conduit for the solar system (see above). I can do this project if the supplies are acquired.
- Solar help/ advice on repair/new charge controller

Sign Inventory for next year and decisions made for improvement of some junctions.

More fence and trail work done next year throughout the Roaring River/Ranger Lake areas.

Bulletin Boards at the 3 lakes to give good NPS information.

A Longer season into mid-October would greatly help the end-of-season de-mob and much needed hunting patrols around Kanayer Gap, Rowell Meadow, and the NPS/USFS boundary.

L. PERTINENT INVENTORY

1 1/4 can Barley COB

3/4 can Alfalfa Pellets

1 large salt block(mineral) 2 small white salt blocks

Fire Extinguishers and 2 Oxygen tanks were brought out. 5 full propane tanks left at RS (1 empty)

1 ½ full small propane tank left at RS

Needs:

1 doz. D Batteries

1 doz. AA Batteries

1 doz. C Batteries

6 9-volt Batteries

6 orange firefighter notepads

3 steno note pads

1 duct tape

20 tie on tags

20 tie on “material” tag for gas /fuel

200 feet of parachute cord

Shovel and polaski for Ranger Lake Cache

Long Pole saw for ranger station (high limb work)

Maps: 7.5 quads for Sphinx Lakes (2), Mt. Silliman(2), Mt. Brewer(1), The Sphinx(1) and maps of the S & N of these!!

130 ft. of plastic or metal conduit, needed parts and glue to put in permanent buried solar lines to panel area on the big rock west of R.S. (critter and water proof)

Stock Needs:

A good solid trail horse or mule that can walk, ride, lead and pack.

6 bags of Dry Cob Barley

6 bags of Alfalfa Pellets

3 new matties (larger size)

3 tubes Butte

4 Bracio-scrub sponges

3 tubes Banamine

2 white camp salt

2 mineral camp salt

Horse Pack Saddle for Red/steep fork

Horse Pack Saddle for new horse

New Bridge Boxes (2 sets)(to fit Rubber Maid tubs with bottom cinch set ups and top straps)

Leather oil – 1 gallon