BEARPAW MEADOW RANGER STATION 2005 END OF SEASON REPORT NINA WEISMAN

This year the Bearpaw Ranger Station was staffed from June 26 to September 29.

General Observations:

This year I contacted about 1800 hikers on the trails, off trails, and at various campsites in the backcountry. Most of these visitors were backpackers; about 100 of them were day hikers, seen close to the trailheads. I contacted approximately 40 stock users, all clients of commercial packers.

The High Sierra Trail gets most of its stock traffic from the biweekly High Sierra Camp resupplies. Twice a week between 8 and 12 head of stock came to Bearpaw and returned to the trailhead the same day. This contract is held by the Cedar Grove Pack Station. The Horse Corral Pack Station made about 7 spot trips into Bearpaw, either to resupply Outward Bound or drop off guests or gear at the High Sierra Camp. Twice Horse Corral employees dropped off gear near Kaweah Gap and couldn't make it back to the trailhead before dark so they stayed at Bearpaw for the night with their stock tied to the hitching post. They had brought feed with them. I contacted a group from the Golden Trout Pack Station in the Kern. Also, the Hockett Trail Crew stayed at Redwood Meadow at the beginning of the summer and kept their stock in the admin section of the meadow.

This season one citation was issued for lack of permit at the beginning of the season. At the time, I did not yet have my commission so I sent the visitors to Lodgepole to receive their citation. The visitors were contacted on the High Sierra Trail. There were about 3 warnings for food storage and removing pinecones from the park. Even though few citations were issued this season, I feel that the law enforcement component of this position is critical. There are many situations that occur in the backcountry that are handled best by a ranger with law enforcement training and credentials. I use things I have learned in my training almost daily, and even though serious incidents don't occur every season, it is very important that when something does occur, we are prepared to deal with it.

This year I had two medicals, one of which resulted in a medivac. A member of a Sierra Club group felt nauseous and hadn't been eating. I evaluated him in the evening and by the next morning he had worsened so was flown out first thing in the morning. The other medical was a visitor who couldn't sleep and was very anxious in the Little Five Patrol area. The Little Five ranger evaluated him and hiked with him over to my area. By the time he reached me, he claimed he felt fine and did not need any more assistance. I remained until the next morning and checked on him again and he declined additional help and hiked out.

This year I participated in two SAR's. The first occurred at Pinto Lake. A party of four lost one of their members. He had been the slowest one and he never caught up. The rest of his party searched the trail from Pinto to Blackrock. Pass. (b) (7) came from the pass that day and looked for him to no avail. By afternoon, the rest of the party had returned to Pinto. (b) and (c) (7) volunteered to hike up the trail to look for him and I stayed at Pinto to coordinate. We called the helicopter, which looked that evening. We found him the next morning at Little Five Lakes. He had lost the trail and had found the pass by a cross-country route. He then was out of water and descended to Little Five to get water and camp. He was returned to his party. The other SAR I worked on was the (b) SAR. I responded from Redwood Meadow to the High Sierra Trail at the 7-mile hill junction. There I met (b) (7) and we held containment at that site. I worked on that SAR for 2 ½ days.

This season was supposedly a normal precipitation year but as it followed many drought years, it seemed like a big water year. Early season, some of the creeks were a little difficult to cross and there were many trails at the higher elevations that were covered with snow. The High Sierra Camp opened a little late this season because the creek crossings were hazardous in mid-June. Some of the water crossings were difficult well into late July but by August, most trails were in good shape. There was still some snow on the passes, which made stock travel difficult, but backpackers were not having any problems. The abundance of water made for a fantastic wildflower season.

Use Patterns:

The High Sierra Trail continues to get significant hiker use. There were many large groups, some Sierra Club, Boy Scout, School Groups, and also many smaller groups.

Stock use was about the same as last year but Lone Pine Meadow had two stock parties stay overnight. Last season it didn't get any use. I wasn't aware of any use at Pinto Lake or other areas in the Cliff Creek drainage this year.

There was very little aircraft activity in my patrol area. The military ships passed through at a very high elevation. There were a few small private airplanes but none of them flew very low.

Natural Resources:

Wildlife: This year the bear/human interaction in the Bearpaw patrol area was very low. The bears seemed to be quite busy foraging for natural foods. It was an excellent year for their favorites: bitter cherry, manzanita (berries as big as cherries), currants, elderberries, etc. Other observations: usually there are many more grouse all through the patrol area and I hardly saw any this year. On the other hand, there were many more quail than usual. There also seemed to be as many pikas as usual. I heard them in all the places I've heard them in the past.

Vegetation Mgmt: Redwood Meadow recovered nicely this year after some normal precipitation. The upper meadow was mostly sand the last couple of years. This is how it looked this year:



Also, the coneflowers were unusually abundant this year. I've never seen this many before.



On the exotic plant front, I was able to coordinate some cheat grass removal this season. Usually it has all gone to seed by the time I arrive each year but because of the late spring, most of the plants were still green in July. I had 2 Outward Bound groups pull cheat grass as their service projects. They had fun and learned about exotic species invasion. I hope to continue these projects in future years if we can get to the plants soon enough. Here are the results of one of the projects



Cultural Resources:

The historic structures in the patrol area are mostly in very good shape.

(b) (3) (B)

It looks as if a bear was ripping at the siding and tore a hole in the back. A separate note with pictures has been sent to the historic building crew.



Backcountry Facilities:

Both the Bearpaw and Redwood Meadow cabins are in good condition. This year I repaired a broken propane line to the refrigerator at the Bearpaw cabin. The solar electric system is still working well although ideally there should be 3 panels. Hopefully next season a third can be added. I think the roof of the Bearpaw cabin is supposed to be oiled periodically and I don't know when it was last done.

This year I redid the Bearpaw area map for the bulletin boards. I did two versions, each oriented to the bulletin board it would be displayed upon. These seemed to be easier for the visitor to interpret than the last one. The other signs in the area are all satisfactory.

Trails:

There are two trail crews that work in the Bearpaw Patrol area. The Hockett crew starts the season at Redwood Meadow working on the trails in Cliff Creek and the Middle Fork. This was the first season that these employees had worked these trails as this crew used to work in the Kern. They did a good job clearing the trails in the area and left the Redwood Meadow cabin very neat and clean. The Kaweah crew worked in the Bearpaw area all summer. They did some very nice rockwork below Hamilton Lake and elsewhere and helped me whenever I needed assistance. It's a pleasure having them in the area.

As always, the Elizabeth Pass trail could use a large-scale project, as it is loose and hard to follow on the Sequoia side.

Camp Areas:

The Bearpaw campground was heavily used this season, as usual. The firewood left after the fuels reduction project is still being used up and the campers are very happy to have so much available wood. The camping area looks good; most of the visitors left their sites in good condition. The two pit toilets are still viable and don't need to be moved anytime soon. The four bear boxes are all functional.

The High Sierra Camp had five employees again this season. It continues to be a pleasure working with them, especially the manager, Carolyn Pistilli. They are always very helpful to all the visitors, and are willing to assist me whenever necessary. The camp guests are required to get a wilderness permit before hiking out. I think this is working very well and should continue. Besides making sure the guests know about minimum impact, it is often helpful to be able to call and see if they've actually started the hike. Many times, a guest will not arrive by evening and instead of immediately looking for them, I can call first to see if they are even on the trail. The camp was again resupplied by the Cedar Grove Pack Station. They were very helpful and did a good job. Many times, they were able to pack out trash for me.

Hamilton Lake is one of the most popular camping spots in the area. There are campers there most nights of the season. For the most part, visitors camp where they are supposed to. There used to be a problem with camping too close to the water but with some creative boulder placement and some signs, the problem has mostly disappeared. Also, one of the smaller bear boxes was replaced with a large, 2-door bear box.

Tamarack Lake is a beautiful spot at the end of a spur trail. It mostly gets day use from people staying at Bearpaw. Occasionally there will be overnight campers there. Most have bear canisters and obey the no fire regulation. The lake area looked good all summer.

The High Sierra Trail west of Bearpaw has 3 major camping areas that get considerable use. Mehrten Ck., at 6 miles from the trailhead, probably gets the most. It was patrolled often by myself and the trailhead staff to keep it clean. 9 Mile Ck. has about 4 campsites, 2 with fire rings. I contacted many groups there this year. The bear box is functioning well, Buck Ck. camping area is very small but gets regular use. This year, Will Jaynes, the bear box repair tech, and I replaced the broken bear box with a functional one.

Redwood Meadow is a frequent stop for campers doing the Blackrock Pass-Kaweah Gap loop. There are a couple of campsites at the lower end of the meadow where most people camp. There were no major issues there although lots of trash was left.(b) (3) (B)

Cliff Creek has a few significant camping areas. The Cliff Ck.-Timber Gap junction has a few sites where many people camp. The Mineral King trailhead rangers usually share patrolling duties with me in this area.

The Pinto Lake camping area gets many visitors. Fires have been prohibited there for a while but people still create new fire rings there. I believe

that this is caused by limited information at the Mineral King trailhead. The bear box there is the large 2-door type and is in good shape.

Permit System:

The Lodgepole trailhead operation this year had 3 employees which is the minimum needed for this area. Diana Liles returned to the trailhead position. She was very helpful and did a great job supervising the 2 new employees. The trails weren't patrolled quite as much as in previous years. I think that this was due to one of the employees not liking backpacking and schedule limitations due to new scheduling rules. Historically, trailhead rangers have been able to add their lieu days to patrol days in order to have longer backcountry trips. This is due to them wanting more days to explore the backcountry. The 2 days off are usually not worked but the employee gets to know the backcountry, which is a crucial part of their job. These long trips are often the most valuable of the season, as the employee can gather large amounts of information that can help the visitor. The trailhead rangers weren't able to take any of these long trips. Also, the new rule about not working more than 6 days without a day off has made scheduling very difficult in many cases.

Inventory:

There are 4 large and 3 small full propane tanks at the station. Also, there are 4 large empty tanks at the helispot in the campground. The blue Chouinard 4000 and new Osprey Ariel packs need to return to Bearpaw next season. There are six sleeping bags including the 2 newer Feathered Friends bags. The bivy sack with a pole and bug screen is no longer at the station and should return also.

Supplies needed for 2006:

Station Needs:

Thermometer
2" athletic tape
1 full 02 bottle
eyewash
Ace bandages
Large band-aids
soap for down sleeping bags
paper towels
scale to weigh gear (bathroom scale?)
emergency space blanket
1 solar panel
whisk broom
toilet brush

large clear trash bags

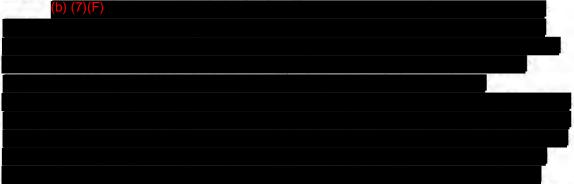
Equipment:

Prioritized wish list for gear

- Day patrol pack, under 2 lbs, small w/side mesh pockets and good hipbelt (i.e. Osprey Atmos 35,25, or similar)
- 2. Tarp tent
- 3. MSR Pocket Rocket stove (canister type)
- 4. Katadyn Exstream
- 5. Hands-free mike for Motorola radio

Recommendations:

1. I feel that the newly instituted rule about having to take a day off after 6 days working, no matter what, is very problematic for backcountry rangers. It has made it extremely difficult to change our days off unless it is an earlier day in the following week. Also, many times we need to put our single days off each week together in order to leave the backcountry and take care of personal business. In another situation, I had to take 2 days off during one week where I normally would only have taken one, just to abide by the new rule. Because of this, I lost a significant amount of pay that week that was really unnecessary. I feel that exceptions could be made in certain circumstances so that we are not adversely affected.



- 3. The last few years, the MK trailhead rangers didn't hike, therefore they weren't able to help in the backcountry and didn't know the area very well. This year, one of the trailhead rangers hiked and it helped the area but there still needs to be more than one field trailhead ranger. There are a lot of camping areas close to Mineral King that need frequent patrolling. Also, many hikers that I talked to that originated in Mineral King didn't have very good information. The trailhead position serves a crucial function in maintaining the backcountry and should be fully staffed with employees that are able to patrol the trails and learn the area they write permits for.
- 4. I noticed this season that the trailhead rangers didn't go on any extended trips. I feel these trips are a very important part of park education. Many of our visitors go on extended backpacking trips and if we are to give them

accurate information, we need to know what it will be like on their trip. I think that each trailhead ranger should have 1 extended trip each season to learn about an area of the park they aren't familiar with.

5. We need a refrigerator at Wuksachi Fire Station. The small one in the training room freezes everything, no matter where you put it. Also, even if it worked, that unit is too small. Early season, many people use the station during training and there isn't enough room to store all the food. Much of it goes bad. Most importantly, the Pear Lake and Bearpaw rangers need a place to store their perishables before they go into the backcountry and after they come out. I have had many food items be ruined and lost many dollars' worth of food because of this chilling deficiency. There are a few older refrigerators in various locations around the park and it would be very helpful if we could get one of the working ones at the fire station.



Sierra Crest: Charlotte Lake End of Season Report 9/30/2005 George Durkee & Paige Meier

Summary

We opened the station on 6/27 after hiking in from Onion Valley. There was 80% snow from Flower Lake up to the Pass, but then fairly clear on the high trail to Charlotte. The upper Kearsarge Lake was still mostly iced over and the basin was the same. The cabin was in good shape although it appeared a snow survey construction crew had built a fire near the survey instrument shed. There were close to 100 PCT hikers coming through the area in the first two weeks at Charlotte – most had been held up by difficult snow and a number had apparently skipped the Sierra entirely. A 150% snow year and a very late spring meant snow on the passes and high water crossings for hikers. Bubbs Creek to East Lake trail was not safely crossable until early August.

It was a quiet season for major incidents, though a bear in the Forester – Center – Vidette area became very active – even occasionally belligerent – in getting food from hikers. In a three week period in mid-August, we had 12 failures of the Bear Vault and one injury by a bear. With an aggressive program warning hikers and the ripening of berries in lower Bubbs Creek, the problems stopped by the end of August.

In August Park Interpreter Malinee Crapsey came in with a film crew taking footage for a new Kings Canyon orientation film. I spent several days with the crew and was interviewed for the film. My efforts were compared favorably to Sam Shepard at his most enigmatic. No pasty white legs were shown in the making of this film.



During the winter I had begun the design of the new Rae Lakes Cabin. This project was carried on to completion by Cedar Grove Facilities Manager David Karplus. After a new location was suggested by the Chief Ranger, I returned to Rae to review the options and summarized my thoughts on-scene to Karplus and Maintenance Chief Dan Blackwell and later by memo to Sierra Crest supervisor: I think moving the location from its present site does not allow the Rae ranger to carry out his or her duties as efficiently; that the new location necessarily increases impact on a mostly undisturbed site; and that the new site is very likely at the toe of a major snow avalanche path and probably within the blast zone.

Statistics

	June	July	August	September	Oct.	Total
Visitor Contacts	68 (from 6/26)	675	714	433	closed	1890
Miles hiked	20	155	164	145	closed	484

Medicals

Charlotte Lake	Vomiting (released per UMC but later collapsed with	Later carried out at night by Cedar Rangers from Sphinx Creek, then Medi-Flight.
Kearsarge Lakes Junction Meadow	seizures) Seizures Vomiting	Helicopter Helicopter

Law Enforcement

2 Citation for no Wilderness Permit, no bear canister *Warnings* (tents on meadow, washing in stream, food storage): 107

About a dozen fire rings were removed in the Bubbs Creek - Forester area that had been recently built. I believe they were made by early season PCT hikers. This had been true in the Rae Lakes area the previous two years. Early season PCT hikers are building fires because they are too lightly clothed for spring snow hiking and many of them don't care about regulations or minimum impact practices. I am increasingly finding a small but significant number of PCT hikers to be creating a disproportionate number of problems in the early season. Conversations with some show that a number are sleeping with their food; they are leaving unneeded gear and garbage in bear boxes (30 lbs in June); at least one and likely 2 had a dog this spring; and, as above, they are building fires. Although Erika Jostad attended the Washington PCTA meeting this year, I believe it would be extremely useful to send someone to attend their trail "kick-off" at Campo Seco in Spring to familiarize the actual hikers with minimum impact and park regulations. Rangers also need to start patrolling by the 15th of June since we now miss most of the through hikers.

Although not yet a trend, there were two incidents of hikers with large packs claiming they were only day hiking and saying they didn't have a permit. One was extremely belligerent and would likely have become violent had I pursued it. Because I couldn't search his pack, I would have been unable to prove he was going overnight anyway and so allowed him to continue. Should incidents like this continue, we need a Plan II.

Service Incidents

Visitor Assists (food, attempt to locate, messages, off-duty information etc.): 230
Assists to other Divisions:

Fish eradication crew (advice and a lock for their bear locker)

UC Berkeley Frog Researchers (Chytrid observations; breeding pond observations, assist with transplanting tadpoles & adults)

PCTA (Pacific Crest Trail Association) Discuss (again – see 2004 Rae Lakes) NPS cooperation with minimum impact sheet for early-season PCT hikers.

Interpretation Assist and interviewed for new orientation film for Kings Canyon VC.

Archeologists Assist with local knowledge of Arch. sites; relay messages on radio; logistical support.

Resource Management Test Bear Vault models and try to figure out why they're failing. Attempt to assist bear techs in area and direct them to areas of concern (mostly unsuccessful).

Trail Crew Propane and fuel when they miscalculated their needs. **Facilities Management** In July I was asked to go to Rae Lakes to give my input as a subject matter expert on the location of the new Rae Lakes Cabin. I returned in September with Sierra Crest Supervisor Brenchley to again review the site.

Resource Management Meadows and grazing

The log diverting Bubbs Creek at the lower end of Junction Meadow did not wash out with the high spring water this year. As a result, the lower meadow remained flooded up to the trail into early August and the opening dates for grazing were pushed back to August 5th. I had found the area otherwise suitable for grazing by August 25th. We should probably consider moving the lower drift fence up canyon about 200 yards because this pattern will continue. Moving the fence to prevent stock from going into the flooded meadows will protect those areas and allow the rest of the area to be opened to grazing at the usual times.

Upper Vidette meadow received no grazing this year and, in the five years it's been closed, is recovering very well. The roll pits are growing over and stream banks are getting vegetation back. There are still some hoof marks in the Fen/Sphagnum meadow on the west side of the stream, but they are slowly recovering as well. The meadow as a whole was lush and healthy looking on all my visits there. Several packers used the campsite just below 10,000 feet (at the bear box) and, at night, pushed their stock uptrail beyond the fence. This seemed to have worked well and there was no sign of grazing below the fence.

There are also about 5 clusters of dead & dying Lodgepole pine with as many as 50 dead trees in the area between Center Creek and Upper Vidette. It's possibly Needleminer, but mortality seems higher than in most years. Might be worth looking at.

Bears

As noted above, a couple of bears became very active in the upper Bubbs and Kearsarge Lakes area in early August. This is quite common, however at least one of them figured out how to open the Bear Vault canister and in a two week period at least 12 failed in that area. In addition, a hiker who was sleeping next to his food canister sat up in bed not knowing that a bear was right next to him and had gotten into his (likely improperly closed) food canister. The bear swatted him across the head, just missing his eye. The individual hiked out and received medical attention in Lone Pine. By the second week of August I had posted notes to hikers to put their Bear Vaults inside bear boxes and to place their other canisters at least 100 feet from their campsite. The Wilderness Office and Rachel Mazur passed this same advice on to the permit stations. By late August there were no more incidents reported. For all this taking of hiker's food, though, of the 40 or so bear scat I saw during the summer, only one had foil or plastic in it. The rest were grasses and berries.

Rachel Mazur sent two models of bear vault to test, however on several trips and around the station, I never got a bear to attempt to open them. I think, though, that one (and only one) bear has found that by holding the Bear Vault s/he can then use her paws to open the top quickly and with force. The small tab on the new models would not be enough to stop a large amount of force applied by a bear who figures it out. I did, though, talk to two hikers who actually saw a bear work on the new model Bear Vault for 3 hours and

15 minutes, respectively. In neither case did the bear get in.

Bear Techs came into the area 3 times during the season. However, not once did they notify me they were coming or ask where they might be most effective. In each case, I called them on the radio but was never able to contact them. They did not later contact me to tell me anything they found out. If they don't coordinate with the local ranger who, presumably, knows where the problems are, these trips are kind of a waste.

Signs & Trails

Signs in the area are all in good order. I continued a project I began at Rae Lakes and photographed each sign in the area and established it's UTM using a GPS unit. I'll transfer the photos and coordinates to the Network drive in the GIS subdirectory and (somehow) associate them with the SIGNS database.

IBP & Concessions Use

All IBP & park Concession users followed regulations in the Rae area this year. Southern Yosemite Mountain Guides came through twice on stock-supported trips (6 head) doing the JMT from Florence Lake. The guides were very experienced and conscientious. Because of snow, Three Corner Round did not use burros this year. It is possible that Horse Corral Pack Station packers slept by their food while in Junction Meadow. Brian Burner of Onion Valley was otherwise cooperative this year, but is always extremely reluctant to carry out the station's garbage, as required by the terms of his permit. A memo to all pack stations reminding them of this responsibility is in order.

Fire rings and Campsites

As above, it seems likely that a significant minority of PCT hikers are building fires above the limit in early season. They do not receive the Park's regulation sheet when they start their hike on the Mexican border. Also, I've found the attitude of many to be dismissive of regulations and minimum impact philosophy. They think (like a minority of climbers and Sierra Club members) that they are some privileged group and because they are traveling light and fast, they have no impact; that regulations are for the great mass of hikers, but not them.

The problem with food caches left in bear boxes for through hikers continues. I recovered over 100 lbs. of food not picked up from the boxes this year. We absolutely need to sign the trailhead and otherwise inform through hikers this is not allowed.



Junction Meadow (Reference) July 23, 2005 (no grazing)



Junction Meadow September 19, 2005 (some grazing)

Recommendations Charlotte Lake 2005

- 1. Attach small sign to existing NPS trailhead sign at Onion Valley: "Food Caches may not be left in Park Bear Boxes. They will be confiscated by area ranger."
- 2. Better coordinate visits by Bear Techs and other park personnel with area ranger. A general "Basics of backcountry patrols for non-backcountry rangers" ought to be written and given to all NPS people who might be in the backcountry while on duty.
- 3. If it hasn't already been done, the Snow Survey should be notified they can't leave rat poison out in either their instrument sheds or cabins they use in the winter. There are no Douglas Squirrels around the Charlotte Cabin which I believe to be due to their being able to access the survey shed where they've taken cardboard for nesting material, including the cardboard the poison comes in. If the cabin doors are kept closed at night and if the shed is repaired, there is no need for poison as there are no mice.
- 4. Trails is apparently going to do extensive work on the Kearsarge trail near the pass next year. The route ought to be carefully looked at by a botanist to avoid both *Polemonium* and *Hulsea* that occurs in the last 300 yards of the trail. In addition, there's a chance that the sensitive *Streptanthus gracilis* occurs there as well.
- 5. Another useful mapping project is to have a map for each station showing helispots that have been used in the past. Many, of course, are obvious, but it would be useful for a ranger (and pilot) to know what ones have been used before and by what type of helicopter.

KERN RANGER STATION OPENING AND CLOSING GUIDE

A. CABIN

- 1. Remove shutters, open the windows, and install the screens, they are numbered 1 through 11, and begin at the south east window.
- 2. Clean the interior of the cabin. Use a dust mask, rubber gloves, a spray mixture of water and bleach on every surface, then wipe up with paper towels and burn. You should spray the floor as well to wet rodent droppings before sweeping. After sweeping, use a bucket of water with bleach to mop the floor.
- 3. Collect the solar panel from the bed and install it on its post, careful to align the black lines for proper positioning. Connect the batteries, including the inverter and controller in the process. There is a schematic in a folder marked Kern Station Folder in the library cabinet, if you have any problems. There is also a volt meter in the office supplies cabinet, (the pull down cabinet door). It sometimes takes an hour or two for the controller to come around, so don't get too concerned, Push the red button on the controller to "OFF" then "ON". The system is working when the array display reads .4 or higher, and the yellow charging light stays on.

The batteries should still have a pretty good charge at the beginning of the season, enough to run your lights if you arrived on station late in the day and after you connected the batteries.

- 4. Remove mattresses from the ceiling pipes. The two with the plastic covers should stay inside, the other two should go on the outdoor porch beds.
- 5. Connect a propane tank to the exterior line located on the kitchen wall. Turn on a burner on the stove to get the fuel flowing. Open the broiler door and light the oven pilot light. Failure to do so will result in a foul odor. Follow the directions at the bottom of the refrigerator for lighting. Directions say turn the thermostat should be turned to 3. Turn it to 5 or 6 it will light quicker, but don't forget to reset it to 3 or 4 when it is lit. Any higher and everything will freeze in the fridge. Between the two appliances you should get about 30 to 40 days of operation out of a tank. A full one weighs about 85 pounds, an empty one about 35 pounds. Don't go on an extended patrol without checking the install time or weight of the tank. You could come back to a warm fridge.

B. WATER SYSTEM

1. With any luck the trail crew will be at the station when you arrive and they

usually have the water going and the ditches open for irrigation. I think the lure of a hot shower inspires them to get this task completed. But if you are not so lucky......

- 2. Refer to the attached diagram. The system is rather simple and straight forward. Begin at the diversion dam, directing enough water into the diversion ditch so that the volume of water will aid in the cleaning of debris from the ditches. Follow the ditch down to the cistern or spring box, diverting water into it until the water goes over the dam. Remove the coffee can from the inlet in the cistern so water will flow into the pipe. A 30 foot section of pipe is visible below the cistern, and may be missing a 10' section. It is on the bank. This helps drain the system at the end of the season and helps prevent snow from breaking the pipe system. Attach the pipe with the attached Dresser unions. There are spares in the tool shed.
- 3. Back at the cabin there are 2 drain plugs in an orange plastic container filled with oil under the kitchen sink. These go on the low end of the two vertical pipes outside the kitchen sink window. Connect the green garden hose to the faucet outside the window and open the valve. Place the hose end near the small pine tree near the porch, let the water run until clear. Check the water tank and shower valves for leaks.
- 4. There is a gate valve in the pipe system that may or may not have been closed at the end of last season. It is just past the outhouse about 100 feet. Follow the faint path and ducks. It should be under a coffee can. Open it. When you leave for an extended patrol, you should consider closing the valve. This will discourage people using the hose to bathe at your kitchen window. Also if a bear gets into the tack shed or breaks a pipe, water will not be running needlessly.

C. DITCHES

- 1. The Ditch system in a dry year needs bi-weekly attention. As the water in Coyote Creek drops, more water must be diverted from the creek. You will have to use rocks or plastic tarp to accomplish this. Pine needles and other debris will also dam up the ditches. This is not a problem in a normal or wet year. I did not have to adjust the dam this year, just an occasional cleaning of the ditches with a rake or shovel was needed.
- 2. The ditch that runs to Irene's camp is required to be opened and running with water. An occasional hiker or two will stay at the camp. This ditch also runs water to the large pasture providing water for the stock. The northern ditch that runs past the drift fence does not need to run.

D. PLUMBING

1. Kitchen, shower, and the outdoor wash basin all drain into the sump. It does

drain very well, and heavy use will cause it to overflow. In the shower stall, open the hot water valve completely and leave it like that for the season. The black hot water tank normally absorbs enough sun during the summer day to give you a comfortable shower in the late afternoon. Or build a fire in the firebox and in 60 minutes enjoy a hot shower. Use the cold water valve to blend the water to a temperature you like. Turn it in 1/4 turn increments. It takes five minutes or so for hot water to reach the tap in the kitchen sink. Waiting for it to arrive puts that much more in the sump, not a good idea. Get hot water directly from the tank drain or heat it on the stove.

E. MISCELLANEOUS

- 1. I always shuttered the cabin when I would be gone for an extended period. This was due to a bear breaking a window on the porch and getting into the cabin and tearing it up. It is a pain. I simplified this somewhat by only removing the shutters on the kitchen and dining table windows, and leaving all the others on. This let enough light into the cabin that you didn't feel like you were in a cave
- 2. Lock the outhouse when you are gone. Helps to prevent messes and trash being placed in it while you are gone

F. CLOSING THE STATION

- 1. Clean all the surfaces in the cabin much like you did when you arrived. Clean the fridge, and stove top. Install the shutters, put the screens and the front screen door inside the cabin. Hang up the mattresses, hose off the rugs, and hang them on the poles with the mattresses.
- 2. A day or two before you leave, put your stock in the small pasture. Drop the drift fence and large pasture fence. On the day you leave, tie up your stock to the hitch rail and drop the small pasture fence. All the drift fences on Rattlesnake and from Upper Funston to the station should have been dropped around the 15th or 20th of September.
- 3. Disconnect the batteries, take down the solar panel, and disconnect the inverter.
- 4. The water system is shut down the same way you opened it. Open up the dam to the diversion ditch, stopping or slowing the flow of water. Dam up the ditch to the cistern, so water stops flowing over its dam. Dam up the ditch that runs along side the cabin. Remove the section of pipe, this will drain the water out of the cistern. Replace the coffee can over the pipe inlet.

Open the faucets in the shower and wash basin. Drain the water tank both the

faucet and gate valve. Open the faucet at the kitchen window and using the hose, drain the last of the water out of the system. Remove the plugs, insert a piece of cloth in the drain holes to prevent debris from collecting inside. Put the plugs in the can and back under the sink. Close all the water valves when the system is purged of water.

- 5. Disconnect the propane tank. Put a piece of duct tape over the brass nipple to prevent stuff from getting in.
- 6. Clean up and sweep out the tack shed floor. Spilled grain attracts rodents and bears.
- 7. Take the flag down.

Then just saddle up and enjoy your 20 plus mile ride out.

Joe Ventura	Date
Kern Ranger	



LeConte Canyon Ranger
Dave Gordon
2005 End-Season Report

Visitor Usage/Patrols

	Visitor Contacts	Day Hikers	Miles Patrolled
June (5 days)	16	3	21
July	312	9	210
August	508	5	531
September	227	7	171
Totals	1,063	24	633

This was a heavy snow pack summer (about 40% of normal) with passes snowbound and raging creek crossings until mid-August, which made early summer travel more difficult. Visitation was close to last year's with the exception of late June and early July when foot traffic was lighter. Stock was able to come over Bishop Pass in early August. July and August were very warm with lower than normal precipitation, and September was mostly cold and breezy with several snow flurries.

Contacts indicated the following approximate proportions of reported routes: 50% entire JMT (mostly north to south); 30% N. Lake to/from S. Lake: 15% in and out over Bishop Pass; 5% miscellaneous (PCTers, loops starting or ending at S. Lake, cross country routes, Simpson Mdw). Groups consisted of (10) boy scout troops, (2) Mt. Travel Sobek trips, (2) Sierra Club, (2) College, (1) Explorer, and (1) Church group.

Patrols included at least weekly visits to Palisade Creek and upper LeConte Canyon, bi-weekly visits to Dusy Basin, and several visits of Bishop, Muir and Mather Passes. Additional patrols included Simpson Meadow, Bench Lake, Upper Basin, Lake Marjorie, Lake Basin, Dumbbell Lakes, Amphitheater Lake, Ionian Basin and Evolution Basin.

Law Enforcement

Almost all visitors contacted had permits and food storage canisters. Two Citations were written: one for a dog on the JMT (PCTer), and one for not having a bear-proof canister after camping in Dusy Basin. Verbal warnings were given as follows: (5) for tents on vegetation; (1) for burning a log too large to burn down completely; (1) for admitting that food had been stored at night in a tent; and (1) for burning foil and plastic. Three written notes were posted on tents that were erected on vegetation, asking the hikers to move them to bare ground.

The biggest regulation violation problem in the LeConte patrol area regards fires: illegal pits, building extraneous fire rings, modifying an existing ring (see Recommendation #1).

Search and Rescue

One search was conducted (me only) on July 4th for a possible glider accident or (later) a possible climbing accident on the southwest slope of Disappointment Peak in the Middle Palisades. This turned out to be an erroneous report and the search was called off the next morning.

There was one medevac on August 31st for a hiker at Wanda Lake who had a previous lower leg laceration that had become infected – the hiker reported it to Dispatch via a satellite phone. I hiked from the McClure Meadow Ranger Station to the patient, just as helicopter was landing. and myself assessed the patient and he was flown to Bishop.

Service Incidents

Service to visitors was similar to most backcountry seasons and included: giving away food, sun block, water treatment, insect repellent (several), boots, duct tape, fuel; repairing stoves (2), and a water pump; requesting phone messages via S. Most service was done by providing information on routes, campsites, pass conditions, stream crossing, weather, fishing, fires (smoke), bears/food storage, etc.

A frog research crew was again camped at Lake 10,400 ft in upper LeConte Canyon for most of the summer. I

spent two days assisting the crew with "electro-fishing" by being a second netter to catch the stunned trout; and two days assisting with removing, cleaning and setting about (15) gill nets in several lakes and streams. The crew also was given access to the Ranger Station for storing gear/food and having meals when hiking to/from S. Lake.

I assisted trail crew with erecting a log footbridge across the lower Dusy Creek crossing on the Bishop Pass trail. This bridge consists of two parallel logs a couple feet above the creek (see Recommendation #2).



Ranger Station

As with last season, the cabin continues to be ant and rodent proof. The outhouse still has capacity for a couple more seasons. The three solar batteries are about ten years old and no longer have full capacity and should be replaced next season. Two hazard trees were photographed and reported to Bob Meadows for removal next summer.

When the "squad trip" came by in late September, Dan Blackwell, Jack Vance and Russ Wilson examined the cabin for structural integrity – Dan and Vance deemed it in "fair condition", but not to code (esp. regarding snow

loading). It is Dan and Jack's opinion that it would not cost substantially more to replace the cabin than to refurbish the existing one with new siding and a rock foundation (see Recommendation #6).

Stock Use/Meadow Management (see photo card #2 & index, page 11)

(19) Stock groups were observed in the backcountry (14 commercial, 1 private and 4 administrative) consisting of (116) horses/mules and (3) llamas with a total of (70) stock-users/clients. This was an increase over last summer in spite of the heavy snow pack preventing stock access into LeConte Canyon until August. Most of the commercial stock came from Rainbow Pack Outfitters, with a couple of groups from High Sierra Pack Station and several from Rock Creek Pack Station.

All meadows were delayed for grazing by 2 to 4 weeks from the "normal" year opening dates of July 15th due to wet of flooded conditions. Palisades Lakes, Little Pete, Big Pete and Grouse Meadows were delayed until August 15th; and the remainder were delayed until August 1st. Rainbow primarily used Ladder Camp/Meadow for their overnight spot trips, which received light grazing. Grouse Meadow was not grazed and Big Pete received moderate grazing (approximately 50 stock nights).

Only Little Pete Meadow was monitored for residual biomass, as directed by Resource Management. The "reference plot" on the west side of the Middle Fork was not grazed and the "core plot" adjacent to the main camp had been grazed a total of 12 stock nights prior to monitoring on September 14th (after this date the NPS "squad trip" grazed one night with 20 head bringing the total grazing to 32 stock nights for the season).

IBP contacts and reports were mostly positive with stock camps left clean (manure well removed/scattered).

Trails/Signs

Two trail crews were in the LeConte area for a total of a month's work. Most work was done by the Deer Meadow crew on the Golden Staircase and along the Palisades Creek portion of the JMT- boulder stream step, raised causeways and rock retaining walls on switchbacks. An 8'X4'X3' boulder was blasted and removed from the 10,200' elevation of the trail, which had prevented stock passage.

A new "No Fires beyond this elevation" sign was taken to and erected at 10,000' on the Golden Staircase below Palisade Lakes.

Bears/Wildlife Observations

This was the second season of no reported bear incidents (aggressive bear activity or food taken by a bear) and again no bear scat was seen to have anything unnatural in it. Only one bear was seen by me near Simpson Meadow.

Only (4) Pikas were seen as compared to (23) last summer. Several groups of coyotes were heard or seen at various locations. A Pine Marten was observed (closely) near the lip of Dusy Basin.

Minor Resource Projects/Fire Rings

(53) Fire rings were cleaned and/or reduced in size and (35) fire rings were eliminated (mostly above 10,000 ft, but also many that were next to existing ones or too close to trail or water). Lower Dusy Basin, upper LeConte Canyon and Palisade Lakes were where most of the illegal pits were eliminated. Also, (9) fire rings were reconstructed by removing/hiding old rocks, digging out the pit and positioning larger rocks to form a recessed, three-sided configuration (see before and after photos as referenced in the photo index-Card #1, page 10).

Recommendations

- 1) I would like to see a "fire regulations" attachment to permits that in addition to the 10,000' elevation restriction would also state the following:
 - Use existing fire rings only; do not construct new ones.
 - Keep fires small; burn only wood that can be completely consumed while attending the fire.
 - Do not modify an existing pit by increasing its size or adding rocks.
 - Do not burn foil, glass or plastic.
 - Douse the fire when you depart with water; never dirt.
- 2) A footbridge constructed at the second, lower Dusy Creek crossing on the Bishop Pass trail would be safer than the make-shift double log bridge that was erected this summer. This trail gets a high volume of novice hikers (all stream crossings on the USFS side of the pass have constructed wood bridges).
- 3) The JMT is in poor condition (Dan Blackwell agrees) for a couple of miles south of Muir Pass (snow bound sections, flooded sections, extraneous trails, confusing water crossings) which will require a major trail rework to rectify. I suggest that a trail crew survey team examine the trail in early July to investigate the best course of action (including possible rerouting of the trail in sections to take advantage of areas that melt the quickest).
- 4) Stock groups over a certain number of people (perhaps 8), walking or riding, should have be required to have a "privy tent" with a deep trench for a toilet and the toilet paper packed out.
- 5) **(b) (7) (F)**
- Although a new cabin at LeConte would be nice and certainly aesthetically more pleasing, I would put a higher priority on reconstruction of the Charlotte Lake Ranger Station (new roof, windows, door, shutters and possibly a sub-ceiling with insulation).

Photo Index "Sierra Crest" (Card #1) LeConte

Photo #	Date	Description
1	7/21/05	Reconstructed Fire Pit- Before- Camp next to Bishop Pass/JMT junction
2	**	After
3	8/11/05	Eliminated Fire Pit/Campsite -1/4 mile N.of Grouse Mdw(example of many)
4	**	Reconstructed Fire Pit-Before-Upper Grouse Meadow
5-6	"	" After
7	"	" Before Middle Grouse Meadow
8	**	" After "
9	8/12/05	" After Little Pete Meadow
10	"	Eliminated Fire Pit – Little Pete Meadow (example of many)
11	**	Reconstructed Fire Pit – Lower Big Pete Meadow – After
12	**	" Upper Big Pete Meadow – Before
13	**	" -After
14	"	" ½ mile above Big Pete- Before
15	**	" -After
16	8/13/05	" ½ mile below R.SBefore
17	"	" -After
18-19	9/14/05	Log Foot Crossing at Dusy Creek
20	9/23/05	Ranger Station- preparation (sanded, wood filler) for painting
21	9/23/05	Hazard Tree #1-Red Fir, 20 ft south of cabin
22	"	Hazard Tree #2-Double Lodgepole, 35 ft southeast of cabin

Photo Index "Meadows" (Card #2) LeConte

Photo#	Date	Description		
1-4	7/14/05	Flooding at Little Pete Meadow		
5-7	ιι	Flooding at Big Pete Meadow		
8-13	7/15/05	Flooding at Grouse Meadow		
14-15	9/14/05	Big Pete Meadow	- Large stock camp	
16	44		Hoof Impact	
17-18	۲۲	"	Horse/Mule rolling p	its – E. of JMT
19	44	"	"	W. of JMT
20-24		"	"	E. of JMT
25	"	Little Pete Meado	ow – Horse/Mule rolli	ng pits E of JMT
26-27	"	"	Stock/Hiker camp	
28	"	Little Pete "COR	E" – info card	
29			- Transect E to W	
30	دد	·	- Transect W to E	·
31	دد	Little Pete "REFI	ERENCE" - info card	
32	دد	"	-Transect S	to N
33	"		-Transect N	to S

LeConte Ranger Station Needs List for 2006

- 3 gallons paint, Park Service brown
- 1 case propane cylinders (for Coleman lantern)
- 6 Bear Incident/Observation forms
- 12 IBP Monitoring Report forms
- 6 AUO Logs Sheets
- 2 gallons Coleman white gas
- 1 pint Elmer's "Carpenter's Wood Filler"
- 2 sheets coarse sandpaper
- 1 book new citations (Violation Notices)
- 1 book Warning Notices
- 2 log books (7530-00-274-5494, Federal Office Service)
- 3 solar batteries
- 1 "Taylor" Min/Max Thermometer
- 20 55 gallon, large, brown plastic bags
- 1, 39 1/4" X 33 1/2" X 5/8" plywood (for shutter)
- 1, 29" X 35" X 5/8" plywood (for window insert)
- 1, 4" wide paint brush
- 1 heavy duty, plastic handle, synthetic brush broom (for Muir Hut)
- 3 rolls duct tape
- 1 box ballpoint pens
- 1 3" putty knife

2005

End of Season Report Little Five Lakes Ranger Station

By Roxanne Everett

June 26, 2005 through September 30, 2005

General Observations

Contacts

Largely due to the late melting snow and lack of a pack station at Mineral King, I had fewer contacts than other rangers in previous years. The following are the number of contacts that I had in the 2005 season.

399 Backpackers11 Day hikers2 Stock parties – 1 commercial trip and 1 administrative (trail crew)

Start of Season

Start of the season was very slow. High amounts of snow blocked all of the high passes so that all but the most experienced hikers stayed away from the area. (None of the passes were snow free until well into August.) For several weeks at the beginning of the season sun cups were up to thigh depth making travel extremely tedious. These sun cups were from Black Rock Pass all the way down to the station. Streams also hindered early season travel as these were running high during the beginning of the season. Cliff Creek, for example, prevented many from making the journey in. Other water ways like the Big Arroyo were up to hip high; small outlet streams often were at knee depth. As such, the first hiker that made it in to Little Five (via Glacier Pass) came in on July 3rd. I did not see anyone again at the station until July 12th. (The only other party that I saw until this was a party of 3 in Lost Canyon who I saw on July 10th.) All of July was very slow, especially at the station. It was not until August that I saw an increase in visitation and even then it was slow, which I believe was due to the high number of mosquitoes. (I even met people at Black Rock Pass who just turned around and went back, canceling their entire trip because of reports from other visitors on the mosquito count.)

The amount of snow in the station area also concealed both the ranger station pit toilet and the Little Five Lakes bear box well into July. I was finally able to locate the pit toilet on July 8th (under about 3 feet of snow). I have marked a tree with flagging tape just to the east of the toilet so that next year it will be easier to find. A cord from the tree runs to a rock that is on top of the toilet.

Law Enforcement and Citations

There were no citations issued in the Little Five Lakes area. All enforcement was through education and verbal warnings. I moved several campers out of meadows and talked with several visitors about leave no trace ethics but did not have anything in the area that warranted a citation. Visitors always happily complied whenever I asked them to change their actions.

Occasionally I would have to talk to visitors about proper food storage. Usually people arrived with canisters but some were not prepared and were told that they would have to use the bear boxes.

I encountered two parties without permits over the course of the summer. The first was a group of three who had met a trail head ranger early in their trip and should have been turned around at that point. By the time that I saw them they were on their way out. The second party of one was being purposefully deceptive and gave a story about leaving the rest of his party early in the trip. I was not able to verify his information at contact time and when I later checked on the permit, that he was part of, the story did not line up. I tried to catch up, unsuccessfully, with this person but he was long gone. Fortunately he too was on his way out.

Medicals

I had three medicals out of the Little Five area:

8/7/05 - 59 year old male flown out due to abdominal pain (lower left quadrant). Problem was probably due to the fact that the visitor had only had two bowel movements in two weeks.

8/9/05 - Hiked with ~45 year old male to Hamilton Lake, monitoring all the way. Initial complaint was anxiety and "on heart medicine" (which turned out to be blood pressure medication). Patient was offered a flight out but declined. Once we reached Hamilton Lake the patient seemed to be much improved and walked out alone with his family. Believe the patient had experienced mild acute mountain sickness as he improved with decreasing altitude.

8/11/05 - 63 year old woman with hip pain. Woman was able to hike out with her (Sierra group) on 8/12/05 following reassessment and after dividing up the weight of her gear among the rest of the group.

Transports

The only transport was the medivac on 8/7/05, as listed above.

Fatalities

There were no fatalities in the Little Five Patrol area.

Searches

There was one search in the Little Five area this season. On 8/31/05 I hiked over to Pinto Lake where I was to meet (Nina) and (Caitie) for meadow monitoring. Soon after I crossed Black Rock Pass I ran into 3 men who were hiking from Pinto to Little 5.

2005 End of Season Report for Little Five Lakes

The fourth in their group was lagging behind, out of sight, and the three I talked with all seemed a little bit concerned about how the fourth was doing and were worried because he had been very down on himself. I told them I would give him a "pep talk" when I saw him. But I never did see him. Two hours later one of the original three had turned back and had returned all the way to Pinto looking for his friend without any luck. Forty five minutes later the other two men had also returned to Pinto also without having seen him. Caitie and I went up the trail and started a hasty search in the area last seen then continued, via different routes, to Spring Lake. Nina stayed at Pinto and relayed to I.C.

By 5:30 pm there were two helicopters searching the area as well.

The missing party did have overnight gear but was not an experienced off trail hiker. He also did not have a map or a compass. The four hike together every year so his friends knew his abilities (or lack thereof). His friends all said that he was out of shape and that it was not like him to leave the trail.

The missing person was found, but not until the next morning (on 9/1/05), when a trail crew person was hiking through. The missing man was found at Little 5, blistered, tired and demoralized, but otherwise in fine shape. Apparently he had followed a dry stream course upslope (rather than the trail) and so was off trail for about $3\frac{1}{2}$ hours during the time we were all searching for him.

Weather

July was usually clear or partly cloudy with unseasonably warm to hot temperatures. There were a few afternoon thunderstorms during this month. August was cooler with more rain and thunderstorms than July. August 15th was the biggest storm of August with rain the entire preceding night and all that day. There was a light dusting of snow on the Kaweah range and I saw a few light flakes fall at the station in the early morning. The second half of August was usually clear with pleasant temperatures. September saw temperatures drop dramatically so that on September 9th an early season snow storm blew in. September 20th brought another rain/snow storm and on September 26th (demobilization day of course) the biggest storm of the year storm arrived. The storm on September 26th started as sleet then progressed to heavy, wet snow then rain later in the day. Strong winds and freezing temperatures overnight made for some icy conditions not seen earlier in the season. The last storm left about 2" of snow on the ground and up to a foot of drifts on places on the Black Rock Pass trail.

Fires (natural, human caused not campfires)

A prescribed fire in mid September (Lodgepole area) blew in a great deal of smoke to the Little Five area, obscuring the view of the Kaweah range. Other than this there was no fire activity or smoke in the area.

Use Patterns

Backpackers

There are a number of popular loops that backpackers frequent. Among these that pass through the Little Five area are:

- 1. The Kaweah Gap to Black Rock Pass Loop most hikers in early season were doing this route. It stayed popular throughout the season.
- 2. The Black Rock Pass to Sawtooth Pass Loop this route was most popular by hikers in mid season with many visitors staying at Little Five and then Columbine Lake.
- 3. The Franklin Pass to Black Rock Pass Loop probably the third most popular loop with many visitors camping at Franklin Lakes and Forester Lake before arriving at Little Five.

Most backpackers arrive in camp around dinner time and stay at the Little Five Lakes camping area for one night. About 15% of the users stay a second night. I had no one in camp that stayed for more than 2 nights.

Stock

There was little stock use in the Little Five Lakes patrol area this year. Other than administrative stock use (see below), the only other stock party that I encountered was from the Rock Creek Pack Station. This was a party of 8 people and 12 stock for one night each at Big Arroyo (8/25), Big Five Lakes (8/26) and Sky Parlor (8/27).

Administrative

Late in the season there was a trail crew working in the area. Trail crew was at Lost Canyon from 8/26 to 8/31, the Big Arroyo from 8/31 to 9/6 and Sky Parlor from 9/6 to 9/10. This was the only administrative use that I saw in my area. (Trail crew had 12 head of stock for the duration of their time here.)

Commercial

There were two Sierra groups and one guided trip by SNHA that came through the Little Five area this year. IBP forms were filled out for each of these trips.

Overflights

Several military aircraft flew over the patrol area on a regular basis. For the most part I believe that these aircraft were over 3,000'. I reported two low flying aircraft incidents this summer:

8/19/05 One military aircraft about 2,500' over Rattlesnake Canyon 9/2/05 (6:15 pm) One military aircraft that circled around Little Five at about 300' AGL

I was not able to give a good description on the aircraft on 8/19 as I was in fairly dense trees. I was able, however, to give an excellent description on the 9/2 incident including partial letters/numbers on the tail of the craft. Other visitors also saw this overflight and also thought that it was about 300' AGL.

Natural Resources

Bear Activity

There was no noticed or reported bear activity anywhere in my patrol area. The only sighting I even heard about was a visitor report from Pinto Lake, and this was from some distance away.

I did, however, clean up a bear mess at the Kern Ranger Station on 8/17 and 8/18. Joe Ventura was away from his station and I was visiting at that time. A bear had broken into the tack shed trying to get into the horse feed there. The bear made quite a mess and did a fair amount of damage. It ripped out some of the structures' boards, broke an outdoor sink and plumbing system and damaged part of the shower system. I worked for several hours to repair the structure and clean up the mess. Fortunately the bear did not get a food reward.

Wildlife

Early in the season the Pacific Tree Frogs were plentiful and LOUD!! Over the course of the season thousands of tadpoles were in the surrounding ponds.

I saw coyotes at Spring Lake and in Lost Canyon. Numerous times I would also hear them near the Little Five ranger station at night.

On 8/13/05 four visitors reported seeing a butterfly migration. They spent hours in the afternoon watching thousands of what they thought were Painted Lady butterflies fly north over Black Rock Pass. (I looked up Painted Ladies in a field guide that I have and the book says that every few years this is one of the few species of butterflies that will migrate, in this case from Mexico to the northwest.)

I did not see any pikas this year but heard them at a few locations, notably the western talus slope that faces Black Rock Pass above upper Little Five Lake, in Nine Lakes Basin, at the foot of Eagle Scout Peak and in the area around Precipice Lake.

There were a great many marmots and Golden Mantled Ground Squirrels around camp. I never had any rodent problems per se, but I did have fleas in the yurt which was surely due to the presence of these rodents living in the area. (The electric fence reduced the number able to live under the yurt.)

Vegetation

2005 End of Season Report for Little Five Lakes

Vegetation this year was very lush due to heavy snow pack and wet ground conditions that persisted most of the season. Most meadow openings were delayed at least one to two weeks. One area in Lost Canyon was delayed a month as the river was spilling over the banks. There was excellent grazing available once vegetation dried out. Because of this year's lushness and because of the minimal grazing use, I noticed little damage to vegetation in the Little Five patrol area.

I did meadow monitoring with Caitie at Forester Lake even though the area is currently closed to grazing. As with other locations, the meadow there looked healthy and lush.

In what appears to be an ongoing problem, the area around The Big Arroyo Patrol Cabin is largely devoid of vegetation and is quite trampled. There is a restoration sign in the area but no active restoration is taking place. I feel like we need to find some way to limit or direct visitor traffic around the cabin so that vegetation there might recover.

Resource Projects

I completed two resource projects this year. The first project was to relocate a section of trail about ½ mile from the station that was several feet underwater for the first part of the season. The new trail skirts the upper edge of the seasonal "pond". (See Trail Reroute photos).

The second project was to produce campsite maps for five popular camping locations. I used information that Paul Larson collected in 2004 and made maps that were more archival than those he made. (Mine used all archival materials such as ink, watercolor and paper so maps should last a long time.) Included with the maps are small natural history watercolor pictures and information that describe something that might be seen in the area. I had a few visitors comment on how much they liked these. I put the maps and the natural history pieces in plastic sleeves and mounted them in the bear boxes at Little Five Lakes, Big Five Lakes, Lost Canyon, Big Arroyo and Moraine Lake. (See Campsite map photos).

Cultural Resources

Historic Sites

The Big Arroyo Patrol Cabin seems to be holding up well. I did not see any break in damage or obvious water damage (or leaking). I cleaned out a fair amount of trash from inside the cabin in early season and picked up a lot of trash and broken glass from the outside area. (There are a lot of very small slivers of glass in the area.)

Backcountry Facilities

Yurt

2005 End of Season Report for Little Five Lakes

The yurt suffered greatly over the winter of 2004-2005. The door of the yurt was severely warped and was very difficult to close all season long. (The door would lock but it would pop open if you pushed against it. I had to prop something heavy against the door and/or tie the door shut to prevent the wind from opening it.) The plexiglass skylight was also damaged with several large cracks totaling about 24" long. I was able to duct tape the cracks so that, fortunately, there was no water leakage but of course this was a temporary fix. Thankfully the Wilderness Office bought a new door and skylight that will be brought in next year for use in the 2006 season.

The yurt platform warped as well so that the tongue and groove boards were too swollen to allow for one board to fit in two different sections. I had to put rough plywood down on the top of the floor of the yurt so that I would not accidentally step into a hole (and sprain an ankle). The porch platform joists also cracked over the winter. Although work was done to reinforce the existing platform structure, it should be reassessed in 2006.

The drip edge at the exterior base of the yurt has been chewed on by the ever present marmots. It worked fine for 2005 but may need to be replaced in the future.

As mentioned before, there were fleas in the yurt this year. I think the problem was mostly from a piece of carpeting that had been stored over winter near a marmot rock. I left the carpeting out all summer to air out so hopefully next year this will not be a problem (if it is used at all). Additionally, I noted that some rodents were active under the yurt platform and it is possible that the fleas were coming in from there. I would recommend adding some type of skirt around the yurt, like the metal screening, to help eliminate rodents from accessing this area.

The yurt was a challenge to put up. Ideally three people would be available for this. If only two people are available, then having a tall person is extremely useful as there is a lot of high reaching. Erika documented with digital camera the taking down of the yurt. These photos will be available for future use in putting the structure up.

Bear boxes are at the Ranger Station are generally in good shape although only two of them lock. Space is tight for two people.

I began to have problems with the electrical system late in the year. The inverter often would not turn on or would make a loud, steady alarm sound. The battery charger also acted up but I eventually found out that it worked fine as the day and the yurt warmed up. During the last few weeks of the season the batteries were no longer able to provide adequate voltage to recharge radio batteries, run the electric fence or give adequate power for any type of electric needs. A priority for the station is that the batteries will have to be replaced in 2006 as they are no longer useful.

Signs

There is a sign on the west side of Sawtooth Pass that is a different format from other NPS signs. (See Sawtooth Sign Photo). It should be considered if this sign is necessary at all, and if so, should be replaced with a sign more in line with other NPS signs.

The only other signs that may need to be changed are at Little Claire Lake. We prohibit campfires or camping within 100' of the lake and some signs state this at that location. But the signs are incomplete or oriented incorrectly. At the northern shore is a sign that states "no camping within 100' of the lake" but does not mention campfires as prohibited. At the southern shore is a sign that says both but the "no campfires" portion is facing the lake rather than the direction hikers approach the lake. It is possible that both regulations do not need to be posted but if so I would suggest that two new signs be replaced with each of the two regulations facing in the same direction so that hikers will see both regulations posted as they approach the lake rather than as they leave the area.

Trails

Trail Activities (work accomplished)

Visitor contacts were the primary activity along the trail. Twice during the summer I escorted visitors in the park when they were not comfortable hiking alone. The first time was the medical on 8/9/05. The second time was on my hike out at season's end when there was 2" to 3" of snow (more at drifts) on the trail up to Black Rock Pass and a visitor was not comfortable hiking alone in those conditions.

On July 24th I met a group of Eagle Scouts that were climbing Eagle Scout Peak and wanted to place a special plaque there. They had been denied this request earlier but I met the group and was able to have a good contact with them and make sure that they, in fact, were not going to do this.

Besides visitor contacts, I also accomplished several other activities on the trail. Among these were helping (Joe Ventura) rehabilitate some campsites along the Upper Rattlesnake drainage and taking more than 150 GPS coordinates at switchback ends of relocated trails for later mapping.

Early season I dug out many small drainage channels to carry water away from the trail and also spent a fair amount of time clearing the trail of down branches and small trees.

Problem Areas

Most trails in the Little Five Patrol area are in fine shape. There are no significant down trees and no areas with notable damage. Some trails in the patrol area are, however, rather indistinct and could use more attention in future years.

- 1. Probably the most used of the indistinct trails is the western side of the pass of the Sawtooth Trail. The route is entirely in scree and several secondary trails (e.g. over to Glacier Pass) have appeared. Furthermore, it is not always clear exactly where the trail is even though the general route is obvious enough. People often just go downhill without paying too close attention to being on the actual trail. It would be good to find a way to delineate the route better so that visitors don't just plunge step, off trail, down the slope.
- 2. The Upper Big Five Lakes Trail is also very indistinct. I removed many illegal or inappropriate fire rings in the Upper Big Five Lakes region. It seemed that these rings were in places that visitors thought were off the beaten track enough that no one would ever "catch" them. I can't help but wonder if having a better trail would help discourage these types of users even though it would encourage more overall use.
- 3. The third indistinct trail, and of lowest priority, is the Lower Big Arroyo Trail. This area is extremely overgrown and difficult to follow in several places. Often the trail is just lost in tall meadow. Other places are not clear where you are supposed to cross the river. I had a few complaints about the overall conditions of this trail even though it is not well traveled.

Camp Areas

Conditions

Most camping areas are clean and crowding does not seem to be a problem. Camping is more densely packed near bear boxes.

Camping areas at the Little Five Lakes area are often full near the bear box but other smaller spots are plentiful enough. There are a few more isolated spots in the area and often, at busier times, people would use these areas (as found from the campsite map posted in the bear box).

Columbine Lake has a few campsites that are right along the trail that seem somewhat inappropriate. There are some good sites that are 100' or so away from the trail and I would frequently try to direct visitors to those areas.

Pinto Lake has a partially buried 55 gallon barrel at one of its campsites. This barrel is full of water and apparently has been used as a latrine in the past. The barrel is potentially dangerous for small children and is inappropriate.

Sanitation

Generally most camping areas are clean with little negative evidence. The only exception to this was at Cliff Creek. I was very disappointed in the condition of the Cliff Creek camping area. Feces is evident all around the camping area with toilet paper under every

2005 End of Season Report for Little Five Lakes

rock. Frankly, I found it pretty disgusting. I really feel that we should consider putting a toilet in at that location.

The privacy screen at Forester Lake toilet is beginning to fall apart. There are a few loose boards and some of the support boards have cracked and are sagging. Also the toilet seat hinges are broken off. (The screws that hold the seat on are ok.) In its present condition, it would be easy for the entire seat to fall into the pit toilet thus the seat needs to be replaced.

I located and cleaned out two small can dumps. The first was near the outlet of the Little Five Lake by the Ranger Station (about 10 pounds). The second was at one of the Upper Big Five Lakes (about 15 pounds).

Fire rings

(Number of) Reduced and Removed

15 Removed

39 Reduced

The biggest fire pits were found at the Big Arroyo, Cliff Creek and Lost Canyon camping areas by bear boxes. Additionally, I found numerous large fire pits in Upper Lost Canyon and Upper Big Five Lakes several of which were in vegetation. (Fires are legal in all of these areas but the pits were often very large and deep with ash or in inappropriate places.)

I removed three camp fire rings at Pinto Lake where camp fires are illegal. We should have a clear and well posted sign at this location.

Firewood Availability

Except at Cliff Creek, firewood availability is adequate at forested camping areas where fires are permitted. Stock camping areas generally also have adequate firewood but it is a little more difficult to find and there is more evidence of vegetation damage at these areas. Several areas in the Little Five patrol area permit fires in zones where wood is not naturally abundant.

Food Storage

The Little Five Lakes and Pinto Lake camping areas received new bear boxes in September. The Big Arroyo was slated to also receive a new box but this has been delayed. Some parts to fix the locking mechanism were sent in to me at the Big Arroyo trail camp but I did not know this until after the trail crew had left. Mid September I went to get the parts but found the box locked. (The lock takes a 52 key of which I did not have.) I was able to put a removable bolt on the box that should suffice until 2006.

2005 End of Season Report for Little Five Lakes

Trailheads

I did not spend at time at all in the front country this year so did not notice anything of importance at the trailheads. No visitors commented on the trailhead conditions although a few asked about how to protect their cars from marmots.

Issuing Office

The issuing office in Mineral King did a great job on writing permits and providing information to visitors. I do think that some improvements could be made. Some information was not accurate especially with regard to where fires are permitted. It would be helpful if all trail head rangers made a note on each permit of fire regulations for areas that visitors intend to camp at. I also think that a little more time might be spent going over a few of the more general regulations such as not camping on vegetation (probably the main violation that I continually saw in the Little Five area.)

Communications

(b) (7)(F)	

Needs for Next Year

Bag Valve Mask Suction Device 1 or 2 Plastic 5 gallon container(s) with lid(s) (excellent for laundry and T.P. storage) Paper Clips, especially the non-standard black clips with silver hasps that hold bulkier items together More non rebreather masks (only have 2) More nasal canulas (only have 2) New Inverter New Battery Charger New Solar Batteries (ones at station are no longer working) **AA Batteries AAA** Batteries Twist ties **Rubber Bands** Paper Towels (1 package left at station) Flea bomb (hopefully not needed in 2006 – but would be good to have just in case) Two dowels for fixing two broken folding chairs Two new large tarps (one very large one is currently shredding while other mid

Backpacking stove and appropriate fuel
Clear or Strapping tape (none at station)

size one has pin sized holes in it).

Step ladder or step stool

2005 End of Season Report for Little Five Lakes

More Duct tape
Electrical tape
1 or 2 Boxes of Strike Anywhere matches
3/4" Bandaids (no normal size at station on the junior size)
Iodine swabs
Nomax shirt
Protective eye goggles
Pencils (only 2 at station)
WD-40 (for 4 NPS locks that are jammed)
Cutting board
New fire resistant base for woodstove (dimensions 2'-3" x 3'-4" or bigger)
Step ladder or step stool

Recommendations

- 1. Leave No Trace training would be good for backcountry staff every few years. This would be especially useful for new incoming staff who will be in the backcountry over the season. I encountered a few new front country rangers, who using the Sierra backcountry for the first time, wanted to do the right thing but were somewhat oblivious to appropriate campsite selection.
- 2. Most of us worked together to put together a park wide radio map. It would be good to have the pertinent section at each station. There were several times I did not know that I would be in a radio hole until I got there. I would have radioed out before I got there had I known. This would be especially useful to someone who is new to a station.
- 3. Replace all solar batteries in 2006. One was dead at the beginning of 2005 and the other two failed at season's end.
- 4. Replace inverter and battery charger in 2006.
- 5. Install a toilet facility at Cliff Creek.
- 6. Improve and delineate the Sawtooth trail on the western side of the pass.
- 7. Replace Sawtooth sign on the W side of pass. Currently the sign is not regulation.
- 8. Regulations about organized groups cutting members from a hike. I had a Sierra group coming through mid season that had cut a member from the hike once they were out on the trail. They cut him because he did not have a bear canister and because he was not, in their opinion, acting normally. Other visitors later saw this same individual (now out alone without a permit) and also thought that he was acting oddly. One of the Sierra group leaders spoke with me about this individual and I got the feeling that the Sierra group somehow expected that he was now the park's responsibility. It seems to me that we should have some regulation in place to make sure that organized parties, once on the trail, are committed to each of their members. They should not be permitted to cut someone out of the party in the middle of a hike, leaving the unprepared for us to deal with. Any culling should be done before setting out on the trail.
- 9. Remove partially buried barrel at Pinto Lake campsite.
- 10. Post a "no campfires" sign at Pinto Lake. I removed three campfire rings at this location despite their being illegal.
- 11. Reinforce or replace the privacy screen at Forester Lake.
- 12. Replace the toilet seat at Forester Lake.
- 13. Little Claire signing needs to be re-oriented towards hikers approaching the lake.

- 14. Remove restoration signs at (Little Five Lakes peninsula, Big Five Lakes bear box area, Big Arroyo Patrol Cabin area and Lost Canyon near trail crew camp) or start active restoration.
- 15. Need some way to limit traffic and trampling around Big Arroyo Patrol Cabin.
- 16. Further restoration of old trail just north of Long Lake drainage that heads west off of Big Arroyo trail.
- 17. Add metal screening skirt around yurt platform bottom.
- 18. Remove metal pole at Sawtooth Pass (see Sawtooth Pass pole photo). This pole is not appropriate for wilderness and is set in rock that has a permanent hole.
- 19. Remove metal pole at west side of Kaweah Gap. Pole configuration is similar to that of pole at Sawtooth Pass. It is not appropriate in this setting.
- 20. Further limit fire use and make fire regulations more uniform. Several places in the Little Five area allow fires at higher elevations where fire is not appropriate.
- 21. Have permit issuing office note on permits where fires are or are not allowed for each campsite area in a visitor's itinerary.

Although a losing battle, I feel like campfires should be illegal in National Parks. Period. National Parks are supposed to protect the natural succession of ecological communities. Campfires are not part of this. Back country rangers in SEKI work constantly to reduce the size of the fire pits and to clean out the increasing depths of ash and charcoal. Besides spreading out or burying the remains, there is little that can be done. It takes a very long time for the charcoal to break down so that in many areas, no matter where you look, there is some evidence of past campfires. Fire scars on vegetation or on large rocks remain. Vegetation is broken off or sawn off for firewood. Some areas lose the critical dead and down material essential for recycling nutrients back into the ground or for vertebrate and invertebrate habitat. Areas with fire pits always have significantly more trash either in the pit or in the vicinity. The confusion as to where fires are permitted also means that some users err on the side of having a fire where they shouldn't. By contrast at Mount Rainier where I have worked in the backcountry, fires are prohibited except at car campgrounds. There is little evidence of campfire use in the backcountry. The meadows, woods and grounds feel much more pristine for it.

Change is sometimes slow, especially when there is a pattern of historical use. This is just one voice. Our ever evolving enlightenment means that we constantly look at the appropriateness of things like we once did with can dumps. Currently, SEKI should reanalyze its position on campfires in the backcountry. We are the custodians of an incredible resource. We should not lose sight of that to satisfy the needs of a relative few.

Pertinent Inventory

- 23 Small clear trash bags
- 1 Large clear trash bag
- 18 Large black garbage bags
- 3 Burlap bags
- 405 2" Galvanized D.W. screws
- 63 ³/₄" screws
- 4 $1 \frac{1}{4}$ " screws
- 3 2" screws (thicker than other 2")
- 18 ½" large head screws
- 7 ½" large head screws
- 2 1" screws
- 6 1" large head screws
- 4 ³/₄" large head screws
- 4 7/16" screws
- 2 1 1/16" thick screws w/attached washer
- 2 9/16" thick screws w/attached washer
- 2 Full sets of area maps

Binoculars

100' of new nylon cord and lots of scraps

No Pocket Rocket or other backpacking stove

No MSR Propane canisters

- 1 Garcia bear canister
- 1 Small propane tank (full)
- 1 Large propane tank (full)
- 1 Large propane tank (nearly empty)
- 1+ Gallons White gas
- 1-3/4 Liters Denatured Alcohol
- $1 \frac{1}{2}$ Boxes Strike Anywhere matches
- 2 Sunscreen tubes
- 1 Handsoap
- ½ Container of dishsoap
- ½ Container of laundry soap
- 19 Rolls toilet paper
- 3 Packages paper towels
- 3 Oxygen tanks (all full)
- 2 Triple Antibiotic Ointments (plus 3 expired)
- 5 Ibuprofen packs (plus 13 expired)
- 6 Tri-buffered Aspirin packs (plus 18 expired)
- 7 Pair of disposable (white) latex gloves

2005 End of Season Report for Little Five Lakes

- 2 Pair of disposable sun goggles
- 9 Insect sting relief swabs
- 9 Junior Bandaids
- 6 Medium Butterfly closures
- 2 Tweezers
- 1 Glucose
- 2 Sam splints
- 2 Wire splints
- 3 2" Ace bandages
- 1 4" Ace Bandage
- 1 Large roll of moleskin
- 14 square inches of molefoam
- 2 Triangular bandages
- 3 Rolls stretch gauze (4 ½" x 147")
- 2 3M 9211 Respirators (N95)
- 1 syringe (plus one opened syringe)
- 1 Micro shield
- 2 Instant cold/ice packs
- 35 Alcohol pads
- 18 4" x 4" Gauze pads
- 5 4" x 4" dressing sponges
- 1 8" x 71/2" Combine dressing
- 3 3" x 4" Sterile pads
- 1 Roll 2" Surgical adhesive tape
- 1 Roll 3" Adhesive tape
- 1 Roll ½" Antiseize tape
- 2 2" Bandage compresses
- 1 Package of 5 1/8" x 3" Suture strips
- 4 Packages of 6 ½" x 4" Suture strips
- 1 Yellow helmet
- 4 Pairs of leather gloves
- 6 Pair of ear plugs
- 1 Duct tape
- 1 Scotch tape
- 2 Pencils
- 35+ pens
- 2 Sharpies (black)
- 2 Magic markers (black)
- 2 pairs of scissors
- 15+8-1/2" x 11" clear plastic holders
- 10 Pocket pads (small yellow pads)
- 1 Steno pad
- 1 8-1/2" x 11" pad

2005 End of Season Report for Little Five Lakes

Preliminary Recommendations for Restoration

Signs

There are a few areas where restoration signs exist without any actual restoration taking place. These signs should either be removed or work should progress in those areas. All of the areas show some signs of past heavy use in vegetated areas. These include:

Little Five Lakes campsite area (peninsula) (2 signs)
Lower Big Five Lakes (adjacent to bear box)
Big Arroyo (adjacent to Patrol Cabin)
Lost Canyon (north side of the river adjacent to the trail crew camp)

Trails

There is a section of old, abandoned trail that needs restoration work along the trail between Little 5 and Big Arroyo. This section has been closed off and has rocks in the old trail bed but it is still distinctly visible and almost inviting as the rocks look somewhat like steps and the old section takes off at a switchback on the re-routed trail. This section is just north of the drainage outlet of Long Lake and heads off west from the re-routed trail.

Upper Big Arroyo has a few areas where parallel trails are appearing because main trail is somewhat too narrow and deep a foot bed causing hikers to walk next to the trail rather than in it.

Other

There is a 55 gallon barrel partially buried in the ground adjacent to the camping area at Pinto Lake. It apparently was intended for food storage but has been mistaken for a latrine by some visitors in the past. Currently the barrel is 3/4 full of stagnant water and serving no useful purpose. Additionally it could be a hazard to small children if they were to visit the area. This barrel needs to be removed.

Big Arroyo patrol cabin is largely devoid of vegetation around cabin area. There are still a lot of small pieces of glass and fine trash as well. It would be good to clean the area up, rehabilitate the surrounding area and find some way to limit traffic around the cabin so as to prevent the same from happening again in the future.

Photos

Campsite Maps



Trail Reroute



2005 End of Season Report for Little Five Lakes



Pole at Sawtooth Pass



Sign At Sawtooth Pass



end

McClure Year End Report 05

Introduction

My training for the park began the first of May when I attended the NPS technical rescue course in Canyonlands. The five day course was an excellent and intense training. I received the course certification and would recommend the training for all of our backcountry rangers.

I started the season on June 13 with three days of EMS training. It was great to get the refresher training and the doctors put on an excellent three day training. This was the first season in many years that I was not commissioned law enforcement. This allowed me to get into the backcountry a week before the other rangers that went to the law enforcement training.

On June 22, I arrived at Florence Lake late in the afternoon and started to hike in. Winter of 04/-05 was 140% of normal. The South Fork of the San Joaquin was raging along with the other drainages in the area. Evolution Creek was very hazardous at the crossing below Evolution Meadow and remained that way many weeks into the season.

Marmots had gotten into the station again and had made a huge mess. There was sign that they got in the station in the fall. They had chewed through the plywood door of the bed storage and had gotten into numerous boxes of food that were left inside. A hole had been dug from under the outside Knaack box and under the station and then through the floor. Also, the plywood shutter had been chewed through and the hinged window was not locked that allowed the marmots to access the station through the window.

In opening the station door there was two feet deep of food packages and marmot poop everywhere and on everything. Also, with all of the mouse poop, haunta virus was a big concern. For about a week, while cleaning the station, Clorox spray bottle in hand, I wore the face mask for respiratory protection. So for the first week, my primary focus was to clean the station and make it safe and inhabitable. Actually for over a month, I was still scraping marmot poop off things in the station. The door of the storage box was rebuilt and the station was organized as a first priority

On June 26, knee deep in scraping marmot poop, four pct hikers arrived at the station to report a pack floating in Evolution Lake. I closed up the station and hiked to the lake arriving at 1600 hours. After visually

inspecting the pack out in the middle of the lake, I decided to make the call to report a suspicious situation. I reported that I suspected that there could be someone attached to the pack under the water, even though I could see no body. I camped at the lake and the next day at 1500 hours the helicopter arrive with and team for retrieving the pack. As it turned out, it was a fatality and the body was recovered and flown out of the backcountry.

Since this was a big snow year, there were numerous hazards throughout the park with the big runoff swelling the streams and rivers and lots of snow for hikers to deal with. Evolution Creek was uncrossable until the first of August. Also, with all the moisture, the mosquitoes had a banner year as it seemed that they would never go away. Finally, with the cold weather the first of September, they faded away.

The McClure station restoration project started with four helicopter flights on August 19. During the five weeks that the crew was working on replacing the sill logs, I basically moved out of the cabin and set up a camp behind the station. The crew completed the project on Sept. 23 and did an excellent job.

I got together with Dave Gordon on two occasions, once I hiked over to LeConte and the other time Dave hiked over to McClure. This time together was valuable in working together on issues, problems and area management.

This was the first season that I have not been commissioned law enforcement. It was proven this season that, even though the commission is beneficial, the job can be done effectively without a commission.

My season officially ended on Sept. 30, but I stayed in the backcountry until Oct. 10. During this period I did an extended patrol down Goddard Creek to Simpson Meadow. I worked on the Simpson Station for a few days and the continued to LeConte and back over Muir Pass to McClure.

Area Patrol

This season I was very active in covering the area. (refer to patrol map) Typically I would be at McClure for a couple of days and then away from the station on extended patrol for one or two nights. It had been 20 years since I was stationed in McClure and covering the areas

trails and cross country routes allowed me to refamiliarize myself with the area. What a magnificent area McClure is!

Visitors Contacts

Miles Hiked

Signs

Lamark Col- has elevation scratched on sign.

Goddard bridge- has graffiti scratched on sign.

I find it very unfortunate that this type of sign was chosen for the backcountry because they are so easy to scratch and deface. I estimate that over half of the signs that I've seen in recent years from Rae Lakes to McClure have been vandalized. In comparison to the options, Yosemite backcountry has a type of sign that cannot be scratched and defaced.

The two main entry points to the area, Piute Creek and Lamarck Col have the signs that denote: Entering Kings Canyon Nat'l Park. No pets or firearms allowed.

Wildlife Observations

Lion tracks at basin to the south of McClure (in snow)

Lion tracks near the outlet of Davis Lakes (in snow)

Coyote was seen all over the area throughout the summer.

A large Osprey was seen at lower Lamark Lake.

Golden eagle was seen at Evolution Lake.

I was very surprised at the lack of wildlife in the area that I am use to seeing in other areas of the backcountry. This would be primarily the mammals: bears, fisher, pine martin, weasels. I did see the scat around lakes that made me suspect that pine martin, etc., were here, but in

minimal numbers. A friend of mine did see a wolverine in Goddard Canyon a few years ago.

I was fishing at lake with several trout in my pack when I saw two coyotes coming around the shore of the lake. When the first coyote came around the bend, he smelled my trout and aggressively came within 10 feet of me. I yelled and through some rocks and he eventually ran away. I continued back down to the station looking over my shoulder all the way down.

Resource Impacts

When the Goddard Bridge was replaced, much of the flooring for the old bridge was left in the area. Now numerous campsites have this flooring material for tables and seats.(see photo attached and there are numerous photos of these camps in the photos taken this season) This does violate our "no improvements" aspect of our minimum impact regulations.

With the rebuilding of the Cartridge Creek Bridge, much time and expense was allotted to hauling out this old bridge material. Something needs to be done next season to restore these camps to the legal parameters.

Recommendation

There are approximately 10 boards in this area that need to be removed. The best option would be to have the trail crew "buck up" and pack out this material.

A private stock party, (b) (6) , created a big impact in at the main Colby Meadow camp by tying their stock up to trees for a long period of time. There was significant hoofing and vegetation damage created by this party. I contacted them and gave them a verbal warning. They did not have the stock regulations that I reviewed with them. I contacted (b) about this incident and requested that she mail the stock regulations to (b) (6).

The most common backpacker Minimum Impact violation is setting tents up on the grass. Numerous verbal warnings were given this season for this violation. The grass around the main camps in McClure and Colby Meadows gets hammered down from this during the course of the season. Also, in McClure, there is a trail in the meadow from all the use

throughout the season. This is probably the old trail that has never fully become renaturalized.

Visitor Information

In checking permits this season, I found that a small percent of hikers actually had our park Minimum Impact Regulations. Hikers coming through the area are entering the park from a variety of different trailheads which include: Florence Lake, North Lake, South Lake, Yosemite, PCT hikers, etc.

A focus in the future should be to make sure that we can work with the Forest Service to have them give out the park's regulations with their permits. This has been done in the past, but from what I observed this season, it's not happening now.

Visitor Protection

With the drownings in the park this season, high water crossings were a major hazard for hikers in the backcountry. The Evolution Creek crossing was still hazardous until the first part of August. In the preseason, Sierra Crest rangers compiled a list of hazardous crossings in Kings Canyon backcountry. These crossings should be kept on file for future reference. Each backcountry ranger should be aware of where all of these problems are, so that they can advise hikers who may be headed in that direction. A reference map would be handy that is kept at each station showing these hazardous crossings.

Avoiding the Problem - The Ranger's Role

Numerous times this season I have helped to avoid a problem by advising hikers to change their plans. For example, I talked with a couple in their mid 60's who had two plans on their minds; to go cross country from Wanda Lake to Ionian Basin and to do the cross country route from Wanda to Davis Lakes and down the north fork to Goddard Canyon. Rough routes for sure and the gentleman's wife clearly was not up to the task. I expressed my concern and offered a recommendation to the other "off trail" routes that they were considering: up to Darwin Bench and McGee Canyon and Lakes. I felt that the wife was very relieved that I encouraged them to go on less difficult routes.

It has been standard practice for many years that Ranger's do not advise hikers to go on cross country routes. Many hikers that are good on the trail become "accidents" waiting to happen as soon as they get off trail negotiating large boulders and piles of rock. Generally our standard practice is to explain to hikers that if they want to do a route and can find it, that this is their decision and not something that we are telling them to do. Certainly there are exceptions to this rule for very fit and experienced hikers.

Policy on warning notices at crossings

Evolution Creek was a dangerous crossing for many weeks this season. I gave numerous verbal warnings to hikers this summer and recommended that they cross the creek in Evolution Meadow where a safe crossing could be made. With the "trail net" many hikers had heard about the problem crossing from other hikers along the trail.

I felt a little uncomfortable this season knowing that there could be a problem at any time at Evolution Creek. I did discuss this with (Brenchley) when she was in my area. A safe crossing could be made in the meadow up ¼ mile. This information was made available to all trailheads and it was "the talk" of the trail, most hikers new ahead of time where to cross.

Do we have a policy about what to do at the hazardous crossings? Does the NPS have a liability? Does the area ranger have a liability? A standard procedure for this particular situation is worth considering.

Ranger Station

The restoration of the McClure Station was a huge accomplishment this season. It required a lot of my time and energy during the five weeks that the crew was in the area. My objective was to do everything that I could to make sure that the crew was able to work at their full potential while on the job. This involved packing up most of my gear and food, so that it was easy for them to work inside the station. My gear and clothes were packed up and hung on the wall to keep it out of the way, so they could work inside the station.

Some food was stored in a 55 gallon barrel and stored outside. This packing up and clearing the station out certainly was a huge inconvenience, but I made it work. For example, for 4 weeks there was an open pit that was dug around the station – three feet wide and four

feet deep. This did create a potential hazard for hikers that might wander by at night. As a result, at the end of every work day a rope was strung in front of the station with signs on it that read "warning open pit".

When the crew arrived I recommended a camp at the head of McClure Meadow. This camp, that was hidden from the trail worked out very well for the crew.

The work accomplished by the crew was: replace the 4 sill logs, sand and patch cracks in the exterior logs of the cabin, chink the exterior of the logs, preservative placed on the exteriors logs, place new sill logs on rock and mortar pier block style foundation, rock and mortar the perimeter of the foundation from the bottom of the trench to the base of the sill logs, fill the rest of the trench with rock and dirt, place hardware cloth around the perimeter of the station and under the soil. Cracks in the logs were filled with a special caulk. And a wood preservative/stain was painted on the exterior of the station. In working with the crew, I took on several projects. (see Projects) I also helped out at the end, with the time crunch, painting wood preservative on the station, filling the trench, caulking the logs and putting the hardware cloth around the station. Also, when they left there was a big mess around the station of dirt and rocks from the trench work. I worked a few days clearing the area and scattering the rocks. There is more of this work that will need to be done next season, but in the time being it looks good.

Law Enforcement

I contacted a hiker with a dog at McClure in August. The hiker was the "worst case" scenario, angry and determined to continue onto Bishop Pass no matter what the consequences. I was able to convince the hiker that it would be best for him, considering the legal consequences that he should turn back and exit the park through the Piute entrance. He finally did comply and turned back. I relayed a report about this contact to and she was able to issue the citation from my report. This is an example of how we can do the necessary law enforcement in the backcountry without being commissioned.

When I first made contact with the hiker and his wife I said nothing about the dog. I said "howdy, nice day" and then I asked for his permit and his drivers license and he complied. Then I mentioned to him that dogs were not allowed in the park and he began to get irate. Sensing a

problem, I called dispatch to report a "law enforcement" contact act McClure and gave his drivers license information and requested a check every 10 minutes. This seemed to get his attention and is an example of the "standard operating procedure for these types of law enforcement contacts.

The most common violations seen this season were the following: Stock tied to trees.

Setting tents up on the grass.

Building fire rings.

Camping too close to water.

Leaving litter in the fire rings.

Fire rings

As a result of Dario's work over the past three years, fire rings in the area were in good shape. On my patrols I tore down approximately 15 fire rings in the area and rebuilt 8 into the three ring style. Ashes were shoveled out periodically during the season at the main camps used at Colby and McClure Station. Cleaning out the foil and litter in the fire rings is something that was done constantly throughout the season on all fire rings in the area.. At the McClure Meadow stock camp the fire ring was torn down and built with a "world class" three rock style ring.

Projects

This season was a hallmark year for major improvements and projects for the McClure operation. The station was in very sad shape when I arrived. The state of the station was an extreme health risk for the ranger. The solar unit was working on a marginal basis. Gear inside the station was scattered by the marmots and trees were across the trail creating difficulty for packers coming into the area.

Projects completed this season include the following:

1) Logging the areas down trees across the trail. This season the trail crew did not log the trees across the trail. There were 4 problem trees down in the area. Unfortunately there was no chain saw fuel at the station. I mentioned that I had no fuel for my saw to a High Sierra Packer and on August 12 packer Reed brought in some fuel. Then over the next few days I logged the trees in the area.

- **2) Goddard Bridge to Piute Bridge cleanup**. In August a cleanup of all of the camps in this area was done. There are numerous camps in this area.
- **3) New outhouse hole dug.** The outhouse was full to the brim and very odoriferous. The new hole was dug next to the old hole. In a few years, when a new hole needs to be dug, the old hole will be decomposed enough to use again.
- **4) Organizing station equipment.** I spent a lot of time throughout the season organizing the equipment. A plastic milk carton was used for keeping all of the tools together. A new knack style box was acquired by the restoration crew, which provided a place for all of the hand tools to be organized. Both knack boxes were placed behind the station that gives the station area a much cleaner look.
- 5) **Station ceiling.** The station ceiling was sanded, caulked and painted. There were numerous gaps and holes in the ceiling.
- 6) Rewiring station fluorescent lights. An additional fluorescent light was added to the interior of the station. Both of the interior (ceiling) station lights were rewired. The new wire was run from the batteries and through the attic. The wire was encased in a protective pvc sheathing.

7) Station Solar Unit

Early in the season I moved the solar 60 feet from the station to a ground mounted panel setup. This improved the system operation 10 fold. On Sept. 9th, for example, the panels started getting full sunlight at 0900 hours and were charging until 1630 hours. This is as good a site as any other station in the backcountry. So this new location proved to be excellent for sunlight throughout the season. Also, as Dick Martin would agree, the panel on the side of the station did not look very good.

In September I upgraded the system with the following improvements:

Dug substantial trench from the solar panels to the station. (see photo) Heavy wire was run in the trench and encased in pvc pipe.

The wire was run under the floor of the station for a permanent connection to the station.

Install metal pipe adjustable rack for the panels. The foundation for the rack was placed in concrete that should last for many years. The controller was moved to a better location inside and rewired. (See photos attached)

8) Goddard Bridge to Piute Bridge Cleanup

On Sept. 7,8 and 9, I did a cleanup project of the camps between these two bridges. Every fire ring was cleaned out and trash from around the camp sites was picked up. There was not and big problem with excessive coals and ash in the fire rings, but on some occasions the coals were dug out and scattered. Old rusted cans were found in some places particularly around the Goddard bridge stock camps.

9) Station Interior Design

When I arrived at the station I made a variety of sketches for renovating the inside of the station. (refer to back of report) These sketches were provided to Thor before he and crew came to McClure to help give him some ideas for this interior work.

While he was at McClure we worked together to brain storm on the best ideas and plans for the station. He now has a comprehensive set of plans and dimensions for building these cabinets over the winter. The plan is that he will fly in and do the installation next spring. These improvements will make the station much more convenient and functional. I am very much looking forward to seeing the finished interior work next season. The new work includes the following: new big cabinet next to the front door, cooking table with cabinet storage underneath, sink with overhead cabinets, closet for hanging clothes (NE corner of station), table, bed with storage underneath, trim around perimeter of ceiling. We will also be getting a backup inverter for the solar unit. With the new metal box that we have acquired for the station, I think that we are maximizing the station's improvements with the money that has been made available.

10) Photo Documentation

This summer with the digital I took 120 photos. The photos documented the following: station restoration project, campsite rehab, Goddard bridge overdeveloped sites, meadow monitoring, stock camp project, Simpson Meadow Station problems, and other significant seasonal data. These photos are extremely useful for photo data records and were copied onto a CD for future reference.

11) Simpson Meadow Ranger Station

At the end of my season I made a trip to Simpson and did some work on the ranger station. Work done on the station included: restoring the station foot bridge, roof repair, clear brush around the station, and clean and organize the interior of the station.

Horseshoe Creek is eroding badly that threatens the station. I discussed this with Thor and Jack Vance. With the potential threat of losing the station, Jack and Thor are. interested in doing some work to stop the stream bank erosion. Photos were taken to show the extent of the problem.

Also, there are numerous trees that have fallen down around the station that create a fire hazard. I am recommended that these trees be bucked up into rounds and hauled away to clear the area. I will be working with Thor and Jack over the winter to provide information to them so that this situation can be assessed. Since the cabin is in the "historic" category, hopefully the money will be available to do this work in a couple of years.

Length of Stay for Park Visitors

On July 27, High Sierra packed in a spot trip to McClure. This family of 6 stayed for two weeks and was packed out on August 9. Do we want to shorten the amount of time that people can stay in one camp. There are numerous campsites in the area, but where they stayed at the first camp above the ranger station is the most preferred camp in the area. Unfortunately I was on patrol when they arrived, otherwise I would have suggested another camp for them. Fortunately they were at McClure before the peak of this hiking season and they were very accommodating to other hikers that camped nearby. If it were "the peak" of the hiking season, this would have created some inconvenience for those

bedraggled hikers that were hoping to find a place to camp near the station.

Meadow Management

This was a very wet year and McClure was a lake when I arrived and remained that way many weeks into the season.(see photo) When hiked in for a visit the middle of July, we decided to postpone the opening dates for grazing. The changed opening dates were: August 15 for Colby and August 27 for McClure. Evolution Meadow was closed this season to give it time to recover from over grazing the past few years.

On August 4, packer (b) (6) grazed three head at McClure while I was out of the area. The pack stations had not been notified of the delayed opening dates for the meadows. On August 5, I contacted Peter in the Wilderness Office and asked him to call all of the pack stations that service the Evolution area to let them know of the postponed opening dates for the area's meadows. This should be done as a SOP, because the pack stations have no way to know that the opening dates have been changed.

On September 21, I worked with Catie Karplus and did the residual biomass in Colby Meadow and on September 22 we monitored Evolution Meadow. We both agreed that Evolution Meadow looked fully recovered and should be reopened for grazing next season.

Stock Use and Management

This season I recorded 28 stock nights for McClure. The meadow was used for camping by High Sierra numerous times before it opened for grazing. (see stock report attached)

53 stock nights for Colby and Darwin Meadow had 15 stock nights. There was another stock group that used Darwin, but I did not see them when they were in the area, since I was on patrol. There was also significant stock usage of the Goddard Bridge area, but I never saw the stock there, just the mess that they left behind. (piles of manure in the camp)

High Sierra Pack Station was the primary pack station using the area this summer. Starting on July 27, they stayed 6 nights (48 stock nights) in the McClure area prior to the meadows being opened for grazing. On these occasions they brought in their grain and did not graze the meadow.

There were two "through the park" stock trips to my knowledge. Packers are asking about where to graze and camp throughout the park. It is important for our backcountry rangers to have the knowledge and to be able to advise packers on these locations. Also, it is recommended that the other backcountry rangers be notified as to when these trips will be coming into their area.

Stock camps in Evolution Valley

The old stock camp in this meadow was closed to camping due to the heavy use and impact. Katie and I looked at this site together when we were monitoring this meadow. We agreed that finding an alternative stock camp would be advisable. One of the problems with the impact from the old stock camp is that is near the trail and created sort of a blight in the area.

I am recommending that this camp remain closed. There is a good established camp on the south side of the creek that would work well for the stock camp here. (see photos in photo log) By encouraging High Sierra Pack and other pack stations to use this alternative camp, the word will get out and it will be established as the camp for stock users. Advantages of this site include that it is hidden out and not visible from the trail, it has a view of the meadow that is what the packers want for a stock camp, it is an established site with a three ring fire ring, there are open bare ground areas that will work well for high lines.

McClure Meadow

Most of these nights the packers stayed at the stock camp on the south side of the creek in the west side of the meadow. The meadow held up well, but there was a noticeable stock trail in the meadow leading into the camp. Rainbow Pack Station stayed for a couple of nights in the sandy flat camp just below the meadow on the north side of the creek,

but as to my request, they did high line their stock at the camp on the south side of the creek some of this time.

Colby Meadow

About half of the time the packers used the stock camp on the south side of the creek and half at the big camp on the north side of the creek.

Darwin Meadow

The big camp at Darwin (adjacent to the meadow) was used on two occasions this summer. It was used once by the Squad Trip in September. I found sign that it was used in early September, but I did not see this trip when they came through the area. To me this is an excellent stock camp and I will recommend that it be used more often in the future.

It is advantageous to have this variety of camping and grazing places for packers in the area. This prevents too much impact from the stock concentrating in one or two camps. Thought has been given to periodically closing a meadow one season as a means of giving the meadow a chance to be without grazing for a year. I feel that it is best to leave all of these meadows open and work with the packers coming through each season to have them camp in a variety of places as a way to prevent heavy usage of an individual meadow.

Pack Station Correspondence

It is very important that we maintain correspondence with the pack stations that access this area. In the early season, John Cunningham, owner of High Sierra Pack, brought in a spot trip to McClure. This was before McClure opened for grazing and as I was out of the area at the time, in talking with the group spotted in, he did not graze the meadow. But the word was that he tried to contact the park twice and never got a returned call.

On 7/27, I contacted the Wilderness Office and requested that they contact all of the pack stations that access my area to let them know of the delayed entry date for meadow openings. These pack stations are: Rock Creek, High Sierra, Rainbow, Bishop Creek and Pine Creek.

We definitely want to avoid a problem with pack stations grazing early. And when meadows are opening later than the specified opening dates, we do have a responsibility to contact the pack stations. This was not done this season until I requested the calls be made.

Trail Conditions

In the early season Muir Pass had snow down to around 10,600 feet on the south side and snow to just below Evolution Lake on the north side. This made it very difficult for travel, ad numbers of PCTers skipped the park and returned to finish this section in the fall. Overall the trails in the area are in good shape.

Search and Rescue

As mentioned in the introduction, the body recovery in Evolution Lake was the first SAR. This report was made even though I did not see a body, the pack and how it was floating was suspicious to me. It could have turned out to be just a pack floating with no body attached.

This is an example of having to go out on a limb with the report. I was suspicious that we might have a problem, but it could have been just a pack floating in the lake. Fortunately, management supported my request and came in to assist me with this situation. With the way the pack started to move in this lake on the second day that I was there waiting for the chopper, if the recovery had not been made, within a few days it is quite likely that the body would have been washed over the waterfall at the outlet of the lake.

There were four helicopter medivacs from my area during the season. They are summarized as follows:

- 1) A hiker had a "thrown out" back and was able to hike out. The decision was made to fly him out, since riding out could have aggravated his injury.
- 2) The day that the restoration crew arrived, one of the workers, Ernie, injured himself. He was trying to break some firewood by throwing a large rock at a piece of wood. The rock bounced back and hit him on the shin cutting him badly down to the bone. He was flown out the next morning.
- 3) A long hiker from France was complaining of being very dizzy and having trouble keeping his balance. The decision was made to fly him

out to the hospital in Bishop. I worked with 111 on this incident and she was the medic on the chopper.

4) A 65 year old hiker had fallen and had a bad cut on his leg. The cut started to get infected and he was flown out from Wanda Lake. Dave Gordon was in the area and handled this incident.

Through the park stock trip

Packer Rob from High Sierra Pack Station stopped by the station today on his way through the park to Cottonwood with a walking party. The guide service was S. Yosemite. He is a very conscious packer and wanted to do everything right and minimize the resource damage.

I recommended the following places for camping:

Colby – Packer Camp across the creek- he is spotting the group up to Evolution Lake for the evening.

Ladder Camp – the party will be camping at Little Pete.

Deer Meadow – a great camp that can handle stock with little impact. **Palisades Lakes** – The packer did not want to try to get over Mather from Deer Meadow, so I recommended the benches above the trail above the Upper Lake. At least at this camp the stock usually does not wander down to the lake.

Sawmill Cutoff – the group will be camping just above Twin Lakes and he agreed that he did not want to cut his stock lose around or above Twin and he liked the idea of keeping his stock in an area that can handle the impact ¼ mile below Twin Lakes. Stock grazing around the shores of Twin Lakes creates a huge impact.

Center Basin cutoff – works fine.

And the rest in the Kern would be Tyndall, lower Crabtree, Rock Creek Lake area and out.

Park Map Stock Camp Guide

The park has recently printed a map that shows all of the traditional stock camps- good and bad- throughout the park backcountry. I worked with Sylvia Haultain on this project. I feel that a more beneficial map

would be one of "recommended stock camps". This would help to prevent packers from camping in such fragile and "inappropriate places such as Bench Lake and Twin Lakes that are currently marked on the map.

Most common stock infraction

I've seen numerous times this season that stock has been tied to trees for long periods of time. I contacted Greg Allen, of Rainbow Pack, at his camp at McClure and his 12 head were all tied to trees. As conscientious as this owner/operator is, he said that he was not aware that stock were only to be tied to trees for loading and unloading purposes.

A lot of vegetation damage was done at Colby Meadow when a private party tied their animals to trees in the grass. And at the Goddard Bridge stock camp, a party left a huge mess with manure piles left all over the camp, as they had obviously tied their stock to trees for long periods of time.(see photos in photo log) The obvious signs were extensive hoofing around the trees and more than 30 manure piles in a 20 by 20 foot area. I spent time with a shovel to scatter the manure piles in this area.

Packer Relationships

Currently in the northern portion of Kings Canyon there are two main pack stations that service this area. High Sierra – the primary packer into McClure and Rainbow Pack – the main packer for the LeConte area. Dave Gordon and myself have established an excellent rapport with these operators allowing for great communications and respect. When I was at LeConte, Rainbow packers would always stop by the station and check with me. This tradition continues in LeConte with the packers even leaving a note on Dave's door letting him know that they were in the area, when he was gone.

Sometimes, Sierra will notify me that a pack trip is coming into my area. It would be good if we had a system that this would always happen. These packers want the rangers know that they are coming and this provides us more abilities to manage the stock in our areas, by knowing when they are coming.

Recommendation

I think if management asked these two pack stations to notify the wilderness office prior to significant trips coming into the backcountry, that they would gladly comply.

When a pack trip is heading to LeConte from McClure, I always relay to that a trip is heading his direction and their plans. When the packers cross Muir Pass, I will recommend that they camp at the stock camp in Big Pete or Ladder Camp. Greg Allen told me that he doesn't like to use Little Pete for a stock camp. Even more reason to close it to grazing. It's a backpacker camp area and another reason that supports having designated stock camps that the packers use.

Designated Stock Camps

I feel that designated stock camps would be the best way for us to manage stock in the future. In McClure, we pretty much have this situation as a model for the rest of Kings Canyon backcountry, even though it is not required that they camp at a stock camp. But if a packer, for example, wanted to camp at the main McClure camp (just above the station) they would be allowed to and it could leave a significant impact for the rest of the season. This would be a way to better manage stock in the backcountry and it could help avoid big problems from stock camping in inappropriate places such as: Bench Lake, Twin Lakes, Volcanic Lakes, etc.

From my 03 LeConte report I wrote the following paragraph.

It is long overdue that we **establish and designate specific stock camps** throughout the park. By establishing stock camps throughout the park and designating them on the "stock camp guide", we can help direct the packers to the best place to camp and graze their animals. This will also serve to help prevent the packers from camping in inappropriate places. By specifying the trees in the camp that are to be used to tie a hitch line to, we can protect the trees in the camp. Some of these camps will need to be "improved" in a similar way to the Big Pete camp by clearing the area where the hitch line will be tied.

Upper LeConte Lake

Now with the frog research area at Upper LeConte Lake, our Resource Management Division should take a close look at closing this fragile lake area to stock grazing. I have seen 20 head of stock grazing in this fragile meadow area and on the shores of this lake. Currently there are no regulations restricting stock from grazing in this area; i.e. 20 head of stock here for one, two, three nights, etc. is okay. What are the impacts to this frog habitat to stock grazing in this area. Using the same reasons and parameters protecting this habitat from grazing, as was done at Sixty Lakes Basin, could help to use the "science" to protect the resource and close these fragile high elevation areas that are totally inappropriate for grazing.

September Surge

The week before Labor Day the visitation in the area noticeably slowed down. On Sept. 10th, there was a noticeable increase in hiker and stock trip activity.

Rainbow Pack – fully outfitted trip with kitchen- over Bishop Pass to Evolution Meadow (2 nights) and back out over Bishop Pass.

Southern Yosemite Outfitters – packed by High Sierra – from Florence Lake through to Whitney.

I noticed a continuation of North Lake South Lake loopers and a steady flow of JMT hikers, along with an increase in Europeans.

Camping in the Area

Evolution Lake

I encouraged hikers to camp 100 yards east of the outlet area in the trees. These sites provide more shelter and keep the campers from camping so close to the lake.

Sapphire Lake

Sapphire is also a popular destination for camping with very limited camping spots. I encouraged hikers planning to camp in this area to camp on the east side of the lake by crossing the outlet. I inspected these campsites at the end of the season and they held up very well and showed little sign of impact.

Wanda Lake is also a destination camping spot and it showed little sign of impact when inspected at the end of the season. There is also a lot of camping between the Piute bridge and the Goddard Bridge.

Evolution Valley

This long valley has numerous camping spots from Evolution Meadow to Darwin Creek. The most popular spots are the camps at Colby and the main camp at McClure just above the station.

Service to Visitors

A big park of our job is providing a helpful service to the visitors in helping out in any way that we can. A primary function of this is providing trail and camping information. Early in the season there were numerous hazards with all of the snow and high water. Evolution Creek was a dangerous crossing and the snow on the south side of Muir Pass lingered a long time creating a difficult situation for much of the season.

We had a couple of storms that created significant lightning activity. As a result of these storms, the boy scout fatalities occurred down in Sandy Meadow. During this period, with my visitor contacts, I asked people if they new what to do when the lightning rolls in. I was surprised at the number of people who really did not know what to do during a lightning storm. As a result, I would discuss with them lightning safety procedure which included: dropping your pack and sitting on your pack or pad while being covered up by your poncho, do not sit under a tree and in areas above trees try to pick a place where you are positioned below a rock outcropping, so your not sticking out above everything in the area.

Food storage lockers and area bears

This season, I had no report of bears getting food in the area. I did have a report of bears in the area, but I never saw one nor a sign of a bear. Where are the bears. From Dario's report, they were around last year, primarily creating some problems at the Goddard bridge. Over the past several years there has been an amazing transformation with the popularity of bear canisters. Most of the hikers coming through the area carry bear canisters, even if they are not required for their trip.

Before the season, I was thinking that the Goddard bridge area would be a good place for a bear box. But from close inspection this summer, I no longer feel that there is a need for a bear box in the area.

Drift Fences

The drift fences in the area are sufficient for controlling the stock in the area. The fences below McClure and below Evolution Meadow are in good shape. The fence at the 2nd bridge needs some work next season.

Monarch Divide Station

Last season I worked to refurbish the Monarch Divide Station. The station floor frame was falling apart and the foundation was dilapidated. I reworked the foundation, added hardware cloth to the perimeter and reboarded the floor with redwood. The station is now well equipped and should last for many more years with proper maintenance.

Monarch is a valuable and important station that covers a huge amount of backcountry. Unfortunately this station, as Bench Lake, has trouble with funding to have a ranger in the area. Thought should be given as to how this station can receive funding to be operational every season.

Recommendation

I would recommend that Monarch be added to the Sierra Crest District. Currently it is in the Cedar Grove subdistrict. Sierra Crest is more geared to backcountry management. Even if money were available for a short season for this operation it would provide an opportunity to patrol and protect this vast area as opposed to it being a "black hole" in our backcountry management.

Funding for Ranger Stations

We continue to struggle with the funding for backcountry stations. How challenging it will continue to be for our managers, the district and sub district rangers, to find creative ways to keep the backcountry operation going strong into the future. This season we were not able to staff Monarch and Bench Lake. Dario and I took a pay cut from GS-7 law enforcement to GS-5 general. This was a creative way to fund the operation. Even though no one likes a pay cut, I'd rather have a job than not. If reestablishing Sierra District, all of Sequoia/Kings backcountry

under one district ranger, would help to lock in the money for the park's backcountry operation, I'm all for it.

Ash Mountain Fire Weather

All of the backcountry rangers and crews in the backcountry rely very heavily on the 1600 hr. weather report from Ash Mountain Fire. Over the years it has consistently been delivered on a reliable basis between 1600 and 1630 hours until the last few years. This season again it was not transmitted during our monitoring times. We do need to make sure that they understand the importance of transmitting this forecast during our monitoring times so that this does not happen again next season. But unless management makes this a priority, I have no confidence that the message will get through to them.

Evaluating a ranger's performance

Since we work independently in the backcountry, our seasonal performance is basically evaluated by two things: radio transmissions and the year end report. (b) (7)(F)

One of the most valuable tools for evaluating our performance is the daily log. The daily log shows the day to day activity and work that a ranger accomplishes throughout the season. It is one of the best tools that management has in seeing how hard the ranger is working during the season. Our managers don't receive the daily log and yearly report until after we leave at the end of the season and after we get our end of season evaluation.

Squad trips lost stock

When the Squad trip exited the park over Granite Pass they did so without four of their horses. These horses ran off at night from Shorty's Meadow. Numerous flights were made by (5) (7) (F) looking for the animals. On my end of season patrol, I contacted a hiker at Palisades Creek who had seen these horses at the trail crossing of Dougherty Creek. I contacted Peter at the Wilderness Office to report that they had been seen a couple of days prior at this location. In my report, I mentioned that they had not dropped down to Simpson Meadow, because I would have noticed. Also, I reported that the hiker told me that the Dougherty

fence, south of Dougherty Meadow was closed, that would prevent them from moving south and that most likely they were still hanging out at Dougherty Meadow. A few days later someone was flown into Dougherty Meadow and found the stock as a result of my report.

Summary

A lot of work and improvements were done at McClure this season and I'm proud of these accomplishments. This was my 31st season with Sequoia/Kings and what can I say other than "I love my job" and hope to continue for a number of more years.

It was another awesome season in the backcountry. The opportunity to work with this park as a backcountry ranger is one of the best jobs in the world. It could also be considered to be one of the most challenging jobs in the world. Hiking around with a forty pound pack in some of the most rugged terrain in North America is certainly a huge challenge.

The End

Footnote from my 03 LeConte Year End Report

One of the biggest challenges that we face in the future in managing this magnificent wilderness is to protect the water quality. It continues to get worse every year due to the stock and human waste contaminating the water sources. The most fragile areas are the high elevation lake basins. It is time that we take a closer look at stock use in Sequoia and Kings Canyon backcountry.

Currently, along the Muir Trail, some of the lake basins are closed to grazing but many lakes are still open to grazing. These closures were made because the impact got so heavy and devastating that the closures were finally made. What is the cause of the incredible amount of algae slime that is growing in Rae Lakes. These lakes are literally infested with an algae growing in the lakes. It is not an algae that is growing on the rocks on the bottom of the lakes, but a unique form of slimy algae that grows thick like "algae clouds" in the water. Has the

cause of this ever been studied by the park? No other high country lake that I've ever seen has an algae slim like Rae Lakes. Certainly, a common sense observation would be that it is a result of fecal bacteria contaminating the water source- human and stock. Unfortunately, the closure of Rae Lakes to stock grazing was made too late. The algae slime in this lake is irreversible and may continue to get worse.

We are doing many things right as managers of this wilderness, but there are problems that we must face up to that require innovative ideas and new regulations that will be controversial. A big part of our responsibility in backcountry management is to understand what problems exist. It is our job as backcountry rangers to provide this information to management. Then it is up to management to work within the system to affect the changes and make new regulations that protect this magnificent resource. Stock should not be allowed to graze on the shores of the lakes in the high elevation lake basins!

PEAR LAKE END-OF-SEASON REPORT SUMMER 2005

Ranger: Rick Sanger, ver 9/30/05

Files auxiliary to this report (on computer disk turned in with report)

EOS report.doc	This document	
Daily Log.doc	Daily log of activity	
Inventory.doc	Inventory	
Stockuse.doc	log of stock seen during season	
Wildlife&Pica.doc	Wildlife observations and Pica sightings	
Status.doc	Status of recommendations/projects made in past EOS reports	

A. General Observations

Station staffed from June 27 to Sept 29. All lakes covered in ice on June 27 and snow from hump to station.

The cabin was used for UMC wilderness medicine course toward the end of the season.

Statistics:

Month	Miles	Vtr. Contacts	Citations	Warnings	EMS	SAR
June/July	159	520	3	6	0	1
Aug	103	353	0	3	1	0
Sept	82	240	0.	3	0	1
Tot	344	1113	- 3	12	1	2

Details:

EMS: Thankfully, (less than fatal) injuries were not encountered in my patrol area this season. I was able to assist Chris Waldschmidt in response to drowning in Ash Mtn.

SAR: My involvement in the Rauch Fatality included coordinating a hasty search, participating in full search, locating and recovering body.

My involvement in the multi-day (b) (6) SAR involved trail information gathering, containment, leading search teams, locating and recovering body.

LE: - cite for dog on trail

- cite for unattended food
- cite for no permit
- assist in investigating Rauch Fatality
- numerous warnings for camping in illegal site
- warning for dog on trail
- warning for littering
- warning for picking wildflowers
- warning & education about unattended food

- warning for leaving food canister unlocked(!)

- warning for spreading out too far from designated campsite

 Numerous occasions for visitor education, including addressing outward bound groups with informal talk

B. Use Patterns

No significant change seen in use patterns. I believe the current quota numbers are appropriate and working well. I'll stay in closer communication with the trailhead to make sure excessive numbers of people are not being turned away, since the camping areas rarely fill up.

C. Natural Resources

Vance Vredenburg deposited 50 frogs and 50 tadpoles in the lake closest to, and to the west of Moose Lake overlook (405230, 352800). I was able to monitor them, taking skin swabbings on two occasions.



Recommendation:

The ISCO and water guage at Emerald continues to be an eyesore. See "Status" document for un-addressed previous suggestions. (paint ISCO & tubes, cut-off metal stake)

D. Cultural Resources

General Maintenance: Pear Lake Ski Hut

The old kerosene tank mount was disassembled for removal. The obsolete antenna was also removed from the station. Much work was done on the solar system, as described below.





Partially removed frame

Antenna removed

A bulge in the shingles in the lower, southeast edge of the roof was the source of some concern and curiosity. It should be examined when the other issues are addressed.

The propane valve under the station seems dated and of questionable integrity. It should be replaced.



Recommendation:

The roof still needs attention. See "Status" document for previous suggestions. (Fix loose board on ridge, re-attach guy-lines or remove)

E. Backcountry Facilities

Clivus: Pear Lake Ski Hut

As of this writing, the Clivus has yet to be emptied for the season. It will not handle another heavy-use winter.

Solar Power: Pear Lake Ski Hut

Three solar panels have been mounted on what is intended to be a permanent mast behind the station. Wiring inside has been re-done, moving the batteries and controller out from under the sink (!).





Front of station uncluttered with solar equipment

Phoenix Composting Toilets

Removing the plastic trash cans (usually filled with wood chips) from visitor access for the winter worked great for preventing trash being left at these facilities. An entire plastic bag of chips was simply left in their place.

The temporary solar panel mount I rigged at Emerald last year gave way in the heavy snows. Maintenance has a plan to correct this situation.

The Emerald toilet was emptied this year and the old batteries removed from the location. However, I did not know this activity was scheduled, so was not able to make sure other trash on site was flown out.

Recommendation:

Communication and cooperation with the maintenance staff could be better. Improvement would provide better maintenance and cost savings thru coordinated helicopter flights. The same suggestion was made last year. Case in point: Maintenance emptied the Emerald Phoenix toilet, which could have gone for several more seasons without consequence. However they have not yet made it to Pear Cabin, which may end up full, come mid-winter.

On a positive note, a maintenance worker was able to locate a special pipe for me, cut it and thread it in a single day. This allowed me to complete the solar must project.

F. Trails

Trail Work

The trail crew camp at Aster was well kept and of minimal impact.

The crew did fantastic work on the local trails and I hope they will return
next season. I'd like to suggest the following further work:

Re-do pit toilet at Heather lake.

Work on large steps between emerald lake and Ranger Station cutoff.

Cut apart downed tree next to station that is blocking visitor access to front door.

Heather Pit Toilet

The pit toilet at Heather Lake is still problematic. It still overflows at the beginning of the season, and still needs a new seat. Badly.

Recommendation:

Hopefully trailerew will put this at the top of their list for next season.

G. Camp Areas

H. Permit System

In general, the trailhead staff did a good job at educating the visitors. For some reason, the staff didn't contact me this year when on patrol. This diminishes the safety and effectiveness of myself and the staff. Perhaps the trail-report sheets

could be modified to have an entry "BC Rangers contacted_____" to encourage & remind them to contact BC rangers when in our patrol areas.

I. Radio



J. Inventory

Please see auxiliary file.

K. Needs

adult nasal cannula	1 ca
Laminated signs: marmot warning (2 ca) using soap (2 ca) ranger sta 1 mile (1 ca) camp locations, pear, em Propane Tank in use (1 ca)	
wrist rocket rubber band	1 ca
BBQ-style lighter with long handle (for stove)	3 ea
dish gloves, large size	3 pair
burlap bags (gunny sacks) for hauling trash	10 ea
duct tape	2 rolls
large trash bags	about 10
Package of paper towels	2 ea
Kitchen sponges/scrubbies	3 ea
Steno pad	1 ea
Paper, lined 8.5x 11	1 pad

CLIVUS/PHOENIX NEEDS:

Chips at Pear Phoenix	Need 5 bags per season None left	
Chips at Emerald Phoenix	Same. None left	
distilled water for batteries	2 ea, 2.5 gallon bottles	
Mount for solar panel at emerald!	1 ea	

L. Recommendations

Recommendations have been made throughout this report in the appropriate sections. Previously made recommendations are tracked in a separate document called "status.doc"

M. Favorite Picture from the Summer



Administrative Overview (Status.doc) Projects in Pear Lake Patrol zone 2005

Guide to assignment of priorities

High: Implementation provides clear and immediate protection of resource

Med: Implementation provides for either 1) lesser degree or less immediate protection of resource, or 2) user education, or 3) consistency or clarity of park regulations.

Low: Implementation is for user convenience, very long term protection of resource.

New Trail Signs Low Priority

Summary (current condition and desired goal)

The sign at the junction of the Alta Trail and 7-Mile Trail does not direct the hiker toward Alta Peak. The sign on the Lakes Trail 100 yds from Wolverton says "Parking Lot" and does not mention "Wolverton." It is desired that both these situations be corrected.

Steps Completed:

- '05 submitted sign request

Current Status:

Suggested Next Step(s):

Check on sign progress

Recent developments: (write in as they occur)

New Pit toilet at Heather Lake High Priority

Summary (current condition and desired goal)

The pit toilet at Heather Lake overflows from water run-off at the beginning of each season. The seat is rusted out and poorly mounted. There is a LOT of toilet paper in the area from people *not* using the toilet. I wouldn't either.

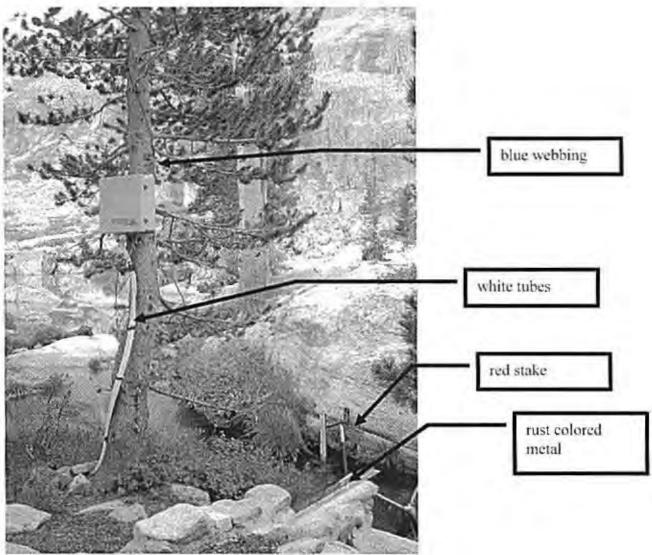
Steps Completed:

- '03 New toilet dug. Not any better than the last. Re-used old seat
- '04 Mentioned in End of Season report
- '05 Trailerew prospects two new locations. Old seat still there,

Current Status:

Unchanged

	Have trail crew put at top of their list
Re	cent developments; (write in as they occur)
_	
anfla	ge ISCO machine at Emerald
Prior	
	mmary (current condition and desired goal)
	The ISCO sampler at the outlet to Emerald Lake is an obvious
	installation that could be made more obscure with some neutral colored
	webbing and camouflage paint. The metal stake with red top that is use
	to hold down the sampler tube could be cut off to lower it's profile.
Ste	eps Completed:
200	- '03 Mentioned in EOS report
	- '04 Heard from Kevin Skeen that he was working on it
	- '05 Kevin said he cleaned up Marble fork area, which he did.
Cu	arrent Status: 7
-	ggested Next Step(s): Contact Kevin to check on current status
	Executed French Property Contact Feet III IV Check Off Children
Re	cent developments: (write in as they occur)
144	cent developments, prome in the mey occurry



Routine Pear Cabin Maintenance Med Priority

Summary (current condition and desired goal)

- Loose guy wire on pellet stove vent stack. (pies to Thor R.)
- Roof ridge board damage (outside on ridge of roof) (pies to Thor R.)
- water entering basement creates high humidity conditions in basement.
 Some fungal growth noticed on floor joists. Creating an eastern basement vent would allow cross-drafting. Sealing eastern foundation and removing plant growth may also help
- Floor maintenance. Is there anything the summer ranger needs to be doing to maintain the floor in the cabin?

Steps Completed:

- '03 Communication of this situation was made with Thor R

Current Status:

Questions unanswered. Plans unknown.

Suggested Next Step(s):

Contact Thor R. and check on status/Plans Recent developments: (write in as they occur)

Extend sink drain at Pear Hut Low Priority

Summary (current condition and desired goal)

Perhaps if the sink drain was extended into the meadow the local mouse population would not be located so close to the station. In addition, a sump could be installed so that food particles entered the soil, rather than spilling out onto solid rock for mice to gather. A permanent extension may be subject to freezing in the winter.

Steps Completed:

- '03 Mentioned in EOS report

Current Status:

Suggested Next Step(s):

Discuss with Chris W.

Recent developments: (write in as they occur)

Installation of Refrigerator at Pear Hut Medium Priority

Summary (current condition and desired goal)

Cold storage at pear is difficult. Temperatures are not quite cold enough for long-term storage of "freshies." The basement is too humid for effective storage. A small, propane or electric refrigerator would take care of this issue.

Steps Completed:

- '04 Proposed seriously to front country staff. Did some research into source of funding. Saved considerable funds in demobe of Bearpaw using maintenance helicopter flight
- '05 DI-1 submitted. Solar panels mounted with enough output to power solar model refridgerator

Current Status:

Suggested Next Step(s):

Wait for year-end money or save money in demobe/mobe operations

Recent developments: (write in as they occur)

Install Permanent Solar Panel Mount at Pear Medium Priority

Summary (current condition and desired goal)

Since the hazard tree removal in Fall '03, three panels have been temporarily mounted on the balcony until a permanent solar mount can be installed. The design has been submitted and approved and is waiting for materials to be gathered.

The installation should also involve these alterations

- Move the location of batteries and controller out from under the sink. The back room, under the shelving is a good idea
- Install protective fixtures for light bulbs and straighten wiring to bulbs
- Install additional light fixture in bathroom
- Run wires to stove under floor

Steps Completed!

- *04 Design compete and sent to Kevin. Plan approved by wilderness committee
- '05 Installed tower and mounted panels. Changed battery location and moved controller. Cleaned up overhead wiring. Ran wires to stove under the floor

Current Status:

Done!

Suggested Next Step(s):

Recent developments: fwrite in as they occur)

Sierra Crest – Rae Lakes 2005 End of Season Report Kurt Gross

A. General Summary

My season was short, only two months long, as I filled in for Dario Malengo until (b) (6) During this time, I had a fairly uneventful season. Due to the above average precipitation during the previous winter and spring, creeks were swollen and passes were covered with snow much later than usual. Passing trail condition information on to hikers, the Wilderness Office, and Roads End Permit Station was a priority. However, it seemed that occasionally this information was not updated at trailheads and hikers came into the backcountry expecting worse conditions that actually existed (ie. crampons and piolets for crossing passes).

B. Visitor Services

Statistics

	June	July	August
Visitor Contacts	41	246	92
Miles Patrolled	39.5	146.5	24
Day Hikers	0	0	0
Stock Users	0	0	8 (incl. 3 NPS)

2. Law Enforcement Incidents

The majority of contacts were positive. Only two contacts resulted in citations, both for food storage violations. Most backcountry visitors were well informed at the trailheads and used the wilderness with minimal impact.

There were several reports from JMT/PCT through hikers that a couple was hiking the PCT with a dog. While I looked out for the party and contacted other backcountry rangers, I never saw the party with the dog.

The only other noteworthy incident involved a JMT hiker who used a food storage locker to cache her food. The hiker was contacted by rangers in person and via email and written notes informing her that caching is not allowed and that her food was moved to the Rae Lakes Ranger Station. However, the hiker did not come to the R.S. to retrieve her food and I never saw her.

3. Search, Rescue, and Medical Incidents

<u>Date</u>	<u>Location</u>	<u>Type</u>	<u>Evacuation</u>
6/30	Middle Rae Lake	Overdue Hiker	Found
7/31-8/1	Upper Dragon Lake	Broken Wrist	Walk-out

4. Service Incidents

On July 24, I closed Sawmill Pass at the request of Inyo National Forest and Ash Mountain Fire, due to a fire east of the pass. While closing the pass, I attempted to locate a party of two at Woods Lakes whose itinerary indicated camping at Woods Lakes and exiting via Sawmill Pass. I never saw the party.

5. Ranger Station

Since the Rae Lakes Ranger Station was scheduled to be demolished and a new cabin built at the end of the season, I did very little maintenance to the structure. Its condition was very poor. Much of the wood frame and siding was loose and structurally suspect.

Marmots had caused damage to the cabin and sump as well. Marmots chewed a large hole in the outside plywood layer of the front door and dug under the metal screen in the sump. I replaced the screen and reinforced it with larger rocks around the edges.

The solar system, stove and propane system, and pit toilet were all in working condition, however the documentation and instructions for the solar system was not up to date.

C. Wilderness Protection

1. General resource conditions

Camp areas were generally in good condition and the majority of backcountry visitors cooperated with Park regulations. However, the permit issuing stations could be more explicit about the purpose and protocol of drift fences and food storage lockers.

2. Meadow Management

I photographed Cotter Meadow in Sixty Lake Basin and White Fork Camp along the JMT north of Woods Creek Crossing but did not collect clippings since I was only in the backcountry at the beginning of the season.

IBP/Concession contacts.

The Three Corner Round group was the only commercial group I contacted.

4. Signs

Signs were in good condition. However, at Woods Creek Crossing, the laminated signs were missing from the bulletin board.

5. Bear Incidents

I did not see any bears and no incidents were reported to me.

6. Wildlife Observations

My wildlife observations were reported on wildlife observation cards and turned in to Debbie Brenchley. The most significant observations included a golden eagle, grouse, coyote, pika, and marten.

7. Resource Impacts

8. Minor Resource Projects

I did minor trail maintenance in Rae Lakes Basin. Trails were muddy for several weeks into the season due to the amount of late spring precipitation and snowmelt.

I removed several downed trees, apparent avalanche debris, from the JMT.

9. Fire Ring Data

Twice, I broke up fire rings near the food storage locker on the north shore of Arrowhead Lake.

10. Campsite Conditions

With the exception of trash left in food storage lockers and two fire rings at Arrowhead Lake, campsites at the Rae Lakes, in Sixty Lake Basin, at Arrowhead Lake, Dollar Lake, Baxter Lakes, Dragon Lakes, Woods Creek Crossing, and Woods Lakes were all in good condition.

There were two incidents of poor sanitation. I found feces and toilet paper within five meters of the Baxter Creek/South Fork confluence at the Baxter Creek drift fence as well as at the Woods Creek Crossing stock camp, within ten meters of the food storage locker.

D. Recommendations

My only recommendation is that permit issuing stations and backcountry rangers exchange updated information more frequently. As conditions change and timely information needs to be communicated, regular contact would facilitate better customer service, safety, and resource protection.

E. Equipment Needs

The Rae Lakes Ranger Station had all the supplies and equipment I needed for my short season. There were more radio batteries than I needed (six total, I think) and a surplus of cookware, dishes, and silverware. Some of the items belong to George and Paige Durkee. Storage space was scarce and I recommend a thorough inventory of the R.S. when the new one is built so that excess equipment can be purged.

Since Dario Malengo finished the season at Rae Lakes Ranger Station, he will know better than I what equipment and supplies are needed for next season. See his End of Season Report for recommendations.

END OF SEASON REPORT RAE LAKES 2005



Getting a late start due to a leg injury in May, I began my season as the Rae Lakes Ranger on August 9, 2005. Kurt Gross, worked as the Rae Lakes Ranger up until that time.

The snow on the high passes and the many difficult creek crossings of early season had diminished by August. Reports indicated that conditions were still hazardous from mid-June until the third week of July.

In my short season I contacted 1361 visitors and hiked 322 miles:

- AUGUST-863 VISITORS CONTACTED
- SEPTEMBER-498 VISITORS CONTACTED
- AUGUST-151 MILES HIKED
- SEPTEMBER-171 MILES HIKED

Most of the visitor use was by backpackers. The most common trip being the Rae Lakes Loop out of Cedar Grove, forty-two miles, with an elevation gain of approximately seven thousand feet. Not an easy hike, but with many fine rewards of beautiful scenery culminating at Rae Lakes, one of the most beautiful lake view and mountain scenes in the Sierra. Many people took advantage of the two-day camp limit, but most stayed only one night. Other popular trips included coming in from Kearsarge and Glen Passes; John

Muir Trail hikers; and a few hikers coming in over Baxter Pass to Rae Lakes. I did not meet anyone coming into the park over North Dragon Pass or South Dragon Pass.

Common camp areas were Paradise Valley, Woods Creek Crossing, Arrowhead Lake, Rae Lakes, and Sixty Lakes Basin,

Stock use in this area was mostly commercial. The users being: Sequoia-Kings Pack Station, Cedar Grove Pack Station, High Sierra Pack Station and one trip by Rock Creek Pack Station. Only one private group was encountered.

Law enforcement incidents were minimal. (b) issued a citation for food storage in early season and (b) issued a citation for a dog in the park on September 24th at Woods Crossing. I gave two verbal warnings to campers: one for excessive noise and one for camping on live vegetation.

There were two medi-vacs in the area during my watch. One was an elderly woman hiking the John Muir Trail who became ill at Baxter Creek. She was flown out by Helicopter (b) with the aid of (b) and (b) -Brady of the trail crew. I assisted with information and communications. The other was a fifty-three year old male with signs and symptoms of altitude complications. He was traveling with Southern Yosemite Mountain Guides, supported by livestock. He was having trouble breathing, had a dry cough, elevated pulse, elevated respirations, and serious history of pneumonia and asthma. The leader of the trip downplayed his illness, but it was easy to determine the potential seriousness of his situation, and (b) agreed to fly him out.

There were no searches in the area.

Many times I was able to aid visitors with information and advice. On two rainy days I helped visitors warm themselves and dry their equipment inside the ranger station.

The Rae Lakes tent cabin has served the district well, but a more permanent cabin is needed and will be an important asset in assisting visitors and making the Rae Lakes Ranger's life easier, especially in the fall when the weather turns.

The building of the new cabin was delayed, waiting for a decision on location. I have discussed the disadvantages of the proposed new site with possibility of encroachment upon on Big Horn Sheep habitat and the greater potential for avalanches. There are some trees down at the upper site that hint of past avalanche activity, and less than two hundred yards upslope is avalanche debris from 1980. I took several pictures showing this (submitted to possible).

The present cabin is adequate but lacks space and warmth. All equipment worked well: propane stove, wood stove, solar battery charging equipment (14.3 volts on 9/25) - and no mice or marmots!

Rae Lakes offers many good campsites locations. Most visitors camp at the upper end of the basin, trying to get close to Glen Pass and also desiring to be in one of the most scenic areas. This area, the peninsula, has two bear boxes and many suitable camp areas. Even though most people have bear canisters they still like to camp near a bear box, maybe it's a social thing? This trend actually lessens overall impacts by keeping campers in small areas with good hardened ground as opposed to impacts being spread over a large area throughout the basin.

Only two old fire rings were found in the Rae Lakes Basin. I received a "nastigram" about fire rings at Baxter Lakes. On later inspection in that area, I found and removed (9/1/05) one fire pit, and found the area, overall, to be very pristine, without the abuse indicated in the note.

The fire rings at Woods Crossing were still okay at the end of the season. They could use rebuilding next season. My preference would be to make them dug in with suitable flat rocks to facilitate periodic cleaning. There was less foil debris in the fire-pits this season. Perhaps the trailhead rangers are getting through on that account.

The drift fences are all working well. The Baxter drift-fence is looking a little "rag-tag" and needs some work.

The food storage lockers at Rae Lakes, Arrowhead Lake and Woods Crossing are in good condition.

When I got into the backcountry in early august, the meadows were dry enough for grazing. Woods Crossing offers the best sustainable grazing in the area. Castle Domes Meadow was looking good at the end of the season, with only light to moderate use spread out evenly throughout the meadow. Residual bio-mass monitoring was completed on 9/19, sampling the core plot. On 9/20 we received heavy rainfall, canceling the sampling of the reference plot.

Incidental business permit contacts were favorable. Contacts were made with the pack stations already mentioned in the first paragraph of page two of this report, and the Southern Yosemite Mountain Guides.

All signs are in good condition

No bear incidents occurred north of Glen Pass.

I made three separate observations of big-horn sheep: eight rams on 60 Lakes Col, four ewes and one lamb near the "Painted Lady", and ten rams and four to six yearlings or ewes in Sixty Lakes Basin.

Mountain lion tracks were reported near the Painted Lady on 9/23 - only one quarter mile from where I saw the four ewes and one lamb the week earlier.

An osprey was working Rae Lakes for the last month of my season, and I saw a golden eagle flying over Kearsarge Pass as I was leaving for the season on September twenty-fifth.

The heaviest impacts occur where there are the most people, the peninsula at Rae Lakes and at Woods Creek Crossing. Every night there are from five to ten camps on the peninsula. It is necessary to make regular patrols here for contacting visitors, picking up litter, and removing any items left in the bear boxes. Woods Crossing also has many campers staying there nightly.

The stock camp located just below Woods Crossing gets a lot of administrative use. This area works out well because grazing is done mostly in and around the aspen grove alongside of Woods Creek and is spread out throughout the area.

Castle Dome Meadow held up well this season, receiving only light to moderate use.

A resource project that needs attention would be draining the water off the trail infront of the ranger station. Some heavy construction and the moving of materials are needed. Perhaps the ranger and the trail crew can team up next season. A wheel-barrow and pick-mattock would be required.

Very few fire rings needed to be removed this season. It shows that campers are using fires less.

The camps throughout the area are doing fine. Regular patrols will keep these camps maintained adequately. There did not seem to be any sanitation problems associated with the camps (litter or toilet paper present).

Use patterns have already been established and most visitors are being conscious campers. This makes the ranger's job straight forward, and with regular patrols the Rae Lakes area can be kept looking natural, showing very little signs of human impacts.

The Rae Lakes area will continue to be a popular destination. Increases in use along the John Muir Trail will continue to make the Rae Lakes station an important one. The visitor use in late September seemed to be on the increase from previous seasons. I contacted twenty to twenty-five people a day up until my last day in the mountains on September twenty-fifth. If this trend continues, making the ranger's season a week or two longer would be an asset to visitors and to the park as a whole.

The ranger here gets the opportunity to meet many different people from all over the world and aid them with whatever their needs may be. The ranger also gets to be familiar with the land and share that knowledge with others, making this one of the most interesting jobs.

In closing, I would like to thank those who aid and support our efforts in the backcountry, and I am especially thank full to Debbie Brenchley for having faith in my recovery and allowing me to work this summer.

Dario S. Malengo Rae Lakes Ranger, 2005

End of Season Report

Tyndall Creek Ranger Station June 27–September 22, 2005 Alison Steiner

A. General Observations:

1. Statistics:

Contacts:

Backpackers...approximately 1000 Day Hikers...2 Stock Users...64

Stock:

Total Animal/Total Use Nights...72/381 Horses/Mules...63 Burrows...9 Llamas...0

Commercial...51 Private...9

Administrative...12

Law Enforcement:

I issued no citations and only one written warning this season (for an illegal fire at Wallace Creek). Education proved the most effective means by which to handle law enforcement situations.

Medicals:

Medically speaking, it was a relatively quite summer at Tyndall. I responded to only one "major" medical, a 43-year-old male who fell on a patch of snow on the north side of Forester Pass. At approximately 1930 on August 17th, (b) (7) Nave contacted me with information regarding the injured party (several hikers had helped the gentleman to the ranger station where Steve Nave was camped...I was at Crabtree for the military trip).

Nave reported the patient as disoriented and as having dislocated his elbow and suffered damage to several teeth. After (b) established that an immediate helicopter evacuation was impossible, (b) and I hiked to Tyndall. We arrived at 0030, evaluated the patient, and prepared for a first light evacuation. The patient was evacuated at 0700 on August 18th.

■ SAR:

The only major SAR of the season involved a boy scout troop that was struck by lightening at Sandy Meadow on July 28th. Although I responded to this incident, the park evacuated the party before I arrived on-scene.

2. Weather Summary:

In contrast to previous years, the southern Sierras received a substantial amount of rain, hail, sleet, and snow this season. Although the area experienced a heat wave in early July, incredibly stormy weather proved the norm between late July and Mid-August. These thunderstorms not only caused extreme flooding on occasion (during one three-hour storm Tyndall Creek rose more than a foot, turned completely brown, and left piles of duff one foot deep in the meadows), but also started numerous fires throughout the eastern Sierras, several of which periodically filled the district with smoke Except for two small

snowstorms in mid and late September, blue skies predominated for the rest of the season.

B. Use Patterns:

1. Hikers:

Like last year, 90-95% of my contacts were concentrated within the JMT/PCT corridor. However, the winter's heavy snow pack drastically changed visitor use patterns within this area. For example, I saw only 50-100 people during the first three weeks of July. Most PCT hikers skipped the Sierras (with the plan to return in the fall) and most JMT hikers delayed their trips until the snow melted off the high passes. As a result, August and September proved considerably busier than in previous years.

Hikers continued to enter the Tyndall area via Shepherds Pass as well. Although most of these visitors were headed for the Kern, Upper Wright Lakes, or Williamson Bowl, a surprising number were planning to hike the JMT to Whitney. The sizeable increase in Shepherds Pass to Whitney traffic makes me wonder whether or not forest service employees are suddenly redirecting use to this once unpopular trailhead.

2. Stock:

Stock use at Tyndall proved highly unpredictable this season. Because Forester Pass and Shepherds Pass remained snow covered until mid August, Tyndall saw no stock use (other than a resupply from Golden Trout Pack Trains in early August) until August 18th, when Bill Wyman's 9 burrows and Reds Meadow's 14 horses and mules mingled in the Tyndall Meadow. On August 19th, stock from Cottonwood Pack Station joined the meadow opening party. Only three other stock groups (other than the trail crew) used Tyndall Meadow this season; Brian Berner of Sequoia and Kings Canyon Pack Outfit grazed 6 head on September 9th, and the High Sierra Pack Station (associated with Mountain Travels, Sobek) grazed 6 head on September 11th and 12th.

A drastic increase in visitation to the Upper Kern proved the only noticeable (and surprising) change in stock use patterns within the district. Cottonwood Pack Station grazed three head for one night on August 20th and Brian Berner grazed six head for six nights in early September. In addition, I noticed considerable stock use impacts on the west side of the lake north of Mitochondria Lake. I documented this resource damage with digital photos and suggest that rangers carefully monitor future stock use in the area.

3. Administrative:

Administrative use within the district was minimal and sporadic this season. Greg Fauth and J. D. Sweed visited the station on July 19th (as part of a larger Kearsarge Pass to Shepherds Pass trip) and 9-2-30 spent three days (conducting a rare plant survey of the Shepherds Pass Trail and evaluating Tyndall Meadow) in the area in mid-August. (For trail crew activities, please refer to "Trails.")

4. Commercial:

I contacted only three commercial (non-stock) groups this summer, all of which were hiking portions of the JMT.

5. Aircraft:

Although military over-flights were common along many of Tyndall's trail corridors and cross-country routes, low flying military aircraft were not. During my three months of duty, I reported only one low flyer. On August 12, a grey military aircraft flew over Tawny Point at approximately 2000 ft AGL. I believe that the park's efforts to improve relations with military representatives have significantly lessened low flying incidents (at least in the Tyndall area).

C. Natural Resources:

1. Bear Activity:

Bears were present, but not problematic, in the Tyndall area. I found tracks about a quarter mile above the ranger station on July 3rd and saw scat along the John Dean Cutoff, the Colby Pass Trail, and the Junction Meadow/Kern Canyon Trail throughout the season. In early September, Tony reported seeing fresh scat at "Limit Lake," the lake just south of Diamond Mesa.

Although no bear incidents occurred within the district, I filled out at least ten BIMS forms on activity north of Forester Pass. The first incident took place on July 30th at Lower Vidette Meadow when a "medium-sized, light brown" bear broke into a Bear Vault brand bear canister. The bear's success in obtaining human food sparked a series of similar incidents between Vidette Meadow and "Wheelbarrow Camp" (the southernmost camp north of Forester Pass). Parties reported that the bear displayed both a particular fondness for Bear Vault canisters (although Bearakaid and Bear Keg canisters were also opened) and an unnatural aggressiveness (scare tactics failed to deter the bear). On August 8th, the bear bluff charged a group of visitors and, on August 27th, it swiped a visitor twice across the face. On August 28th, I (as well as rangers north of Tyndall) posted signs warning visitors about the bear's behavior. I received no more reports of bear activity for the rest of the season.

In order to prevent similar incidents from occurring next season, I recommend that the park pull the approval for Bear Vault brand canisters. Allowing visitors to continue using ineffective canisters not only provides opportunities for additional break-ins, but also forces rangers to dispense confusing and contradictory information. After early August, I noticed that southbound visitors regularly stored their Bear Vault canisters in Tyndall's bear boxes (they were told to do this on the north side of Forester Pass to prevent break-ins). In so doing, however, they filled the boxes and left little to no room for other visitors, many of whom (predominately PCT or HST hikers) were depending on the boxes for food storage. Asking visitors to make room for other hikers by placing their "ineffective" canisters outside of the bear boxes (because the "problem" bear operates in another district) directly contradicts park information on bear behavior and movement. I believe it would be

simpler and more effective to require visitors to carry fully bear-proof canisters.

2. Wildlife:

Coyotes, mule deer, mountain lions, mountain yellow legged frogs, and pikas dominated this season's wildlife observations. In mid-July, I observed a coyote fishing for golden trout at the outlet of Lake South America and, on September 22nd, I saw two coyotes chasing each other across the Tyndall Plateau. During August and September, fawns and does swarmed the Tyndall Creek Drainage while bucks spent the majority of their time on higher ground. Although never seen, a mountain lion seemed to be prowling the area throughout the season. I found scat near the Tyndall Frog Ponds and on the trail to Lake South America and numerous JMT hikers reported either seeing scat or hearing "cat sounds" within a few miles of the ranger station.

The only noticeable changes in wildlife observations involved mountain yellow legged frogs and pikas. Although I recorded 16 pikas this summer, it appeared that they were absent from several areas they had previously inhabited (i.e. the Tyndall Ridge and the north side of Bighorn Plateau). As for mountain yellow legged frogs, I spotted them on Big Spur Plateau, a place where SNARL employees failed to find them last year (refer to my wildlife observation cards for exact locations).

3. Vegetation:

I noticed no exotic plants within the district this summer. (For stock impacts please see "Stock Use.")

D. Cultural Resources:

1. Prehistoric Sites:

As in previous years, extensive exploration of the Tyndall Plateau revealed periodic obsidian flakes, pottery shards, and projectile points. (b) (3) (B)

2. Historic Sites:

sustained minor damage to its roof last winter. I took digital photos of the fallen portion as well as the rest of the cabin (for future reference).

E. Backcountry Facilities:

All of the facilities within the Tyndall area are in good condition. The patrol cabin faired well during the winter's heavy snows and needed virtually no repairs this season. and I assembled the Tyndall Creek/Kern River drift fence on July 21, and I disassembled the fence on September 16, after the Kern Trail Crew left the Cold Springs camp.

F. Trails:

1. Trail Activities:

Although the Kern Crew spent only a week at Tyndall (due to a major reroute at the Kern Hot Springs), they completed all of the district's trail maintenance. They also established a new trail crew camp on the north side of Tyndall Creek.

Because trail crews reach the John Muir Trail late in the season (the Kern Crew spent the week of August 24th at Tyndall), I believe that minor trail maintenance should be included in a ranger's duties. Cutting out small trees, cleaning water bars, and rocking trails early in the season would drastically reduce the number of use trails that develop in each district before the trail crew arrives.

2. Problem Areas:

Problem areas within the district include the first few miles of the JMT north of Tyndall Creek, the Shepherds Pass trail, and the Lake South America trail. All of these trails are located in wet, vegetated areas and have experienced severe braiding and erosion.

3. Potential Restoration Sites (not prioritized):

- a. Old Shepherds Pass Trail
- b. Shepherds Pass Reroutes: rocks were placed in rerouted sections, but plants have not grown back
- c. Tyndall Creek Crossing Campsite: barren area near bear box, oversized campsites in trees
- d. Ranger Station Trail: trail braiding, erosion
- e. JMT North of Tyndall: trail braiding, erosion, stream bank shearing
- f. Lake South America Trail: erosion, trail braiding
- g. Mitochondria Lake: old campsites and fire scars
- h. Three Bay Lake and Lake South of Three Bay: use trails around the perimeter
- i. Campsites at Ranger Station Sign/JMT Junction: barren swaths and expanding campsites
- j. Recent Forester Pass Reroutes: rocks were placed in rerouted sections, but plants have not grown back

G. Camp Areas:

1. Conditions:

Junction Meadow, Wallace Creek Crossing, the Frog Ponds, and Tyndall Creek Crossing are still the primary camping areas within the district. These sites remained in good condition throughout the season due to frequent "garbage and fire ring" patrols. A drastic increase in trenching proved the most noticeable change in campsite impacts. I attribute this "industriousness" to the summer's extremely stormy weather and feel that trailhead offices should discuss these practices with visitors in particularly wet years.

2. Sanitation:

Due to the low density of travel within the district, sanitation remained an issue of relatively little concern. Toilet paper blooms and human feces were

found only in the Wallace and Tyndall Creek campsites. The appearance of "Wag Bags" (both used and unused) in the area's bear boxes and campsites proved the only noticeable change in sanitation practices. I recommend that the trailhead offices be extremely specific with visitors about when to use and where to drop off the bags. The effects of the Mt. Whitney "Wag Bag" campaign on adjacent districts should continue to be monitored in coming years.

3. Fire Rings/Firewood Availability:

Fire ring maintenance and removal proved an ongoing project this year. Although the four fire pits in Junction Meadow appeared unused in early July (most likely due to last season's fire restrictions), August's wet weather encouraged quick growth. Thankfully, periodic patrols kept the pits reasonably sized for the majority of the summer.

As in previous seasons, illegal fire rings, not maintained fire pits, proved the district's "issue of concern." Although I noticed a considerable decline in the number of illegal fires at Wallace Creek Crossing (possibly a result of the new "No Fires within ¼ mile" sign), the number of fire rings in other areas of the district drastically increased. I attribute this change predominately to the season's abnormally stormy weather. However, in late September (long after the rain had passed), I found five new fire pits along the northern bank of Three Bay Lake (the lake at the base of Thunder Basin). Four of these pits were clustered in what appeared to be a well-established and recently used stock camp. Several large branches had been broken or sawn off of trees, trash had been left in and around the fire pits, and campsite improvements had been made. I took digital photos of the area and recommend that this campsite be monitored for future use.

4. Food Storage:

Food storage compliance remained extremely high this summer (95+%). Nearly everyone that I encountered on the John Muir Trail was equipped with a bear proof canister, if not two! I even noticed that a growing number of people were using canisters in remote, off-trail locations (such as the Upper Kern, Kaweah Basin, etc...).

A drastic increase in food caching proved the only significant change in food storage practices. I removed several large caches from the Tyndall Creek Crossing bear box and left notes on caches at Wallace Creek Crossing and Lower Rock Creek. I also cleaned up the remnants of a cache at Shepherds Pass. I attribute these changes to the growing popularity of ultra-light backpacking. I recommend that the park research the sport through internet message boards and chat rooms, post information on these sites regarding the park's policies on food caching, and then begin enforcing food caching regulations as of next season.

5. Impacts/Restoration:

Numerous sites within the district proved heavily impacted and in need of restoration. I completed several minor projects this summer, including the naturalization of Rock Creek's "Waterfall Camp," the removal of a rock wall in the old trail crew camp (with the help of Tony), and the restoration of a site

along the banks of Mitochondria Lake (with the help of b). More significant projects included the removal of numerous rock structures on Shepherds Pass, a massive Sheep Camp cleanup (approximately 15-20 lbs of glass, tin, and other trash were picked up throughout the summer), and the restoration of several campsites adjacent to the ranger station sign on the JMT (I recommend that the Tyndall ranger follow up on this project next year). I continued working on (and monitoring use at) the Tyndall Creek Crossing restoration site as well. I was extremely please with the effectiveness of last year's work (it appeared that only 2 visitors camped in the restored area) and hope that vegetation will begin to reappear within the next few years.

H. Permit System:

1. Compliance:

Permit compliance was quite high this summer (97+%). I met only four people without permits all season and felt that these individuals deserved no more than verbal warnings. The only change in permit compliance that I noticed was related to the increasing popularity of ultra-light backpacking and trail running; several of the permitless individuals were involved in these sports. I believe that the park should monitor internet chat rooms and message boards to see what these athletes are saying about the necessity of obtaining permits for park activities.

2. Issuing Office:

The issuing offices did a great job this summer! Visitors were generally well versed in, and willing to comply with, park regulations. My only recommendation is for the park to further encourage Yosemite employees to include SEKI regulations with JMT permits. Although SEKI fact sheets were sent to Yosemite this summer, it appeared that employees failed to pass them on to backpackers.

I. Inventory:

Fuel:

3½ small pocket rocket canisters 2½ large pocket rocket canisters 4 cans white gas 8 canisters Coleman stove gas 3 propane tanks

Maps:

2 Mt. Brewer (7.5 min)
2 Johnson Peak (7.5 min)
1 Mt. Whitney High Country
2 Chagoopa Falls (7.5 min)
1 Olancha (15 min)
1 Golden Trout Wilderness

- 1 Marion Peak (15 min)
- 2 Mt. Kaweah (7.5 min)
- 3 Mt. Whitney (7.5 min)
- 2 Mt. Williamson (7.5 min)
- 1 Cirque Peak (7.5 min)
- 2 Triple Divide (7.5 min)
- 1 Kearsarge Peak (7.5 min)
- 1 John Muir Wilderness and SEKI

Cabin Supplies:

1 burlap sack

16 rolls toilet paper

lots of clear trash bags (patrol size)

2 boxes small ziplocks

lots of big trash bags

1 sun shower

2 new dish towels

1 respirator

1 sponge

2 boxes aluminum foil

2 wag bags

1½ bundles paper towels

2 boxes matches

2½ bottles dishwashing liquid

2 boxes coffee cones

½ gallon bleach

First Aid Supplies (in "Ready Bag"):

1 oxygen regulator	1 ace bandage	3 benedryl
1 sam splint	3 combine dressings	3 triple antibiotic
1 adult nasal cannula	2 steri-strips	ointment
1 adult non-rebreather	5 butterfly bandages	2 packs Tylenol
1 large multitrauma	2 3x3gauze	3 aspirin
dressing	3 4x4 gauze	4 ibuprofen

1 orthoglass splint 4 run sheets 1 pocket mask w/oxygen

4 pair gloves 1 pen/1 pencil inlet valve
1 roll sterile gauze 10 bandaids 1 microshield
2 slings 4 3x4 sterile pads 1 glucose
2 compress bandages 1 roll gauze 2 cliff bars
1 petrolatum gauze 2 rolls atheletic tape 5 coffee candies

1 disposable syringe 5 alcohol pads

1 eye bandage 2 antiseptic towelettes

First Aid Supplies (not included in the "Ready Bag"):

1 oxygen regulator 1 protective eyeglasses

2 pediatric non-rebreather 3 sam splints

1 bottle sterile water

2 pediatric nasal cannulas

3 adult non-rebreather

2 sheets of moleskin

2 orthoglass splints

1 pocket mask

4 cold packs

2 adult nasal cannula

6 pair surgeon's gloves

4 run sheets

6 sudafed

6 benedryl

1 tube glucose

3 pressure eye bandages

4 sterile eye pads

4 pairs sunglasses

29 4x4 gauze pads

36 2x2 gauze pads

28 3x3 gauze pads

2 3x4 gauze pads

5 yds 4½" gauze roll

10 yds 3" gauze roll

2 5yds by 2" gauze rolls

12 6 yds by 1" gauze roll

3 4x4 dressing sponges

Oxvgen:

2 Jumbo D (1300psi and 1200psi)

2 D (1400psi and 1200psi)

1 M-9 (1150psi)

J. Needs for Next Year:

First Aid Supplies:

Bag Valve Mask

Suction Device

Fuel:

1 can denatured alcohol or fire starter

Propane tanks (1-2 small)

Book Recommendations:

EMT Textbook

Geology of the JMT

Sierra Club Naturalist's Guide to the Sierra Nevada

Tracking guide/Mammal guide (not the Stokes Guide)

1 2x3 transparent dressing

20 rolls athletic tape

lots of bandaids

1 package steristrips

Several butterfly closures

2 triangular bandages

6 muslin compressed bandages

2 ace bandages

3 tubes Neosporin

lots of antibiotic ointment

1 iodine swabstick

2 bactoscrubs

lots of alcohol prep pads

3 cardboard splints

lots of aspirin

lots of ibuprofens

lots of Tylenol

3 sting relief pads

1 thermometer

1 syringe

3 menstrual pads

2 sets trauma shears

2 tongue depressers

1 collapsible litter

Other:

Stool

Rolls toilet paper (5)

IBP forms (15)

BIMS forms (20)

Wildlife Observation Reporting Cards (3)

Lamination sheets (20)

SEKI information sheets (20)

Plasctic coffee cone

Burlap sacks (10)

Sponges (3)

Matches (2)

Roll of duct tape (preferably not the park issue tape) (1)

Paper towels (3 bundles)

K. Recommendations:

- 1. Continue to staff the Tyndall Ranger Station with a paid employee.
- 2. Pull the approval for Bear Vault brand bear canisters.
- 3. Ask Yosemite trailhead rangers to include SEKI information with JMT permits.
- 4. Continue to provide training opportunities (such as snow travel and stock use) for backcountry rangers.
- 5. Have rangers complete trail maintenance projects such as cutting out trees, cleaning water bars, etc...
- 6. Monitor ultra-light backpacking websites for information about permit and food storage compliance.