

Matt Zussman
Bearpaw Meadow Ranger
2015 End of Season Report

A. General Summary

This summer, I staffed the Bearpaw Meadow Ranger Station from June 13 to September 24. Another dry winter enabled somewhat earlier entry dates than usual for most Wilderness rangers. Funding allowed for an extension from the initially planned end date of September 12. I worked a 5/4/9 schedule, with alternating 5 and 4 day work weeks; this worked out to a total of 68 work days in the Wilderness.

2015 was the first summer that a Wilderness Ranger staffed Bearpaw since 2010. I spent the first four days cleaning the Bearpaw station to make it safely habitable. Cleaning, organizing, and compiling station inventory remained an ongoing project throughout the summer (*see section titled, "Bearpaw Meadow Ranger Station" for more information*). The extensive station maintenance and reestablishment of a park presence proved invaluable in this popular area; many park visitors expressed appreciation for the presence of a ranger to assist hikers with general questions, emergencies, updated weather and fire information, and trip planning for the High Sierra Trail and elsewhere.

B. Visitor Services

a. Contacts

- i. Backpackers: **1,354**
- ii. Day hikers: estimated **30**. Most of my day hiker contacts occurred within the first couple miles of the High Sierra Trail, just East of Crescent Meadow. I had few opportunities for these contacts, as I hiked into / out of the Wilderness only twice in between my mobilization and demobilization. There were also a few ultra-runners or ultra-light day hikers travelling much farther: one trans-Sierra, Whitney Portal to Crescent Meadow ultra-runner; a Crescent Meadow to Tamarack Lake day hiker; and an ill-prepared ultra-runner travelling from Crescent Meadow to Kaweah Gap to Blackrock Pass to Crescent Meadow (*see Section titled, "Search, Rescue, & Medical Incidents" for more information.*)
- iii. Stock: **61** Stock nights.
 1. Administrative: 39 nights of grazing at Lone Pine Meadow (Meadow #75-1) by the Sequoia Pack Train, which resupplied the Construction Trail Crew on four trips between August 19 and September 12. Packer Beth reported all of these nights directly to me so that I could document for SEKI meadow monitoring program.
 2. Commercial: 22 Nights on a stock supported trip by the Horse Corrals Pack Station. The trip included 11 head on September 14 at Lower Bearpaw Meadow (Meadow #77-2) and 11 head on September 15 at Pinto Lake (Meadow #77-7). Subsequently, group proceeded over Blackrock Pass, then East on High Sierra Trail

towards Mt. Whitney. Permit issuer (b) (7) (F) (Michael Springer) communicated the stock group's plans to me and the other pertinent rangers farther East.

3. Additional stock on spot trips: the Bearpaw High Sierra Camp received twice-weekly resupplies. Additionally, the Construction Crew spent the majority of the season at Buck Creek, where they received weekly resupplies.
 4. Additional stock use in the Redwood Meadow area: I also noticed evidence (droppings & prints) of stock use here area sometime in August. No one informed me of a trip in this area. When I later asked the High Sierra Camp staff, they mentioned hearing about a commercial group.
- iv. Dogs: 1. When I asked, the owner confirmed that it was a service animal. The owner volunteered information that the animal assisted with PTSD.

b. Search, Rescue, & Medical Incidents

- i. In addition to minor medical advice, I was involved in 6 searches, reports involving missing or overdue hikers, and medical events that I opened with Dispatch. No fatalities occurred in my area.
 1. July 28, approximately 0700. At Bearpaw High Sierra Camp, (b) (7) (F) and I responded to a 61-year-old female, who complained of (b) (7) (F) exhaustion, headache, nausea, and other symptoms associated with migraines, heat, and overexertion. Patient's vitals were within normal limits, she passed the Cincinnati Stroke Test, and she had no altered mental status. (b) (7) (F) continued elsewhere on his scheduled patrol. I continued monitoring the patient, and she improved dramatically with rest. Throughout the incident, I was in radio contact with Parkmedic Jason Ramsdell (b) (7) (F), who contacted medical control multiple times via phone. Morning of July 29, patient signed Waiver of Treatment on my patient care form. On July 30, I assisted the patient halfway out to Crescent Meadow by carrying some of her pack weight. Dave Fox (b) (7) (F) closed incident as "Bearpaw SAR."
 2. July 30, evening. As per (b) (7) (F) (Chris Trotter), I prepared to respond the following morning to a non-stat knee trauma at Pear Lake. Camped at Buck Creek, I advised that it would be at least 4-5 hours hiking time to Pear Lake. I checked in with Dispatch at approximately 0630 on July 31; I was told to stand down, and the subject was evacuated by helicopter.
 3. August 1, afternoon. (b) (7) (F) (Jose Galindo) notified me of a subject reported by a concerned mother because the subject's spot device had not been sending out "Okay" messages for days. I was able to relay that this hiker had left her spot device at Hamilton Lake and continued on her Mount Whitney trip without it.
 4. August 1, afternoon. Search began for an ultra-runner in the Big Arroyo area. The runner had planned to travel from Crescent

Meadow to Kaweah Gap to Blackrock Pass to Crescent Meadow in one night, two days, and without food. A friend reported the subject more than 24 hours overdue. I hiked from Hamilton to Kaweah Gap and back to Bearpaw and interviewed hikers along the way. I returned to Bearpaw a little after 1800, asked the High Sierra Camp staff about the subject, and they had seen him at 1400 on his way back to Crescent Meadow. I informed the Incident Command of this new Point Last Seen minutes prior to the helicopter's departure for Bearpaw with additional resources. Lodgepole law enforcement subsequently met subject at Crescent Meadow.

5. August 6, afternoon. Called by (b) (7) (F) to prepare for a SAR in Copper Mine Pass area when I was at Hamilton Lake. I headed towards Tamarack Lake Junction, and within a half hour, I was told I could stand down, as the situation resolved itself.
6. August 12, evening – “**Little Five SAR.**” Klinton Powell (b) (7) (F) asked me to prepare to hike the following morning to Kaweah Gap and the Big Arroyo Patrol Cabin to provide “Northern containment” for a separated hiker – a 75-year-old male named Burt Rodgers. Upon arriving at Big Arroyo cabin at approximately 1400, Adam Levy (b) (7) (F) and another member of the Hocket Trail Crew found the subject in the Franklin Pass area in good health. I then hiked back to Bearpaw.

- ii. In addition, while I was out on the “Little Five SAR,” (b) (7) (F) responded to patient with **chest pain** at the Bearpaw Ranger Station. That call resulted in a **helicopter evacuation**.

- c. **Violations Addressed.** As a non-commissioned ranger, I addressed violations through visitor education. I reported verbal warnings to Dispatch, and I reported one serious resource violation directly to law enforcement (Chris Trotter, (b) (7) (F) – an **illegal fire in progress at Hamilton Lake** on July 25 by two employees of Delaware North Corporation. I returned to Hamilton Lake July 29, and I confirmed that the two DNC employees had complied with my request to destroy the illegal fire ring. I submitted a signed statement of the incident to (b) (7) (F)

Other violations included: two hikers out for one night without a permit (1 incident); possession of bear spray (3 incidents); polluting water sources with toothpaste (1 incident) or dirty dishes (1 incident); and attempting to remove sugar pine cones from the park (2 incidents).

C. Weather, Climate, & Fire

a. Weather & Climate

- i. This summer followed the fourth dry winter in a row. A very stormy July kept the seasonal creeks and springs flowing for the early part of the summer. In early July, snow fell as I crossed Kaweah Gap. The creeks

flashed high after each storm and then quickly receded. The rain stopped at the beginning of August, and it did not rain again substantially for about another six weeks. By September, some of the springs and creeks that I relied on earlier in the summer were dry.

- ii. Redwood Meadow and Lower Bearpaw Meadow were dry from the beginning of the summer.

b. Fires

- i. Smoke production from the **Rough Fire** impacted my area beginning in mid-August. Smoke came and went depending on shifts in weather. Some days were clear, but at its worst, visibility was down to 1-2 miles. For about a week or two in mid/late-August, the smoke impelled visitors, trail crew, and I to somewhat moderate physical activity. According to what I heard on the radio, however, smoke in my area was not nearly as prohibitive as it was farther north or in Lodgepole or Ash Mountain.
- ii. The **Big Five Lakes Fire** began in June, remained small and well-contained for most the summer, but flared up and reached the trail later in the summer. Occasionally, smoke reached the Upper Big Arroyo and was visible from Kaweah Gap and Blackrock Pass.

D. Use Patterns

- a. The **High Sierra Trail** receives the majority of the use in my patrol area. Many of these visitors hike the full HST from Crescent Meadow to Whitney Portal. I often encounter HST hikers, early in their trip (anywhere from Mehrten Creek to Big Arroyo Junction), who feel the hike to be far more strenuous than they expected. It takes hikers longer than they anticipate to reach Kaweah Gap, and as a result, Hamilton Lake sees far more use than the tentative itineraries in the permit system may indicate. In addition, the HST and Hamilton Lake incur a lot of use from out and back trips from Crescent Meadow to **Hamilton Lake**. These hikers often incorporate day hikes to Precipice Lake and/or Kaweah Gap.
- b. A **popular loop** in and out of Crescent Meadow includes both **Kaweah Gap and Blackrock Pass**. I also encountered a number of hikers incorporating both or one of these passes on trips in and out of the Mineral King area via Franklin Pass or Timber Gap. Because of this heavy overlap, it was very useful for the Little Five Lakes Ranger, Chris Kalman (b) (7), and I to switch stations for a few days. I was able to familiarize myself with some of this territory closer to Blackrock Pass and Little Five Lakes, which are areas visited by many hikers who also travel to Bearpaw, Redwood Meadow, Hamilton Lakes, Pinto Lake, and Cliff Creek.
- c. Although far less popular than the High Sierra Trail, the **Over the Hill Trail** to Tamarack Lake and Elizabeth Pass sees fairly consistent use. Tamarack is a destination itself. Visitors often incorporate Elizabeth Pass into trips through the Roaring River / Deadman Canyon areas and the Twin Lakes Trailhead.
- d. **Cross country routes and peaks**. Just off the High Sierra Trail, Nine Lakes Basin is a popular destination. Other cross country routes about which I spoke with visitors included: Pants Pass incorporated into a Trans-Sierra hike; Kaweah Basin, via Pyra-Queen Col and Kaweah Pass; Lion Lake; Cloud Canyon via a number of routes, including passes from Lion Lake, Nine Lakes Basin, Copper

Mine Pass, and Triple Divide Pass; and Lonely Lake. Cross country trips from my area into the Tablelands were somewhat popular. I also spoke with visitors, who summited peaks in the Great Western Divide, Kaweah Peaks, and the Kings-Kaweah Divide.

- e. I spoke directly with three groups on **technical rock climbing trips**. I spoke twice with one individual, who brought friends on additional climbing trips as well. Climbers accessed routes from Hamilton Lake (including Angel Wings and Hamilton Dome) and Tamarack Lake (including the Saber Ridge and the North Face of Mount Stewart). I know that some of these climbers set new routes on several of these climbs; it sounds like there is a sense in the climbing community that some of these alpine climbs may be becoming somewhat more popular. Still, I encountered fewer climbers around Hamilton and Tamarack Lakes than I did in 2014 around Charlotte Dome when I patrolled that area and staffed the Bishop permit station.

E. Camp Areas (work performed, recurring issues, etc.)

- a. **Recurring issues.** The three most persistent issues I dealt with in cleaning up camp areas included, in this order: 1) **abandoned property** – trash, gear, and food – often left food storage lockers); 2) **illegal fire rings**; and 3) **toilet paper**, which several times was accompanied by **unburied human waste**
- b. **Fire rings rehabbed or removed:**
 - i. **Rehabbed** (cleaned and/or rebuilt smaller/neater): **33**
 - ii. **Removed** (illegal): **26**
- c. **Hamilton Lake.** I spent more time cleaning up sites at Hamilton Lake than any other camp areas.
 - i. **Abandoned property & deer issues.** On my first patrol to Hamilton Lake (June 19 – *see “Photos” section at the end of document*) alone, I hauled more than 20 pounds of abandoned clothes, food, and other trash back to Bearpaw. Some of this abandoned property was in food storage lockers, but much of the property consisted of piles of clothes that had been chewed by deer. After catching up at the beginning of the season, I continually returned to find abandoned property both inside and outside of food storage lockers. Hamilton is the only camp area I know of where visitors commonly have clothes stolen by highly habituated deer. I addressed the deer issue with: a friendly, verbal warning to every Hamilton visitor I encountered; sending a message to the Lodgepole Trailhead rangers via the Wilderness Office to warn visitors; and posting a warning sign (*see sections titled, “Signage” & “Photos”*) on Bearpaw HST bulletin board, which all visitors pass on the their way East to Hamilton.
 - ii. **Pit toilet & human waste disposal.** By the end of the summer of 2015, the pit toilet at Hamilton Lake is essentially full. I highly recommend that this toilet be replaced very early in the 2016 season, ideally prior to peak season. The solid bedrock at Hamilton makes it a difficult site to dig a pit toilet; but for the same reason, it is a difficult site for people to properly bury their solid waste. In addition to digging a new pit toilet, other options

include constructing a vaulted toilet and/or a composting toilet. Multiple times, I cleaned up toilet paper and/or solid human waste, unburied, and I deposited it into the pit toilets. This issue will only worsen if the pit toilet is not replaced.

- iii. **Signage.** Much of the laminated signage on food storage lockers was old, worn, and illegible at the beginning of the season, likely from multiple seasons of neglect. As needed, I replaced or modified much of this signage, including: “No Fires”; a Hamilton Lake map; and signage instructing visitors to please leave behind no trash, food, gear, or anything else in the food storage lockers. Also, in between the Bearpaw Ranger Station and the High Sierra Camp, there is a bulletin board that all visitors walk by on their way East on the HST to Hamilton Lake; here, I posted a sign (*see “Photos”*) with three key points for visitors to Hamilton Lake: 1) no fires & an explanation of why; 2) a warning about the habituated deer and what precautions to take; and 3) advice to slow down and enjoy.
- iv. **Condition of food storage lockers.** The lower two food storage lockers at Hamilton Lake fully function. The third (upper) food storage locker is bent such that there is an opening between the door and one of the walls; this third food storage locker is certainly not rodent proof, and I also would not recommend it as bear proof. On the Hamilton Lake map (located at the lowest food storage locker), I have noted that the upper locker is inoperable. I have not heard any complaints from visitors that the lower two food storage lockers provide insufficient space. The future Bearpaw Ranger, maintenance, or trail crew might try using tools to bending back this upper locker to its proper shape; if that fails, I recommend that **this upper (third) food storage locker be either replaced or removed.**

d. Bearpaw Meadow

- i. **Water.** Maintenance turned the water on for the Bearpaw campground, High Sierra Camp, and Ranger Station prior to the end of May. Maintenance turned the water off just prior to my walkout date.
- ii. **Abandoned property in food storage lockers** is also a major issue here. On HST food storage lockers, from Mehrten Creek through Hamilton Lake, it seems that many visitors early in their trips realize that they have too much pack weight and feel that it is acceptable to abandon trash, clothing, gear, and food in food storage lockers. I suspect that some of this is ignorance, but given the clear signage in food storage lockers, I suspect that most abandoned property is blatant disregard. I recommend this as an issue that Trailhead Rangers emphasize to all visitors.
- iii. **Fire rings.** There are an ample number of legal fire rings here, as well as an ample supply of firewood. At the beginning of the season, I destroyed extra fire rings that were poorly built by visitors, and **I rebuilt many of the legal rings that were too large.** I regularly cleaned out the legal fire pits, and I occasionally had to rebuilt them after my initial cleanup.
- iv. **Signage.** There are two bulletin boards at Bearpaw – one in between the Ranger Station and High Sierra Camp, and another one at the main camping area. As at Hamilton, I replaced or modified much of the old,

worn, laminated signage at Bearpaw, including: two 2010 minimum impact sheets; signs at each spigot and bulletin board advising visitors that water is untreated and that they should treat or boil it; and a notification to leave nothing in food storage lockers.

- v. **Toilets.** There are three outhouse structures in the Bearpaw campground. Unlike Hamilton, these all have plenty of space in the pit toilets. However, as the 2014 Lodgepole Trailhead Ranger End of Season Report explains, “the south and west toilets are in poor condition and the east toilet is in fair condition. These structures shake and the floor bows when you enter them.”
- vi. **Hazard trees.** There are number of hazard trees, marked with blue blazes, in the highly popular Bearpaw camping area. I recommend that these be taken down as soon as possible.
- e. **HST sites West of Bearpaw (Mehrten, 9 Mile, and Buck Creek)**
 - i. I regularly patrolled this area, hauled out abandoned property from food storage lockers, cleaned/rebuilt legal fire rings, and destroyed extra fire rings that visitors built.
- f. **Precipice Lake and Nine Lakes Basin**
 - i. Early in the summer, I heard rumors of a *Backpacker* magazine article that showcases **Precipice Lake**; this could partially account for that lake’s popularity as a destination in and of its self, as opposed to merely a point to pass through on the way to Mount Whitney. There are no large sites, but many small sites that are much too close to the trail. I destroyed multiple rock wind shelters here and cleaned up toilet paper. Some HST hikers were unaware when I advised them that there neither food storage lockers nor trees, and therefore, bear canisters are required by default at Precipice; this an important point for permit issuers to emphasize. The same point about food storage also goes for **Nine Lakes Basin**.
- g. **HST Sites from Big Arroyo to Junction Meadow**
 - i. **Big Arroyo Junction.** I made it here several times, rebuilt fire rings, and destroyed an extra one on the granite slab in front of the patrol cabin.
 - ii. **Moraine Lake (off the HST), Kern Hot Springs, & Junction Meadow**
 - 1. I made it this far East just once, on my final overnight patrol trip of the season in late September. These highly frequented sites on the HST demand regular maintenance. Without a Kern Ranger, several rangers share in their responsibility. I cleaned and rebuilt fire rings at all of these sites and destroyed rock structures at Moraine Lake.
 - 2. Additionally, Moraine Lake has receded significantly (especially since 2010, when I first visited it, but also noticeably since 2013, which was the most recent time I visited before this summer) due to the drought.
- h. **Tamarack Lake**
 - i. No food storage lockers here.
 - ii. I cleaned up illegal fire rings early in the season. Tamarack required regular maintenance after my initial cleanup, but this lake received far less use than sites on the HST. I also performed some **major site rehabs** by

- pouring several large bags full of dirt and duff to cover sites that had become blackened and undesirable by ash leftover from illegal fires.
- iii. To the South of the lake there appear to be old trash dump sites. I spent a couple of trips scouring this area and packing out a lot of glass and rusted aluminum.

i. South of Bearpaw to Redwood Meadow

- i. To my knowledge, **Redwood Meadow** received minimal overnight use this summer; this could be in part because there was no water from the beginning of the season. At Upper Redwood Meadow, **I covered the outdated grazing sign (One Night Limit) with a laminated sign that indicates the updated 2015 grazing closure.**
- ii. **Junction of Redwood Mdw. Trail and Middle Fork Kaweah River.** This site has one small fire ring that I cleaned and rebuilt a couple of times.
- iii. **Junction of Redwood Mdw. Trail and Eagle Scout Creek.** This site had one fire ring that I destroyed. Although it was below the requisite elevation, it was in a hazardous area (directly under the branches of a tree) and was clearly built by visitors. At this site, I also reburied improperly disposed of human waste, packed out toilet paper and abandoned clothing.

j. Pinto Lake and Cliff Creek

- i. I did not make it to these sites until late August. I hauled out **approximately 15 pounds of abandoned property** (trash, clothes, camp stove, food) at Pinto Lake and some other trash at Cliff Creek. The Mineral King Trailhead Rangers assisted me with responsibility for these sites. I spent a lot more time on the High Sierra Trail, which required much attention; however, the Pinto Lake and Cliff Creek sites are popular and could use a little more attention. I recommend that the future Bearpaw Ranger visit these sites earlier in the season and somewhat more regularly.

F. Trail Conditions & Work in Bearpaw Patrol Area

- a. The **Construction Trail Crew**, led by Major Bryant **(b) (7)**, spent the season working in my patrol area. The Construction crew camped for most of the season at Buck Creek and for about the last month of the season at Lone Pine Creek. The crew significantly improved the **High Sierra Trail** and portions of the **Over The Hill Trail**.
- b. **I assisted with trail work on several occasions**, including: **brushing** on the High Sierra Trail; **rock work** on the High Sierra Trail and on the Over The Hill Trail; and as a **trail guard**.
- c. The **Elizabeth Pass Trail** remains difficult to follow and steeply graded. Significant improvement would require a large trail crew working for a substantial portion of the summer.

G. Wildlife

a. Bear Activity

- i. For most of the summer there were 3-4 different bears frequently sighted on the HST and their camping areas from 9 Mile Creek to Bearpaw. I never

heard any reports of these bears acquiring food, and they all were relatively easy to haze.

- ii. However, in the final week of August, there was one very active, large black-colored bear that appeared at Bearpaw, Hamilton, and at the Lone Pine Creek Trail Crew camp just West of Tamarack Lake. For about a week, the trail crew struggled to haze this bear, which was mostly unfazed by yelling and rock throwing. In that same period of time, the High Sierra Camp struggled to haze this bear for a couple of days, while I was away from Bearpaw. One High Sierra Camp staff member hit the bear on the head with a rock, and the bear appeared unfazed. Around this same time, a visitor described the same bear at Hamilton Lake, and the next morning, one of the food storage lockers had been knocked over on its side. After these incidents, I reported the bear to the Wilderness Office, and I asked that they advise the Lodgepole Trailhead rangers to advise visitors. I then heard no reports of this bear until my last morning in the Wilderness, when a group of visitors reported that the bear tore a rain fly and chewed Nalgene water bottles the previous night at Hamilton Lake. At the end of the season, the trail crew and I separately reported these incidents to Sandy Herrera (b) (7) with Bear Management.
- iii. Via radio, (b) (7) (Leslie Johnson) informed me of a particularly habituated bear at Cliff Creek. I do not believe I encountered this bear, nor did I hear subsequent visitor reports about bear issues at Cliff Creek.
- b. **Deer at Hamilton.** As discussed earlier, these highly habituated deer walk away with visitors' sweaty clothing and hiking poles, chew on these items, and often leave them scattered around the lake.
- c. **Other notable wildlife sightings** included: a number and variety of snakes (rubber boas, garters, CA Mt. King snake; rattlesnake photos/reports); quail; grouse; pika, coyote (Cloud Canyon); Great Blue Heron (multiple times at Hamilton and Tamarack); and 2 mountain lion sightings reported to me within 24 hours, early season, at Bearpaw and Buck Creek.

H. Permit System and Trailhead Ranger Operations

- a. **High Sierra Trail Stats** (from (b) (7)): **10,078** visitor use nights from **751 permits issued**. See Michael Springer's 2015 Lodgepole Trailhead Ranger End of Season Report for more details.
- b. **Trailhead Rangers.** The three Mineral King Trailhead Rangers (b) (7)(E) and the Lead Lodgepole Trailhead Ranger (b) (7) all did an excellent job. I found that visitors who encountered these rangers at the permit desk and in the field were well informed. These four trailhead rangers maintained strong communications with me and other relevant Wilderness Rangers (Little Five and/or Pear Lake). They helped me tremendously with projects, routine cleanup/maintenance of camp areas, medical emergencies, and information regarding area stock use or bears. It would be ideal if in the future, the other two Lodgepole Trailhead Rangers kept in closer communication with me and the other Wilderness Rangers. It is very helpful to have notification (at least 24 hours) via

radio when trailhead rangers will be in my patrol area so that we can work together on various projects and share information.

- c. **Permit issuing.** Advice for future: I recommend a focus in permit issuing talks on the three most prominent, recurring issues: abandoned property in food storage lockers, failure to pack out toilet paper, and the construction of new fire rings. An emphasis on packing out toilet paper is best accomplished with visual aids at the trailhead desk. All visitors to Hamilton Lake should be advised of habituated deer and of fire restrictions – and the rationale behind fire restrictions. Many visitors do not know why there are fire regulations, and many (if not most) mistakenly assume that regulations relate to fire danger. Visitors should be aware that fire regulations often relate to the conservation of down wood (especially in areas of Foxtail Pines) and its vitality to the ecosystem. I have found visitors to be more amenable to fire restrictions once they understand the rationale behind them. This is not an obvious fact that visitors come to the park knowing; rather, education is essential in helping visitors understand the rationale behind fire regulations.

I. Communications:

- a. This year, Dispatch did an excellent job of repeating information back to rangers over the radio, in order to make sure that they heard transmissions correctly. I found this to be a major improvement over the previous two years when I worked as Bishop or Lone Pine Trailhead Ranger.
- b. Both the Wilderness Office and Dispatch assisted me tremendously by relaying messages and helping me answer some visitor questions to which I did not know the answer. Such questions including park shuttle information and fire-related closures of Grant Grove, Cedar Grove, the Generals' Highway, and Highway 180.
- c. (b) (7)(F) was the only Lodgepole Trailhead ranger who consistently kept in touch with me via radio and who regularly answered the radio at the Lodgepole trailhead desk. The Mineral King Ranger Station was consistently responsive.
- d. The Bearpaw Ranger Station was the only staffed ranger station (b) (7)(E) (b) (7)(E) I was asked on numerous occasions if I (b) (7)(E) to a frontcountry law enforcement ranger regarding incidents, but I (b) (7)(E)

J. Bearpaw Meadow Ranger Station

- a. **Condition upon arrival** (*see Photos*)
 - i. I arrived at the Bearpaw Ranger Station to find it in a dirty and uninhabitable condition. Human feces festered in the toilet, which could not be flushed because the Bearpaw water had been shut off for the winter. Because the cabin's door was undamaged, it appeared that someone with a key had entered the station at some point during the winter. A lot of the station's filth and clutter, however, appeared to be due to several years of accumulated neglect. There were ashes in front of the Bearpaw Ranger Station – it appears that someone had a fire in front of the cabin. There were mouse feces on the front porch and throughout the interior of the cabin – kitchen countertops, shelves, the sink, cabinets, floors, and cookware. There were two milk crates of dirty dishes and mouse feces on

a shelf. The porch contained several milk crates filled with trash. The refrigerator contained an unidentifiable, rotting item, as well as mold. Drawers below the downstairs bed and a box for wood contained dead mice, dropping, and various paper products (ie., maps, toilet paper, first aid supplies) torn apart by mice. In general, the cabin was filled with a lot of unusable clutter, including tents with missing components, several expired and unusable fire extinguishers and oxygen tanks, and rusted and mouse infested cookware/dishes. As mentioned in Section A., "General Summary," cleaning was a full time job for my first several days in the Wilderness. After I made the cabin minimally habitable, further cabin cleaning and organizing were continual projects throughout the summer. Through radio contact with (b) (7) (F) (Jason Ramsdell), I was able to obtain the requisite cleaning supplies. On June 16, Horse Corrals pack station kindly backhauled 8 contractor size garbage bags and a box of trash that I had gathered. On August 27, SEKI packer Beth (b) (7) (F) backhauled more trash, three incomplete tents, a broken battery charger, 6 old fire extinguishers, and 4 old oxygen tanks.

- b. Mouse issues.** While I found several dead mice and many droppings that had accumulated in the cabin prior to the summer of 2015, I only killed one mouse in a trap for the remainder of the summer.
- c. Broken windows and old, dirty, and/or inoperable curtains.** I helped Major Bryant detail this information thoroughly in his report on cabin conditions/needs, when Major took measurements for new appliances.
- d. Inventory**
 - i. New propane refrigerator, which needs to be hooked up. The old one needs to be helicoptered out.**
 - ii. New propane range/oven unit, which needs to be hooked up.** When I spoke with Josh Adams (b) (7) (F) from maintenance, he agreed with my recommendation that the old unit, a combined wood stove and propane stove combination, should remain in the cabin. The old unit has a nonfunctioning oven and poorly functioning range, and these are the reasons for the new appliance. Yet the old unit has a wood stove that is the only heat source in the cabin; it also helps dry clothes after a hike in wet conditions. The old unit also has an adjustable lid that closes to become a countertop. Keeping the old unit will take up a small amount of available floor space, but it will augment the countertop space.
 - iii. Propane**
 - 1. 1 full 10-gallon tank remains at the cabin. There are 3 empty tanks at the cabin. Packer Dan (b) (7) (F) was able to pack out 2 empty tanks when we demobilized the station; I delivered these 2 empty tanks to the Wuksachi Fire House.
 - 2. Notes on propane usage/longevity. I used the first tank of propane in just 2 weeks. Subsequently, I rationed propane and usually was able to get about 3 weeks per tank. I rationed propane by: turning the refrigerator down to its warmest/lowest setting; generally keeping the hot water heater down to its lowest setting, turning it

off entirely when I left on overnight trips, and by keeping showers to a minimum. I concluded that the old refrigerator was the biggest culprit of propane use; the new refrigerator that was delivered at the end of the summer should improve propane efficiency next summer. According to the 2008 Bearpaw End of Season Report, the hot water heater was installed that year. My guess is that with a new refrigerator, stove, and the extra tank of propane I had left at the end of the summer, the future Bearpaw Ranger should be able to use the hot water heat somewhat more liberally than I did when I was rationing propane. My recommendation is still for the Bearpaw Ranger Station to be supplied with 6 tanks of propane, as I was in 2015.

- iv. **Solar.** There is a new set of 3 solar batteries waiting to be set up. The solar batteries currently hooked up are very old; I was supplied with a new set at the beginning of the summer, based on the recommendation of Adam Levy (b) (7) whose trail crew stayed at the station for two weeks in 2014. I was able to get one more season out of the old batteries, but I recommend that the future Bearpaw Ranger hook up the new batteries to begin the season.
- v. **New dishes/cookware.** After discovering that many of the old dishes were mouse infested and old, rusted, etc., (b) (7) received purchasing authority and we shopped for new dishes for the cabin. I also thoroughly disinfected and cleaned as many of the old kitchen supplies that I determined to be salvageable. The kitchen is well supplied, and now has very few needs (*see section titled, "Needs for next season"*).
- vi. **Tent.** (b) (7) acquired a new, lightweight, Big Agnes backpacking tent for overnight backpacking patrols.
- vii. **Sleeping bags.** 3 at the station that the Pear Lake Ranger (b) (7), Elyscia Letterman) and I hiked out and cleaned at the beginning of 2015. 4 more in Wuksachi Fire House that need to be cleaned. I recommend that some of these 4 be cleaned and sent back to Bearpaw, but all of them are not needed at Bearpaw; perhaps 2 of them could go to another station. These bags at Wuksachi are excellent, extra station bags for visitor emergencies or guests, but they are too heavy for backpacking patrols or SARs.
- viii. **4 Oxygen tanks** remain at the station. There is **1 regulator** (with 1 of the 4 tanks) in the trauma pack that is hanging beneath the stairs. With the regulator, I read all of those four tanks at between 1500-1900 psi on June 14. There are no tanks that are completely full.
- ix. **1 Fire extinguisher** that was packed in at the beginning of 2015.
- x. **A functioning battery charger** that replaced the old, nonfunctioning one.
- xi. Plenty of **toilet paper** for at least another season. I hung most of this in trash bags in the bathroom so that mice cannot get into it.
- xii. Plenty of **AA batteries**.
- xiii. **Maps.** A range of 7.5 minute maps; many are somewhat tattered, and the future ranger might consider bringing a set of the most relevant maps.
- xiv. Some trash bags – need more.

- xv. Some nonperishable **food** items in mouse proof plastic tubs or in cans. (I have a separate, detailed list for myself; or if someone else is the 2016 Bearpaw Ranger, please request the list from me.)
- xvi. Several partially used, screw-on fuel canisters for backpacking stoves.
- e. **Current condition, in summary.** After extensive cleaning and organizing, the new dishes/cookware purchased by (b) (7), and the new appliances delivered at the end of the season, the Bearpaw Ranger Station is now in satisfactory condition to staff and serve visitors.

K. Needs for next season

- a. Propane fitting for the connection between tank and regulator. The current fitting has been borrowed from the High Sierra Camp. The station needs a new propane fitting so that the borrowed fitting can be returned to the High Sierra Camp. On June 14, I informed (b) (7) of the situation, and I informed him of the proper size needed; (b) (7) informed maintenance of the need, but the request has not yet been filled. If the information has gone missing, either Chris Cruz (Delaware North Corporation) or Josh Adams should be able to advise on size of fitting.
- b. Paint brush. Cabin currently has enough green paint to repaint the exterior's peeling trim.
- c. Ridge Rest or other sleeping pad for overnight backpacking patrols.
- d. AAA batteries
- e. Zip lock bags
- f. Trash bags – many small trash bags / can liners for both visitor/camp cleanup and station trash; about a dozen large, heavy duty bags.
- g. Kitchen
 - i. Tea kettle
 - ii. Can opener
 - iii. Ice cube tray
- h. Exterior station thermometer
- i. Scale for weighing gear and propane
- j. Station books: the John Muir Laws field guide; an updated copy of R.J. Secor's *Peaks, Passes, & Trails*.
- k. Duct tape: 2 rolls for preseason packing, plus 1-2 rolls for station.
- l. Screw-on fuel canisters for backpacking stoves.
- m. Box of surgical gloves (size large if future ranger is me).

L. Key Recommendations in Summary

- a. **Hamilton toilet.** It needs replacing prior to the 2016 peak season. Perhaps a vaulted structure and/or composting toilet will last longer than the current one.
- b. **Continue staffing Bearpaw.** A lot of time, effort, and funding was put into cleaning, restocking, and organizing the cabin and again making habitable. Now that this has been accomplished, the station should continue to be staffed and maintained to make the hard work, money, and time worthwhile. The camp areas in my patrol area also benefited greatly from a park presence, as did many appreciative visitors.

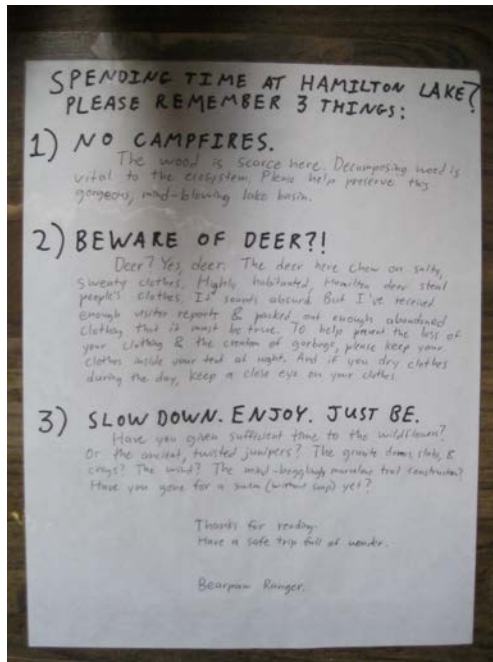
- c. **Hazard trees.** There are number of hazard trees, marked with blue blazes, in the highly popular Bearpaw camping area. I recommend that these be taken down as soon as possible.
- d. **Keep the old, single unit wood burning and propane stove.**

M. Reminders/Recommendations for 2016 Bearpaw Ranger

- a. Visitor Center information to bring to the Station:
 - i. Shuttle information
 - ii. Minimum impact sheets
 - iii. Fishing regulations
 - iv. Fact Sheets
 - v. Comment Forms

N. Photos

June 19. Hamilton. Abandoned Property.



Sign at Bearpaw for Hamilton visitors.

May 25. Kitchen of Bearpaw Cabin.



Sept. 6. Lower Hamilton Illegal Fire Ring Before & After.



July 11. Tamarack Lake. Illegal Fire Ring Before & After.



July 10. Bearpaw. Fire Ring Rebuilt. Before & After.



Charlotte Area
End of Season Report 2015
Rick Sanger

Contents

Other Documents Associated with this report	2
B. Visitor Services	2
Stats:.....	2
Law Enforcement.....	3
Search, Rescue, Medical incidents.....	3
C. Use Patterns.....	3
Resupplies over Kearsarge Pass:	3
Use of Bullfrog Lake Junction	3
Effect of Donnahue Pass Quota	3
Continuing Increase in PCT numbers	4
“New” Routes	4
PCT Quota	4
Stock Use:	4
D. Natural Resources	4
Wildlife	4
Meadows	5
Rehab of rock walled tent sites at lake just south of Forrester	5
E. Cultural Resources.....	5
F. Backcountry Facilities	5
Signs:.....	5
Outhouse at Charlotte Lake Ranger Station:	6
Solar Batteries at Charlotte RS:	6
Antifreeze leak:.....	6
G. Trails	7
Exceptionally tall step.....	7
Parallel trail Above Center Basin Creek	7
H. Permit System/Visitor Information.....	7
Overwhelmed Quotas	7
Permit Instructional Video.....	7
I. Radio Communications/Satellite phone	8
Iridium Extreme	8
J. Operations	9
Permit expiration time for resupplies and injuries.....	9
Training: A sense of Historical Context.....	9
Clean out the cache	9
First Aid Supply lists	9
Job responsibilities.....	10
Digital Records	10
Compensation.....	11
K. Recommendations.....	11
L. Needs for next year.....	12

A. General Summary

This year, the station was staffed from June 6 to Sept 22. The Rough Fire created significant smoke in the area – enough such that I left the area due to the smoke from Aug 19 to Sept 17. “Stage II” fire restrictions were in effect the entire season prohibiting campfires below 8000 ft.



Sunset at Charlotte lake in smoke, Aug 18

Other Documents Associated with this report

End of Season report, Charlotte 2015.doc	This document
Daily Log.doc	Daily log of activity
Inventory.doc	Beginning of digital Inventory
Wildlife.doc	Wildlife observations
Stock Use.doc	Stock use form
Station Guide Charlotte.doc	Misc useful info
Project status Charlotte.doc	Unfinished projects in area

B. Visitor Services

Stats:

Month	Miles	Vtr. Contacts
June 6-30	110	534
July	106	666
Aug (until 19th)	88	502
Sept (17 th to 21 st)	62	145
Tot	366	1851

Law Enforcement

5 citations (3 food storage, 1 camped on vegetation, 1 illegal fire (terms of permit))

1 investigation (search for subject committing assault)

Very numerous warnings for camping on vegetation and food storage.

Note: I found a live 357 magnum hollow-point shell at one of the campsites at Chalotte lake, with some empty shells in the area as well.

Search, Rescue, Medical incidents

MEDICAL/SAR (several minor medical assists not tabulated)

6/8 Assist with SAR (head injury N side of Glen Pass)

7/18 ankle injury, Vidette

7/25 assist with SAR on Charlotte Dome

8/17 heart arrhythmia Glen Pass Junc

C. Use Patterns

"Mornings in the Sierra make me feel like an explorer, I want to get out of bed and hike down every trail. But evenings in the sierra, I feel like I need to be rescued!" Park visitor 2015

Resupplies over Kearsarge Pass:

We started unusually early this year, and as such were able to contact many more PCT hikers. Although most come through early season, I still see numerous PCTrs throughout the season who are picking up segments – even at the end of September. Most of these hikers are resupplying over kearsarge pass – about 30 heading out and 30 coming back in each day for maybe 4 weeks. This overwhelms the kearsarge pass quota (50) and by my opinion eliminates the “wilderness experience” in the area. (more discussion under “Permit” section below).

Use of Bullfrog Lake Junction

The “Bullfrog Lake Junction” (Kearsarge Lakes low-trail / JMT junction) has become a heavily used camping area. It is the closest location on the JMT to Kearsarge pass. JMT and PCT hikers use the spot to stage resupplies. However, the tent sites they choose are too close to water and within 10 feet of the trail!

There are acceptable tent sites in the area, but people don’t take the time to find them. They are on the other side of the trail (opposite the creek) but are out of view because of a small rise. To address this issue, I recommend a well-implemented restoration project in this area (using trail crew or service group) including the planting of a “No Camping – Restoration Area” sign. (there is one of these in the barn behind GG RO) Further, a sign should be placed indicating that there are “excellent sites on the other side of the trail, and downhill 3 minutes just before the small creek crossing.” The spot downhill is a neat area with tent sites on somewhat hidden shelf.

Effect of Donnahue Pass Quota

Over the past few years permits to start the JMT at the traditional trailheads (happy isles or Tuolumne) have been increasingly difficult to obtain. Visitors started using obscure YOSE trailheads to access the JMT, which increased numbers on the trail beyond desirable numbers.

To correct this, YOSE implemented a Donnanhue pass quota (40, I believe) such that no more JMT permits are issued from *any* trailhead in YOSE once the quota is met. As a result, people are accessing the JMT from trailheads outside YOSE. Most notably, we now have significant use from south to north starting at Horseshoe Meadows. This has allowed more people on the JMT through the park than ever before.

Also, South to North hikers reduce the effect of “going with the flow” whereby North to South hikers would all be moving together and not have a sense of the actual large number of people on the trail.

In my opinion, this has eliminated any vestiges of a “wilderness experience” along the JMT.

Continuing Increase in PCT numbers

I have noted in previous reports that the use of the PCT is increasing, and this year was no exception - except in that the numbers tipped over a subjective threshold of acceptability in the context of the Wilderness Act’s intention to maintain an opportunity for a “wilderness experience.” Some management action is needed if conformance with the wilderness act is desired. A discussion with the YOSE permit manager a few years back revealed they were already trying to wrestle with the problem, even considering a management entity that dealt with the JMT as a whole, rather than segments managed by different jurisdictions. As a start, I think meetings with YOSE and other jurisdictions should occur, including the PCTA, to begin brainstorming this problem.

“New” Routes

I met hikers doing a “new” route called the High Route South. Rangers in the Kern should be aware of possible new users. Hikers doing this route enter the whitney zone over the Russell/Carillon cross-country pass to access the mountaineers route before continuing south, requiring a “whitney zone” entry stamp.

Andrew Skurka has published a “high basin route” that is an extremely ambitious route leading to areas that I think of are more typically accessed by users in their 2nd or 3rd decade of sierra use. This may bring overzealous, less experienced users into areas that we consider more remote and valuable.

PCT Quota

Visitors informed me that the PCTA has instigated a quota of 40 (?) people a day to start the PCT. I think this is a step toward managerial consistency with the minimum impact ethic that they promote. There is no enforcement of this quota.

Stock Use:

For CUA administrators:

Rock Creek Pack Station: This outfit continues to proactively seek out information to stay in line with management regulations. All packers are responsive to ranger suggestions.

Sequoia Kings Pack Station: Tim Day was an especially responsible and dependable packer for Brian Berner. He was the only packer who picked up garbage from the ranger station.

D. Natural Resources

Wildlife

One golden mantel ground squirrel was found dead in the meadow near Charlotte lake. This might have been a victim of the plague, whose presence was confirmed in the crabtree area.

Meadows

Opening dates were not varied from Dry Year dates. Tom O'Day performed Residual Biomass this year, as I was gone for family leave.

Rehab of rock walled tent sites at lake just south of Forrester

Two years ago I knocked down rock walls at the large lake just south of Forrester pass and placed the rocks in the tentsites to discourage use of these sites that were too close to water. I also wished to limit the number of tent sites in this area because of its barren nature – it is above most biology and thus more sensitive to human waste.

Amazingly, the sites were still unused two years later!

Building on this, I removed two more sites in a similar fashion this year. This is a picture of the area with one of the rehabbed sites in the foreground.



E. Cultural Resources

F. Backcountry Facilities

Signs:

Bullfrog Junction: See “project status” document for signs suggested in past. Of highest priority is new sign at Bullfrog Junction that has been modified by hikers due to it’s incorrect and confusing nature. (This was first discussed in 2012 EOS report but no new sign has yet been made.) I consider this an easy, non-controversial project that would make a big difference. The suggested new sign text is in the project status document.



The two signs at Bullfrog Junction (discussed in prior report) were combined into one sign this summer. Below shows the combined signs (left) and the remnant post (later removed).



Shorty's Cabin: A new “No Camping in this area” sign needs to be placed at Shorty's Cabin in Vidette Meadow

Kearsarge Lakes: Another sign which should be considered would mark the Kearsarge Lakes spur trail on the Kearsarge Lakes “low trail.” The “low trail” passes within ¼ mile of Kearsarge Lakes on its way down to Bullfrog Lake and the JMT. There is a spur trail that dead-ends at Kearsarge lake that forms a “Y” that intersects the “low trail” at two points (top of the “Y”), one convenient for east-bound hikers and one convenient for west-bound hikers. People arriving at these junctions can be confused about directions due to lack of signs. Sign placement should be done in accordance with the new WMP whose direction I have not yet researched. Three signs, one at each junction, seems like overkill. Some trail re-route may be appropriate. Below is picture of the eastern-most junction where hikers have placed logs to direct through-hikers to the JMT. It blocks one arm of the “Y” shaped spur trail to Kearsarge Lakes.



Outhouse at Charlotte Lake Ranger Station:

This could use about 20 new shingles.

Solar Batteries at Charlotte RS:

The batteries are labeled “9/08” there are 3 of them measuring about 11 x 6.5” . They will top off at 12.6, max, and the controller turns yellow within 60 seconds of turning on the fluorescent light at the station. I think new ones should be brought in – perhaps the three in the SC cache are good?

Antifreeze leak:

Over the course of the summer, the snow survey's “snow pillow” at Charlotte lake went from an inflated waterbed to completely flat. (there are 4

different pillows, the 4th has been consistently flat for numerous years) This indicates to me that antifreeze is leaking out of the system. This issue should be brought to the attention of the water board's maintenance people, and should be monitored by future rangers.

G. Trails

See "project status" for numerous unaddressed trail issues presented in prior EOS reports. Add to that:

Exceptionally tall step

There is an exceptionally tall step about 1/8 mile from the "sand flat junction" on the high trail toward Kearsarge Pass that should be reduced to at least 2 shorter steps.



Parallel trail Above Center Basin Creek

A parallel trail in developing uphill from the Center Basin Creek (about halfway to wheelbarrow camp). See picture below.

Drift Fence, Vidette Meadow

The drift fence in upper vidette is in very very bad shape. There is a spool of wire at the end of the fence. It needs new wire and new posts. Note it continues on the south side of Bubbs.



H. Permit System/Visitor Information

Overwhelmed Quotas

As mentioned in section C, the quota system in the Kearsarge Pass area is overwhelmed by people on the JMT/PCT resupplying over Kearsarge Pass. Additionally, use of the JMT/PCT has increased due to South to North JMT hikers and more people on the PCT. These factors have caused use of the trail to pass over my subjective threshold of "too much" - there can no longer be the pretence of an expected "wilderness experience" on this trail. I believe new management policies need to be created to address this issue.

Permit Instructional Video

I've long thought that a short (3 to 5 minute) video reviewing min impact regulations would go a LONG way to insuring compliance with our minimum impact regulations. Visual images of toilet paper on the ground, what we mean by "vegetation" (when we ask people not to camp on vegetation), and foil in fire rings would be powerful educational tools. The idea is that the permitting ranger has the *option* of showing the video to visitors when issuing their permit.

I've not been alone in this thought - MANY others have thought this through the years. Objections to this have included that we need the "personal

contact” with a real ranger when receiving a permit and the opportunity to ask questions. I agree with this point, but do not see the video and a ranger presence as mutually exclusive. When the lines at Lone Pine or Roads End get to be 15 deep, the “personal contact” is lost anyway - everyone goes into robot mode just to move people through. The ability to put on a video at the ranger’s discretion would be a valuable tool, and the video’s images would not be rushed by a large crowd. A similar tool is currently used at Lodgepole where there is a laminated card with images of tents on meadows and toilet paper chewed by critters. (Kudos!) The video could be available online – perhaps allowing the visitor to print a “I watched the video” certificate to bring to the permit station.

It is hard to justify citations for violating more obscure regulations. Camping on vegetation is one of these that is frequently violated. I think a video could more effectively address some of the less-emphasized regulations through thoughtful script and skillful production. Such a tool would go a long way to protecting the resource.

Another subject for the video could be a quick sentence to the effect “If you plan on using stock in the backcountry, be sure to ask the permitting ranger for the latest information on where grazing is permitted.” This would steer more private stock groups toward our grazing guide – a perennial problem. There could be 15 seconds dedicated toward “what to do when encountering a mule string on the trail” as people do not know the basics of where to go and how to act.

Ryan Christianson, past seasonal interpretive ranger and now owner of a very accomplished video production company in Bishop is very excited and qualified to produce such a video. I believe funding sources could be found in ours and other agencies, as well as their associated non-profits.

I. Radio Communications/Satellite phone

Iridium Extreme

This year I was asked to evaluate the Iridium Extreme Satellite phone. This phone includes a tracking feature and a 911 button.

- the biggest problem with the phone is that there is no indication that text messages have been successfully sent. It will retry sending texts every 3 minutes as long as the phone is on... but one message took 8 months to send - it was composed just before the phone was turned off for the season, but not successfully sent until the phone was turned back on again!
- A problem the unit shares with the current phone is that if a text or call is received while typing a new text, that text will be lost!! Imagine how problematic that would be in a quick exchange of texts during an emergency situation!
- The phone needs an extra part to be able to recharge it. If this part is lost the phone cannot be recharged, and it does not have a secure attachment to the phone.
- the bottom of the phone is rounded and does stay standing easily, yet the correct antenna position is vertical, so the tendency is to stand it up on a shelf when at the station. This inevitably leads to the phone falling over or off surfaces.

- The phone has very limited “inbox” capacity requiring frequent cleanup of old messages. However, deleting messages one-by-one is *very* tedious. Once pushing the “delete” option, the display returns to the main mail menu, not the inbox showing the next message. There is a significant time delay (about 5 seconds) when choosing the “inbox” option before the list of messages is again displayed. ARGH!!!
- The audio on the phone seems to have less bass than the other sat phones and is harder to hear.
- There is no indications of number of minutes left on plan, but perhaps the contract was by-the-minute used.
- There is software available that allows access to the internet and email. This might be valuable to acquire and test.
- - the phone charge lasts 48 to 72 hours in it’s current tracking configuration (every 20 minutes?)

J. Operations

Permit expiration time for resupplies and injuries

I have not found a printed policy for how long a permit remains valid for visitors exiting the wilderness for the purpose of resupply or injury. I’ve heard a lot of people’s *opinions* on this, but this policy must be in some legal form, perhaps through the compendium. PCT permits allow for resupply but does not specify a time constraint. I have not been able to find time constraints for permits issued through the forest service. It would be awkward to have policies that aren’t consistent with other agencies. In my opinion any time constraints should be lenient to address injuries, perhaps 7 days.

Training: A sense of Historical Context

I believe a valuable addition to wilderness training would be to have Ward Elderedge present images and log excerpts from past rangers. I think it would be valuable to encourage the new generation of rangers to think of their work in a historical continuum. This would add valuable perspective to their logs, to their reports, as well as informing their demeanor and their work.

Clean out the cache

The sierra crest cache has a lot of outdated gear that will likely never be used again. It is time to clean out the cache – I suggest donating this equipment to a nonprofit group that brings kids to the wilderness.

First Aid Supply lists

I have not seen a list of first aid supplies recommended/required for individual kits and/or station bash-packs. This would be useful and meaningful. I think the kern rangers have such a list

Job responsibilities

This is a time of especially high personnel turnover. I think it would be useful to the next subdistrict ranger to list some of the expectations that have been in place until the recent past. I don't mean to be presumptuous – just trying to help prevent things from falling through the cracks. Below is the beginnings of such a list to be expanded upon. I think Laura Piluski had a similar idea and is compiling a similar list.

Subdistrict ranger

- Acquire equipment requested by patrol ranger at end of season (burlap bags!)
- Send out sleeping bags to be professionally cleaned
- Make sure cache is cleaned and organized - Donate out-dated gear to non-profits
- Coordinate equipment repair
- Print copies of forms needed by patrol rangers at start of season:
 - compendium, emergency form for cabin doors, EMS follow-up form, min impact regulation flyer, bail schedule, radio call chart, EMS supply list for patrol and cabin, etc
- Obtain copies of Field reference guide for each patrol ranger
- Order signs needed in each patrol area
- Arrange for move & demove of rangers. Let rangers know of plan!
- Read EOS reports and address issues. Make notes for each patrol ranger as to progress made in winter (in project status document)
- Make sure EOS reports and photos are uploaded to network, station logs are given to archives (and copies sent to stations),

Patrol Rangers

- Perform duties as listed on performance evaluation
- Rehab fire rings above 10,000 ft.
- Pick up trash
- Do residual biomass measurements
- Track miles & visitor contacts and other stats as specified by subdistrict ranger.
- Update station inventory
- Create/edit area patrol guide for each patrol area
 - Non-obvious campsites
 - Cultural & Archeological resources that need special monitoring
 - Natural resources that need special monitoring
 - Opening/closing guide
 - Good fishing spots (!)
 - XC routes
 - Terrain dangers
 - Interesting local history

Digital Records

It is time for each station to have flash drives containing information that can be reviewed and/or edited by the ranger assigned to that station. Here's some suggestions for files that can be on the drive:

- past station EOS reports

- Project Status Guide (Projects that are not yet complete - to be edited by ranger)
- past logs
- station inventory (to be edited by ranger)
- Area patrol guide (see contents above)
- meadow guides
- yearly staffing roster

Compensation

Having worked nearly 20 seasons for SEKI and with a new family I have arrived at the point where I can no longer afford to return to this park in the same job. I know of several other fine rangers who have had to leave for the same reason. Hearing of other parks with “permanent subject to furlow” positions gives the impression that SEKI is not committed to retaining rangers as they develop skill, experience and local knowledge. In fact, with the removal of 6th-day overtime quite the opposite seems true. I feel there is a lack of financial support or the intention to provide it. Newer BC rangers have a higher debt burden (college loans) than young rangers of the past, and I would be surprised if they don’t come to this conclusion sooner than I did.

It is difficult to keep my morale up when heading out to do a rescue on a lieu day or after hours, knowing there will be no additional compensation, even when a co-worker responding to the same will be receiving overtime pay. AUO covers the routine, but not the exceptional.

Dave Karplus has successfully pursued financial donations from private sources to fund much of his trails operation. Although I mentioned this idea in previous EOS reports, I did not know that Dave has figured out how to do this – he would be an excellent source of ideas and information. There is a lot of love out there for BC rangers – why not use that to help financially?

Sadly, I have taken to warning young, enthusiastic ranger-hopefuls that although the BC position is a trip down a scenic road, it is a road with a financial dead end.

K. Recommendations

See “Project Status 2015” document for projects suggested in previous years but not yet complete.

Rehab tent sites at Bullfrog Lake Junction

Make new sign for bullfrog junction

Tag about 20 new shingles on Charlotte outhouse.

Trail work, as described in section G

Pursue creating a educational video for use at permit stations, as per section H

Clarify expiration time for wilderness permit once party has left BC for resupply/injury as discussed section J

Clean out the cache, as per section J

Create EMS supply lists, as per section J

Purchase flash drives for each station, as per section J

Contact snow survey maintenance to fix antifreeze leak

Address financial strategies for retaining skilled, experienced backcountry rangers

L. Needs for next year

	ON SITE	NEED
Tea kettle	Leaky aluminum	Stainless – the kern stations have wonderful kettles!
AA, & AAA battery recharger and rechargeable batteries	Rechargers at cabin don't work. Recommend Lenmar brand.	1
Ace Bandage	0	5 each
Mattress covers (bring old ones out to wash)	3 dirty	3 clean
Binoculars	0 ea	1 each
Bags, large plastic	About 10	About 12
Bags, small plastic	About 20	About 20
Bags, Burlap	0	About 10
Battery: deep cycle for solar system	Purchased 9/08	3 each
Batteries, AA size lithium	4 ea	4 ea
Batteries, AA size, alkaline	0 ea	12 for station lantern + ???
Batteries, AAA size, alkaline	10 ea	8 ea
Battery, CR123a, lithium, for steripen	0	4 ea
Dish Gloves	0	2 pair, Lrg
Dish Soap	0	2 bottles
Dish sponge	0	4 ea
Dish towels	4 old ones	Wash each year
Duct tape	1 roll	1 roll
Flash Drive for station records		1 ea
Isopropane canisters(8 oz lasts up to 4 nights)	4 oz: 12 ea 8 oz: 8 ea	8 oz: 0 4 oz:0
Map, Harrison map of sequoia (no maps south of forrester are at station)	0 ea	1 ea
Paper towels (used 2 in 2010, used 1.5 in 2011, used 2 in 2012)	0	3 pkg
Propane (used about 1.5 3' tanks in 2009) (used 1.75 of large, 10 gallon type tanks in 2010) used 1.5 of large in 2011, 2.5 of med type(25 lb) used in 2012)	Med(25 lb) 2.5 ea	Maybe 1 med or small tank
Shingles, cedar for outhouse	0	About 20
Toilet paper (used about 7 in 2010, 8 in 2011) DO NOT USE ONES WITH BLUE WRAPPER, they are worthless.	9 rolls	6 rolls
Envelopes, Holey	3 ea	3 ea
8.5 x 11" lined paper in pad	3 ea	0
Sharpies,	Black: about 3 Green: 0	0

	Blue: 0	
Brown report binders	0	1 ea
Pocket notebooks, brown cover	0 ea	2 ea
End of season reports		2012 (sanger) 2015 (sanger
Daily Logs, charlotte RS	78-84, 86-87, 89, 91-92, 94-98, 2012, 2013	2014 (Syverson) 2015 Sanger
Run sheets	6 ea	0
Compendium		2016
Alcohol, isopropyl	0	1 ea

HOCKETT MEADOW RANGER STATION
2015 END OF SEASON REPORT



Submitted by Joe Ventura

A. General Summary

In February Kern Sub District Ranger Klint Powell called me and indicated that the Hockett Station may not be funded this year. He was also looking into the possibility of a LE ranger from Mineral King to split some time between MK and the Hockett for coverage. I asked him that if things changed to call me. He notified me in April that things had changed and was I still available for any part or all of the season. I had a vacation booked for Puerto Vallarta on the 14th of May and a cruise booked for September 3rd. I was able to cancel a trip to Homer Alaska in July. Snow was non existent in the backcountry, and as last year the Wilderness Rangers were beginning their tours weeks early.

By the time I started duty on May 25th, Wilderness Training had been completed so I helped to staff the Mineral King Ranger station during that week. I also took my stock to the corrals there and patrolled to Eagle and Mosquito Lake and other trails, getting myself and the stock some exercise.

My first trip to Hockett was on June 10th. I was accompanied by Don McDonald, long time VIP. The Hockett trail was dry and dusty, until reaching Horse Creek. There was no snow anywhere, but some shaded areas were damp.

We found Hockett Meadow to be fairly dry, but some areas were still wet, so we held the stock and fed grain for the night. We arrived early enough in the afternoon that we were able to set up the solar, hook up the well and pump, and turn on the propane. It was with some difficulty that we were able to get gas through the line. I typically disconnect the tank at the end of the season, and tape up the fitting on the pressure regulator inlet line. This helps to eliminate debris and moisture from entering the line and regulator during the winter. On our arrival the tape was missing. Several hours later we were able to get the stove going, and then the fridge came on line. We aired out the cabin, swept and mopped the floors. I should note that the cabin was in good clean condition when we arrived.

We left the next morning for Atwell. We met with the Little 5 ranger and on Saturday we collected nearly 800 pounds of his food and gear, and the next day Don and I saddled up 6 mules and our horses, and headed for Little 5 via Pinto Lake. Chris did not tell us that there were 6 dozen fresh eggs in the loads. We packed it all up at MK, rode to Pinto, unpacked for the night, repacked in the morning rode over Blackrock Pass arriving at Little 5, without breaking a single egg.

We returned to Hockett RS on the 18th of June and began our tour of duty. We did 10 days on and 4 off hitches, racking up almost 500 miles on horseback patrolling the Hockett Plateau.

The Cabin Fire in Sequoia National Forest began on July 19 and it resulted in the closure of all trails to the south of the park boundary. Travel from Mountain Home, Shake Camp, and Balch Park was not permitted. The end result was that there was no stock travel to the South Fork Meadow camps for the entire season.

Our patrols went without incident until our very last ride into Hockett on August 11th. Just north of the bluffs, the last mule got her lead rope under her leg, fought it, fell downslope, dragging the number 1 and number 2 mule with her. a few trees stopped their tumble down the hill. It looked bad, but 2 hours later we had the stock back up on the trail, (we had to unpack all the mules at the place where they came to rest, it was so steep they could not get back on their feet with their packs on and one pack saddle was broken. The mule that started the wreck suffered a 7" laceration on her right rear leg, high up in the stifle. We could see that the muscle under the lacerated area was intact, and the mule could stand and walk without limp. We doctored it best we could but the wraps would not stay. The constant flexing of the stifle and leg, stretched the vet wrap and the compress would fall. Even Duct tape was used to keep the bandage on with no success. End result was a week later we ended our season a day early and closed the station for the season.

Annie the mule was treated at Lone Oak Vet hospital the next day. The examining vets determined that they could clean it up and sew it even though it had been 8 days since the injury. Today August 25th, she is sporting 13 stitches and doing very well.

B. Visitor Services

Contacts

- a. 115 Backpackers
- b. 27 Day hikers
- c. There were approximately 30 backpacker contacts during our 3 day trip to Little 5

Stock Use Nights:

- a. Commercial; 7 people, 15 head, 2 nights
- b. Private; 3 people, 5 head 3 nights

Law Enforcement

- a. On July 3rd, at about 730 pm, an individual traveling with a companion, arrived at Hockett. He reported that he did not obtain a Wilderness Permit because he thought his car could not make it to Mineral King, and only went as far as Atwell. He insisted that he would stay his planned two nights at Hockett and Evelyn Lake, and that when he exited the wilderness would not travel to MK to pay for a belated wilderness permit. That evening I reported this contact to (b) (6), and he advised that (b) (6) would hike in the next day and make contact with the visitor. The next morning at about 1030 I saw the visitor and his companion leave their campsite and begin hiking south on the Hockett trail. I advised (b) (6) of this development in the event that (b) (6) was in fact preparing to hike to Hockett. Later that afternoon, (b) (6) reported that (b) (6) had made contact with the visitor as he was exiting the wilderness at the Atwell Hockett trailhead and issued him a citation.

Citations

- a. Refer above

Search, Rescue, Medicals

- a. There were no incidents

Fatalities

- a. None

Weather

- a. A good deal of rain fell on the Hockett Plateau during late June and in July. After a rain, I would check the water level in the well, and it invariably would rise several inches.

C. Use Patterns

Backpackers

- a. The number of observed backpackers traveling the Hockett area decreased this year. I believe the primary reason was the closure of trails in the Golden Trout Wilderness due to the Cabin Fire. Before July 19th backpackers were making the loop from MK over Farewell, up to Wet Meadow, to Hockett, and then out to Atwell or Cold Springs. Other hikers traveled north from Shake Camp, or Balch Park and entered the Hockett either at Summit Lake or over Touhy Gap. That all stopped after fire began, and air quality may have kept other visitors from traveling to Hockett from Mineral King or Atwell.
- b. Visitors primarily stayed in the backpacker camps at Hockett. Several groups based there and took day hikes to Evelyn or Hockett Lakes. Strangely, I observed only 5 nights of use at the Horse Creek main camp, and none at the upper two camps there. Before the fire and subsequent trail closures, one or two hiking groups utilized the camps in the South Fork Meadow area.

Administrative Stock Use

Administrative stock use was limited to the trail crew. This year the trail crew made efforts to minimize their reliance on stock while on the Hockett Plateau to reduce stock grazing nights. Dan Baker the packer for the trail crew utilized the pasture for 2 or 3 head and turned out the remainder of his string. While he still had to go out in the am to find the stock, he was happy to have a few horses to use for the search. His visits were weekly, but stock nights in the pasture were reduced.

The trail crew did have stock for a week or so and it only required a small effort on all our parts to keep their stock in an electric fence in the meadow, or at least one horse in the pasture and the remainder of their stock out of the fenced area. The total observed stock nights in the pasture for both the packer and trail crew stock was less than 30 nights.

Mineral King Trailhead Ranger Cody Cavill, (b) [REDACTED], traveled to the station once with me and led a string of pack animals. He exited via Tar Gap with a pack horse and returned two weeks later for additional training. On both visits he had pack horses Shadow and Do-Right with him. Those two were kept in the pasture for a total of 6 nights.

Training Curriculum for Level III certification requires the rider to overnight in the wilderness, and catch pack and lead a string of up to 4 pack animals. Cody assisted in the search and capture of overdue stock one morning, led three head cross-country from Wet Meadow to Quinn Patrol Cabin. He set up an electric fence there, took the stock to water and put three head in the fenced area and turned out the others. He caught the stock the next morning, saddled and packed and led the string back to Hockett. His training covered approximately 63 miles of riding and he is certified as a Level III rider.

Commercial Use

Tim Shew owner of Balch Park Pack Station seems to always be in the South Fork area in June and July. Not so this year. He had no trips into the area prior to the fire and of course no trips after the trail closures occurred.

- a. The trail from South Fork Campground in Three Rivers, is a long uphill 12 mile trail. There is little water at Garfield Creek and just a bit more at the confluence of the South Fork and Touhy Creeks. It just did not attract stock users or hikers as an alternative route into the South Fork Meadows area.
- b. Cedar Grove Pack Station again packed in USGS Hydrologists to service the weather stations at Hockett and Wet Meadow. They spent two nights at Rock Camp at South Fork, 15 head, 7 people. They hand grazed the stock in shifts, so the area nearest the camp shows graze impact, but the remainder of the meadow was hardly touched.

Private Stock Use

- a. There were only two private stock user groups this summer. The first was two hikers with a pack horse for one night at Upper South Fork Pasture, and the other was two riders for two nights at Hockett Meadow. Both parties hand grazed their stock each day. The party at South Fork Pasture reported he thought he observed a stock group at Rock Camp the night he was at South Fork Pasture. I checked area the next day and saw no sign of use at that camp.

D. Natural Resources

Bear Activity



- a. While there were no incidents of bears annoying or harassing visitors, the trail crew was shadowed by a medium size one in their camp area. They returned to their camp one afternoon to find the bear near their kitchen area, and when they chased him off it scampered up a 100 foot lodgepole on the edge of their camp. Several hours later he was still calmly sitting on the limb overlooking the camp. The bear had been seen in the area behind their campsite

previously so it was not intimidated by humans. On a weekend when the entire crew was out in the front country, they secured their camp expecting the bear to return. Each day I checked their camp, the bear had left his calling card no less than three times in the middle of the camp, but was not successful in getting to food or equipment.

- b. The large bear in the photo above may have been a reason for few deer numbers in the meadow this season.
- c. Bears were active in the Atwell and Silver City areas, and the bear techs trapped several at both locations. On one ride out from Hockett to Atwell, just a few hundred feet from the Atwell trailhead a medium size brown bear was sitting on a boulder 50 feet up slope. He sat cross legged on the boulder and it seemed as if his arms were across his chest as he watched us parade by.

Wildlife

- a. There were no snake encounters like last year. We did see a small rattlesnake on the trail once but it heard the stock and slithered into some rocks. Trail crew reported hearing some buzz once in a while, but no sightings.
- b. The number of deer in the meadow this year was an all time low. The average herd of 30 or more was reduced to just a handful, and some afternoons there were none at all. Deer were observed in good numbers as we patrolled the Hockett plateau however. And usually in July we observe the presence of fawns and newborns. We saw only a few fawns and one newborn this season.
- c. We did see once, a set of mountain lion tracks on the Hockett trail east of Sand Meadow. In years past lion tracks were plentiful in this area. A mountain lion and her cub were photographed several years ago in Mitchell Meadow.

Vegetation

- a. With the exception of Hockett Meadow, the meadows on the plateau were virtually untouched. A grand total of 35 observed nights of grazing. Hopefully the meadows will benefit from this season of rest. Hidden Camp and Slims were not grazed at all.
- b. Several storms in June and July delivered much needed rain to the plateau. Not sure of the amount, but someone recorded rainfall in Mineral King during that period and reported 10 inches. It all helped to water the meadows and nourish the grasses and flowers.



b. Hockett Meadow opened for grazing on June 17th, these photos were taken on June 24th.

E. Cultural Resources

Historic Sites

- a. The remains of the old ranger station in the trail crew camp seem to be fading. The footprint seems smaller compared to 15 years ago when I first saw it. If one did not know what they were viewing, it would seem just like 3 old pieces of discarded lumber.
- a. A historic site that I have not included in any of my End of Season reports is the Quinn Patrol Cabin. It is 107 years old and I am pleased to have had a small role in its care and maintenance over the years.

F. Backcountry Facilities

Hockett Ranger Station

- a. The cabin remains in pretty good condition. This year I brought in a bottle of blue PineSol. I thought I had grabbed a bottle of Fabaroso but the pinesol worked okay. After spraying down the interior surfaces with bleach and water, we mopped the floor up. I used the pinesol on the counter and table surfaces. I hit the bedrooms with the pinesol mixture and at least the place smelled clean, and the floor looked ok.

I had located a long handled scrub brush in the tack shed during the summer that Thor and his crew had left behind and used it when we closed up the station for the season. Pinesol and water, scrub the floor with the brush, then mop it up. The floor looked pretty good.

- b. I picked up a few of the old roll up blinds that we had taken out several years ago to be repaired. They were not serviceable so Thor selected the best ones and I took them back to Hockett and put them up. At least now all the windows have some covering.
- c. The station well nearly went dry last year and anticipating another dry winter, Klint Powell purchased a Katadyn gravity filter for the station. I packed it in and it worked very nicely. After a month of use it required a cleaning, the tools and instructions are in the blue file box in the station bookcase. The filter is disassembled, in a box, in the snow survey closet.
- d. The water from the well travels through some old, old, galvanized pipe. It is rusted and laden with lime and calcium reddish orange stuff. The water is ok for drinking as is but it just tastes like metal. I purchased a Brita filter several years ago and it greatly improves the taste of the well water. Some folks placed unfiltered creek water in the Brita and contaminated the filter. The filter tank was cleaned with bleach, the filter changed and all is fine. However, the filter is stored for the winter in the rangers closet with a few extra filters. Remember, creek water in the Katadyn and well water in the Brita.
- e. The solar and charging system is in good shape. Batteries were at 13.9 volts when we left. The batteries are 7 years old.
- f. The outhouse was moved this year by the trail crew.
- g. The well depth was at 58 inches when we first checked it on June 23rd. In July it was 54 inches and when we left on August 19th, it was at 57 inches. A little conservation, a lot of rain, and using creek water in the Katadyn really helped.
- h. The old hand pump in the station is an antique. The manufacturer is long gone. The base of the pump is unique to the flange in the countertop that the pump attaches to. A new replacement pump is in the tack shed and has been there for over 13 years. It does not mate to the flange. The existing pump needs a lot of TLC. An internal part broke this summer and J&D plumbers were called in (Joe and Don) and because they have babied this pump and

system for 13 years and are experienced at repairing it, they found a bolt rusted through in the plunger portion of the pump. We had some bolts to replace the rusted and broken one but not the right size. We drilled and cut and made it all work. I comment on all this only to point out how delicate this equipment and system is, please handle it with care.

- i. There is a wheel of fortune stored in the tack shed. If you use it for a few weeks at the beginning of the season in the station, you will get a few winners. Best was 2008, when I had 52 winners. Ever since then the numbers have always been 5 or 6 for the summer, and best of all there is no sign or sounds of mice at night or in the morning.
- j. The tack shed at Hockett needed a good thorough cleaning. We were afraid to breathe inside the shed but that was where we stored our saddles and equipment and we had to go in. So on a rainy day in early June we attacked it. We found a one gallon pressure sprayer in the attic of the shed filled it with bleach and water hosed everything down, top to bottom. We dragged everything outside, sprayed it all again and let the rain rinse it off. It is no exaggeration when I say that we swept and scraped up at least 5 pounds of mouse poop, and had two mule loads of trash hauled off. It felt good:



Afterwards we set up the wheel of fortune in the tack shed with good results.

Quinn Patrol Cabin

- a. The cabin is in pretty good condition given its age. We found little sign of mice inside the cabin but could hear them in the attic. Thor says the design of the roof is such that eliminating avenues of entry for the mice is very difficult. The shingles on the roof at the northwest corner are either rotting or damaged by a bear.



- b. The only water source is the spring runoff in front of the station, but this year there was no water in mid June. A spring in the middle of the meadow was a mud hole in August. Soda Creek about a mile east of the station was still running. If traveling from Hockett to Quinn, and you have the ability, take a few gallons with you for cooking.
- c. The trail crew ran out of time and were not able to log the trail to Quinn from Windy Gap this season. There were about 5 trees down and all were stock passable, but there will undoubtedly be additional down trees next spring.
- d. I will note it here and again in needs for next season: Quinn needs toilet paper, paper towels, a small bleach, propane bottles, and D cell batteries for the electric lanterns.

Signs

- a. The “NO FIRES” sign was installed at the park boundary trail at Summit Lake.
- b. A sign is missing from a post at the exit of Wet Meadows into the park on the Blossom Lakes trail. Other signs at that location are destinations and distance, Forrest Service Boundary. This unsigned post may have had a NO FIRE sign on it as the elevation there is 9200 feet. The trail to Blossom Lakes is uphill from the Wet Meadow boundary and terminates at the lower lake at just under 10,000 feet. Maybe a little research of sign records may help determine what was on this lonely post.

Trails

- a. Trails were in good condition all season long. The trail crew rerouted a short piece of the trail north of the station, eliminating a section that was more a trench than trail.

- b. Traveling on the South Fork trail between Hunter Creek and Summit Lake trails requires stock to climb 4 or 5 steps up a granite area. Going up, the last step has a slight slope to it. It is slick granite and stock sometimes have to scramble, because of the slick surface and angle.
- c. Going down hill, the steps are just a tad too tall. Stock cannot walk down, they must stand at the edge of the step, and jump down with both front feet to the next landing. Hard on both horse and rider, and having to repeat that jump three or four times is just not enjoyable.
- d. After years of stop gap fixes, the Horse Creek bridge has been replaced. Very nice. The area right now is a little impacted from the construction process, but fall and winter will help restore the area for next summer.

Comment [Fox1]: Get off and lead them down?



H. Camp Areas

Conditions

- a. With the record low visitor use, the camps remained in good to excellent shape all summer. Hockett Meadow, Evelyn Lake, and Hockett Lakes, received the most use. Some camps did not get used, Cow camp at South Fork Crossing, and Hidden camp on the South Fork.
- b. Sanitation was not an issue this season. The pit toilets for the backpackers at Hockett received a good amount of use, but they remained in good condition throughout.
- c. Firewood is readily available at almost all the camp sites. A stack of kindling and firewood near the fire pit at Hidden Camp placed there at the end of last season remained untouched all this season. Firewood at Evelyn Lake is a little scarce.
- d. There were no food storage issues this summer.

- e. Fire pits only needed minor attention all season. As in years past Summit Lake was a mess. No less than 3 visits were made and each time illegal fire pits were removed and trash hauled out. We took out a large pit at Blossom Lakes this year too.



Just two of the larger pits at Summit Lake



Trash from 2nd trip to Summit Lake



Blossom Lakes Illegal fire pit

I. Permit System

- a. No issues with the permit process from MK. They give competent instructions to visitors who wish to travel over Farewell, down to the Little Kern, up to Wet Meadow, on to Hockett, and out to MK. The difficulty has always been finding the junction to the Little Kern from Wet Meadow. There is now a 4X4 post planted at that junction, no sign, just a post with blue flagging attached to it. Hikers should turn north here to go down to the Little Kern. Hikers coming up will search for the trail to Hockett and within 300 feet or so will find a new wood sign directing hikers to Wet Meadow and Hockett Meadow.
- b. It is always helpful for MK rangers to advise the Hockett ranger of a stock group heading for Hockett or a large hiking group. Large hiking groups are limited to the main camp at Hockett which can accommodate 10 or so people with little impact.

J. Communications

- a. Communications were adequate this season. Friendly, patient and helpful dispatcher staff was most appreciated this summer.
- b. (b) (5), were noted in the following areas: (b) (5), (b) (7)(E)

, sitting or standing inside the

cabin directly over the dining table, antenna straight up, one can get out on (b) (5). Go outside in the meadow (b) (5).

K. Needs for Next Year

- a. This year I can delete my annual request for new or clean sleeping bags. (b) had 9 bags cleaned and Don and I hauled them in. Five for Hockett and 4 for Quinn. The bags for Hockett were marked: MK 1, MK 2, MK 3, MK 6, and MK 8. The bags delivered to Quinn were marked: MK 4, MK 5, MK 7, and MK 9. A used blue Slumberjack bag was left with the 5 bags at Hockett. It was stored in the rangers closet, to be used as a station bag, or be brought out next summer. It was thought that there were only 4 bags at Quinn (there are only 4 bunks) but a 5th one was found in the bedding locker. The bag that remained behind was a large Coleman exponent. We back hauled 9 bags to MK. So now there are 6 bags at Hockett, and 5 at Quinn.
- b. Two new 51 locks are needed to secure the bedding locker and one of the north wall shutters. Currently there is an inexpensive master lock on that shutter. The key for that is on the inside front entry door frame, upper left corner.
- c. The Katadyn filters were cleaned twice this season, and are clean now and stored in the snow survey closet. The water out of Wittman creek seems a little silty, so perhaps three backup filter canisters would be a good thing.
- d. A gallon of anti-freeze. I used the last of it this season. The anti freeze (2 cups full strength, followed by one cup of water down the drain) protects the plumbing from freezing and cracking during the winter. After the cup of water is added, then remove the P trap, put it in the bottom drawer next to the opening under the sink. Make sure the blue barrel is in place under the sink drain.
- e. Quinn needs 4 or 5 rolls of TP 2 packs of PT, bleach, propane bottles for the Coleman stove, and D cell batteries.
- f. A spray can of silicone. Spraying the springs and coils on the beds in the east bedroom helps stop the squeaks.

M. Pertinent Inventory

- a. Propane: there is 1 full tall tank, two small tanks full, and one partial small one.
- b. A complete electric fence is located under the bed in the east bedroom with 3 piece posts. In the ranger closet I left about ten 4 foot fiberglass posts in the rangers closet.
- c. There is just a small amount of grain left in a bag in the shed.
- d. There is bleach and spray bottles at Quinn.
- e. There is a stock bell and canvas nose bag hanging on the back of the tack shed door.

End of Report

Submitted by Joe Ventura

**LeConte Ranger Station
End of Season Report 2015
Dena Paolilli**



The station was staffed from June 8th through September 24th. Though this winter had virtually no snow pack, it wasn't until Rainbow packers and trail crew cleared the Bishop Pass switchbacks that supplies could be brought in, June 23rd.

Visitation at the beginning of June was high with PCT hikers coming through. June and July were relatively warm and stormy. August was smoke-filled as was most of September, though to a lesser degree.

	Contacts	Miles
June	462	124
July	1010	174
August	870	162
September	285	122
Total	2627	582

Stock Users

Commercial Users

Rainbow Pack Station, Rock Creek Pack Station, Bishop Pack Outfitters, High Sierra Pack Station.

2 private use groups

Use Patterns

PCT hikers dominated contacts the first two-thirds of June. JMT hikers, mainly from north to south, accounted for the majority of the contacts the remainder of the season. Approximately, 7% PCT hikers, 20% some portion of the JMT (typically North Lake to South Lake or Bishop Pass to Kearsarge Pass),

70% JMT hikers, 3% other (Sierra High Route, trips to climb peaks).

Visitor Services

Law Enforcement:

Almost all visitors contacted had permits. One citation was written for improper food storage. Verbal warnings were given as follows:

- 18 camping on vegetation
- 6 camping too close to water
- 1 smoking while walking
- 3 amplified noise
- 8 improper food storage

Information only:

- 12 illegal fire pits
- 22 abandoned property
- 100+ improperly disposed of human waste/toilet paper
- 100+ pounds of trash picked up
- 2 trashed campsites
- 1 illegal substance

The biggest regulation violation problems in the LeConte area mainly had to do with fires: illegal pits, building new ones, burning logs too large to fit in the ring, and leaving trash (partially burned or completely intact) in pits. Another impact I was noticing with increased frequency this year was the improper disposal of human waste. Namely, not properly burying it, burying toilet paper or just leaving it on the ground, and disposal sites being too close to campsites and/or to water.

Both of these major issue groups are extremely hard to regulate in terms of catching the culprits in the act or later finding out who the violator was.

In an effort to curtail this behavior ahead of time, these two issues became my regular talking points with visitors.

Search, Rescue, Medical incidents in the LeConte area

In the table below when the additional personnel name is in bold, they were the sole EMS provider on scene.

Date:	Problem:	Location:	Evacuation:	Additional personnel:
7/2	Altitude, Hyponatremia	LeConte RS	Helicopter	Cedric Cunningham
7/10	Sprained ankle	Dusy Basin	Self-Evac	
7/10	Laceration on leg	LeConte RS	Helicopter	Cedric Cunningham
7/11	Altitude illness	LeConte RS	Helicopter	
7/13	Tooth infection	LeConte RS	Self-Evac	Cedric Cunningham
7/18	Ankle fracture	LeConte RS	Helicopter	Tim Joyce
7/20	Back pain	LeConte RS	Self-Evac	
7/30	Leg pain, swelling	LeConte RS	Self-Evac	Tim Joyce

Visitor Assist

- 25 satellite phone calls or texts
- 2 stove repair

12 first aid supplies
3 toilet paper
28 food given out
4 glue/tape
5 borrowed gear (water filter, stove, backpack, tent)
3 gear given away

Assistance to other departments

Invasive species:

6/25 Palisade Junction

Orchardgrass pulled:

55 flowering plants

1 plant gone to seed

6/27 Palisade Junction

Orchardgrass pulled:

93 flowering plants

28 non-flowering

6 seedlings

6/28 Dusy Switches

Cheatgrass pulled:

184 flowering plants

7/19 Little Pete

Orchardgrass pulled:

12 flowering plants

18 plants gone to seed

7/19 Stillwater

Orchardgrass pulled:

23 flowering plants

5 plants gone to seed

The other sites were visited multiple times this season but, no flowering plants were found in any of those spots. Unfortunately, another cheatgrass site a few switchbacks up from the known site was found.

Aquatic Ecology:

There was a major mountain yellow-legged frog die off in (b) (3) (B) this year. Isaac Chellman noticed this as he was doing frog surveys in the area. Following these observations, they were able to assemble a team to return and treat frogs. I was able to check out what they were doing on the first round of treatment lakes. When Roland Knapp and a crew returned to treat frogs at (b) (3) (B), a main source of frog sightings for JMT/PCT hikers, I was able to assist with the first days of the treatment. 200 frogs were caught and treated and 126 were released after 7 days of treatment.

Ranger Station

The cabin continues to be in good condition and rodent-free. Tim Joyce was going to do some minor maintenance on the station this year but was unable to due to an emergency.

The proper part for the sink drain was sent in at the beginning of the season and the new sink is great.

The floor needs to be sealed, whether with linseed oil (one can out there) or a different product of choice.

The pit toilet still has a few years of use before it will need to be relocated.

General Resource Conditions

Drift fences: The trail crews rebuilt and fixed the three drift fences in the patrol area and they are greatly improved.

Fire Rings: With Stage 2 fire restrictions, fires were still allowed in the majority of the LeConte patrol area below 10,000 feet. This means a lot of fire pit maintenance occurs on a regular basis in addition to breaking down of fire pits in inappropriate places, too close to water, too close to another pit, and/or above 10,000 feet.

Camp Areas: All the campsites right along the JMT are getting lots of use. There are new use trails through the already existing heavily impacted campsites and ones to campsites that were previously lightly used. Also, from some of the larger campsites along the Middle Fork there were use trails created to “fecal focal points.” I am unsure of good ways to mitigate this impact but, if use continues at the current rate or increases, this is going to become a bigger problem.

Meadow Management

Palisade Meadow was opened on June 29th instead of the set date of July 1st. Simpson Meadow was also opened early per Cindy Wood's observations and recommendation. Residual biomass was completed for Little Pete and Big Pete Meadows but, was not done for Simpson Meadow due to smoke. Big Pete Meadow was closed early this year due to use. Some shearing effects were observed along the river near the core plot.

Commercial Use Comments

Most of my contacts with concession groups were positive.

For the most part Rainbow Pack Station had a packer who was responsible and respectful of the wilderness and park regulations, Ken. Another packer who came in temporarily to help out was the cause of the mule wreck on the Dusy switchbacks and was immediately fired after the accident. A concession contact of note was my interaction with Mike Morgan from Bishop Pack Outfitters. He and his stock encountered a bear eating the mule carcass. Understandably, he was scared that it could have caused his animals to have a wreck. However, when he arrived at the station he was yelling, pacing back and forth, hitting his hand, getting up close to me pointing his finger in my face, and yelling, which was inappropriate.

Wildlife Observations

I spotted a pine marten south of Starr's Camp along the Middle Fork of the Kings River. Two ptarmigan were seen up by Helen Lake and one between Lower and Upper Dusy Basin. On several occasions, I saw a garter snake near the station and at Little Pete Meadow.

Resource Impacts

Mule incident

Rainbow Pack Station had Pete, a previous employee of Rainbow, assist with their operation for a month. When Pete was out on a commercial trip resupplying JMT hikers, he got into a wreck and a mule died along the Dusy switchbacks just above LeConte canyon. When this occurred I was out of the backcountry and Edlyn's crew was in the process of evacuating due to the poor smoke conditions. There was some confusion as to what should be, or what was going to be, done with the dead mule.

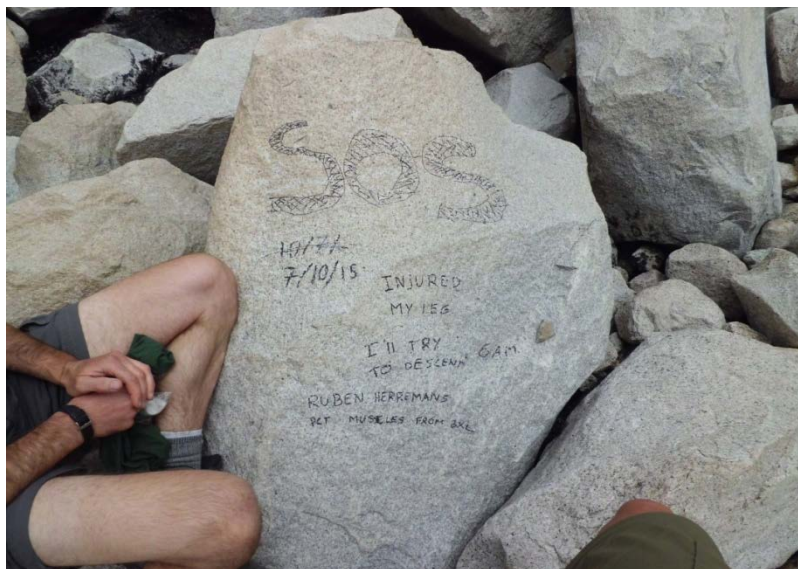
Initially, the trail crew thought they could come back in to blow it up.

By the time I arrived back at LeConte and was able to contact David Karplus to find out if the trail crew would be coming back in, at least one bear had already started eating the carcass. Due to the location of the mule, there wasn't a good place to realistically move it to away from water or away from the trail. Therefore, it was decided to let bears eat it. I regularly went up to check on the progress of the bears and the state of the animal and put notes in the trail advising hikers to cut the switchback to avoid encountering the bear that took residence. However, this led to another pack trip encountering the bear on trail (discussed below in the Commercial Users section).

Due to the reroute, there is trail damage between the 13th and 14th switchback up from the ranger station. A path cutting the switchback was created through the manzanita to keep visitors away from the bear that was eating the dead mule that will need to be rehabbed.



A visitor who injured himself by Helen Lake took to writing an SOS message on large boulder in the middle of the trail as it crosses the outlet. I used all the rubbing alcohol I had at the station and got some of it off but more is needed. For the moment it is covered by rocks.



Communication

Radio

The (b) (7) repeater continued to perform poorly this year. There is still a scratchy kickback noise at the end of every transmission that is much louder than the person talking. The repeater often stopped working in the mornings in September (same as last year and the one before per Miles EOS). There are considerable (b) (7)(E) in the area- from (b) (7)(E). Also, at least once a day, there was traffic, the screen would light up but all that could be heard on the (b) (7) repeater was a series of clicks. This was not just my radio, I heard it on other units as well.

InReach

From the beginning of the season, my inReach didn't function in the capacity it was meant to. It did not (b) (7)(E). Also, it didn't update received messages unless I sent a message out. Once I obtained a new inReach from Kevin Morris via Isaac Chellman on August 26th, it worked as intended. The one problem I noticed was that messages I sent out, though the device registered them as sent, were not always received on the other end.

Other projects that occurred in the LeConte area:

A crew of archaeologists traveled to Hester Lake to take a closer look at the plane wreckage at the bottom of the lake with an ROV.

An aquatics crew was once again station at Amphitheater Basin.

Trail Crew

There were two trail crews in the area this season. Dan Devoe led a crew out of Lower Palisade Lake working on the upper region of the Golden Staircase. Edlyn Clevenger led a crew of NPS and California Conservation Corps members out of Big Pete Meadow building reroutes south of the meadow and work on the JMT south of Starr's Camp. Each crew consisted of one EMT. As in previous years, these two crews were a large, helpful resource to have close by.

Recommendations:

- Fix the (b) (7) repeater.
- Get a gun/weapons safe out to the station.
- Utilize the other park EMT's that may be closer to a medical situation especially when the ranger is away or on lieu days.
- Continue to staff the Bench Lake ranger station.
- Rick Sanger is suggesting having a video shown as part of the permitting process. I would like to second this. I think visuals of what happens after people bury their toilet paper instead of packing it out would be much more effective than talking about it.
- Require more education or a different permitting process for PCT hikers. Start (or continue?) a discussion with the PCTA about this.
- Have the wilderness rangers from all districts in one place for the start and end of the season, at least for a couple days.
- Come up with a better system for adequately compensating wilderness rangers for their time. Historically, this has been six day overtime pay. Especially with the increased visitor use, AUO is not covering actual time spent working nor does it compensate for basically being on call.

Needs:

4 D batteries for lantern

Candles

Thermarest patch kit

Weapons safe

Rubbing alcohol

Wire brush

Need to be returned to the station (on the LeConte pallet in the Sierra Crest cache):

3 dish towels

2 twin fitted sheets

1 twin top sheet

1 key lockbox with a 51 key inside

Backhaul:

4 dead solar batteries

old food caches from previous rangers

2015 Sequoia National Park Wilderness Ranger End of Season Report
Chris Kalman, Little Five Lakes Ranger



A. **General Summary**

This season is my first at SEKI, and as a backcountry ranger. My previous experience as a ranger was as a climbing ranger at Mt. Rainier, and I came into this job with a good general idea of my job, but very little specific knowledge or information. I have found thus far that there is a very steep learning curve, and most of the time I simply hope that I am staying ahead of it adequately.

The season began with a slew of different trainings. There were wilderness trainings, bear trainings, radio and InReach device trainings, Safety Stand down, pack test, Operational leadership, an EMS refresher, a morning in dispatch, a two day intro to Mineral King Ranger Station, etc (listed in no particular order). For the most part the trainings were generalized, multi-divisional, and lecture and powerpoint style. During the trainings I tried hard to maintain focus and awareness, but found it rather challenging to discern the pertinent points that would be helpful in my work. I think this is due to a number of factors, as follows: 1. Generalized multi-divisional trainings are by nature somewhat watered down in that they have to cater to all kinds of different employees doing all kinds of different jobs. For a brief example, take the lecture we got on bear management. That had to cater to campground rangers and back-country rangers alike, which is not completely useful because their experiences with bears will be completely different. It would be more useful to have *intradivisional* trainings so that the information could be kept pertinent to specific job types. This would be especially true of OL and the SSD, in my opinion. 2. I came in with very little knowledge of the specifics of my job, and hence had no experience to compare the lectures to in order to have a baseline of understanding. One example would be the meadow monitoring lecture. I have never monitored a meadow before, have little experience with stock grazing in wilderness, and I understand the words “residual biomass” from an academic standpoint, but had no idea what the black zippered bag I got was for, or how to begin to interpret either of the meadow monitoring and meadow literature binders I received. I would say this experience of not knowing what to do mentally with the information I was given was consistent across the board with all my trainings. 3. I am a tactile learner (i.e. I learn by doing), so lecture format in general is very difficult for me. For example, when Tom O’Day came out to Little 5 recently to teach me a bit about Meadow Monitoring, I found that very useful – infinitely more-so than the lectures I received on it. I think that fairly well summarizes my experiences with the trainings. The only other thing I would like to mention is that I had a bit of a negative experience with the OL training on a personal level. The reasons for that I have elucidated in a letter to Chris Trotter who led the OL training I attended, and who never responded to that letter. I believe she was on a detail at the time I sent it. Because I feel strongly about the contents of that letter, I am including it as an addendum to this report – but it does not belong in these paragraphs.

At the end of the trainings, as I was heading into the backcountry, I felt distinctly that I was overtrained in things not terribly pertinent to my job, and undertrained in things that I would be doing on a daily basis. For example, Dario gave a brief paragraph or two description of how to build nice new fire rings- but I had no idea where I would be likely to find fire rings in my patrol, where I shouldn’t find them, how many would be appropriate per acceptable area, etc. I spent much of my first patrols looking long and hard at the occasional errant fire ring trying to remember, ‘what is the fire level in big arroyo, 9 lakes, little 5, big 5, lost canyon, etc?’ (because the fire level is not consistent everywhere). For another

Comment [Fox1]: Make sure our employees feel empowered to ask questions if they don’t know what they are doing. Learning operations in a patrol area this size is incredibly challenging, but to add to that learning a new park would be nearly impossible. Perhaps we should rethink hiring anyone into wilderness positions that hasn’t already spent a season or two learning the park processes. I know this was not the norm.

example, ‘what do I call in on the radio, or what don’t I? What does (b) (7)(E) mean? (b) (7)(E)? I just helped someone put out an illegal fire – should I tell dispatch?’ Other than a line drawn on a map, I did not know anything about where glacier and hands and knees passes were, or what to expect there. I did not know which Little 5 lake the yurt was at, or where it was at that lake. I did not know anything about how to set up the yurt, the solar/electric grid, the bear wire, etc. Everything worked out fine, but it just felt funny that I hadn’t been trained on any of this. I was so in the dark that I did not know what my patrol area was (at the end of the season, I still have not seen a picture of it on a map), nor did I have a clue where I should patrol most often, how often to do overnight patrols, etc. The daily ins and outs of my job were, to me, mostly a complete mystery. I have a very high comfort level in the mountains, and acceptance of risk in my personal life, so this did not disconcert me terribly. That said, coming off of SSD and OL trainings, as I was hiking out to Little 5 for the first time, my patrol barely passed a GAR model – and I believe that a less experienced mountain enthusiast than myself would not have passed it.

Furthermore, I felt there was a definite lack of organization in the early part of the season. In spite of my requests, I was unable to attain any end of season reports from previous years until Chris Gooch emailed them to me a few days after she left Little 5 after helping to set up the yurt. Nobody could tell me definitively what (if anything) was out there – including pots and pans, soap, cooking utensils, stove, camping gear, etc. As for patrol gear, it was almost all scattered between various different caches, and what was present seemed out-dated and less than useful to the job. A good bit of the gear that I finally did take, because a fellow ranger told me that I could, was at a later date removed from my home by a different ranger because it was, as the box it had been put in implied, reserved for a different ranger. By the time I left for Little 5 I had a backpack, sleeping bag and pad, a 1 man tent, a stove, a pot with a lid, an inreach device, and a sat phone – but all of that barely came together at the last minute. Additionally, I still did not have a personal med kit (found one later at Little 5), and I still do not use the sleeping bag and backpack I was issued and use my own instead as I believe the bag is too heavy and bulky (0 degree bag) and the backpack too heavy and old (1990s Dana Design) to be useful on most patrols I do.

When I began to settle into Little 5 – things became clearer by and by. The station med kit and a variety of other things had accumulated a good bit of mildew, and the general storage of things was chaotic and haphazard. Nobody knew where the pit toilet was, and I didn’t find it for two weeks. I bought a mosquito net on my own dollar eventually to put over the pit toilet when I did find it because the bugs at that particular time and place are horrendous. A new medkit was sent out on a helicopter and I brought it back to the station. Eventually I began going on patrols and for the past two or three weeks have been doing just that. My primary focus in the first month or two of being out there had been learning my terrain by patrolling as much of it as possible, making good positive visitor contacts and keeping track of their plans, removing trash and cleaning up illegal fire rings, learning the flora and fauna, keeping a daily log, and attempting to keep my head above water.

By about mid-July I became much more comfortable with my job – but there was another change that kept me on my toes. I found that my body was beginning to fatigue. This was due to two things: 1.) the size and nature of my patrol area, and the difficulty of the terrain; and 2.) my disinclination to take rest days on my days off. Regarding this second point, I believe it will be a common experience to most backcountry rangers. The majority of us are active on our days off, including occasional AUO for SAR or other activities. My days off were often as fatiguing if not more than my days on, and by August, the continual physical exertion was starting to take a toll on me. For the last month and a half of the season, I

Comment [Fox2]: Isn’t this why we sent him out with a ranger that had previously worked there?

dealt with the many nagging small injuries I had by resting more on days off, and by cutting down the size of my average patrol on days on. Unfortunately, that meant missing out a lot of terrain that I wish I had been able to cover more thoroughly (although the trailhead rangers did an excellent job, particularly Alicia, of filling in areas where I had been absent). I focused in this time mostly on The Big Arroyo, Little 5, Big 5, and Lost Canyon – which I would estimate at about 25% of my patrol area. I became less focused on patrolling to and covering the perimeters of what I perceived my patrol area to be, and more focused on nearby areas of heavy use, visitor contacts, campsite maintenance, etc. While these were activities which I found to be both central to the job, I think in future seasons it would be beneficial to mix it up more throughout the season with both small and large patrols. I believe that switching to the 4-5-9 schedule would be an excellent idea, to this point, because every other week, rangers would have one more lieu day which would be helpful in alleviating early/midseason fatigue. Besides, the majority of my patrols lasted at least 9 hours, so it would cut back on AUO, as well.

Comment [Fox3]: His AUO was bare minimum. If patrol extensions were what was pushing his AUO, then AUO is not the right tool for this job. It can't go any lower.

To fill in the hours on days of smaller patrols, I spent more time on visitor contacts. I quickly came to see this as a larger and more valuable part of the job than simply hiking from place to place, and covering as much terrain as possible. Each visitor I contacted I would engage in as much conversation as they desired, and these ranger talks would often last as long as 45 minutes. I believe the wilderness ranger his or herself is a part of the wilderness experience. By being available for interactions, I was not only disseminating valuable information about rules and regulations, but I was helping to instill in the visitor a love and respect for the place that can come only through positive wilderness experiences. While these extended visitor contacts proved to be very time consuming, I think they were one of the most important things I did all summer. For an example, I had just such a contact with the members of the Burt Rodgers SAR, and that gave me valuable insight into the possible causes of that SAR, as well as having an already established rapport with the Van Akkerens whom I helped through a very troubling time.

Deleted: backcountry

Comment [Fox4]: I disagree – it detracts from opportunities for solitude.

Deleted: backcountry

By and large, the season was mostly uneventful from a SAR/LE standpoint. I was delighted to find that most visitors to my patrol area were well informed on rules and regulations by the trailhead rangers, and compliant with them. The biggest SAR was the Burt Rodgers SAR which resolved with no injuries or need for evacuation, and a letter of appreciation to Superintendent Smeck from one of the parties that I had helped during that incident.

Statistics

	Visitor Contacts	Miles	EMS	SAR
June	65	100	1	0
July	135	190	1	1
August	160	140	0	0
September	20	20	0	0
Totals	380	450	2	1

B. Visitor Services

- a. Contacts:

Backpackers: 380. The MK Rangers did a great job instructing the backpackers on appropriate use of the resource, and proper wilderness etiquette. I had to do very little in the way of LE or re-educating.

Day hikers: 0, or too few to count. I may have seen a few on front country patrols, but 99.99% of the people I saw all summer were backpackers.

Stock: 5. All my experiences with stock this summer were NPS. Little 5 was grazed at most a few hours by a few horses and mules.

Groups: 20. I'm making an estimate for this number as I did not necessarily keep a tally of groups vs. small parties, as the distinction was never defined to me. There were a variety of large boyscout groups, which seemed to be the biggest groups we got. Typically, they had mostly good compliance with rules and regs, but could use a little help here and there in their etiquette.

b. Law Enforcement: So far there has been little in the way of LE necessary at Little Five. I believe the harshness and remoteness of the terrain, in conjunction with excellent information disseminated by the MK and Lodgepole trailhead rangers efficiently keeps many of the problematic individuals out of my patrol. The fact is, to get back to where I am, you have to really want it; it's not easy. And unless you really love the area, you probably don't want it that bad. Hence, the only people I tend to see are people that really love the area, and these people are very receptive to the rules and regs in place. The only times I was put in anything of an LE role was a minor boyscout group incident with an exploding lighter, and a fire that visitors were having at Little 5, apparently believing they were at Big 5. I handled each incident lightheartedly, focusing less on punitive measures than on encouraging future compliance, and each situation resolved amicably.

c. Citations: none were given or recommended. A scattering of verbal warnings here and there, but that is all.

Deleted: SV

d. Search, Rescue, and Medical Incidents: On July 4th a patient presented with chest pain, nausea, generalized weakness, loss of appetite, and a complicated string of medications and past history. Base hospital contact was made in the evening, resulting in a recommendation for evac by helicopter the following day. In the morning base hospital was contacted again and reiterated their recommendation. The helicopter came around noon, and the patient walked onto the bird under his own power. The aforementioned Burt Rodgers SAR occurred on August 12-13, and resolved as I described earlier.

e. Fatalities: none.

f. Weather: After the 4th consecutive winter of extreme drought in California, the first month or two of the season saw consistent thunderstorms and precipitation in the high country. I heard it was the wettest July on record – but don't know if that is true. It was certainly the wettest July I've ever experienced in the Sierra. About August it was like a switch flipped, and it went back to incredibly dry weather. I haven't seen a drop of rain in over a month. Many lakes are receding quite noticeably, and some ponds and creeks have dried up entirely. The yurt held up fine under these conditions.

g. Fires: early in the season I followed up on a hiker's report of a fire near Big 5 by hiking to the top of the ridge between Big and Little 5 on my days off and reporting the fire to dispatch. The "Big 5 Fire" burned for a bit, and then was significantly diminished by precipitation. Recently, it flared back up and has come within 75 feet of the trail the last I heard, which was September 7th. Of course, the Rough fire needs no introduction, and whomever is reading this will know better how it has or has not resolved than I do at the time of writing.

C. Use Patterns:

- a. Backpackers: Most backpackers encountered have been on the High Sierra Trail in the upper Big Arroyo, or on one of the Mineral King loops. Popular areas so far seem to be Big Arroyo Jct., Big 5 lakes (lower especially), Lost Canyon Jct., Pinto Lake, Cliff Creek, Columbine lake, Monarch Lake, and Little 5 Lakes from time to time. A variety of groups have been climbing in the Kaweahs over the course of the season. I also noticed a number of different parties climbing in the Hamilton lake and Tamarack lake areas when I patrolled over near Bearpaw. Fishing is a popular pastime. I regret to admit that I did not know the fishing regulations at all until very recently. I was originally informed that because the trout are typically invasive here, and because there are widespread efforts at removal, that "nobody cares how many trout you catch, keep, or eat". I only recently came to understand there are fishing licenses required, and I did not check for any over the course of the season. I hope next year to have a clearer sense of the fishing situation.
- b. Stock: I have not seen any stock other than NPS stock. Most use has been confined to Lost Canyon. The number of stock nights allotted to the meadows in my patrol seems appropriate, as do opening dates for meadow grazing.
- c. Admin: I have been visited by Cody (b) (6), and Tom ODay (b) (6), and Alicia Metz (b) (6). I was frequently in contact with the Hockett crew, and found them to be an excellent resource in the backcountry.
- d. Commercial: No contacts with commercial groups this entire season with one exception. I made contact with a group of diabetics that seemed like they were commercial as they had guides and preplanned resupplies – but I could not tell if those guides were volunteers or paid. That was at Kern hot springs.
- e. Aircraft: I heard a variety of planes flying in overhead, and have been trained in two different ways by two different employees on when/how to report them. I was told by one to call in anything flying less than 3,000 feet above ridges (which I find very difficult to estimate). I was told by another to call in anything you can read the tail number of. This season, I did not get positive visual on any aircraft tail number, though I hear planes regularly. Typically when I do see them, they are very small dots flying high above the ridges.

D. Natural Resources:

- a. Bear: I only saw one bear in the backcountry, and that was on the Rattlesnake trail. It saw me, ran off the trail, and that was the end of the encounter. I heard a good bit from visitors from bears in the cliff creek area, but never saw them there myself.
- b. Wildlife:
 - Coyote: None

Deer: Mule deer in various locations, seen at all times of day.

Pika: In various locations, usually subalpine and alpine.

Marmot: Ubiquitous. Some inhabit a tree's roots very close to the yurt. They are not impacting the yurt or my life negatively, and they are raising offspring there. I have let them be, and see no reason to haze or remove them. The storage systems in place are solid, and the marmots have not seemed terribly interested in trying to break in.

Snakes: A few racers or garter snakes – over in the Bearpaw area.

Amphibians: Early in the season I noticed what sounded to be a very healthy frog population at the upper-most Little 5 lake. Later in the season they were not croaking. I never actually saw a frog, dead or alive, anywhere in my patrol. At one point I had an encounter with a rare species - the Mt. Lyell salamander, on top of the unnamed peak immediately east of Sawtooth peak. It was only a few feet from the summit, alive, and nowhere near any apparent body of water.

Rodents: I saw mice on occasion, ground squirrels, chipmunks, and chickarees are all ubiquitous. I had only one mouse enter the yurt all summer, in spite of both the stove and some food remaining in the yurt much of the time I was there. This one I caught in a self-improvised live trap, and released a few miles away. Later, when plague became a concern, I found a dead chipmunk around the lake from the yurt. I went back for gloves and a respirator, but by the time I returned it was gone. I also saw Water Voles at Spring Lake, which were very interesting.

Birds: Various thrushes including the Hermit Thrush. A few Bald Eagle sightings around Little 5. Hawks are an occasional pleasure. Warblers, and flycatchers later in the season.

Mosquitos: I have heard they are horrible, and there have been times so far when they were. That said, I believe it is not a bad mosquito year. They are worst in the morning, and particularly bad right where the pit toilet is. To this point, I have not seen anywhere in the park or the entire sierra with as bad of mosquitos as there are on the little finger grove of trees just south of the yurt, where the toilet is. I bought a mosquito net with my own money because of this problem to be used at the toilet, and I left it for the next ranger out of the kindness of my heart.

c. Vegetation: I am completely new to meadow monitoring, but it appears the opening dates in Lost Canyon were appropriate, given the brief training I did with Tom. Plants elsewhere continued to thrive (apparently), and signs of drought effects were not evident to my untrained eye. I did on occasion get questions from the public about the effects of the drought or fire upon various tree species, which I was slightly embarrassed not to know the answer to. When doing the trainings at the start of next season, one thing to spend a little time on would be identifying tree and plant species, and talking about the effects of human impacts on charismatic flora and fauna.

d. Cultural Resources: Apparently the Big Arroyo patrol cabin is a cultural resource, yet it is not immediately clear how, and to what extent. Currently it is a dilapidated old shack with a big government lock on it, and nothing much to look at inside or out. The cabin shows no signs of vandalism or breaking and entering, nor are there any interpretive signs or otherwise to describe the cabin's significance or history – nor has this ranger learned anything to that effect. I was asked on many occasions about this cabin by the public, and had few answers. I would be interested in learning more for next season.

E. Backcountry Facilities:

a. Ranger Station: The yurt seems to be in excellent shape withstanding wind, precipitation, heat, and cold all admirably. The 'skirt' of wood that surrounds the base is rather dilapidated, and should be replaced next season. The dome has a crack in it, but is watertight. One of the storage containers did not make a watertight seal, and there was a lot of moldy/mildewy equipment. I am not using the vast majority of it. A major trash removal, inventorying, and cleanup of supplies and resources is certainly in order. There was a variety of stuff I wanted to have flown out and trashed, but was not sure if I should be the one to make that call. I removed the worst of the equipment this season, but even more could be removed in the future. The propane stove seems to leak if the gas is not turned off at the source. The solar system is cranking and all's well there. The tables all have rickety legs and one season each one will fail. The toilet was eventually located, and has no apparent trail to it. The platform for the toilet is very warped and dilapidated, and I was actually pretty surprised that it made it through the season. I'd like to pause for emphasis here: if that toilet platform is not dealt with someone, someday, will fall into a pit of feces. This is not the first year a ranger has recommended replacing the foundation – I think it would be prudent to make it the last.

b. Signs: I have not noticed any signs in my patrol that require replacing. The sign at the creek crossing beneath Monarch Lake (where you can take a shortcut up and left) has "Hell's Trail" scratched into it – that may warrant replacement, but so far it does its job of dissuading would-be curious hikers from taking a backcountry route on accident.

F. Trails:

a. Trail crew activities: These guys were wonderful, and a great resource out there. They helped out with SAR at the drop of a hat, and were often bending over backwards to get me a much-needed resupply. I think it is wonderful how much interdivisional work occurs in this park, and I hope that continues in the future. I volunteered to help them out for a day as trail guard, but that was nixed by the Burt Rodgers SAR.

b. Problem areas: So far the only problem areas I have seen are the slope from Monarch Lakes up to Sawtooth peak. The trail up the switchbacks from Lost Canyon to Columbine lake is very very nice until about half a mile from the pass, where it seems trail crew work has stopped. That would be a nice place to continue such excellent work, but it is not a problem area as such.

G. Camp Areas:

a. Area overview: The most popular camping areas this season were the Big Arroyo Jct, Lower Big 5, the Lost Canyon Jct., Columbine Lake, Pinto Lake, Cliff Creek, Monarch Lake, and

Little 5. In general, it seems that people prefer to congregate anywhere there are bear boxes – even though most have their storage containers as well. Secondly, people prefer areas where fires are legal. One note of importance: the closer to the front country, the harder hit a campsite is; as well as being further from my station. This means trailhead rangers are tasked with the difficult and frustrating job of cleaning up Monarch Lake, Cliff Creek, and Pinto – which are probably the most abused campsites in my patrol. Here, especially, there ought to be privvies.

b. Conditions: By and large, the campsites seem well-trodden but not distasteful. That said, I believe they could receive a major overhaul. As of now, I understand that they are being dealt with as if they were wilderness areas, i.e., minimal established structures, signage, etc. In general, I am in support of such hands-off management. In this case however, I think the policy is more detrimental than beneficial to the wilderness experience. The campsites I have noted above are heavily, heavily, used and impacted. They are regularly abused, and I believe their current state lends them to that abuse. Because none of them sport privvies (excepting Monarch) all of them sport a large variety of poorly buried toilet paper and feces throughout the season (every few weeks, I tried to clean it all up – there was always more). Because there is no signage indicating legal established fire rings, new ones spring up overnight – often in the same places I destroyed them already as effectively as I thought possible. Because there are no numbered campsites, people are regularly impacting sensitive areas by camping on them. I would recommend privvies, signage for legal fire rings (make them illegal everywhere else), and signage for appropriate camp areas. *Outside of these campsites, it is still wilderness, and people can camp anywhere if the established campsites are full.* But within, to prevent the entire campsite from becoming impacted, I think the policy I recommend would be more effective than a vague sign that says “restoration area”. Many times I was asked, “where does the restoration area end?” To this question there is, as of yet, no clear answer. If nothing is done to create that answer, those areas will become the norm.

Comment [Fox5]: In fact they are wilderness areas.

Comment [Fox6]: Wilderness boundaries are set forth in law, not by our desire.

Comment [Fox7]: That sign should not exist in wilderness.

c. Rehab/Restoration: I have done my best to eradicate illegal fire rings, but Cody may have beaten me to a good portion of them. He rebuilt and rehabbed a ton of them, especially doing an excellent job at Big 5. I regularly made laps of the campgrounds to remove toilet paper, and it always reappeared in a few weeks.

d. Sanitation: On occasion I’ve noticed errant toilet paper, but most people seem to be following proper LNT principles to the best of their abilities.

e. Fire Rings: To reiterate, I think the parkwide fire restriction policy is overly complicated, and ineffective. I think fires should be legal in established fire pits, which are noted with official signage; and illegal everywhere else. Then, the visitor has almost nothing to remember, and the ranger has very little to explain. Additionally, it puts an end to the common excuse “the pit was here when I got here, so I thought it was ok to use”. Throughout the season there was a lot of back and forth about what the fire level actually was. MK trailhead rangers told everyone it was 10,400 with various restrictions, LP trailhead rangers were saying it was 9,000. While both are true because they are in different drainages with different restrictions (which I came eventually to understand), the LP rangers did not seem to be aware or familiar with this distinction, claiming to me simply that the other trailhead rangers were wrong (and even insinuating that I was, as well).

Even at the end of the season, when fire crew was out at Big 5 and asking about the fire restriction level on the radio, dispatch told them it was 9,000. Rob and I had to chime in and make the correction. It seemed unnecessarily difficult just to get the whole park on board and aware of the different restrictions in different areas; I can only imagine how much more challenging it would be, given that, to get the public on board and aware. By saying fires are only legal at established fire rings, it would be easy to get everybody on board with the same policy

Comment [Fox8]: The regulations are clear. The misunderstanding of a few employees is problematic, no matter how clear the regulations.

f. Firewood availability: Firewood is less than plentiful surrounding more popular camping areas where fires are legal, but remains abundant within a 50 yard radius. While this is all well and good for now, in the future social trails will undoubtedly develop, leading eventually to many new unauthorized campsites and fire rings.

Comment [Fox9]: Understandably it would be easier to regulate if there were set fire rings, but that would violate the Wilderness Act, sanctioning installations in wilderness, and effectively trammeling camping to specific areas. This has been a debate for decades. There is no right answer.

g. Food storage lockers: All are in good working condition and relatively clean. The one at Cliff Creek is a bit difficult to open.

Comment [Fox10]: This makes my point above that having set fire rings is a bad idea.

H. Permit System

a. Trailheads: The trailhead rangers did an excellent job this season, and maintain solid communications with me when necessary. They are ardent workers on and off patrol, and always a boon to receive in the backcountry. I would like to make specific notes on Cody Cavill and Alicia Metz's performance. I thought both did their jobs exceedingly well, specifically in regards to their work in the backcountry (which is where I saw them most). I think each would make an excellent backcountry ranger if and when the opportunity arises, and would definitely recommend either as my replacement above anyone else, if that should come to pass. In 2012 Chris Gooch suggested a training session early in the season in which trailhead rangers and BC rangers could all do a patrol together to get on the same page about campsite and fire ring rehab as well as patrol objectives in order to get everyone on the same page. I will echo this emphatically.

b. Issuing Office: As far as I can tell everyone in the backcountry is getting a permit; most in my neck of the wood are getting them from MK; and the MK issuing office staff is doing an excellent job of educating the public and disseminating important information.

I. Communications:

I had been having some (b) (5), (b) (7)(E) with the radio in the first half of the season, but after talking with my supervisor (b) (5), (b) (7)(E) some of these issues were cleared up. That said, radio comms continued to be (b) (5), (b) (7)(E) to me throughout the season. Any time I had another employee out to the yurt, we would both keep our radios on and see what we heard. Both transmissions and receptions seem to (b) (5), (b) (7)(E) around there, and many other areas in my patrol, including but not limited to: (b) (5), (b) (7)(E). I will also note that in the MKRS the speaker system is sort of counterproductive. It is very quiet in the backroom, and very loud in the front room. In theory, I understand that this is because in the

front people will be talking and there will be more latent noise, so it needs to be louder than in the back. But in practice, you can't hear it in the back at all unless it is oppressively loud in the front; and it usually seems the people in front are engaged in visitor contacts and less able to answer the radio than people in the back. So that setup could be improved.

Comment [Fox11]: It was not engineered that way. It is a byproduct of making do

J. Needs for Next Year: (much of this will be covered in recommendations, but I'll try not to be too reiterative.)

- a. Better training.
- b. New yurt skirt.
- c. New platform for toilet.
- d. Better patrol gear (lighter down bags, better backpacks, better organization and inventory of gear, lighter/modern/nonexpired medical supplies/kits).
- e. New propane parts (hose at least, possibly a whole new setup).
- f. Propane (one small tank out there currently ¼ full at most).
- g. Duct tape, contractor trash bags, meds that aren't expired, new lightweight BP cuff would be nice, new handle for the double bit axe, more firewood (5-6 rounds available, but I wasn't sure if they should be used for that purpose or another one). New thermometer – the one that was sent out in the new medkit was broken and spilled mercury on my gloved hands right before I put it into the mouth of a medical patient.

Comment [Fox12]: Meds?

K. Recommendations:

- h. More *Intradivisional* trainings and less *interdivisional* ones.
- i. Beginning of season training where all BC rangers and TH rangers go on a "practice patrol" together to do on the job training for the position, covering the major roles and expectations of a patrol.
- j. "Fire Pit" signs at established fire pits that we want people to use, and outlaw fires everywhere else.
- k. Privvies at every popular backcountry campsite – but especially at Cliff Creek, Pinto, Big 5, Big Arroyo, Columbine.
- l. Replace the 'skirt' of wood that surrounds the base of the yurt.
- m. Replace toilet foundation at ranger station.
- n. New radios

Comment [Fox13]: This was part of the combined training this year.

Comment [Fox14]: Signs and privies are not authorized by the Wilderness Act without an MRA showing them to be the minimum tool.

Comment [Fox15]: A work request went in for the (b) (7)(E) repeater link. (b) (7)(E)

L. Pertinent Inventory: My inventory that I made while breaking down the yurt is three pages long, and I believe it is all pertinent... Here it is...

Little 5 Inventory

Ranger Station

Yurt

Bear boxes (4)

In ground trashcan for refrigeration

Toilet (on hill southeast of yurt at edge of trees across meadow, about 50 yards) + Bug net for toilet

Porch

Dishwashing table

Sump

Spring for water (northwest of yurt, towards lake about 50 yards)

solar panels

Yurt

Desk

Cook Table

Stove

Wood Stove + Wood for ½ season + rounds which could be split if no other use needed.

Shelves

Cot + mattress

First Aid kit (station bag) + O2 (2 ½-full tanks) + regulator

radio battery charger

charger with normal AC outlets

Electric light

Bear wire (* *Recommend decommission, no bears.*)

10 gallon water cooler

3 director seat style chairs

1 adirondack chair (outside of yurt)

YURT SKIRT (THIN PLIABLE WOOD AROUND PERIMETER OF YURT TO KEEP OUT RODENTS) NEEDS REPLACED

Cooking

Stove

Propane tank (small, ½ full) + hose + regulator. (* *Leak somewhere between tank and burner. Could not locate. Recommend new hoses and fittings, possibly the stove also.*)

Pots, pans, cups, bowls, plates, silver ware, knives, can opener, cheese grater etc plentiful.

teapot

2 cast iron skillets

1 bottle of dish soap.

2 old sponges (* *recommend pack in new ones*).

Hot pad, cutting board, dish rag, dish washing tubs.

Little metal oven for baking.

Baking sheets, pyrex pan, muffin pan, etc.

Backpacking fuel cans (isobutane canisters) (4, bring more)

wax paper

Maintenance / Construction / Tools / Cleaning

Big and small ladders

battery powered drills

Nails, screws, nuts, bolts, etc in abundance.

Screwdrivers, drill bit set, various other tools.

Axe, hatchet, pulaskis, shovels, trowels, etc. (* *Double bit axe needs new handle soon*)

Yurt construction instructions.

Cleaning supplies: bleach, dish soap, Dr. Bronners body soap, shampoo, conditioner, Laundry soap (almost empty) etc.

P. Cord/clothing line in abundance.

Staples / stapler.

Caulk gun, plenty of caulk.

Broom / dust pan

Reading

Secor Peaks Passes and Trails (outdated); bird, flower, amphibian, mammal, tree and other identifying books (John Muir Laws); Medicine for Mountaineering; various other light reading (Muir, Abbey, Farquhar, etc)

Work Stuff: SEKI EMS protocols, meadow monitoring literature, technical rigging, etc.

Maps: almost endless supply of 7.5 minute maps. Old outdated Nat Geo map with a few inaccurate mileage readings. The park should really give you a new one – don't let them make you pay for it, it's essential equipment for your job.

Comment [Fox16]: The quads are essential. The plastic maps are not, and I'm sure we can afford them.

Food

canned foods (beans, tuna, fruit, beets, etc)

pasta (no sauce)

spices (good variety)

flour (2 bags)

granola (2 bags)

some backpacker meals (dessert and breakfast mostly)

couple chocolate bars

maple syrup

baking soda

sugar

hot sauce

little bit of coconut oil, *no other cooking oil*

NO COFFEE, NO OATMEAL, NO PASTA SAUCE, NO RAMEN NOODLES, FEW BACKPACKER MEALS, LITTLE TEA, NO HOT COCOA, FEW GRANOLA BARS,

Miscellaneous

random fishing tackle

batteries (AAA and AA)

AA battery charger

pens and pencils

candles

clothespins+ clothesline

fire extinguisher

hangers

yoga mat

binoculars
scissors
corkscrew
various types of tape (* *No Duct*)
towels
Tarp
Great view
Pink memo books
Steno pad
Toilet paper
paper towels
tampons / pads (a couple)
1 rescue rope (* *11 mm very old recommend replacing*)
ziplock bags (* *Recommend bring variety of sizes to supplement*)

NEED

duct tape
contractor trash bags
meds that aren't expired
lightweight BP cuff would be nice
new propane hoses / fittings / possibly the whole stove... serious leak that I cannot find.
New handle for the double bit axe

Do Not Need

Paper towels
toilet paper
fiber tape
old newspapers for kindling
p cord

McClure Meadow 2015

Dario Malengo

GENERAL

I started my backcountry season with a trip up Taboose Pass to Bench Lake with (b) and (b) to set up the Bench Lake ranger station. Then after EMT training on June 11

I hiked from North Lake over Lamark Col to McClure Meadow, arriving on June 12.

First priority was to clean and set up the ranger station for the coming season. The mice had taken over but in a short while the station was in good order.

Within one week I was seeing as many as fifty people a day. A trend that increased, in a short time to contacting over one hundred people a day. As in past seasons at McClure the visitors seem to mostly be able to take care of themselves, finding suitable camps nearby and having a good idea of where to go next. Many find the ranger station. There is always a steady stream of visitors who want to meet the ranger, check out the cabin or have a question. As in past seasons, I really enjoy meeting the visitors. It is a pleasant way to pass the time for them and me also.

This season things started to get busy very fast. The first serious incident was a H.A.P.E. case that came to my door on June 22nd at 1915 Hrs. This woman and her husband were doing the North Lake to South Lake loop. Camping at Wanda Lake the night before where fluids built up in her lungs. On first report I requested the availability of the helicopter at 1915 Hrs. We needed to get her out that night but with delays in communications etc., it was not possible. I fed her fifteen minutes of oxygen at 2 liters a minute every hour through the night and fortunately she made it through the night. She was flown out at 0700 the next morning. This was a real wake up call, that at any moment something serious can pop up. I have heard rales and crackles before but never as loud (unaided) and gurgling like this.

USE TRENDS

From the last week of June on visitation was quite heavy; always a constant stream, with most John Muir Trail hikers trying to make it to Evolution Lake so they can make it over Muir Pass the next day.

John Muir Trail hikers from north to south is the most common trip. Next most common are hikers doing the North Lane to South Lake loop over Piute and Bishop Pass and third most common are hikers from Florence Lake to Evolution Lake. There are also hikers going up Goddard Canyon to Martha Lake and Davis Lake and into the Ionian Basin.

Lamark Col from North Lake to Darwin Canyon is the most commonly used cross country route into the area. As reported to (b) there are many people doing this route that should not. It is quite rugged, steep and has many large boulder fields to cross in getting through Darwin Canyon. There were three medical evacuations from Darwin Canyon this summer: two ankle injuries(fractures)and one amputated finger. I was only on scene for one of these; the other two were called in from spot devices. Dave Gordon when he was the ranger here in 2012 reported four fractured ankles from Darwin Canyon that season. That probably makes it the most accident prone area in the park except for Mount Whitney.

I do the Lamark Col route quite frequently to take my lieu days on the east side. I always meet several hikers whenever I do this. As of the last two seasons I have established a route with cairns marking the best route down to the lakes from Lamark Col. The perpetual snow field on the north side of the Col is no longer, due to global warming.

CAMPS AND CAMPSITES

Entering the park on the north end at the Piute entrance many campsites are available. These sites are heavily used every night. Other campsites are available going up the San Joaquin River. Evolution and McClure Meadows offer many good choices for campsites. Evolution Lake, five miles south of McClure is heavily used by campers every night. Beyond Evolution Lake there are small isolated campsites going on up to Muir Pass. There are only a few campsites available at Wanda Lake, two miles before Muir Pass. Finding a site here is often difficult due to the large number of campers in this high rocky area.

Some people camp on Muir Pass and in the Muir Hut itself, although this is discouraged. I've had many reports of people taking shelter in the hut during rain and electrical storms. The hut leaks rain and is some protection from the cold but as a safe place in electrical storms is uncertain.

Darwin Basin is a large area with many good campsites. Many people take a day off from the John Muir Trail to camp there. There is an unmaintained use trail from the Muir Trail to get there.

MEDICALS

There were five medical evacuations in the patrol area.

- 2 fractured ankles in Darwin Canyon

- 1 amputated finger in Darwin Canyon

- 1ACL injury at McClure Meadows

- 1H.A.P.E. case at McClure Meadows.

There were several medical assist in the area.

One treat and release for a hand laceration.

Several instances of giving medical advice-

I've always found it to be a good practice to ask groups how everyone is feeling, as a way to screen any potential problems, especially AMS.

WILDERNESS VIOLATIONS

Fortunately most campers go along with the park rules and regulations. Of course there are those who still camp on vegetation, add rocks to fire pits and camp too close to water. For these minor violations usually a verbal warning is all that is necessary to gain compliance.

No violation notices were given in the area and I did not observe any infractions that needed such.

No dogs were encountered this season, although I heard of several service dogs this season in the park.

RADIO COMMUNICATIONS

Communications are good in most areas along the John Muir Trail, (b) (7)(E)

The radio works good in Darwin Canyon. (b) (7)(E)

RANGER STATION

The ranger station is in good repair. The biggest problem is that it leaks mice; this season I trapped 56, beating last year's record of 50. Other than the mouse problem the cabin is quite comfortable.

The restoration crew did a good job trying to mouse proof the cabin but to no avail. If they returned and sealed the seams where the roof attaches, maybe it would help.

The stove pipe is not drafting as it should, the stove pipe probably needs cleaning. The ranger does not have the necessary equipment or means to do this. This should be done by maintenance, hopefully next season.

There is a hazard tree fifty feet from the ranger station. This tree should be cut as soon as possible due to the constant presence of visitors and NPS personnel. The wood from this tree should be cut bucked up for use as fire wood.

The station Homelite chain saw needs a 24 inch chain and gas and oil to operate. Perhaps it would be best to send the saw out and let maintenance cut the few rounds necessary when they do the logging run in the early summer.

2015 RUCKSACK REVOLUTION

This year the traffic on the PCT and the JMT increased dramatically. PCT use was two to three times what it has been in past seasons and the JMT at perhaps double. Overall an increase of thirty percent seems accurate. This season, for the first time at McClure Meadows, finding a campsite was difficult for some.

Many visitors were influenced by the movie "WILD", especially women. More solo women were traveling the trail than ever before. Talking with several, it seems they feel safe knowing that others are nearby. I noticed later when fire smoke lessened the numbers that some women were not as comfortable as when more people were around.

So it goes, we'll see if this is a trend or that numbers will go down after another year. There are bigger problems than women taking to the woods! Maybe they are leading a "back to the land" movement.

ROUGH FIRE

The Rough Fire caused extensive smoke throughout the park. The Upper Kings River drainage was the worst affected. For over a month and a half heavy smoke made hiking unhealthy. The McClure ranger relocated to the Mt. Whitney and Rock Creek area for two weeks during some of the heaviest smoke, where visibility was less than one half mile.

Many visitors continued their trips, while most cancelled. The one good affect was that many campsites got a rest. The rain on September 14th and 15th was a blessing, the sky has been clear since.

SEARCH AND RESCUE

There were no big searches in the McClure area this season, unlike last season when there were several.

One SAR I participated on was an incident down a Rock Creek Ranger Station where two boy scouts went down the wrong side of Mt. Langley and ended up at the Rock Creek Ranger Station.

I notified dispatch to notify Inyo Co. and Inyo National Forest, and by relays from electronic devices the group was notified that the boys were safe at Rock Creek. I hiked the boys over Old Army Pass to Cottonwood Lakes the next day to re-join their group. (b) helped by relaying to (b) that the boys were re-united with their group.

SIGNS

All signs at trail junctions and park entrances are in good condition. There is one important sign that is needed. It has been requested before, but never made. We need a sign for the ranger station on the JMT. Hikers heading south (which is most) often do not see the ranger station. 20 to 30 percent never see the ranger station. See needs list.. Sign needs to be two sided with arrows pointing the same way.

FIRE-PITS

Where fires are allowed the fire-pits are maintained and dug out frequently. I try to keep the low with only one layer of rock, that are dug in and easily maintained. Even though it is plainly spelled out on the regulation sheet to not add rocks or burn foil in the pits campers still do. Another problem is that by drowning the fire with dirt and water before it has burned down causes extensive charcoal and ash build-up, causing the fire-pit to overflow. Maybe we should tell people to let their fires burn down to ashes, sit close and enjoy the last embers before extinguishing. That way the fire-pit will last longer before having to be dug out and not turn into an ugly mess.

MEADOWS, STOCK USE AND DRIFT FENCES

Stock use was fairly light in the McClure patrol area. McClure Meadows was the only meadow to reach capacity with 45-50 nights grazing, mostly by High Sierra Pack Station and Rock Creek Pack Station coming in late season with one trip and fifteen head.

There was no grazing at Colby Meadow this summer and only four nights grazing at Pocket Meadows above Colby. Evolution Meadow received light stock use with thirty four stock nights reported. Cony Camp received twelve nights grazing by H.S.P.S.

The Evolution Meadow drift fence needs repairs. The old post at the gate needs to be replaced and a new gate is needed. With this year's increase in the number of backpackers the old gates being opened and closed so much caused many problems: removing the wrong side of gate, not closing correctly and the post falling over due to rot. The old post needs replacing and new gates are needed.

TRAILS

The JMT from Evolution Meadow to Colby Meadow needs extensive trail work. This section has been neglected for too long and needs a lot of good general trail work; rocks removed, retainer bars, drains and fill work. Also many small trees are growing into the trail making it difficult for pack stock. I repaired one fifty foot section with six retainer bars. Many more areas need the same.

BIG BUSINESS AND EXCESSIVE STOCK USE

Patrolling the Rock Creek and Mt. Whitney area this season for two weeks showed me what a big impact commercial stock use is having, not just in this area but in other areas also.

The stock camps at Rock Creek have never been so impacted and the trails never looked so worn and beaten as they do now. The reason for this is the large amount of commercial use that is being booked through REI, Sierra Mountain Center, Sierra Mountain Guides, Rock Creek Pack Station and Cottonwood Pack Station. Offering all expense trips to a worldwide market is more than these parks are able to withstand to retain the natural environment that they were protected for in the first place. These parks were made to be protected from big business. This needs to be looked into by management. Backpackers work hard to get to these pristine areas and to allow groups with more money to pay for an easier way is not fair.

BEARS

There were no bear incidences in this area nor were any bears seen. It seems that in many areas of the park backcountry that bear incidences have gone down and almost don't exist. The canister requirement is a big reason for this and also having bear boxes throughout the park. To not allow backpackers to use these in many areas does not make sense now that bear incidences have been brought under control.

These parks are mandated to protect the environment and to allow for the enjoyment of these parks by people. For some people adding the extra two to three pounds of a canister to their packs makes the difference for not being able to do a trip at all. Beings we have so many boxes throughout the park why not try to see if we could make the canister optional in areas where there are boxes: Rae Lakes Loop, Kearsarge Lakes, Rock Creek, Crabtree, Wallace Creek and Tyndall Creek. It could be made optional, if you don't use a canister you must use a bear box.

There are about ninety bear boxes in the parks. If we added a box above Woods Crossing and one at Wheelbarrow Camp on Bubbs Creek it would cover all the bases and this proposal would work. In areas where canisters are not required campers could have the option of a canister or a counter-balance hang. Having all these boxes out there and not being able to use them is counter-intuitive. Locking the boxes at Kearsarge Lakes makes no sense. The reason given for this was that people leave garbage and caches. The only reason that was a problem was because of inadequate signage and not regular enough ranger patrols to remove any caches or garbage.

NEEDS

SIGN FOR RANGER STATION

2 PROPANE TANKS

HAZARD TREE CUT

#2 NEW CHAIRS 1 director's ok and 1 wood

STATISTICS

2526 VISITORS CONTACTED

710 MILES HIKED

INVENTORY

ALL KITCHEN UTENSILS NEEDED

ALL HAND TOOLS NEEDED

COLEMAN OVEN

PROPANE 9 gallons

Pear Lake End of Season Report 2015

Ranger: Elyscia Letterman



I. General Summary

This year the Pear Lake Ranger Station was staffed from June 13th to September 22nd. Due to minimal snowfall last winter, the backcountry in the Pear Lake area opened early, including the Watchtower Trail, which was snow-free by early June. Fortunately, almost weekly thunderstorms occurred during the month of July, replenishing the water source for the cabin until mid-August. Cached water was used after the creek ran dry.

The abundance of thunderstorms also meant increased lightning activity, which sparked a small spot-fire on the ridge just west of the cabin on July 18th. The fire burned through the night, but was surrounded by rock and reduced to a smolder by the following morning. Lighting activity also started the Rough Fire.

Unlike the small fire near the Pear Lake Ranger Station, at the time of this writing, the Rough Fire has burned approximately 143,560 acres in the Sierra and Sequoia National Forests, and in Sequoia and Kings Canyon National Parks. Smoke from the fire affected all areas of the park, including Pear Lake. A noticeable decline in visitor use of the Lakes Trail and Pear Lake area was observed during times when heavy smoke was present.



Rough Fire smoke plume



Smoke in the Lakes Area

This was my first season working as a Backcountry Ranger in Sequoia, so I spent my first few weeks orienting myself to the area and learning how to be most effective as a ranger. I came across an old hand-book in the station, which encouraged rangers to be “omnipresent.” While amusing the way it was written, I took this advice to heart and tried to be as visible as possible on the trail, making a point of seeking out contacts at all three lakes along the Lakes Trail, and at The Watchtower.

My main patrol areas this summer (those included in the statistics below) were the Lakes, Hump, Panther Gap, 7-Mile Hill, High Sierra, and Alta Trails, as well as popular cross-country routes to Alta Peak, Moose Lake, Tablelands, Alta Meadow, and Table Meadows. I also went on several longer patrols in the Bearpaw area (Hamilton Lake and the Middle Fork Trail).

I spent most nights at the station in order to be available to visitors. However, I also spent several patrol nights camping in areas including Mehrten Meadow, Hamilton Lake, Emerald Lake, and Dome/Topaz Lake.



Backcountry camping, Dome Lake

II. Statistics

Table 1: Patrol Statistics

	Day-hikers	Backpackers	Miles Hiked	SAR/EMS	Violations	Rock Structures	Fire Rings
May/June	135	185	109.2	0	1	18	8
July	458	324	119.9	2	5	7	7
August	352*	228	151.6	2	2	73**	9
September	263	153	81.8	0	9	31	2
Total	1208	890	462.5	4	17	129	26

Notes: Day-hikers/Backpackers: individuals were only counted once, even if contacted multiple times/days. Use was much higher than number of contacts- I only counted people as contacts if I actually spoke with them

* I contacted an additional 70 (combined) day-hikers on the Tokopah Falls Trail and in the Giant Forest, during my week in the frontcountry, which are not reflected in these stats

Violations: Written and verbal warnings issued (see the Law Enforcement Section, below)

Rock Structures: Cairns, windbreaks and other man-made structures removed

** This number looks high, but is accurate: a lot of cross-country patrol

Fire Rings: Illegal fire rings destroyed (legal rings which were cleaned were not counted)

III. Visitor Services

1. Contacts

a. Day-hikers

Many of the visitors I spoke with were day-hikers. Some day-hikers ventured as far as The Tablelands and Moose Lake, while others stopped at The Watchtower.

b. Backpackers

Both Pear and Emerald Lakes saw significant overnight use this summer. I also contacted overnight users staying at Moose Lake, Tablelands, Alta Meadow, Mehrten Meadow, Panther Gap, and along the High Sierra Trail.

c. Stock

NPS stock came to the station 3 times (MOB, servicing the comfort station solar panels at Pear and Emerald, and DEMOB). Outward Bound groups were resupplied by stock at Pear Lake twice. Stock was used to support the researchers at Emerald Lake at least once this summer. I encountered one private stock group of two riders on the Lakes Trail day-riding to Alta Meadow. Finally, I encountered two stock trains (Panther Gap Trail and 7-Mile Hill Trail) resupplying the High Sierra Camp.

d. Groups

The only organized overnight groups I encountered this summer were four Outward Bound groups. I spoke with several large day-hiking groups and heard that other groups (Boy Scouts) were in the area, but could not find them to contact.

2. Law Enforcement

I encountered a fair number of violations in the backcountry this summer. In all cases, I issued verbal or written warnings, and used education to gain compliance.



Food storage violation, Pear Lake



Toilet paper and human waste in trail, Pear Lake

Table 2: Minimum Impact Violations

Date	Location	Violation	Outcome
6/27	Pear Lake	No BC Permit, Dog in BC	IO- Left Before I Could Take Action
7/4	Pear Lake	OB Camping	SV- Relocated
7/12	Pear Lake	OB Camping	SV- Relocated
7/18	Pear Lake	No BC Permit	SV- Hiked Out
7/20	Heather Lake	Report of Dog in BC	UL
7/25	Pear Lake	Improper Food Storage	SV
8/14	Pear Lake	No BC Permit	SV- Told to get Retroactive Permit, Name Flagged in Permit System
8/22	Pear Lake	No BC Permit	SV- Retroactive Permit Issued
9/4	Watchtower	Minor Shooting Slingshot	SV
9/5	Pear Lake	Improper Food Storage	SV
9/5	Watchtower	Throwing Rocks off Edge	SV
9/5*	Watchtower	No BC Permit	SV- Told to get Retroactive Permit
9/5	Watchtower	Throwing Sticks off Edge	SV
9/5	Pear Lake	No BC Permit	SV- Retroactive Permit Issued
9/6*	Heather Lake	OB Camping	SV- Reported to LP Trailhead
9/6	Pear Lake	Improper Food Storage	SW- Placed Food in Bearbox
9/12	Pear Lake	Report of Illegal Fire Previous Night	UL/SV- Did not Find Evidence, but Warned

* Same group contacted multiple days. They did not return for a permit, and I passed their information on to Law Enforcement.

I also gave verbal warnings to visitors I observed cutting switch-backs, and for other violations such as picking wildflowers.

Although I never caught anyone in the act, the most common violation I encountered this summer was littering. I picked up excessive amounts of toilet paper and wet-wipes both along the trail and at popular use areas. Additional common items left in the

wilderness included orange peels, sunflower/pumpkin/pistachio seed shells, wrappers, glass, foil, fruit stickers, and feminine hygiene products.

I also encountered several instances of graffiti on rocks, trees, and in the restrooms, which I removed to the best of my ability.



Charcoal on rock, Heather Lake



Ink on tree, Lakes Trail

Finally, there was one day when I returned from patrol to find that someone had entered the station without my permission (evidence of entry included windows left open, and woodchips on the floor). Several weeks later, I returned to the station after a weekend in the frontcountry, and found a lock-pick on the front doorstep. To my knowledge, nothing was stolen from the station in either instance. Law Enforcement was informed of both incidents.

3. Search and Rescue

I was involved in three Search and Rescue/EMS incidents in the Pear Lake area this summer, and gave medical supplies to a camper at Bearpaw Campground. All SAR incidents were resolved the day of the report, or the following day. I was not present for the Pear Lake SAR; (b) (7) responded.

Table 3: Search and Rescue/EMS Incidents

Date	Name	Location	Description	Evacuation
7/7	Pear	Pear Lake/Alta Peak	Overdue Party	Self
7/31	Pear Lake	Pear Lake	Twisted Knee	Helicopter 552
8/7-8/8	Emerald Lake	Emerald Lake	Possible AMS	Self/NPS Assist
8/10	Mehrten Creek	Mehrten Creek	Nausea/Fatigue	Self/NPS Assist

IV. Use Patterns

The Lakes Trail is heavily used by both day-hikers and backpackers because it provides quick and direct access to the High Country. Approximately 25% of the day-hikers I contacted on the Lakes Trail had a destination of The Watchtower, half continued on to Heather Lake, and the remainder hiked to Emerald or Pear Lakes. A handful of day-hikers ventured all the way to Moose Lake or The Tablelands. The most common day-hiking destination seemed to be Heather Lake. Often, hikers would reach the lake via the Watchtower Trail, and return by way of the Hump Trail.

Pear Lake was a more popular backpacking destination than Emerald Lake, although many groups would spend a night or two at both lakes. Backpackers frequently stayed multiple nights at Pear Lake, establishing a base camp from which to day-hike to Moose Lake, The Tablelands, or Alta Peak.

As expected, weekend use by both groups was far greater than weekday use. I could easily contact 80 visitors on a Saturday, while my number of contacts on a Monday or Tuesday was usually closer to 20. My greatest number of contacts occurred on 9/6 (120 users), but there were several times during the week when I spoke with no one.



Watchtower Trail



Heather Lake

I did not patrol the Alta Trail or High Sierra Trail as frequently as the Lakes Trail, but when I did, I met both day-hikers and backpackers. Alta Peak is a favorite day hike for visitors because on a clear day, it affords a view all the way to Mt. Whitney. I often encountered overnight users with a destination of Mehrten Meadow or Panther Gap, especially when the quota for the Lakes Trail was full.

Because Moose Lake and The Tablelands are such popular cross-country destinations, I tried to patrol those areas at least every other week. Usually when I saw cross-country hikers, they were too far away to contact. I did check permits at Moose Lake, and was able to intercept

cross-country users on several occasions. Most of my time on these patrols was spent knocking down cairns and windbreaks, picking up trash, and rehabbing campsites too close to water. The cross-country routes to Moose Lake, Alta Meadow, and Alta Peak (as well as the trail on the backside of Alta) obviously see significant use, as was evident by the large number of cairns I destroyed at these locations. Fewer visitors camp at Dome/Topaz Lake, Frog Lake, and Table Meadows, but I did pick up trash, knock down cairns, and rehab campsites at these locations as well.



Visitors enjoy a double rainbow in The Tablelands, Alta Meadow, Illegal windbreak and fire ring at Moose Lake

V. Natural Resources/Wildlife

1. Research

Water and weather research continued at Emerald Lake this year, headed by Kevin Skeen, as well as a new soil-sampling project. My schedule was opposite that of Gabe De La Rosa, the main researcher at Emerald Lake this summer, but I did run into him on multiple occasions. Visitors were always very interested in the research being conducted, and I received no complaints about the weather stations at Emerald Lake, Dome/Topaz Lake, and in the Tablelands. The researchers always kept a clean

campsite, and I was happy to have them there, keeping an eye on things at Emerald (Gabe told me he even picked up trash and destroyed an illegal fire ring!).

In September, NPS researchers working with the Sierra Nevada Inventory and Monitoring Network collected and filtered water samples from Aster Lake.



Researchers, Aster Lake



Research equipment, Emerald Lake

2. Meadows

No meadows are monitored in my patrol area.

3. Wildlife

In the beginning of the season, marmots were very prevalent in the Pear Lake area. I received reports of marmots chewing on hiking poles and clothing to obtain salt. One camper had her boot stolen, by what we assume was a marmot. In mid-July, I removed a dead young marmot from the trail, between the Ranger Station and Emerald Lake.

Other wildlife was abundant in the Pear Lake area this summer as well. I saw several pikas near the station, in The Tablelands, and at Pear Lake. Coyotes were often heard in the Lakes area; I saw one on the 7-mile Hill Trail and another between the station and Table Meadows. Several visitors reported seeing coyotes at Moose Lake. I saw deer along all the trails in my patrol area. Grouse were also very visible, especially in the beginning of the season, and visitors had many different ideas about the source of the male's mating call (the most interesting theory was that the noise was caused by wind blowing through a hollow log). I spotted a Great Blue Heron at Emerald Lake, and Trailhead Rangers reported seeing an Osprey at Pear Lake. I identified many other birds as well, including Red-Tail Hawks, Western Tanagers, Mountain Chickadees, Band-Tailed Pigeons, Robins, Dark-Eyed Juncos, Clark's Nutcrackers, and a Green-Tailed Towhee. I also saw many Garter Snakes, Tree Frogs, and several species of lizard throughout the season.



Lakes Area Wildlife: Light-colored Marmot, Female Sooty Grouse, Twin fawns, Tree Frog

4. Bear Activity

Bear activity was very high along the Lakes Trail this season (especially in July and August). Lone bears, as well as a cinnamon sow and cub were often spotted within the first 2 miles of the trail. In July, I received almost daily reports of sightings of B06 and her 2 cubs between the junction of the Lakes Trail and Panther Gap Trail and the Watchtower. I found what I believe to be a bear den in the rocks above Heather Lake, and a visitor photographed a bear swimming in Heather Lake. Trailhead Rangers observed a blonde bear running behind the station in late August. A visitor reported a bear at Moose Lake in early September.



B06's cubs, Lakes Trail

VI. Cultural Resources

No significant cultural resources were noted in the Lakes area this summer. I did discover what appeared to be part of a projectile point, while on patrol at (b) (3) (B), and reported the finding, with GPS coordinates, to the park archaeologist.



Possible part of projectile point, (b) (3) (B)



Metal film canister, top of The Hump

VII. Backcountry Facilities

1. Pear Lake Ranger Station

a. General Condition

The cabin is in very good condition. There are 2 broken window panes and 1 broken window latch. Both benches inside are cracking on the ends, and should be repaired. Marmots did significant damage to the wood on the outside of the cabin, despite my repeated attempts to scare them off. The sign for the Ranger Station is being sent to the Sign Shop this winter to be sanded and repainted.



Cracking indoor bench



Marmot damage, front of station

b. Mice

Mice were not a significant issue this year. On average, I caught, 1-2/week, with a total of 31 throughout the summer. The preservation crew did a great job patching up the entry holes last year!

c. Solar Panels

The solar panels worked moderately well this summer. For the most part, I had enough electricity to run the lights and charge my radio battery and inReach. I was conservative and tried to only have one light on at a time. Even so, the indicator panel on the back wall often turned to yellow around 9 pm (especially if it was cloudy/smoky during the day). I did not hook up the second set of panels to run the ice chest, as reports from previous rangers indicated that the cooler would only work properly when the panels were in full sun, and often their food ended up spoiling.

d. Cabin Toilet

The toilet at the cabin worked very well. The fan was effective, and the smell was minimal.

e. Propane System

I didn't have any problems with the propane system. Two tanks were already hooked up when I moved in, and two more were packed in with my MOB. I only used one of the tanks, so there should be plenty of fuel for next year.

f. Oven/Stove

The stove worked well, but the oven needs some attention. It was difficult to get the pilot to light, and it seems like the fuel is having a hard time reaching the oven. I ended up not using it, and turned the propane off on the back of the stove after every use, to keep the cabin from filling with fumes.

g. Pellet Stove

The pellet stove worked fine, but I had some issues with the chimney. The flap on the chimney (1.5 ft. above the stove) doesn't fit very well, causing the cabin to fill with smoke during use, especially when it is windy outside. I attempted to readjust the flap, and it seemed to help a little, but it still needs some work.

2. Lakes Comfort Stations

I tried to clean (bleach/sweep the floor, wipe down the toilets, remove the spider webs, and refill the woodchips) the latrines at both lakes at least once a week. Neither latrine was very full (I believe they were emptied recently), so I only went below and stirred them a handful of times. Packrats were present in the center maintenance room of both latrines, and I cleaned droppings and removed nesting material from these rooms all

summer. I do not think the fans were working in either latrine, as the smell and flies were bad in both, all season. In mid-September, maintenance brought out new batteries for both latrines and assessed what is needed to replace the solar panel for the Emerald latrine, which is currently broken and on the ground.



Broken solar panel, Emerald Lake comfort station

VIII. Trails

The trails in my patrol area all in relatively good condition:

1. Lakes Trail

Frontcountry Trail Crew worked this season to remove rocks and other tripping hazards from the first few miles of the Lakes Trail. This section of the trail can get very dusty and is steep in places (possibly add some check-steps?). The Watchtower portion of the Lakes Trail is in very good condition. Some side-hill work needs to be done where the bank is eroding, approximately $\frac{1}{4}$ mile from The Watchtower. In addition, the trail needs to be better defined at The Watchtower, as it is confusing, and hikers often unintentionally cut down to the lower switch-back. There are two rocks in the trail which I cannot move. The first is a large boulder between Heather and Emerald Lakes, which needs to be blasted. The second rock is between Emerald Lake and the junction of the Lakes Trail with the cut-off to the Ranger Station. This rock can be moved by two people with rock bars. Both rocks are passable by stock. There are several locations between Heather Lake, and the cut-off to the Ranger Station, including the Heather Lake

outlet, where there are low spots in the trail that fill with water when it rains. Hikers tend to walk on the edge of the trail in these areas, widening the trail and trampling vegetation. I recommend turnpike/step-overs for these problem areas. Finally, I recommend adding a water bar, and rerouting an approximate 130 ft. section of the trail, which goes by Emerald Lake (see Appendix A).



Low spots in trail, Emerald Lake

2. Hump Trail

As its name suggests, the Hump Trail is steep. I think this trail often receives less attention, as most people who are familiar with the Hump and Watchtower Trails, choose to hike the Watchtower (better views, less steep). However, I have contacted many users who like to make a loop out of their trip, choosing to take the Hump one direction, and the Watchtower the other. In addition, the Hump Trail is the only way to access the lakes in the spring and fall, when snow conditions make the Watchtower too hazardous. Because of this, I feel that focus needs to be placed on adding trail structures (namely steps and water bars) along the Hump Trail, to make it more hiker-friendly. In addition, it is easy to lose the trail at the top of the Hump, so this section of the trail needs to be better defined.

3. Alta Trail

The Alta Trail is in good condition. There are some confusing portions near the top of the peak, where the trail could be better defined. The section of the trail after the last junction, leading up to the peak, needs to be brushed.



View of Emerald, Aster, and Pear Lakes from Alta Peak

4. Panther Gap Trail

The Panther Gap Trail is in good condition. In the beginning of the season, Trail Crew completed a very nice bridge in a marshy area just after the junction with the Lakes Trail. My only recommendation for this trail is to add a few steps in the steep section approximately ¼ mile from the junction with the Alta Trail (it seems like stock use on this section is creating a dusty rut).

I performed some minor trail work in my patrol area this summer, including cleaning 62 water bars between the top of the Hump Trail and Pear Lake, brushing the Hump Trail and the section of the Lakes Trail between The Watchtower and the Ranger Station, and rehabbing many social trails/switchback cuts. I also added rock/stick barriers in several locations along the Lakes and Hump Trails, where the trails make sharp corners, and hikers often get confused and continue straight, losing the trail.



Before and after rehab of confusing switchback corner, Watchtower Trail

IX. Camp Areas

1. Overview

Visitors are required to camp in designated sites only, at Pear (10 sites) and Emerald (8 sites) Lakes. No camping is permitted at Heather or Aster Lakes. Camping along the Alta Trail commences at Panther Gap, where there is a nice fire ring/campsite, but little water. Several established campsites and fire rings exist at Mehrten Meadow; these were in good condition the last time I patrolled this area in August. Camping, but no fires, is allowed at Alta Meadow. Dispersed camping is permitted in the backcountry beyond Pear Lake.

2. Condition of Campsites

The condition/location of the campsites at Pear and Emerald Lakes range from good to poor. Please find a complete listing of the sites in Appendix B.

3. Fire Rings

Fires are not allowed in the majority of my patrol area. After myself and Trailhead Rangers destroyed illegal rings at Heather, Emerald, and Pear Lakes, left over from the fall/spring, I didn't have a large problem with fire rings in the Lakes Area. There was one location hidden from the trail behind a large rock at Emerald Lake, where I destroyed 3 fire rings throughout the season. I also destroyed illegal fire rings on the

Hump, Watchtower, Alta, Alta Peak, and Middle Fork Trails, and at Hamilton Lake. The legal fire rings at Mehrten Meadow were used, and frequently increased in size, by campers, and I found that they needed to be cleaned/rehabbed about once a month.



Before and after, reduction of oversized fire ring, Mehrten Meadow

4. Food Storage

Food storage lockers are located at both Pear and Emerald Lakes. The old clip-style lockers are not mouse-proof, and several campers had their food gnawed into. No food storage boxes exist at any other location in my patrol area, and approved bear canisters or counter balancing are required in those locations. I did not encounter anyone trying to counter-balance, and backpackers camping in The Tablelands without a proper canister were instructed to leave all odorous items in one of the boxes at Pear Lake.

X. Projects

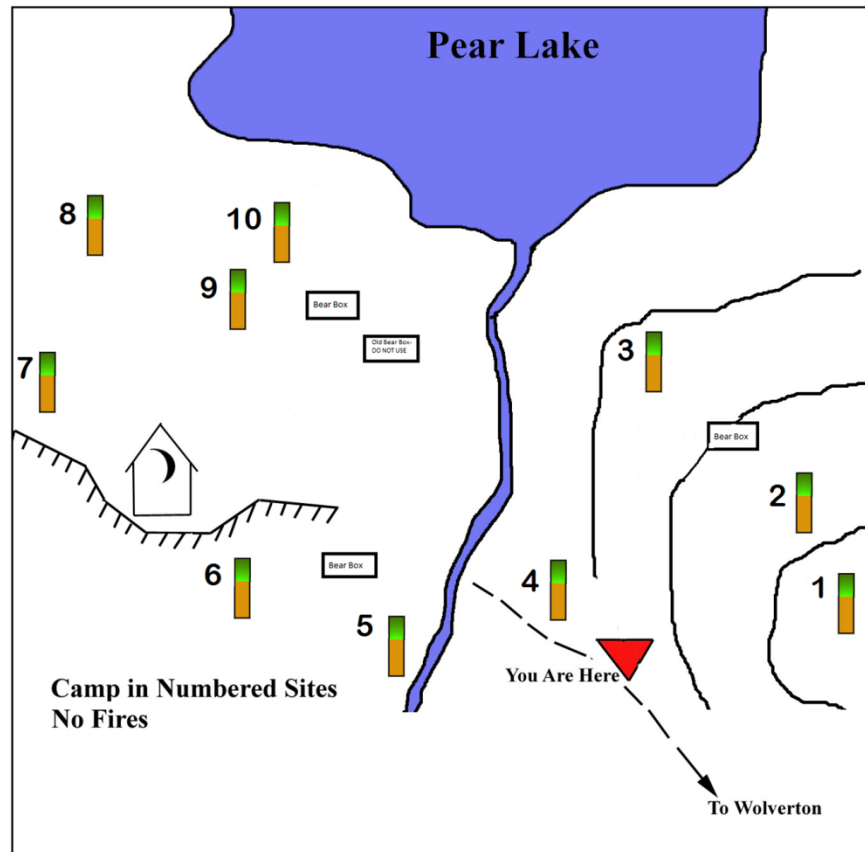
1. New Signs

My first project of the season was to make new laminated signs for the birdhouse signboards at Heather, Emerald, and Pear Lakes. The old signs were tattered, faded, and in my opinion, too verbose/redundant. I condensed the pertinent information into an easy-to-read format, and added pictures for visitors who do not speak English. I also condensed the fishing regulations to a single page, and posted a copy on the back of the restroom doors at Emerald and Pear Lakes. Please find a copy of these signs in the Appendix.

2. Pear Lake Campsite Re-numbering

Upon initial assessment of the campsites at Pear Lake, I noticed that although the lake only has 10 campsites, the site numbers went up to 12 (several numbers were missing). In addition, the numbers seemed to be out of sequence geographically, making it difficult for campers to locate sites. With the help of an Outward Bound group, I collected all the campsite signs, and redistributed them in order, with no numbers missing. The sites

are now numbered 1-10, with campsite 1 being the first site on the ridge above the lake. No sites were relocated during this process.



3. Route to Pear Lake Sites 2 & 3

In the beginning of the season, I noticed that people had a difficult time locating sites 1-3 up on the ridge above Pear Lake. There was no trail to these sites, and the campsite numbers were not visible from the main trail. In at least one instance, this led to OB camping because the group could not locate an unoccupied site. To mitigate this, I chose a route on durable surfaces leading from the birdhouse signboard at Pear Lake to sites 2 and 3, and lined it with stones. From site 2, it is easy to see the campsite post for site 1. Since outlining this route in early July, I have had no campers tell me that they cannot find the sites, and these sites are being used more regularly.

4. Trail to Emerald Lake Site 10

Although I feel that site 10 at Emerald Lake is the nicest of the Emerald sites, I noticed that it was seldom used, and there was evidence that people often camped at a flat spot right next to a pond near site 10, rather than in the actual site (most likely because they couldn't find the actual site). To remedy this, I rehabbed the false location next to the

pond, and the social trail leading to it, and better defined/cut away branches from the trail to the actual site.



Before and after, rehabbed illegal campsite, Emerald Lake

5. EMS Supplies Inventory

I went through the BLS kit at the cabin to ensure all necessary supplies were present, and brought up additional supplies from Lodgepole. I also pressure-tested all three oxygen tanks.

XI. Permit System and Trailhead

All Wilderness and Trailhead Rangers were new in the Lodgepole District this year, so it took a while for us to learn the system. The Trailhead Lead has worked in Sequoia in other capacities for many years, and has a good knowledge of the park. He was able to share some of this knowledge with me, and I felt that we had good communication, and worked well together.

While I was in the backcountry, communication with the Trailhead Desk was often difficult, as radio coverage in the Lakes area is poor, the Visitor Center can be noisy, and the Trailhead Rangers often did not have a radio capable of transmitting on General Use. However, I was usually able to reach someone after multiple attempts on different channels.

I often noticed errors (incorrect entry/exit date, omitted information, misspellings) on the permits I checked which were issued by the GS4 seasonals (especially in the beginning of the season), making them appear sloppy. I also observed a large number of groups obtaining permits for cross-country routes they were unprepared for. I felt that the latter problem became less of an issue later in the season, as Trailhead Rangers started stressing to backpackers the difficulty of their proposed routes. Permit errors continued to be a problem throughout the season. Please see the Recommendations Section for ideas on how this can be corrected.

There were several busy weekends when it seemed like the lakes were overbooked, and we exceeded our quota. I believe this was caused by a combination of factors including human error, visitors deciding to change their itinerary halfway through their trip, and other offices issuing permits for the Lakes Area. Please see the Recommendations Section for ways I feel we can avoid this in the future.

The Trailhead Lead was very proactive about giving me notice when there was going to be a large number of campers at the lakes, or if there were any groups he was worried about or had given particular instructions to. Something all the Trailhead Rangers did, which I found particularly helpful, was that they told campers that they would be seeing me in the area. I believe this helped minimize violations this summer.

XII. Radio Communications

(b) (7)(E) is the most reliable channel in the Pear Lake area, but is often scratchy. It is usually possible to hear (b) (7)(E), but is difficult to transmit on, unless you are in the Tablelands, Alta Trail, or at Emerald Lake. (b) (7)(E) is often the clearest channel, and is the best way to communicate with Lodgepole. All channels come in (b) (7)(E)

XIII. Recommendations

1. Emerald Lake Campsite and Trail Relocation

I feel that some of the campsites, and part of the trail near Emerald Lake need to be relocated. Please see Appendix A for greater detail. Additionally, the sites at Emerald Lake need to be renumbered (as was done at Pear Lake), so that site numbers are consecutive geographically.

2. Pear Lake Campsite Relocation

Pear Lake campsites 4 and 6 are located in poor areas (see Appendix B for more detail). There are not many good places to put sites at Pear Lake, but I propose that one of these campsites be relocated to the flat area between sites 2 and 3.

3. Food Storage Lockers

Some of the food storage lockers at Pear Lake are not mouse-proof. These lockers should be removed, or signs should be made cautioning campers. There was one day when one of the lockers at Emerald Lake disappeared. After much searching, I found that campers had relocated it to their site. To avoid this in the future, I feel we should anchor/chain the lockers in place.

4. Trail Structures on the Hump Trail

Please see Trails Section for more details.

5. Quota System

There were several times during the season (particularly on weekends), when I felt that there were too many people camping at Pear and Emerald Lakes. The quota system allows 25 backpackers to enter the backcountry via the Lakes Trail per day. However, people often spend multiple days between Pear and Emerald Lakes, so the number of campers at these locations can quickly increase.

Instead of a quota system for the trail (I can easily talk with 80 or more day-hikers a day, so why should the size of the pack matter if nearly everyone has the same destination), I propose a quota for the number of people allowed to camp at each lake. We currently allow 6 campers per campsite. This means that there could potentially be 60 people camping at Pear Lake, and 48 at Emerald Lake. Many of the campsites are too small to effectively accommodate this number, and multiple visitors have complained about the large number of campers negatively impacting their wilderness experience in the Lakes Area. I propose we reduce the number of people we allow to camp at each lake, to somewhere around 40 for Pear Lake, and 30 for Emerald Lake.

6. Errors on Backcountry Permits

Errors can happen for any number of reasons, but I think we can take steps to significantly reduce their occurrence. During the day that I shadowed the Trailhead Lead at the desk, it was immediately apparent how cumbersome, slow, and non-user-friendly the permit system is. When multiple groups are waiting at the desk to obtain a Wilderness Permit, the slow speed of the permit system is very frustrating. I believe that a faster, more easy to use computer system, would greatly reduce the number of errors on permits. Another tool we could use to minimize error is rather than having campers dictate their information to the ranger issuing the permit, we could have a paper form on which the camper fills out the same information, which the ranger could then look at and transfer to the computer. This would also reduce the time it takes to issue permits, as campers waiting in line could already be filling out their information while the ranger is helping other visitors.

7. Signboards at Trailheads

I feel it would be useful to have small birdhouse sign boards at the trailhead for the Lakes Trail, High Sierra Trail, and Twin Lakes Trail. There were several times this season when it was necessary to post special temporary information for the public (plague, closures, etc.), but there was no good place to do it. The proposed sign boards would provide this location.

8. Communication

There were at least two times this season when I did not find out that other NPS personnel (researchers) were working in my patrol area, until I heard them call in to, or out of service. For safety reasons and interdivision networking/education, it would be useful to have advance warning when other units are operating nearby.

I also did not receive advance notice when Outward Bound groups were going to be in my area, and wanted to participate in service projects. I feel I could have done a better job identifying and planning projects for them, had I been given warning.

9. Shell-less Seeds

One of the most common (and tedious to pick up) types of trash I encountered on the trail this year was the shells of different types of seeds (sunflower, pumpkin, pistachio, etc). While people can obviously bring seeds in from outside the park, a solution other parks have used with great success to combat this problem is to ask the concessions markets if they would be willing to sell shell-less seeds.

XIV. Needs for Next Year

- Food-grade containers for water storage at Station
- Hand-wash dispenser at Station
- Pens
- 2 bags of wood chips each, for Emerald and Pear Lakes
- New solar shower (old one beyond repair)
- New dish-washing basin
- Handsoap
- Stiffer plastic brooms for lakes comfort stations
- Staple gun for posting signs
- Clear packing tape
- Clorox wipes (1 each for Pear and Emerald)
- 1 box, medium latex gloves

XV. Station Inventory

- 79 AA Batteries
- 17 AAA Batteries
- 1 Clam Shell
- 4 bags of wood chips
- 62 rolls of toilet paper
- Complete BLS Kit
- 2 Oxygen Tanks
- 3 Fire Extinguishers
- 2 new, 3 partial Pocket Rocket canisters



End of Report – Happy Trails

Appendix

A. Emerald Lake Campsite and Trail Relocation	ii
B. Condition of Campsites	iv
C. New Laminated Signs	v
D. Pear Lake Tips and Tricks	xi
E. Electronic Version of Daily Patrol Log	xvi

Appendix A: Emerald Lake Campsite and Trail Relocation

It has been brought to my attention that there has been some discussion the past few years about relocating some of the campsites at Emerald Lake; I think this is a great idea. Many of the sites are poorly situated and turn into puddles when it rains. If we require people to camp in designated sites, we should have good sites established, which people will want to use.

There are currently 8 campsites at the lake. I propose we relocate 2-3 of the existing sites. I feel that site 6 is the highest priority to move, followed by 3 and 4. All three of these sites become very water-logged during storms (see photos below), site 6 is right next to the trail, site 3 is heavily impacted, and site 4 is less than 25 ft from running water.



Site 3



Site 4

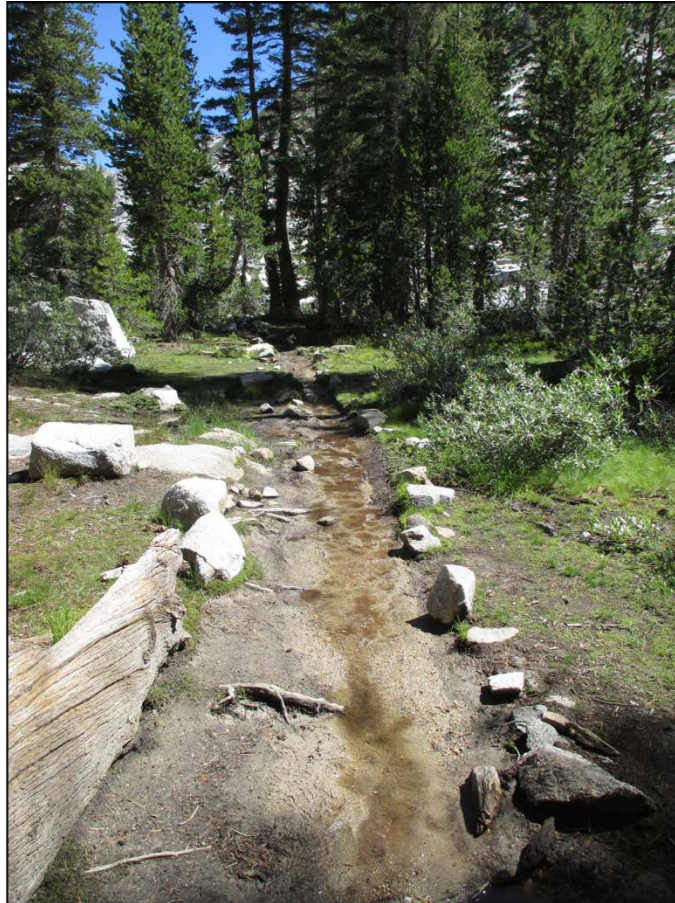


Site 6

Unfortunately, there are not many good places to relocate sites to, and those I was able to find can probably only accommodate 1 or 2 tents each. I have identified 4 potential future sites (see photos below).



I also feel that approximately 130 ft of the trail which runs from the birdhouse sign at Emerald Lake, toward Pear Lake, should be relocated through what is currently site 6. This section of trail runs through a sensitive area, and is becoming a rut (10 inches deep in places). When it rains, this section of trail becomes a river, encouraging hikers to walk on the edges, thus widening, damaging, and further impacting the area. Relocating the trail through site 6 would put much of it on a durable rock surface.



Appendix B: Condition of Campsites

Pear Lake

Site 1: Good. Great view of lake. Very private. Somewhat difficult to find.



Site 2: Good. Great view of lake. Next to food storage locker.



Site 3: Good. In my opinion, the nicest site at the lake.



Site 4: Poor. No view. Right next to trail. Far from food storage locker and comfort station.



Site 5: Moderate. Only site with shade. Some of the tent areas are on tree roots. Too close to outlet.



Site 6: Poor. Directly below comfort station. No view.



Site 7: Moderate. View of comfort station. Large site- can accommodate multiple tents.



Site 8: Good. Private. Close to comfort station. View of lake. Log in middle of site.



Site 9: Good. Not very private, but room for many tents.



Site 10: Good. View of lake. Close to food storage locker.



Emerald Lake

Site 1: Moderate. Fairly close to trail. View of comfort station.



Site 2: Good. Room for multiple tents. Close to food storage locker. Does not flood.



Site 3: Poor. Very impacted. Floods. Camping area on tree roots. Close to food storage locker.



Site 4: Moderate. Floods. Too close to water. Near food storage locker.



Site 5: Good. Private. Does not flood. Room for multiple tents.



Site 6: Poor. Close to trail. Floods. View of comfort station.



Site 7: Good. Private. Small site. Far from food storage locker.



Site 10: Good. In my opinion, the nicest site at the lake. Room for many tents. Good view. Far from food storage locker.



Appendix C: New Laminated Signs

Did You Know...

Toilet paper, wet-wipes, sunflower seeds and orange and banana peels take many years to degrade, and do not belong in the wilderness!



Please do not soil the wilderness experience of others by leaving behind trash

Pack it In, Pack it Out.

Welcome to Pear Lake!

Please Observe the Following:



Camp only in a designated site



Store all food and scented items properly



No fires



No Residue!

No soap (even biodegradable), within 100 ft. of water



Pack it in, Pack it out



Valid CA fishing license required

Please have your overnight camping permit available to show a Ranger

Enjoy your Stay!



FISHING REGULATIONS

Fishing License

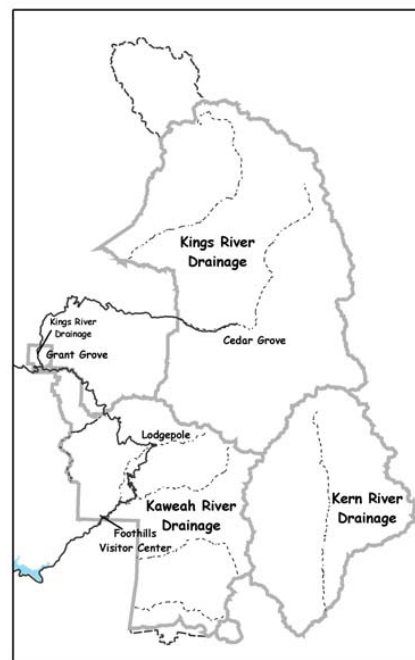
- A California State Fishing License is required for everyone 16 years or older. Licenses are generally available at concession markets in the National Parks.

Fishing Season

- **Trout:** The Kaweah drainage, South Fork Kings River from park boundary to Copper Creek, and all lakes – *open all year*. Other rivers – last Saturday in April through November 15th.
- **Other species:** *open all year*.

Limit of Catch and Gear

- **For areas below 9000' elevation and not in an exempted area:** *Only barbless hooks and artificial flies and lures permitted.*
 - Native species:** Zero limit - catch & release only. (Includes rainbow trout and non- game species).
 - Introduced species of Trout:** 5 per day/10 in possession. (Includes brown, eastern brook, and golden trout).
- **For areas above 9000' elevation and/or in an exempted area:** *Barbed or barbless hooks, bait, artificial flies and lures permitted.*
 - Trout:** 5 per day/10 in possession
 - Other species:** No limit



Other Rules

- Fish may be taken only by angling with one (or two in lakes) closely attended rod and line or one hand- line with not more than three hooks nor more than three artificial lures (each lure may have three hooks attached).
- Drugs, poisons, explosives, electricity, and chumming prohibited.
- Digging or gathering any natural bait (including worms, mollusks, and insects) prohibited within parks.
- Live or dead minnows or other bait fish, amphibians, and non- preserved fish eggs or roe prohibited.
- Fishing from road bridges prohibited.

Pick up all fishing line, hooks, bait, and litter. Animals can be entangled and injured.

Appendix D: Pear Lake Tips and Tricks

Water

- The water supply for the station dries out part way through the season. Collect water early and be conservative (a good way to be conservative is to only do dishes at night- store dirty breakfast dishes in oven during day)
- Because the water storage containers at the station are not food-grade, when the water runs out, use water jugs to collect water from the lakes for drinking/cooking
- The gravity water filter is slow, so keep it full (scrub filters off with sponge periodically)

Propane

- Turn off every day when you leave cabin
- Completely use up one tank before switching to the other
- Pilot light for stove doesn't work, so smells like gas- best to turn off after every use

Mice

- Check/reset traps daily
- Throw dead mice outside
- Consider anything left out to be contaminated
- Dry/put away dishes immediately after use
- Store all food in a cupboard/bin
- Do not leave sponge out
- Use bleach and a face mask when cleaning droppings

Solar

- Turn switch in back to activate charging station
- Convenient to have a small power strip going to the main room for charging inReach etc.
- When the light on the panel on the back wall turns yellow, turn everything off

Pellet Stove

- Only burn pellets and fire starter logs in stove
- To start, put a handful of pellets in stove, light fire starter and put in
- Don't turn on the automatic pellet feeder until the fire is going well, because you will smother the flames
- Optimal speed of automatic feeder is indicated by a * on the dial
- Clean out ashes (put into ash bin) after every use
- Pack out ashes at end of season

Lakes Latrines

- Keep cleaning supplies and extra wood chips in middle room
- Clean weekly, or as needed (good idea to clean after weekend)
- Use proper PPE: face mask, latex gloves, clear glasses/goggles
- Prop open doors, pull out woodchip bins, spritz everything down with bleach water, refill/dust off woodchip bins, wipe down toilets
- Dump everything in toilet if not trash
- Store nasty visitor trash in middle room for DEMOB
- Hang brooms to prevent mice/rats from eating them

Miscellaneous

- Keys (b) (5)
- Pack out all trash

Appendix E: Electronic Version of Daily Patrol Log

An electronic version of the 2015 Pear Lake Patrol Log can be found at:

Computer/shdata/PROT/LODGEPOLE/Pear Lake Area/Pear Lake Daily Patrol Log 2015

Sierra Crest (Rae Lakes) End of Season Report 2015

A. General Summary

I staffed the Rae Lakes Ranger Station from June 9th to September 25th this summer. From mid-October to June 9th, a wood rat staffed the station. From August 22nd to September 1st, I was evacuated from the backcountry due to heavy smoke conditions from the Rough Fire. The fourth consecutive year of drought conditions left the high country accessible easily and early to an increasing number of visitors along the JMT and PCT. June and July saw heavy traffic along the JMT/PCT corridor, with many more northbound PCT hikers than ever before. By early September, smoky conditions and the closure of Cedar Grove on August 18th due to the Rough Fire led to a dramatic decrease in backcountry visitors to the Rae Lakes area. Despite these impacts, visitor contacts in the Rae Lakes area increased by 23.7% from the 2014 season.

The impacts of this dramatic increase were most apparent at Wood's Creek Crossing, where the Rae Lakes Loop and JMT/PCT connect. With 30 or more visitors staying there nearly every night of the season, overcrowding and sanitation issues became one of the major problems of the Rae Lakes area this season. A temporary pit toilet was hastily cobbled together by mid-season, but it had filled by late September. The need for a more permanent solution to the sanitation issues at Wood's Creek Crossing is more pressing now than ever.

Though it had been made known that a wood rat was breaking into the ranger station by the end of the 2014 season, no efforts were made after September 25th, 2014 to rat-proof the cabin. This resulted in serious damage to the interior of the station where the rat was permitted to make a home for the winter. Photos documenting the extensive damage will be located on the (b)(5) drive along with this report.

B. Visitor Services

1. Statistics and Use Patterns

	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL
CONTACTS	402	988	773	293	2,456
MILES	121	161	192	138	612

Visitor use in the Rae Lakes area started high in early June with steady northbound traffic on the PCT and remained high through late August, despite closures and smoky conditions from the Rough Fire. Roughly 70% of visitors in the Rae Lakes area were thru-hikers or section hikers on the JMT/PCT. About 25% were hiking the Rae Lakes Loop out of Cedar Grove or from Onion Valley, and the remaining 5% were on varied trips in the Gardiner Basin, Baxter Lakes, or Woods Lake areas. Only a few groups were contacted this summer day-hiking the Rae Lakes Loop.

Now more than ever, it is apparent that the trail quota system fails to preserve the same wilderness experience visitors were once able to have along the JMT. Many thru hikers who can't get permits from YOSE to Whitney end up completing smaller or larger sections of the trail, and the Sequoia/Kings section is extremely popular and readily accessible from a variety of trailheads. I encountered many groups entering previously obscure trailheads like Sawmill Pass and Baxter Pass, and many exiting to Horseshoe Meadows because they could not get a permit to exit via Whitney. Because of the multitude of trailheads that access the JMT, the quota system fails to keep the number of visitors actually on the trail down. This leads to overcrowding in areas like Wood's Creek Crossing and Crabtree, where other major user groups meet up with the JMT/PCT.

a. Stock use

Stock use patterns remained similar to the 2014 season around Rae Lakes. Almost all of the stock use was commercial--groups from Rock Creek, Onion Valley/Pine Creek, and Bishop Pack Outfitters were contacted this season. I encountered two pack supported trips by Rock Creek, doing sections of the JMT. Onion Valley primarily brought resupplies to thru hikers, usually meeting hikers at the ranger station or at Wood's Creek Crossing. I was impressed by the minimum impact left by the Rock Creek and Onion Valley groups that came through the area. The Bishop Pack Outfitters group was another stock supported trip going from Paiute Pass to Onion Valley. This group grazed the southern meadow at Wood's Creek Crossing and the Dragon Lake Trail Jct. Meadow between Upper and Middle Rae--both of which are closed to all grazing. They left their camps in a mess--trash in fire pits, bits of rope left in bear boxes, and manure undispersed.

2. Law Enforcement Incidents

Most of my visitor contacts this season were pleasant and educational. I called in 9 official verbal warnings, mostly for camping on vegetation or camping in a restoration site (Dollar Lake). Signs were placed around the Rae Lakes area in early August requesting information on a possible 51-50 in the Charlotte Lake area, but the individual was not located.

From mid-August through the rest of the season, the aquatic restoration crew reported vandalism to their gill nets on four different occasions. In some instances, the nets were pulled from the lake, tied in a knot, and placed under a rock cairn on the shore. Despite the obvious human-caused nature of the vandalism and the recurrence of the incidents, law enforcement remained disinterested in providing a significant amount of assistance. Though the aquatics crew never felt their safety threatened, it is worth noting that they live in a temporary camp all summer that is completely open to the public. Signs were eventually placed at the JMT junction and along the (b) (3) (B) trail informing visitors of the restoration project.

The mountain yellow legged frog restoration project has suffered from bad PR for many years, and I believe that this outright vandalism can be addressed proactively by rangers through clear communication of information. I would like to see signs in and around the (b) (3) (B) area and the (b) (3) (B) explaining the project and offering

a point of contact for visitors to access more information. Rangers should receive more pre-season training about the restoration work being done and *specific statistics* that outline what percentage of lakes are being restored and what percentage are remaining for recreational fishing. Catching a few vandals in this massive wilderness would be a futile endeavor, but reaching out to potential vandals with clear and open information could keep these incidents from recurring in the future.

3. Search, Rescue, and Medical Incidents

Though there was a considerable increase in visitors this season, incidents remained low and relatively mild in the Rae Lakes area. Many hikers were in need of general medical advice, and I contacted many people with minor injuries and illnesses who were able to self-evacuate after discussing options with me. Stock evacuations were coordinated for non-emergent issues keeping a few hikers from exiting the wilderness under their own power.

There were no major search and rescue incidents in the area this year. On June 8th, the day before my arrival, (b) (7)(F) evacuated a hiker with lower extremity and head injuries from the north side of Glen Pass. I responded to the Brewer SAR on 7/12, but it resolved just after I got over Glen Pass. I responded to a report of a broken ankle on Kearsarge Pass on 9/3, but that individual phoned dispatch from the pass and hiked himself down to Onion Valley that day.

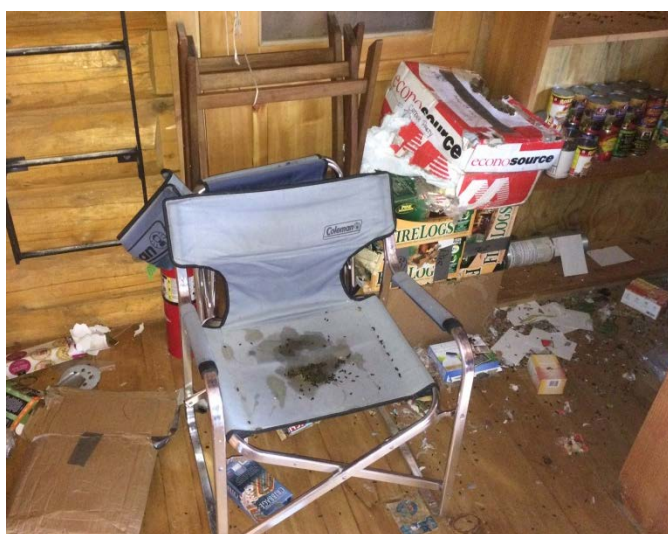
Date	Location	Type	Evacuation
7/12	Arrowhead Lake	UTI/Kidney Infection	Medevac
8/5	Charlotte Lake	Fatigue	Stock evacuation
9/8	Middle Rae Lake	Severe knee pain	Stock evacuation

4. Service Incidents

The vast majority of hikers are well prepared on their wilderness trips, but unexpected problems always crop up and wilderness rangers are there to help. Throughout the season, I let visitors use the satellite phone to coordinate rides for self-evacuations or to let family members know of a change in itinerary; I sheltered hikers at the ranger station from heavy rainstorms in July; I glued and taped boots and backpacks back together; I handed out extra food or fuel to over thirty hikers; and I lent an ear to thru-hikers who knew where they were, but seemed lost in other ways.

5. Ranger Station

On June 8th, (b) (7)(F) responded to an injured hiker with lower extremity and head injuries on the north side of Glen Pass. After evacuating the patient by helicopter, he continued to the Rae Lakes Ranger Station with the rest of the hiker's party who were in need of shelter





and sleeping bags. They were unable to take shelter at the station or find usable gear due to the damage caused by the wood rat's winter residency.

These hikers were able to finish their trip successfully, but this incident demonstrates the benefits of a permanent ranger station in the wilderness and the uselessness of a structure that is not properly maintained. The lack of permanent rodent proofing at the end of the 2014 season resulted in unsafe living and working conditions at the Rae Lakes Ranger Station for the ranger and any visitors in need of assistance.

The Rat's winter residency resulted in major damage to the ranger station and gear--holes chewed through boards; urine and feces on every surface; sleeping bags/pads and tents chewed and saturated in urine; mattresses, rugs, and seat pads soiled and torn apart.

The station was cleaned and ingresses were located and patched up with the very limited resources hanging around the station. I used steel wool and polyurethane foam to fill in the 2"+ gaps and holes and covered those with mesh screening. Due to these efforts, or more likely a human presence back at the station, The Rat vacated the premises (or died of the plague). I caught 28 mice throughout the season, both before and after sealing up the holes created by The Rat. This means that the attempts in late 2014 to chink the logs of the cabin failed to rodent-proof the station's smaller ingresses, and a rodent problem exists *regardless of attempts at mitigation this season*. Marmots also regained access to the pressure treated support beams under the porch, a problem that has existed for several years.



A permanent ranger station in the wilderness has the potential to benefit both rangers and visitors immeasurably. If the park would like the Rae Lakes Ranger Station to benefit anyone in the future, it needs to be professionally rodent-proofed immediately. When administrative neglect renders a permanent structure in the wilderness more useful to wildlife than visitors, what kind of wilderness ethic are we attempting to protect and preserve?

C. Wilderness Protection

1. Resource Impacts/Issues

As use has steadily focused on the JMT, resource impacts have become more abundant along the JMT/PCT corridor and more focused in specific areas. Combined with the poor LNT practices by many thru-hikers, several areas around Rae Lakes have been heavily impacted. The main sites around Rae Lakes and Arrowhead Lake are in good condition, but the extreme ends of the basin are being heavily impacted by minimally-educated thru-hikers. Wood's Creek Crossing saw a dramatic increase in use this year as the nexus of the Rae Lakes Loop and the JMT. People, like water, follow the path of least resistance—trail junctions make for obvious landmarks, and thru-hikers favor these spots because they are the most clearly identifiable spots in the guidebooks. This has led to heavy impacts at the Baxter Pass/JMT junction (at Dollar Lake), the 60 Lakes/JMT junction, and Wood's Creek Crossing.

a. Wood's Creek Crossing

Nowhere else in the Rae Lakes area better exemplifies the dramatic increase in backcountry use and subsequent resource impacts than Wood's Creek Crossing during the summer of 2015. On average, 30 people per night camped at Wood's Creek Crossing this season; 40-50 people per night were common during weekends and when large bubbles of thru-hikers passed through. This junction brings together the two major user groups of the Rae Lakes area—the Loop and the JMT/PCT—and it is a natural stopping point for hikers doing either trip. Sanitation quickly became the major issue at the Crossing this year—piles of toilet paper and disinterred human feces were more abundant (and more aromatic) than the pennyroyal. With assistance from (b) (7) and (b) (7), a pit toilet was dug and a platform cobbled together from the remains of the old pit toilet. This addition, along with a new bear box and a map outlining the camping areas at the Crossing, greatly reduced the amount of resource impacts that were happening in early June. The 4 foot deep pit toilet opened for business on July 29th; it had filled by September 20th. A more permanent toilet needs to be installed in the Wood's Creek Crossing area as soon as possible.



b. Baxter Pass/JMT junction

The area between the JMT and the western shore of Dollar Lake has long been signed as “restoration sites” to discourage camping too close to the lakeshore. However, this has led to the creation of new sites on the north shore, which are far closer to the water (some less than 10 feet). Many visitors this summer asked me to explain this discrepancy, but truthfully there is no explanation. Of the nearly dozen potential tent pads around Dollar Lake, only 3 are at least 25 feet from the water. The sites along the north shore of the lake are much closer than any of the sites in the restoration area. I suggest moving the restoration site signs to the north shore, rehabbing the sites too close to water, or closing Dollar Lake to camping to mitigate these impacts.

c. 60 Lakes/JMT junction

This has become a popular spot in the Rae Lakes basin for southbound thru-hikers looking to set up close to Glen Pass. All of the sites here are practically in the trail, and many people end up camping on the sedge just west of the JMT. I regularly discourage people from camping in this area, sending them either to the sites on the isthmus or to the sites 100 yards down the 60 Lakes trail.

2. Meadow Management

All of the meadows opened on schedule with the dry year predictions this season. Most of the grazing was focused at Wood’s Creek Crossing and Baxter Creek Drift Fence meadows by Cedar Grove Pack Station and Sequoia/Kings Pack Station respectively. Baxter Creek Drift Fence meadow was closed early on September 9th after receiving 25/28 stock nights. There were significant mechanical impacts in some wet areas of the meadow as well as closely cropped vegetation. Since the meadow had been allowed to exceed 28 stock nights for the past several seasons, the plant ecologists felt it best that the meadow should not see an excessive amount of use this season.

In early September, a commercial group from Bishop Pack Outfitters grazed two closed meadows in the Rae Lakes area—the meadow south of Wood’s Creek Crossing and the Dragon Lake Trail Junction meadow. These incidents were documented and passed along to law enforcement.

3. Fire rings

53 fire pits were removed or rebuilt this season in the Rae Lakes area. I maintained 2 fire pits at Baxter Creek Drift Fence, 8 at Wood's Creek Crossing, 1 at the White Fork camp, and 2 at Ghost Camp throughout the season. Many small trash fire pits dotted the landscape above 10,000ft early in the season from the increase in PCT traffic in the spring.

(b) (7)(F) was of great assistance in keeping the Twin Lakes/Sawmill Pass Jct area clean.

With the slight overlap in our patrol areas there, the area was kept in much better condition than I was able to keep it in last year.



4. Infrastructure

a. Drift Fences

The White Fork drift fence was decommissioned this summer by the trail crew. Posts and wire still remain, but the fence is no longer in use per the new Wilderness Stewardship Plan. The Baxter Creek drift fence gate had been torn down early in the season but was easily fixed with a little extra wire. The upper Castle Domes/Wood's Creek drift fence is in need of some work—bits of the gate are held together with rope and a few posts are falling out.

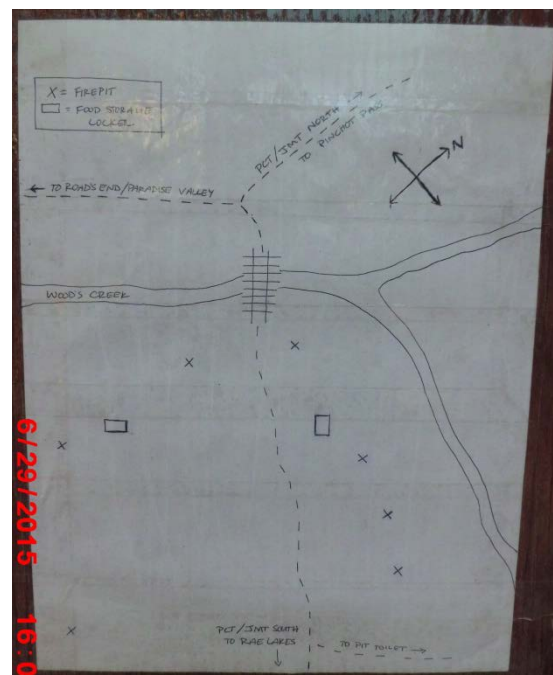
b. Food Storage Lockers

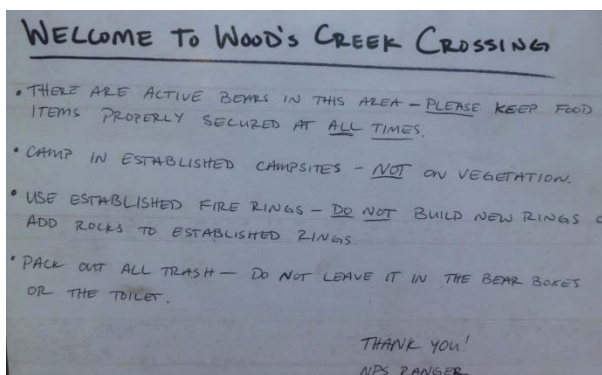
The new second food storage locker at Wood's Creek Crossing was finally assembled this season after spending several seasons dismantled and sitting under the bridge. The two at Middle Rae Lake are starting to show their age—a hinge has rusted completely out in one of them and the other is missing the loop to latch one of the latches. The boxes at Arrowhead and Lower Rae are in good shape.

c. Signs

The Sawmill Pass/JMT junction has two signs on two signposts. One is an old sign with the mileage (3 miles) on it, and the other is attached to the JMT trail sign but with no mileage. Having two signs here is excessive, and one should be removed. I would prefer to remove the sign with the mileage listed on it and put it on the JMT sign to simplify the signage in the area.

A temporary map of the Wood's Creek Crossing area and a





small sign reiterating some pertinent LNT principles were placed on the sign board at the crossing this summer. More permanent and professional versions of these signs should be made and placed there next season.

As mentioned earlier, I support the idea of placing informational signs at the 60 Lakes/JMT junction and on signs in 60 Lakes that educate visitors about the ongoing restoration work in the basin. This

would allay concerns that visitors may mistake the methodical gill netting as an illegal operation and would help shed light on a project maligned by misinformation and misconceptions.

5. Wildlife

a. Bears

A sow and cub spent most of their summer in the Rae Lakes area. I first saw them at Middle Rae on July 5th and saw them a half dozen more times throughout the season. The two bears grew more habituated throughout the season. Visitors reported these two walking through campsites at Middle Rae and Arrowhead Lake multiple times, but I never received any reports of food being taken.

b. Bighorn Sheep

Bighorn sheep were much more prevalent in the Rae Lakes area this season than in years past. I saw herds of bighorn on Explorer Pass, Baxter Pass, North Dragon Pass, and the Fin Dome ridge. Visitors also reported seeing bighorn on the 60 Lakes trail near Middle Rae Lake.



D. Recommendations

1. Ranger Station Maintenance

The need for immediate rodent proofing of the Rae Lakes Ranger Station cannot be stressed enough. If no action is taken, the future Rae Lakes ranger would be better served by a more temporary camp that suffers no illusions of safety and security. Details of the damage done and repairs needed have been communicated to David Karplus directly and more photos detailing the damages are located on the network

drive. The pressure treated support beams under the porch have been completely chewed through by marmots as well.

2. Wood's Creek Crossing

Much can be improved in the Wood's Creek Crossing area. A temporary map was put up this season on the sign board along with a brief reminder of some specific minimum impact regulations--more professional and long term versions of these signs need to be placed early next season as thru hiker traffic increases.

There is an absolute and demonstrated need for a long term pit toilet installation at Wood's Creek Crossing. The 4ft x 1ft pit dug in late July was filled in less than two months, despite a significant reduction in visitors during that time period due to the Rough Fire. Preparations need to be made this winter to get supplies for a new platform to place the old toilet on and the toilet should be installed as early as possible in 2016. The general area where the temporary toilet was relocated this season is more central to the camp area and has a suitable amount of space to accommodate a permanent toilet site.

3. Thru-hiker Education

All of the wilderness rangers this year have remarked on the severe lack of wilderness etiquette that has come to characterize PCT hikers. Many thru hikers in the Rae Lakes area—and particularly those PCT hikers coming through in June—seemed unaware of basic regulations like camping away from water and off vegetation, packing out trash, and proper human waste disposal. Most of our educational contacts come after these infractions, but a serious effort needs to be made in the future to educate thru-hikers not only about specific park regulations, but about basic LNT skills as well. I also witnessed first-hand the lack of information communicated to visitors in the Lone Pine visitor center when I staffed the permit desk for a couple days during my evacuation. More effective educational tools need to be implemented in the minimum impact talks in order to effectively convey regulations—plain text and a short speech are poor methods of teaching. As more hikers obtain permits at varying stations for a variety of trailheads, we need to make efforts at establishing more uniformity in the minimum impact information communicated to hikers coming from the east side.

4. Bench Lake Ranger Station

This was the first year since 2010 that the Bench Lake Ranger Station was staffed. The Bench Lake ranger was able to assist me with several projects at Wood's Creek Crossing and with residual biomass sampling, and regularly passed along valuable information about groups passing through the Bench area towards Rae. We also swapped station areas for about a week and a half; it was very valuable to have a chance to get to know another area of the park so I could better inform visitors about the trail north, and I would suggest having rangers swap stations in future seasons to expand our knowledge of the parks. Having a ranger presence in the Bench Lake patrol area is invaluable, and we need to continue staffing this station as traffic on the JMT/PCT continues to increase.

E. Equipment Needs

1. Inventory on hand
 - a. TP (3 rolls)
 - b. Wild Ideas bear can
 - c. Sleeping bag
 - d. Sleeping pad
 - e. 25 fire logs
 - f. ~12 gallons of propane
 - g. 24 AAA batteries
 - h. Hanta masks/respirator
 - i. 3 D size Oxygen tanks
 - j. 5 rat traps
 - k. 5 mouse traps
 - l. Cleaning gloves
 - m. 1 gallon bleach
 - n. ½ bottle of simple green
 - o. 10 small trash bags
 - p. 3 large trash bags
2. Station Needs
 - a. Kitchen sponges x3
 - b. Lighters x3
 - c. Burlap bags for packing out trash
 - d. 10 gallons of propane
 - e. Dish towels x2
 - f. Simple green
 - g. Small and large trash bags
 - h. New mop head for HDX mop
 - i. 3 8oz isobutene fuel canisters, or 4 4oz
 - j. Shoe goo or epoxy
 - k. Hand sanitizer
 - l. Laminating sheets
 - m. Copies of old EOS reports and station logs (from 2000 to present)
3. EMS needs
 - a. BLS Bag
 - b. Koban/ace wraps
 - c. Aspirin/Ibuprofen
 - d. PCR's
4. Wood's Creek Crossing pit toilet equipment needs
 - a. 2x8 boards
 - b. Nails
 - c. Rock bar

Rock Creek EOS Report 2015

by Laura Pilewski



A. General Summary

It was great to be back at Rock Creek for my seventh season (my twenty-first in the wilderness of Sequoia-Kings National Parks). As stated in last year's report, the movie *Wild* has created a resurgence in wilderness use that no one could have anticipated, especially due to one mere lady's personal story. Whether that story had anything to do with wilderness or not, it inspired thousands of people to go hiking. So, to rangers it's both a blessing and a curse. We all think it's healthy for society to appreciate and support wilderness. The challenge is managing it so people don't love it too much and cause resource damage in the process. If the drought ever does end and we have additional challenges placed on us and the visitors such as high water and snow to negotiate we may become even busier with SAR, etc. The weather this summer was about as user friendly as it gets. This is with exception of late August into September when plague and smoke appropriately caused numbers to drop abruptly.

Comment [Fox1]: Would love to hear some data regarding the number of people that are there because of the movie.

B. Visitor Services

a. Contacts

i. Backpacker (approx. 3,500)

ii. Day hiker

There is no consistent way to innumerate day hikers. Mt. Langley can see between fifty to a hundred people a day on a busy August weekend, weather permitting (see photo below and Mt Langley appendix). Trail running Mt Langley or the Cottonwood/Army Pass loops is a common weekend activity in the Rock Creek patrol area. Running the HST, North Lake-South Lake Loop, and even the JMT are becoming increasingly popular.



iii. Stock (approx. 180 head-not including day use)

Commercial trips were the most popular. Virtually all were Cottonwood or Rock Creek pack stations supporting SMC and SMG trips. Approximately 140 commercial head of stock came through the Rock Creek area for a total of 470 user nights. Lower Soldier Lake saw numerous spot trips care of Cottonwood Pack Station. Administrative stock only grazed during the Soil and Moisture Crew's visit; otherwise they all brought feed or passed through. One private group took everyone by surprise and used 162 grazing nights in lower Rock Creek right off the bat. This was primarily due to the fact that they illegally exceeded the stock group size limit and were a group of 28 head (see Citations & sections). However, the INFS Lone Pine office issued a permit for 21 head with an NPS itinerary and failed to give them any stock use information.

b. Law Enforcement N/A

c. Citations

I forwarded pictures and information regarding two different parties with a dog on Mt Langley and at Sky Blue Lake to my supervisor. R Pilewski, who was visiting Rock Creek on his lieu days, issued three citations to a group I had previously contacted for multiple violations (exceeding stock group size limit 28 versus 20; improper food storage-six plus coolers packed with food; camping and high-lining on vegetation adjacent to water, and cutting down three live trees).

trees).



I requested R Pilewski issue a citation (and he did) to a person who hiked the whole JMT without a permit (individual admitted to knowing he needed one but had just "chanced it"). It just goes to show how random contacts can be as that person hiked almost 200 miles without seeing a ranger.

d. SAR & Medicals

Date	Location	Type	Evacuation
7/4	Mt Langley	ankle injury	helicopter
7/11	RCRS	lost dog	foot/paw:)
7/18	TCRS	anxiety	self evac/ranger Sherpa
8/10	Upper Soldier	death in family	foot

The first medical of the season occurred on Mt Langlely. The helicopter beat me on scene by twenty minutes as I had to respond from the vicinity of RCRS. This person would probably have needed flown out regardless as it turns out but is usually ideal to have someone make an on the ground assessment first in these non-life threatening injuries. Nick Knudsen was helpful in transporting my overnight gear as he was in the vicinity of the ranger station and I was able to travel light and fast; just not as fast as a helicopter.

Angel the dog was left on my doorstep by a visitor one evening. She had followed a PCT hiker 60 miles without any food all the way from Kennedy Meadows. Thankfully, we were able to re-unite her with her owner thanks to her rabies vaccination registration tag. I hiked out with her the next morning and she obediently followed me the whole way... Much less stubborn than a llama. She does look like she can read the regulations though:)



While at TCRS a lady who was initially reporting AMS/difficulty breathing turned out to be just having an anxiety attack exacerbated by having a very heavy pack and not eating. After a full medical assessment and a good nights dinner and sleep, I was able to escort her and help carry her now less than 50 lb pack to Shepherd's Pass which she chose to exit on successfully and in short time as dispatch informed me.



e. Fatalities none

f. Weather

June and July were very wet months with snow, rain and some significant hailstorms. August saw not a drop of precipitation.

g. Fires

The Rough Fire which reached over 140,000 acres created widespread smoke throughout all of SEKI at times. The worst was concentrated between Forester and Muir Pass and points west. Smoke also became heavy as low as Ash Mountain and throughout the Owens Valley. There was numerous lightning caused fires early summer, but all paled in comparison. The Big Five Fire was plainly visible from New & Old Army Passes and Mt Whitney and Langley. Many visitors reported this fire and although rangers were on top of these passes and mountains, unfortunately there wasn't open communication to those in the field and there were unnecessary flights in wilderness to look for rogue misidentified fires.

C. Use Patterns

a. Backpackers

The JMT and PCT had an increase of what appeared to be 30% visitation. The new WSP will be tested immediately with these new trends. All rangers were seeing permits issued from the most obscure of trail heads, a trickle down affect from the competition of the more popular trailheads. I saw permits from almost all trailheads in Yosemite NP (believed to be a product of the new Donahue Pass quota), Lake Tahoe region, NFS trailheads south of Trail Pass, Mineral King and, of course the PCT. This is in addition to the ones that were more typical in past years from Lone Pine to Mammoth along the east side in INFS.

Comment [Fox2]: Implementation will take time.

During the busiest first two months of June & July, it was unrealistic to do encounter surveys. Each visitor would ask questions while others passed along the trail and some conversations would last up to fifteen minutes at a time. Plus, campsite maintenance and visitor assists were constant, so there was no time for a simple encounter survey patrol. When above timberline there would be streams of people where one would have to have a GoPro cam to record encounters as there were people in sight for miles at all times, especially on Langley, Whitney and passes north along the JMT. Furthermore, many PCTers hike at night. So those numbers are not captured. This is especially true on Whitney where everyone wants to see the sun rise (a couple times is enough per season for the Crabtree Ranger and that usually coincides with a medical). I think the encounter surveys serve a purpose, however, they do not represent all areas or cover all times of day. Therefore, before any management decisions are made (i.e., trail quotas, trail building, etc.) trail counters should be used to supplement this information. I would recommend placing one at LeConte, Kearsarge/JMT and Crabtree junction areas. Before instituting day hike permits for Half Dome, Yosemite hired some students/volunteers to do such visitor counts, perhaps an even more accurate method.

b. Stock

Stock supported commercial Whitney trips are the most popular. Their distinct pattern is to spend the first night at the lower Rock Creek Crossing, and their last night in upper Rock Creek which helps spread use out and make it easier for their clients to hike to the trail head. However, I have had to encourage them to rotate camps and grazing so as not to over impact certain areas. This has been an experiment in progress. I would like them to include Nathan's more into this rotation and use camps just west (downstream) of the former Rock Creek Demo Camp in the future. Also, it would be better for them to use camps along the south side of Rock Creek Lake and meadows with the stock tied up at "Cottonwood Pack Station's all expense camp" but only **if they have feed**. Furthermore, the PCT especially between Rock Creek and Crabtree is showing lots of signs of wear from these trips. In several places, the stock have been avoiding steps and creating secondary trails (see **Trails**).

c. Administrative

Rock Creek is still the hub of administrative use. The following crews worked or passed through the area: Meadow Monitors, I&M Forest, USGS tree demography & Bighorn sheep, GLORIA project, Soil and Moisture & the Kern Trail Crews. SNHA also had a Mather Party trip pass through the area. Even a PBS documentary about the Sierra Nevada Bighorn Sheep was filmed on Mt Langley this summer. Administrative stock use was much lower than usual which was a nice break for the very dry meadows. It is unfortunate that the trail crew couldn't utilize the Horseshoe Meadow corrals. It seemed to have worked out quite well last year. Whereas resupplying by stock from the west put a ton more nights of administrative use in the wilderness, caused heavy wear and tear on both the animals and the trails especially in the Kern and sometimes didn't even meet the goal of resupplying the crews.

d. Commercial (see **Stock**) Trans Sierra Xtreme and Sierra Mountain Guides Langley day hikers were the only non-stock supported commercial groups I contacted this season. The SMG group was apparently unaware of the group size limit of eight cross country in that area and was written up and given a verbal warning. I also had the wilderness office remind commercial permittees of this regulation after the incident.

D. Natural Resources

a. Bear Activity

Only one bear was spotted by a few visitors and rangers in late August. No incidents were reported. It was most likely feeding on a dead mule in the area.

Bear Boxes: With the PCT crowds came the occasional theft from bear boxes. Although all reports were investigated, all incidents seemed random in nature with no perpetrator found. Also, see last years comments regarding which boxes to remove/keep in wilderness.

Comment [Fox3]: These decisions were made by the WSP. Wilderness reports were considered during the process.

b. Wildlife

The most interesting generic observation I have is when comparing the Rock Creek to the McClure patrol area (where I worked for ten days this season), there were a lot more American Dippers and pika up north. I was stunned at the difference. In fact, it reminded me that I missed seeing these creatures that used to be more ubiquitous down south when I started in the 90's. For other reports, see Wildlife Observation cards.

Regarding the plague, I saw a couple of dead rodents in lower Rock Creek before the confirmed report at Crabtree.

c. Vegetation

I would recommend closing the Rock Creek Stringer (and consequently Rock Creek Lake meadows as there is no drift fence) indefinitely. These meadows have been experimented with for years and have seen closures in the past. They were reopened around the time I started working there. Initially Rock Creek Pack Station respected the soft closure of the stringer this summer (it never open due to unproductive forage and physical impacts still evident from the prior season). But late season what appeared to be a large stock group caused significant long term damage to roots and soil. It was obvious that someone had camped at the "All expense camp" and grazed in the adjacent meadow, the Rock Creek Stringer, given the fact that there were no hoof prints or manure prior to that point in the season (This was unwitnessed and therefore no one was cited). Furthermore, no private stock parties were witnessed to have been in the area at that point in the season. Ballenger paid a visit to this area in September and pointed out that the stringer

Deleted: sited

meadow was both not "resilient or resistant" to grazing due to its steepness and showed "zippering" of the sod. She also wrote up comments to this affect. (She has professional experience assessing meadows in Yosemite for grazing impacts/suitability). If any long or short term closure were to go into effect, we would have to watch repercussions to other meadows such as Lower Soldier and Army Creek, meadows that are often wet in normal years. It would be best if the SMC groups brought feed for their upper Rock Creek visits. I would recommend that in the future the Kern trail crew not use the meadow immediately adjacent to their fire-pit in lower Rock Creek, anywhere else in this area is fine with ample forage.

As most seasons, I collected a couple of plant specimens that may or may not still be needed in the park herbarium.

E. Cultural Resources

a. Prehistoric

Area sites appear intact.

b. Historic

Area sites appear intact.

F. Backcountry Facilities

a. Ranger Station

The attic is still not mouse proof and anything placed up there needs to be mouse proof.

b. Signs

- A sign is now needed at the Old/New Army Pass trail junction due to its increased popularity and frequency of SAR due to people accidentally going down Army Creek.
- There is a sign that was removed from the stock demo camp and will now be placed near the lower Rock Creek bear box to see if this will encourage private stock users to camp downstream away from the main backpacker camp.

G. Trails

a. Trail Activities/ Work accomplished

b. Problem areas

With increased commercial use from Horseshoe to Sandy Meadow, these areas should be priority:

- 1) Lower Rock Creek switchbacks.
- 2) Steep section of trail between Rock Creek Ranger Station and first PCT junction to the south (see photos).
- 3) Twenty year old "Temporary" Rock Creek drift fence needs real fence posts, not T posts. It is becoming increasingly difficult to put up and maintain. There are 23 T posts on the north side and 5 on the south side. There is one spool of wire, 4 T posts and hundreds of U hooks in a pile just west of the last, southernmost post on the north side of the trail at the base of a tree. These should be removed if or when this fence is fixed/replaced/removed. If the T posts are kept, more clasps will be needed next season (dozen).

H. Camp Areas

Due to high volumes of traffic, areas are in need of constant maintenance, however all look good. The stock camp on the north side of Rock Creek was informally re-located by building a new fire pit just downstream from the existing one, but further away from the creek. Sierra Mountain Center and Cottonwood Pack Station used this as their camp for the summer; had plenty of room and few dead trees.

Regarding human waste, I do not think a pit toilet would work anywhere in Lower Rock Creek. I think highlighting this issue on a sign on the Lower Rock Creek bear box helps tremendously. Also, I agree with many others who recommend giving out re-sealable bags with permits labeled "Pack out used TP/feminine hygiene products. Bury human waste xxx paces from water." This also spurs discussion on proper waste disposal and keeps structures that are difficult to maintain out of wilderness.

I. Permit System

I would highly recommend that the park does NOT accept a PCT permit as permission to hike east of Crabtree Ranger Station to Mt Whitney. Where once the Wag Bags mitigated the mess at Guitar Lake, now the PCT'ers are leaving their human waste improperly disposed of along with other trash. Furthermore, we cannot expect them to use Wag Bags and carry them north/south as countless people are already leaving full ones along the trail in the park as far away as Wallace Creek. Compliance for carrying the full ones out to the Whitney Portal has decreased and it would be unrealistic to expect any visitor to carry them as far north or south as Kearsarge/Horseshoe Meadow. The Crabtree Ranger has to deal with enough discarded full ones as it is. We don't want this to "spill over" to other areas of the wilderness. If this idea was acceptable, it should be written on the PCT permit that "travel is prohibited east of Crabtree Ranger Station to Whitney Portal. Separate permit required." The park and forest service could then see where the chips fall before instituting any changes to quota systems. People are plenty creative when it comes to obtaining permits for hiking Mt Whitney. Since most PCT'ers hike through the Crabtree area prior to peak season, I would imagine this wouldn't be in direct competition to normal season users. But, it would coincidentally eliminate those who are using the PCT permit purely as a way to hike Mt Whitney as well. As hikers pointed out the loophole again this season, legally rangers cannot prove someone is hiking "500 miles" along the PCT versus just entering Cottonwood Pass and exiting Mt Whitney. Nor can they prove someone only went out for 24 hours to resupply. It is a scam that is gaining momentum and pretty much allowing 50 PCT permittees per day in August/September to hike wherever and whenever they want in the Sierra. Those people are not starting in Mexico that time of year. We know it and they know it. And this is unfair to those who are legitimately competing for Whitney permits but can't get them.

Comment [Fox4]: Meeting scheduled to discuss.

Comment [Fox5]: The quota between New Army and Cottonwood is 100 daily. I don't think they need to get a PCTA permit to defraud the system. However, we are going to discuss this.

The INFS Trail Crest exit quota's effects had been tolerable in the Crabtree and Rock Creek area initially. But now that it is coupled with the increase use from other trailheads it isn't. Eliminating the exit quota on Trail Crest would be one way that we could potentially get rid of this bottleneck effect in the park. Everyone that doesn't get the Whitney exit permit for other trailheads has to backtrack out to another trailhead. This, at a minimum, doubles the amount of time each visitor spends in SEKI. Each night equals that much more human waste, toilet paper, trash, and potential Search and Rescue needs. This has had nothing but negative effects to the National Park and anyone hiking loops is unlikely to camp along the Whitney trail anyway as this is their last day of their trip and they are all anxious to get out and have a hamburger and use a real toilet. This does not result on any significant net gain of human waste or camping along the nine mile section of the Whitey Portal trail in the INFS. However, it results in huge impacts in the park where they have to backtrack to the trailhead. This bottleneck affect is becoming unmanageable both at Crabtree and Rock Creek now that there is increased use from all other directions.

Comment [Fox6]: I am interested to understand better what we are talking about (numbers). Different is not necessarily bad. If wilderness character is being affected, we need to take steps to deal with our own issues. We cannot make them sacrifice their wilderness character for the sake of our own.

It would be nice to educate the JMT/PCT hikers with modern technology (i.e. apps or websites) that encourage LNT practices and inform them of the different regulations for the different agencies along their route. As a user group, they seem to be having the most negative impact to our patrol areas and normally are long gone by the time we get to our stations so we can't address them in the field. Educational videos at park and INFS trailheads would also be helpful and timely with the new WSP.

With regard to eastside trailhead rangers, it was unfortunate that Lone Pine was not staffed this [entire](#) season. It was quite evident from the field as many visitors did not receive up to date trail conditions (dangerous snow conditions early season on Army Pass; lack of water sources all season), accurate information regarding pets in wilderness or any information for private stock use. Furthermore, whenever the Bishop trailhead ranger made patrols, the field rangers in Sequoia or Kings were never informed in advance as to her plans. Therefore, none of us were able to coordinate group projects or plan different patrols to efficiently cover more or busier areas. As stated in many past reports, it is much better to work as a team as we have a lot of ground to cover. In the future, it would be especially nice to coordinate Whitney and Langley patrols with the Lone Pine ranger. It would also be an asset if that person were skilled in cross country and snow travel as these two mountains and respective patrol areas have very popular off trail routes that visitors inquire about at the visitor center.

J. Communications

All park employees need to be taught better (b) (7)(E)

A "cheat sheet" should be issued with every radio. Trailhead rangers are often less experienced than wilderness rangers and their safety (and the visitors around them) is certainly as important as ours. It would make more sense if we all had two communication devices instead of them having only one and we lugging around three!

Ironically, if we wanted to increase safety, we would be making an effort to decrease radio traffic. Obviously this does not apply to visitor confrontations, law enforcement, medicals or the relaying of information to dispatch or the wilderness office. This in itself consists of ample air time. But, the calling in of everyday duties such as giving out bandaids, picking up trash or abandoned equipment, or just being nice and helping visitors by giving them basic route or minimum impact information and announcing such just clogs up the airways. I think the appropriate forum for such statistics still remains our EOS report. Besides, is anything being done with this compiled information?

The (b) (7) repeater seems to work well within the back country. However, it often lacks the strength to reach base stations in the front country. We rarely have trouble talking to (b) (7)(E) for example on non-local channels. And they can hear us when we are un-successfully trying to reach the front country from the back country. Some base stations (b) (7)(E) seem particularly problematic. I am not sure how this problem is remedied.

(b) (7)(E)

Comment [Fox7]: A work request has been submitted, and specific information has been relayed regarding the linking issue.

K. Needs for next year:

- Pressure cooker or try gasket first (3Qt. Corning Revere). Stored in attic and mice chewed gasket up!
- Wood floor varnish
- Fire Extinguishers

- Mt Langley Summit Registers & binder
- Panasonic Lumix camera case

L. Recommendations

General: Staff all ranger stations along the PCT due to increased use

Comment [Fox8]: Within budgetary restrictions, I agree.

Campsites: Make computer generated signs for bear boxes reflecting area issues (see old hand written ones). Perhaps, have permanent plexiglass sleeve for changing them seasonally.

Comment [Fox9]: There should be no hand written signs. Wording for the signs should have already been worked out.

Signs: Place new sign at New/Old Army trail junction indicating only New Army Pass with an arrow facing to the right, and one to the left for those coming from the opposite direction.

Comment [Fox10]: Adding signs in wilderness should not be taken lightly. An MRA is required to create an installation. The justification was heavier use of the trail (I don't find this to be a significant justification for a new installation) and increased SAR activity. In 2015, there was one SAR at the top of New Army Pass, and it had nothing to do with confusion.

Structures: Old non-functional bomb box south of the Kern Hot Springs Trail Crew camp should be removed from wilderness.

Comment [Fox11]: The MRA process determines the appropriate method to remove something from wilderness.

Bear boxes:

- Upper Funston Mdw- remove 1; replace other w/ new one.
- Lwr Funston Mdw- remove 1; move other one nearby.
- below Tyndall Ranger station -remove
- Frog Ponds- remove
- Crabtree-leave both in place.

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Comment [Fox12]: Consistent with WSP, but be specific on where you want one moved and why.

Permits

- Before any management decisions are made (i.e.. trail quotas, trail building, etc.) trail counters should be used to supplement encounter surveys.
- Give out a re-sealable bag with permits labeled "Pack out used TP/feminine hygiene products. Bury human waste xxx paces from water." This also spurs discussion on proper waste disposal and keeps structures that are difficult to maintain out of wilderness.
- Target the PCT hikers with modern technology (i.e. apps or websites) that encourage LNT practices and inform them of the different regulations for the different agencies along their route.
- Don't allow PCT permits access to Mt Whitney
- Link USNPS & USNFS trail conditions websites as sometimes one is more up to date than the other and it is pertinent to visitor safety especially on dangerous passes.
- Print Mt Langley registers to track visitor use patterns
- Coordinate trailhead ranger patrols with local rangers

Comment [Fox13]: If this is the Tyndall Meadow Box, the WSP supports removal

Comment [Fox14]: WSP – remove 1, leave 1

Comment [Fox15]: WSP – remove Lower

Comment [Fox16]: Management decisions were made during the WSP process. The WSP speaks to these issues and will be adhered to.

Deleted: Ziplock

Comment [Fox17]: possible

Comment [Fox18]: PCTA already does this.

Comment [Fox19]: This suggestion seems to be based on gut instinct instead of data. We will engage leadership to discuss this possibility, but data must be collected in 2016. PCTA permits do not allow camping off the PCT, but 15 mile day hikes ok.

Comment [Fox20]: requested

Comment [Fox21]: I'm not in favor of

Comment [Fox22]: Both groups should take on this responsibility.

Communications:

- Test InReach devices throughout season
- Better radio training for all user groups.
- Minimize radio traffic for safety.

Comment [Fox23]: The radio is a shared system. Agree there is extraneous traffic. Disagree that using the radio to give real time information on contacts is inappropriate. I still require it.

Administrative:

- Have a place on the shared drive for each respective ranger station and include the following categories to avoid losing paperwork and reinventing the wheel every season:
 - Open/Close Duties
 - Patrol Area description (if available)
 - Sign Inventory (w/GPS coordinates & photos)
 - Local signs (bear boxes, wag bag tub, etc.)
 - Sensitive Plant Species Maps/Drawings (digitized yet?)
 - Archeology/Historic Structure Maps

- Campsite Inventory Maps
- Station Inventory
- EMS Inventory
- Annual request/needs list (personal and station)

Comment [Fox24]: Accomplished already

Appendix: Mt Langley



- Cairned Route constructed summer 2014
- 97%+ now used cairned route
- Much less use on plateau south and east of metal cairn route sign.
- A few lesser traveled use trails that will always exist head towards cross country routes to Tuttle/Diaz Creeks and east off of plateau.
- 2,000 estimated signed summit register 2015 (118 June 20-June 30, 431 July, 506 Aug, ?Sept plus Labor day weekend I saw almost 200)
- 3,500 estimated attempt summit but do not sign register or reach summit
- 65% estimated day hike Langley from Horseshoe Meadow trailhead
- USNPS incidents average 2 separated parties and 2 medical/trauma per season
- USFS incident averages unknown
- SAR concerns: Old Army Pass especially when snow/ice covered People accidentally descending to Soldier Lake drainage (remedy link USNPS & USFS trail condition websites)
- People accidentally descending Army Creek drainage (remedy=sign@New/Old Army jct)
- Trash/human waste not a problem in park at this time.

Recommendations:

- Coordinate regular weekend patrols with USNPS Lone Pine trailhead ranger. Must have good snow & cross country travel skills for Miter Basin/Old & New Army Passes)
- Place sign to New Army Pass at Old Army/New Army trail junction
- Link USNPS & USFS trail condition websites.
- Build 1-2 more cairns along steep SW side of mountain coordinates: 11S 0388563 4042168 NAD 83
- Rake old user trails at EOS where few/no footprints exist, some extraneous user trails acceptable as majority 90% plus use main route. Never will be 100%.
- New signage should include **stay together** as a group <8 people (NO PETS) as people frequently get separated. It is NOT A TRAIL the whole way up; Navigational skills required as visibility can be obscured in summer snow/thunder storms; pack out used TP and garbage; bring headlamps/bivy gear if day hiking.
- If we want to track use better a trail register binder with two-sided sheets including the following info would be beneficial:
 - Entry Number/Date/Name/City/State/Country/comments
 - i.e. 1) 9/22/15 Laura Pilewski Pagosa Springs, CO, USA "Is this Mt Whitney?" usnps.gov or some address at bottom of each page
 - MUST FIT IN AMMO BOX approx. 6-7 " x 11" wide paper or less

Comment [Fox25]: See above

Comment [Fox26]: This may require a new MRA. I believe we already constructed as many as were originally approved. A detailed description of why and how it would be the minimum tool would be required to proceed.

Comment [Fox27]: Will snow not accomplish the removal of footprints?

Comment [Fox28]: No new signage without an MRA showing the minimum tool.

Comment [Fox29]: Not in favor of increasing the footprint when current trail registers are not used to beneficial means.

**TYNDALL CREEK
JUNE/JULY REPORT
2015
Christina Gooch**

A. General Summary

June/July

This season the Tyndall Ranger Station was staffed starting June 19. I spent much of my patrol time during the early season (June/July) along the JMT/PCT corridor, and made one three-day patrol in the Crabtree area.

Visitor use during June and July was dominated by large numbers of northbound PCT hikers. I estimate that there was a 40-50% increase in traffic along the JMT/PCT during this period compared to last year. In addition to higher traffic on the trail and at campsites, the impacts to the corridor increased significantly, including more trash and human waste problems, creation of new campsites, more illegal campfires, more noise and amplified music, and a more pervasive lack of knowledge of SEKI-specific regulations. The increased visitor traffic also resulted in spending a larger percentage of patrol time making visitor contacts, leaving less time for other duties such as trail and campsite maintenance, larger campsite rehabilitation projects, resource monitoring, broadening of area knowledge, and ranger station upkeep.

While my June/July visitor contacts were only slightly higher this year than last (1008 contacts compared to 874 in June/July 2104), this can be attributed to the longer period of time I spent in the Crabtree area last July, where it is common to see 100-200 visitors in a day. I saw far more hikers on the PCT this year, with patrols on the PCT regularly yielding 40-60 contacts (compared to an average of 20-40 per day last year). Traffic in other parts of the Tyndall patrol area seem comparable to previous years. EMS incidents were also higher during the June/July period this year (4 evacuations/AMA/TAR versus 1 in 2014, and 9 EMS visitor assists versus 3 in 2014).

August

Visitor use during August was dominated by large numbers of southbound JMT hikers. I estimate that this August there was at least a 50% increase in traffic along the JMT/PCT compared to last August. In addition to higher traffic on the trail and at campsites, the impacts to the corridor have increased significantly, including more trash and human waste problems, creation of new campsites, more illegal campfires, more noise and amplified music, and a more pervasive lack of knowledge of SEKI-specific regulations. The increased visitor traffic also resulted in spending a larger percentage of patrol time making visitor contacts, leaving less time for other duties such as trail and campsite maintenance, larger campsite rehabilitation projects, resource monitoring, broadening of area knowledge, and ranger station upkeep.

Visitor contacts for this August are more than double last year's August contacts (994 this year versus 483 in 2014). This is in spite of a slight decrease in traffic towards the end of the month due to smoke from the Rough Fire. As in July, patrols on the JMT/PCT regularly yielded 40-60 contacts (compared to an average of 20-40 per day last

year), and at times up to 170 contacts in a day. Traffic in other parts of the Tyndall patrol area remained comparable to previous years.

September

Visitor use throughout the area dropped significantly during the month of September due to smoke from the Rough Fire, particularly along the JMT/PCT and in the northern parts of the patrol area. Traffic on the High Sierra Trail increased slightly as hikers were redirected to this trail from Cedar Grove trailheads. In spite of the general decrease in visitor use, traffic still remained higher than in previous years. My visitor contacts for this month are significantly higher than last year's September contacts (313 this year versus 186 in 2014). Problems experienced earlier in the summer in terms of campsite/trail impacts and resource damage dropped somewhat in September.

Statistics:

	June/July
Visitor Contacts	2315
SAR	0
EMS (Evacuation or AMA/TAR)	6
EMS Visitor Assist	22

B. Visitor Services

a. **Contacts**

i. **Backpackers (2199)**

Nearly all contacts during June/July were overnight backpackers. Approximately 85% of these contacts were made along sections of the JMT or PCT.

Nearly all contacts in August were overnight backpackers. Approximately 85% of these contacts were made along sections of the JMT or PCT.

Nearly all contacts in September were overnight backpackers. Approximately 90% of these contacts were made along sections of the JMT or PCT.

ii. **Day Hikers (116)**

The only day-hikers encountered during June/July were within several miles of the Shepherds Pass trailhead and during a day of patrol in the Mount Whitney area on 7/18 (day-hikers from Whitney Portal).

The only day-hikers encountered during August were within several miles of the Shepherds Pass trailhead and during a day of patrol in the Mount Whitney area on 8/3 (day-hikers from Whitney Portal).

The only day-hikers encountered during September were within several miles of the Shepherds Pass trailhead and during a day of patrol in the Mount Whitney area on 9/20 (day-hikers from Whitney Portal).

iii. Stock

- Commercial: 2 groups (RCPS, 10-15 per group, 25 head total)
- Private: 1 group (5 people, 3 head)
- Administrative: Sequoia Trails (passing through the Kern Canyon and High Sierra trail to resupply the trail crew, and mobilizing the Tyndall ranger station on June 16.) I&M Soil and Moisture crew, Mather

iv. Groups

I contacted several organized groups staying in and passing through the Tyndall area on either the JMT or the High Sierra Trail in June/July, including:

- Boy Scouts of America (13 groups of 9-15 each)
- Southern Yosemite Mountain Guides (3 groups, 31 people total)
- Sierra Mountain Center (2 groups, 20 people total)
- California Alpine Guides (1 group, 4 people total)

b. Law Enforcement

All law enforcement issues that arose in the Tyndall area during this period were addressed through discussion and education. No citations were issued. The most frequent regulation violations I encountered included camping on vegetation (9), improper food storage (8), camping too close to water (5), abandoned property (4), an illegal campfire (1), a pet in the wilderness (1) and lack of wilderness permit (3). I also discovered evidence of 3 other illegal campfires, but was unable to contact the responsible parties.

c. Search, Rescue, Medical Incidents

<u>Date</u>	<u>Location</u>	<u>Type</u>	<u>Evacuation/Resolution</u>
7/2	Wright Creek	Medical (General Illness/ALOC)	Helicopter
7/12	Tyndall Ranger Station	Trauma (Foot Injury)	Helicopter
7/19	Tyndall Ranger Station	Medical (Altitude Illness)	AMA/TAR
7/29	Junction Meadow	Medical (HAPE/HACE)	Helicopter
8/3	Wright Creek	Medical (Dehydration/General Illness)	Helicopter
8/5	Tyndall Ranger Station	Medical (Abdominal Pain)	AMA/TAR

There were no searches in the Tyndall area.

e. Fatalities

There were no fatalities in the Tyndall area.

f. Weather

Due to the fourth drought winter in a row, the trails and passes in the Tyndall area had little to no snow on them on June 19. Weather in late June was particularly hot and dry.

Most of July was characterized by continuous influxes of tropical moisture, which brought severe storms to the high country. Thunder, lightning, heavy rains, hail, and graupel were common, at times lasting all day and throughout the night. Each of these storms resulted in dramatic increases in stream height and intensity, making the crossings of Tyndall, Wright, and Wallace Creeks temporarily dangerous.

Weather in August was dry and warm, with relatively low humidity and above normal temperature. In contrast to July's weather, almost no rain fell in August. During the latter part of the month the Tyndall area received significant smoke from the Rough Fire almost every day.

g. Fires

There was one human-caused fire and one lightning strike fire in the Tyndall area in August. The human-caused fire began on 8/22; I contained it with six visitors that evening. It was fully extinguished on 8/23 by a team of two firefighters flown in that morning. The fire was located just northeast of the Shepherds Pass/JMT junction, approximately 200' uphill from the trail, and included one large Lodgepole pine and a ground area of approximately 12' x 12'. The lightning strike fire began on 8/26, and included one large Lodgepole pine located uphill from the JMT south of the Frog Ponds. The tree continues to smolder, with no active flames and low spread potential.

The Tyndall area received moderate smoke from the Big Five Fire for several days in the middle of August. The area was significantly impacted by smoke from the Rough Fire beginning mid-month as well, with conditions typically becoming worse in the afternoon and visibility regularly dropping to less than a mile. Conditions improved slightly by the end of the month, but the area continues to receive smoke on a daily basis.

C. Use Patterns

a. Backpackers

The majority of the backpackers that I encountered during June/July were hiking along the JMT/PCT. Use along this trail seems to have surged significantly this year, with an estimated increase from last year of around 50%. This increase has been evident in high visitor traffic on the trail, crowded and highly impacted campsites, more trash and human waste along the PCT/JMT corridor.

I also encountered a number of hikers doing shorter trips along the JMT/PCT entering and exiting at Onion Valley, Whitney Portal, and Cottonwood Lakes/Pass. Most of these trips included summiting Mount Whitney. A smaller number of hikers on the JMT/PCT entered or exited over Shepherd's Pass. During this period I also

encountered several groups on routes that included Lake South America and the Upper Kern. A total of approximately 35 hikers planned to visits peaks in the Upper Kern and the Mount Tyndall/Mount Williamson area, Kaweah Basin, and the cross-country passes over the Kings-Kern Divide into the Lake Reflection area.

The majority of the backpackers that I encountered during August were hiking along the JMT/PCT, with most of these hikers traveling south on the JMT. JMT use has surged significantly this year, with an estimated increase from last August of at least 50%. This increase has been evident in high visitor traffic on the trail, crowded and highly impacted campsites, more trash and human waste along the PCT/JMT corridor.

I also encountered a number of hikers doing shorter trips along the JMT/PCT entering and exiting at Onion Valley, Whitney Portal, and Cottonwood Lakes/Pass. Most of these trips included summiting Mount Whitney. A smaller number of hikers on the JMT/PCT entered or exited over Shepherd's Pass. During this period I also encountered several groups on routes that included Lake South America and the Upper Kern. A total of approximately 20 hikers planned to visits peaks in the Upper Kern and the Mount Tyndall/Mount Williamson area, Kaweah Basin, and the cross-country passes over the Kings-Kern Divide into the Lake Reflection area.

b. Stock

I encountered 1 private stock group (Three Corner Round, on a non-commercial scouting trip with 3 burros) and no commercial stock groups in the Tyndall area during June/July. Though llama use was high last season, I have not encountered any llamas this year.

Sequoia Trails used stock for mobilizing the station on June 16, but have not had any other significant stock use in the Tyndall area this season.

Most of the stock use I encountered in August was NPS administrative. The Kern Trail Crew spent the month camped in the Kern Canyon and at Sandy Meadow, with weekly stock resupplies typically grazing at Sandy Meadow, Wright Creek, Cold Springs, and in the Kern. The I&M Soil and Moisture crew, camped at Tyndall Creek from 7/31-8/7, was mobilized and demobilized by NPS stock. I also encountered the Mather Party stock trip while they were camped at Wallace Creek Waterfall Meadow. It is my understanding that the group was granted a variance to the normal 6 head/1 night grazing limit at this meadow, camping there for three nights with 13-16 head grazing each night. The meadow was closed per MD-9 after this trip, however, the meadow did not sustain any significant impacts or resource damage.

Comment [Fox1]: I spoke with concessions. Rock Creek reported three nights with 14 head in meadow 81-2, but failed to specify which meadow. I have passed the information along to the chief ranger to follow up since this was an NPS 'approved' trip, and NPS/USGS employees were present.

c. Administrative/Research

Research activity in the Tyndall area during June/July included the mountain yellow legged frog project at Kern Point, and Mary Clapp's bird soundscape project in the Upper Kern and Wright Lakes Basin.

Research activity in the Tyndall area during August included Mary Clapp's bird soundscape project in the Upper Kern and Wright Lakes Basin, the I&M Soil

and Moisture project (7/31-8/7), and the mountain yellow legged frog project at Kern Point (which was completed and demobilized on 8/31). The frog project also included one helicopter flight to collect frogs from a spring-fed pond on the Tyndall Plateau. These frogs were transported to a zoo for inoculation and eventual reentry into the park

d. Commercial

I contacted three (non stock-supported) commercial hiking groups during June/July, staying at the Tyndall Frog Ponds and near the JMT/Ranger Station junction. Two groups were run by Southern Yosemite Mountain guides and one by Sierra Mountain Center, and all had valid commercial use permits.

I contacted two (non stock-supported) commercial hiking groups during August, both camped at the Tyndall Frog Ponds. The groups were run by Southern Yosemite Mountain Guides and California Alpine Guides, and each had valid commercial use permits.

e. Aircraft

Low-flying aircraft continue to be a common occurrence over the Tyndall patrol area. Most of this traffic is comprised of military fighter jets flying along east-west paths, though I have also witnessed several low-flying private fixed-wing planes. I have received numerous complaints from visitors about noise from this traffic

D. Natural Resources

a. Bear

I saw no bear in the Tyndall area, and I heard of no problematic bear encounters from hikers.

b. Wildlife

Deer were prevalent throughout the whole patrol area during this period. Pikas, marmots, Lodgepole chipmunks, golden mantled ground squirrels, and chickarees were also abundant. I saw jackrabbits and snowshoe hares regularly in the Wright Creek, Tyndall Creek, and Tyndall Plateau areas. I heard coyotes once on the Tyndall Plateau in late July, but saw none in the area during this time. I also saw bald eagles in the Upper Kern and Bighorn Plateau, ducks in the Upper Kern, and a variety of falcons, kestrels, and hawks throughout the patrol area.

At the end of August a Lodgepole chipmunk in the Crabtree area tested positive for plague. So far, only two deceased rodents have been found in the Tyndall area (both Lodgepole chipmunks within a half a mile of the Tyndall Ranger Station).

Deer, pikas, marmots, Lodgepole chipmunks, golden mantled ground squirrels, and chickarees remained prevalent throughout the patrol area during August, and I continued to see jackrabbits and snowshoe hares regularly in the Wright Creek, Tyndall Creek, and Tyndall Plateau areas. I saw no coyotes in August, but routinely observed their scat and tracks throughout the area. I observed

bald eagles on the Bighorn Plateau, a variety of falcons, kestrels, and hawks throughout the area, and regularly saw a pair of golden eagles that appear to be nesting in the vicinity of Mount Tyndall. I also observed a great blue heron at the Milestone Creek/Kern confluence

c. Vegetation

Due to yet another year of below-normal snowpack and early snowmelt, all of the meadows in the Tyndall area opened on their projected dates this season. None of the meadows saw significant stock use during June/July.

Both Wallace Creek Waterfall Meadow and the Wallace Creek/JMT Junction Meadow reached their estimated grazing capacities in August. The Wallace Creek Waterfall Meadow was closed via MD-9, and the Wallace Creek/JMT Junction Meadow was extended by 10 nights.

Two velvetgrass plants were found and removed by 819 (Pilewski) near the Kern River in the main camping area at Junction Meadow. This is the only report I received during this period of invasive species in the patrol area.

E. Cultural Resources

a. Historic Sites

The two historic cabins in the Tyndall area (Shepherd's Cabin along the John Dean Cut-off and the Powder Magazine in the Kern) do not appear to have deteriorated in condition. Though they are camped at regularly, I noticed no damage or vandalism to the structures.

F. Backcountry Facilities

a. Ranger Station

Cabin: The cabin seems to be in good condition, and was once again left in a clean and organized state by the winter snow surveyors. I caught no mice in the cabin.

Propane: The station propane system has been working well this season, aside from what seems to be a small leak in the valve connecting the tank to the rest of the system outside. The tank should be closed when not in use in order to prevent excessive leaking.

Solar: The station solar system is working well this season with the two new batteries installed last year. The battery charge indicator light on the solar controller has never dropped below green, and I have had adequate power for all needs.

Toilet: The station privy structure is in decent condition. I re-secured the door, which had become very loose. The pit is becoming quite full, and I have located a spot for a new toilet to be dug early next season.

b. Signs

- i. Aside from minor dents and scratches, all signs in the Tyndall area are in good condition. *It will be necessary to relocate the "No Fires Above This Point" signs from 10,400 feet to 10,000 feet early next season to coincide with changes in fire regulations.*

G. Trails

a. Trail Activities (work accomplished)

The Kern Trail Crew spent several days in the Tyndall area this month performing basic trail maintenance. I removed the stock-blocking tree above Rockslide Lake in the Kern-Kaweah early in the month, and the trail crew removed the large boulder below The Chute in the Kern-Kaweah later in the month. There are no other major trail problems or issues to address this year.

b. Problem Areas

Most of the trails in the Tyndall patrol area are in good condition. The few problem areas include patches of multiple paths/braiding on the trail from the JMT to Shepherd Pass and on the trail between the Tyndall Creek Crossing and Forester Pass. The unmaintained trails in the area, including the Lake South America loop trail and the trail in the Upper Kern-Kaweah to Colby Pass are somewhat difficult to follow in places, frustrating visitors that are unaware that these trails are unmaintained. Some of this confusion is exacerbated by many of the popular maps not differentiating these trails from the maintained trails.

Maintenance on the Forest Service trail east of Shepherds Pass was begun in August. Crews are currently focusing on making the Symms Creek crossings stock passable so that work on the major washout below Anvil Camp can begin next year.

H. Camp Areas

a. Area Overview

The highest use camping locations in the Tyndall area are along the JMT/PCT corridor. While the camping continues to be most concentrated at the Tyndall Creek Crossing, the Tyndall Frog Ponds, the Wallace Creek Crossing (all three of which have bear boxes), and Wright Creek, this year I have encountered more parties camped all along the stretch from just south of Forester Pass to the JMT-High Sierra Trail junction at Wallace Creek. I spent a significant amount of time in these areas during June/July, making visitor contacts and performing campsite and fire ring rehab and maintenance. Junction Meadow and the Kern Hot Springs have also been seeing high use, and will likely become even more heavily impacted when the High Sierra Trail hits its peak in August.

Other areas that received regular use during this period include the Lake South America Loop, the lake just west of Shepherd Pass, and the stretch of the Kern River north of Junction Meadow. Off-trail areas receiving regular use include the Upper Kern, the Wallace Lake basin, the Wright Lakes basin, Milestone Creek, and Kaweah Basin. Camping remains relatively dispersed in these areas.

b. Conditions

The JMT and PCT have been especially busy this year, resulting in considerable impacts to the campsites along the trail. The Tyndall Creek Crossing, JMT/Tyndall Ranger Station Junction, Tyndall Frog Ponds, Wright Creek, and Wallace Creek Crossing seem to be receiving the heaviest impacts, with trash and

human waste issues being the greatest problems — far more so than in previous years.

The Wallace Creek Crossing camping area should be of particular concern as the campsites are on the edge of a meadow, and due to the high volume of campers seem in danger of growing and encroaching more and more upon the meadow vegetation.

Junction Meadow also remains a problem area, with huge fire rings and regular trash in the campsites and bear box. Due to the lack of a Kern Ranger this season, the camping areas south of Junction Meadow are not receiving much attention. I was able to get to the Kern Hot Spring once during June/July. Due to the high use the area receives however (it is a very popular spot for layover days), it is highly impacted and should be a high priority of any patrols by rangers in the vicinity.

c. Rehab/Restoration

I completed a number of small rehabilitation projects, including the removal of illegal fire rings (14), the rehabilitation of campsites too close to water (3) removal of illegal fire rings (6), and the breaking down of large campsite “improvements” (rock and log structures, etc.). Most of these projects took place at the Wallace Creek Crossing, Junction Meadow, Tyndall Frog Ponds, and JMT/Tyndall Ranger Station Junction.

d. Sanitation

Sanitation was a significant problem throughout the patrol area, particularly along the JMT/PCT corridor. JMT and PCT hikers seemed particularly ill-informed about proper waste disposal, specifically regarding appropriate distances from water/trail/campsites and the need to pack out toilet paper. Primary problem areas included the Tyndall Creek Crossing, Tyndall Frog Ponds, Wallace Creek Crossing, and Junction Meadow, where I regularly found completely exposed or poorly buried waste and toilet paper.

e. Fire Rings

Established fire rings in the the Tyndall area include 3-4 in the Junction Meadow area, 3 in the Kern-Kaweah, 2 in the Kern north of Junction Meadow, and 2 along the HST west of the JMT Junction.

I removed 8 illegal rings throughout the area during June/July (most likely from late-fall/early-spring use), including 3 at the Wallace Creek Crossing, 3 along Wright Creek, and 2 at the JMT/Tyndall Ranger Station Junction.

I removed 7 illegal rings throughout the area during September, including 3 along Wright Creek, 1 at the Wallace Creek Crossing, 1 at the JMT/Tyndall Ranger Station Junction, and 1 at Wright Meadows.

Based on firewood availability and the use I observed during this period, a fire elevation limit of 10,000’ for the Tyndall area seems more appropriate than the current limit of 10,400’. A limit of 10,000’ would also be consistent with the Kings Canyon limit, making things less confusing to visitors hiking between the two parks.

f. Firewood Availability

Firewood availability is scarce above 10,000' in the Tyndall area. Below 10,000', the most problematic area is Junction Meadow, where fires are permitted and common. The area immediately surrounding the main campsites are quite low on downed wood; however, there is a decent supply within a short walk of these sites.

g. Food Storage

I ran into relatively few problems with food storage compliance. Of the 2288 backpackers I contacted during this period, almost 90% were carrying approved bear-proof canisters. Roughly 5% were relying on bear boxes, and fewer than 5% were planning on counterbalancing their food. Most of the hikers I encountered were well informed and seemed conscientious about maintaining a bear-proof camp.

I encountered two parties carrying Ursacks during this period. One of the parties had purchased the Ursacks from Mammoth Mountaineering in Mammoth Lakes, who has reportedly been informing hikers that Ursacks are approved for use in SEKI. This information was passed on to the Wilderness Office, who has contacted the outfitter multiple times to correct the misinformation.

I. Permit System

a. Trailheads

I had little communication with trailhead rangers during this period, and did not make contact with any trailhead rangers in the backcountry. This is in part due to the absence of a Lone Pine trailhead ranger this season. (b) (Mike Springer) was the only trailhead ranger to patrol into the Tyndall

b. Issuing Office

The majority of the parties I contacted during this period obtained their permits from Yosemite or through the Pacific Crest Trail Association (PCTA). As the JMT/PCT permits issued by these offices cover several different wilderness areas, it seems that a number of these parties had not been made aware of SEKI-specific regulations. Most other parties I encountered had obtained permits from the Interagency Office in Lone Pine, from Roads End, Lodgepole, or Mineral King Ranger Stations.

J. Communications

Radio communications on the (b) (7)(E) repeater have been poor this season, particularly between backcountry and frontcountry units. There were many times when backcountry units on the repeater could hear each other, but were not heard by dispatch or the frontcountry unit being called. The first few seconds of transmissions were often also cut off.

I have been able to hear radio traffic but have almost never been successful at transmitting from the ranger station area unless using the base station. Other problem

Comment [Fox2]: Work request has been submitted and the issue relayed with troubleshooting. I believe this is a link issue, not a repeater issue.

areas include the (b) (7)(E) drainage, where radio coverage is poor to non-existent. I have generally been able to get radio coverage on the (b) (7)(E) repeater in all other areas in the patrol zone. Communications on the local (b) (7) channel were generally good, and proved extremely useful for connecting with other park personnel in the area while not tying up the main backcountry channel.

(b) (7)(E)

- **Needs for Next Year**

- **Propane** (there is currently ½ of a 10-gallon tank and 1 full 5 gallon tank at the station)
- burlap sacks (5)
- fluorescent light bulbs for station (2)
- USGS 7.5-minute quads (Mt. Brewer, Mt. Kaweah, Mt. Williamson, and Mt. Whitney)
- super glue or Gorilla Glue
- 1 grill lighter (for stove)
- large trash bags (4)
- toilet paper (4 rolls)
- duct tape (2 rolls)
- John Muir Laws Sierra Field Guide
- broom
- EMS supplies:
 - V-vac suction bag
 - Pediatric NRB mask
 - 1 large trauma dressing
 - 5 rolls Kling wrap
 - 2 hot packs
 - current meds

- **Recommendations**

- Relocate the “No Fires Above This Point” signs from 10,400 feet to 10,000 feet early next season to coincide with changes in fire regulations.
- Dig new station privy early next season.

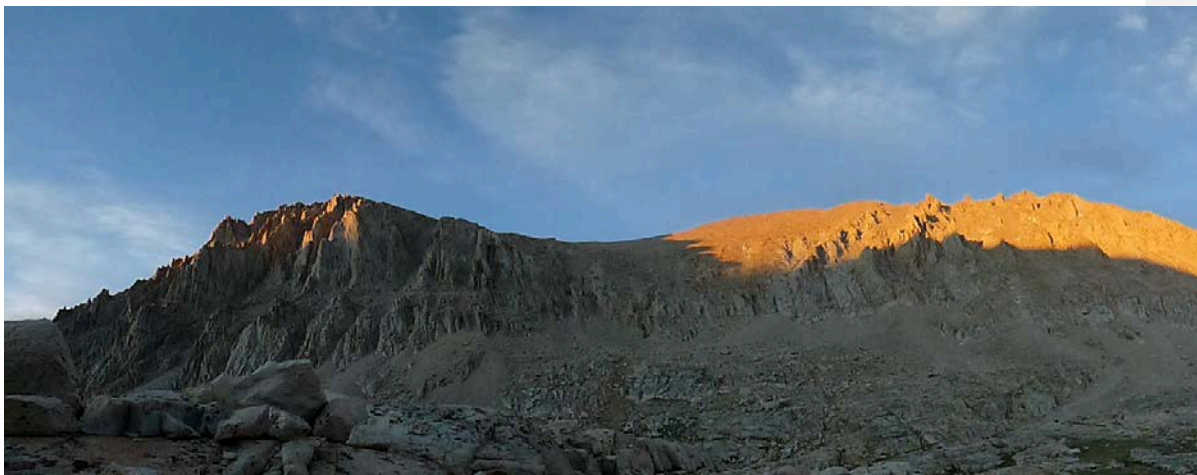
- Depending on winter snowpack, consider a wilderness-wide fire ban during the later and drier summer months.
- If funding allows, staff the Kern station next season to increase visitor contact and education and to prevent further deterioration of campsite conditions.
- If the Kern Station is not staffed next season, have the Mineral King trailhead rangers continue make patrols in to the Kern area, with an emphasis on the Kern Hot Springs and Junction Meadow.
- Consider a limit on the number of permits issued by the PCTA, to keep closer check on the number of hikers along the JMT/PCT and to bolster the number hikers receiving in-person information.
- Communicate with Lone Pine and Yosemite trailheads regarding SEKI-specific food storage regulations.
- Rehab the main camping area at the Tyndall Frog Ponds, decreasing the size and number of campsites and social trails.

Comment [Fox3]: Occurs based on fire data. While it may not seem to be intuitively correct, it works.

Comment [Fox4]: Have a meeting scheduled with PCTA. This works on a national agreement between three states and multiple agencies. It's not a simple matter of giving them a number.

Crabtree EOS Report 2015

by Rob Pilewski



A. General Summary

This was my 24th summer working as a commissioned wilderness ranger at SEKI. I have seen some changes over these years. Visitation in the Crabtree area has increased significantly over the past 3 summers, and this year saw the biggest increase yet. I attribute this to the "perfect storm" scenario.....the driest winter on record preceded this summer making the hiking season 5 months long (May-October) instead of the typical 3 months (July-October), and the idea of visiting the wilderness has been brought to the masses by a popular book made movie called "Wild". The PCT has long been due to gain the attention of hiking enthusiasts, and "Wild" has pushed it over the top. The other long distance hike that brings many visitors to SEKI, the JMT, has also seen numbers rise and this year I estimate another 30% increase. There was also a shift in the direction of travel of JMT hikers this season likely due to the exit quota that Yosemite NP has implemented on Donohue Pass. This may have resulted in more north bounders and more overnight use in the Rock Creek and Crabtree patrol areas. Mt Whitney is the focal point for most travelers to the Crabtree patrol and many visitors come via numerous loop trips and the High Sierra Trail. With more people visiting the SEKI wilderness there was more of everything else that comes with increased visitation: medicals/medivacs, law-enforcement/citations/warnings, human waste, maintenance, and more impacts to the land. The amount of human waste generated by the high numbers of visitors to the Crabtree/Whitney area is unmanageable under our current policy. More on this subject in the "Recommendations", and "Permits" sections. I contacted more visitors between June 11 and September 7 this summer than I had in my first 5 full summers as the Crabtree Ranger combined. And lest we forget, more people visiting this grand park resulted in more happy visitors throughout the lengthy hiking season. It is great for people to be out in the park and our culture benefits greatly from more people visiting the wilderness. The trick is having the resources and management strategy to effectively deal with more visitors and being able to accomplish our mandate of protecting park resources.

Comment [Fox1]: Curious to know if they kept tallies on how many people said that's why they came, or if it is just a hunch.

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Comment [Fox2]: Will look for more in Recommendations. Would like an explanation of our inability to manage the waste.

B. Visitor Services

a. Contacts

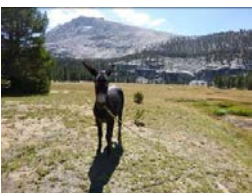
i. Backpacker (approx. 5,000)

There were more visitor contacts at the ranger station and on the trail this season than any of my previous 16 summers working as the Crabtree Ranger.



ii. Day hiker

Between my first Whitney patrol of the season on June 11 and September 21 there were 13,840 visitors who signed the Mt. Whitney register. There were many more visitors on the Whitney trail who did not summit/sign the register. Due to the historic lack of snow on the Mt. Whitney trail during the early season this year I believe that there were more visitors on Mt Whitney this year than ever before.



iii. Stock (approx. 300 head-not including day use)

Commercial trips were the most popular. Most were support for Sierra Mountain Center and Sierra Mountain Guides trips. Nearly all stock use revolves around Mt. Whitney, and most are stock supported hiking trips to Crabtree. There were only 2 private stock trips to the area this summer. One was a man walking with 2 burros, and there was a party with 12 head of stock that stayed at Strawberry Meadow for 7 nights. Unfortunately, I did not contact this party during the busy days of July and they put 84 grazing nights on a meadow with an estimated capacity of 40.

b. Law Enforcement

I issued more citations and warnings this summer than ever before. Many warnings will not be reflected as CAD statistics due to poor radio communications in the (b) (7) the radio already being jammed with radio traffic, and the fact that I (would be calling in constantly to "report" a CAD event (i.e. (b) (7)(E) for "camping on vegetation") that has already taken place. I understand the ranger safety aspect of calling in "law-enforcement" contacts as they occur, but here in the wilderness most contacts occur spontaneously. Typically we are approached by visitors or we contact them on the trail or in their camp. Rarely do we get called by dispatch to respond to an LE incident. The crabtree ranger would be on the radio all day (if he was able to establish contact with dispatch) if he called in every (b) (7)(E) " that occurred on a daily basis. For these daily visitor encounters I suggest keeping a tally that could be compiled at the end of the season for routine ranger contacts where a "warning" was issued. This would free up the radio and make things safer for all wilderness employees.

Education remains the most effective tool for gaining compliance from visitors regarding minor infractions. That being said, it is also useful to be able to issue citations in the field when a higher level of enforcement is necessary. Having a commissioned ranger stationed at Crabtree should continue to be part of the Kern sub-district management plan.

Verbal and written warnings were issued throughout the summer for camping violations, terms of permit, and human waste disposal. The subject of human waste takes up a good amount of the Crabtree rangers time. This summer, more than in the past, camp areas are becoming unsanitary due to poor human waste disposal. This is due in part to the high volume of visitors to the SEKI wilderness, but also due to visitors not knowing how to dispose of human waste in the wilderness. It is time for a strong informational campaign regarding this subject at permit offices, and on the SEKI minimum impact sheet. By seasons end, toilet paper was littering all popular campsites along the PCT/JMT.

c. Citations

I issued 3 citations to a private stock party who was camped at Rock Creek for 7 days. This was a large stock party (28 head) who was apparently unfamiliar with SEKI rules and regulations, or minimum impact stock use in general. I spent many hours with them on 3 separate contacts educating and enforcing. They were issued citations for: unlawful highline location (see photo), not moving pickets often



Comment [Fox3]: Not reporting a CAD event – reporting an incident. The benefit I see is real time knowledge from a supervisory standpoint, and collection of the data in a single system.

Comment [Fox4]: I'm not sure how this differs from the front country. Most contacts are spontaneous in our LE program.

Comment [Fox5]: That is a good description of what an LE Park Ranger is supposed to be doing.

Comment [Fox6]: I think this is overstated. The radio is the primary method of communication, but from a safety standpoint, there are phones and other GPS devices.

Comment [Fox7]: Already occurring – photos of human waste, direct communication, MIR sheet, etc. Other suggestions for "strong information"?

enough to prevent resource damage, and food storage. Please refer to the full report for details. Other citations issued this summer were for; no, or improper permit, food storage, group size violations, and pets in the wilderness. There were more service dogs contacted in the SEKI wilderness this season. Several were well versed on what to say and how to distinguish between "service dog" and "pet". It would be useful for enforcement purposes if the DOJ required a certification that was required of all service dogs.

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Comment [Fox8]: I don't know what makes it a grey area. The regulations are specific. People may lie, and we are unable to question them about their disability nor verify the need.

Deleted: This is still a very grey area.

Comment [Fox9]: ADA is a law. DOJ makes the rules.

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d. SAR & Medicals

Date	Location	Type	Evacuation
6/7	Lower Crabtree	medical/lyme disease	helicopter
6/22	Sandy Mdw	General illness	Recover at RS/TAR
6/28	Crabtree RS	HAPE	Overnight at RS/helicopter
7/5	Guitar Lake	Cardiac Infection	helicopter
7/23	Crabtree RS	Acute Abdomen	helicopter
7/27	Mt Whitney	Medical/SPOT	Escort/TAR
7/29	Lower Crabtree	Medical/Chest Pain	helicopter
7/29	Lower Crabtree	HAPE	Gamow Bag/helicopter
8/1	Crabtree RS	Infection	helicopter
8/3	Wright Creek	Stat medical/dehydrated	helicopter
8/9	Mt Whitney	Exhaustion	Escort/TAR
8/11	Lower Crabtree	AMS	Stock
8/12	Lower Crabtree	Medical/altitude	helicopter
8/16	Crabtree RS	Medical/Chest pain	helicopter
8/19	Crabtree RS	General Illness/fever	Overnight at RS/helicopter
8/20	Crabtree RS	Kidney Stones	Overnight at RS/TAR AM
8/27	Crabtree RS	Foot infection/systemic	helicopter
9/8	Guitar Lake	SAR	Located/Good Health
9/16	Mt Whitney	SAR	fatality



Photos-Gamow bag/HAPE treatment at Lower Crabtree meadow, (b) medivac from ranger station.

e. Fatalities

Date	Location	Type	Evacuation
9/16	Mt Whitney	fatality	helicopter

f. Weather

It was wetter than normal in May, June and the first half of July in the sierra high country this season. Streams and rivers were running much higher in late July than they were after the historically low snow runoff in early spring. The second half of the summer was characterized by warmer and drier than normal conditions. Before a system came thru in mid September, there was a 43 day dry spell where there was barely even a cloud to be seen. Photo-dry pond result of 4 year drought, upper crabtree meadow.



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g. Fires

There were no fires in the Crabtree area this summer. There was smoke from the 2 major fires to the west and adjacent to SEKI for periods of time during August and September. The smoke was not nearly as thick as it was north of the Kings-Kern Divide in Kings Canyon NP. The Rough Fire resulted in less visitation along the JMT due to heavy smoke along the JMT in Kings Canyon.

C. Use Patterns

a. Backpackers

The long distance hikes on the JMT/PCT continue to be the most popular and numbers continue to increase. The High Sierra Trail also brings many visitors to the Crabtree patrol. Various loop trips to Mt. Whitney complete the "funnel effect" that results in a very high volume of backpackers throughout the summer in the Crabtree Patrol. Photo-Guitar Lake campers.



b. Stock

As stated before, commercial stock supported hiking trips to Mt. Whitney are the most popular. There are typically 1 and sometimes 2 of these trips per week, and usually consist of 5-10 head of stock and 7-15 clients and guides. It is a challenge to manage grazing use at

area meadows in light of such a high volume of stock traffic. The new wilderness stewardship plan designates the "Mt. Whitney management area" and permits regulation of the numbers of commercial users in this busy area. This is a good idea and needs to be dynamic enough to meet the increasing demands on the area and our mandate to protect park resources and wilderness character.

Deleted: aims to regulate

Comment [Fox10]: This is not a mandate. We don't have to ensure a wilderness experience for all visitors. Their wilderness experience is their own responsibility and that includes selecting less popular areas if they desire solitude. We can manage visitor use to assist in this overall goal, but it is not incumbent upon us to ensure it. We must protect wilderness character.

Deleted: ensure a wilderness experience for all visitors

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c. Administrative

The wilderness trail crew was camped at Sandy meadow and worked on several projects in the area for just over 1 month. Members of the plant ecology crew were in the area to help with residual biomass monitoring in September. NPS packers/stock were again utilized to mobilize Kern rangers in June, and demobilize in September. Nick Knudson and crew did a fine job. Otherwise, it was pretty quiet from administrative use at Crabtree.

d. Commercial

Commercial use is high in the Crabtree patrol area and revolves almost exclusively around Mt Whitney. There are numerous commercial outfits that bring clients to the area throughout the summer. Sierra Mountain Center has frequent trips to the area originating at Horseshoe Mdw and going to Mt Whitney and back again. They sub-contract with Cottonwood Pack Station or Rock Creek Pack Station to move gear and camps so that the clients only carry a light day pack. REI and Rock Creek Pack Station also have their own version of the Mt Whitney/stock supported hiking trips. Sierra Mountain Guides had 2 of these type trips with Japanese clients/translators/guides. Horse Corral Pack Station brought a trans-sierra trip on the HST in September. Commercial backpacker trips to the area are run by: Trans Sierra Extreme (TSX), Southern Yosemite Mountain Guides, Sierra Wilderness Seminars, and Sierra Mountain Center who do several guided backpack trips on the JMT. Most commercial users in this area already pack out human waste from the Guitar Lake area, and I made all of them aware that next season it will be mandatory.

Comment [Fox11]: The commercial quotas in the Whitney Zone will not be ready in 2016. Look to 2017.

Deleted: It will be interesting to see how the wilderness stewardship plan changes commercial use in the Mt. Whitney management area

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Comment [Fox12]: The WSP says "may"...strongly encouraged for 2016, implementation likely in 2017.

D. Natural Resources

a. Bear Activity

I received no reports of bear incidents all summer. This includes interviews with backpackers coming all the way from Yosemite on the JMT. The food storage lockers at SEKI and portable bear canisters that almost all visitors carry these days have virtually eliminated bear incidents in the SEKI wilderness. "Wild" bears were spotted at Upper Crabtree Meadow and in the Kern Canyon this summer and reported to the Crabtree ranger.

Bear Boxes

I think the Lower Crabtree bear box and the Crabtree Ranger Station bear box should remain in place. There are still annual bear sightings at the lower meadow and this is where the PCT hikers base camp for Mt Whitney. Only some of them go up to the ranger station to camp. And, their bear cans are still quite full one day out of Horseshoe Meadow resupply. Although these visitors still occasionally leave trash behind, it is

Comment [Fox13]: The WSP has determined the Lower Crabtree FSL will be removed.

much better and easier for the ranger to retrieve it from the boxes versus half buried and strewn about the wilderness.

b. Wildlife

I observed 7 dead rodents in the campground in the vicinity of the ranger station during the first 2 weeks of August. (photo- 2 dead Lodgepole Chipmunks near ranger station). I contacted park wildlife biologists and they requested that I gather a specimen and have it sent out for testing. On August 20th I collected a specimen and later that day helicopter 552 came in to retrieve it. On August 28th I was notified that the rodent (a Lodgepole Chipmunk) that was sent out had tested

positive for plague. I was directed to place signs at high visitation areas, and to educate and inform visitors about plague prevention and treatment. Please refer to the full report for more details.

Please refer to wildlife observation cards for more details on other wildlife sightings. There were no other rare or remarkable wildlife observations made at Crabtree this summer.



c. Vegetation

Although meadows received much needed rain at the beginning of this summer, dry conditions prevailed by summer's end and meadows and camp areas were showing the effects of the continued drought. There is a high demand on Crabtree area meadows for grazing nights and by season's end all meadows had reached estimated capacity and had been closed. Please refer to stock use observations report for details on grazing in the area.

E. Cultural Resources

a. Prehistoric

Area sites appear intact.

b. Historic

The Smithsonian Mt. Whitney Hut is 106 years old. The work that Thor and the historic preservation crew did on the hut 3 years ago is holding up very well. The signs that I placed guilting people into not writing graffiti on the walls of this historic hut also seem to be working. There was a break-in to the locked NPS side of the hut over the 4th of July weekend. A group of unprepared ultra-



marathon runners showed up after dark, and broke the lock off of the door. They gained access to the rescue cache and used it to get through the night. I put the cache back together the next day and inventoried the gear. Nothing was stolen or damaged (other than the broken lock) during the incident.

The lightning diffusion system appears in good condition. Monthly and post lightning event inspections were performed throughout the summer and routed through the District Ranger and Safety Officer.

F. Backcountry Facilities

a. Ranger Station

This was the second season for the new Crabtree Ranger Station. Visitors are very impressed by it and it has proven to be a well functioning summer ranger station. Only a few mice were trapped this summer, and the structure appears to be tightening up as the logs settle. The snow surveyors continue to complain about it not being warm enough in winter and other things.

b. Signs

All signs in the area are in good shape. I moved a restoration site sign to a camp just east of Timberline Lake. This camp was too close to the trail and listed in several guide books and "apps" for the PCT and JMT. It was getting heavily impacted and in need of a rest. My only sign request is for 2 "Restoration Site-No camping" signs mounted on posts to be mobilized to Crabtree for the 2016 season.

Comment [Fox14]: Need to determine if this will require a MRA to for an installation.

G. Trails

a. Trail Activities/ Work accomplished

The Wilderness trail crew replaced the Kern maintenance trail crew this summer. They spent the second half of the summer at Sandy Meadow and worked hard on a couple of much needed projects in the Crabtree area. The crew redug/rebuilt the pit toilet at the Ranger Station campground (photo). They did some fine construction work on a bad section of the PCT just south of Lower Crabtree Meadow which will make it much safer for stock travel. There was a blow out on the Whitney trail 1/2 above the trail junction that they rebuilt in September. Josh Gabik and crew did some fine work and visitors are always voicing their gratitude for the fine trails at SEKI. The trail crew helped out on several incidents in the area, as well, and were always willing to do whatever the local rangers requested of them. Thanks to Josh, Jack, Phil, and Alex!



b. Problem areas

Area trails are in good shape and with annual maintenance should continue to be so. The Mt Whitney trail gets so much traffic that it should be monitored closely so that any

problems that arise are quickly addressed. There are lots of rock work and walls on the Whitney trail that are getting pretty old and if we ever see a real winter around here this trail could require more construction.

H. Camp Areas

Due to high volumes of traffic, areas are in need of constant maintenance, however all look acceptable. It is remarkable how at seasons end area camps are highly impacted and looking in need of rest.....and upon return the following summer they look refreshed and ready for another summer of use. The land is resilient.

The one exception is Guitar Lake. This season we took a step backward in our efforts to manage human waste and protect the environment. The wag-bag program had been working up to this point with an estimated 90%+ compliance rate of people carrying their human waste out to Whitney Portal with them as they exit from SEKI. I

dispensed 2,500 wag-bags from Crabtree this summer (the most ever), and picked up around 80 used bags to pack out myself (also the most ever). Granted, this is a lot of human waste that was removed by visitors/rangers from the SEKI wilderness. Photo-picking up used wag-bags on Mt. Whitney. We have seen a significant increase of visitors who are not exiting to Whitney Portal from Guitar Lake, however, but rather continuing their trip to points west/south/and north. The causes of this shift in use patterns are numerous. The biggest is the increase in PCT thru hikers to the area. Many PCT thru hikers make Mt.



Whitney a routine "side trip" and spend multiple days at Crabtree and Guitar Lake. This causes many to dispose of human waste behind and under rocks at Guitar Lake where there really are no appropriate places to dig a cat hole. I took photographs of the mess left behind at the end of "PCT season" and it is obvious that we need to change our management strategy of how we permit access to this high alpine environment to so many while still protecting the natural resources of the park. One step, that I support, is to not permit access to the Crabtree/Mt Whitney areas to visitors who only have a PCT thru hiker permit. The other causes of increased impacts to camp areas west of Mt. Whitney are the exit quotas that are now in place on Donohue Pass in Yosemite NP and on Trail Crest in the Inyo NF. These exit quotas may have succeeded in decreasing the numbers and impacts to those public lands, but they appear to have significantly increased numbers and impacts at SEKI. Visitors who cannot obtain an exit permit for Trail Crest are spending more nights at Guitar Lake and other points in the park as they backtrack to other trailheads. We will need to use the new "Mt. Whitney Management area" identified in the WSP to manage for changes to visitor numbers and trends that are quite dynamic.

The implementation of the Wilderness Stewardship Plan next year will see the lowering of the fire elevation from 10,400' to 10,000' in the Kern drainage. We will be

busy removing and rehabbing camp areas with existing fire-pits above 10,000' next season.

I. Permit System

The current permit system is resulting in high numbers of visitors concentrated in fragile alpine environments resulting in damage to park resources primarily from human waste. We need to take a close look at the permit system and make the changes necessary to protect park resources. For starters, we could limit the high numbers of PCT thru hikers impacting the area in the early season. Mt Whitney is not on the PCT, it is on the JMT. All other user groups who want to do a trip to Mt Whitney have to apply for a permit through a lottery system over the winter, and if lucky enough to get one of the highly sought after permits, pay for the permit and then pick it up prior to their trip at the interagency visitor center where they are given a SEKI minimum impact sheet which they sign and initial the pertinent regulations. A person can obtain a PCT thru hiker permit for free, for a 2,700 mile trek including the entire length of SEKI and including access to Mt Whitney (under current permit regulations) by applying on line and having the permit emailed to them in an attachment. This loophole in the permit system is exploited by some who have no intention of thru hiking the PCT but rather only want to do the JMT or even a short trip to Mt Whitney. Enforcement is impossible when we contact visitors in the field with a PCT permit who are within close proximity to the PCT. This system worked when there were a few hundred hikers on the PCT a year, but that number has increased into the thousands. Managing this increase, in an already high use area like Crabtree is the challenge we face. I recommend that we close the Mt Whitney area from the west to visitors who only have a PCT permit. Again, Mt Whitney is not on the PCT. The summit is 8.5 miles from the PCT. If PCT thru hikers want to leave the PCT and hike Mt Whitney then they will have to do like all other user groups and obtain a permit under the same system that permits are issued for Mt Whitney. I further recommend that the PCTA state on their website and on the permits that they issue that the area "east of lower crabtree meadow to Mt Whitney" is not accessible with a PCT permit and that a separate permit is required. Enforcement would be challenging initially, but I think that over time would be more effective. This is the one obvious and simple step that SEKI can take to try and mitigate the damage caused by human waste in the Guitar Lake/Mt Whitney areas.

It would also be nice to target the PCT hikers with modern technology (i.e. apps or websites) that encourage LNT practices and inform them of the different regulations for the different agencies along their route. As a user group, they seem to be having the most negative impact to our patrol areas and normally are long gone by the time we get to our stations so we can't address them in the field.

Comment [Fox15]: This is not the permit system, but the trailhead quotas. It has been addressed in the WSP. Changes may be discussed for other limitations.

Comment [Fox16]: I am engaging the PCTA and US Forest Service on this issue. We MAY attempt to limit PCTA permits to .1 miles of the PCT through the Whitney Zone.

Guitar Lake Sunset



J. Communications

Radio communications on the (b) (7)(E) repeater are unreliable and ineffective. This is a safety issue for all wilderness employees who count on it for their primary means of communicating with dispatch. Wilderness rangers are fortunate enough to have inreach messaging devices and satellite phones as alternate means of communicating with the outside world. Without these alternate means we would not be able to perform our jobs. I have worked at SEKI long enough to know that it was not always this way, and remember a time when all we had was the radio and it worked just fine. This is a safety issue for all wilderness employees and should be addressed by the radio shop and park managers as soon as possible.

Ironically, if we wanted to increase safety, we would be making an effort to decrease radio traffic. Obviously this does not apply to law enforcement, medicals or the relaying of information to dispatch or the wilderness office. This in itself consists of ample air time. But, the calling in of everyday duties such as giving out bandaids, picking up trash or abandoned equipment, or just being nice and helping visitors by giving them basic route or minimum impact information and announcing such just clogs up the airways. I think the appropriate forum for such statistics still remains our EOS report.

Comment [Fox17]: I believe this is a link issue. I have requested it be looked at. A work request is in FMSS and the Telecom Shop was notified directly.

Comment [Fox18]: Again, this is overstated. The radio system is meant to be busy with necessary traffic. Delaying reporting of incidents until the end of season reports does not allow us to capture those statistics with the rest, and will ultimately lead to the impression that we need fewer wilderness rangers. We have a system to collect data on our work, and it is not the end of season reports anymore. Using the radio appropriately and breaking on long transmissions allows for emergency traffic to be conducted despite the numerous calls for service on both SEKI radio systems.

Comment [Fox19]: It was only appropriate when there was no way to gather statistics (when dispatch wrote things down on paper.)

Items left at Crabtree for 2016 season

- *1 person Big Agnes Tent in good shape
- *Thermarest backpacking sleeping pad in good shape
- *Feathered Friends Station Bag (blue, rated to -10)
- *1 Osprey overnight pack, size medium, so-so shape (needs replaced)
- *1 pocket rocket stove, titanium pot with lid, and fuel cannisters
- *1 large, 1 small propane
- *2 person REI Half Dome 2 tent
- *1 camprest sleeping pad
- *1Ridgerest sleeping pad
- *4 D Cylinder o2 tanks+ample delivery devices
- *1 camera battery charger and cord to connect to computer (for Panasonic DMC-ts120 camera

K. Needs for next year:

- 1 large propane
- 15 TP
- 2 TP
- 1 Osprey Overnight Pack-size medium

L. Recommendations

*Through the permit offices get an idea of how many visitors are using the SEKI wilderness. Trail counters, and perhaps even hiring somebody to count manually would also work. We have seen a real spike in visitation to the wilderness and it would be useful to have a baseline number to base future trends on.

*The Crabtree patrol has evolved since I first started working here in 1992 to present. On most days during the busy summer season the job now feels unmanageable for only 1 ranger. We may want to consider having 2 staffed rangers at Crabtree during these months.

Comment [Fox20]: I agree, yet we need to determine what wilderness station we won't be filling to put two there. Current budget climate is not ripe for expansion of employees.

*We need to adjust our wag-bag program. The program that we now have in place which asks visitors who are hiking out to Whitney Portal to pack out their human waste from Guitar Lake and above worked when 80% of visitors were actually hiking out to Whitney Portal. Due to the aforementioned exit quotas, much higher PCT and JMT hiker numbers, and other trends, this number may now be 50% or less. That means that all of those visitors **not** exiting to Whitney Portal are disposing of their waste in cat holes (not good in high volume in this high alpine environment), or pooping in the wag-bags then carrying them down to Crabtree and leaving them in all sorts of creative locations. This year I found them in the bear-box, on the ranger station doorstep, behind trees, etc. These are bags of human feces. We need to come up with a new plan to meet the changing visitor numbers and trends. I have given this much thought this summer. These are the alternatives, as I see it, in descending order of how viable I think they are:

1. Lower the numbers of visitors that are camping at Guitar Lake and above.

Perhaps this season was just a spike in use numbers and it will return to more manageable numbers in the future but this is not a plan. We could start by simply prohibiting PCT thru hikers (thousands of visitors) access to the Mt Whitney management area east of lower crabtree meadow and see how that works. We would still distribute wag-bags and ask those visitors exiting to Whitney Portal to pack out their waste.

Comment [Fox21]: Looking at the possibility, although I'm not sure if this is really the issue or it is being overstated. Some data would help. What percentage of hikers contacted in this area had PCTA permits?

2. Have a place somewhere west of Guitar Lake where visitors not exiting to Whitney Portal, but continuing their trip back into the park from Guitar Lake and above can dispose of their used wag-bags. These containers would have to be packed out with stock or helicopter when full. They would have to be a sealable dumpster like container that could be packed on stock. I am skeptical that this would work. I think it would be a smelly, fly infested area that would require much maintenance. It is also likely that due to high volume it would be costly and difficult logistically to pack out when they are full. It is also likely that visitors would dispose of their trash and other items that they no longer want to carry in them. I have spoken to Inyo NF Mt Whitney supervisor, Brian Spitek, about this and he seemed to think that the USFS could provide some funding for such an experiment.

3. Build a toilet at Guitar Lake. This idea has been discussed since I started at Crabtree. There are not really any good locations for a toilet there and it could be a maintenance problem with such a high volume of visitors using it and visitors throwing trash, etc. into it.

Comment [Fox22]: Considered and rejected in the WSP.

4. Require visitors, regardless of their destination, who want to camp at Guitar Lake and above to pack out their human waste in wag-bags. This would have the effect of decreasing the number of visitors camped there out of fear that they would have to carry their feces with them for days (maybe many days depending on their exit point). It would also likely result in visitors disposing of full wag-bags all over the park once they realize how heavy, smelly and unsanitary the bags are after 48 hours. It is unrealistic to

expect anybody to carry full wag-bags for more than a 48 hour period so I do not think this plan would work.

5. Continue status quo and closely monitor conditions at Guitar Lake and Mt Whitney. The wag-bag program **has** resulted in lots of human waste being removed from the wilderness over the past 5 years. We need to work more closely with the Inyo NF if this is the route we go to ensure that they do **not** dispense/instruct visitors entering SEKI but not exiting to Whitney Portal to use wag-bags. We have been trying since the inception of the wag-bag program to get their cooperation on this but to no avail. SEKI managers need to realize that the whole human waste issue is a large part of what the Crabtree ranger does in an already demanding area with all of the other wilderness ranger duties.

*We did not have a trailhead ranger in Lone Pine this summer due to that employee resigning after sustaining an injury. This made a noticeably adverse difference in visitor information and compliance to park regulations for wilderness rangers. I recommend this position being filled in all future summers.

Deleted: prior to the field season

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