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Project Report Volunteer Trip Torres del Paine National Park, Patagonia, Chile December 3-15, 2012

Executive Summary

Conservation Volunteers International Program (Conservation VIP), in collaboration with Chile's Corporacion Nacional Forestal (CONAF), organized and led a volunteer trip to Torres del Paine National Park in the Patagonia Region of Chile December 3 - 15, 2012. Eight volunteers, including the trip leader Gene Zimmerman, performed approximately 380 hours of work on about 5 km of trail north of Refugio Grey. Four km of work was on the "W" section of the Paine Grande Circuit Trail, and one km was on the Mirador Trail near Refugio Grey. All five km of trail can now be qualified as in "excellent" overall condition.

Generally speaking, the team mostly performed routine trail maintenance - - - tread repair, brushing, water features, obliteration of unofficial trails, etc. Some work, however, went beyond the definition of routine maintenance, specifically the quantity and size of boulders removed from the trail. In addition, the team provided minor support to the Grey Glacier Quebrada Bridge project.

A Conservation VIP volunteer team had worked these same segments of the Circuit Trail in 2011, so it was not in as much need of repair as some other sections of the Circuit Trail. However, the 2012 team was able to greatly improve the trail. At this point it is estimated that this section of the Circuit will need only very minor work during the next five years.

Detailed Trip Report

Boulder Removal: This team found great pride in removing boulders (rocks greater than 12" in diameter) from the trail tread. Approximately 1,700 boulders were removed. Some were over 3 feet (about 1 meter) on one dimension. Many were extremely heavy, cumbersome, and hard to move. Removal of the larger boulders often took three people 20-30 minutes, and left large holes in the trail tread that were then backfilled. While this was time-consuming and sometimes slightly dangerous work, the result was worth the effort. Many times, hikers would comment on the high quality of the team's work.

Erosion Control and Prevention: Because of the work accomplished in 2011, the need for erosion control and prevention was somewhat limited. The team built two embedded-rock water bars, and constructed 43 drainages, to drain puddling areas or divert water off the trail.



Trail Widening: Six trail tread segments, totaling over 250 feet in length, were found to be extremely narrow. These areas were widened to 18 inches minimum. This work entailed removing a large amount of trail-side vegetation and moving significant quantities of dirt and rocks.

Slough Removal: With few exceptions, where the trail was located on side hills, native materials had moved down slope and encroached on the trail tread. The result was a partially buried trail and narrower tread. The team accomplished hundreds of feet of slough removal, recovering the buried section of trail tread. In many sections, this work resulted in significant improvement of hiker safety.

Step Construction: The team found only a few areas where new steps were needed. Using large boulders with one flat side suitable for the tread, six new stone steps were constructed. These steps are now a permanent feature on the trail.

Embankment Construction: Several areas were found to have failing fill slopes (the downhill side of the trail was slipping downward), resulting in dangerous conditions. The team spent considerable time either building up the downhill side of the trail, usually by building a rock retaining wall, or moving the trail "into the hill." Three of these areas were over 30 feet in length.

Brushing and Pruning: All five kilometers of trail had encroaching brush, limbs, and small trees which the volunteers removed. Several small stumps and one medium-sized tree were removed.

Overlook (**Mirador**) **Improvements:** Approximately one mile north of Refugio Grey the team found an unofficial overlook approximately 50 feet off the main Circuit trail. Clearly, numerous attempts had been made in the past to "block off" this overlook by camouflaging several hikermade trails that led to it. After discussing various options, the team determined that the best course of action was to improve the overlook and build an "official" trail so that hikers could easily and safely access the overlook. This was accomplished by building one trail, to standard, and obliterating the remaining unofficial trails. After this work was accomplished, the team noted on several occasions that hikers were using the overlook and taking photographs of the stunning Glacier Grey views.

The trail to the Mirador at Campamento Guardas, although it is an official trail, was narrow and consisted of small, very steep up and down segments. It also had numerous boulders embedded in the trail. The team removed the boulders, backfilling the resulting holes. One steep narrow "scramble" section was rebuilt to make it easier to traverse. The trail was widened and, where possible, the steep up and down sections were moderated.

Trail Closures: In addition to the closure of the unofficial trails previously described, the team closed five others. Typically this was done by filling the trail full of cut brush and tree limbs to the height of the surrounding brush, essentially totally hiding the trail.

Rock Wall: One trail location approximately 45 feet long is located on very loose loamy soil, and hence the cut bank of the trail was subject to raveling, obscuring the trail. A rock embankment was built along this segment to (hopefully) permanently fix this problem.

Bridge Approaches: The trail approaches to one of the small bridges were found to be dangerous and in serious need of maintenance. The approach on the north side of the bridge was particularly dangerous, and the hand rail was broken. The team repaired the hand rail and used properly positioned large stones for steps. The gaps between the stones were back filled. The south approach trail segment of about 35 feet was a scramble over very large boulders which provided very poor, unsafe footing. The team removed the boulders and backfilled with gravel, resulting in a very much improved trail tread.

Step Repair: Due to the steepness of the trail and limited or no opportunities to reroute the trail, CONAF has built many, many steps in some segments of this trail. The team found that 81 of these steps needed maintenance. Typically the work consisted of removal of rocks or vegetation, backfilling the steps, or stabilizing the step riser.

Bridge Removal: At one stream crossing, CONAF has installed a new bridge; however, the old dilapidated bridge was still in place. The team removed the decking from the old bridge stringers and stacked them for future use, then moved the stringers downstream. While not necessary for hiker convenience or safety, this work significantly improved the aesthetics of the area and decreased the chances that debris would build up at around the old bridge and block the stream.

Trail Reroutes: Two trail segments, totaling approximately 50 feet, were rebuilt in a better, safer location.

Trail Surfacing: Many small segments of trail were resurfaced using natural gravel where available. This work typically was accomplished where water and mud are a continual or seasonal problem. On the Circuit trail, the gravel was quarried next to the trail and moved by bucket...a very tedious and labor intensive process. On the Mirador trail near Refugio Grey, a continuous section of 120 feet was resurfaced. In this case, the quarry was away from the trail and a wheelbarrow was used, making the effort much more efficient.

Suspension Bridge: The Grey Glacier Quebrada Bridge was a major multi-year project located at about the mid-point of the Circuit Trail section the team maintained. The bridge was coordinated by Conservation VIP and CONAF. Funding for the bridge was provided through generous individual donations and a grant from Tourism Cares. CONAF provided additional funding, materials, and personnel. Structural engineer Richard Braunlich and spouse Chris Braunlich (CEO of Conservation VIP) provided 100s of hours of survey, design, planning, logistics, and labor, as well as significant financial support. The bridge was under construction while the team was working on the Circuit Trail. It was completed approximately a month after the 2012 volunteer team left the park. However, while they were on location, team members provided support to this project. Team members taped, measured, and cut 75 cable segments. They also assembled 47 thimble and chain link couplings. These devices were later assembled into the bridge structure.

General Information

Fun and Camaraderie: The team of volunteers worked very well together, and they were a friendly and very social group. They enjoyed visiting over meals, and during leisure time. They all exchanged contact information and have been in contact since the completion of the trip. Hundreds of photos have been exchanged. They even enjoyed a bit of the inexpensive Chilean wine!

Transportation: The van transportation from Punta Arenas and return was provided by Tour Express Patagonia. The van was clean and appeared to be in good repair. The driver, Jose, was very safe and very likeable—a nice combination for a trip of this nature.

Refugios: Both refugios—Refugio Grey and Refugio Las Torres—were very acceptable. They were clean and well maintained. Food was good, and at Refugio Grey, where we stayed seven nights, the staff gave us a matrix for individualizing lunches, a very nice change from the repetitious lunches experienced by past volunteer groups. There were water problems at Refugio Grey but staff was attentive and concerned. All staff at both locations were quite friendly.

Puerto Natales Hotel: Both coming and going, the group stayed at the Aquaterra Lodge in Puerto Natales. The rooms were small but very clean and comfortable. Food was good and the staff was friendly and accommodating.

CONAF Cooperation: Upon our arrival at park headquarters, Administrador Guillermo Santana and Superintendent Federico Hechenleitner were very cordial. We discussed Conservation VIP's plans for the trip, which they supported. After a brief business meeting, they provided an overview of the park to the volunteers and thanked them for coming.

No CONAF rangers participated with the volunteers during the work days in the park. This somewhat disappointed the volunteers.

Overall Logistics: Everything worked as planned. Our co-branding partner REI Adventures, our travel arranger EcoAdventures, and all the service providers "nailed" this one!!



Conservation VIP Volunteer Group with Park Administrador Guillermo Santana and Park Superintendente Federico Hechenleitner