



Volunteers

Trail Conference Volunteers	2,285 Hours	@ \$8.00/Hr	=	\$18,280.00
Pete Morrissey, GPU Energy Foreman	175 Hours	@ \$29.25/Hr	=	\$ 5,120.00
GPU Energy Linemen	225 Hours	@ \$25.68/Hr	=	\$ 5,778.00
GPU Energy Equipment Operators	62 Hours	@ \$22.85/Hr	=	\$ 1,417.00
GPU Energy Utility Workers	33 Hours	@ \$13.00/Hr	=	\$ 429.00
Subtotal	2,780 Hours (53%)		=	\$31,024.00
Grand Total	5,239 Hours			\$51,809.00

Peoplepower Breakdown Discussion

As indicated in the peoplepower hour tally, “a bouillabaisse” of people were involved in the bridge construction. These people varied from expert to layperson. The person-hour tally is only that time specifically involved with actual construction of the bridge. It does not include site access preparation, survey work, engineering design, or the administration time leading up to the actual construction or required to mobilize the volunteers. This allows one to utilize the construction person-hour total for comparison and planning purposes. A total of 5,239 hours was spent on the bridge construction, of which 2,780 hours or 53 percent was provided by the volunteer sector. Another 1,309 hours or 25 percent was State Park Service employee time. A NJ Corrections work detail provided the remaining 1,150 hours or 22 percent.

In order to establish the project “construction cost,” a dollar value had to be determined for the variety of peoplepower, both volunteer and professional. For the State employees this was easy. A generic average wage per hour regardless of job title was applied to their time. A similar procedure was used for the 495 volunteer hours donated by the GPU Energy volunteers. However in that case, the hourly wage assigned was consistent with their GPU Energy job title. Neither benefits nor overhead were included in the assigned wage.

Assigning a value to the 2,285 volunteer hours provided by the Trail Conference volunteers was a little more difficult. A wide range of tasks were completed by a variety of people with a wide range of skill levels. At least 55 individuals contributed. Trail groups assign volunteer time a value ranging from minimum wage to \$8.00 per hour. Given the diversity and sometimes technical tasks for this project, the value of \$8.00 per hour was utilized. The 1,150 hours provided by the State Correctional inmates was assigned a value of \$1.00 per hour.

The important conclusion from this peoplepower tally is that projects of this nature require peoplepower resources measured in increments of thousands of hours.

Project Cost Tabulation Exclusions

In order for the “bottom line” numbers generated by this report to be utilized for future planning, costs not directly associated with the specific construction of the bridge were excluded from the final tabulation. These expenses could be characterized as unique to this project.

The first such expense was the access prep to the site. This will vary significantly from project to project. As listed in the detailed breakdown, Mr. Bell and his contractor friends donated \$9,361 of machine time and



material as well as 180 person-hours of labor. The second item is the miscellaneous items, which varied from the cost of soft drinks for the workers to the value of the blueprinting. These 100 percent donated items totaled approximately \$6,590. Adding in the donated amount of \$16,221 would bring the respective totals to the following:

Total Project Construction Cost	=	\$ 114,610	
Direct Cash Cost	=	\$ 52,969	(46%)
Donation Value	=	\$ 61,641	(54%)

The third and fourth items not included in the cost tabulation are the project planning, administration, and engineering design. These processes date back approximately four years. The NY-NJ Trail Conference undertook the project leadership role in 1991, with Ms. Lutkenhouse, a professional staff member, serving as Project Director. A significant amount of time and resources was dedicated to the project. The engineering legwork leading to the final design was a volunteer endeavor by Mr. Latincsics. Among the purposes of this long-winded report is an attempt to compile the lessons learned in the Pochuck Quagmire to benefit future projects. Suspension bridges will continue to be a solution to long-span problem crossings.

Preliminary Project Cost Estimates

It is very helpful in preliminary project planning to be able to identify project cost on a “ballpark” level. The previous accounting should be helpful in this regard. This thought process shall be taken one step further by comparing the material costs of the Pochuck Quagmire Bridge to three other trail suspension bridge projects of the 1990s. Each project was unique in the problems it had to overcome, the standards to which it was built, and the resources available to the project owner. The variety in the projects allows one to establish a range in material costs for general planning purposes.

The first comparison project is the Smokey Angel Snowmobile Bridge (SAB) over the West Branch of the Sebasticook River in Hartland, Maine. The SAB is a 190-foot span by 5.4-foot wide bridge constructed in 1992 as a link in a snowmobile corridor. A photograph is provided in Appendix H. Similar to the Pochuck Quagmire Bridge, the SAB was constructed as a volunteer community project by the Smokey Angel Snowmobile Club. It also made adaptive use of readily available material. It was the recipient of a USDA Forest Service, Wood In Transportation grant. The SAB project engineer, Mr. Robert Doane, provided good practical advice and inspiration to the Pochuck Quagmire Bridge.

The second and third comparison projects are the Tye River and Hastings Trail Bridge projects. Both involve the reconstruction of the cable suspension system and the walkway of damaged bridges. In each case, the existing foundations are reutilized. The project expenses deal specifically with just the superstructure. The Tye River Bridge (also known as Cripple Creek) is one of the Appalachian Trail Suspension Bridges. It is located a short distance off the Blue Ridge Parkway south of Rockfish Gap. The bridge has a 148-foot span and a 26-inch wide walkway. It was originally constructed in 1972. The bridge appears to be the model for the later bridges in George Washington and Jefferson National Forests. Due to deterioration, the suspenders, walkway, and rail system were replaced in 1992 in a joint project between the Virginia Tidewater Trail Conference and the ATC Konorock Professional Trail Crew with the benefit of Forest Service supervision. This was another volunteer driven project.

The Hastings Trail Bridge in White Mountain National Forest, Maine, was reconstructed in the late summer of 1997. Because the existing foundation was reused, and there is a paved road to the site, the work was limited