

Fort Davis

National Historic Site

National Park Service
U.S. Department of the Interior



Curriculum Materials Grades 6-8

Student Activities: Water, Water, Running Water

Water, Water, Running Water Learning about History through Primary Sources

A major consideration for the location of any military post was water. The U.S. Army chose the site for Fort Davis in October of 1854 because water, wood, and grass were available, and because it was located on the Lower San Antonio-El Paso Road. The site selected for the fort had been used for many years by Indians and travelers as a welcome resting and watering place.

In 1849, on an expedition to locate a road through western Texas, Lieutenant William Whiting had camped at the site. He named it Painted Comanche Camp because of the pictographs the Indians had painted on the trunks of large cottonwood trees there. He named the stream that crossed the site “Limpia,” a Spanish word meaning clean.

Throughout the fort’s existence, Limpia Creek and a nearby spring furnished water for the garrison.



Mules pulled water wagons daily from Limpia Creek and delivered the water to various fort buildings. For health reasons, the post surgeon monitored the water supply. In the winter of 1883-1884, the army dug a well at the creek, and a steam pump moved water from the creek up to a cypress (wood) holding tank on the

side of the mountain. Soon the army built a second water tank. By gravity, water flowed in pipes from these tanks (about ¼ mile from the fort) to almost every area of the fort. Water wagons no longer had to haul water from the creek.

When you tour the fort, look for the water faucet in the commanding officer’s quarters. Water was directly piped to his house and to the hospital, and there were hydrants along the pipes behind other officers’ quarters and enlisted men’s barracks. Imagine how excited people at the fort must have been when they had water running in pipes and they did not have to haul it from the creek!

Before installing a water system at Fort Davis, a civil engineer named William H. Owen had submitted a report to the U.S. Army, Headquarters of the Department of Texas, concerning whether it would be practical to run water to the fort via pipe from Limpia Creek. Based on this report, dated May 2, 1882 and quoted below, the army approved a new water system for the fort.

“...I proceeded to Fort Davis, made the necessary survey and examination to determine the feasibility and cost of supplying that post with water, by pumping, from Lympia [sic] Creek, and have the honor to submit the following report and accompanying map.

Two places had been suggested— one to pump the water from Lympia Creek to a tank upon the high spur North of the Post, thence, through pipe, by gravity, to the Post. The other to pump it from

a point lower down the creek to a tank, placed at the required height, on the Easterly point of the same spur, thence by gravity to the Post. The latter is the better place....”



“...A cypress tank 20 ft. dia. & 14 ft. deep holding about 33,000 gallons, is believed to be sufficiently large, and has been estimated for. The pump estimated for is capable of filling this tank in about 4 hours.”

Ruins of the pump house built by the army are still visible near Fort Davis on State Highway 118 going north toward McDonald Observatory.

The report also contains the following information on the fort’s need of water. Study the report below. Help Mr. Owen complete his report by calculating the amounts and filling in totals in the gray boxes. The report is a primary source and has been transcribed exactly as it appears in the report. These are Owen’s calculations for determining what would be “an ample summer supply of water for the post, upon the basis of 10 companies (2 Infantry, 8 Cavalry) and band.”

As you can see, many terms and abbreviations are different and provide a challenge to the 21st century researcher. Remember, all math calculations at that time were done with paper and pencil and double-checked. Once you have completed the chart, you can check your totals with a calculator with permission from your teacher.

One Company of Infantry		
3 officers	@ 160 galls.	480 galls.
55 enlisted men	@ 10 galls.	550 “
Cooking, scrubbing etc		160 “
Total for one company		
Total for two companies		
One Company of Cavalry		
3 Officers	@ 160 galls.	480 galls.
65 Enlisted men	@ 10 galls.	
Cooking. Scrubbing,		160 galls
65 horses	@ 15 galls.	
Total for one company		
Total for eight companies		
Summary		
2 Cos. Infantry		

8 Cos. Cavalry	
1 Band	700 galls
Hospital	200 galls.
Q.M. Corral, 40 men @10 = 400 galls. 300 animals @ 15 = 4300 galls. Shops, Storehouses = 300 galls	
Bakery	300 galls.
Laundresses	200 “
Comdg. Officer	200 “
Surgeon & Asst. Surgeon, Chaplain, Quartermaster & Adjutant = 5 @160	
Post Trader	160 galls.
Irrigation	14,740 galls.
Total Gallons required daily for Post	

1. What measurement abbreviation is different from the one currently used? _____

2. This symbol " called ditto was often used to indicate a repeat of the word above. It was used to save time for people writing by hand. It is rare today because of computers. Which mode of communication would you rather use—handwriting or computer word processing. Tell why you think computers might have developed to make written communication easier.

3. Consider the issue of water consumption. Why was an officer allowed 160 gallons of water, an enlisted man only 10 gallons, and a horse 15 gallons?

4. Why was so much water allowed for irrigation? What do you think the army was irrigating that was so important?

5. How much water do you use per day? What about your family? How much per week? How many gallons does it take to flush a toilet, take a shower, or run a load of wash in the washing machine? Could you survive on 10 gallons of water per day—if you had to?

6. As you study the report, some questions may come to mind about the totals and usage. Write one or more questions you have for discussing with your teacher and class.
