



Public Health Update

Friday, January 26, 2007

Public Health Around the Regions

The core of the work each Public Health Consultant carries out during the year are the on-site visits to park units to evaluate public health hazards and the degree of control that we have over these issues. The following is a summary of activities and issues, mostly in addition to this routine work, conducted/encountered by our Public Health Consultants around the NPS system over the last year.

Alaska



The Seattle office sponsored one of 2 Students from the Commissioned Officer Student Training Extern Program (COSTEP) that were providing assistance for the Public Health Program. The student was successful in evaluating Alaska National Park based concessions programs, PW – region concessions, drinking water systems, wastewater systems, and vector control activities.

As part of the avian influenza activities, participated in preplanning and training conducted in Fairbanks and Anchorage.

Assisting the Parks (site visits, reviewed drawings, evaluated filters, met with product manufacturer) in meeting surface water treatment requirements for cryptosporidium in Denali and WRST, and consulted with the park on the installation

of the water system for the new Eielson visitor center in Denali National Park.

Assistance with compliance issues regarding the concession managed systems in Glacier Bay, Katmai, and Denali National Parks.

Successfully trained 35 concessions employees and 3 lodge employees regarding food safety utilizing serve-safe principles.

Food Safety Basics

Keeping your food safe is simple if you just think about it in three categories.

Foods that are not cooked or that have already been cooked, such as salads and lunch meat, need to be protected from contamination. Wash your hands before preparing or handling foods. After all, they held the handrail on the subway, helped out in the restroom, and shook all those visitor hands. Keep these types of foods from touching raw meats and the ten-second rule after dropping things on the floor, is really not a valid food safety rule. Keep your food contact surfaces such as cutting boards and utensils clean.

Foods that are cooked and eaten right away like hamburgers or a chicken breast, need to be cooked to a high enough temperature to kill any organisms that might be present. You can buy a stem type thermometer in the grocery store for this purpose and you'll find that using it to see if meats and other foods are done, is simple and, really helps to keep you from under or over cooking foods.

Beef Roasts	145 degrees F.
Ground Beef	160
Poultry	165
Fish	145

Foods that are cooked ahead of time or left - over, should be cooled as rapidly as possible to 41 degrees F. or lower. Hold hot foods at 135 degrees or higher and cold foods at 41 degrees or lower and make sure that reheated foods reach at least 165 degrees.

Consulted on the installation of evaporative vault system in KEFJ – first of its kind installation in Alaska.

Attended required training to maintain State of Alaska 3rd party sanitary survey status and provided required State survey of water systems in Glacier Bay and Wrangell - St. Elais National Parks.

Coordination of response to Noro virus in Denali with concessions nurse Mrs. White – The illness affected 8 concession employees and over 130 tourists and people in the surrounding community.

Evaluated and consulted park regarding septic system drain field installation in Brooks camp at KATM due to failure of system.

Pacific West

Coordinated and attended a 3-day 2006 Water Operations Workshop held at Yosemite National Park. 40 park operators from throughout the PWR attended.

Evaluated the existing facilities of a formerly privately owned campground recently acquired by Pinnacles National Monument. Provided findings of water system, wastewater system, pool, and food service facilities.

Consulted with Hawaii Volcanoes National Park regarding a possible bad water quality sample. Routine water quality analysis showed possible SOC contamination. Dirty sample made results unclear. Recommended resampling at various points in water system, flushing lines and water tanks, informing staff. I also recommended that the water not be used for potable purposes until results for water quality testing were received. The park provided bottled water to staff for drinking. Concessionaire used bottled water. The park posted an advisory to visitors to drink bottled water. Further sampling revealed no contaminants present in the water supply.

Advised Golden Gate National Recreational Area on a sewage spill at Alcatraz. An estimated 100 gallons of sewage spilled out of the holding tank onto the surrounding dock area. No sewage

flowed reportedly into the bay. I issued a report to the superintendent recommending further clean up and report to Port of San Francisco.

Intermountain

In 2006, the Intermountain Region Public Health Consultants made 99 individual park visits to conduct Environmental Health Surveys, food inspections, and/or provide technical assistance. The four officers reviewed the operation and maintenance of 174 water systems and 277 wastewater systems, and performed 241 food safety evaluations.

Responded to several reports of gastrointestinal illness outbreaks at the Grand Canyon, Bryce Canyon, Glacier and Yellowstone National Parks.

Continued development and implementation of a data system for use in food evaluations with potential applications to other PHP field activities.

Revised the PH CWD guidance document and provided field consultation at WICA.

Worked with various parks and regional staff in planning efforts for Avian Influenza.

Provided onsite assistance to Coronado NM after extensive flooding damaged their water supply system.

Assisted several parks in the region with appropriate responses to the occurrence of plague, rabies, and tularemia in wildlife in the park.

Tularemia is a potentially serious illness that occurs naturally in the United States. It is caused by the bacterium *Francisella tularensis* found in animals (especially rodents, rabbits, and hares).

The most common symptoms of tularemia can include sudden fever, chills, headaches, diarrhea, muscle aches, joint pain, dry cough, and progressive weakness.

People can get tularemia many different ways:

- being bitten by an infected tick, deerfly or other insect
- handling infected animal carcasses
- eating or drinking contaminated food or water
- breathing in the bacteria, *F. tularensis*

Tularemia is not known to be spread from person to person. People who have tularemia do not need to be isolated. People who have been exposed to the tularemia bacteria should be treated as soon as possible. The disease can be fatal if it is not treated with the right antibiotics.

Coordinated and assisted in two workshops (GRCA and YELL) for utility operators in the region.

Continued implementation of disease surveillance and response systems at Yellowstone and Grand Canyon National Parks.

CAPT John Collins, the Senior Regional Public Health Consultant in Denver retired in December.

Midwest

Held our first waste water operator training in many years for NPS employees of this region. The training was held in Minneapolis and was instructed by the University of Minnesota. The training was geared towards our smaller NPS wastewater systems and included new technologies, maintenance and some design aspects of our system components.

Provided technical assistance and design review for Xanterra's new scatter type restaurant system at Mount Rushmore. Specifically, technical assistance included food code air gaps, electricity safety, hand washing sink locations, design of some contact surfaces.

Provided TA to Minute Man Missile in planning for their proposed visitor center. TA included site selection for utilities (Water-Waste Water), types of facilities required, area required for water/waste water and preliminary design.

Ongoing Technical Assistance to MORU and Wind Cave for proposed water treatment plant renovations. We are in the process of designing treatment for filtering and arsenic removal at Mount Rushmore and designing treatment for fluoride and arsenic removal at Wind Cave.

Technical Assistance was provided to the regional office on avian flu.

Provided TA for Histoplasmosis prevention at Voyageurs and Pictured Rocks. The TA involved proper PPE, chlorine and detergent disinfection concentrations/procedures and final disposal of bat waste.

Southeast

The SE Regional Public Health Consultant encountered many issues last year but the most significant and interesting issue was water contamination at MACA.

The Public Health Consultant from the SERO provided technical assistance to the Mammoth Cave National Park superintendent and staff on an issue involving cave waters in excess of coliform (*e.coli*, enterococci) public health (bathing beach) standards. The issue came to light on October 26, 2006, when a researcher from Western Kentucky University (WKU) reported finding high levels of *E.coli* and fecal coliform in samples of cave waters he had collected on October 20, based on the WKU results the park staff tested cave water in several locations along the Historic tour route; all the samples exceeded public health standards for bathing beaches.

A standardized sampling strategy was established to take water samples from toured areas of the cave, parking lot runoff, and the Historic entrance. Samples for *E.coli* and fecal coliform; results showed



some correlation between spikes in bacterial levels following rainfall. The levels of E.Coli and Fecal Coliform have continued to drop, however the park will continue to sample the cave waters in the areas where the public is exposed to dripping water and mists. A definitive source for the elevated bacterial levels has still not been identified, however the park sewage/water utility, scoped all sewage lines located over the affected area of the cave and found no leakage; flow meters show no variance.

In January a meeting was held with members of the Centers for Disease Control and Prevention (CDC), the National Institutes of Occupational Safety and Health (NIOSH), and National Park Service Public Health Consultants from WASO and SERO, to provide additional advise and assistance to the park superintendent and staff. The results of the meeting were to devise a sampling plan to continue to gather data for trend analysis and to assist in the continuing efforts for source identification. Also the use of a secondary contact standard for exposure to the cave waters was determined to be protective of public health given the exposure scenario experienced by visitors and staff. The park will utilize the State of Kentucky's secondary contact standard for fecal coliform in the upcoming months to determine whether or not to limit access to the cave tours where visitors are experiencing contact with possible contaminated waters.

Tours into the Historic section of the cave were initially closed October 31 as a precautionary measure to keep visitors out of areas where contaminated water may drip on them. A modified version of the Historic tour reopened on November 15. Other cave tours have operated on schedule. An initial news release was issued to the public on November 3; updates have been released November 9, 17, December 5 and 21.

National Capital

2006 was once again a busy year in the National Capital Region regarding special events, mostly on the Mall but in a few other Parks as well. A combined total of 80

visits were made to NCR and NER Parks, mostly related to food service facilities and special events, and over 400 actual food service evaluations were conducted.

One outbreak of suspected Norovirus occurred at Camp Greentop, CATO impacting 30 staff/campers, and it was estimated that the Norovirus was likely imported into Camp Greentop by index case- patients (counselors), and subsequent person- to- person transmission was facilitated by close living quarters. The PHC participated as an instructor for two food sanitation training courses held for two national concessions based training sessions in Washington, DC and at the NPS/NTC, West Virginia.

Identified a need for a special study for SHEN regarding the evaluation and protection of the Park's natural spring water sources - hopefully this will be conducted in 2007.

The PHC assisted 4 food service managers/establishments with 3 unsatisfactory reviews and 1 marginal review to bring the facilities back into satisfactory compliance.

Northeast

Assisted several parks with the re- opening of concessions that have been closed for considerable amounts of time.

Participated in the regions preparations for Avian Influenza.

Assisted with cleanup efforts related to flooding of several parks.



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In Partnership for nearly 100 years, the National Park Service and the United States Public Health Service have worked together to protect the health of visitors in Americas Parks!

Program Websites:

Internal:

http://www.nps.gov/public_health/intra/index.htm

External:

http://www.nps.gov/public_health/