



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.

Washington, D.C. 20240

IN REPLY REFER TO:

DIRECTOR'S ORDER #83: PUBLIC HEALTH

Approved: 
Director

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This renewed edition of Director's Order #83 is essentially the same as the edition that was scheduled to sunset August 3, 2007. The only revision is in Section B.6, which now allows park unit managers to consider for front country use suitable alternate wastewater systems (such as composting and evaporative toilets), in consultation with the assigned Regional Public Health Consultant or Park Environmental Health Officer/Sanitarian.

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I. Background and Purpose

The National Park Service hosts nearly 300 million visitors to the national parks each year. To provide for visitor enjoyment of the parks, the NPS operates (directly or indirectly) water supply systems, waste management systems, food service operations, bathing beaches, swimming pools and overnight accommodations. In most cases, there are Federal, State and/or local codes--designed to protect the public health--that govern the conditions under which these facilities and services are provided. To ensure these facilities and services are operated in a safe and healthful manner and according to existing public health laws and regulations, the NPS Public Health Program (PHP) conducts health risk and environmental compliance assessments. The PHP

provides technical assistance to parks on request. PHP staff provides training to NPS personnel in the recognition and management of health risks, and provides health awareness information in the form of factsheets, messages in the Operational Notes section of the Ranger Morning Reports, and on its NPS internet website (http://www.nps.gov/public_health) and the InsidePublicHealth intranet website (http://www.nps.gov/public_health/intra/).

The purpose of this Director's Order is to outline what the NPS will do to ensure compliance with prescribed public health policies, practices and procedures. This order establishes NPS policy with respect to all public health activities within areas of NPS jurisdiction, regardless of whether those activities are carried out by NPS or other Federal employees, or by other organizations, including the U.S. Public Health Service (PHS). The core PHP includes prevention, control and investigation of food-, water-, and vector-borne diseases in the national parks.

This Director's Order, and Reference Manual 83 (RM83), supersede and replace Director's Order-83 dated August 1998 and any other previously issued policy or procedural statements that may be at variance with the policies and procedures stated herein. It applies to all facilities and services provided in the parks, whether by the NPS directly, or by concessioners, leaseholders, or permittees.

II. Authority

The authority to issue this Director's Order is contained in 16 U.S.C. 1 through 4 (the National Park Service Organic Act), and Part 245 of the Department of the Interior Manual.

III. General Policy

- A. It is the policy of the NPS to protect the health and well-being of NPS employees and park visitors through the elimination or control of disease agents and the various modes of their transmission to man and to ensure compliance with applicable Federal, State and local public health laws, regulations and ordinances. Implementation of this policy will be tempered by the Organic Act's requirement that the NPS conserve the scenery and natural and historic objects and the wildlife therein in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.
- B. The Associate Director, Visitor and Resource Protection, will issue RM83 to provide more detailed information on the public health policies, practices, procedures and standards that park managers must adhere to in providing facilities and services to the public.
- C. Based on the unique circumstances and conditions of National Park Service sites, the Public Health Consultant (PHC) has the discretion to recommend adaptations to these requirements considering specific site conditions and relevant authority under the law.

IV. Operational Policies and Procedures

A. Drinking Water

NPS unit managers will reduce the risk of waterborne diseases and provide safe drinking water to employees, the visiting public, and park partners by assuring that drinking water systems are properly operated, maintained, monitored, and deficiencies promptly corrected. Water systems will be regulated in accordance with 1) the Safe Drinking Water Act, as amended (42 U.S.C. 7401 *et seq.*), or 2) the Primacy Agency (e.g. the agency designated by Federal law as having oversight responsibility). Additional guidance for *non-public* or other *unregulated* water systems is provided in RM83(A1).

- A.1 All parks that operate public drinking water systems will have certified operators as required by the primacy agency. Parks that operate only non-public drinking water systems will have appropriately trained operators.
- A.2 NPS unit managers will develop training plans and assure that operators receive any required and/or appropriate training.
- A.3 NPS unit managers will assure that required records are maintained in permanent files for periodic review by the regional Public Health Consultant (PHC) or Primacy Agency representatives, and that reports are submitted on a timely basis as requested by the PHC and/or the Primacy Agency.
- A.4 Bacteriological and chemical sampling will be performed in accordance with Federal, State and local laws/regulations. In the absence of Federal, State and local regulation, systems will comply with the requirements of RM83 (A1).
- A.5 All water samples will be tested in laboratories certified by the Primacy Agency.
- A.6 All surface water sources and any groundwater sources under the direct influence of (GWUDI) surface water, as determined by the Primacy Agency for public systems will be provided with approved filtration. Non-public surface water sources and groundwater sources under the direct influence of (GWUDI) surface water, as determined by the PHC, will be provided with approved filtration.
- A.7 All public drinking water systems will be continuously disinfected. Acceptable disinfecting methods are those which provide a measurable disinfectant residual in the distribution system. The PHC may specifically exempt *non-public* systems after a complete sanitary survey of the system is made.
- A.8 For park-operated, public drinking water systems utilizing a chemical disinfectant, one (1) disinfectant residual sample will be measured and recorded per day from representative points. Parks operating *non-public* drinking water systems or receiving water from municipalities should contact the PHC for residual monitoring guidance.
- A.9 Sanitary surveys for State regulated, public drinking water systems will be conducted in accordance with Primacy Agency requirements. The PHC may conduct sanitary surveys

of unregulated and/or non-public water systems.

- A.10 All parks operating drinking water systems will have a documented cross connection control program on file for review by the Primacy Agency and/or the PHC (See RM83(A2)).
- A.11 Water for all NPS water hauling operations, whether conducted by the park or a private contractor, will be obtained from an approved water source that meets the requirements of the Safe Drinking Water Act.
- A.12 All parks will comply with the public notification requirements of the Safe Drinking Water Act.
- A.13 When drinking water system modifications or new construction is proposed, parks will contact the Primacy Agency to determine if plans and specifications should be submitted for approval. A copy of the plans and specifications will be provided to the PHC upon request.
- A.14 Potable water for backcountry operations must be 1) obtained from an approved public system, 2) boiled, or 3) filtered and disinfected.

B. Wastewater

NPS unit managers will reduce the risk of waterborne diseases and provide safe wastewater disposal by ensuring wastewater systems are properly operated, maintained, monitored, and deficiencies promptly corrected. Wastewater systems will be in compliance with 1) the Clean Water Act, as amended (33 U.S.C. 1251 *et seq*) or 2) the Primacy Agency (e.g. the agency designated by Federal law as having oversight responsibility). Additional guidance for *non-public* or other *unregulated* wastewater systems is provided in RM83(B1).

- B.1 NPS unit managers will ensure operators are adequately trained and certified in accordance with operator requirements of the Primacy Agency. Park managers will designate, in writing, primary operators, and backup operators who have adequate training and skills to operate the system(s). Parks that operate only individual, on-site wastewater systems will have appropriately trained operators.
- B.2 NPS unit managers will develop training plans and assure that operators receive any required and/or appropriate training.
- B.3 NPS unit managers will assure that required records are maintained in permanent files for periodic review by the PHC or Primacy Agency representatives and that reports are submitted on a timely basis as requested by the PHC and/or required by the Primacy Agency.
- B.4 When wastewater system modifications or new construction are proposed, parks will submit plans and specifications to the Primacy Agency for approval. A copy of the plans

and specifications will be provided to the PHC.

- B.5 All wastewater facilities will be installed, operated and monitored in accordance with Primacy Agency requirements.
- B.6 Typical front country wastewater systems include flush toilets, vault toilets, and chemical toilets (used only for temporary purposes). Where conditions are suitable, alternate wastewater systems, such as composting and evaporative toilets may be considered for front country use. Park unit managers must contact the assigned Regional Public Health Consultant or Park Environmental Health Officer / Sanitarian for guidance and advice when planning to install, upgrade, or make substantive changes to any wastewater system. All wastewater systems must be installed and operated according to the manufacturer's instructions and in compliance with Primacy Agency requirements.
- B.7 Suitable backcountry waste systems include flush toilets; composting toilets; barrel toilets; evaporator toilets; incinerator toilets and pit privies. Pit privies should only be used as a last resort where other types of facilities are not possible. The Park Sanitarian or the PHC should conduct the siting of pit privies.
- B.8 All new vault toilets will incorporate the U.S. Forest Service Sweet Smelling Toilet (SST) design features. Vault toilets will be pumped as necessary. The U.S. Forest Service *In-Depth Design and Maintenance Manual for Vault Toilets* is provided in RM83(B2).
- B.9 All toilet facilities will be cleaned and re-supplied as often as necessary to maintain a high degree of sanitation. The U.S. Forest Service guidance manual *Cleaning Recreation Sites* is provided in RM83 (B3).
- B.10 Adequate sanitation facilities will be required for remote areas such as river rafting, horseback riding, back country biking, backpacking and similar activities in accordance with RM83(F).
- B.11 Septic tanks shall be inspected annually to determine the amount of accumulated scum and sludge. Records of septic tank measurements, inspections, and pumping will be available for review by the PHC. Septic tank risers will be provided for inspection holes to facilitate inspection and pumping. Septic tanks will be pumped when the scum and or sludge levels in the tank dictate (generally every 3-5 years). The bottom of the scum should never be closer than 3 inches to the bottom of the outlet device, and the top to the sludge layer should never be less than 8 inches from the bottom of the outlet device.
- B.12 Septic tank drain fields shall be surveyed annually during a high use period to identify system failures such as odors and surfacing wastewater. The drain field should be kept clear of trees and bushes, which may send roots into the drain field piping system resulting in clogging and causing premature failure.
- B.13 Personnel who routinely come into contact with sewage, work in, or inspect wastewater treatment facilities, lagoons, etc. will have a current immunization for tetanus.

- B.14 Wastewater treatment plant personnel will not eat, drink or smoke when performing maintenance or inspecting equipment, which may be contaminated with human sewage.
- B.15 In the event of a major wastewater leak or spill, the PHC will be notified within one business day. Facilities and equipment contaminated with sewage as a result of leaks, spills, and sewage system backflow will be thoroughly washed down with water and detergent. Further guidance is provided in RM83 (B4) – Raw Sewage Spill Notification and Cleanup

C. Food Safety and Sanitation

NPS unit managers will reduce the risk of foodborne illness to employees, the visiting public, and park partners by ensuring that all food service facilities are operated in accordance with the most recent edition of the FDA Food Code, unless specifically exempted by PHC, and DO48. Food operations include but are not limited to NPS operations, concessioner operations, special events, incidental business permit operations and emergency incidents. The FDA Food Code is provided in RM83(C1).

- C.1 All permanent food service facilities will be inspected according to schedules established by the PHC and concession program manager.
- C.2 Temporary food service operations (stationary and non-stationary facilities) will meet the same general requirements as permanent facilities by complying with the FDA Food Code and consulting with the regional PHC to determine additional recommendations and alternative compliance options to the Food Code. See RM83(C2) for additional guidance on temporary food service operations and RM83(F) for backcountry operations.

D. Recreational Waters

NPS unit managers will reduce the risk of waterborne diseases by ensuring that recreational water sites are properly operated, maintained and monitored in accordance with state or local regulations. Deficiencies will be promptly corrected with applicable state/local regulations. In the absence of applicable state or local regulations, the following NPS policies will apply.

- D.1 Bathing Beaches. NPS unit managers will reduce the risk of waterborne diseases by ensuring designated bathing beaches are properly operated, maintained and monitored. Deficiencies will be promptly corrected, in compliance with the *Beaches Environmental Assessment and Coastal Health Act of 2000* and applicable state/local regulations. In the absence of applicable state or local regulations, the following NPS policies will apply. Bathing beaches can be located at lakes, rivers, oceans, hot springs, and other bodies of water. Additional guidance is provided in RM83(D1). The complete *Beaches Environmental Assessment and Coastal Health Act of 2000* can be accessed at: <http://www.epa.gov/ost/beaches/beachbill.pdf>.
 - a. Bathing beach monitoring is required for each designated beach. Designated beaches are those that the Park has identified (using signs, brochures etc.) as available to the

public for contact recreational water activities. Monitoring is recommended for other areas that are heavily used (40 or more people per 100 linear feet of shoreline). Specific requirements of the monitoring program include:

- (1) Conducting a sanitary survey;
 - (2) Preparing a bathing beach monitoring protocol. This protocol includes the names of areas to be sampled; sampling station locations; a map or sketch of each area showing the location of each sampling station; bacterial standard used; and the name of the laboratory doing the bacterial analyses;
 - (3) Sampling for enterococcus or *Escherichia coli* bacteria levels; and
 - (4) Issuing swimming advisories when bathing beach waters exceed the bacterial standards.
- b. A copy of the bathing beach monitoring plan and current bathing beach sanitary survey report will be sent to the PHC for review and concurrence approximately 1 month before the beginning of the recreational season.
 - c. Samples will be collected in conformance with the most recent edition of Standard Methods for the Examination of Water and Wastewater.
 - d. Analyses will be done in conformance with the most recent edition of Standard Methods for the Examination of Water and Wastewater. Parks that have their own laboratory should meet state certification requirements. Parks that do not do their own sample analyses will use a certified microbiological laboratory.
 - e. Parks will submit bacteriological sampling results to the PHC.
 - f. When the applicable bacterial density standard is exceeded, Park managers will report the bacterial density results to the PHC and the applicable state agency. Advise the PHC, applicable state agency and the local news media that a health advisory regarding the affected area will be posted. The advisory will notify the public of the potential health risks from swimming at the designated beach. The affected beach will be re-sampled immediately by taking two samples each day at each sampling location where the bacterial standard was exceeded. Re-sampling will be continued until the bacterial standard is not exceeded for two consecutive days. The PHC can waive this re-sampling requirement. Resume routine monitoring and notify the PHC, the local public health agency and the news media of the decision to reopen the beach. All signs should be removed.

D.2 Swimming Pools. NPS unit managers will reduce the risk of waterborne illness by ensuring that NPS and concessioner swimming pools are properly constructed, operated, maintained, monitored, and deficiencies promptly corrected in accordance with applicable state or local regulations. In the absence of applicable state/local regulations, the NPS has adopted “The National Pool and Spa Institute’s ANSI Standard for Public Swimming

Pools” as policy. A copy of this standard is provided in RM83(D2).

- D.3 Spa and Hot Tubs. NPS unit managers will reduce the risk of waterborne diseases by ensuring that NPS and concessioner run spas and hot tubs are properly constructed, operated, maintained, monitored, and deficiencies promptly corrected in accordance with applicable state or local regulations. In the absence of applicable state/local regulations, the NPS has adopted “The National Pool and Spa Institute’s ANSI Standard for Public Spas” as policy. A copy of this standard is provided in RM83(D3).

E. Illness Surveillance and Initial Response

NPS unit managers will reduce the risk of waterborne, foodborne and vectorborne diseases by designating, in writing, a person responsible for implementing and coordinating the Illness Surveillance and Initial Response Program. Responsibilities include maintaining reporting logs, notifying PHC’s or WASO Public Health when a suspected outbreak is occurring, and coordinating, at the park level, the appropriate response. When a Sanitarian or Environmental Health Specialist is located in the park, that person should be designated as the Illness Reporting Program Coordinator. A copy of the written designation will be provided to the PHC. Additional guidance is provided in RM83(E).

- E.1 When a foodborne, waterborne, vectorborne or occupational illness is suspected, the Illness Surveillance and Initial Response Coordinator will contact the PHC for advice and support. At the direction of the PHC, request assistance from applicable local, state, or Federal public health agencies that are staffed with trained public health professionals. Depending upon park jurisdiction, federal agencies will respond only at the request of local health departments.
- E.2 NPS unit managers will take any appropriate steps to restrict or close, in whole or in part, any establishment, facility, or operation when evidence suggests an outbreak of disease may be occurring, or recurring. These steps may include the closure of the entire park or portion thereof where conditions warrant. This authority may be found in 36 CFR 1.5. Such a decision should be made after careful consideration of all facts, and in consultation with the PHC, the Illness reporting Coordinator, and involved local/state/federal health officials.
- E.3 NPS unit managers and/or the Public Affairs Officer will decide when or if a news media release is appropriate.
- E.4 The Illness Surveillance and Initial Response Coordinator, and where appropriate, dispatch centers, district rangers, and NPS unit managers will maintain a list of applicable telephone numbers for PHC’s and applicable local and state health agencies.
- E.5 The park concession office will be notified when an illness investigation is conducted in a concessioner's facility.
- E.6 Persons who complain of illness while in a park will be referred to a health care provider for evaluation, and possible laboratory confirmation.

- E.7 For guidance on collecting, storing, shipping and analysis of samples, the Illness Reporting Coordinator will consult with the PHC or local/state/federal consultants contacted for support.
- E.8 The Illness Surveillance and Initial Response Coordinator will keep the NPS unit manager informed of the status of the investigation. A written summary of the investigation should be submitted to the NPS unit manager, with a copy to the PHC within 30 days. The report should include pertinent information such as the number of ill persons, symptoms, diagnosis (confirmed or suspect), duration of outbreak, action taken, conclusions, and recommendations to prevent similar outbreaks from occurring.

F. Backcountry Operations

NPS unit managers will reduce the risk of waterborne, foodborne and vectorborne diseases by ensuring that all backcountry water, wastewater and food operations (NPS, concessioner, special events, incidental business permits and emergency incidents) are operated in accordance with current Public Health regulations and policies. Additional guidance is provided in RM83(F).

- F.1 Potable water for backcountry operations must be 1) hauled from an approved public system, or 2) boiled, or 3) filtered **and** disinfected.
- F.2 Adequate sanitation facilities are required for remote activities such as trail maintenance, fire fighting, ranger stations, river rafting, horseback riding, backcountry biking, backpacking, and similar activities.
- F.3 NPS Park Managers will ensure that all backcountry food service operations (stationary and non-stationary facilities) meet the same general requirements as permanent facilities by complying with the FDA Food Code and consulting with the PHC to determine additional recommendations and alternative compliance options to the FDA Food Code.

G. Vectorborne and Zoonotic Disease

- G.1 NPS unit managers will reduce the risk of transmission of vector-borne and zoonotic diseases to park visitors and employees through education, surveillance, and control efforts when necessary. Control procedures will reduce risk while minimizing adverse impact on natural and cultural resources. The NPS will follow an integrated pest management approach in addressing vector-borne disease issues as outlined in Director's Order 77.
- G.2 at minimum, parks shall establish a point of contact at the local public health and/or vector-borne disease control agency in order to keep up to date on potential and current trends in vector-borne disease prevalence in and around the park. Some parks may need to assign an individual to coordinate vector-borne disease issues based on an elevated risk and the recommendation of the PHC.
- G.3 The designated park staff member responsible for addressing vector-borne and zoonotic

disease issues will have the responsibility to implement the recommendations of the PHC. Whenever possible, this individual should be the park Integrated Pest Management (IPM) coordinator or the park sanitarian. The duties and responsibilities may include:

- Coordinate with local and state departments of health, PHC, and IPM program coordinator.
- Ensure educational materials are available for park staff and visitors, and conduct or coordinate preventive education and training sessions.
- Establish and maintain a passive surveillance program within the park.
- Coordinate active surveillance activities within the park.

G.4 Guidance and information will be provided on specific diseases by the Zoonotic, Vector-borne and Environmentally Transmitted Disease (ZED) Steering Committee, a collaborative effort of the Biological Resource Management Division, Public Health and Risk Management Programs. Further information on ZED can be found at http://www.nps.gov/public_health/zed/zed.htm.

-----*End of Director's Order*-----