

US EPA ARCHIVE DOCUMENT

Chapter 5: Public Notification and Risk Communication

This chapter describes the performance criteria and technical guidance related to the public notification and risk communication portions of a beach program.

5.1 Performance Criteria

Performance Criteria 5 through 8 describe the four requirements for an overall public notification and risk communication plan (communication plan). The general and specific requirements are summarized below and in table 5-1.

- Public Notification and Risk Communication Plan (5)
- Measures to Notify EPA and Local Governments (6)
- Measures to Notify the Public (7)
- Notification Report Submission and Delegation (8)

Table 5-1. Summary of Public Notification and Risk Communication Performance Criteria

Performance Criteria		Chapter Section
General Requirements	Specific Requirements	
<p>Public Notification and Risk Communication Plan (Performance Criterion 5). The state, tribe, or local government must develop an overall public notification and risk communication plan. The plan must describe the state's, tribe's, or local government's public notification efforts and measures to inform the public of the potential risks associated with water contact activities in the coastal recreation waters that do not meet applicable water quality standards.</p>	<ul style="list-style-type: none"> • Identify measures to notify EPA and local governments when indicator bacteria levels exceed a water quality standard. • Identify measures to notify the public when indicator bacteria levels exceed a water quality standard. • Identify notification report submission and delegation process. 	5.2

Table 5-1. (continued)

Performance Criteria		Chapter Section
General Requirements	Specific Requirements	
<p>Measures to Notify EPA and Local Governments (Performance Criterion 6). The state, tribe, or local government must adequately identify measures for prompt communication of the occurrence, nature, location, pollutants involved, and extent of any exceeding of, or likelihood of exceeding, applicable water quality standards for pathogens and pathogen indicators. The state, tribe, or local government must identify how this information will be promptly communicated to EPA. States only must identify how this information will be promptly communicated to a designated official of the local government for the area adjoining the coastal recreation waters for which the failure to meet applicable standards is identified.</p>	<ul style="list-style-type: none"> • Identify measures to notify EPA when a state water quality standard is exceeded. • For states, identify measures to notify local governments when a water quality standard is exceeded. • States, tribes, and local governments must notify EPA annually of exceedances of water quality standards and actions taken to notify the public. • States only must notify local governments promptly of exceedances of water quality standards and actions taken to notify the public. 	5.3
<p>Measures to Notify the Public (Performance Criterion 7). A state, tribe, or local government program must adequately address the posting of signs at beaches or similar points of access, or functionally equivalent communication measures that are sufficient to give notice to the public that the coastal recreation waters are not meeting or are not expected to meet applicable water quality standards for pathogens and pathogen indicators.</p>	<ul style="list-style-type: none"> • States, tribes, and local governments, as delegated must: <ul style="list-style-type: none"> – Identify measures to notify the public when a water quality standard has been exceeded. – Immediately issue a public notification or resample for bacterial exceedance of a water quality standard. – Promptly notify the public of a water quality standard exceedance when there is no reason to doubt the accuracy of the sample. – Post a sign or functional equivalent when a water quality standard is exceeded. 	5.3
<p>Notification Report Submission and Delegation (Performance Criterion 8). States, tribes, and local governments must compile their notification plans in timely reports and in the case of states, to describe any delegation of notification responsibilities that has been made, or intends to make to local governments.</p>	<ul style="list-style-type: none"> • State, tribes, and local governments must notify EPA and in the case of states, local governments must be notified annually of notification plan changes and any delegation of responsibilities. • States, tribes, and local governments, as delegated, must: <ul style="list-style-type: none"> – Report the actions taken to notify the public when water quality standards are exceeded. – Promptly report notification data to the public. – Annually submit required notification data elements such as advisory date, location, duration, cause to EPA (see appendix E for a list of the required data elements). 	5.4

5.2 Public Notification and Risk Communication Plan

The public notification and risk communication plan, or communication plan (Performance Criterion 5), should contain the following elements:

- Measures to notify the public, EPA, and local governments (Performance Criteria 6 and 7)
 - Problem assessment and audience identification
 - Types of notification
 - When to notify
 - How to notify
 - When to remove notification
 - Evaluation of notification program effectiveness
- Notification report submission and delegation (Performance Criterion 8)
- Identify opportunity for the public to review and comment on the notification plan (see performance criteria 9, section 2.2.9)

Example of Notice in Spanish

Aviso! Corriente de agua/agua del drenaje de tormenta puede causar enfermedades evite contacto con agua de desague que este estancada o corriendo y el area donde desemboca al oceano.

English Translation

Warning! Runoff/storm drain water may cause illness avoid contact with ponded or flowing runoff and the area where runoff enters the ocean.

Orange County Environmental Health Division, For Further Information, Call 714-667-3752

5.3 Measures to Notify the Public, EPA, and Local Governments

5.3.1 Problem Assessment and Audience Identification

The communication plan should provide a clear sense of what the state, tribal, or local agency hopes to accomplish and how it plans to accomplish it. One of the first steps is to identify any communication problems and determine the appropriate target audience.

Problem assessment. The state or tribe should identify specific objectives to be accomplished by a beach notification and risk communication program. The objectives should include identifying audiences and determining the best way to inform the public of swimming advisories.

Audience identification. The state or tribe should identify and characterize the potential target audiences for beach advisories or closings and determine what types of information and communication styles are appropriate for each audience. A state or tribe should consider the range of behavioral and sociodemographic groups of people that might be affected by that program and determine the best communication methods for those audiences. For example, a sign posted at the beach entrance could be used for local beach users, whereas a message on an Internet web site or telephone hotline could be used to notify tourists who live farther away. Also, if the beach population has a diverse makeup or the beach receives international visitors, it may be important to include advisories in both English and other languages.

5.3.2 Types of Notification

Measures such as beach advisories or closings should be used to inform the public of the potential risks associated with water contact activities in waters that exceed applicable state or

tribal water quality standards. Advisories or closings, as appropriate, must be issued when indicator bacteria levels exceed the state or tribal water quality standard and there is no reason to doubt the accuracy of the sample. (More detailed guidance explaining when to resample is provided in section 4.2.1, and guidance on when to issue an advisory or closing is presented in section 5.3.3.)

Beach Closings and Advisories

Beach Closings

The term “beach closing” typically means that the beach area is officially closed to the public. The closing of a beach is a local decision; EPA does not set beach closure requirements or conditions. States, tribes, and local governments have the flexibility to close the entire beach or just the recreation water adjacent to the beach. EPA recommends, however, that a closing be issued if there is an imminent public health hazard such as a sewage line break or other high-risk contamination source. During a closing, no one should be in the water. Lifeguards may or may not be present at the beach. The beach could be closed to the public temporarily or for an extended period (for the remainder of the swimming season).

Beach Advisories

An advisory (or “posting” as defined in California) does not officially close a beach to the public. Advisories are recommendations to the public to avoid swimming in water that has exceeded applicable water quality standards to reduce the potential of contracting a swimming related illness. There are several types of advisories.

- A *water quality exceedance advisory* notifies the public of an exceedance of applicable water quality standards after a water quality monitoring test.
- A *permanent advisory* notifies the public of a constant potential human health risk associated with use of the water. A *permanent advisory* can be issued under conditions such as naturally occurring organisms that are present in the water or human influences that cause a continuous or reoccurring water quality standard exceedance.
- A *preemptive advisory* notifies the public of the likelihood of higher levels of microorganisms at certain times, such as after significant rainfall, during high temperatures, with a particular wind direction, and in other situations. For example, a preemptive advisory sign could be issued and posted following any rainy period because rainfall can cause an elevation of bacteria levels due to runoff from the land.

Practical Applications of Closings Versus Advisories

The state, tribal, or local beach agency could distinguish between voluntary and involuntary risk when implementing a notification program. A state, tribal, or local beach agency may not necessarily have the ability to keep people from swimming. Therefore, the delegated authority might choose to issue advisories and let people use their own discretion. It is important to make the advisory or closing message as clear and effective as possible for the public to understand.

Content of Advisories and Closings

The most important information to include in a public notification is that swimming is not advisable because of high levels of a microbial indicator detected in the water. When a sign is posted to notify the public, the content should simply state that an advisory or closing is being issued because of high levels of bacterial indicators. When issuing public notices or press releases or notifying the public through a newspaper, however, additional information can be included because there are fewer space limitations.

An advisory or closing should include the following information:

- **General heading:** Words such as “WARNING,” “ADVISORY,” or “BEACH CLOSED.”
- **Reason for the advisory or closing:** Exceedance of water quality criteria (if known) and risk of potential health effects (nausea, diarrhea, headaches, cramps, or other symptoms).

An advisory or closing should briefly explain that the water is routinely tested and that the most recent samples indicate an exceedance of the applicable water quality standards. Appropriate language might be as follows: “We routinely monitor for the presence of bacteria in the water. Our most recent sampling results indicated an exceedance of our action level.” The notice also could explain whether the exceedance is based on an instantaneous criterion or on a rolling average criterion. It might be helpful to explain the lag time associated with sample results, noting that the sample might have been taken 24 hours before the advisory or closing. Finally, listing the source of the contamination reassures the public that the problem has been investigated and steps are being taken to address it (USEPA, 2000).

- **Time and duration of the advisory or closing:** It is important to identify when the sampling was performed. In addition, it might be helpful to report when the advisory or closing is expected to be removed and identify whether the advisory or closing will be in effect until further notice or until the samples obtained meet a certain criterion.
- **Location involved:** Beach(es), county, park, or miles affected.
- **Agency name and contact number.**

Table 5-2 provides suggestions for the content of advisories and closings.

5.3.3 When to Notify

As soon as the data reviews and data quality assessment are completed, concentrations for the specified bacterial indicators should be reported to the beach manager. If a sample indicates that there is an exceedance of a state or tribal water quality standard for pathogens or pathogen indicators, the state, tribe, or local government agency must either immediately issue a public notification or, if there is a reason to doubt the accuracy of the first sample, the agency may resample. If there is no reason to doubt the accuracy of the first sample, states, tribes, and local governments must provide prompt public notification. Resampling is acceptable after exceedance of a state or tribal water quality standard where there is reason to doubt the accuracy or certainty of the first sample, based on predefined quality assurance measures. The interpretation of the bacterial indicator densities with respect to notifying the public of an advisory or beach closing should be clear and based on the decision rules established during the planning process.

If the decision is to resample, the resampling should be done in accordance with the discussion in section 4.2.1, When to Conduct Additional Sampling. If the decision is to notify the public EPA recommends the following two approaches:

- *Prompt notification of the owner, manager, or operator and/or the lifeguards.* When sample results indicate an exceedance of a state or tribal water quality standard, the appropriate agency must promptly notify the beach manager/operator and appropriate staff members (e.g., lifeguards). This approach ensures that the responsible authorities know that action should be taken to ensure the safety of the beach employees, and reduce liability.
- *Prompt public notification.* The appropriate agency must promptly notify the public of an exceedance of applicable water quality standards by either a sign or functional equivalent (see section 5.3.4). For Tier 1 and 2 beaches, notification should occur at the point of beach access. For rainfall advisories, states and tribes may choose not to notify at the point of access, but could notify the public using alternative methods.

Table 5-2. Recommended Content for Advisories and Closings

Exceedance of Water Quality Criteria, Preemptive Advisory or Closing, Permanent Advisory or Closing

Sign

- Warning, “Advisory,” “Beach Closed,” or similar language
- Reason for advisory or closing
 - For preemptive advisory or closing: “Heavy rainfall has occurred. Beach is closed/under advisory for the next 24 hours due to predicted elevated bacteria levels”
- Name of beach, city, county, or miles of area affected
- When samples were taken, period of effectiveness, and when advisory will end or beach will reopen
- Agency’s name and contact number

Press Release or Public Notice

- Attention-getting title
- Reason for advisory or closing
 - For preemptive advisory or closing: expected high bacteria levels
- What is the health risk and why
- Name of beach, city, county, or miles of area affected
- When samples were taken, period of effectiveness, and when advisory will end or beach will reopen
- Agency’s name and contact number, for both readers and journalists

Hotline

- “An advisory has been issued for...”
- Reason for advisory or closing
 - Preemptive advisory or closing: expected high bacteria levels
- What is the health risk and why
- Name of beach, city, county, or miles of area affected
- When samples were taken, period of effectiveness, and when advisory will end or beach will reopen
- Agency’s name and contact number

Internet

- A list of beaches, cities, and counties, along with their respective status (open, closed, or under advisory)
- Reason for advisory or closing
 - Preemptive advisory or closing: expected high bacteria levels
- What is the health risk and why
- Miles or area affected
- When samples were taken, period of effectiveness, and when advisory will end or beach will reopen
- Agency’s name and contact number
- Description of monitoring and notification program
- Links to beach and environmental agencies and the health department
- Maps, photographs, graphics
- Opportunities for volunteer involvement in beach program
- Reference list of materials and guides for beach users

The following **additional steps** should be taken to issue an advisory when a beach has a high level of human health risk or when a sign posted on the beach is not the most effective means of communicating human health risk. For example, if the beach is frequently visited by tourists or users who do not live in the vicinity of the beach, notification of advisories or closings might need to be made through additional methods, such as news media, telephone hotlines, or an Internet web site. (See section 5.3.4)

- *Discuss the situation with other agencies.* State, tribal, or local agencies, as well as appropriate organizations involved with the beach monitoring and notification program, should be contacted.
- *Provide results on a telephone hotline.*
- *Issue a press release.*
- *Provide information on the local beach web site.*

5.3.4 How to Notify

The needs of the target audience(s) determine the most appropriate method of notification when communicating a water quality exceedance.

The BEACH Act allows states and tribes to develop signs or functionally equivalent communication measures when notifying recreational water users. Functionally equivalent communication measures are those that effectively (1) communicate to the target audience and (2) communicate the potential health risk in a timely manner (at least as timely as posting signs at the beach).

A functional equivalent at the point of access could be a visual notice or personal interaction such as a flag at a beach or interaction with beach or park personnel. Other functionally equivalent measures not provided at the point of access include mass media (newspapers, television, radio), Internet web sites, telephone hotlines, and technical reports.

Beach Signs

A sign is one of the most useful ways to notify beach users of potential health risks associated with using the water. Signs should state the type of advisory or closing and the reason it was issued—an exceedance of water quality criteria, heavy rainfall and the high levels of bacteria

associated with it, or another reason as deemed appropriate.

Signs should be located where they are most likely to be noticed by beach users. They should be placed at beach entrances, on bulletin boards, or in the general vicinity of the common swimming areas. It is important to keep the signs simple. The signs should be consistent throughout the state or tribe to avoid confusion. The signs should also be large enough to be noticed, legible, and easily understood. They should not contain small print or technical language that might be hard to understand. The signs should be a bright color, such as red or yellow, to attract attention. Graphics (such as a no swimming symbol) are a good way to get attention and easily convey a risk associated with swimming. The words “WARNING,” “ADVISORY,” or “BEACH CLOSED” should be written in large letters at the top of the signs so that they can be read from a distance. Additional information may be written in easily read smaller print. The advantage of signs is that they provide a visual notice at the point of access.

Mass Media

Newspapers, television, and radio are an effective means to communicate an advisory because they provide more detailed information to the public than a sign. For example, a press release can inform the public of the area affected and the anticipated duration of the advisory or closing. Notifying the public through mass media also targets a larger audience than a beach sign. Mass media messages are particularly effective because they inform the public of beach advisories before people arrive at the beach. The Public Notification Plan should include an effective plan for ensuring sufficient and timely media coverage. The plan

AB411 - California's Requirements for Signs

Sign information: For public beaches or ocean water contact sports areas closed because of a release or spill of untreated or inadequately treated sewage or for failure to meet microbiological indicator organism standards, warning signs shall be visible from each legal primary beach access point, as identified in the coastal access inventory prepared and updated...and any additional access points identified by the health officer.

Example: WARNING! CLOSED TO SWIMMING AND OTHER WATER CONTACT. BEACH/SWIMMING AREA IS CONTAMINATED AND MAY CAUSE ILLNESS.

For a portion of a public beach or ocean water contact sports area with a storm drain, warning signs should be placed at the affected area and at other locations determined by the local health officer (for example, along walkways to the beach, park entrances) where they are likely to be read. Language should be similar to the following:

Example: WARNING! NO SWIMMING OR OTHER WATER CONTACT. STORM DRAIN WATER MAY CAUSE ILLNESS.

Signs should be large enough to be clearly visible and legible. They should be posted in English and a second language, as deemed appropriate by the local health officer, if a large percentage of users of the public beach or water contact sports area understand only that language. For example, a variation of the international sign, with a graphic depiction of a swimmer in a red circle with a diagonal hash mark, may be appropriate.

should explain how the mass media will be used—through public service announcements, paid media, free media, newspapers, or a radio or television station.

Press Release

Public notification of a beach advisory or closing can be provided in the form of a press release issued by the local health officer or beach manager. A press release is more effective if it comes from the public health authority. The press release should indicate whether an advisory or closing is being issued, the reason for the advisory or closing, the area affected, and the anticipated duration of the advisory or closing. The press release should include both the name of the agency and a contact number. It might be helpful to issue a press release at the beginning of the swimming season to warn the public not to swim 24 hours after a heavy rain. Any notice or press release issued for beach advisories and closings should be formatted to get the reader's attention and communicate the information effectively. Consider the following suggestions (USEPA, 2000):

- Place the most important information on the top half of the notice in large print because people often read only the first half of the notice.
- Limit the length of the notice and use bullets and bold text when appropriate.
- In a press release given to a newspaper reporter, provide a list of the required information components and tell the press that these must be included in the press release.
- When the notice is sent to TV and radio stations, as well as newspapers, write “PRESS RELEASE FOR PUBLIC SAFETY” at the top of the notice to emphasize its importance.
- Include a name, title, and telephone and fax numbers or e-mail address for the press to contact for additional information or clarification.

Internet Web Sites

Internet web sites can be used to report advisories and closings to the public. The message can and should be updated as the status of the advisory or closing changes.

A web site is a good way to reach many people in a community where the Internet is highly accessible. States, tribes, and local governments are encouraged to develop web sites and establish links between their web sites and EPA's BEACH Watch site at <http://www.epa.gov/waterscience/beaches>. EPA's BEACH Program coordinates the BEACH Watch site to inform the public of trends in water quality at beaches, as well as local information for beaches nationwide.

The contents of a web site can be as simple as a current update of water quality conditions or a list of advisories and closings. If desired, a web site can show previous advisories and closings, water quality sampling results, maps of the area, photographs of the beach, names and agency telephone numbers to enable the public to comment or ask questions, and tips for swimming safety to reduce the human health risk of water use.

Telephone Hotlines

A telephone hotline can be established to inform the public about all beaches that are currently closed, posted with an advisory, or otherwise restricted in a given area. The hotline message should state whether there is an advisory or closing, what area is involved (beach, city, county, or number of miles), the reason for the closing or advisory, the time frame involved, and the date of removal, if known. The name of the responsible agency and a contact telephone number should be included as well. The hotline should be updated as needed to convey changes in the status of beach closings and advisories. Hotlines should follow the same general format as written advisories. The most important information should be stated first, in clear, nontechnical language because many people will listen to only the beginning of the message. The message needs to be updated as the status of the advisory or closing changes.

Technical Reports

To assess the health of the beaches monitored, a state, tribe, or local government might want to compile a monthly or an annual report of the beach advisories and closings after the beach season has ended. This report could include the number of times criteria were exceeded, the number of days beaches were under an advisory or closed, the number of beaches affected by an advisory or closing, a compilation of all the sampling results, or other measures of beach advisories or closings such as “beach mile-days.”

5.3.5 When to Remove Notification

It is important to establish a procedure for removing an issued or expired advisory or reopening a closed beach. The procedure might vary depending on whether the beach was closed or an advisory was issued. This is an important step in risk communication. The public should know when the water meets applicable standards and should be able to recognize the established procedures for reopening the beach or removing an advisory.

EPA recommends that the following procedure be performed at all beaches:

- Resample and compare the bacterial concentrations with the applicable water quality standards to determine whether the levels exceed the standards. This procedure should be performed unless the advisory or closing was preemptive due to rain.

- Remove advisories or reopen a beach after a set number of hours or days after a rainfall. This should be done only if significant monitoring has previously been conducted to support the assumption that bacterial densities are below criteria after a set period of time. Best professional judgment also could be used to supplement the decision to reopen a beach; however, the monitoring data should be the primary basis of the decision.

Beach managers can use the following additional procedures to remove advisories and reopen beaches:

- Notify the owner/manager/operator and lifeguards of the test results.
- Provide an announcement to agency staff or local government staff.
- Remove the advisory or closing sign.
- Provide the sampling results on a hotline, water quality information/result phone line, or local radio or TV station or in a local newspaper.
- Remove any physical barriers.

5.3.6 Evaluation of Notification Program's Effectiveness

The public notification and risk communication program should be evaluated at various times throughout the risk communication process. This step is an important element that helps to ensure that a notification program has been designed to meet the needs of the public and the objectives of the agency. Throughout the risk communication and notification process, it is important to include activities, benchmarks, and milestones that require formative, process, and summary evaluation data to be collected and used. An evaluation of program effectiveness should consider the factors described below.

Whether the notification program meets the needs of the audiences and the objectives of the agency

Notification program evaluations should be conducted to assess the likelihood of attaining program objectives and the strengths and weaknesses of alternative communication strategies. An example of this type of assessment is determining how many people pay attention to communication methods such as beach signs and physical barriers or assessing how many people actually contact a telephone hotline or Internet web site to obtain water quality information for a particular beach.

To conduct informative evaluations, staff members as well as members of the target audience should be used. The time required can range from several hours of staff time spent on

brainstorming and reviewing activities to a considerable amount of time spent interviewing the target audience (USDHHS, 1993).

Whether the process evaluations occur as the communication strategy is implemented

Process evaluations are useful in both new and established risk communication programs. These evaluations can be used to determine whether communication strategies are being implemented as planned, to evaluate the communication strategy steps, and to assess the adequacy of administrative, personnel, or other resources necessary to keep the communication program on track. An example is an assessment of whether the appropriate people are always notified when an advisory is issued, a beach is closed, or a water quality standard is exceeded. Also, a state or tribe should determine whether the water quality has been resampled as required by the procedures for issuing advisories and closing beaches. Are signs, press releases, and web sites presenting appropriate and accurate information? Is the program being conducted on the intended time schedule, with the intended information dissemination mechanisms, within budget, and using the intended staff and other resources?

Process evaluations can be conducted during the course of the communication program and used to modify the communication strategy during implementation. There is no need to wait until the end of the program to evaluate its implementation. Evaluation activities can include regular contacts with communication partners (media personnel, web site owner, target audience) to evaluate the timing and adequacy of advisory information. Interviews with target audience members or focus groups are also useful to assess how well the advisory information is reaching the target audience and how receptive they are to that information.

Whether the needs of the public and the agency's objectives have been met

Summary evaluations are designed to document the short- or long-term results of risk communication programs and to evaluate whether objectives were achieved. These evaluations determine whether the beach advisories and closings have been effective in communicating health risks to the public. Did people receive enough information to make an informed decision? Were people protected from bacterial contamination? Did the public respond positively to the advisory and closing program? These questions and others should be considered as part of the evaluation process.

Summary evaluations should occur at the end of the risk communication program. They can include focus groups, mail surveys, and telephone surveys. A large sample size is often needed for the program evaluators to measure statistically significant program outcomes and impacts in large regions (e.g., statewide). A focus group could be composed of all staff involved in the beach risk communication program. Examples of questions to ask include the following:

- What agency objectives did the advisory help achieve?

- What objectives were not accomplished?
- What positive reactions have you heard from or observed in target audiences?
- What is working in the advisory materials?
- What negative reactions have you heard from or observed in target audiences? Which methods of communication need improvement?
- What changes do we need to make in our advisory communication program?

Before developing of a risk communication plan, surveys can be mailed or conducted over the telephone to gain feedback from a subset of the target audience. These surveys can be used to determine the public's knowledge about the following:

- Human health risks of swimming in contaminated water
- Specific advisory recommendations
- The advisory process

In addition, the surveys could be designed to assess the following:

- The public's reaction to advisories and closings
- The public's willingness to adhere to advisory and closing recommendations
- The public's suggestions for better communication methods

5.4 Notification Report Submission and Delegation

As discussed earlier in chapter 2, Performance Criterion 8 requires grant recipients to compile and report their notification activities in timely reports and describe any delegation of notification responsibilities to local governments that might have been made.

Report Submission. States, tribes, and local governments must report their notification data to EPA, and for states only, to local governments agencies in a timely manner. States, tribes, and local governments also must report to EPA the actions they have taken to notify the public when water quality standards are exceeded. To meet this criterion, states should coordinate closely with local governments to acquire information and ensure that it is submitted in a consistent fashion.

States, tribes, and local governments must report their notification data annually to EPA. Reported data must be consistent with the list of required data elements, such as advisory date, location, duration, cause, etc. The complete list of notification data elements is listed in appendix E. The data elements include one-time beach description data, one-time beach program data, one-time station and method identification data, and reoccurring beach advisories and closings data.

Visit the BEACH web site at <http://www.epa.gov/waterscience/beaches> and refer the Beach Guidance Document for updates on data submission.

Delegation. State, tribes, and local governments must notify EPA, in an annual report, the changes in the notification plan and any delegation of responsibilities. EPA encourages states to coordinate with local governments and to delegate to local governments, as appropriate, responsibilities for notification programs. Local governments have traditionally played the lead role in administering beach protection programs. There are many reasons for the local level to take responsibility for protecting recreation waters. For example, local citizens and officials often are more familiar with local problems and needs and may be in a better position to address local issues and formulate solutions. Also, many of the benefits of protecting natural resources—in this case coastal recreation waters—accrue at the local level.

5.5 References

USDHHS, 1993. *Recommendations to Improve Health Risk Communication: A Report on Case Studies in Health Risk Communication*. U.S. Department of Health and Human Services, Public Health Service Committee to Coordinate Environmental Health and Related Programs, Washington, DC.

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