



COMMONWEALTH OF
P U E R T O R I C O
ENVIRONMENTAL QUALITY BOARD

PUBLIC NOTIFICATION AND RISK COMMUNICATION PLAN BEACH MONITORING AND PUBLIC NOTIFICATION PROGRAM

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Introduction

Under the Federal Beaches Environmental Assessment and Coastal Health Act of 2000, the Puerto Rico Environmental Board (PREQB), through the Water Quality Area (WQA), has implemented the Beach Monitoring and Public Notification Program (BMPNP), which aims to reduce the risk of diseases to which bathers could be exposed. As part of this program, the United States Environmental Protection Agency (USEPA) requires PREQB to develop a Public Notification and Risk Communication Plan (PNRCP) that details the procedure for communicating beachgoers about potential risks associated to water quality degradation due to exceedance of the Beach Action Value (BAV) for *Enterococcus*, 70 colonies/100 mL.

Pathogen contamination in recreational waters represents a high level risk of contracting many diseases, such as: infections (respiratory, ear, eye, and skin), gastroenteritis, as well as meningitis and hepatitis (EPA-823-F-01-022, July 2001). For this reason, the immediate notification to the public of the exceedance of the BAV is a mandatory element of the BMPNP.

This communication plan describes the procedures that PREQB will implement to advise the public about exceedance of applicable BAV (on the basis of water quality sampling), thus informing that the water is not suitable for primary contact recreation.

Objectives

The following objectives will guide the implementation of this PNRCP.

- ✦ Informing the public of potential risks related to primary contact recreation activities in those beaches that exceed the BAV.
- ✦ Recommend the public to avoid primary contact with this waters, since pathogenic organisms can cause diseases.
- ✦ Advise the public not to have contact with any water body until 24 hours elapsed after continuous rain events.

Notification Procedure

Internal Process

- ✦ Once bacteriological results are received from PREQB-ERL and validated by QA Officer, Plans and Special Projects Division (PSPD) personnel will assess them and determine in which beaches the indicator bacteria (*Enterococcus*) exceed the BAV.
 - PSPD personnel will issue an electronic mail (email) to the Press Officer (PO) and PREQB's President Office indicating which beaches do not comply with the BAV and are not suitable for primary contact recreation.
 - In addition, PSPD personnel will send to the Information System Office (ISO) an email specifying the beaches that exceeds the BAV, as well as the analytical results.

Public Notification

- ✦ *Public Release Notification (PRN)*

PO will issue a PRN, in press release format, to main mass media¹ in Puerto Rico (See Appendix 1), that includes which beaches are affected (Yellow Flag). This notification advises the public of exceedance of the applicable BAV on the basis of water quality sampling and it, also, states that the water is not suitable for primary contact recreation. In addition, PREQB will warn the public to take into consideration that after continuous rain events is not recommended to have contact with any water body until twenty-four (24) hours elapsed after these are finished, as swimmers are more likely to acquire infectious diseases caused by bacterial pathogens. Likewise, PRN will contain the agency's information, as well as the contact persons. It, also, includes PREQB's webpage link (<http://www.jca.pr.gov/>).

- ✦ *PREQB's webpage*

ISO personnel will update PREQB's webpage information. The webpage will include the latest map with the beaches that exceed the BAV (Yellow Flag), as well as the ones that comply with the BAV (Green Flag). In addition, it will contain the analytical results table (See Appendix 2), which will include the following information for the current Fiscal Year: Date, Station ID, Beach Name, Route, Type of Event, Results, and Comments. This table will be updated as per the last sampling event. Also, the webpage

¹ Print, radio, television, and web

will have the contact information, telephone numbers and email addresses where the public can communicate to obtain any information regarding the BMPNP or submit any comment. In addition, the press release notification will be posted in the agency's website.

In addition, PO will send to ISO personnel the PRN, which will be uploaded on PREQB's webpage.

✦ *PREQB's Internal Website*

In addition to notifying the general public, PSPD personnel will issue a notification to PREQB's President Office, which is then sent to PREQB's employees through the agency's intranet (*Tu Junta*), stating which beaches are Green Flag and which are Yellow Flag (See Appendix 3).

✦ *Local Governments Notification*

PSPD personnel will notify the beach administrators via an email the results of the sampling activities and which beaches are suitable for primary contact recreation and which beaches are not (See Appendix 4). Beach administrators are responsible for notifying the public when the BAV is exceeded. This notification could be done by updating the sign on the beach and hoisting the Yellow Flag when the BAV is exceeded.

✦ *EPA Notification*

PSPD personnel will include EPA representatives in the email that will be sent to the beach administrators. In addition, PSPD personnel informs to EPA the monitoring notification data in the Annual Performance Report. This report will be submitted to EPA at the end of the FY. Also, this data will be submitted yearly to EPA as part of the Final Annual Report.

✦ *Social Media*

PO or ISO personnel will publish on Twitter (@jcaeqb) the latest map with the beaches that are suitable for primary contact recreation (Green Flag), as well as the ones that are not suitable.

Notification Removal

The notification will be in effect until resampling is carried out and PSPD personnel compare analytical results to the BAV, to determine that it is no longer exceeded and the beach is suitable for primary contact recreation. Depending on the results, a new notification will be issued stating that the beach complies with the BAV (Green Flag) or still exceeds it (Yellow Flag).

Evaluation of the PNRCP

The following narrative describes the surveys that will be conducted to assess effectiveness of PREQB's public notification.

✦ *Media Outputs Response to the Public Notification*

In the PREQB the Public Notification is sent to all media outputs (print, radio, TV, web) on Wednesday. The Public Notification is sent in a Press Release Format. It includes information on the beaches that exceeded the BAV for the bacteriological parameter analyzed. The Press Release also refers readers to our website, www.jca.pr.gov where they can access a map that shows all the beaches that are included in the monitoring program. Beaches with a Green Flag are safe to use, beaches with a Yellow Flag are not.

In the map, the PREQB states the health hazards to people who ignore the notification and use beaches showing Yellow Flags. During the past year the Communications Office in the PREQB has documented how media outputs disseminate their content not only through standard means but also via Social Media like Facebook and Twitter, helping us amplify our target audience.

In order to measure our notification effectiveness we plan to send a question survey to editors in media outputs. Here are the questions that are going to be included:

1. Is the timing for the notification useful and adequate for your media output? PREQB releases its Public Notification – Press Release on Wednesday.

Yes _____

No _____

2. If you answered no in the previous question, which day you prefer to receive the Public Notification – Press Release? Which day fits better your media output?

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

Friday _____

Saturday _____

3. At what time you prefer to receive the Public Notification?

8:00 am _____

11:00 am _____

12:00 pm _____

3:00 pm _____

4. Is the information included in the notification – press release, useful and well explained?

Yes _____

No _____

5. Is the notification – press release lacking information?

Yes _____

No _____

6. If you answered no in the previous question, write a check mark on the data you understand should be included or better explained.

Definition of the Beach Monitoring Program _____

Explanation of the bacteriological parameters _____

Recommendations for the public _____

Health hazards _____

Contact information _____

7. Is the information included in the notification – press release considered relevant and newsworthy to your media output?

Yes _____

No _____

8. Specify the period of the year you prefer to receive the Public Notice – Press Release.

March – September _____

February – October _____

All year _____

★ *Public Notification and Public Reception*

In order to evaluate if we are reaching our audiences and transmitting all the information needed on the topic, we plan to post in our website www.jca.pr.gov (at least once a year) a public survey. In order to get people to answer the online survey we will coordinate a media tour and send a press release with the electronic address and justification for the survey. Here are the four main questions that may be included in our public survey.

1. Do you know about PREQB's Beach Monitoring and Notification Program?

Yes _____

No _____

2. If you answered yes, where have you heard from this Program?

TV _____

Radio _____

Print / Newspaper _____

Social / Media _____

Friend / Colleague _____

3. Do you know the health hazards that you may be exposed if you swim in a beach exceeding the Beach Action Value for Enterococcus?

Yes _____

No _____

4. Which way is the best way to inform the public about the water quality of the beaches?

Newspapers _____

Radio _____

TV _____

Internet / Social Media / Website _____

In addition to conducting the survey in the agency's website, PREQB's personnel will visit several beaches to interview one on one the beachgoers. These visits will take place on weekends.

Appendix 1: Public Notification Release Example



PRESS RELEASE

Notice of Noncompliance with the Water Quality Parameter for # Beaches

The Water Quality Area of the Environmental Quality Board (EQB) reported that the following beaches exceeded the bacteriological parameter in samples taken the ___ day of ___. After being subjected to the appropriate test in Environmental Research Laboratory of the EQB the following beaches exceeded the parameter:

- _____
- _____
- _____
- _____

"Under the Federal Beaches Environmental Assessment and Coastal Health Act of 2000, the EQB has implemented the Beach Monitoring and Public Notification Program (BMPNP), which aims to reduce the risk of developing diseases to bathers exposed to the bacteriological pathogens. Our main recommendation is that swimmers should avoid primary contact with these bodies of water, because the pathogenic organisms (enterococci) can cause diseases in the skin, eyes, nose, throat and gastrointestinal system", said _____, EQB representative.

Other essential advised offered by the expert staff of the EQB is that after continuous rain events is not recommended to have contact with any water body until the end of twenty-four (24) hours period after these have been finalized. Moreover, citizens should avoid bathing areas of the beaches that are near the mouths of rivers and streams.

"For more information please visit the website (<http://jca.pr.gov>) where you can see the map with the location of the sampling stations and status of compliance with Beach Action Value", stated the ___ of EQB.

Contact:

EQB Representative
787 XXX-XXXX

Appendix 2: Example of the Analytical Results Uploaded in PREQB's Webpage

Public Notice and Risk Communication Plan
 Beach Monitoring and Public Notification Program



Beach Monitoring and Public Notification Program



Date	Beach ID	Beach Name	Sampling Route	Sampling Type	Enterococcus (colonies/100 mL)	Temperature (°C)	pH	Observations
6-Apr-15	RW-24A	Baño San Bay	Vieques	Routine	<1	26.80	Data Not Reported	The information provided is preliminary.
6-Apr-15	RW-24B	Baño San Bay	Vieques	Routine	10	26.90	Data Not Reported	The information provided is preliminary.
7-Apr-15	RW-38	Muelle de Arecibo	Route: 6. Arecibo - Vega Alta	Routine	379	25.50	7.29	The information provided is preliminary.
7-Apr-15	RW-39	Mar Chiquita	Route: 6. Arecibo - Vega Alta	Routine	<1	26.50	8.11	The information provided is preliminary.
7-Apr-15	RW-23	Baño de Puerto Nuevo	Route: 6. Arecibo - Vega Alta	Routine	<1	27.90	8.24	The information provided is preliminary.
7-Apr-15	RW-17	Baño Carrero Gordó or Javier Calderón Nieves	Route: 6. Arecibo - Vega Alta	Routine	<1	27.80	8.15/8.15	The information provided is preliminary.
7-Apr-15	RW-18	Baño Manuel "Nodo" Morales or Sardinera	Route: 1. Dorado - Loiza	Routine	<1	26.40	7.89	The information provided is preliminary.
7-Apr-15	RW-19	Baño Punta Salinas	Route: 1. Dorado - Loiza	Routine	<1	26.80	8.02	The information provided is preliminary.
7-Apr-15	RW-20A	Baño El Escambrón	Route: 1. Dorado - Loiza	Routine	233	27.40	8.11/8.11	The information provided is preliminary.
7-Apr-15	RW-25A	Playa Soto Escobar	Route: 1. Dorado - Loiza	Routine	<1	27.10	8.11	The information provided is preliminary.
7-Apr-15	RW-26	Playa del Condado	Route: 1. Dorado - Loiza	Routine	10	28.00	8.17	The information provided is preliminary.
7-Apr-15	RW-27	Ocean Park	Route: 1. Dorado - Loiza	Routine	<1	27.70	8.15	The information provided is preliminary.
7-Apr-15	RW-28	Playa El Alentijazo	Route: 1. Dorado - Loiza	Routine	10	27.80	8.14	The information provided is preliminary.
7-Apr-15	RW-29	Vista Talpa	Route: 1. Dorado - Loiza	Routine	<1	27.60	8.19	The information provided is preliminary.
7-Apr-15	RW-21C	Baño de Carolina	Route: 1. Dorado - Loiza	Routine	41	26.10	8.10/8.10	The information provided is preliminary.
7-Apr-15	RW-7	Baño Punta Guaitate	Route: 2. Arroyo - Luquillo	Routine	<1	25.70	8.13/8.13	The information provided is preliminary.
7-Apr-15	RW-6	Baño de Patillas	Route: 2. Arroyo - Luquillo	Routine	164	24.80	8.04	The information provided is preliminary.
7-Apr-15	RW-30	Playa Guayama	Route: 2. Arroyo - Luquillo	Routine	10	25.70	8.03	The information provided is preliminary.
7-Apr-15	RW-4	Baño Punta Santiago	Route: 2. Arroyo - Luquillo	Routine	<1	26.10	8.1	The information provided is preliminary.
7-Apr-15	RW-31	Tropical Beach	Route: 2. Arroyo - Luquillo	Routine	<1	25.10	8.12	The information provided is preliminary.
7-Apr-15	RW-3	Baño Seven Seas	Route: 2. Arroyo - Luquillo	Routine	<1	25.30	8.20/8.18	The information provided is preliminary.
7-Apr-15	RW-32	Playa Azul	Route: 2. Arroyo - Luquillo	Routine	10	25.80	8.14	The information provided is preliminary.
7-Apr-15	RW-1A	Baño La Monserrate	Route: 2. Arroyo - Luquillo	Routine	10	27.20	8.08	The information provided is preliminary.
6-Apr-15	RW-37	Villa Lemaire	Route: 4. Cabo Rojo	Routine	<1	28.30	8.1	The information provided is preliminary.
6-Apr-15	RW-6	Playa Bay	Route: 4. Cabo Rojo	Routine	10	28.80	8.21	The information provided is preliminary.
6-Apr-15	RW-13	Baño de Boquerón	Route: 4. Cabo Rojo	Routine	<1	28.00	8.17	The information provided is preliminary.
6-Apr-15	RW-14A	Playa Maja Casabe	Route: 4. Cabo Rojo	Routine	10	26.90	8.23	The information provided is preliminary.
6-Apr-15	RW-12B	Playa el Compañero	Route: 4. Cabo Rojo	Routine	10	26.00	8.20/8.20	The information provided is preliminary.
6-Apr-15	RW-15	Baño de Afiasco or Baño Tres Hermanos	Route: 5. Afiasco - Aguadilla	Routine	20	27.50	8.07/8.07	The information provided is preliminary.
6-Apr-15	RW-5	Baño de Rincon	Route: 5. Afiasco - Aguadilla	Routine	<1	27.20	8.04	The information provided is preliminary.
6-Apr-15	RW-22	Pico de Piedra	Route: 5. Afiasco - Aguadilla	Routine	203	26.80	8.07	The information provided is preliminary.
6-Apr-15	RW-16	Baño Casch Boat	Route: 5. Afiasco - Aguadilla	Routine	<1	26.30	8.08	The information provided is preliminary.
6-Apr-15	RW-33	Playita Rosada	Route: 3. Lajas - Salinas	Routine	171	26.20	8.05/8.05	The information provided is preliminary.
6-Apr-15	RW-10	Playa Santa	Route: 3. Lajas - Salinas	Routine	10	26.00	8.14	The information provided is preliminary.
6-Apr-15	RW-9	Caña Gordó	Route: 3. Lajas - Salinas	Routine	10	26.10	8.02	The information provided is preliminary.
6-Apr-15	RW-34	Playa del Hilton	Route: 3. Lajas - Salinas	Routine	<1	27.00	8.2	The information provided is preliminary.
6-Apr-15	RW-35	Playa Iuca	Route: 3. Lajas - Salinas	Routine	10	27.50	8.27	The information provided is preliminary.
6-Apr-15	RW-36	Baño de Salinas	Route: 3. Lajas - Salinas	Routine	<1	27.70	8.2	The information provided is preliminary.
13-Apr-15	RW-33	Playita Rosada	Route: 3. Lajas - Salinas	Re-sampling	10	27.00	Bacteriological Re-sampling	The information provided is preliminary.
13-Apr-15	RW-6	Baño de Patillas	Route: 2. Arroyo - Luquillo	Re-sampling	<1	29.00	Bacteriological Re-sampling	The information provided is preliminary.
13-Apr-15	RW-22	Pico de Piedra	Route: 5. Afiasco - Aguadilla	Re-sampling	10	28.80	Bacteriological Re-sampling	The information provided is preliminary.
13-Apr-15	RW-38	Muelle de Arecibo	Route: 6. Arecibo - Vega Alta	Re-sampling	63	28.20	Bacteriological Re-sampling	The information provided is preliminary.
13-Apr-15	RW-20A	Baño El Escambrón	Route: 1. Dorado - Loiza	Re-sampling	<1	25.40	Bacteriological Re-sampling	The information provided is preliminary.
20-Apr-15	RW-21C	Baño de Carolina	Route: 1. Dorado - Loiza	Re-sampling	20	26.50	Bacteriological Re-sampling	The information provided is preliminary.
20-Apr-15	RW-33	Playita Rosada	Route: 3. Lajas - Salinas	Routine	144	27.10	7.84	The information provided is preliminary.
20-Apr-15	RW-10	Playa Santa	Route: 3. Lajas - Salinas	Routine	281	27.40	8.05	The information provided is preliminary.
20-Apr-15	RW-9	Caña Gordó	Route: 3. Lajas - Salinas	Routine	938	28.10	7.99	The information provided is preliminary.
20-Apr-15	RW-34	Playa del Hilton	Route: 3. Lajas - Salinas	Routine	10	28.50	8.08	The information provided is preliminary.

Appendix 3: Example of the Intranet Notification to PREQB's Employees

viernes 31/07/2015 04:08 p.m.
 Tu Junta
 Aviso Monitoria de Playas
[Todos](#)



Programa de Monitoria de Playas y Notificación Pública
 Aviso Empleados JCA

29 de julio de 2015

En el Programa de Monitoria de Playas y Notificación Pública la Junta de Calidad Ambiental (JCA) toma muestras bacteriológicas para Coliformos Fecales y Enterococos en las playas designadas para bañistas por la Junta de Planificación de PR.

Bandera Verde: Playas aptas para bañistas.

La JCA ha emitido un Aviso de Bandera Verde para las siguientes playas:

Nombre Playa	Municipio	Nombre Playa	Municipio	Nombre Playa	Municipio
Baño Puerto Santiago	Humacao	Playa Ocean Park	San Juan	Playa Pelicano (Reserva Natural: Cajo de Muerto)	Ponce
Baño Cofa Gerda	Guánica	Playa El Alambique	Carolina	Playa Boyé	Cabo Rojo
Playa Combate	Cabo Rojo	Playa Vacía Talega	Loíza	Baño Pico de Piedra	Aguada
Baño Tres Hermanos	Añasco	Baño Puerto Nuevo	Vega Baja	Playa Mojazabe	Cabo Rojo
Baño Punta Salinas	Toe Baja	Baño Punta Guiente	Arroyo	Playa Guayanés	Yabucoa
Baño Seven Seas	Fajardo	Playita Azul	Lequílo	Playa Isura	Santa Isabel
Baño El Escobrin	San Juan	Playita Rosada	Lajas	Baño Manuel "Tolo" Mondes y Sardinas	Dorado
Baño Sun Bay	Vieques	Playa del Hilón	Ronco	Baño Cerro Gordo	Vega Alta
Baño de Carolina	Carolina	Baño de Salinas	Salinas		
Playa Soto Escobar	San Juan	Mar Chiquita	Manatí		
Playa del Condado	San Juan				

Bandera Amarilla: Playa no apta para bañistas. Pueden existir patógenos en el agua. Esto causa enfermedades en los bañistas, tales como: infecciones de garganta, nariz, boca, piel y ojos. Pueden producirse alergias o irritaciones.

Las siguientes playas están con la Bandera Amarilla:

- Baño de Rinodrón
- Baño Crash Boat en Aguadilla
- Playa Blanca en Cabo Rojo
- Baño de Bocicón en Cabo Rojo
- Playa Santa en Guisaca
- Baño de Puntas
- Playa Tropical Beach en Aguadilla
- Baño CT Montserrat en Culebra
- Playa Mosca de Arrecife



Appendix 4: Example of the Email Notification to Beach Administrators

