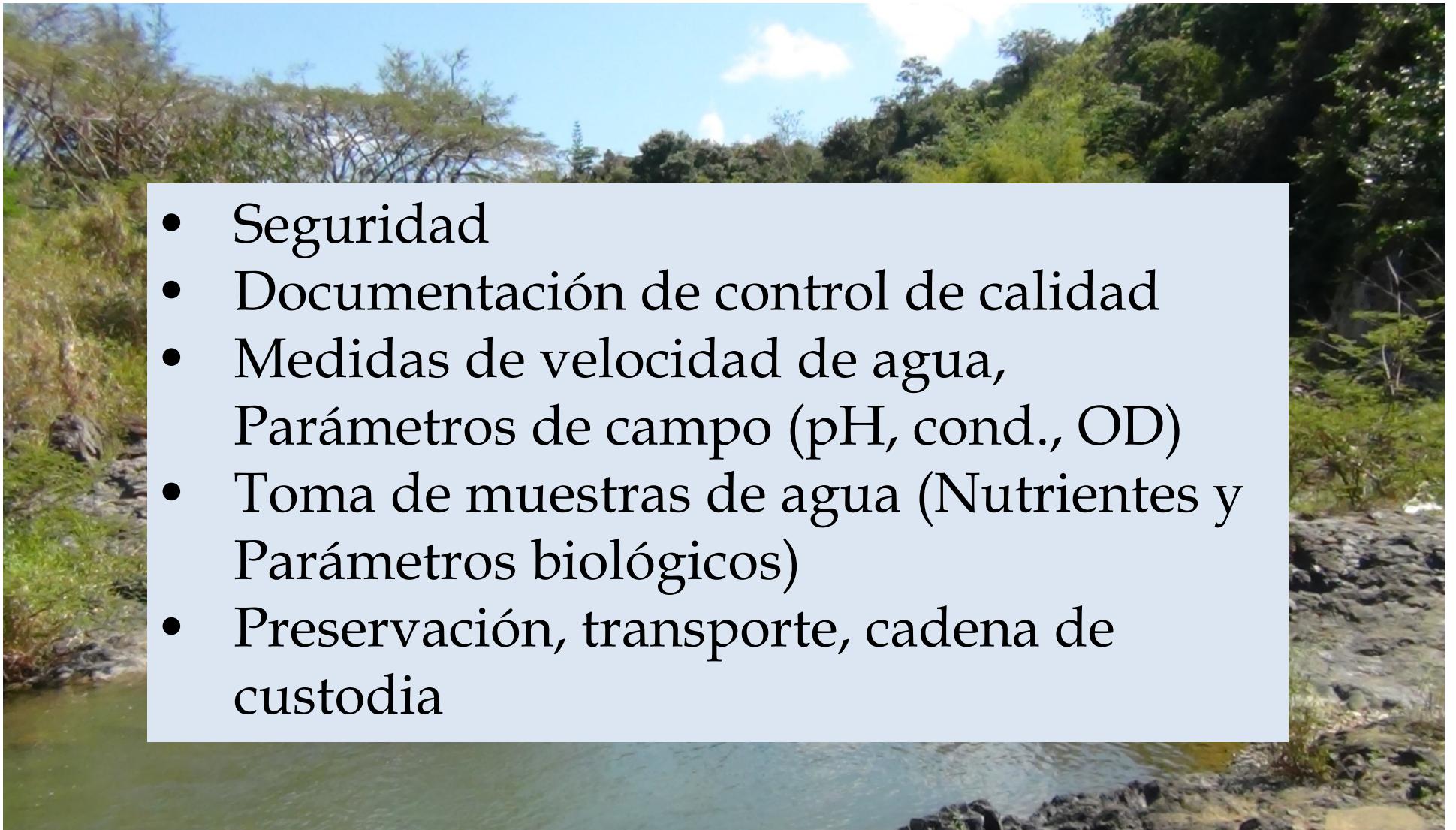




Materiales, métodos y asuntos de
seguridad para evaluar la calidad
de aguas en ríos de P.R.

Assessment of Water Quality and Efficacy of Water Treatment Infrastructure in Southwestern Puerto Rico

- Seguridad
- Documentación de control de calidad
- Medidas de velocidad de agua,
Parámetros de campo (pH, cond., OD)
- Toma de muestras de agua (Nutrientes y
Parámetros biológicos)
- Preservación, transporte, cadena de
custodia



Seguridad



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PROYECTO: NUTRIENT LEVELS ASSOCIATED WITH THE ECOLOGICAL THRESHOLDS OF IMPAIRMENT IN RESERVOIRS OF PUERTO RICO

I. Documentos

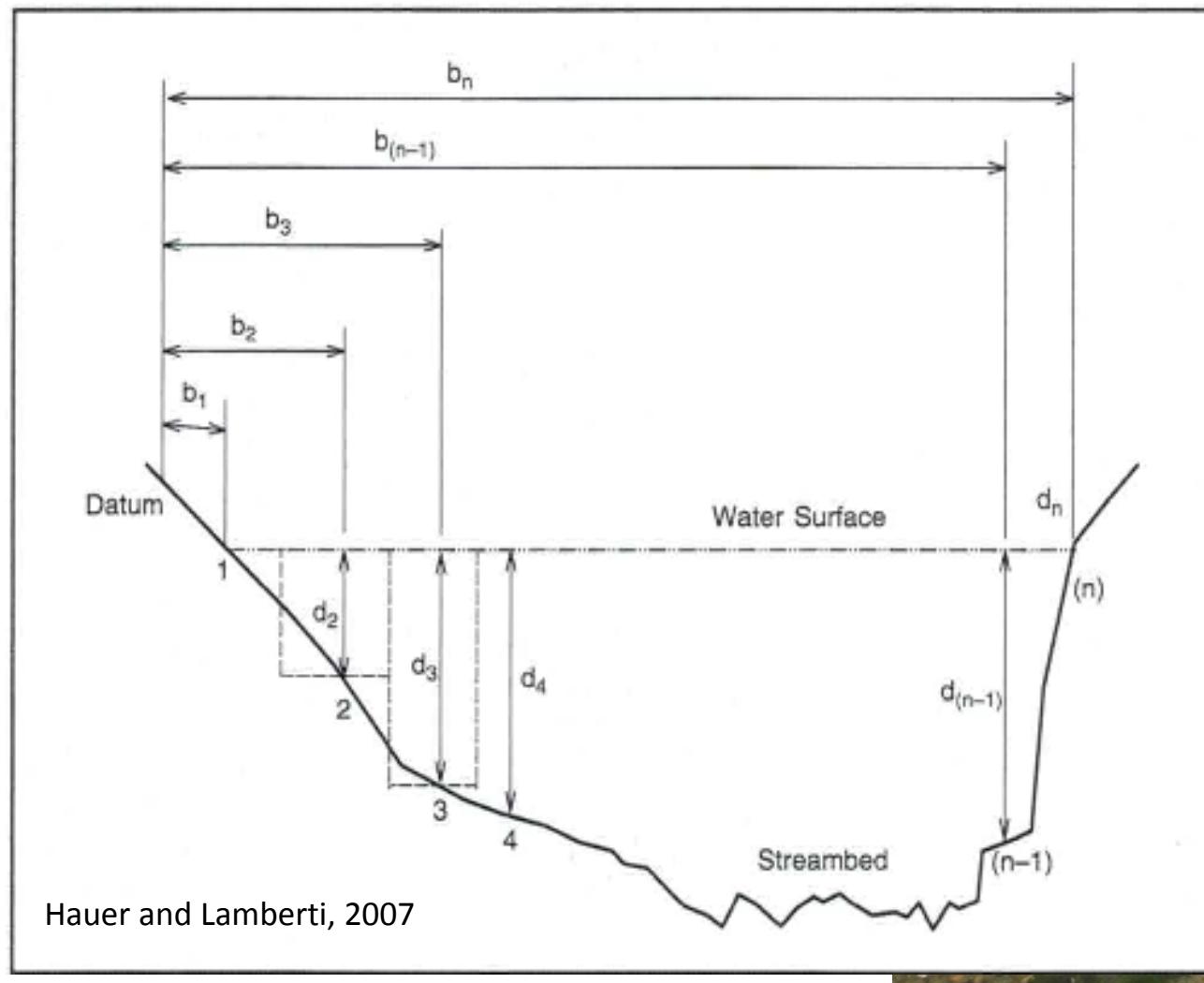
- Hoja de calibración del instrumento (una por día de muestreo).
- Hoja de campo (una por día de muestreo).
- Hoja de cadena de custodia (una por cada muestra a colectar).
- Etiquetas para rotular las muestras sellos de

- Aparato de filtración con bomba manual de vacío.
- Filtros de fibra de vidrio (Whatman GF/F 47-mm)
- Pinzas
- Tubos de centrifuga ambar (50 mL)
- Bolsas plásticas "ziplock"

- Equipo adecuado
- # personas adecuadas
- Condiciones de campo



Velocidad del agua (estimados de flujo)





Parámetros de campo (pH, cond, temp. OD)





Muestras de Agua

“Manos limpias/Manos sucias”







Preservación de muestras













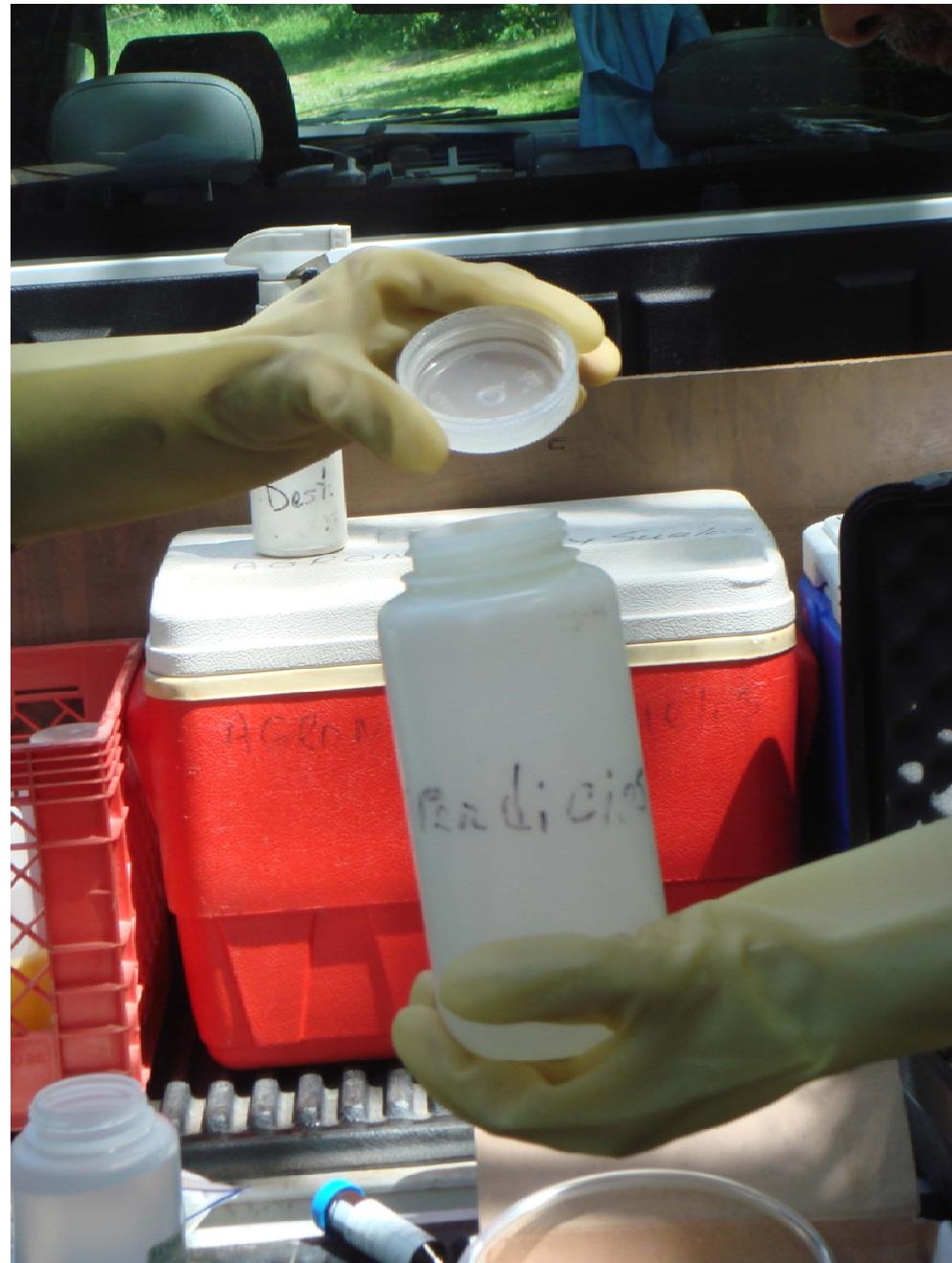








Manejo de Desperdicios









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**EEA-Z-268; Assessment water quality and efficacy of water treatment infrastructure
EQUIPMENT CALIBRATION FORM**

General Information:

Calibration date (month-day-year)		Calibration time	
Calibrated by		Sampling date	
Equipment name		Equipment serial number (SN):	

Calibration information:

Parameter	Units	Standard	Measured	Calibrated value
pH – 4 (if applicable)				
pH - 7				
pH – 10 (if applicable)				
Electrical conductivity				
Dissolved oxygen				

Comments

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FIELD DATA FORM**

Sampling site description

Sampling site		Station identification	
Date (month-day-year)		Time	
Personnel (include all names)			
1.	4.		
2.	5.		
3.	6.		

Physical-chemical parameters

Equipment name / SN	Units	Value
Temperature		
Electrical conductivity		
pH		
Dissolved oxygen		

Hydrological data

Equipment name / SN	Units	Value
Water velocity		
Stream depth		
Stream width		

Observations

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**EEA-Z-268; Assessment water quality and efficacy of water treatment infrastructure
SAMPLE IDENTIFICATION FORM**

Sampling site description

Sampling site		Station ID	
Date		Time	

Personnel (include all names)

1.	4.
2.	5.
3.	6.

Sample description

Sample number (Station ID-Set #) ¹	Bottle (A, B, C, D) ²	Preservative	Approximate sample volume (mL)

A – Nutrients and metals (1L bottle)

B – Nutrients dissolved (25 mL or 40 mL vials)

C – Microbiology and OBs (1L bottle)

D – Other (must specify under comments section)

✓

TB – Trip blank

Comments

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¹ Example for station 05, with set # 134, use the following description: 05-134

² Example for the sample collected as described in footnote 1, with the sample to be analyzed for microbiology, use the following description: 05-134-C



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CHAIN OF CUSTODY FORM^s**

Sample number (Station ID-Set #)	Date	Time	Relinquished	Received	Date	Time	Relinquished	Received	Date	Time	Relinquished	Received

Comments

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^s One sheet per station sampled