

TOLL ROAD CONCESSION AGREEMENT FOR PR-22 AND PR-5

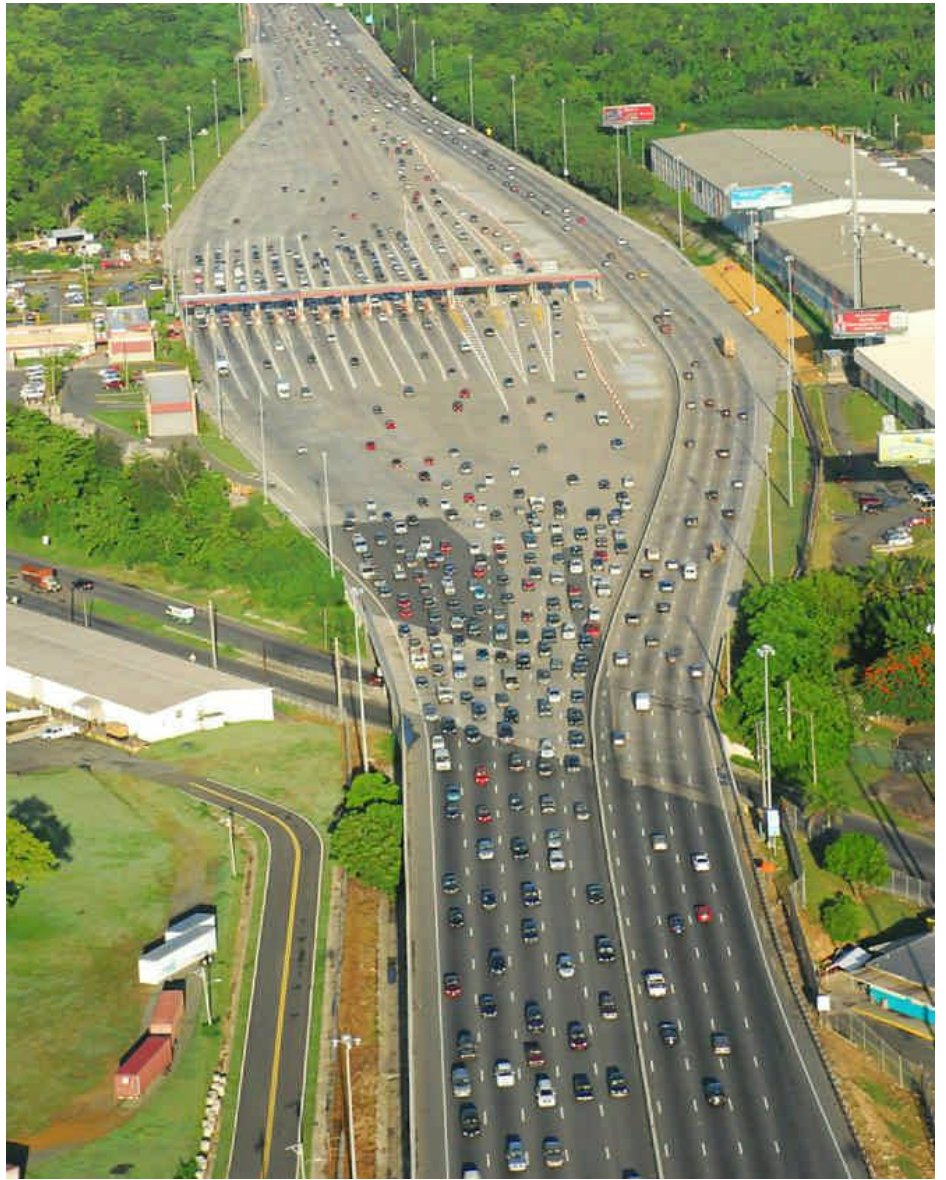
VOLUME III OF III ENVIRONMENTAL MANAGEMENT MANUAL



Government
Development Bank
of
Puerto Rico



Puerto Rico Highway and
Highways and Transportation
Authority



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Old San Juan, PR 00901

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CHAPTER A: ORGANIZATION AND GENERAL INFORMATION

A.1. Purpose of Manual

The primary purpose of this Volume III of the Operating Standards is to provide guidelines and criteria to the Concessionaire on the fundamental issues needed to protect natural resources and the environment as well as the basic development and submission of the Environmental Management Plan for the Toll Roads as described in Chapter B of this Volume. This Manual is intended to provide operational guidelines only. To the extent that any term of provision set forth in the Toll Road Concession Agreement conflicts with any term or provision of this Manual, then such term or provisions set forth in the Toll Road Concession Agreement shall supersede any such conflicting term or condition in this Manual. The Concessionaire is solely responsible for identifying, interpreting and complying with all Environmental Laws applicable to operation of the Toll Roads.

A.2. Limitations

URS Caribe LLP/URS Corporation has performed services for this project in accordance with the Scope of Work; and no guarantees are either expressed or implied. While preliminary site assessments were conducted, these were limited to the six (6) toll stations between San Juan and Hatillo and one (1) toll station along PR-5. For the remaining areas along the Toll Roads no site assessment was conducted. However, it is understood that no site assessment can ensure that all environmental conditions of concern would be identified and evaluated. The site assessment performed for all the Toll Plaza facilities is not intended to be an exhaustive assessment of the environmental studies related to the Toll Road Concession Agreement; but rather, this Manual has been based on a reasonable investigation undertaken during the initial stages of the development process and contains that information to the best of the knowledge of URS Caribe LLP/URS Corporation.

The record search was limited to information available from certain public sources available at the time of the preparation of this Manual. Such public records are continually changing and are frequently incomplete. Data gaps identified at this time include, but are not limited to, UST registrations, NPDES permits and SWPPP permit. URS Caribe LLP/URS Corporation does not assume any liability for information or conditions that have been misrepresented, or for items not visible, accessible, or present within the Toll Roads at the time of the site visits.

Additionally, no investigation is thorough enough to preclude the presence of materials or conditions at the site that currently, or in the future, may be subject to regulation or considered hazardous. Regulatory evaluation criteria are constantly changing, and conditions considered to be acceptable currently may, in the future, become subject to different regulatory standards and require action.

Where records indicate that prior action has occurred, the Concessionaire must be aware that there is the risk that the work may not have been performed correctly or completely. As such verification was beyond the Scope of Work, URS Caribe LLP/URS Corporation cannot express nor assure that the action taken was correct or complete in the absence of agency Approval.

The opinions and judgments expressed herein, which are based on URS Caribe LLP/URS Corporation's understanding and interpretation of current regulatory standards, should not be construed as legal opinions. No third party shall have the right to rely on URS Caribe LLP/URS Corporation's opinions rendered in connection with the services or in this document without URS Caribe LLP/URS Corporation's written consent and the third party's agreement to be bound to the same conditions and limitations as the client.

A.3. Staffing Identification

The Concessionaire is solely responsible for each employee, his or her actions, as well as all parties that are employed by the Concessionaire, while on the Toll Roads. The number of employees required must be determined by the needs of the Concessionaire to fulfill its maintenance, operation and contractual obligations.

The Toll Roads are a 24 hour-per-day, 365 days-per-year operation. For this reason, the Concessionaire must recognize the need to have variable work shifts, employees, supervisors and personnel so as to maintain constant operations.

A.3.1. Essential Staff

The Essential Staff Matrix developed for Volume II of III of the Operating Standards must include staff essential to complete environmental management activities. The Essential Staff Matrix must include members of staff adequate to perform duties as outlined in this Volume III, including, but not limited to, personnel with appropriate licenses, certifications and registrations.

A.4. Protection of Natural Resources and the Environment

The protection of natural resources and the environment is an essential and significant activity within the Toll Roads. The Concessionaire must comply with all Federal and Commonwealth Environmental Laws in protecting the natural resources of the region, the environment and any threatened or endangered species, whether or not such laws pertain to operational activities covered in the Environmental Management Plan.

PR-22, located along the northern coast of Puerto Rico, crosses twelve municipalities (San Juan, Guaynabo, Cataño, Bayamon, Toa Baja, Dorado, Vega Alta, Vega Baja, Manati, Barceloneta, Arecibo and Hatillo) and a variety of regulated natural resources areas can be found within its land. Areas of ecological importance within PR-22 are, among others, karst areas, major rivers, recognized wetland areas, forests and nature reserves. There are also areas of future urban development adjacent to PR-22.

As mentioned, there are areas of ecological and archaeological importance in the northern part of Puerto Rico. They include, but are not limited to:

- Designated Wetlands by the USFWS
- Martín Peña Channel Natural Reserve
- The most important karst area of the Island
- Some of the major rivers like the Río Grande de Manatí and Río Grande de Arecibo

- Forests
 - Vega State Forest
 - Cambalache State Forest
- Protected Species:
 - *Epicrates inornatus* (Puerto Rican boa). Endemic Species, critical element listed locally and federally as in danger of extinction.
 - *Ottoschulzia rhodoxylon* (Palo de rosa). Locally listed as in critical danger and federally as in danger of extinction.
 - *Coccoloba rugosa* (Ortegón). Endemic species listed as critical element.
 - *Drypetes ilicifolia* (Rose-wood). Listed as critical element.
 - *Gaussia attenuata* (Palma de lluvia). Endemic species listed as a critical element.
- Archaeological Sites. This information was obtained from the IPC and SHPO. The sites included are located at a distance of approximately 200 meters from PR-22.
 - Pre-historic Site B&A #4 – Archaeological finding with ceramic
 - Historic Site TB-11 – Ceramic, crystal and bones deposit from the XIX century.
 - Historic Site TB-12 – Ceramic, crystal and metal deposit possibly from the XVIII century
 - Pre-historic Site VA-5 – Refuge with petroglyphs and ceramic from the Taíno Indians Period.
 - Historic Site VA-6 – Historic Metallic Bridge at Vega Baja
 - Pre-historic Site VB-4 – Río Indio Bridge Deposits
 - Pre-historic Site VB-20 – Disperse ceramic deposit from the Taíno Indians Period.
 - FA-6, FA-7, FA-9 and FA-12 – Unnamed Historic Sites at Vega Baja and Manatí.
 - Pre-historic Site NCS-9 – Ceramic and bones from the pre-Columbus period at Manatí.
 - Pre-historic Site NCS-10 – Ceramic from the remains of a pre-Columbus period settlement at Barceloneta.
 - Pre-historic Site NCS-12 – Pre-Columbus Period Ceramic at Arecibo.
 - Pre-historic Site NCS-13 – Pre-Columbus Period Ceramic at Arecibo.
 - Cave with petroglyphs at Manatí.
 - Pre-historic Site Angustura (NCS-11) – Archaeological deposit consisting in human remains associated with the “arcaicos” at Barceloneta.
 - Pre-historic and Historic Site – Petroglyphs and Historic Bridge at Barceloneta.

PR-5 is a limited access highway generally running north-south and connecting the municipalities of Bayamon and Cataño. It starts at PR-165 at its north terminus and ends at PR-167 in the south. The section of PR-5 to be included in the Concession Agreement is the access controlled portion between PR-2 in the north, and PR-199 in the south, all within the Municipality of Bayamon. Within the Concession Limits, PR-5 has an approximate length of 4.0 kilometers and one toll plaza featuring one-way tolling in the northbound direction. The access controlled portion of PR-5 is located in a highly developed urban area with multiple residential, commercial and industrial uses and very few natural areas, with no threatened or endangered species within the corridor.

PR-5 is within an ecological zone known as a Subtropical Moist Forest. The topographic contours, however, have been modified as a result of years of urban sprawling. This area is characterized by common grasses and common trees, typical of residential areas. The only area of ecological importance is the Hondo River, which runs parallel to PR-5. No other areas of ecological significance (such as karst areas, wetlands, forests, nature preserves, etc.) have been found within the PR-5 corridor.

If any proposed project or activity may affect natural resources regulated by any Environmental Law, an evaluation of alternatives appropriately addressing avoidance, minimization and mitigation options as required by Environmental Laws applicable to these resources must be prepared. In addition, if the preferred alternative will affect such resources, adequate justification must be provided to explain why avoidance alternatives were not selected.

The Department of Natural and Environmental Resources (DNER), the Puerto Rico Environmental Quality Board (PREQB), US Fish and Wildlife Service (USFWS), US Corps of Engineers (USACE) and the US Environmental Protection Agency (USEPA) at federal level, are the agencies that the Concessionaire must contact to clarify any doubt or to process any permit for activities that could affect any endangered species or natural resource.

A.4.1. *Noise Control*

The development of a project or activity must comply with Federal, Commonwealth and local Laws for noise control. The Concessionaire must consult with appropriate officials to obtain the views of the affected communities regarding noise impacts and abatement measures and must study and mitigate any highway-related traffic or construction noise impacts in accordance with the PREQB Regulation for the Control of Noise Pollution and the Noise Policy in the Development and Operation of Transportation Projects.

A.4.2. *Water Resources and Water Quality*

Water resource must be protected and water quality must be maintained within and around the Toll Roads in compliance with Federal and Commonwealth Environmental Laws, including but not limited to the Clean Water Act of 1977, the Safe Drinking Water Act, Title 40 of the Code of Federal Regulations (CFR) Parts 100 to 149, Law 136 of June 3, 1976 - Law for the Conservation, the Development and Use of Water Resources in Puerto Rico, National Pollutants Discharge Elimination Systems (NPDES); PREQB Water Quality Standards, and Storm Water Pollution Prevention plan (SWPPP). No construction, improvement, maintenance activity, or daily activity may decrease the quality of surface waters, ground waters, or wetlands in violation of any Environmental Law. If there is no way to avoid impacts to the quality of surface waters, ground waters or wetlands, the Concessionaire must obtain the necessary Consent or permit from the PREQB and the USACE.

A.4.3. *Air Quality*

Portions of the Toll Roads are located in areas that until recently were classified as non-attainment areas of the Commonwealth, and as such, certain improvements within the Toll Roads must conform to Federal, Commonwealth and regional Air Implementation Plans and all Environmental Laws. Relevant Environmental Laws include, are but are not limited to, the Clean Air Act as amended in 1990, National Ambient Air Quality Standards and the PREQB Regulation for the Control of Atmospheric Pollution.

A.4.4. *Dust Control*

Dust control is essential in maintaining clean air and the prevention of airborne pollutants. Dust must be controlled within the Toll Roads in compliance with all Environmental Laws by implementing best management practices for all construction and daily activities including land disturbance, demolition and material handling processes.

A.4.5. *Threatened and Endangered Species*

During the development of a project or activity, an assessment must be made of the likely impacts on species of plants or animals listed at the Federal and/or Commonwealth level as threatened or endangered and on their habitats in accordance with Environmental Laws. Relevant Environmental Laws include, but are not limited to, the Endangered Species Act, Title 50 CFR Chapter 1 Part 17 Endangered and Threatened Wildlife and Plants, Regulation to Govern Vulnerable and Endangered Species in the Commonwealth of Puerto Rico (DNER Regulation #6766) and Regulation to Govern the Management and Conservation of Wildlife, Exotic Species and Hunting (DNER Regulation #6765). Every effort must be made to minimize the likelihood of jeopardizing the continued existence of listed threatened or endangered species or the destruction or adverse modification of a Natural Area or an area of habitat that has been designated as a critical or essential habitat.

A.4.6. *Other Laws*

Projects requiring Federal and/or Commonwealth actions, such as funding or Consents, may be subject to the National Environmental Policy Act, the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act and the PREQB Regulation for the Process of Presentation, Evaluation and Procedure of Environmental Documents, among others. The Concessionaire must conduct all investigations and prepare all documentation necessary to comply with these and any other applicable Environmental Laws.

A.5. Interagency Coordination

It is the Concessionaire's sole responsibility to coordinate with Governmental Authorities so that the Toll Roads are in compliance with all Federal, Commonwealth and local Environmental Laws.

A.6. Initial Submission of Environmental Management Plan

Chapter B of this Volume requires the submission of an Annual Environmental Management Plan by the Concessionaire to the Puerto Rico Highway and Transportation Authority (PRHTA) for Approval by the PRHTA. The Concessionaire must submit the Environmental Management Plan to the PRHTA for Approval no later than 120 days after the Closing Date, as defined in the Toll Road Concession Agreement, unless otherwise agreed to by the PRHTA and the Concessionaire.

The Concessionaire must submit all plans required by other Governmental Authorities as required by each Governmental Authority.

CHAPTER B: ENVIRONMENTAL MANAGEMENT PLAN

B.1. Definitions

The definitions, acronyms and abbreviations contained in Volume III are incorporated herein.

AST: Aboveground Storage Tanks

BMP: Best Management Practice

CFR: Code of Federal Regulations

Consent: A permit, license, authorization or other approval required by any Governmental Authority.

DNER: Puerto Rico Department of Natural and Environmental Resources (Departamento de Recursos Naturales y Ambientales de Puerto Rico).

DTPW: Puerto Rico Department of Transportation and Public Works (Departamento de Transportación y Obras Públicas de Puerto Rico)

Emergency: An unforeseen occurrence or combination of circumstances, that calls for immediate action or remedy.

Environmental Law: Any Federal, Commonwealth, or local, law, regulation, ordinance or other requirement pertaining to the environment.

EPA: Environmental Protection Agency

Incident: An occurrence or event, natural or man-made, requiring a response to protect life or property.

IPC: Institute of Puerto Rican Culture (Instituto de Cultura Puertorriqueña)

ISO: International Organization for Standardization

NPDES: National Pollutant Discharge Elimination System

PRASA: Puerto Rico Aqueduct and Sewer Authority

PREQB: Puerto Rico Environmental Quality Board (Junta de Calidad Ambiental de Puerto Rico)

PRHTA: Puerto Rico Highway and Transportation Authority (Autoridad de Carreteras y Transportación de Puerto Rico)

PRPB: Puerto Rico Planning Board (Junta de Planificación de Puerto Rico)

PRPD: Puerto Rico Police Department (Policía de Puerto Rico)

PWS: Public Water Supply

SPCC: Spill Prevention, Control and Countermeasure

SWPPP: Storm Water Pollution Prevention Plan

UST: Underground Storage Tanks

B.2. References

The following comprises a partial list of Environmental Laws and publications that may apply to the operations of the Toll Roads and other projects and activities undertaken by the Concessionaire. Environmental Laws and documents applicable to the Concessionaire are the most current versions of those stated herein.

- Clean Air Act, as amended in 1990
 - National Air Quality Standards
- Clean Water Act of 1977
 - Wetlands Jurisdictional Determinations (WJD) and US Corps of Engineers Permits
 - National Pollutants Discharge Elimination Systems (NPDES)
 - Storm Water Pollution Prevention Plan (SWPPP)
- CERCLA. Law 270 of 2003. Law for the Environmental Emergency Funds of Puerto Rico.
- Endangered Species Act of 1973
- Farmland Protection Policy Act
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Hazardous and Solid Waste Amendments of 1984
- Hazardous Materials Transportation Act
- International Organization for Standardization (ISO) 14001 (1996 and 2004 revision)
- Law 10 of January 19, 1995. Law to Promote de Reduction of Hazardous Waste in Puerto Rico
- Law 70 of September 18, 1992. Law for the Reduction and Recycling of Solid Waste in Puerto Rico.
- Law 112 of July 20, 1988. Protection Law for the Terrestrial Archaeological Patrimony.
- Law 136 of June 3, 1976. Law for the Conservation, the Development and Use of Water Resources in Puerto Rico.
- Law 411 of October 8, 2000. To amend 1992 Reduction and Recycling Law
- Law 416 of September 22, 2004. Environmental Public Policy Law
- National Ambient Air Quality Standards
- National Environmental Policy Act
- National Historic Preservation Act
- Puerto Rico Regulation on Special Areas at Risk of Flood (PRPB Regulation #13).

- Puerto Rico Regulation for Cultivation, Deforestation and Reforestation (PRPB Regulation #25)
- Puerto Rico Special Regulation and Plan for the Tortuguero Lagoon Hydrographic Basin. (PRPB Regulation #7)
- Puerto Rico Zoning Regulation (PRPB Regulation #4)
- Puerto Rico Future Karsts Zone Special Regulation – Under evaluation by the PRPB
- Regulation for the Erosion Control and Sedimentation Prevention (PREQB)
- Regulation for the Process of Presentation, Evaluation and Procedure of Environmental Documents (PREQB)
- Regulation for the Control of Atmospheric Pollution (PREQB)
- Regulation for the Control of Noise Pollution (PREQB)
- Regulation of Hazardous Waste Control
- Regulation of Lead Base Paint Abatements Control Activities
- Regulation of Non-Hazardous Waste Management (PREQB)
- Regulation of Underground Storage Tanks
- Regulation of Water Quality Standards
- Regulation to Govern Vulnerable and Endangered Species in the Commonwealth of Puerto Rico (DNER Regulation #6766)
- Regulation to Govern the Management and Conservation of Wildlife, Exotic Species and Hunting (DNER Regulation #6765)
- Regulation to Govern the Extraction, Excavation, Removal and Dredge of the Earth Crust Components (DNER Regulation #6916)
- Resource Conservation and Recovery Act of 1976
- Safe Drinking Water Act
- Solid Waste Management Act
- Superfund Amendments and Reauthorization Act of 1986
- Title 40 CFR Part 131 Water Quality Standards
- Title 40 CFR, Part 112, Oil Pollution Prevention
 - Spill Prevention Countermeasure Control
- Title 50 CFR Chapter 1 Part 17 Endangered and Threatened Wildlife and Plants
- United States Department of Agriculture, Soil Conservation Service Soil Survey
- Water's Law for Well Water Franchise Permit

B.3. Policy For Environmental Management Plan

B.3.1. Objective

The objective of the Environmental Management Plan is to ensure that the Concessionaire has considered, trained, addressed and planned for situations that could be deemed as creating an endangerment to human health or the environment within or adjacent to the Toll Roads resulting from operation of the Toll Roads.

B.3.2. Responsibility of Concessionaire

It is the Concessionaire's responsibility to establish, write and carry out a comprehensive Environmental Management Plan that addresses the protection of human health and the environment during the operation of the Toll Roads, and to ensure that such Plan procedures are being implemented and enforced. This Chapter and its contents have been provided as a preparation guideline that addresses the minimum required criteria and is not intended to be all inclusive. The Environmental Management Plan must be updated and submitted annually to the PRHTA for Approval. The Environmental Management Plan developed by the Concessionaire should conform to ISO 14001, except that the Concessionaire is not required to have the Environmental Management Plan approved by an independent certification body or registrar, although this is highly encouraged.

All appropriate Concessionaire employees must be trained on and made aware of the Environmental Management Plan and all of the requirements under the applicable Federal and Commonwealth Environmental Laws.

This Chapter includes a general outline of the proposed Environmental Management Plan. This outline is intended only to provide guidance in the preparation of the Environmental Management Plan and is not intended to identify all of the environmental issues that must be addressed in the Environmental Management Plan. The Environmental Management Plan must be modified, revised or changed as appropriate to address specific issues, needs, improvements, or concerns related to the Toll Roads that develop over time or to incorporate any changes to the applicable Federal and Commonwealth Environmental Laws.

Except for any remediation activities identified in the Toll Road Concession Agreement, the Environmental Management Plan must reflect that contamination discovered on or emanating from the Toll Roads after the Closing Date must be the responsibility of the Concessionaire.

B.3.3 *Permits and Licenses*

The Concessionaire will be responsible to renew any permit, approval, endorsement, or authorization required from any Federal and Commonwealth agency with jurisdiction over the facility, including without limitation, permit for the relocation of utilities.

The PRHTA shall take all necessary steps to transfer all permits, approval, endorsement or authorization to the Concessionaire, whenever such transfer is required for the performance by the Concessionaire of any activities included in this Agreement.

Mitigation: Whenever mitigation of the ecological conditions at the project site is required as a condition to obtain a necessary permit, the costs shall be part of the costs of such permit.

B.3.4 *Performance Time Frames*

The following table establishes the minimum frequency that the Environmental Management Plan is to be written and updated by the Concessionaire and submitted to the PRHTA for Approval. The Environmental Management Plan must be submitted annually for approval. The first annual update of the Environmental Management Plan must be submitted twelve months after the approval of the first Environmental Management Plan.

Plan	Minimum Frequency of Occurrence
Environmental Management Plan	Once Yearly

B.3.5 *Acceptance Criteria*

The Environmental Management Plan will be considered provisionally acceptable for a particular year when the Plan has been written and updated by the Concessionaire and submitted to the Commonwealth for comment and Approval. The Environmental Management Plan (and each update) will be considered final after the Concessionaire has incorporated any comments made by the PRHTA, and an independent certification body and these changes have been approved by the PRHTA and the independent certification body, as applicable.

B.4. Environmental Management Plan Preparation Requirements

B.4.1. Introduction

The Introduction Section of the Environmental Management Plan must contain a short introduction and must include a description of the persons or Governmental Authorities involved in the preparation of the Environmental Management Plan, a designated individual who is charged with the implementation and maintenance of the Environmental Management Plan and the overall goals and objectives of the Environmental Management Plan. At a minimum, this section must contain the following sub-sections:

- Purpose
- Scope and applicability
- The methodology used to develop and implement the Environmental Management Plan

B.4.2. General

The General Section of the Environmental Management Plan must require the Concessionaire to be responsible for all environmental Consents. The Concessionaire must be listed as the operator on all Consents and must pay all environmental related fees, including permitting fees. The PRHTA will be identified as the owner on all Consents. The Environmental Management Plan must include procedures and timetables for the Concessionaire to apply for all environmental Consents as stated above.

B.4.3. Records

The Environmental Records section of the Environmental Management Plan must require the Concessionaire to maintain environmental records in accordance with Environmental Laws, including, but not limited to, the Puerto Rico Comptrollers Office, which establishes a period of twelve (12) years as the time required for the retention of contracts and associated documents. The Environmental Management Plan must detail the required retention time periods for all for environmental records and provide the location of the record storage.

B.4.4. Operator's Consents

The Operators' Consents Section of the Environmental Management Plan must require that the water treatment plants and wastewater treatment plants be operated by appropriately licensed and certified operators. These Operators, whether they work for the Concessionaire or the Concessionaire's Contractor, must meet all current Consent requirements required by Environmental Laws. Such Operators must be a Certified Operator with the correct certification class and subclass to operate the appropriate system. The Environmental Management Plan must include a list of Concessionaire's operators and their license and certification information.

B.4.5. *Environmental Facilities' Consents*

The Environmental Facilities' Consents section of the Environmental Management Plan must require the Concessionaire to meet all current Federal and Commonwealth environmental Consent requirements for all facilities and operations including, but not limited to, the water treatment plants, non-transient water supplies, wastewater treatment plants, aboveground storage tanks (AST's) and underground storage tanks (USTs). The Environmental Management Plan must include a list of each Consent required for operating and maintaining the Toll Roads.

B.4.6. *Hazardous Materials Management/Response to Hazardous Materials Emergencies*

The Hazardous Materials Management/ Response to Hazardous Materials Emergencies section of the Environmental Management Plan must identify all materials (including wastes and other substances) that are or could potentially be harmful if released into the environment and must specify the appropriate management of these materials and substances in order to prevent an impact to the environment, in keeping with applicable provisions of the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act of 1976, Superfund Amendments and Reauthorization Act of 1986, Clean Water Act, Law 10 of January 19, 1995 - Law to Promote the Reduction of Hazardous Waste in Puerto Rico, Regulation of Hazardous Waste Control, CERCLA - Law 270 of 2003. Law for the Environmental Emergency Funds of Puerto Rico and all other applicable Environmental Laws.

The Environmental Management Plan must include the steps required to respond to and report releases of hazardous materials to appropriate Federal and Commonwealth Governmental Authorities. There are generally two (2) different types of hazardous material surface spills that may occur within the Toll Roads. Hazardous materials incidents can be caused by vehicles on the Toll Roads or by spillage of materials used by the Toll Roads. Incidents on the Toll Roads could be due to vehicle fuel spills or spills of bulk or containerized materials that are being transported by over-the-road vehicles. Example response/ remediation policies are included in Exhibit III-A.

In accordance with Environmental Protection Agency (EPA) Oil Pollution Prevention Regulation at Title 40 of the CFR, Part 112, the Concessionaire must implement and maintain (i.e., have reviewed and certified by a Professional Engineer licensed in the Commonwealth of Puerto Rico every five (5) years) the Spill Prevention, Control and Countermeasure (SPCC) Plans as part of the Environmental Management Plan. The Environmental Management Plan must address how these SPCC plans will be updated, implemented and maintained. Any facilities with a total aboveground oil storage capacity of greater than 1,320 gallons, or total completely buried oil storage capacity greater than 42,000 gallons is required to prepare and implement a SPCC Plan. A copy of the entire SPCC Plan must be maintained at the facility and the plan must be available to EPA for on-site review and inspection.

B.4.7. *Underground Storage Tanks (USTs) and Above-Ground Storage Tanks (ASTs)*

The Underground Storage Tanks section of the Environmental Management Plan must require the Concessionaire to be responsible for the operation, maintenance and replacement of any and all UST and AST necessary for operation of the Toll Roads in accordance with Federal, Commonwealth and Local statutes and regulations. Relevant statutes and regulations include, but are not limited to: PREQB Regulation for Underground Storage Tanks, Title 40 CFR, Part 112, Oil Pollution Prevention and a Spill Prevention and Countermeasure Control Plan. According to site visits, no UST's were identified. However, this information could not be corroborated, since interviewed PRHTA personnel could not certify nor evidenced the presence or absence of UST's. If UST's do exist, then the Concessionaire will be responsible for those in accordance with applicable statutes and regulations as well. On the other hand, a list of AST's identified through review of Puerto Rico Environmental Quality Board (PREQB) files is provided on Table B.4.7.1.

Table B.4.7.1
PR-22 & PR-5: List of Above-ground Storage Tanks

Location	KM	Operator	Tank Use	Tank Number	Size (Gallons)	Contents	Installation Date	Status	Tank Construction	Secondary containment
Hatillo Toll Plaza	82.0	PRHTA	Emergency Generator 90 KW Onan		1,000	Diesel		Current	Steel	YES
			Day tank		30	Diesel		Current	Steel	YES
			Engineering and Maintenance Department		300	Diesel		Current	Steel	YES
Manati Toll Plaza	46.0	PRHTA	Emergency Generator 65 KW Kholer		500	Diesel		Current	Steel	YES
			Day tank		5	Diesel		Current	Steel	YES
			Engineering and Maintenance Department		300	Diesel		Current	Steel	YES
Arecibo (Factor) Ramp Toll Plaza	64.0	PRHTA	Emergency Generator 40 KW DTM		500	Diesel		Current	Steel	YES
			Day tank		10	Diesel		Current	Steel	YES
Arecibo (Factor) Toll Plaza	65.0	PRHTA	Emergency Generator 125 KW Kholer		500	Diesel		Current	Steel	YES
			Day tank		NA	Diesel		Current	Steel	YES
			Engineering and Maintenance Department		300	Diesel		Current	Steel	YES
Buchanan Toll Plaza	8.0	PRHTA	Emergency Generator N A Cummins		560	Diesel		Current	Steel	YES
			Day tank		N A	Diesel		Current	Steel	YES
			Engineering and Maintenance Department		560	Diesel		Current	Steel	YES
Vega Alta Toll Plaza	32.0	PRHTA	Emergency Generator N A Onan		560	Diesel		Current	Steel	YES
			Day tank		N A	Diesel		Current	Steel	YES
			Engineering and Maintenance Department		260	Diesel		Not in Use	Steel	NO
Toa Baja Toll Plaza	22.0	PRHTA	Emergency Generator N A Ford		500	Diesel		Current	Fiberglass	YES
			Day tank		N A	Diesel		Current	Steel	YES
			Engineering and Maintenance Department		500	Diesel		Current	Fiberglass	YES
			Engineering and Maintenance Department		500	Diesel		Not in Use	Steel	NO
PR-5 Toll Plaza	6.8	PRHTA	Day tank		55	Diesel		Current	Steel	NO

unk = Unknown

B.4.8. Air Permitting

The Air Permitting Section of the Environmental Management Plan must include procedures to ensure that the Concessionaire's operational activities within the Toll Roads either remain under air permitting thresholds or the required air Consents are obtained for operation or maintenance activities. Operation of the Toll Roads may require air Consents, although the current operation of the Toll Roads is exempt because the calculated emissions do not trigger the need for a Consent to be obtained. The Environmental Management Plan must specify the procedures that will be taken to ensure that projects or operations meet all applicable Environmental Laws with respect to Air Permits.

B.4.9. Herbicides and Pesticides

The Herbicides and Pesticides Section of the Environmental Management Plan must specify, and require the Concessionaire to follow, the proper storage and application of all herbicides and pesticides in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and in accordance with manufacturer's instructions.

B.4.10. Wastewater Treatment

There are no Wastewater Treatment Facilities on or near the Toll Roads. The Wastewater Treatment Service is provided by the Puerto Rico Aqueduct and Sewer Authority (PRASA) for the Buchanan Toll Plaza. The rest of the Plazas disposed their wastewater on septic tanks.

The Environmental Management Plan must also require the Concessionaire to operate, maintain and replace if necessary the septic tanks currently in operation and any other septic tanks required by the operation of the Toll Roads. In addition, the Concessionaire must operate, maintain and replace if necessary any lift stations required by the operation of the Toll Roads. These lift stations are either in combination with a septic system or a connection to a municipal wastewater collection system.

The Concessionaire must require in the Environmental Management Plan that if a septic system can be replaced with a connection to a PRASA wastewater collection system, the connection will be made.

B.4.11. Water Supply and Treatment

The Water Supply and Treatment in the area comes from public water supply systems, mainly from surface water reservoirs owned by PRASA. The Concessionaire does not have to operate and maintain public water supplies (PWS) for the operation of the Toll Roads. The Environmental Management Plan must require any public water supplies that may exist to be operated within regulatory limitations and standards and must specify those regulatory limitations and standards.

There are no drinking and/or irrigation water wells not co-located with a public water supply and no non-PWS wells on the Toll Roads.

B.4.12. *Community and Private Water Supply*

The Community and Private Water Supply section of the Environmental Management Plan must provide for the procedures for addressing potential groundwater quality issues.

Private Citizens may contact the Concessionaire regarding ground water quality. The Environmental Management Plan must require the Concessionaire to inform PREQB and the Commonwealth upon notification of potential groundwater quality issues.

There are no wells within the Toll Roads, however there are various sinkholes adjacent to the Toll Roads, some of which receive runoff from the Toll Plazas. The Environmental Management Plan must specify, and require implementation of, the steps that will be taken by the Concessionaire, in general order of implementation, in response to the contact or question about ground water quality adjacent to the Toll Roads, including, but not limited to the management of oil, and other contaminants components.

B.4.13. *Storm Water Management*

The Storm Water Management Section of the Environmental Management Plan must address storm water management issues and Laws, and the Concessionaire must obtain and comply with any Consents necessary to operate the Toll Roads including, but not limited to, a National Pollutant Discharge Elimination System (NPDES) permit and a Storm Water Pollution Prevention Plan (SWPPP). The Concessionaire must comply with all Consent terms and conditions of any required NPDES permit. The Environmental Management Plan must require the Concessionaire to maintain any existing Best Management Practices (BMP) and install additional BMPs as required by Environmental Laws. Storm Water management at the Toll Plazas include, but are not limited to:

- Buchanan Toll Plaza – Several storm water catch basins were observed along the parking lot on the property.
- Toa Baja Toll Plaza – Several storm water catch basins were observed located at PR-22, where the canopy toll is located.
- Vega Alta Toll Plaza - Several storm water catch basins were observed at the parking lot.
- Manatí Toll Plaza – Storm water runoff is discharged through an on site storm water collection system into a pit hole located 0.55 miles east from the toll plaza. The NPDES permit, for this operation was not available.
- Arecibo Toll Plaza - Several storm water catch basins were observed located at the Main Toll Plaza. Storm water runoff is discharged to a catch basin located 200 meters north.
- Hatillo Toll Plaza – A storm water catch basin was observed along the parking lot at the west side of the site. Runoff moves towards the east of the subject property and connects to PRASA.
- PR-5 Toll Plaza - A storm water catch basin was observed on the parking lot just west of the Toll Plaza Facilities which connects to PRASA.

No NPDES Storm Water permits were identified through review of PREQB files as well as through interviews with PRHTA personnel. For more specific information, refer to the Phase I ESA Reports prepared for each one of the Toll Plazas.

B.4.14. Community Right To Know

The Community Right-To-Know section of the Environmental Management Plan must require the Concessionaire to prepare and submit Community Right-To-Know documentation on an annual basis. Tier II forms must be submitted in all cases in lieu of Tier I forms. Submission of Tier II forms are required by Title III of the Superfund Amendments and Reauthorization Act of 1986, Section 312, Public Law 99-499, codified at 42 U.S.C. Section 11022, if so requested by a Commonwealth emergency response commission, a local emergency planning committee, or a fire department with jurisdiction over the facility.

B.4.15. Solid Waste Management

The Solid Waste Management section of the Environmental Management Plan must specify procedures for proper management, including treatment, storage, and disposal, of solid waste in compliance with Environmental Laws, including but not limited, to the Resource Conservation and Recovery Act of 1976 (RCRA), Hazardous and Solid Waste Amendments of 1984, the Solid Waste Management Act and the Law to Promote de Reduction of Hazardous Waste in Puerto Rico. Procedures must include, but not be limited to the procedures for proper hazardous waste-stream determination in accordance RCRA. The Toll Plazas facilities along the Toll Roads are not currently listed as Generator under RCRA. The Environmental Management Plan must indicate that generator status will be reviewed on a monthly basis. All appropriate notifications and documents must be prepared and submitted to the appropriate Governmental Authorities by the Concessionaire. The Plan must indicate how potential disposal facilities will be evaluated prior to shipment of any solid waste, whether non-industrial, industrial or hazardous. The Environmental Management Plan must also include procedures to manage road kill wastes.

B.4.16. Chemical Supply and Choice

The Chemical Supply and Choice section of the Environmental Management Plan must include a section regarding the responsible choice of chemicals purchased for use to minimize hazardous waste generation.

B.4.17. Training

The Training Section of the Environmental Management Plan must include the training requirements and certifications for all appropriate personnel, whether they are personnel of the Concessionaire or its Contractors. In addition, this section must require that the personnel have completed the most current training, possess the proper and current license or certification and qualifications to operate the particular equipment.

The types of training required include, but are not limited to:

- Contingency Plan/SPCC Plan
- RCRA Hazardous Waste Training
- Updates and training on new or revised regulations
- Continuing education as required by personal certifications and licensing
- UST Training

EXHIBITS:

- A. Process for Remediation of Hazardous Material Spill on Paved Areas
- B. Process for Remediation of Hazardous Material Spill on Grass Maintained Areas

**EXHIBIT A: PROCESS FOR REMEDIATION OF HAZARDOUS MATERIAL SPILLS
ON PAVED AREAS**

In the event a spill occurs on the Toll Roads that affects paved areas or other non-paved surfaces, the company or party responsible for that spill must do the following:

SPILL RESPONSE PROCEDURE FOR PAVED AREAS

The Concessionaire must require the remediation of any spill, of any quantity, be conducted by the company or person responsible for the spill. Upon the occurrence of a spill, the responsible party must immediately perform the following:

- Contact all applicable local, Commonwealth and Federal Governmental Authorities in order to report the spill and also immediately notify the Concessionaire;
- Assess the situation to identify the material spilled and determine whether an immediate health or safety threat is present;
- Take all precautionary measures to eliminate any health or safety risks and notify the Concessionaire personnel or Puerto Rico Police Department (PRPD) of a need to secure the area if necessary; and
- Take steps to immediately contain the spill and prevent it from migrating further.

Spill reports must be made to the following:

- Concessionaire
- National Response Center (800)424-8802
- EPA Region II, N.Y. (212)637-3660
- EPA, San Juan Office (787)725-7825
- PR Environmental Quality Board (787)767-8181
- PR Department of Natural and Environmental Resources (787)999-2200
- PR Fire Department (Central) (787)343-2330
- Municipal Fire Department *
- PR Police Department - Highway Patrol Division
 - Buchanan Toll (787)781-2560
 - Arecibo Factor Toll (787)881-7747
 - (787)816-1210
- Office of the Mayor
 - Municipality of San Juan (787)724-7171
 - Municipality of Guaynabo (787)720-4040
 - Municipality of Cataño (787)788-0404
 - Municipality of Bayamón (787)780-5552
 - Municipality of Toa Baja (787)261-0202
 - Municipality of Dorado (787)796-1230
 - Municipality of Vega Alta (787) 883-5900
 - Municipality of Vega Baja (787) 855-2500
 - Municipality of Manatí (787) 854-2024
 - Municipality of Barceloneta (787) 846-2400
 - Municipality of Arecibo (787)878-4338
 - Municipality of Hatillo (787)898-3835
- State Agency for Emergency Management and Disasters Administration (787)724-0124
- PR Department of Transportation and Public Works (787)722-2929
- US Army Corps of Engineers, SJ (787)783-2424

* Note: Depending on the Municipality. (San Juan, Guaynabo, Cataño, Bayamón, Toa Baja, Dorado, Vega Alta, Vega Baja, Manatí, Barceloneta, Arecibo and Hatillo)

REMEDIATION ACTIVITIES FOR PAVED AREAS

In conducting remediation activities, the remediation company selected by the responsible party must follow the set of guidelines set forth below:

- The remediation company will contact the Concessionaire prior to entering the Toll Roads to start clean-up, even if there will be no lane blockage. If a lane needs to be closed, Concessionaire personnel will setup and maintain the lane closure.
- Based upon the material involved, the remediation company must identify any specific precautions that must be taken in performing a remediation.
- The remediation contractor is to contact Concessionaire personnel if there is a question as to whether a pavement needs to be removed.
- Pavement areas that have been impacted by the spill will be evaluated by competent Concessionaire personnel to determine if the pavement needs to be removed. Concessionaire personnel may request the assistance from the remediation contractor in making the evaluation.
- If pavement needs to be removed competent Concessionaire personnel will determine the length, width and depth of such removal as well as the type of asphaltic material to use.
- It will be the responsibility of the remediation contractor to secure the assistance of a milling and paving contractor to perform the pavement replacement operations.
- The remediation contractor and sub-contractors to schedule the repairs in a timely manner and to notify Concessionaire personnel when such repairs are scheduled so that lane closures can be scheduled.
- All contaminated material to be removed from the Toll Roads at the time of cleanup, unless other arrangements have been made acceptable to Concessionaire personnel.

In the event that there is not a PRPD unit on scene, it is the duty of the Concessionaire to contact the PRPD when there is a spill of any quantity. In the event of PRPD presence, they will be in charge of all accidents/ incidents and will contact the company or persons responsible for the spill and inform them that they are to contact a remediation company. PRPD may notify all applicable Federal and Commonwealth Governmental Authorities of the spill, however, it is the responsibility of the person or entity that caused the spill to make the required reports to the appropriate Governmental Authorities. In the event a PRPD unit is not on the scene, Concessionaire personnel will notify the company or persons responsible for the spill and inform them that they are to contact a remediation company and to notify all applicable Federal and Commonwealth Governmental Authorities of the spill.

The remediation contractor must provide a full report to the Concessionaire for each Incident and the Concessionaire must provide a full report to the Commonwealth within seven (7) Business Days following each Incident.

**EXHIBIT B: PROCESS FOR REMEDIATION OF HAZARDOUS MATERIAL SPILLS
ON GRASS MAINTAINED AREAS**

In the event a spill occurs within the Toll Roads that affects grass maintained areas or other non-paved surfaces, the company or party responsible for that spill must do the following:

**SPILL RESPONSE PROCEDURE FOR
GRASS MAINTAINED AREAS**

The Concessionaire must require the remediation of any spill, of any quantity, be conducted by the company or person responsible for the spill. Upon the occurrence of a spill, the responsible party must immediately perform the following:

- Contact all applicable Commonwealth and Federal Governmental Authorities in order to report the spill and must also immediately contact the Concessionaire;
- Assess the situation to identify the material spilled and determine whether an immediate health or safety threat is present;
- Take all precautionary measures to eliminate any health or safety risks and notify the Concessionaire personnel or PRPD of a need to secure the area if necessary; and
- Take steps to immediately contain the spill and prevent it from migrating further.

Spill reports must be made to the following:

- Concessionaire
- National Response Center (800)424-8802
- EPA Region II, N.Y. (212)637-3660
- EPA, San Juan Office (787)725-7825
- PR Environmental Quality Board (787)767-8181
- PR Department of Natural and Environmental Resources (787)999-2200
- PR Fire Department (Central) (787)343-2330
- Municipal Fire Department *
- PR Police Department - Highway Patrol Division
 - Buchanan Toll (787)781-2560
 - Arecibo Factor Toll (787)881-7747
 - (787)816-1210
- Office of the Mayor
 - Municipality of San Juan (787)724-7171
 - Municipality of Guaynabo (787)720-4040
 - Municipality of Cataño (787)788-0404
 - Municipality of Bayamón (787)780-5552
 - Municipality of Toa Baja (787)261-0202
 - Municipality of Dorado (787)796-1230
 - Municipality of Vega Alta (787) 883-5900
 - Municipality of Vega Baja (787) 855-2500
 - Municipality of Manatí (787) 854-2024
 - Municipality of Barceloneta (787) 846-2400
 - Municipality of Arecibo (787)878-4338
 - Municipality of Hatillo (787)898-3835
- State Agency for Emergency Management and Disasters Administration (787)724-0124
- PR Department of Transportation and Public Works (787)722-2929
- US Army Corps of Engineers, SJ (787)783-2424

* Note: Depending on the Municipality. (San Juan, Guaynabo, Cataño, Bayamón, Toa Baja, Dorado, Vega Alta, Vega Baja, Manatí, Barceloneta, Arecibo and Hatillo)

REMEDIATION ACTIVITIES FOR GRASS MAINTAINED AREAS

In conducting remediation activities, the remediation company selected by the responsible party must follow the set of guidelines set forth below:

- The remediation company will contact the Concessionaire prior to entering the Toll Roads to start clean-up, even if there will be no lane blockage. If a lane needs to be closed, Concessionaire personnel will setup and maintain the lane closure.
- Based upon the material involved, the remediation company must identify any specific precautions that must be taken in performing a remediation.
- All contaminated soil must be removed from the site.
- All soil removed must be replaced with black dirt or topsoil that will grow grass.
- The area must be restored to the original grade so that a low spot or hollow area is not created.
- A PRHTA seed mixture must be used for seeding the affected area.
- The topsoil must be covered with an erosion control mat after seeding to control erosion and to promote the growing of the grass.
- All contaminated soil and material must be removed from the Toll Roads and properly disposed of at the time of cleanup, unless other arrangements have been made acceptable to Concessionaire personnel.
- The remediation company and the responsible party must at all times cooperate with all local, Commonwealth and federal officials involved in the spill response and remediation.

In the event that there is not a PRPD unit on scene, it is the duty of the Concessionaire to contact the PRPD when there is a spill of any quantity. In the event of PRPD presence, they will be in charge of all accidents/ incidents and will contact the company or persons responsible for the spill and inform them that they are to contact a remediation company. PRPD may notify all applicable Federal and Commonwealth Governmental Authorities of the spill, however, it is the responsibility of the person or entity that caused the spill to make the required reports to the appropriate Governmental Authorities. In the event a PRPD unit is not on the scene, Concessionaire personnel will notify the company or persons responsible for the spill and inform them that they are to contact a remediation company and to notify all applicable Federal and Commonwealth Governmental Authorities of the spill.

ALL OTHER NON-PAVED AREAS

In the event that a spill affects an area that is not grass maintained but is non-paved, the remediation process will be the same as for Grass Maintained Areas except that all of the contaminated material will be removed and clean like material replaced to the original grade. Topsoil, seed and erosion control mats will not be required.

The remediation contractor must provide a full report to Concessionaire for each Incident, and the Concessionaire in turn will provide a full report to the Commonwealth within seven (7) Business Days following each Incident.