Doc # 1

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

A.E.E.

2006 JUL 12 PM 3:22

DIRECTOR PLANIFICACION
Y PROTECCION AMBIENTAL

July 6, 2006

Office of the
Executive Director

Juan F. Alicea Flores, Director
Planning and Environmental Protection
Puerto Rico Electric Power Authority
PO Box 364267
San Juan, Puerto Rico 00936-4267

06 JUL 13 AM 10:45

Re: *Request for Fee Exemption*
Legal Counsel Opinion
Construction of Gas Pipeline

Dear Mr. Flores:

This letter is in response to your letter dated June 12, 2006, regarding Puerto Rico Electric Power Authority's request for exemption from the section 381.305 fee. Based on the enclosed letter from the Commission's General Counsel, John Moot, PREPA is considered a municipality pursuant to section 2 of the Natural Gas Act and therefore eligible to request exemption from this fee under section 381.108(a). As such, I hereby grant your exemption.

Sincerely,

Thomas R. Herlihy
Executive Director

Doc # 2

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

A.E.E.

OFFICE OF THE GENERAL COUNSEL

2006 AUG -2 PM 3:38

JUL 28 2006

DIRECTOR PLANIFICACION
Y PROTECCION AMBIENTAL

Juan F. Alicea Flores, Director
Planning and Environmental Protection
Puerto Rico Electric Power Authority
P.O. Box 364267
San Juan, Puerto Rico 00936-4267

Dear Mr. Alicea Flores:

Thank you for your letter of March 8, 2006, in which you request guidance on behalf of the Puerto Rico Electric Power Authority (PREPA) regarding whether the Federal Energy Regulatory Commission (Commission) will have jurisdiction over certain natural gas pipeline facilities that PREPA plans to construct and operate. Based upon the specific facts of PREPA's proposal as they have been presented, it is my opinion that the facilities will be exempt from the Natural Gas Act (NGA) and the Commission's NGA jurisdiction, and that PREPA therefore does not need any authorization from the Commission.[1]

As you described it, PREPA is a public corporation and a government agency of the Commonwealth of Puerto Rico that owns and operates all the electric systems in Puerto Rico. As described in your letter and attached maps, PREPA plans to construct a 37-mile long, 16-inch to 20-inch diameter natural gas transmission pipeline to transport regasified imported liquefied natural gas (LNG) from the Ecoelectrica LNG terminal in Penuelas, Purerto Rico, to PREPA's electric generation facilities at the Aguirre Power Complex in Salinas, Puerto Rico. The pipeline will tap into an existing 20-inch diameter line in the Ecoelectrica right-of-way. While the pipeline will be routed through five municipalities to the Aguirre Power Complex, the pipeline will be used solely to transport gas for use as fuel in PREPA's electric generation facilities.

The Commission's NGA jurisdiction arises under sections 3 and 7 of that Act. Pursuant to authority delegated by the Secretary of Energy, the Commission has NGA section 3 authority over the siting, construction and operation of facilities for the importation or exportation of natural gas. The Commission's NGA section 3

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[1] Pursuant to section 388.104(c) of the Commission's regulations, the Office of the General Counsel may provide legal interpretations of any statue or implementing regulations under the jurisdiction of the Commission.

jurisdiction is limited to facilities used for the importation or exportation of natural gas. Based on the information in your letter and attachments, the importation process will be complete prior to imported natural gas entering PREPA's planned pipeline facilities.

Section 7(c) of the NGA provides that "no natural gas company . . . shall engage in the transportation or sale of natural gas, subject to the jurisdiction of the Commission, or undertake the construction or extension of any facilities therefore, or acquire or operate any such facilities or extensions thereof, unless there is in force with respect to such natural gas company a certificate of public convenience and necessity issued by the Commission authorizing such acts or operations . . . ." NGA section 2(6) defines "natural gas company" as "a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale." NGA section 2(7) defines "interstate commerce" as "commerce between any point in a State and any point outside thereof . . . but only insofar as such commerce takes place within the United States."

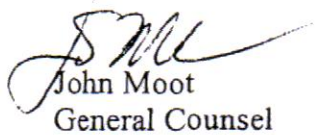
As described above, all of the gas received into PREPA's proposed pipeline facilities will be sourced from a foreign country, all of the facilities will be located entirely within the boundaries of Puerto Rico, and none of the natural gas transported through the line will leave the Territory. Further, while NGA section 2(1) defines "person" to include a corporation, NGA section 2(2) defines "corporation" to specifically exclude a "municipality," which NGA section 2(3) defines as "a city, county, or other political subdivision or agency of a State."

Because PREPA is an agency of the Commonwealth of Puerto Rico, PREPA qualifies as a "municipality" for purposes of the NGA. Finally, since the facilities contemplated by PREPA will not be used in either the importation or exportation of natural gas or the transportation of natural gas in interstate commerce, PREPA's construction and operation of the facilities it not subject to section 3 or section 7 of the NGA.

In view of the above considerations, it is my opinion that PREPA does not require any authorization from the Commission to undertake construction and/or operation of its planned natural gas pipeline facilities.

The opinion expressed herein is mine, and does not bind the Commission in any manner. If I can be of any further assistance in this or any other Commission matter, please let me know.

Sincerely,



John Moot
General Counsel

DOC # 3

ASESORES
Ambientales
y Educativos Inc.

June 15, 2010

Mr. Edwin Muniz, Field Supervisor
Ecological Services Program
U.S. Fish and Wildlife Service
Caribbean Field Office
P.O. Box 491
Road 301 Km 5.1
Boquéron, Puerto Rico 00623

Puerto Rico Electric Power Authority - Vía Verde Project

Dear Mr. Muniz,

We would like to thank you for taking the time to meet with us on June 8, 2010 regarding the above referenced project. As you are aware, the project is of great importance to PREPA and to the public. Per your request, we have attached a .kml file of the pipeline route alignment under study for the review of your technical staff.

It would assist us greatly if your office could provide a preliminary review of the pipeline route and indicate any areas of potential concern regarding Threatened and Endangered species and/or critical habitat. If you could provide a list of flora and fauna species of interest and any survey protocols that you have accepted in the past our agent, BC Peabody, would be glad to make every effort to provide the best information possible when the permit application is submitted to the U.S. Army Corps of Engineers.

We look forward to working with you and your staff on this very important project. Please contact me (yousevgr@yahoo.com) or Ken Caraccia (kencaraccia@bcpeabody.com) with any questions.

Sincerely,

Yousev García
Director

cc: Marelisa Rivera, USFWS

PMB 145, 130 Winston Churchill Ave., San Juan, PR 00926-6018 • Tel: (787) 292-2107

DOC # 4

"KenCaraccia@bcpeabody.com"
<KenCaraccia@bcpeabody.com>

06/21/2010 05:56 PM

Please respond to KenCaraccia@bcpeabody.com

To <marelisa_rivera@fws.gov>

cc <daniel_paganrosa@yahoo.com>, <yousevgr@yahoo.com>, <johannawillis@bcpeabody.com>

bcc

Subject PREPA Via Verde LNG Pipeline - TE Data Request

History: This message has been replied to and forwarded.

BCPeabody Consulting, P.A.

509 Guisando de Avila - Suite 100

Tampa, FL 33613

June 21, 2010

Marelisa Rivera - Endangered Species Program Coordinator

United States Fish & Wildlife Service

Caribbean Field Office

P.O. Box 491 / Road 301, Km. 5.1

Boquerón, Puerto Rico 00622

Re: Puerto Rico Electric Power Authority - Via Verde LNG Pipeline

Greetings Ms. Rivera:

Thank you for taking the time to meet with us on June 8, 2010. Pursuant to our discussion, I have attached the contact information for the key BCPeabody personnel who will be working with your staff on the above referenced project. I trust that you have received the pipeline route transmitted by Yousev Garcia (AAE) on June 15, 2010. It is our understanding that the USFWS will now review the route and identify those areas where populations of T&E species (both plant and animal) and/or critical habitat are known to exist. We realize that the locations and data provided are not complete and as such, we will use it as a starting point only for our field studies. We can, and will, utilize the species data in any format that you have it available (species lists, lat/lon coordinates, shape files, data base files, etc.). Please forward any available information as soon as possible as T&E evaluations are underway.

It is our intention to provide the Service with a biological evaluation/assessment of the project that contains sufficient level of detail to enable you (USFWS) to thoroughly review the project and to identify any concerns. Thank you in advance for your assistance and we look forward to working with you and the Boquerón staff on this important energy project.

Should you have any questions or require any additional information, please do not hesitate to contact me.

Sincerely,

Kenneth S. Caraccia

Kenneth S. Caraccia

Senior Environmental Scientist

(813) 928-1455

kencaraccia@bcpeabody.com

kencaraccia@verizon.net

cc: Yousev Garcia, Danny Pagan (AAE)

BCPeabody Consulting, P.A., Contact Information

Tampa, FL Office

BCPeabody Consulting, P.A.

509 Guisando de Avila - Suite 100

Tampa, FL 33613

Office: 813-961-7300

Fax: 813-961-9300

Key Contact Personnel

Kenneth S. Caraccia

Senior Environmental Scientist

Office: 813-961-7300

Cell: 813-928-1455

Fax: 813-961-9300

kencaraccia@bcpeabody.com

kencaraccia@verizon.net

Johanna Willis

Senior Environmental Scientist - Project Manager

Office: 813-961-7334

Cell: 813-731-4666

Fax: 813-961-9300

johannawillis@bcpeabody.com

Marelisa Rivera_FWS_LTR062110.pdf

BCPEABODY

BCPeabody Consulting, P.A.
509 Guisando de Avila - Suite 100
Tampa, FL 33613

June 21, 2010

Marelisa Rivera – Endangered Species Program Coordinator
United States Fish & Wildlife Service
Caribbean Field Office
P.O. Box 491 / Road 301, Km. 5.1
Boquerón, Puerto Rico 00622

Re: Puerto Rico Electric Power Authority - Via Verde LNG Pipeline

Greetings Ms. Rivera:

Thank you for taking the time to meet with us on June 8, 2010. Pursuant to our discussion, I have attached the contact information for the key BCPeabody personnel who will be working with your staff on the above referenced project. I trust that you have received the pipeline route transmitted by Yousev Garcia (AAE) on June 15, 2010. It is our understanding that the USFWS will now review the route and identify those areas where populations of T&E species (both plant and animal) and/or critical habitat are known to exist. We realize that the locations and data provided are not complete and as such, we will use it as a starting point only for our field studies. We can, and will, utilize the species data in any format that you have it available (species lists, lat/lon coordinates, shape files, data base files, etc.). Please forward any available information as soon as possible as T&E evaluations are underway.

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Should you have any questions or require any additional information, please do not hesitate to contact me.

Sincerely,
Kenneth S. Caraccia

Kenneth S. Caraccia
Senior Environmental Scientist
(813) 928-1455
kencaraccia@bcpeabody.com
kencaraccia@verizon.net

cc: Yousev Garcia, Danny Pagan (AAE)

BCPeabody Consulting, P.A., Contact Information

Tampa, FL Office

BCPeabody Consulting, P.A.
509 Guisando de Avila - Suite 100
Tampa, FL 33613

Office: 813-961-7300
Fax: 813-961-9300

Key Contact Personnel

Kenneth S. Caraccia
Senior Environmental Scientist
Office: 813-961-7300
Cell: 813-928-1455
Fax: 813-961-9300
kencaraccia@bcpeabody.com
kencaraccia@verizon.net

Johanna Willis
Senior Environmental Scientist – Project Manager
Office: 813-961-7334
Cell: 813-731-4666
Fax: 813-961-9300
johannawillis@bcpeabody.com

Doc #6

"KenCaraccia@bcpeabody.com"
<KenCaraccia@bcpeabody.com>

06/23/2010 11:08 AM

Please respond to KenCaraccia@bcpeabody.com

To <Marelisa_Rivera@fws.gov>

cc <daniel_paganrosa@yahoo.com>, <johannawillis@bcpeabody.com>, <yousevgr@yahoo.com>, <Edwin_Muniz@fws.gov>

bcc

Subject Re: PREPA Via Verde LNG Pipeline - TE Data Request

Marelisa,

Thank you for the acknowledgement of our request and your prompt response. We look forward to receiving your comments/data/concerns so that they can be incorporated into our field evaluations and permit documents.

Regards,

Ken Caraccia
Senior Environmental Scientist
813-928-1455
kencaraccia@bcpeabody.com
kencaraccia@verizon.net

From: Marelisa_Rivera@fws.gov
Sent: Wednesday, June 23, 2010 8:29 AM
To: KenCaraccia@bcpeabody.com
Subject: Re: PREPA Via Verde LNG Pipeline - TE Data Request

Doc #5

Dear Mr. Caraccia:

We have received the letter and the proposed route for the gasoducto project. We are in the process of evaluating the project to provide technical assistance in writing. Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
(787) 851-7440 (fax)
(787) 510-5207 (mobile)
marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey

"KenCaraccia@bcpeabody.com" <KenCaraccia@bcpeabody.com>

Doc # 7

"KenCaraccia@bcpeabody.com" <KenCaraccia@bcpeabody.com>

06/30/2010 10:05 AM

Please respond to KenCaraccia@bcpeabody.com

To <marelisa_rivera@fws.gov>

cc <johannawillis@bcpeabody.com>, <larryevans@bcpeabody.com>

bcc

Subject TE Species Data for PREPA Via Verde Pipeline

History: This message has been replied to.

Greetings Marelisa,

Just a brief inquiry as to the status of the TE data for the PREPA pipeline. We will be completing our initial surveys soon and would like to review your concerns in order to define any additional field studies which may be required. If possible, please give me an approximate data delivery date.

Thank you for your assistance on this important project.

Regards,

Ken Caraccia
Senior Environmental Scientist
BCPeabody Consulting, P.A.
kencaraccia@bcpeabody.com
813-928-1455

Doc # 8

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

JUN 30 2010

Mr. Yousev García
Director
Asesores Ambientales y Educativos, Inc.
PMB 145
130 Winston Churchill Avenue
San Juan, Puerto Rico 00926-6018

Re: Via Verde Project (Gasoducto del Sur)
LP-012

Dear Mr. García:

This is in reply to your letter dated June 15, 2010, requesting technical assistance in form of a list of federally listed species and designated critical habitat along the proposed alignment of the Via Verde Project, previously known as Gasoducto del Sur. Our technical assistance is preliminary since the only information provided consists of a reference map of the pipeline route in Google Earth format. The information does not provide detailed description of the project and the areas needed for access roads during construction, transit areas for vehicles, storage areas, construction facilities, among other components associated to infrastructure projects.

Based on the provided alignment, suitable habitat for the following federally-listed species may be affected.

Dry limestone hills from Guayanilla to Ponce:

1) *Ottoschulzia rhodoxylon* (palo de rosa)
2) *Trichilia triacantha* (bariaco)
3) *Buxus valhii* (diablito de tres cuernos)
4) *Eugenia woodburyana*
5) *Catesbaea melanocarpa*
6) *Cordia rupicola*
7) *Mitracarpus maxwelliae*
8) *Mitracarpus polycladus*
9) *Caprimulgus noctitherus* (guabairo)

Central Mountain Range (Volcanic):

1) *Thelypteris inabonensis*
2) *Thelypteris yaucoensis*
3) *Thelypteris verecunda*

4) *Juglans jamaicensis* (nogal)
5) *Polystichum calderoense*
6) *Accipiter striatus venator* (falcon de sierra)
7) *Buteo platypterus brunnescens* (guaraguaito)

Moist limestone (Río Abajo Forest and PR 10)

1) *Cordia bellonis*
2) *Ottoschulzia rhodoxylon* (palo de rosa)
3) *Daphnopsis helleriana*
4) *Solanum drymophilum* (erubia)
5) *Pleodendron macranthum* (chupacallos)
6) *Myrcia paganii*
7) *Shoepfia arenaria*
8) *Tectarea estremerana*
9) *Auerodendron pauciflorum*
10) *Buteo platypterus brunnescens* (guaraguaito)
11) *Amazona vittatta vittatta* (cotorra puertorriqueña)

Northern Limestone Hills

1) *Ottoschulzia rhodoxylon* (palo de rosa)
2) *Buxus vahlii* (diablito de tres cuernos)
3) *Banara vanderbiltii*
4) *Cordia bellonis*
5) *Daphnopsis helleriana*
6) *Solanum drymophilum* (erubia)
7) *Myrcia paganii*
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Northern Wetlands and White Sands

1) *Stahlia monosperma* (cobana negra)
2) *Chamaecrista glandulosa*

We recommend surveys be conducted by qualified and experienced personnel along the proposed route and adjacent areas. It was our experience with the Gasoducto del Sur that surveys were limited to the footprint of the project, resulting on additional surveys during construction since additional access roads were needed for construction purposes. In addition, when individuals or populations of federally listed species were found, alternative routes to avoid impacts to the individuals / populations were evaluated and surveyed. This approach of limiting the surveys to the footprint of the project resulted in duplication of efforts and delays.

In your letter, you also requested information regarding surveys methodologies for the species. The Service has not developed surveys methodologies for listed species for consultation purposes. However, we recommend the applicant uses the best information available, species expert' opinion, and scientific literature to develop such methodologies. Once the methodologies are developed, the applicant should consult with the Service for review. Based on our experience in previous projects, we do not recommend the establishment of transects to survey listed plants. We recommend that the project area be systematically surveyed by qualified and experienced personnel to search for the listed plant species. Also it was our experience in one of the site visits to the area for the proposed access roads for the Gasoducto del Sur that biologists conducting surveys using transect lines did not detect one additional listed species that we detected during our visit. Regarding the guabairo, we recommend contracting qualified and experienced personnel to identify suitable habitat within the project area and to conduct surveys with playback recordings (playing the recording for 2 minutes and listening for a minimum of 3 minutes) during the appropriate time and date frames (three hours before sunset and three hours after sunset, monthly from March to early July which is the peak of the nesting season). The surveys for the falcón de sierra and guaraguaito should be conducted from November to March following survey methodologists established in Lerandi-Román (2006) and Hengstenberg and Vilella (2004).

Threatened and endangered species and their habitats are protected by both federal and Commonwealth laws and regulations. At the Federal level, the species are protected by the Endangered Species Act of 1973 as amended. Section 7 of the Endangered Species Act requires that Federal agencies ensure the actions permitted, funded, or carried out by that agency will not adversely modify and/or will not jeopardize the continued existence of threatened and endangered species. Section 9 of the Endangered Species Act prohibits take of an endangered species. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Under Section 10 of the Endangered Species Act, the Service can provide incidental take permits (ITPs) pending to permit issuance criteria are met and a Habitat Conservation Plan (HCP) is completed.

With the information available to us at the present time, we cannot determine the extent of involvement by other Federal agencies with permitting responsibilities for the proposed project nor do we know the extent of the potential impact to protected species. Therefore, we cannot determine if an incidental take permit under Section 10 of the Endangered Species Act is required.

In addition to threatened and endangered species, the Service would like to review the alternative analysis for the proposed project and the possible direct and indirect effects to resources under our jurisdiction such as migratory birds, riparian and wetland resources, and forested habitats.

Our comments are issued as technical assistance as per your request in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

If you have any questions, please contact Marelisa Rivera, Assistant Field Supervisor for the Caribbean Ecological Services Field Office at 787-851-7297 extension 206.

Sincerely yours,

Edwin E. Muñiz
Field Supervisor
Caribbean Ecological Services Field Office

Mtr
Cc: BCPeabody Consulting, PA

Literature Citations:

Hengstenberg, D.W. and F.J. Vilella. 2004. Reproductive biology, abundance, and movement patterns of the Puerto Rican broad-winged hawk in a limestone forest of Puerto Rico. Final report submitted to the U.S. Geological Survey under Cooperative Agreement No. 14-45-009-1543-59.

Llerandi-Román, I.C. 2006. Red-tailed hawk home range, habitat use, and activity patterns in north central Puerto Rico. MS Thesis, Mississippi State University, Mississippi, 173 pp.

Doc #9

Michelle Ramos/R4/FWS/DOI

07/01/2010 10:02 AM

To yousevgr@yahoo.com

cc kencaraccia@bcpeabody.com

bcc

Subject Via Verde Project

History: This message has been forwarded.

Greetings Mr. García:

Attached please find the response letter regarding the bove mentioned project. A hard copy of this letter will be sent to you via regular mail. If you have any questions please feel free on contacting Marelisa Rivera at 787-851-7297 ext. 206.

Via Verde (Gasoducto del Sur) LP-012.pdf

Best regards;

Michelle Ramos
P.O. Box 491
Boqueron, Puerto Rico 00622

michelle_ramos@fws.gov
Phone: (787)851-7297 Ext. 213
Fax: (787) 851-7440

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

JUN 30 2010

Mr. Yousev García
Director
Asesores Ambientales y Educativos, Inc.
PMB 145
130 Winston Churchill Avenue
San Juan, Puerto Rico 00926-6018

Re: Via Verde Project (Gasoducto del Sur)
LP-012

Dear Mr. García:

This is in reply to your letter dated June 15, 2010, requesting technical assistance in form of a list of federally listed species and designated critical habitat along the proposed alignment of the Via Verde Project, previously known as Gasoducto del Sur. Our technical assistance is preliminary since the only information provided consists of a reference map of the pipeline route in Google Earth format. The information does not provide detailed description of the project and the areas needed for access roads during construction, transit areas for vehicles, storage areas, construction facilities, among other components associated to infrastructure projects.

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9) *Auerodendron pauciflorum*
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Northern Limestone Hills

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We recommend surveys be conducted by qualified and experienced personnel along the proposed route and adjacent areas. It was our experience with the Gasoducto del Sur that surveys were limited to the footprint of the project, resulting on additional surveys during construction since additional access roads were needed for construction purposes. In addition, when individuals or populations of federally listed species were found, alternative routes to avoid impacts to the individuals / populations were evaluated and surveyed. This approach of limiting the surveys to the footprint of the project resulted in duplication of efforts and delays.

In your letter, you also requested information regarding surveys methodologies for the species. The Service has not developed surveys methodologies for listed species for consultation purposes. However, we recommend the applicant uses the best information available, species expert' opinion, and scientific literature to develop such methodologies. Once the methodologies are developed, the applicant should consult with the Service for review. Based on our experience in previous projects, we do not recommend the establishment of transects to survey listed plants. We recommend that the project area be systematically surveyed by qualified and experienced personnel to search for the listed plant species. Also it was our experience in one of the site visits to the area for the proposed access roads for the Gasoducto del Sur that biologists conducting surveys using transect lines did not detect one additional listed species that we detected during our visit. Regarding the guabairo, we recommend contracting qualified and experienced personnel to identify suitable habitat within the project area and to conduct surveys with playback recordings (playing the recording for 2 minutes and listening for a minimum of 3 minutes) during the appropriate time and date frames (three hours before sunset and three hours after sunset, monthly from March to early July which is the peak of the nesting season). The surveys for the falcón de sierra and guaraguaito should be conducted from November to March following survey methodologists established in Lerandi-Román (2006) and Hengstenberg and Vilella (2004).

Threatened and endangered species and their habitats are protected by both federal and Commonwealth laws and regulations. At the Federal level, the species are protected by the Endangered Species Act of 1973 as amended. Section 7 of the Endangered Species Act requires that Federal agencies ensure the actions permitted, funded, or carried out by that agency will not adversely modify and/or will not jeopardize the continued existence of threatened and endangered species. Section 9 of the Endangered Species Act prohibits take of an endangered species. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Under Section 10 of the Endangered Species Act, the Service can provide incidental take permits (ITPs) pending to permit issuance criteria are met and a Habitat Conservation Plan (HCP) is completed.

With the information available to us at the present time, we cannot determine the extent of involvement by other Federal agencies with permitting responsibilities for the proposed project nor do we know the extent of the potential impact to protected species. Therefore, we cannot determine if an incidental take permit under Section 10 of the Endangered Species Act is required.

In addition to threatened and endangered species, the Service would like to review the alternative analysis for the proposed project and the possible direct and indirect effects to resources under our jurisdiction such as migratory birds, riparian and wetland resources, and forested habitats.

Our comments are issued as technical assistance as per your request in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

If you have any questions, please contact Marelisa Rivera, Assistant Field Supervisor for the Caribbean Ecological Services Field Office at 787-851-7297 extension 206.

Sincerely yours,

Edwin E. Muñiz
Field Supervisor
Caribbean Ecological Services Field Office

Mtr
Cc: BCPeabody Consulting, PA

Literature Citations:

Hengstenberg, D.W. and F.J. Vilella. 2004. Reproductive biology, abundance, and movement patterns of the Puerto Rican broad-winged hawk in a limestone forest of Puerto Rico. Final report submitted to the U.S. Geological Survey under Cooperative Agreement No. 14-45-009-1543-59.

Llerandi-Román, I.C. 2006. Red-tailed hawk home range, habitat use, and activity patterns in north central Puerto Rico. MS Thesis, Mississippi State University, Mississippi, 173 pp.

----- Forwarded by Michelle Ramos/R4/FWS/DOI on 07/01/2010 02:59 PM -----

Doc #10

Yousev Garcia
<yousevgr@yahoo.com>
07/01/2010 02:26 PM

To Michelle_Ramos@fws.gov
cc Daniel Pagan <daniel_paganrosa@yahoo.com>
Subject Re: Via Verde Project

Recibido gracias! Solo una nota; este proyecto no guarda relacion con el Gasoducto del Sur. Via Verde es u
aclarar ese detalle en la referencia de la carta.

Yousev

--- On **Thu, 7/1/10, Michelle_Ramos@fws.gov** <***Michelle_Ramos@fws.gov***> wrote:

From: Michelle_Ramos@fws.gov <Michelle_Ramos@fws.gov>
Subject: Via Verde Project
To: yousevgr@yahoo.com
Cc: kencaraccia@bcpeabody.com
Date: Thursday, July 1, 2010, 7:02 AM

Greetings Mr. García:

Attached please find the response letter regarding the bove mentioned project. A hard copy of this letter will
please feel free on contacting Marelisa Rivera at 787-851-7297 ext. 206.

(See attached file: Via Verde (Gasoducto del Sur) LP-012.pdf)

Best regards;

Michelle Ramos
P.O. Box 491
Boqueron, Puerto Rico 00622

michelle_ramos@fws.gov
Phone: (787)851-7297 Ext. 213
Fax: (787) 851-7440

Doc # 11

Michelle Ramos/R4/FWS/DOI

07/01/2010 03:00 PM

To Marelisa Rivera/R4/FWS/DOI@FWS

cc

bcc

Subject Fw: Via Verde Project

FYI.

Please see History!

Michelle Ramos
P.O. Box 491
Boqueron, Puerto Rico 00622

michelle_ramos@fws.gov
Phone: (787)851-7297 Ext. 213
Fax: (787) 851-7440

Doc #13

Will is "<johannawillis@bcpeabody.com>

09/17/2010 04:04 PM

<jlcoll@caribe.net>, "'Jousef Garcia <yousevgr@yahoo.com>

Subject Via Verde Pipeline- Access to FTP

Good afternoon Marelisa,

As requested during the meeting today, we have provided access to our FTP site for you to download the files you were interested in reviewing. The information has not yet been placed on our FTP site but we will notify you when all of the files are there. Please use the log-in and password to access the FTP site:

Go to
ftp://ftp.bcpeabody.com/

Log-in: USFWS
Password: viaverde

Follow the instructions on how to open the ftp site in Windows Explorer (you may need to type the login and password a second time). You will need to download files to your hard drive in order to view them.

Please let me know if you have any trouble accessing the site.

Best Regards,

Johanna Willis
Environmental Scientist
BCPeabody Consulting, P.A.
Cell: (813) 731-4666
Office: (813)961-7300
JohannaWillis@bcpeabody.com

Doc #14

From: Marelisa_Rivera@fws.gov
Date: Mon, 20 Sep 2010 17:01:09 -0400
To: Johanna R Willis<johannawillis@bcpeabody.com>
Cc: 'Andrew'<andrewgoetz@bcpeabody.com>; <jlcoll@caribe.net>; <LarryEvans@bcpeabody.com>; 'Jousef Garcia'<yousevgr@yahoo.comRafaelGonzalez/R4/FWS/DOI>
Subject: Re: Via Verde Pipeline- Access to FTP

Dear Johanna:

I tried twice to download the documents and the site does not show that there are documents in the site. Maybe I am doing something incorrect. Can you please set the page again and Rafael from my staff can download the documents tomorrow? Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
(787) 851-7440 (fax)
(787) 510-5207 (mobile)
marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey

"Johanna R Willis" <johannawillis@bcpeabody.com>

"Johanna R

To<Marelisa_Rivera@fws.gov>

cc<LarryEvans@bcpeabody.com>, "'Andrew'" <andrewgoetz@bcpeabody.com>,

Doc # 15

c
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cc"'Andrew'" <andrewgoetz@bcpeabody.com>, LarryEvans@bcpeabody.com, "'Jousef Garcia'" <yousevgr@yahoo.comRafaelGonzalez/R4/FWS/DOI>

SubjectRe: Via Verde Pipeline- Access to FTP

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Hi Marelisa,I haven't uploaded yet the shapefiles of the transects, segments evaluated, etc. in the BCPeabody ftp. I am recovering them after my arcview crashed. In the meantime, remember that a copy of the flora and fauna study, including the figure that shows those transects, etc. was included in the cd that we provided with the BE on our meeting.It is of my understanding that the rest of the EIS would be in the ftp soon.Thanks,Jorge

Sent via BlackBerry from T-Mobile

Doc #16

From: "Yousev Garcia" <yousevgr@yahoo.com>
Sent: Monday, September 20, 2010 6:21 PM
To: marelisa_rivera@fws.gov, johannawillis@bcpeabody.com
Subject: Re: Via Verde Pipeline- Access to FTP

Dear Marelisa:
We haven't upload the files yet. I hope to get it done by tomorrow.

Doc #17

From: Marelisa_Rivera@fws.gov
Sent: Tuesday, September 21, 2010 8:51 AM
To: jlcoll@caribe.net
Subject: Re: Via Verde Pipeline- Access to FTP

Please send us the DVD with the layers. Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
(787) 851-7440 (fax)
(787) 510-5207 (mobile)
marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey

Doc #18

"LarryEvans@bcpeabody.com"
<LarryEvans@bcpeabody.com>
09/21/2010 11:02 AM
Please respond to LarryEvans@bcpeabody.com

To "Yousev Garcia" <yousevgr@yahoo.com>, <marelisa_rivera@fws.gov>, <jlcoll@caribe.net>
cc <daniel_paganrosa@yahoo.com>, <andrewgoetz@bcpeabody.com>, rafaelgonzalez/r4/fws/doi <rafaelgonzalez/r4/fws/doi@yahoo.com>
bcc
Subject Re: Via Verde Pipeline- Access to FTP

Yousev, Jorge -

Let's see if we can prioritize the upload to the ftp site. We would like to make sure we provide USFWS and the Corps the information ASAP so we can identify key issues. We originally set Monday as a goal so please let me know if we can complete this action NLT today.

Thank you

Lawrence C. Evans
503.781.7930 (cell)
larryevans@bcpeabody.com
iyutka53@aol.com

Doc # 20

jlcoll@caribe.net
09/22/2010 04:11 PM
Please respond to jlcoll@caribe.net

To rafael_gonzalez@fws.gov
cc
bcc
Subject Fw: Equipos de trabajo segun tramos y transectos

History: This message has been replied to.

Sent via BlackBerry from T-Mobile

Doc # 21

From: jlcoll@caribe.net
Date: Wed, 22 Sep 2010 19:53:01 +0000
To: <marelisa_rivera@fws.gov>; <.rafael_gonzalez@fws.gov>
ReplyTo: jlcoll@caribe.net
Cc: <jlcoll@caribe.net>
Subject: Fw: Equipos de trabajo segun tramos y transectos

Saludos,
Aqui esta en excel, que biologo trabajo en que transecto, segun solicitado.
Jorge

Sent via BlackBerry from T-Mobile

Doc # 19

From: Jorge Coll <coll.environmental@yahoo.com>
Date: Wed, 22 Sep 2010 11:27:38 -0700 (PDT)
To: <jlcoll@caribe.net>
Subject: Equipos de trabajo segun tramos y transectos

Equipos de Trabajo.xls

Milla	Líder Equipo
85-89	Jorge Coll
89-90	Jorge Coll
71	Jorge, Walter, Sustache
27-28	Jorge Coll
23	Jorge Coll
82-85	Jorge Coll
0-2	Jorge Coll
51-55	Walter Soler
42-44	Walter Soler
47-51	Walter Soler
56-59	Walter Soler
77-84	Walter Soler
42-47	Walter Soler
28	Walter Soler
26-36	Walter Soler
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Gentry	Líder Equipo
T1	Walter Soler
T2	Walter Soler
T3	Sustache y Jorge
T4	Sustache y Jorge
T5	Walter Soler
T6	Walter Soler
T7	Walter Soler
T8	Walter Soler
T9	Walter Soler
T10	Jorge Coll
T11	Walter Soler
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T18	Walter Soler
T19	Jose Sustache
T20	Jose Sustache
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T45	Jose Sustache
T46	Jose Sustache

Doc #22

"LarryEvans@bcpeabody.com"
<LarryEvans@bcpeabody.com>
09/23/2010 12:22 PM
Please respond to LarryEvans@bcpeabody.com

To <Marelisa_Rivera@fws.gov>
cc <yousevgr@yahoo.com>, "Andrew" <andrewgoetz@bcpeabody.com>, <jlcoll@caribe.net>, "Johanna R Willis" <johannawillis@bcpeabody.com>
bcc
Subject Re: Via Verde Pipeline- Access to FTP

History: This message has been replied to.

Hello Marelisa -

Jorge loaded the files you requested onto the ftp site. Johanna Willis advised me that you should be able to open them with either ArcGIS, ArcMap, or ArcView. If you have any trouble accessing the files, please do not hestitate to contact me and we will do everything we can to assist you.

Best regards.

Lawrence C. Evans
503.781.7930 (cell)
larryevans@bcpeabody.com
iyutka53@aol.com

Doc # 23

From: Marelisa_Rivera@fws.gov
Sent: Friday, September 24, 2010 3:09 PM
To: LarryEvans@bcpeabody.com
Subject: Re: Via Verde Pipeline- Access to FTP

Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
(787) 851-7440 (fax)
(787) 510-5207 (mobile)
marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey

Doc #24

"LarryEvans@bcpeabody.com"
<LarryEvans@bcpeabody.com>
09/24/2010 03:43 PM
Please respond to LarryEvans@bcpeabody.com

To <Marelisa_Rivera@fws.gov>
cc
bcc
Subject Re: Via Verde Pipeline- Access to FTP

History: This message has been replied to and forwarded.

You are very welcome Marelisa! If there is anything else we can do, please do not hesitate to let me know. We are looking forward to working with you and your team on this action.

Give my best to Edwin. Tell him I look forward to seeing him again (if I don't crash and burn at the skydiving bigway events I am going to in CA in early October)

Best regards!

Lawrence C. Evans
503.781.7930 (cell)
larryevans@bcpeabody.com
iyutka53@aol.com

Doc #25

From: Marelisa_Rivera@fws.gov
Sent: Tuesday, October 05, 2010 1:35 PM
To: LarryEvans@bcpeabody.com
Subject: Re: Via Verde Pipeline- Access to FTP

Larry:

I checked today with Rafael and he told me that we never received the DVD with the layers nor received access to FTP. I was under the impression that they sent it but I was incorrect.

Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
(787) 851-7440 (fax)
(787) 510-5207 (mobile)
marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey

Doc #26

"LarryEvans@bcpeabody.com"
<LarryEvans@bcpeabody.com>
10/06/2010 05:25 PM

Please respond to LarryEvans@bcpeabody.com

To <Marelisa_Rivera@fws.gov>
cc
bcc
Subject Re: Via Verde Pipeline- Access to FTP

Hi Marelisa -

Thank you for the update. I'll contact Yousev immediately and see what can be done to get the CD to you ASAP.

Lawrence C. Evans
503.781.7930 (cell)
larryevans@bcpeabody.com
iyutka53@aol.com

Doc # 27

United States Department of the Interior

FISH & WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

OCT 18 2010

Mr. Sindulfo Castillo
Chief, Regulatory Section
US Army Corps of Engineers
400 Fernandez Juncos Ave.
San Juan, Puerto Rico 00901 – 3299

Re: Joint Permit Application
Via Verde Natural Gas Pipeline

Dear Mr. Castillo:

The U.S. Fish and Wildlife Service (the Service or USFWS) received a courtesy copy of the Joint Permit Application (JPA) for the proposed natural gas pipeline that would be constructed from the Eco Eléctrica liquefied natural gas (LNG) Terminal in Peñuelas to the Cambalache Termoeléctrica Authority Central electric power plant in Arecibo, the Palo Seco facility in Toa Baja and a facility in San Juan. Also a copy of the Draft Environmental Impact Statement (DEIS) for the proposed Via Verde project was provided to us. Our preliminary comments are issued in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.), the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et. seq.), and the Migratory Bird treaty act of 1918 (16 U.S.C. 703 et seq.).

The proposed project consists in the construction and installation of a natural gas (NG) pipeline throughout approximately 92 miles crossing the island south to north. The pipeline proposed route runs through the municipalities of Peñuelas, Adjuntas, Utuado Arecibo, Barceloneta, Manati, Vega Alta, Vega Baja, Dorado, Toa Baja, Cataño, Bayamon, and Guaynabo. Based on the information provided, the project would require a right of way of 150 ft (45.72 m) for construction, and a right of way 50 ft (15.24 m) during operation. The proposed project area consists of about 1,113.8 acres of which 738.6 acres are wetlands. Based on the information provided, the proposed project would affect about 1,115 acres of land 33% of which are wetlands, impacting Commonwealth Forests, Natural Reserves, forested volcanic and karst areas, habitat for federally listed threatened and endangered species and privately-owned lands participating in conservation programs because of their high ecological values for our trust resources.

The Service has evaluated the JPA and attached documents, and would like to provide the following comments:

1. **Lead Federal Agency for Section 7 Consultation under the Endangered Species Act (ESA) and National Environmental Policy Act (NEPA) Compliance:**

The JPA specifies that the proposed project would require several hundreds of U.S. Army Corps of Engineers (COE) Nationwide Permits, EPA Construction NPDES, and authorization from Federal Highway Administration. In addition, it is our understanding that the project would require authorization of the Federal Energy Regulatory Commission (FERC). In accordance with the Natural Gas Act (NGA), FERC coordinates the processing of authorizations required under federal law for proposed natural gas projects subject to NGA section 3 and 7. Although the Draft Environmental Impact Statement (DEIS) names the Corps as the lead Federal Agency the process of designating a lead agency should be guided by the consultation regulation as stated in 50 CFR 402.07. When two or more Federal agencies are involved in an activity affecting listed species or critical habitat, one agency is designated as the lead based on which agency has the principal responsibility for the project. Although one agency has the lead, the other agency still has to provide data for effects analyses and development of conservation measures for the project. We recommend that all Federal agencies involved in this proposed project meet and determine the lead agency for the consultation. It is important to note that the original permit for the Eco Eléctrica LNG required a Federal Environmental Impacts Statement under the National Environmental Protection Act (NEPA). Since the proposed project consists in a modification to the Eco Eléctrica project, an amendment to the Federal EIS should be completed. Based on the scope of the proposed project and the possible impacts to the human environments, the proposed action complies with the definition of a major construction activity as defined by NEPA and should require a Federal Environmental review.

2. **Use of Nationwide Permits:**

The applicant is requesting several hundreds of permits invoking the use of Nationwide Permits 12, 18, and 33 to cover the construction of the pipeline. The Nationwide Permit program is based on the fact that the activity cause only minimal adverse environmental effects when performed separately, and cause only minimal cumulative adverse effects on the aquatic environment. While the regulations state that for linear projects each river crossing can be considered a separate and complete project, these do not pass the independent utility test, since the entire project needs to be constructed to be functional. In addition, the cumulative impacts of these 238 individual Nationwide Permits are more than minimal. While the application states that temporary stream crossings will be removed and restored, it is questionable how the applicant will maintain the 50 ft wide permanent Right of Way (ROW) throughout waters of the United States without

permanent impacts The conservation statements made in the JPA seem to be in conflict with the long term maintenance of the project. The JPA form in section 18 does not include the effects to Estuaries and State Natural Reserves. In addition, the JPA do not comply with the Nationwide Permit General Condition 4. The document failed to identify and avoiding impact to migratory bird breeding areas, particularly in wetland areas.

3. Calculation of Environmental Impacts:

The JPA does provide conflicting information regarding the expected effects of the project. The following are specific comments regarding this issue:

A. The document states that a 150 ft wide right of way is to be used. It states that this ROW will be cleared of all vegetation during construction, but in other areas it states that a 100 ft construction right of way will be used. We recommend that all calculations regarding environmental impacts use the 150ft initial construction right of way dimensions.

B. The acres and number of water crossing vary throughout the various documents, the Jurisdictional Determination (JD) included in the DEIS has 79 water crossing in one section and 59 in another, the JPA has about 100 water crossings, the final number and acreage of wetland impacts should be the same throughout all the documents.

C. In addition, the various sections of the document state that once construction is finalized, 100 ft of the ROW can be reforested or with the authorization of PREPA, a land owner can develop. This leaves a 50 ft wide area or about 500 acres as the permanent right of way. The DEIS state that 33% of the project is located in wetlands; however, it is not clear whether the non forested ROW will apply to these areas. If it is included about 165 wetland acres will be loss. If we subtract the wetlands impacts that leaves some 335 acres of permanent upland impacts, across the island of Puerto Rico.

D. To avoid impacts to forested wetland areas in the Sabana Seca area, the applicant is proposing to use directional drilling. However, it is not clear how this will coincide with the 50 ft no root zone that is the permanent ROW. Will forested wetlands be cut to eliminate roots impacting the proposed pipe, or will the pipe be placed deep enough to be out of the root zone of the forested wetlands?

E. The submitted environmental studies are largely Geographical Information System (GIS) based. Site-specific discussion regarding direct and indirect to trust resources found in the area is absent. Since they have estimated 100 stream crossings, there should have been a discussion of impacts to native stream fauna where the stream bed will be altered as in the Type 2 and Type 3

crossings. Native stream fauna migrate from the estuary to the high mountain streams and could be impacted by alteration of the stream beds in these mountain streams.

4. Impacts to federally-listed and imperiled species:

Based on information gathered from our files and the documents provided, the proposed project falls within the range of 32 listed species, including the endangered Puerto Rican Nightjar(*Caprimulgus noctitherus*); the endangered Puerto Rican parrot (*Amazona vittata*), the threatened Puerto Rican crested toad (*Peltophryne lemur*), Puerto Rican boa (*Epicrates inornatus*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), and Puerto Rican plain pigeon (*Patagioenas inornata wetmorei*); and the listed plant species *Auerodendron pauciflorum*, palo de Ramón (*Banara vanderbiltii*), diablito de tres cuernos (*Buxus vahli*), *Cordia bellonis*, *Daphnopsis helleriana*, palo de rosa (*Ottoschulzia rhodoxylon*), *Myrcia pagani*, chupacallos (*Pleodendron macranthum*), *Schoepfia arenaria*, erubia (*Solanum drymophilum*), *Tectaria estremerana*, *Thelypteris verecunda*, *Thelypteris yaucoensis*, *Thelypteris inabonensis*, *Chamaecrista glandulosa*, Cobana negra (*Stahlia monosperma*), *Polystichum calderoense*, nogal (*Juglans jamaicensis*), *mitracarpus polycladus*, *mitracarpus maxwelliae*, *Cordia rupicola*, *Catesbaea melanocarpa*, *Eugenia woodburyana*, Bariaco (*Trichilia triacantha*), and St. Thomas prickly ash (*Zanthoxylum thomasianum*).

It is important to also mention that the Commonwealth-listed species coqui llanero (*Eleutherodactylus juanariveroi*) is known from the Toa Baja area. Wetlands to be affected in Toa Baja may harbor the species and surveys should be conducted by qualified and experienced personnel to determine presence or absence of the species. Although the species is not currently protected by the ESA, at present time the Service is reviewing the status of the species to determine if federal listing is warranted. We recommend that if species is determined to be present, the project is modified to avoid possible effects to the species and its habitat.

The methodology used to survey for listed species was mostly transects throughout some areas of the proposed route. Although this approach may be useful for flora and fauna inventories to describe common species in a particular area, this method <u>is not appropriate</u> to determine presence/absence of federally listed species in an area. Furthermore, the surveys conducted for listed species <u>did not cover the entire project area and were not appropriately conducted</u>. In our letter dated June 30, 2010, providing preliminary technical assistance to the applicant our office recommended that transects not be used for surveying federally listed plants species. It is our experience that rare plants show a patchy distribution and it is highly probable that populations of federally listed plants are missed if a systematic survey is not conducted. It was our recommendation that the areas with high quality habitat were systematically surveyed. However, the provided information shows that forested areas with high quality habitat

were not surveyed or are underrepresented. Furthermore, it is our opinion that the surveys were not specific. Therefore, our office have serious concerns regarding the possibility that the propose route have adverse effects on our federally listed plants species. Enclosure 1 includes additional comments and recommendations regarding listed plants.

Based on the above, it is not a surprise for the Service that no individuals of federally-listed plant species were detected. It was our experience with the Gasoducto del Sur that when flora and fauna inventories were conducted, no endemic nor federally listed species were found (see page 3-2 DIA-P Gasoducto del Sur). However, when the applicant contracted qualified and experienced personnel and conducted the Endangered Species Field Study for the development of the Biological Assessment, three federally-listed plant species were detected, including over 300 individuals of one of the species. In addition, nightjar surveys were appropriately conducted during the breeding season and 55 male nightjars were detected.

The information provided in the JPA mentions that the construction may impact the endangered Puerto Rican nightjar (*Caprimulgus noctitherus*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), and the Puerto Rican boa (*Epicrates inornatus*). However, the surveys conducted to generate the data for the biological evaluation were not designed to detect these species nor determine possible direct and indirect effects to the species. In our letter dated June 30, 2010, we provided recommendations to develop appropriate methodologies for such surveys. We acknowledge that the applicant contracted species experts to visit the areas and determine suitable habitat within the proposed route. These species experts recommended conducting site-specific surveys during breeding season. Those recommendations are consistent with our previous recommendations to the applicant. Although the Service did not originally identify the Puerto Rican crested toad within the proposed route area, the JPA includes a section on the species. We acknowledge the applicant efforts to include the species in the analysis. We concur with the applicant that the proposed project is located within the range of the species. Enclosure 2 includes additional comments and recommendations regarding the PR crested toad.

In conclusion, the biological evaluation failed to appropriately design survey methodologies to maximize detection of federally-listed plants, did not include site-specific habitat characterization, and did not include appropriate survey methods to collect data on listed species (e.g. survey methods, season of surveys, time of the day for surveys, frequency of surveys, size of sampling, site-specific habitat characterization). It is important to mention that we recommended bird surveys during breeding season because it is the appropriate season to conduct surveys and determine nesting territories to be affected by the project.

Therefore, we believe that the determination of effects for listed species is not supported by the best information. At this time, the Service cannot concur with such determinations. Furthermore, without this information the service cannot accurately evaluate the impact of the proposed construction on the federally-listed species.

Since we believe that the proposed project should be considered a major construction activity under NEPA, a Biological Assessment should be appropriately developed for the project and site-specific surveys be designed and conducted appropriately. We strongly recommend that surveys be conducted appropriately and all aspects of the project be carefully evaluated to determine direct, indirect, interdependent and interrelated effects on listed species. Once this information is available, site-specific and species-specific measures can be developed to avoid or minimize possible adverse effects. Since the project is mostly a ROW that can be moved, if species are found, we strongly recommend the ROW be moved away from the areas where listed species are found. Avoiding impacts to species and their habitat should be the first approach instead of mitigation.

The Service's experience with the implementation of the mitigation for the Gasoducto del Sur requires us to re-evaluate our position, should the same approach is proposed or considered for this second pipeline project. The area proposed for the mitigation of the Gasoducto del Sur was not avoided for this new project, and the nightjar habitat within the area identified for the mitigation would be affected. This needs to be carefully analyzed by the COE. Compliance with previous permit conditions should be assured prior to considering any new permit actions. Impacts to the mitigation area for the Gasoducto del Sur should be avoided.

In summary with the information presented as of today, it could be foreseen that construction of the NG pipeline throughout endangered species habitat may result in "take" as defined by the ESA. Section 9 of the Endangered Species Act prohibits take of an endangered species. Take is identified as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

5. Migratory Birds:

The current project goes through upland and wetland areas were migratory birds winter, and nest during breading season. The Migratory Bird Treaty Act prohibits attempt to take, take, capture or kill any migratory bird, part, nest or egg. The JPA do not mention or take in consideration the migratory birds. The project should provide a list of the migratory birds (e.g., Peregrine falcon (*Falco peregrinus*), Yellow-billed Cuckoo (*Coccyzus americanus),* White Ibis (*Eudocimus albus*), etc...) that winter or bread on the project site and how they will avoid or minimized any impact to the species.

6. Aquatic Resources:

Several waters of the United States (wetlands, rivers, creeks, channel crossing, and estuaries) and aquifers would be impacted by the proposed NG pipeline. Major wetland areas identified in the JPA and DEIS are underground hydrological systems, wetlands associated with the Puerto Rico north coastal zone. Although mitigation measures are provided, measures are not specific enough to evaluate the overall impact of the project on wetland systems. Moreover, portions of the project will cross through forested wetlands for which Horizontal Directional Drilling is being proposed (HDD) this method however will require a larger footprint in the herbaceous wetlands adjacent to the forested wetlands. This additional temporary workspace will accommodate the drill rig and pipe assembly. Additionally, we could not find within the JPA and DEIS a discussion of potential wetland mitigation measures. Our office cannot evaluate wetland impacts without knowing the actual wetland acreage that would be affected by the proposed project.

A copy of the project DEIS was included in the JPA. We recommend that for Annex 3.2 a GIS layer showing hydric soils (including the % of the hydric unit) and highly erodible lands (HEL) be developed in order to facilitate the environmental evaluation along the proposed route. Also the Natural Resources Conservation Service soil surveys should be used in addition to the US Geological survey topographic maps to identify stream crossings. Both should be incorporated into the hydrology maps of the route. The Service is concerned that clearing all vegetation in highly erodible or unstable lands will cause excessive erosion and sedimentation that could adversely impact adjacent water bodies. In addition there are some areas that are extremely steep in which trenching may not be possible; there is no discussion of how these areas will be traversed.

7. Potential Impacts from Directional Drilling:

Directional drilling is being proposed to cross larger rivers and streams, wetlands, roads and other areas. The process of directional drilling will consist of and initial bore, plus reaming to enlarge the bore hole to the desired size of the pipeline. This involves the use of bentonite clay (as drilling muds) to lubricate and stabilized the borehole. While this is a naturally occurring substance and usually considered non toxic, micro particles of the clay can clog the gills of aquatic organisms. While there is a discussion regarding steps to take in the event of a frac-out, the Service is concerned with the use of this method in karst topography.

Karst by its nature tends to have void spaces in the rock matrix, sometimes these spaces lead directly to the aquifer, by passing the natural filtration found in a porous aquifer. A frac-out in this type of terrain could simply disappear. The discharge of drilling muds could result in the contamination of underground water (stream, aquifers), and could adversely affect humans, unique subterranean fauna, and commerce.

8. Impacts to Landowner Incentive Programs:

The present project goes throughout properties under the Service's USFWS's Partners for Fish and Wildlife Program (PFWP). The PFWP provides technical and financial assistance to private landowners who are willing to work with the Service and other partners on a voluntary basis to help meet the habitat needs of our Federal Trust Species (e.g., migratory birds, threaded and endangered species). For over 15 years the PFWP has been helping private landowners restore wetlands and other important fish and wildlife habitats. We have identified that at least three properties under a current Conservation Agreement with the Service may be adversely affected by the proposed project: Hacienda Pellejas in Adjuntas, Hacienda Esperanza in Manatí, and the US Navy Radio Station in Toa Baja. Current efforts at these highly ecologically valuable properties include restoration of forest, riparian habitat and restoration of wetland areas. The Service has invested close to $180,000.00 of federal funds on restoration activities. We recommend that the project is modified to avoid impacts to restoration areas.

Based on the above, we believe that the proposal to use o several hundreds of NWPs is not protective of the environment and does not allow an adequate review of the cumulative, direct and indirect impacts of the project. Furthermore, the determinations of effects for federally-listed species included in the biological evaluation cannot be supported with the data provided and do not comply with Section 7 of the Endangered Species Act. This project is one of the largest infrastructure projects being undertaken in Puerto Rico in decades, a corridor of permanent and temporary impacts along the 92 mile route will cross karst, mountain, and coastal habitats. Impacts to federally-listed and imperiled species, aquatic resources, forested lands in both volcanic and karst regions in Puerto Rico, ecologically sensitive areas and Commonwealth forests and reserves are not well documented and evaluated. Furthermore, the effects related to how the sensitive areas will be maintained after construction as right of ways were not evaluated. We recommend that the COE exercise its discretionary authority and require an individual permit with public notice for this project. In addition the Corps as the lead Federal Agency designated in the applicant's DEIS should exert jurisdiction over the entire project and investigate the need for a Federal Environmental Impact Statement.

We acknowledge the efforts of the applicant for looking for alternatives for the use of fossil oils as energy source and appreciate their efforts to protect habitat for our trust resources. Nevertheless, this should not come at the expense of other important resources. It is our mission to work with others, to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of our people.

If you have any additional question concerning our comments, please do not hesitate to contact Marelisa Rivera, Assistant Field Supervisor for the Caribbean Ecological Services Field Office at 787-851-7297 extension 206.

You may also visit our website http://www.fws.gov/caribbean for additional information on threatened and endangered species under jurisdiction and the programs to conserve them.

Sincerely yours,

Edwin E. Muñiz
Field Supervisor
Caribbean Field Office

Enclosures

CC:
PREPA
FERC, DC
EPA, San Juan
EPA, R2
DNER
JCA
JP

Enclosure 1. Comments / recommendations regarding listed plants.

Specifically we have the following comments regarding federally listed plant species.

1. The dry limestone forest between Ponce and Guayanilla harbor suitable habitat for several listed species (*Buxus valhii, Catesbaea melanocarpa, Cordia rupicola, Eugenia woodburyana, Mitracarpus maxwelliae, Mitracarpus polycladus, Ottoschulzia rhodoxylon* and *Trichilia triacantha*). Due to the soil conditions the majority of the area that surrounds the Peñuelas landfill was not used for intensive agriculture. As the case of the Guánica Forest, these areas were primary used for charcoal production and native vegetation was allowed to recover. Therefore, these areas serve as a refuge for our listed and rare species. For example, *Buxus vahlii* was historically known from a few localities that include the Municipalities of Rincon, Isabela and Bayamon, and the island of St. Croix. However, recent specific surveys during the evaluation for the project "Gasoducto del Sur", let to the discovery of a new population that is considered the biggest known within the main island of Puerto Rico. Further evaluation for that same project also let to the discovery of populations of *Catesbaea melanocarpa, Eugenia woodburyana* and *Trichilia triacantha*, none of these species were detected during the initial field surveys. These limestone hills are also recognized by the presence of *Cordia rupicola*, a species considered by the Service as candidate to be federally listed. The best scientific data indicate that *Catesbaea melanocarpa, Cordia rupicola, Mitracarpus maxwelliae, Mitracarpus polycladus* and *Trichilia triacantha* are almost restricted to dry limestone forest. All these examples emphasize the need to protect and minimize any impact on the habitat of these species.

2. The Central Mountain Range between Adjuntas and Utuado harbors suitable habitat for *Juglans jamaicensis, Polystichum calderoense, Thelypteris inabonensis, Thelypteris yaucoensis and Thelypteris verecunda.* As evidenced from the available information in our office these mountains harbors extensive forests of "palma de sierra" "*Prestoea acuminata*" and some areas have been under regeneration for more than sixty years. This kind of forest harbors suitable conditions for the previously mentioned species. Four of the previously mentioned species are ferns, a group of vascular plants that are especially difficult to identified and maybe confused with widespread species. Based on the provided information as part of the Joint Permit Application and the DEIS, none of these forested areas were sampled and the few transects that were established were located adjacent to existing roads. Furthermore, the available information in our office indicates that this area harbors individuals of the Puerto Rican broad-winged hawk (*Buteo platipterus brunnescens*). This old secondary forest may also provide the necessary foraging and nesting habitat for the Puerto Rican parrot (*Amazona vittata*). The U.S. Fish and Wildlife Service (Service) and the Department of Natural and Environmental Resources (DNER) has a vigorous program to establish a self sustainable population of the Puerto Rican parrot. Based on the above we recommend that the "sierra palm forest are systematically surveyed for plants species and alternative are considered to minimize impacts to the habitat of the Puerto Rican broad-winged hawk. Ferns species require special

attention since they are hard to identify and typically require trained botanist to identify their key characters.

3. The propose route will impact a chain of mogotes within the municipality of Manati. These mogotes harbor suitable habitat for the following listed plant species, *Auerodendron pauciflorum, Banara vanderbiltii, Buxus vahlii, Cordia bellonis, Daphnopsis helleriana, Myrcia paganii, Ottoschulzia rhodoxylon, Shoepfia arenaria, Solanum drymophilum, Tectarea estremerana and Zanthoxylun thomasianum.* Again, these areas were not systematically surveyed and our office has concerns about the impacts to federally listed species. The information available in our office indicates that even smallest isolated mogotes within these areas have the potential to harbor endangered plant species such as palo de rosa "*Ottoschulzia rhodoxylon*". Furthermore, the land clearing of these mogotes may have adverse impacts on the Puerto Rican boa "*Epicrates inornatus*". We have the same concerns regarding the route that runs along Highway PR 10 between Arecibo and Utuado. Specifically, sinkholes areas may have potential habitat for *Cordia bellonis, Daphnopsis helleriana, Solanum drymophilum* and *Tectarea estremerana.* The sinkholes along Highway PR 10 have been recovering for the previous decade. Although, the project description does not specified the extent of the impacts to these areas.

The DEIS indicates that if federally listed species are going to be affected the individuals will be transplanted to a suitable area. Based in our experience with endangered plants we do not recommend the asexual propagation and the transplant of individuals as an appropriate conservation measure. The propagation by cuttings may result in the development of a poor root system that can lead to a low survival of transplanted individuals and their possible uprooting by tropical storm. In addition, the document does not indicate a post transplant monitoring period to ensure the survival of the planted individuals. In that case it will be a concern since transplanted individuals might represent part of a viable reproductive population that engages several forested areas outside the area of the propose project. Therefore, we cannot discard the genetic exchange with individuals located in the surrounding private properties that have not been surveyed. Individuals located within the propose route might represent an important component of the genetic diversity of the species. This is stressed by the fact that some endangered species are dioecious, with female and male flowers located in different trees. Therefore, we consider that the lost of a single adult individual can adversely affect a functional and self sustainable population. Based on the above, we encourage the applicant to conduct specific surveys for federally listed species and to consider alternatives to avoid or minimize impacts to these species and its habitat.

Enclosure 2. Specific comments and recommendations regarding the Puerto Rican crested toad (*Peltophryne lemur*).

1. We have identified two areas with highest probability of finding the PRCT within the project area. The two areas are the Guayanilla and Peñuelas and from Manatí to Bayamón. According to the information submitted, the applicant identified only the Peñuelas area as possible habitat for the sapo concho. However, the historical record of the species located the species at the northern karst between Bayamón and Manatí. The methodology used for the fauna study does not address appropriately the possible presence of the species at those areas. The dry limestone forest between Ponce and Guayanilla, and the stack hills between Manatí and Bayamón harbor suitable habitat for the crested toad. Due to the soil conditions the majority of the area that surrounds the Peñuelas landfill and at the stack hills were not disturbed for agriculture, by land movements for contouring, or mining, maintaining the structural complexity (crevices, caves, limestone walls, etc.).
2. Page 37. (1.8.3. Impacts minimization for the PRCT) and Page 60 (6.4 Puerto Rican crested toad protection plan). The applicant proposed the following conservation measures to avoid or minimize impact on crested toads.

   A. *During the initial establishment and clearing of the construction right-of-way, two biologists will conduct daily sampling for detecting the concho toad in every area of construction before the work begins.* We believe that it is not an appropriate conservation measure to avoid affect individuals of the crested toad. The cryptic behavior of the species makes it difficult to be detected, especially during day light. The presence or absence of the species should be determined before the project begins. Although surveys on the species had not detected, initial vegetation removal should be conducted by hand (machete, chainsaw, and trimmers) to provide time to the sapo concho, if present, to move away from the project area.

   B. *Monitoring activities will be carried out daily and will be focused on cover areas (cracks in rocks and tree species) that are regularly used by the species.* The sapo concho utilize crevices in the limestones, under rocks, holes in limestone walls, and holes in dead wooden trunks as shelter. Due to the cryptic behavior of the species we recommend that surveys be conducted by experienced biologist to determine presence or absence of the species and its habitat within the right-of-way of the proposed project. The project area should be clearly marked in accordance with the project layout.

   C. *All monitoring events will be incorporated into and will be carried out in coordination with the work plan of the contactor; daily changes to these work plans shall be considered in planning the work.* A log book for daily events should be carried out by the person in charge of the monitoring for the species.

D. *Monitoring events will be carried out between 5:00 am and 7:30 am on days when major equipment will be in operation within the limits of the construction right-of way.* We believe this is not an appropriated conservation measure to avoid take on the species. Detect sapo concho during the day light is not easy. The sapo concho is more active during the night time from 8:30 pm to 11:30 pm and during the rainy season. We recommend that surveys to detect the species should be conducted during the night before at the mentioned time and increase search efforts during the rainy events.

E. *When an individual is detected, established capture and relocation protocols will be implemented.* Be aware that no relocation protocol had been developed for the sapo concho. The sapo concho is site specific for reproduction. Relocation to other places is not recommended. The joint application permit indicates that if the crested toad is detected and could be affected by the project, the individuals will be translocated to another suitable area. We recommend developing a translocation protocol which includes procedures to capture, manage and relocation. The relocation site should be previously identified on a map. The protocol should be submitted to the Services for approval.

F. *All collections, relocations and data transmission will be coordinate with appropriate local, state, federal regulatory agencies.* If the species is detected, the Service should be notified immediately to provide further assistance.

3. Page 42. (4.1.1. *Peltophryne lemur* – (Sapo concho). The applicant suggests that if *conservation measures to reduce any potential impacts associated with clearing and construction of the proposed project are in place, a "may affect, but not likely to adversely affect" determination is recommended.* The proposed project fall within the historical range of the sapo concho. We may concur with their determination if the applicant provides adequate conservation measures. At this point, this information has not been provided.

Doc #28

United States Department of the Interior

FISH & WILDLIFE SERVICE
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OCT 18 2010

Mr. Carlos W. López Freytes
Executive Director
Puerto Rico Environmental Quality Board
PO Box 11488
San Juan, Puerto Rico

Re: Joint Permit Application And Draft Environmental Impact Statement - Via Verde Natural Gas Pipeline

Dear Mr.López:

The U.S. Fish and Wildlife Service (the Service or USFWS) received a courtesy copy of the Joint Permit Application (JPA) for the proposed natural gas pipeline that would be constructed from the Eco Eléctrica liquefied natural gas (LNG) Terminal in Peñuelas to the Cambalache Termoeléctrica Authority Central electric power plant in Arecibo, the Palo Seco facility in Toa Baja and a facility in San Juan. Also a copy of the Draft Environmental Impact Statement (DEIS) for the proposed Via Verde project was provided to us. Our preliminary comments are issued in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.), the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et. seq.), and the Migratory Bird treaty act of 1918 (16 U.S.C. 703 et seq.).

The proposed project consists in the construction and installation of a natural gas (NG) pipeline throughout approximately 92 miles crossing the island south to north. The pipeline proposed route runs through the municipalities of Peñuelas, Adjuntas, Utuado Arecibo, Barceloneta, Manati, Vega Alta, Vega Baja, Dorado, Toa Baja, Cataño, Bayamon, and Guaynabo. Based on the information provided, the project would require a right of way of 150 ft (45.72 m) for construction, and a right of way 50 ft (15.24 m) during operation. The proposed project area consists of about 1,113.8 acres of which 738.6 acres are wetlands. Based on the information provided, the proposed project would affect about 1,115 acres of land 33% of which are wetlands, impacting Commonwealth Forests, Natural Reserves, forested volcanic and karst areas, habitat for federally listed threatened and endangered species and privately-owned lands participating in conservation programs because of their high ecological values for our trust resources.

The Service has evaluated the JPA, the Draft EIS and attached documents, and would like to provide the following comments:

1. **Lead Federal Agency for Section 7 Consultation under the Endangered Species Act (ESA) and National Environmental Policy Act (NEPA) Compliance:**

The JPA specifies that the proposed project would require several hundreds of U.S. Army Corps of Engineers (COE) Nationwide Permits, EPA Construction NPDES, and authorization from Federal Highway Administration. In addition, it is our understanding that the project would require authorization of the Federal Energy Regulatory Commission (FERC). In accordance with the Natural Gas Act (NGA), FERC coordinates the processing of authorizations required under federal law for proposed natural gas projects subject to NGA section 3 and 7. Although the Draft Environmental Impact Statement (DEIS) names the Corps as the lead Federal Agency the process of designating a lead agency should be guided by the consultation regulation as stated in 50 CFR 402.07. When two or more Federal agencies are involved in an activity affecting listed species or critical habitat, one agency is designated as the lead based on which agency has the principal responsibility for the project. Although one agency has the lead, the other agency still has to provide data for effects analyses and development of conservation measures for the project. We recommend that all Federal agencies involved in this proposed project meet and determine the lead agency for the consultation. It is important to note that the original permit for the Eco Eléctrica LNG required a Federal Environmental Impacts Statement under the National Environmental Protection Act (NEPA). Since the proposed project consists in a modification to the Eco Eléctrica project, an amendment to the Federal EIS should be completed. Based on the scope of the proposed project and the possible impacts to the human environments, the proposed action complies with the definition of a major construction activity as defined by NEPA and should require a Federal Environmental review.

2. **Use of Nationwide Permits:**

The applicant is requesting several hundreds of permits invoking the use of Nationwide Permits 12, 18, and 33 to cover the construction of the pipeline. The Nationwide Permit program is based on the fact that the activity cause only minimal adverse environmental effects when performed separately, and cause only minimal cumulative adverse effects on the aquatic environment. We do not believe that the scope of this project is consistent with the purpose of the Nation-wide Permit Program and we are recommending the Corps of Engineers to execute their discretionary authority and process the project with an Individual Permit.

3. Calculation of Environmental Impacts:

The JPA does provide conflicting information regarding the expected effects of the project. The following are specific comments regarding this issue:

A. The document states that a 150 ft wide right of way is to be used. It states that this ROW will be cleared of all vegetation during construction, but in other areas it states that a 100 ft construction right of way will be used. We recommend that all calculations regarding environmental impacts use the 150ft initial construction right of way dimensions.

B. The acres and number of water crossing vary throughout the various documents, the Jurisdictional Determination (JD) included in the DEIS has 79 water crossing in one section and 59 in another, the JPA has about 100 water crossings, the final number and acreage of wetland impacts should be the same throughout all the documents.

C. In addition, the various sections of the document state that once construction is finalized, 100 ft of the ROW can be reforested or with the authorization of PREPA, a land owner can develop. This leaves a 50 ft wide area or about 500 acres as the permanent right of way. The DEIS state that 33% of the project is located in wetlands; however, it is not clear whether the non forested ROW will apply to these areas. If it is included about 165 wetland acres will be loss. If we subtract the wetlands impacts that leaves some 335 acres of permanent upland impacts, across the island of Puerto Rico.

D. To avoid impacts to forested wetland areas in the Sabana Seca area, the applicant is proposing to use directional drilling. However, it is not clear how this will coincide with the 50 ft no root zone that is the permanent ROW. Will forested wetlands be cut to eliminate roots impacting the proposed pipe, or will the pipe be placed deep enough to be out of the root zone of the forested wetlands?

E. The submitted environmental studies are largely Geographical Information System (GIS) based. Site-specific discussion regarding direct and indirect to trust resources found in the area is absent. Since they have estimated 100 stream crossings, there should have been a discussion of impacts to native stream fauna where the stream bed will be altered as in the Type 2 and Type 3 crossings. Native stream fauna migrate from the estuary to the high mountain streams and could be impacted by alteration of the stream beds in these mountain streams.

4. Impacts to federally-listed and imperiled species:

Based on information gathered from our files and the documents provided, the proposed project falls within the range of 32 listed species, including the endangered Puerto Rican Nightjar(*Caprimulgus noctitherus*); the endangered Puerto Rican parrot (*Amazona vittata*), the threatened Puerto Rican crested toad (*Peltophryne lemur*), Puerto Rican boa (*Epicrates inornatus*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), and Puerto Rican plain pigeon (*Patagioenas inornata wetmorei*); and the listed plant species *Auerodendron pauciflorum*, palo de Ramón (*Banara vanderbiltii*), diablito de tres cuernos (*Buxus vahli*), *Cordia bellonis*, *Daphnopsis helleriana*, palo de rosa (*Ottoschulzia rhodoxylon*), *Myrcia pagani*, chupacallos (*Pleodendron macranthum*), *Schoepfia arenaria*, erubia (*Solanum drymophilum*), *Tectaria estremerana*, *Thelypteris verecunda*, *Thelypteris yaucoensis*, *Thelypteris inabonensis*, *Chamaecrista glandulosa*, Cobana negra (*Stahlia monosperma*), *Polystichum calderoense*, nogal (*Juglans jamaicensis*), *mitracarpus polycladus*, *mitracarpus maxwelliae*, *Cordia rupicola*, *Catesbaea melanocarpa*, *Eugenia woodburyana*, Bariaco (*Trichilia triacantha*), and St. Thomas prickly ash (*Zanthoxylum thomasianum*).

It is important to also mention that the Commonwealth-listed species coqui llanero (*Eleutherodactylus juanariveroi*) is known from the Toa Baja area. Wetlands to be affected in Toa Baja may harbor the species and surveys should be conducted by qualified and experienced personnel to determine presence or absence of the species. Although the species is not currently protected by the ESA, at present time the Service is reviewing the status of the species to determine if federal listing is warranted. We recommend that if species is determined to be present, the project is modified to avoid possible effects to the species and its habitat.

The methodology used to survey for listed species was mostly transects throughout some areas of the proposed route. Although this approach may be useful for flora and fauna inventories to describe common species in a particular area, this method <u>is not appropriate</u> to determine presence/absence of federally listed species in an area. Furthermore, the surveys conducted for listed species <u>did not cover the entire project area and were not appropriately conducted</u>. In our letter dated June 30, 2010, providing preliminary technical assistance to the applicant our office recommended that transects not be used for surveying federally listed plants species. It is our experience that rare plants show a patchy distribution and it is highly probable that populations of federally listed plants are missed if a systematic survey is not conducted. It was our recommendation that the areas with high quality habitat were systematically surveyed. However, the provided information shows that forested areas with high quality habitat were not surveyed or are underrepresented. Furthermore, it is our opinion that the surveys were not specific. Therefore, our office have serious concerns regarding the possibility that the propose route have adverse effects on our federally listed plants

species. Enclosure 1 includes additional comments and recommendations regarding listed plants.

Based on the above, it is not a surprise for the Service that no individuals of federally-listed plant species were detected. It was our experience with the Gasoducto del Sur that when flora and fauna inventories were conducted, no endemic nor federally listed species were found (see page 3-2 DIA-P Gasoducto del Sur). However, when the applicant contracted qualified and experienced personnel and conducted the Endangered Species Field Study for the development of the Biological Assessment, three federally-listed plant species were detected, including over 300 individuals of one of the species. In addition, nightjar surveys were appropriately conducted during the breeding season and 55 male nightjars were detected.

The information provided in the JPA mentions that the construction may impact the endangered Puerto Rican nightjar (*Caprimulgus noctitherus*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), and the Puerto Rican boa (*Epicrates inornatus*). However, the surveys conducted to generate the data for the biological evaluation were not designed to detect these species nor determine possible direct and indirect effects to the species. In our letter dated June 30, 2010, we provided recommendations to develop appropriate methodologies for such surveys. We acknowledge that the applicant contracted species experts to visit the areas and determine suitable habitat within the proposed route. These species experts recommended conducting site-specific surveys during breeding season. Those recommendations are consistent with our previous recommendations to the applicant. Although the Service did not originally identify the Puerto Rican crested toad within the proposed route area, the JPA includes a section on the species. We acknowledge the applicant efforts to include the species in the analysis. We concur with the applicant that the proposed project is located within the range of the species. Enclosure 2 includes additional comments and recommendations regarding the PR crested toad.

In conclusion, the biological evaluation <u>failed</u> to appropriately design survey methodologies to maximize detection of federally-listed plants, did not include site-specific habitat characterization, and did not include appropriate survey methods to collect data on listed species (e.g. survey methods, season of surveys, time of the day for surveys, frequency of surveys, size of sampling, site-specific habitat characterization). It is important to mention that we recommended bird surveys during breeding season because it is the appropriate season to conduct surveys and determine nesting territories to be affected by the project.

Therefore, we believe that the determination of effects for listed species is not supported by the best information. At this time, the Service cannot concur with such determinations. Furthermore, without this information the service cannot accurately evaluate the impact of the proposed construction on the federally-listed species.

Since we believe that the proposed project should be considered a major construction activity under NEPA, a Biological Assessment should be appropriately developed for the project and site-specific surveys be designed and conducted appropriately. We strongly recommend that surveys be conducted appropriately and all aspects of the project be carefully evaluated to determine direct, indirect, interdependent and interrelated effects on listed species. Once this information is available, site-specific and species-specific measures can be developed to avoid or minimize possible adverse effects. Since the project is mostly a ROW that can be moved, if species are found, we strongly recommend the ROW be moved away from the areas where listed species are found. Avoiding impacts to species and their habitat should be the first approach instead of mitigation.

The Service's experience with the implementation of the mitigation for the Gasoducto del Sur requires us to re-evaluate our position, should the same approach is proposed or considered for this second pipeline project. The area proposed for the mitigation of the Gasoducto del Sur was not avoided for this new project, and the nightjar habitat within the area identified for the mitigation would be affected. This needs to be carefully analyzed by the COE. Compliance with previous permit conditions should be assured prior to considering any new permit actions. Impacts to the mitigation area for the Gasoducto del Sur should be avoided.

In summary with the information presented as of today, it could be foreseen that construction of the NG pipeline throughout endangered species habitat may result in "take" as defined by the ESA. Section 9 of the Endangered Species Act prohibits take of an endangered species. Take is identified as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

5. Migratory Birds:

The current project goes through upland and wetland areas were migratory birds winter, and nest during breading season. The Migratory Bird Treaty Act prohibits attempt to take, take, capture or kill any migratory bird, part, nest or egg. The JPA do not mention or take in consideration the migratory birds. The project should provide a list of the migratory birds (e.g., Peregrine falcon (*Falco peregrinus*), Yellow-billed Cuckoo (*Coccyzus americanus),* White Ibis (*Eudocimus albus*), etc...) that winter or bread on the project site and how they will avoid or minimized any impact to the species.

6. Aquatic Resources:

Several waters of the United States (wetlands, rivers, creeks, channel crossing, and estuaries) and aquifers would be impacted by the proposed NG pipeline. Major wetland areas identified in the JPA and DEIS are underground hydrological systems, wetlands associated with the Puerto Rico north coastal zone. Although mitigation measures are provided, measures are not specific enough to evaluate the overall impact of the project

on wetland systems. Moreover, portions of the project will cross through forested wetlands for which Horizontal Directional Drilling is being proposed (HDD) this method however will require a larger footprint in the herbaceous wetlands adjacent to the forested wetlands. This additional temporary workspace will accommodate the drill rig and pipe assembly. Additionally, we could not find within the JPA and DEIS a discussion of potential wetland mitigation measures. Our office cannot evaluate wetland impacts without knowing the actual wetland acreage that would be affected by the proposed project.

A copy of the project DEIS was included in the JPA. We recommend that for Annex 3.2 a GIS layer showing hydric soils (including the % of the hydric unit) and highly erodible lands (HEL) be developed in order to facilitate the environmental evaluation along the proposed route. Also the Natural Resources Conservation Service soil surveys should be used in addition to the US Geological survey topographic maps to identify stream crossings. Both should be incorporated into the hydrology maps of the route. The Service is concerned that clearing all vegetation in highly erodible or unstable lands will cause excessive erosion and sedimentation that could adversely impact adjacent water bodies. In addition there are some areas that are extremely steep in which trenching may not be possible; there is no discussion of how these areas will be traversed.

7. Potential Impacts from Directional Drilling:

Directional drilling is being proposed to cross larger rivers and streams, wetlands, roads and other areas. The process of directional drilling will consist of and initial bore, plus reaming to enlarge the bore hole to the desired size of the pipeline. This involves the use of bentonite clay (as drilling muds) to lubricate and stabilized the borehole. While this is a naturally occurring substance and usually considered non toxic, micro particles of the clay can clog the gills of aquatic organisms. While there is a discussion regarding steps to take in the event of a frac-out, the Service is concerned with the use of this method in karst topography.

Karst by its nature tends to have void spaces in the rock matrix, sometimes these spaces lead directly to the aquifer, by passing the natural filtration found in a porous aquifer. A frac-out in this type of terrain could simply disappear. The discharge of drilling muds could result in the contamination of underground water (stream, aquifers), and could adversely affect humans, unique subterranean fauna, and commerce.

8. Impacts to Landowner Incentive Programs:

The present project goes throughout properties under the Service's USFWS's Partners for Fish and Wildlife Program (PFWP). The PFWP provides technical and financial assistance to private landowners who are willing to work with the Service and other partners on a voluntary basis to help meet the habitat needs of our Federal Trust Species (e.g., migratory birds, threaded and endangered species). For over 15 years the PFWP

has been helping private landowners restore wetlands and other important fish and wildlife habitats. We have identified that at least three properties under a current Conservation Agreement with the Service may be adversely affected by the proposed project: Hacienda Pellejas in Adjuntas, Hacienda Esperanza in Manatí, and the US Navy Radio Station in Toa Baja. Current efforts at these highly ecologically valuable properties include restoration of forest, riparian habitat and restoration of wetland areas. The Service has invested close to $180,000.00 of federal funds on restoration activities. We recommend that the project is modified to avoid impacts to restoration areas.

Based on the above, we believe that the proposal to use o several hundreds of NWPs is not protective of the environment and does not allow an adequate review of the cumulative, direct and indirect impacts of the project. Furthermore, the determinations of effects for federally-listed species included in the biological evaluation cannot be supported with the data provided and do not comply with Section 7 of the Endangered Species Act. This project is one of the largest infrastructure projects being undertaken in Puerto Rico in decades, a corridor of permanent and temporary impacts along the 92 mile route will cross karst, mountain, and coastal habitats. Impacts to federally-listed and imperiled species, aquatic resources, forested lands in both volcanic and karst regions in Puerto Rico, ecologically sensitive areas and Commonwealth forests and reserves are not well documented and evaluated. Furthermore, the effects related to how the sensitive areas will be maintained after construction as right of ways were not evaluated. We recommend that the COE exercise its discretionary authority and require an individual permit with public notice for this project. In addition the Corps as the lead Federal Agency designated in the applicant's DEIS should exert jurisdiction over the entire project and investigate the need for a Federal Environmental Impact Statement.

We acknowledge the efforts of the applicant for looking for alternatives for the use of fossil oils as energy source and appreciate their efforts to protect habitat for our trust resources. Nevertheless, this should not come at the expense of other important resources. It is our mission to work with others, to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of our people.

If you have any additional question concerning our comments, please do not hesitate to contact Marelisa Rivera, Assistant Field Supervisor for the Caribbean Ecological Services Field Office at 787-851-7297 extension 206.
You may also visit our website http://www.fws.gov/caribbean for additional information on threatened and endangered species under jurisdiction and the programs to conserve them.

Sincerely yours,

Edwin E. Muñiz
Field Supervisor
Caribbean Field Office

Enclosures

CC:
PREPA
FERC, DC
EPA, San Juan
EPA, R2
DNER
COE
JP

Enclosure 1. Comments / recommendations regarding listed plants.

Specifically we have the following comments regarding federally listed plant species.

1. The dry limestone forest between Ponce and Guayanilla harbor suitable habitat for several listed species (*Buxus valhii, Catesbaea melanocarpa, Cordia rupicola, Eugenia woodburyana, Mitracarpus maxwelliae, Mitracarpus polycladus, Ottoschulzia rhodoxylon* and *Trichilia triacantha*). Due to the soil conditions the majority of the area that surrounds the Peñuelas landfill was not used for intensive agriculture. As the case of the Guánica Forest, these areas were primary used for charcoal production and native vegetation was allowed to recover. Therefore, these areas serve as a refuge for our listed and rare species. For example, *Buxus vahlii* was historically known from a few localities that include the Municipalities of Rincon, Isabela and Bayamon, and the island of St. Croix. However, recent specific surveys during the evaluation for the project "Gasoducto del Sur", let to the discovery of a new population that is considered the biggest known within the main island of Puerto Rico. Further evaluation for that same project also let to the discovery of populations of *Catesbaea melanocarpa, Eugenia woodburyana* and *Trichilia triacantha*, none of these species were detected during the initial field surveys. These limestone hills are also recognized by the presence of *Cordia rupicola*, a species considered by the Service as candidate to be federally listed. The best scientific data indicate that *Catesbaea melanocarpa, Cordia rupicola, Mitracarpus maxwelliae, Mitracarpus polycladus* and *Trichilia triacantha* are almost restricted to dry limestone forest. All these examples emphasize the need to protect and minimize any impact on the habitat of these species.

2. The Central Mountain Range between Adjuntas and Utuado harbors suitable habitat for *Juglans jamaicensis, Polystichum calderoense, Thelypteris inabonensis, Thelypteris yaucoensis and Thelypteris verecunda*. As evidenced from the available information in our office these mountains harbors extensive forests of "palma de sierra" "*Prestoea acuminata*" and some areas have been under regeneration for more than sixty years. This kind of forest harbors suitable conditions for the previously mentioned species. Four of the previously mentioned species are ferns, a group of vascular plants that are especially difficult to identified and maybe confused with widespread species. Based on the provided information as part of the Joint Permit Application and the DEIS, none of these forested areas were sampled and the few transects that were established were located adjacent to existing roads. Furthermore, the available information in our office indicates that this area harbors individuals of the Puerto Rican broad-winged hawk (*Buteo platipterus brunnescens*). This old secondary forest may also provide the necessary foraging and nesting habitat for the Puerto Rican parrot (*Amazona vittata*). The U.S. Fish and Wildlife Service (Service) and the Department of Natural and Environmental Resources (DNER) has a vigorous program to establish a self sustainable population of the Puerto Rican parrot. Based on the above we recommend that the "sierra palm forest are systematically surveyed for plants species and alternative are considered to minimize impacts to the habitat of the Puerto Rican broad-winged hawk. Ferns species require special

attention since they are hard to identify and typically require trained botanist to identify their key characters.

3. The propose route will impact a chain of mogotes within the municipality of Manati. These mogotes harbor suitable habitat for the following listed plant species, *Auerodendron pauciflorum, Banara vanderbiltii, Buxus vahlii, Cordia bellonis, Daphnopsis helleriana, Myrcia paganii, Ottoschulzia rhodoxylon, Shoepfia arenaria, Solanum drymophilum, Tectarea estremerana and Zanthoxylun thomasianum.* Again, these areas were not systematically surveyed and our office has concerns about the impacts to federally listed species. The information available in our office indicates that even smallest isolated mogotes within these areas have the potential to harbor endangered plant species such as palo de rosa "*Ottoschulzia rhodoxylon*". Furthermore, the land clearing of these mogotes may have adverse impacts on the Puerto Rican boa "*Epicrates inornatus*". We have the same concerns regarding the route that runs along Highway PR 10 between Arecibo and Utuado. Specifically, sinkholes areas may have potential habitat for *Cordia bellonis, Daphnopsis helleriana, Solanum drymophilum* and *Tectarea estremerana.* The sinkholes along Highway PR 10 have been recovering for the previous decade. Although, the project description does not specified the extent of the impacts to these areas.

The DEIS indicates that if federally listed species are going to be affected the individuals will be transplanted to a suitable area. Based in our experience with endangered plants we do not recommend the asexual propagation and the transplant of individuals as an appropriate conservation measure. The propagation by cuttings may result in the development of a poor root system that can lead to a low survival of transplanted individuals and their possible uprooting by tropical storm. In addition, the document does not indicate a post transplant monitoring period to ensure the survival of the planted individuals. In that case it will be a concern since transplanted individuals might represent part of a viable reproductive population that engages several forested areas outside the area of the propose project. Therefore, we cannot discard the genetic exchange with individuals located in the surrounding private properties that have not been surveyed. Individuals located within the propose route might represent an important component of the genetic diversity of the species. This is stressed by the fact that some endangered species are dioecious, with female and male flowers located in different trees. Therefore, we consider that the lost of a single adult individual can adversely affect a functional and self sustainable population. Based on the above, we encourage the applicant to conduct specific surveys for federally listed species and to consider alternatives to avoid or minimize impacts to these species and its habitat.

Enclosure 2. Specific comments and recommendations regarding the Puerto Rican crested toad (*Peltophryne lemur*).

1. We have identified two areas with highest probability of finding the PRCT within the project area. The two areas are the Guayanilla and Peñuelas and from Manatí to Bayamón. According to the information submitted, the applicant identified only the Peñuelas area as possible habitat for the sapo concho. However, the historical record of the species located the species at the northern karst between Bayamón and Manatí. The methodology used for the fauna study does not address appropriately the possible presence of the species at those areas. The dry limestone forest between Ponce and Guayanilla, and the stack hills between Manatí and Bayamón harbor suitable habitat for the crested toad. Due to the soil conditions the majority of the area that surrounds the Peñuelas landfill and at the stack hills were not disturbed for agriculture, by land movements for contouring, or mining, maintaining the structural complexity (crevices, caves, limestone walls, etc.).
2. Page 37. (1.8.3. Impacts minimization for the PRCT) and Page 60 (6.4 Puerto Rican crested toad protection plan). The applicant proposed the following conservation measures to avoid or minimize impact on crested toads.

   A. *During the initial establishment and clearing of the construction right-of-way, two biologists will conduct daily sampling for* <u>*detecting*</u> *the concho toad in every area of construction before the work begins.* We believe that it is not an appropriate conservation measure to avoid affect individuals of the crested toad. The cryptic behavior of the species makes it difficult to be detected, especially during day light. The presence or absence of the species should be determined before the project begins. Although surveys on the species had not detected, initial vegetation removal should be conducted by hand (machete, chainsaw, and trimmers) to provide time to the sapo concho, if present, to move away from the project area.

   B. *Monitoring activities will be carried out daily and will be focused on cover areas (cracks in rocks and tree species) that are regularly used by the species.* The sapo concho utilize crevices in the limestones, under rocks, holes in limestone walls, and holes in dead wooden trunks as shelter. Due to the cryptic behavior of the species we recommend that surveys be conducted by experienced biologist to determine presence or absence of the species and its habitat within the right-of-way of the proposed project. The project area should be clearly marked in accordance with the project layout.

   C. *All monitoring events will be incorporated into and will be carried out in coordination with the work plan of the contactor; daily changes to these work plans shall be considered in planning the work.* A log book for daily events should be carried out by the person in charge of the monitoring for the species.

D. *Monitoring events will be carried out between 5:00 am and 7:30 am on days when major equipment will be in operation within the limits of the construction right-of way.* We believe this is not an appropriated conservation measure to avoid take on the species. Detect sapo concho during the day light is not easy. The sapo concho is more active during the night time from 8:30 pm to 11:30 pm and during the rainy season. We recommend that surveys to detect the species should be conducted during the night before at the mentioned time and increase search efforts during the rainy events.

E. *When an individual is detected, established capture and relocation protocols will be implemented.* Be aware that no relocation protocol had been developed for the sapo concho. The sapo concho is site specific for reproduction. Relocation to other places is not recommended. The joint application permit indicates that if the crested toad is detected and could be affected by the project, the individuals will be translocated to another suitable area. We recommend developing a translocation protocol which includes procedures to capture, manage and relocation. The relocation site should be previously identified on a map. The protocol should be submitted to the Services for approval.

F. *All collections, relocations and data transmission will be coordinate with appropriate local, state, federal regulatory agencies.* If the species is detected, the Service should be notified immediately to provide further assistance.

3. Page 42. (4.1.1. *Peltophryne lemur* – (Sapo concho). The applicant suggests that if *conservation measures to reduce any potential impacts associated with clearing and construction of the proposed project are in place, a "may affect, but not likely to adversely affect" determination is recommended.* The proposed project fall within the historical range of the sapo concho. We may concur with their determination if the applicant provides adequate conservation measures. At this point, this information has not been provided.

Doc # 29

"Collazo, Osvaldo SAJ" <Osvaldo.Collazo@usace.army.mil>
10/20/2010 02:45 PM

To <edwin_muniz@fws.gov>
cc
bcc
Subject Re: Carta Via Verde-Sindulfo Castillo

Thanks. The office had not received when I called them after we talked.
Osvaldo Collazo
Chief, North Permits Branch
Telephone: (904) 232-1659
Cell: (904) 610-9350
Fax: (904) 232-1904
Message sent via my BlackBerry Wireless Device

----- Original Message -----
From: Edwin_Muniz@fws.gov <Edwin_Muniz@fws.gov>
To: Collazo, Osvaldo SAJ
Sent: Wed Oct 20 13:35:34 2010
Subject: Fw: Carta Via Verde-Sindulfo Castillo

Sent from my BlackBerry Wireless Handheld

----- Original Message -----
From: Michelle Ramos
Sent: 10/20/2010 01:45 PM AST
To: Edwin Muniz
Subject: Carta Via Verde-Sindulfo Castillo

Edwin:

Adjunto carta dirigida a Sindulfo Castillo (COE).

(See attached file: JPA Via Verde Natural Gas.pdf)

Atentamente;

Michelle Ramos
P.O. Box 491
Boqueron, Puerto Rico 00622

michelle_ramos@fws.gov
Phone: (787)851-7297 Ext. 213
Fax: (787) 851-7440

"The achievements of a team are the
results of the combined efforts of each individual".

Doc #30

Héctor E. Quintero Vilella, M.S., Ph.D.
Ecology
San Germán, Puerto Rico

U.S. Fish & Wildlife Service
NOV 8 2010

October 25, 2010

Mr. Edwin Muñíz
Field Supervisor
US Fish and Wildlife Service, Ecological Services
PO Box 491
Boquerón, Puerto Rico 00622-0491

Comments – Gas Pipeline / Puerto Rico - SAJ -2010-02881

Mr. Edwin Muñíz:

The Autoridad de Energía Eléctirca of the Commonwealth of Puerto Rico submitted a preliminary Environmental Impact Statement (P-EIS) for the construction and operation of a gas pipeline from Peñuelas, in the southern coast of the Island, to Cataño and Guaynabo in the northern coast. The project will impact endangered species, migratory species and other wildlife species. There are various errors and inconsistencies in the P-EIS. More important, impacts to the endangered species are curtailed and are not comprehensively analyzed.

1. Impact to Endangered Species

Section VI (Impacts to endangered species, segment 6.17) of the P-EIS indicates that *"the Project could affect suitable habitat to species listed in section 3.2.2.15."* That section lists more than 30 endangered or threatened animal and plant species. It is obvious that the P-EIS is biased by affirming that the *"project could affect suitable...."* The project will unquestionably affect the habitat of these endangered species. Section VI also indicates that the only endangered species that will be impacted is the Puerto Rican Nightjar. This assertion is based on information from some transects made along the pipe's route. Since only the PR Nightjar was observed then it will be the only species that will be impacted. This is false. I have made studies around the Peñuelas Landfill and found *Buxus valhii* (Diablito de tres cuernos) along the

proposed route for the gas pipe. Like for other projects were the impact to endangered species is evident the US Fish and Wildlife Service must request the proponent to prepare a Biological Assessment (BA) for the endangered species that will be impacted. This action will provide the necessary information of the direct, indirect and cumulative impact that the proposed project will have on the endangered species.

2. Impacts to the Puerto Rican Nightjar, *Caprimulgus noctitherus*.

Section VI indicates on page 6-29 that to protect the Puerto Rican Nightjar *"a protocol will be established during the construction phase to protect and conserve the Puerto Rican Nightjar"* also, the project will be constructed outside the breeding season of this species. Details of the protocol are not presented and these actions are not sufficient to protect the species or the habitat that they need to survive.

In Peñuelas, the project will pass through the middle of the habitat with the second highest population density of the Puerto Rican Nightjar in the world. Francisco Vilella has studies this species for many years and has found densities of 0.81/acre in Susua-Maricao; 0.46/acre in Guánica State Forest; and 0.32/acre in Guayanilla Hills. Last year I made a study at the Peñuelas landfill area and found a density of 0.49/acre, second to Susua-Maricao and higher than Guánica forest and Guayanilla hills. The route in this area of Peñuelas was chosen possibly because it follows the path of an existing high voltage transmission line that is already owned by the proponent. I do not think that environmental impacts were considered.

The construction of the project will open a 100ft wide construction path and a 50ft maintenance path will be kept clear of trees and high vegetation. Some effects of the operation of the project are:

- Hundreds of acres of prime nesting habitat of the Puerto Rican Nightjar will be destroyed. This is an estimate since it is not evaluated in the P-EIS. I have walked the area around the Peñuelas landfill and have found various nests.
- Construction activities will impact the population at the site since studies have shown that the species lives in remote areas isolated from human activities.

- The maintenance path will provide a corridor to exotic species like the mongoose, and to domestic and feral cats and dogs, the first two are the major predators of the Puerto Rican Nightjar. This will have a significant and negative impact to the species.

- The maintenance path will be used to provide protection and repairs to the gas pipe. Consequently, there will be a regular traffic of vehicles that will impact the Puerto Rican Nightjar at the site. This activity will impact the species and it is possible that they abandon the site. It has been shown that they do not live near urban areas or were human activity is regular.

- The maintenance path could be used by a growing number of off-road vehicles enthusiasts. This will be very detrimental to the species. This is a real problem in many costal and mountainous portions of the Island. One example is Peñones de Melones in Cabo Rojo were dozens of off-roaders come together every weekend.

3. Impact to wetlands. - There is an inconsistency on the area of wetlands that will be impacted by the project. Section 6.4 (Impacts) of the P-EIS specify that the impact to wetlands is 369.3 acres but in Appendix 3.4, the Jurisdictional Determination, establishes that the total wetland area that will be impacted is 738.6 acres. This difference is due to the maintenance path and the construction path, the first one is 50 ft wide and the second one is 100 ft wide. Consequently, the construction will impact a 100 ft wide corridor for a total of 738.6 acres and the operation will impact a 50 ft wide one along the wetlands for a total of 369.3 acres.

4. Impact of the maintenance path. - The P-EIS does not evaluate the possible direct, indirect or cumulative impacts of the maintenance path on wetlands. Figure 5-3 of the P-EIS shows a photo of the maintenance path. The maintenance path is designed to allow service vehicles along the pipe route. Consequently, wetlands will be filled to allow fast access to service personnel and equipment. In Section VI where the impacts of the project are presented this negative impact is not considered. This action will have serious negative impacts to wetlands and to wildlife species that depend on them.

- Millions of trees and herbaceous wetland plants will be eliminated and the habitat to species that depend on them.

- Wetland hydrology will be impacted since the maintenance path alters the hydrology of the site. In some saturated areas concrete or weights will be needed to stabilize the pipe. The P-EIS does not cover this topic.

- Cumulative impacts to adjacent wetlands are not presented in the P-EIS. The hydrology of the area will be altered by the maintenance path that could affect thousands of acres of wetlands. Large portions of wetlands could run dry or other portions of seasonally inundated wetlands will be permanently inundated causing the destruction of the flora and altering the habitat to numerous wildlife species. The only reference to cumulative impact (Section 6.19.1) in the P-EIS indicates that no cumulative impact is expected since no new projects will be made along the pipe's route. Possibly they are assuming that cumulative impacts are only a corollary of highway construction and urban sprawl.

- Detailed hydrological analysis should be made to determine the consequences of changing the water movements in the wetlands. They should include both underground and superficial water movements.

- The P-EIS does not indicate the type of fill material, or its source. The fill material could alter the water quality of adjacent wetlands. Remedial actions to prevent erosion and impact to wetlands should be presented.

- Natural biogeochemical cycles will be altered by the maintenance path.

5. Impact to mangroves. - Section 6.5 "Impacts to Mangroves" of the P-EIS indicates that mangroves will not be affected since the route of the gas pipeline was changed to evade mangroves. This is false. At least approximately 20 acres of mature mangrove forests adjacent to Rio Cocal in the Dorado – Toa Baja area will be impacted. The JD for the project, Appendix 3.4, indicates that:

"Forested wetlands between Toa Baja and Dorado, which are associated to the Río Cocal, show the best conditions of all forested wetlands within study limits. Dense stands of mangrove trees are supporting significant wildlife utilization. Although buffer areas are not adequate due to actual land uses, the relatively wide herbaceous buffer to the south provides some positive attributes. Nevertheless, agricultural use on these herbaceous lands may affect water quality."

The last sentence of the above excerpt is also false since agriculture in the area is reduced to some grass and ornamental plant production.

These comments represent only a fraction of the errors, omissions, and inconsistencies that are found in the P-EIS for the gas pipeline project. I also present here important negative impacts of the project that were not considered. The proposed project will cause significant direct, indirect and cumulative impacts to endangered species like the Puerto Rican Nightjar. The proposed project will also impact migratory species and other wildlife species that depend of wetlands for their survival. Therefore, the P-EIS of the gas pipeline project should not be approved.

Sincerely,

Héctor E. Quintero Vilella M.S., Ph.D.
Ecology
PO Box 5100-61
San Germán, Puerto Rico 00683

Copy: Cynthia Dohner
Regional Director
US Fish and Wildlife Service – Southeast Region
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Suite 400
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Sun German, PR
00683-5100

SAN JUAN PR 009
25 OCT 2010 PM 2 T

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30345+3314

Doc # 31

United States Department of the Interior

FISH & WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

OCT 25 2010

Ms. Kimberly D. Rose
Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426

Re: Modification Permit
Ecoeléctrica Project
FERC No. CP95-35-001

Dear Ms. Rose:

On July 08, 2008, the U.S. Fish and Wildlife Service (the Service) reviewed a Notice of Intent to prepare an Environmental Assessment for the above referenced modification. The purpose of the modification was to connect the Ecoeléctrica LNG to a proposed pipeline which the Puerto Rico Electric and Power Authority (PREPA) was proposing to build known as the "Gasoducto del Sur". The Gasoductor del Sur project would transport natural gas from the Ecoeléctrica facility to the Aguirre Power Plant in Guayama, Puerto Rico. At that time, the Service concluded that no significant effects to fish and wildlife resources under our jurisdiction were not anticipated since appropriate measures to avoid and minimize possible adverse effects to federally-listed species were incorporated into the Gasoducto del Sur project. As part of the U.S. Army Corps of Engineers permit for said project and to ensure compliance with Section 7 of the Endangered Species Act, PREPA and the Department of Natural and Environmental Resources (DNER) signed a Memorandum of Agreement (MOA) in March 2008. The agreement included measures to avoid impacts to listed plant species and minimize possible adverse effects of the pipeline on the endangered Puerto Rican nightjar and its habitat. However, in December 2008, the project was cancelled by the government.

At the present time, PREPA is proposing the construction of a 92-mile long natural gas pipeline crossing the island south to north that would transport gas from Ecoeléctrica to three power plants in northern Puerto Rico. This new project is known as the "Via Verde" project. The Service reviewed a Joint Permit Application file by PREPA for the Corps of Engineers permit and the draft Environmental Impacts Statement, and we believe that the proposed project would have adverse effects to trust resources under our jurisdiction, including federally-listed species. Enclosed please find copy of our letter providing comments and recommendations to the Corps dated October 18, 2010.

Based on the above information and the information included in the attached letter, we have concluded that our determination to the modification to the FERC permit No. CP95-35-001 is no longer valid since the project was cancelled and replaced with a project that adversely affect fish and wildlife resources, including federally-listed species. We, therefore, recommend FERC initiate consultation under Section 7 of the ESA for the Via Verde project. Permits from at least three Federal agencies would be required, we, therefore, further recommend that the Federal agencies meet and determine the lead agency for the consultation following guidance provided in 50 CFR 402.07. Based on the magnitude of the impacts to natural resources and the human environments, we also recommend that the Federal environmental review process under NEPA be appropriately followed.

If you have any additional question concerning this issue, please do not hesitate to contact me or Marelisa Rivera, Assistant Field Supervisor for the Caribbean Ecological Services Field Office at 787-851-7297 extension 206.

Sincerely yours,

Edwin Muñiz
Field Supervisor
Caribbean Field Office

CC: Jerry Ziewitz, USFWS
Sinduldo Castillo, COE, San Juan
Carl Sodergerg, EPA, San Juan

Enclosure. Copy Letter October 18, 2010

United States Department of the Interior

FISH & WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

OCT 18 2010

Mr. Sindulfo Castillo
Chief, Regulatory Section
US Army Corps of Engineers
400 Fernandez Juncos Ave.
San Juan, Puerto Rico 00901 – 3299

Re: Joint Permit Application
Via Verde Natural Gas Pipeline

Dear Mr. Castillo:

The U.S. Fish and Wildlife Service (the Service or USFWS) received a courtesy copy of the Joint Permit Application (JPA) for the proposed natural gas pipeline that would be constructed from the Eco Eléctrica liquefied natural gas (LNG) Terminal in Peñuelas to the Cambalache Termoeléctrica Authority Central electric power plant in Arecibo, the Palo Seco facility in Toa Baja and a facility in San Juan. Also a copy of the Draft Environmental Impact Statement (DEIS) for the proposed Via Verde project was provided to us. Our preliminary comments are issued in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.), the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et. seq.), and the Migratory Bird treaty act of 1918 (16 U.S.C. 703 et seq.).

The proposed project consists in the construction and installation of a natural gas (NG) pipeline throughout approximately 92 miles crossing the island south to north. The pipeline proposed route runs through the municipalities of Peñuelas, Adjuntas, Utuado Arecibo, Barceloneta, Manati, Vega Alta, Vega Baja, Dorado, Toa Baja, Cataño, Bayamon, and Guaynabo. Based on the information provided, the project would require a right of way of 150 ft (45.72 m) for construction, and a right of way 50 ft (15.24 m) during operation. The proposed project area consists of about 1,113.8 acres of which 738.6 acres are wetlands. Based on the information provided, the proposed project would affect about 1,115 acres of land 33% of which are wetlands, impacting Commonwealth Forests, Natural Reserves, forested volcanic and karst areas, habitat for federally listed threatened and endangered species and privately-owned lands participating in conservation programs because of their high ecological values for our trust resources.

The Service has evaluated the JPA and attached documents, and would like to provide the following comments:

1. **Lead Federal Agency for Section 7 Consultation under the Endangered Species Act (ESA) and National Environmental Policy Act (NEPA) Compliance:**

The JPA specifies that the proposed project would require several hundreds of U.S. Army Corps of Engineers (COE) Nationwide Permits, EPA Construction NPDES, and authorization from Federal Highway Administration. In addition, it is our understanding that the project would require authorization of the Federal Energy Regulatory Commission (FERC). In accordance with the Natural Gas Act (NGA), FERC coordinates the processing of authorizations required under federal law for proposed natural gas projects subject to NGA section 3 and 7. Although the Draft Environmental Impact Statement (DEIS) names the Corps as the lead Federal Agency the process of designating a lead agency should be guided by the consultation regulation as stated in 50 CFR 402.07. When two or more Federal agencies are involved in an activity affecting listed species or critical habitat, one agency is designated as the lead based on which agency has the principal responsibility for the project. Although one agency has the lead, the other agency still has to provide data for effects analyses and development of conservation measures for the project. We recommend that all Federal agencies involved in this proposed project meet and determine the lead agency for the consultation. It is important to note that the original permit for the Eco Eléctrica LNG required a Federal Environmental Impacts Statement under the National Environmental Protection Act (NEPA). Since the proposed project consists in a modification to the Eco Eléctrica project, an amendment to the Federal EIS should be completed. Based on the scope of the proposed project and the possible impacts to the human environments, the proposed action complies with the definition of a major construction activity as defined by NEPA and should require a Federal Environmental review.

2. **Use of Nationwide Permits:**

The applicant is requesting several hundreds of permits invoking the use of Nationwide Permits 12, 18, and 33 to cover the construction of the pipeline. The Nationwide Permit program is based on the fact that the activity cause only minimal adverse environmental effects when performed separately, and cause only minimal cumulative adverse effects on the aquatic environment. While the regulations state that for linear projects each river crossing can be considered a separate and complete project, these do not pass the independent utility test, since the entire project needs to be constructed to be functional. In addition, the cumulative impacts of these 238 individual Nationwide Permits are more than minimal. While the application states that temporary stream crossings will be removed and restored, it is questionable how the applicant will maintain the 50 ft wide permanent Right of Way (ROW) throughout waters of the United States without

permanent impacts The conservation statements made in the JPA seem to be in conflict with the long term maintenance of the project. The JPA form in section 18 does not include the effects to Estuaries and State Natural Reserves. In addition, the JPA do not comply with the Nationwide Permit General Condition 4. The document failed to identify and avoiding impact to migratory bird breeding areas, particularly in wetland areas.

3. Calculation of Environmental Impacts:

The JPA does provide conflicting information regarding the expected effects of the project. The following are specific comments regarding this issue:

A. The document states that a 150 ft wide right of way is to be used. It states that this ROW will be cleared of all vegetation during construction, but in other areas it states that a 100 ft construction right of way will be used. We recommend that all calculations regarding environmental impacts use the 150ft initial construction right of way dimensions.

B. The acres and number of water crossing vary throughout the various documents, the Jurisdictional Determination (JD) included in the DEIS has 79 water crossing in one section and 59 in another, the JPA has about 100 water crossings, the final number and acreage of wetland impacts should be the same throughout all the documents.

C. In addition, the various sections of the document state that once construction is finalized, 100 ft of the ROW can be reforested or with the authorization of PREPA, a land owner can develop. This leaves a 50 ft wide area or about 500 acres as the permanent right of way. The DEIS state that 33% of the project is located in wetlands; however, it is not clear whether the non forested ROW will apply to these areas. If it is included about 165 wetland acres will be loss. If we subtract the wetlands impacts that leaves some 335 acres of permanent upland impacts, across the island of Puerto Rico.

D. To avoid impacts to forested wetland areas in the Sabana Seca area, the applicant is proposing to use directional drilling. However, it is not clear how this will coincide with the 50 ft no root zone that is the permanent ROW. Will forested wetlands be cut to eliminate roots impacting the proposed pipe, or will the pipe be placed deep enough to be out of the root zone of the forested wetlands?

E. The submitted environmental studies are largely Geographical Information System (GIS) based. Site-specific discussion regarding direct and indirect to trust resources found in the area is absent. Since they have estimated 100 stream crossings, there should have been a discussion of impacts to native stream fauna where the stream bed will be altered as in the Type 2 and Type 3

crossings. Native stream fauna migrate from the estuary to the high mountain streams and could be impacted by alteration of the stream beds in these mountain streams.

4. Impacts to federally-listed and imperiled species:

Based on information gathered from our files and the documents provided, the proposed project falls within the range of 32 listed species, including the endangered Puerto Rican Nightjar(*Caprimulgus noctitherus*); the endangered Puerto Rican parrot (*Amazona vittata*), the threatened Puerto Rican crested toad (*Peltophryne lemur*), Puerto Rican boa (*Epicrates inornatus*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), and Puerto Rican plain pigeon (*Patagioenas inornata wetmorei*); and the listed plant species *Auerodendron pauciflorum*, palo de Ramón (*Banara vanderbiltii*), diablito de tres cuernos (*Buxus vahli*), *Cordia bellonis*, *Daphnopsis helleriana*, palo de rosa (*Ottoschulzia rhodoxylon*), *Myrcia pagani*, chupacallos (*Pleodendron macranthum*), *Schoepfia arenaria*, erubia (*Solanum drymophilum*), *Tectaria estremerana*, *Thelypteris verecunda*, *Thelypteris yaucoensis*, *Thelypteris inabonensis*, *Chamaecrista glandulosa*, Cobana negra (*Stahlia monosperma*), *Polystichum calderoense*, nogal (*Juglans jamaicensis*), *mitracarpus polycladus*, *mitracarpus maxwelliae*, *Cordia rupicola*, *Catesbaea melanocarpa*, *Eugenia woodburyana*, Bariaco (*Trichilia triacantha*), and St. Thomas prickly ash (*Zanthoxylum thomasianum*).

It is important to also mention that the Commonwealth-listed species coqui llanero (*Eleutherodactylus juanariveroi*) is known from the Toa Baja area. Wetlands to be affected in Toa Baja may harbor the species and surveys should be conducted by qualified and experienced personnel to determine presence or absence of the species. Although the species is not currently protected by the ESA, at present time the Service is reviewing the status of the species to determine if federal listing is warranted. We recommend that if species is determined to be present, the project is modified to avoid possible effects to the species and its habitat.

The methodology used to survey for listed species was mostly transects throughout some areas of the proposed route. Although this approach may be useful for flora and fauna inventories to describe common species in a particular area, this method <u>is not appropriate</u> to determine presence/absence of federally listed species in an area. Furthermore, the surveys conducted for listed species <u>did not cover the entire project area and were not appropriately conducted</u>. In our letter dated June 30, 2010, providing preliminary technical assistance to the applicant our office recommended that transects not be used for surveying federally listed plants species. It is our experience that rare plants show a patchy distribution and it is highly probable that populations of federally listed plants are missed if a systematic survey is not conducted. It was our recommendation that the areas with high quality habitat were systematically surveyed. However, the provided information shows that forested areas with high quality habitat

were not surveyed or are underrepresented. Furthermore, it is our opinion that the surveys were not specific. Therefore, our office have serious concerns regarding the possibility that the propose route have adverse effects on our federally listed plants species. Enclosure 1 includes additional comments and recommendations regarding listed plants.

Based on the above, it is not a surprise for the Service that no individuals of federally-listed plant species were detected. It was our experience with the Gasoducto del Sur that when flora and fauna inventories were conducted, no endemic nor federally listed species were found (see page 3-2 DIA-P Gasoducto del Sur). However, when the applicant contracted qualified and experienced personnel and conducted the Endangered Species Field Study for the development of the Biological Assessment, three federally-listed plant species were detected, including over 300 individuals of one of the species. In addition, nightjar surveys were appropriately conducted during the breeding season and 55 male nightjars were detected.

The information provided in the JPA mentions that the construction may impact the endangered Puerto Rican nightjar (*Caprimulgus noctitherus*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), and the Puerto Rican boa (*Epicrates inornatus*). However, the surveys conducted to generate the data for the biological evaluation were not designed to detect these species nor determine possible direct and indirect effects to the species. In our letter dated June 30, 2010, we provided recommendations to develop appropriate methodologies for such surveys. We acknowledge that the applicant contracted species experts to visit the areas and determine suitable habitat within the proposed route. These species experts recommended conducting site-specific surveys during breeding season. Those recommendations are consistent with our previous recommendations to the applicant. Although the Service did not originally identify the Puerto Rican crested toad within the proposed route area, the JPA includes a section on the species. We acknowledge the applicant efforts to include the species in the analysis. We concur with the applicant that the proposed project is located within the range of the species. Enclosure 2 includes additional comments and recommendations regarding the PR crested toad.

In conclusion, the biological evaluation failed to appropriately design survey methodologies to maximize detection of federally-listed plants, did not include site-specific habitat characterization, and did not include appropriate survey methods to collect data on listed species (e.g. survey methods, season of surveys, time of the day for surveys, frequency of surveys, size of sampling, site-specific habitat characterization). It is important to mention that we recommended bird surveys during breeding season because it is the appropriate season to conduct surveys and determine nesting territories to be affected by the project.

Therefore, we believe that the determination of effects for listed species is not supported by the best information. At this time, the Service cannot concur with such determinations. Furthermore, without this information the service cannot accurately evaluate the impact of the proposed construction on the federally-listed species.

Since we believe that the proposed project should be considered a major construction activity under NEPA, a Biological Assessment should be appropriately developed for the project and site-specific surveys be designed and conducted appropriately. We strongly recommend that surveys be conducted appropriately and all aspects of the project be carefully evaluated to determine direct, indirect, interdependent and interrelated effects on listed species. Once this information is available, site-specific and species-specific measures can be developed to avoid or minimize possible adverse effects. Since the project is mostly a ROW that can be moved, if species are found, we strongly recommend the ROW be moved away from the areas where listed species are found. Avoiding impacts to species and their habitat should be the first approach instead of mitigation.

The Service's experience with the implementation of the mitigation for the Gasoducto del Sur requires us to re-evaluate our position, should the same approach is proposed or considered for this second pipeline project. The area proposed for the mitigation of the Gasoducto del Sur was not avoided for this new project, and the nightjar habitat within the area identified for the mitigation would be affected. This needs to be carefully analyzed by the COE. Compliance with previous permit conditions should be assured prior to considering any new permit actions. Impacts to the mitigation area for the Gasoducto del Sur should be avoided.

In summary with the information presented as of today, it could be foreseen that construction of the NG pipeline throughout endangered species habitat may result in "take" as defined by the ESA. Section 9 of the Endangered Species Act prohibits take of an endangered species. Take is identified as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

5. **Migratory Birds:**

The current project goes through upland and wetland areas were migratory birds winter, and nest during breading season. The Migratory Bird Treaty Act prohibits attempt to take, take, capture or kill any migratory bird, part, nest or egg. The JPA do not mention or take in consideration the migratory birds. The project should provide a list of the migratory birds (e.g., Peregrine falcon (*Falco peregrinus*), Yellow-billed Cuckoo (*Coccyzus americanus),* White Ibis (*Eudocimus albus*), etc...) that winter or bread on the project site and how they will avoid or minimized any impact to the species.

6. **Aquatic Resources:**

Several waters of the United States (wetlands, rivers, creeks, channel crossing, and estuaries) and aquifers would be impacted by the proposed NG pipeline. Major wetland areas identified in the JPA and DEIS are underground hydrological systems, wetlands associated with the Puerto Rico north coastal zone. Although mitigation measures are provided, measures are not specific enough to evaluate the overall impact of the project on wetland systems. Moreover, portions of the project will cross through forested wetlands for which Horizontal Directional Drilling is being proposed (HDD) this method however will require a larger footprint in the herbaceous wetlands adjacent to the forested wetlands. This additional temporary workspace will accommodate the drill rig and pipe assembly. Additionally, we could not find within the JPA and DEIS a discussion of potential wetland mitigation measures. Our office cannot evaluate wetland impacts without knowing the actual wetland acreage that would be affected by the proposed project.

A copy of the project DEIS was included in the JPA. We recommend that for Annex 3.2 a GIS layer showing hydric soils (including the % of the hydric unit) and highly erodible lands (HEL) be developed in order to facilitate the environmental evaluation along the proposed route. Also the Natural Resources Conservation Service soil surveys should be used in addition to the US Geological survey topographic maps to identify stream crossings. Both should be incorporated into the hydrology maps of the route. The Service is concerned that clearing all vegetation in highly erodible or unstable lands will cause excessive erosion and sedimentation that could adversely impact adjacent water bodies. In addition there are some areas that are extremely steep in which trenching may not be possible; there is no discussion of how these areas will be traversed.

7. **Potential Impacts from Directional Drilling:**

Directional drilling is being proposed to cross larger rivers and streams, wetlands, roads and other areas. The process of directional drilling will consist of and initial bore, plus reaming to enlarge the bore hole to the desired size of the pipeline. This involves the use of bentonite clay (as drilling muds) to lubricate and stabilized the borehole. While this is a naturally occurring substance and usually considered non toxic, micro particles of the clay can clog the gills of aquatic organisms. While there is a discussion regarding steps to take in the event of a frac-out, the Service is concerned with the use of this method in karst topography.

Karst by its nature tends to have void spaces in the rock matrix, sometimes these spaces lead directly to the aquifer, by passing the natural filtration found in a porous aquifer. A frac-out in this type of terrain could simply disappear. The discharge of drilling muds could result in the contamination of underground water (stream, aquifers), and could adversely affect humans, unique subterranean fauna, and commerce.

8. Impacts to Landowner Incentive Programs:

The present project goes throughout properties under the Service's USFWS's Partners for Fish and Wildlife Program (PFWP). The PFWP provides technical and financial assistance to private landowners who are willing to work with the Service and other partners on a voluntary basis to help meet the habitat needs of our Federal Trust Species (e.g., migratory birds, threaded and endangered species). For over 15 years the PFWP has been helping private landowners restore wetlands and other important fish and wildlife habitats. We have identified that at least three properties under a current Conservation Agreement with the Service may be adversely affected by the proposed project: Hacienda Pellejas in Adjuntas, Hacienda Esperanza in Manatí, and the US Navy Radio Station in Toa Baja. Current efforts at these highly ecologically valuable properties include restoration of forest, riparian habitat and restoration of wetland areas. The Service has invested close to $180,000.00 of federal funds on restoration activities. We recommend that the project is modified to avoid impacts to restoration areas.

Based on the above, we believe that the proposal to use o several hundreds of NWPs is not protective of the environment and does not allow an adequate review of the cumulative, direct and indirect impacts of the project. Furthermore, the determinations of effects for federally-listed species included in the biological evaluation cannot be supported with the data provided and do not comply with Section 7 of the Endangered Species Act. This project is one of the largest infrastructure projects being undertaken in Puerto Rico in decades, a corridor of permanent and temporary impacts along the 92 mile route will cross karst, mountain, and coastal habitats. Impacts to federally-listed and imperiled species, aquatic resources, forested lands in both volcanic and karst regions in Puerto Rico, ecologically sensitive areas and Commonwealth forests and reserves are not well documented and evaluated. Furthermore, the effects related to how the sensitive areas will be maintained after construction as right of ways were not evaluated. We recommend that the COE exercise its discretionary authority and require an individual permit with public notice for this project. In addition the Corps as the lead Federal Agency designated in the applicant's DEIS should exert jurisdiction over the entire project and investigate the need for a Federal Environmental Impact Statement.

We acknowledge the efforts of the applicant for looking for alternatives for the use of fossil oils as energy source and appreciate their efforts to protect habitat for our trust resources. Nevertheless, this should not come at the expense of other important resources. It is our mission to work with others, to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of our people.

If you have any additional question concerning our comments, please do not hesitate to contact Marelisa Rivera, Assistant Field Supervisor for the Caribbean Ecological Services Field Office at 787-851-7297 extension 206.

You may also visit our website http://www.fws.gov/caribbean for additional information on threatened and endangered species under jurisdiction and the programs to conserve them.

Sincerely yours,

Edwin E. Muñiz
Field Supervisor
Caribbean Field Office

Enclosures

CC:
PREPA
FERC, DC
EPA, San Juan
EPA, R2
DNER
JCA
JP

Enclosure 1. Comments / recommendations regarding listed plants.

Specifically we have the following comments regarding federally listed plant species.

1. The dry limestone forest between Ponce and Guayanilla harbor suitable habitat for several listed species (*Buxus valhii, Catesbaea melanocarpa, Cordia rupicola, Eugenia woodburyana, Mitracarpus maxwelliae, Mitracarpus polycladus, Ottoschulzia rhodoxylon* and *Trichilia triacantha*). Due to the soil conditions the majority of the area that surrounds the Peñuelas landfill was not used for intensive agriculture. As the case of the Guánica Forest, these areas were primary used for charcoal production and native vegetation was allowed to recover. Therefore, these areas serve as a refuge for our listed and rare species. For example, *Buxus vahlii* was historically known from a few localities that include the Municipalities of Rincon, Isabela and Bayamon, and the island of St. Croix. However, recent specific surveys during the evaluation for the project "Gasoducto del Sur", let to the discovery of a new population that is considered the biggest known within the main island of Puerto Rico. Further evaluation for that same project also let to the discovery of populations of *Catesbaea melanocarpa, Eugenia woodburyana* and *Trichilia triacantha,* none of these species were detected during the initial field surveys. These limestone hills are also recognized by the presence of *Cordia rupicola,* a species considered by the Service as candidate to be federally listed. The best scientific data indicate that *Catesbaea melanocarpa, Cordia rupicola, Mitracarpus maxwelliae, Mitracarpus polycladus* and *Trichilia triacantha* are almost restricted to dry limestone forest. All these examples emphasize the need to protect and minimize any impact on the habitat of these species.

2. The Central Mountain Range between Adjuntas and Utuado harbors suitable habitat for *Juglans jamaicensis, Polystichum calderoense, Thelypteris inabonensis, Thelypteris yaucoensis and Thelypteris verecunda.* As evidenced from the available information in our office these mountains harbors extensive forests of "palma de sierra" "*Prestoea acuminata*" and some areas have been under regeneration for more than sixty years. This kind of forest harbors suitable conditions for the previously mentioned species. Four of the previously mentioned species are ferns, a group of vascular plants that are especially difficult to identified and maybe confused with widespread species. Based on the provided information as part of the Joint Permit Application and the DEIS, none of these forested areas were sampled and the few transects that were established were located adjacent to existing roads. Furthermore, the available information in our office indicates that this area harbors individuals of the Puerto Rican broad-winged hawk (*Buteo platipterus brunnescens*). This old secondary forest may also provide the necessary foraging and nesting habitat for the Puerto Rican parrot (*Amazona vittata*). The U.S. Fish and Wildlife Service (Service) and the Department of Natural and Environmental Resources (DNER) has a vigorous program to establish a self sustainable population of the Puerto Rican parrot. Based on the above we recommend that the "sierra palm forest are systematically surveyed for plants species and alternative are considered to minimize impacts to the habitat of the Puerto Rican broad-winged hawk. Ferns species require special

attention since they are hard to identify and typically require trained botanist to identify their key characters.

3. The propose route will impact a chain of mogotes within the municipality of Manati. These mogotes harbor suitable habitat for the following listed plant species, *Auerodendron pauciflorum, Banara vanderbiltii, Buxus vahlii, Cordia bellonis, Daphnopsis helleriana, Myrcia paganii, Ottoschulzia rhodoxylon, Shoepfia arenaria, Solanum drymophilum, Tectarea estremerana and Zanthoxylun thomasianum*. Again, these areas were not systematically surveyed and our office has concerns about the impacts to federally listed species. The information available in our office indicates that even smallest isolated mogotes within these areas have the potential to harbor endangered plant species such as palo de rosa "*Ottoschulzia rhodoxylon*". Furthermore, the land clearing of these mogotes may have adverse impacts on the Puerto Rican boa "*Epicrates inornatus*". We have the same concerns regarding the route that runs along Highway PR 10 between Arecibo and Utuado. Specifically, sinkholes areas may have potential habitat for *Cordia bellonis, Daphnopsis helleriana, Solanum drymophilum* and *Tectarea estremerana*. The sinkholes along Highway PR 10 have been recovering for the previous decade. Although, the project description does not specified the extent of the impacts to these areas.

The DEIS indicates that if federally listed species are going to be affected the individuals will be transplanted to a suitable area. Based in our experience with endangered plants we do not recommend the asexual propagation and the transplant of individuals as an appropriate conservation measure. The propagation by cuttings may result in the development of a poor root system that can lead to a low survival of transplanted individuals and their possible uprooting by tropical storm. In addition, the document does not indicate a post transplant monitoring period to ensure the survival of the planted individuals. In that case it will be a concern since transplanted individuals might represent part of a viable reproductive population that engages several forested areas outside the area of the propose project. Therefore, we cannot discard the genetic exchange with individuals located in the surrounding private properties that have not been surveyed. Individuals located within the propose route might represent an important component of the genetic diversity of the species. This is stressed by the fact that some endangered species are dioecious, with female and male flowers located in different trees. Therefore, we consider that the lost of a single adult individual can adversely affect a functional and self sustainable population. Based on the above, we encourage the applicant to conduct specific surveys for federally listed species and to consider alternatives to avoid or minimize impacts to these species and its habitat.

Enclosure 2. Specific comments and recommendations regarding the Puerto Rican crested toad (*Peltophryne lemur*).

1. We have identified two areas with highest probability of finding the PRCT within the project area. The two areas are the Guayanilla and Peñuelas and from Manatí to Bayamón. According to the information submitted, the applicant identified only the Peñuelas area as possible habitat for the sapo concho. However, the historical record of the species located the species at the northern karst between Bayamón and Manatí. The methodology used for the fauna study does not address appropriately the possible presence of the species at those areas. The dry limestone forest between Ponce and Guayanilla, and the stack hills between Manatí and Bayamón harbor suitable habitat for the crested toad. Due to the soil conditions the majority of the area that surrounds the Peñuelas landfill and at the stack hills were not disturbed for agriculture, by land movements for contouring, or mining, maintaining the structural complexity (crevices, caves, limestone walls, etc.).
2. Page 37. (1.8.3. Impacts minimization for the PRCT) and Page 60 (6.4 Puerto Rican crested toad protection plan). The applicant proposed the following conservation measures to avoid or minimize impact on crested toads.

   A. *During the initial establishment and clearing of the construction right-of-way, two biologists will conduct daily sampling for <u>detecting</u> the concho toad in every area of construction before the work begins.* We believe that it is not an appropriate conservation measure to avoid affect individuals of the crested toad. The cryptic behavior of the species makes it difficult to be detected, especially during day light. The presence or absence of the species should be determined before the project begins. Although surveys on the species had not detected, initial vegetation removal should be conducted by hand (machete, chainsaw, and trimmers) to provide time to the sapo concho, if present, to move away from the project area.

   B. *Monitoring activities will be carried out daily and will be focused on cover areas (cracks in rocks and tree species) that are regularly used by the species.* The sapo concho utilize crevices in the limestones, under rocks, holes in limestone walls, and holes in dead wooden trunks as shelter. Due to the cryptic behavior of the species we recommend that surveys be conducted by experienced biologist to determine presence or absence of the species and its habitat within the right-of-way of the proposed project. The project area should be clearly marked in accordance with the project layout.

   C. *All monitoring events will be incorporated into and will be carried out in coordination with the work plan of the contactor; daily changes to these work plans shall be considered in planning the work.* A log book for daily events should be carried out by the person in charge of the monitoring for the species.

D. *Monitoring events will be carried out between 5:00 am and 7:30 am on days when major equipment will be in operation within the limits of the construction right-of way.* We believe this is not an appropriated conservation measure to avoid take on the species. Detect sapo concho during the day light is not easy. The sapo concho is more active during the night time from 8:30 pm to 11:30 pm and during the rainy season. We recommend that surveys to detect the species should be conducted during the night before at the mentioned time and increase search efforts during the rainy events.

E. *When an individual is detected, established capture and relocation protocols will be implemented.* Be aware that no relocation protocol had been developed for the sapo concho. The sapo concho is site specific for reproduction. Relocation to other places is not recommended. The joint application permit indicates that if the crested toad is detected and could be affected by the project, the individuals will be translocated to another suitable area. We recommend developing a translocation protocol which includes procedures to capture, manage and relocation. The relocation site should be previously identified on a map. The protocol should be submitted to the Services for approval.

F. *All collections, relocations and data transmission will be coordinate with appropriate local, state, federal regulatory agencies.* If the species is detected, the Service should be notified immediately to provide further assistance.

3. Page 42. (4.1.1. *Peltophryne lemur* – (Sapo concho). The applicant suggests that if *conservation measures to reduce any potential impacts associated with clearing and construction of the proposed project are in place, a "may affect, but not likely to adversely affect" determination is recommended.* The proposed project fall within the historical range of the sapo concho. We may concur with their determination if the applicant provides adequate conservation measures. At this point, this information has not been provided.

Doc #32

List of Participants
Meeting Vía Verde
October 26, 2010

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Doc # 35

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11/03/2010 04:58 PM

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Subject Required Via Verde Work Plan

Dear Marelisa:
As agreed during our October 26, 2010 meeting at the Fish & Wildlife Service (F&WLS) Boquerón Offices, our client the Puerto Rico Energy and Power Authority (PREPA) is completing the Work Plan requested. This effort is aimed to supplement the Field Data included in the Courtesy Copy of the Joint Permit Application and Environmental Impact Statement related provided and related with the Via Verde project.
The Work Plan to be presented will address all the different areas discussed during our last meeting and at the same time; will provide the F&WLS personnel with a summary of the task to be carried out. The Plan will also include the names of the professionals to be hired to undertake the additional field work requested and agreed upon. In addition, a copy of said Work Plan will be delivered to the Corp of Engineers in an effort to have all interested parties fully involved in the action being undertaken by PREPA in addressing Fish & Wildlife Service and any other federal agency technical concerns. A Copy will be also provided to the Department of Natural and Environmental Resources (DNER) for needed action.
As discussed we are discussing the Work Plan with the Secretary of the DNER and its Key technical personnel in an effort to complement the efforts listed by PREPA technical staff with any other recommendation that the DNER can provide us before it's submittal to your office. We hope that the Work Plan; including all required comments and documentation will be delivered to your office not later that this coming Thursday November 4, 2010.
On a separate subject, we have not receive the information related with the location of the properties that the F&WL Services had in the past assisted financially in developing efforts to improve the wildlife habitats. As discussed, this information is needed in order to evaluate if the selected alignment of the Via Verde Pipeline do have any impacts on the areas benefited from the projects developed. As discussed in our last meeting, without this information it will be impossible to determine if there will be any impact to said areas. Please help us out in securing said information and delivering it to us as soon as possible.
In the event additional information related with this subject is needed, please do not hesitate to contact us at your convenience.

Regards,

Danny Pagan

From: "Marelisa_Rivera@fws.gov" <Marelisa_Rivera@fws.gov>
To: daniel_paganrosa@yahoo.com
Cc: Edwin_Muniz@fws.gov; Rafael_Gonzalez@fws.gov

Doc #34

Sent: Wed, November 3, 2010 3:28:55 PM
Subject: Fw: Program Partners habitat restoration areas

Attached please find the shape files of the farms that may be affected by the proposed Via Verde project. Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boqueron, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
(787) 851-7440 (fax)
(787) 510-5207 (mobile)
marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey

Forwarded by Marelisa Rivera/R4/FWS/DOI on 11/03/2010 03:26 PM

Doc

Doc # 33

Rafael Gonzalez/R4/FWS/DOI

11/03/2010 02:44 PM

ToMarelisa Rivera/R4/FWS

cc

SubjectProgram Partners habitat restoration areas

Marelisa,

Im attaching here the properties under PFW program that currently are affected by Via Verde project,

(See attached file: PFW Properties.zip)

Rafael Gonzalez
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622

(787) 851-7297 x 214 (direct)
(787) 851-7440 (fax)
rafael_gonzalez@fws.gov

Doc #39

Daniel Pagan
<daniel_paganrosa@yahoo.com>
11/05/2010 01:50 PM

To Marelisa_Rivera@fws.gov
cc Edwin_Muniz@fws.gov, Jousef Garcia <yousevgr@yahoo.com>, IVELISSE SANCHEZ SOULTAIRE <I-SANCHEZ@PREPA.COM>, EDWIN BAEZ
bcc
Subject Re: Program Partners habitat restoration areas

Dear Marelisa:

Sorry for not being able to deliver the required Work Plan as scheduled for yesterday.

Attached please find the agreed upon information and Work Plan for needed consideration as discussed during our last meeting at the F&WLS Boqueron Office.

Please let us know as soon as possible is the document presented herein addresses all concerns related with the letters presented by your office.

Best Regards,

Danny Pagan

Doc #37

From: "Marelisa_Rivera@fws.gov" <Marelisa_Rivera@fws.gov>
To: Daniel Pagan <daniel_paganrosa@yahoo.com>
Cc: Edwin_Muniz@fws.gov
Sent: Thu, November 4, 2010 2:50:54 PM
Subject: Re: Program Partners habitat restoration areas

The information provided consists of geospatial information we have developed as a tooll for the implementation of our conservation programs and does not constitute legal boundaries of the farms. We cannot provide additional information regarding the farms since it is protected by the Privacy Act. We recommend that you contact the landowners for obtaining additional information. We are aware that these landowners have been already contacted by personnel contracted for land acquisition. Thanks.

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
P.O. Box 491
Boqueron, Puerto Rico 00622
(787) 851-7297 x 206 (direct)
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marelisa_rivera@fws.gov

There are three constants in life...change, choice and principles.
Stephen R. Covey
Daniel Pagan <daniel_paganrosa@yahoo.com>

Doc #36

Daniel Pagan <daniel_paganrosa@yahoo.com>

11/03/2010 05:12 PM

ToMarelisa_Rivera@fws.gov

cc

SubjectRe: Program Partners habitat restoration areas

Dear Marelisa: We aknowledge receiving the shapefiles of the farms used for habitat restoration. In order to validate any impact to these areas we need to know the specific location within the farms where the restoration projects were conducted.

Regards,

Danny

From: "Marelisa_Rivera@fws.gov" <Marelisa_Rivera@fws.gov>
To: daniel_paganrosa@yahoo.com
Cc: Edwin_Muniz@fws.gov; Rafael_Gonzalez@fws.gov
Sent: Wed, November 3, 2010 3:28:55 PM
Subject: Fw: Program Partners habitat restoration areas

Attached please find the shape files of the farms that may be affected by the proposed Via Verde project. Thanks

Marelisa Rivera
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
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There are three constants in life...change, choice and principles.
Stephen R. Covey

---- Forwarded by Marelisa Rivera/R4/FWS/DOI on 11/03/2010 03:26 PM ----

Rafael Gonzalez/R4/FWS/DOI 11/03/2010 02:44 PM	To Marelisa Rivera/R4/FWS/DOI@FWS cc Subject Program Partners habitat restoration areas

Marelisa,

Im attaching here the properties under PFW program that currently are affected by Via Verde project.

(See attached file: PFW Properties.zip)

Rafael Gonzalez
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Ecological Services Caribbean Field Office
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Fish & Wildlife_Via Verde.pdf

Doc # 38

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REV. 03/07

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SAN JUAN, PR 00936-4267

November 5, 2010

Ms. Marelisa Rivera,
Assistant Field Supervisor
Caribbean Ecological Services Field Office
US Fish and Wildlife Service
PO Box 491
Boquerón, PR 00622

Vía Verde Project LP-012
Puerto Rico Energy Power Authority

Dear Ms. Rivera:

As agreed during our October 26, 2010, meeting at the Fish & Wildlife Service Boquerón Office, that included representation from the US Corp of Engineers (CoE), the Puerto Rico Electric Power Authority (PREPA), will contract additional experts to undertake supplemental field surveys. These supplemental surveys are aimed to identify the presence or absence of Federal Endangered listed species along the proposed Via Verde Project alignment and will cover the potential habitats mentioned in your letters of June 30, 2010 and October 18, 2010.

Although not listed yet, surveys will also include the Coqui Llanero (*Eleutherodactylus juanariveroi*). This action is consistent with PREPA's commitment to address each and every one of the areas of concerns presented by your office.

The required and agreed upon surveys Work Plans are described below for your consideration:

1. **Raptors Habitat Characterization (*Accipiter striatus venator*) and (*Buteo platypterus brunnescens*)**

Mr. Derek Hengstenberg will perform a habitat characterization of the two (2) endangered raptors along the potential areas identified in his report. The purpose of the supplemental field study is to refine those potential nesting habitat areas based on a more detailed- site specific- survey. Specifically the survey will assess the presence of favorable tree species and surrounding habitat along the proposed construction temporary foot print; and if such favorable environment is present, mark it or describe it in order to avoid it and preserve said habitats during land clearing processes.

"Somos un patrono con igualdad de oportunidades en el empleo y no discriminamos por razón de raza, color, sexo, edad, origen social o nacional, condición social, afiliación política, ideas políticas o religiosas; por ser víctima o ser percibida como víctima de violencia doméstica, agresión sexual o acecho; por impedimento físico, mental o cualquier

As indicated in our meeting, it is assumed that the raptors under consideration may be present in the corridor to be evaluated. Efforts to minimize and avoid impacts to critical habitat for these species will include; (1) land clearing outside of the nesting season, (2) avoiding impacts to potential nesting trees and tree species, and (3) minimization of the Right of Way (ROW) within areas inhabited by these birds whenever possible. Mr. Hengstenberg's report will include site specific recommendations for preservation of these species. PREPA would like to perform the habitat characterization mentioned above based on Mr. Hengstenberg expertise and experience gained in previous studies conducted in said corridor. A helicopter recognition and ground field inspections will be performed as part of the efforts to be undertaken. A Written Report with the findings of said habitat characterization efforts will be submitted to the US FWS once the study is completed. Said report will include all findings, methodology utilized and recommendations.

2. **Potential presence of endangered plant species along the dry limestone hills (near Peñuelas Landfill), northern limestone hills (south of Manatí Town) and -Volcanic- Central Mountaine Range (upper segments of the alignment at Adjuntas munipality)**

Dr. Frank Axelrod, recommended to walk through the designated route and / or alignment at the Peñuelas, Adjuntas and Manatí areas. Dr. Axelrod further suggested that as part of said walk through efforts, a survey of the Endangered Plants listed in the Federal; Register be conducted. The survey will be undertaken by a team of qualified professionals who will stop at frequent intervals (about 100 meters) and will survey both sides of the trail over a distance determined by the required Right-of-Way (ROW) (100 feet each side of the centerline). Specimens of plants that are not easily identifiable in the field will be collected and identified by them at the Herbarium of the Department of Biology, University of Puerto Rico. Such specimens will be made into vouchers and stored in the said herbarium. Apart from the intervals, any area that appears to be relatively undisturbed will be surveyed extensively, including beyond the boundaries of the ROW so that any endangered plants encountered will not be impacted during construction.

A final Written Report will be submitted describing both the location and population size of endangered plants encountered including as well, all findings, methodology utilized and recommendations. The vegetation of each of the areas will also be described and duly market for future reference and required protection efforts.

3. **Potential presence of the Coquí Llanero (*Eleutherodactylus juanariveroi*) near flood plains of Toa Baja Municipality**

Ms. Sondra Vega and Mr. Alberto Puente will survey the Coquí Llanero along the segment located at the Rio Cocal flood plains in the Toa Baja Municipality. A total of three (3) visits (day and night) will be performed in order to identify the presence or absence of the species along the proposed alignment near this area. Special emphasis will be placed near plants species associated to the known habitat of the species. A written report will be submitted describing the findings, methodology and recommendations.

The efforts mentioned above will supplement the field works performed by Dr. Neftalí Rios during 2005 as well as Dr. Rafael Joglar during 2006 which concluded that the mentioned species was not present within the project area.

4. **Potential presence of the Sapo Concho Puertorriqueño (Crested toad, English) (*Peltophryne lemur*) at the dry limestones near the Peñuelas Landfill and northern limestones south of Manatí town**

A total of six (6) visits to the Manatí area and five (5) visits to the Peñuelas area will be performed during afternoons and nights by Ms. Sondra Vega and Mr. Alberto Puente. A written report will be submitted describing the findings, methodology and recommendations.

We are confident that the proposed surveys and chosen professionals will provide the additional information needed to more precisely identify, the potential impacts of the Via Verde project. This is also part of the efforts being developed by PREPA geared to avoid, minimized and compensate them in accordance with the applicable federal regulation. It is PREPA's objective to have the written reports mentioned above ready by mid December.

As soon as this proposed Work Plan is accepted by USFWS we will entrust the studies to the professionals listed above. Please do not hesitate to contact us or Eng. Daniel Pagan at 787-382-7330 at your convenience if additional information related with this important subject is needed.

Sincerely,

Francisco E. López García
Head, Environmental Protection and
Quality Assurance Division