



Fw: SAJ-2010-02881 (IP-EWG) Response to Corps' Dec 22 "Issues" letter (UNCLASSIFIED)

Jose Soto to: Daniel Montella, Grace Musumeci, Mario DelVicario, Stephanie Lamster, John Filippelli
Cc: Teresita Rodriguez, Carl Soderberg, Jose Font

03/01/2011 04:25 PM

I just received this document through the Corps. It contains a lot of information in response to agency objections to the Via Verde Project. It is quite extensive and I have not had the chance to review it, but I plan to look at it tonight.

Tomorrow is the second Corps of Engineers Interagency Meeting regarding Via Verde. I believe that PREPA's consultants will come in to say they have provided all requested information, and agency representatives will request time to review it. We need to prepare a response to the Corps.

I will keep you informed of what happens at tomorrow's meeting.

Jose Soto
Multimedia Permits and Compliance Branch
Phone: (787) 977-5829

— Forwarded by Jose Soto/R2/USEPA/US on 03/01/2011 05:09 PM —

From: "Garcia, Edgar W SAJ" <Edgar.W.Garcia@usace.army.mil>
To: "Garcia, Edgar W SAJ" <Edgar.W.Garcia@usace.army.mil>, "Lisamarie carrubba" <Lisamarie.Carrubba@noaa.gov>, Carl Soderberg/R2/USEPA/US@EPA, "Carlos A. Rubio" <carubio@prshpo.gobierno.pr>, "Miguel Bonini" <mbonini@prshpo.gobierno.pr>, <jaime.torres@dot.gov>, <carlos.machado@dot.gov>, <Marelisa_Rivera@fws.gov>, <rafael_gonzalez@fws.gov>, <Edwin_Muniz@fws.gov>, Jose Soto/R2/USEPA/US@EPA "Castillo, Sindulfo SAJ" <Sindulfo.Castillo@usace.army.mil>
Cc:
Date: 03/01/2011 08:37 AM
Subject: RE: SAJ-2010-02881 (IP-EWG) Response to Corps' Dec 22 "issues" letter (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Ladies and Gentlemen,

The Corps received at our office the enclosed copy of BCPeabody (BCP) follow-up response letter to the Corps Dec 22, 2010 letter.

The letter is not a complete response, and the references are not well identified. Upon calling the BCP, they will be sending corrections.

Respectfully,

Edgar W. García
Project Manager
Antilles Regulatory Section

-----Original Message-----

From: Garcia, Edgar W SAJ
Sent: Monday, January 31, 2011 11:42 AM
To: 'lisamarie carrubba'; 'Carl Soderberg'; 'Carlos A. Rubio'; 'Miguel Bonini'; 'jaime.torres@dot.gov'; 'carlos.machado@dot.gov'; 'Marelisa_Rivera@fws.gov'; 'rafael_gonzalez@fws.gov'; 'Edwin_Muniz@fws.gov'; 'Soto.Jose@epamail.epa.gov'
Cc: Castillo, Sindulfo SAJ; Garcia, Edgar W SAJ
Subject: FW: SAJ-2010-02881 (IP-EWG) Response to Corps' Dec 22 "issues" letter (UNCLASSIFIED)
Importance: High

Classification: UNCLASSIFIED
Caveats: NONE

Ladies and Gentlemen,

The Corps received the enclosed advanced copy of the PREPA response letter to the Corps Dec 22, 2010 letter.

The Corps is forwarding a copy of subject letter in an effort to clarify certain aspect of the letter during our meeting tomorrow. Also, the proponent suggested that the Federal Agencies involved with this project have a copy of the letter before the meeting.

At this moment we have not received the original letter in our office, nor have we evaluated the supplied information.

Respectfully,

Edgar W. García
Project Manager
Antilles Regulatory Section

-----Original Message-----

From: LarryEvans@bcpeabody.com [mailto:LarryEvans@bcpeabody.com]
Sent: Saturday, January 29, 2011 8:22 PM
To: Collazo, Osvaldo SAJ; Garcia, Edgar W SAJ
Cc: andrewgoetz@bcpeabody.com; daniel_paganrosa@yahoo.com; E-BAEZ@PREPA.COM; I-SANCHEZ@PREPA.COM; johannawillis@bcpeabody.com; johnhall@bcpeabody.com; KenCaraccia@bcpeabody.com
Subject: Response to Corps' Dec 22 "issues" letter for SAJ-2010-02881 (IP-EWG)
Importance: High

Gentlemen -

Attached are three files that comprise a response to the letter the Corps sent on Dec 22, 2011 re: PREPA's Via Verde Project. The .pdf file is a letter signed by Mr. Francisco E. Lopes Garcia, the .doc file is an Attachment to the letter with additional information and the .xls file is a spreadsheet with information on delivery of the PN to those individuals whose address was originally undeliverable.

The original documents will be provided to you in hard copy the first part of next week (Feb 1). We are sending this email, with the attached files, to you now so you have this information prior to next Tuesday's meeting. If you wish to distribute the documents email to the Federal Resource agencies, or other participating agencies prior to the meeting, please feel free to do so.

If you have any questions about any of the documents, please do not hesitate to contact us by phone or email. We look forward to meeting with you next Tuesday and appreciate the opportunity it will present to further address any questions you may have.

Best regards,

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Classification: UNCLASSIFIED
Caveats: NONE

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Caveats: NONE



Via Verde Response to COE Dec2010 Ltr 0228201 \b.pdf



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February 24, 2011

Mr. Edgar Garcia
Regulatory Project Manager
Antilles Regulatory Section
US Army Corps of Engineers
400 Fernández Juncos Avenue
San Juan, Puerto Rico 00901-3299

Re: Additional information requested for Via Verde project
SAJ 2010-02881 IP-EWG

Dear Mr. Garcia:

To facilitate the evaluation of the data and responses previously provided in our letter of January 28, 2011, supplemental data and information are being presented. Specifically, where we previously referenced the Final Environmental Impact Statement, approved in November 2010, we are providing information to address the issues raised in your December 22, 2010 letter, and at the interagency project delivery team (PDT) meeting held on February 1, 2011.

Project Impacts:

Many actions have been taken, both in the preliminary planning for the project, and more recently, in adjustments to the proposed alignment and construction techniques, to minimize or avoid impacts. In addition to the information provided in our January 28, 2011 letter, these efforts aimed to avoid project impacts include the following:

- As previously discussed, the alignment entails a 150 feet easement, that includes 50 feet of the permanent operational Right of Way (RoW), a 50 feet construction RoW, as well as 50 additional feet of the maintenance RoW. Notwithstanding that, **when traversing near towns and communities**, every effort has been made to locate the pipeline alignment to avoid populated areas. Where this is not possible, the Puerto Rico Energy Power Authority (PREPA) will allow a 150-foot clearance distance from the actual pipeline location to any residential building, to provide as much setback as reasonable.
- After due consultation with the PR Planning Board, the proposed project was also rerouted to **avoid some commercial developments, as well as future residential areas** that had completed the required Planning Board process but construction has not been initiated yet. The alignment was altered to avoid both of those cases.
- In early designs, the pipeline originally crossed three forests (Bosque del Pueblo, Rio Abajo Forest and Forest De La Vega). To avoid impact to these forests, the design of the alignment was varied as follows:
 - a) **El Bosque del Pueblo State Forest** was completely avoided by moving the original alignment more to the west and outside the boundary.

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- b) **In the Rio Abajo State Forest**, no impact will occur because the pipeline alignment will use the existing PR-10 easement in that area. This forest was previously fragmented by the construction of PR-10. The Via Verde project proposes to use 8.4 miles of this road right-of-way to avoid further fragmentation of the forest, as well as to prevent additional impact to the karst area at said location.
 - c) **State Forest De La Vega** is the only forest the project will directly impact. However, the impact will be minimal (only 0.0086 square mile will be directly impacted). This 0.0086 square mile corresponds to a length of 0.43 mile of pipe located within the forest, by the 100 feet width of the initial construction area. This constitutes only 0.47% of the forest to be temporarily impacted. Minimizing fragmentation is an important factor to promote biodiversity. To mitigate this minor impact, PREPA intends to acquire land adjoining several sections in Forest De La Vega in order to connect isolated parts to further minimize fragmentation within this state forest. These lands will be devoted to conservation. The whole process will be done in coordination with DNER.
- **In the case of wetlands**, the impact is a temporary one, and will occur during installation of the pipeline. As proposed, the project does not involve any permanent impact to wetlands, so there is minimal, if any, cumulative impact in association with other actions. To further minimize wetland impacts the following measures will be taken:
 - Limit construction to a right-of-way of 50-feet,
 - Demarcate the easement to restrict the removal of vegetation and avoid impacts to the wetland outside of this area.
 - Implement control measures to prevent erosion and sedimentation or minimize sediment transport to other areas of the wetland.
 - No vehicles are allowed to leak oil or other liquids to pollute the wetland. If a leak occurs during construction, spill kits will be used to clean and remove material to a control workspace.

The project crosses north and northwest of San Pedro Swamp (Municipality of Toa Baja), where it is associated with the mouth of the Cocal River and in forested wetland areas of Punta Salinas. In these sections the pipeline will be installed utilizing Horizontal Directional Drilling (HDD) and cross at depths (over 60 Feet) well below the root zone of trees. The savanna areas of this swamp, which could be affected by pipeline construction, are (or have recently been) used for commercial planting of grass. It must be pointed out that Via Verde project was originally and is still designed and planned to comply with established USACE Nationwide Permits associated with the construction work covered under Section 404 of the Clean Water Act. The characteristics of this particular project are a clear indication of the limited impact of the pipeline to the bodies of water, mangroves, and wetlands located within the designated alignment.

Roads will be crossed by the pipeline project utilizing the cross boring technique to avoid impact to infrastructure and public transit. The pipeline will be installed at least 4 feet below the road, or as required by the Highway Authority, both state and federal, as applicable. These sections of the pipeline are designed to withstand the weights associated with road vehicles passing over it.

To minimize impact incidental to the effect of deforestation and temporary removal of topsoil, PREPA will implement a Plan for the Control of Erosion and Sedimentation (CES) and a Storm Water Pollution Prevention Plan (SWPPP) in compliance with Environmental Quality Board (EQB) regulations and regulations of the US Environmental Protection Agency promulgated for this purpose.

Changing the route of the proposed alignment in the Mogote Area of Manati to avoid impacts to the Mogotes. If any particular Mogote cannot be avoided by routing the pipeline around it, the pipeline will utilize the push/pull bore method (not HDD) to tunnel underneath the landscape.

Secondary Impacts:

The entire 92 mile length of the Via Verde project will be located underground, so secondary impacts are expected to be minimal. Within the aquatic resource the pipeline trenches will be excavated 4-6 feet deep and this will not adversely impact groundwater resources and aquifers. There will be no permanent fill and no maintenance roads constructed in waters of the U.S. No secondary impact is expected to occur to surface sheet flow and/or ground water flow.

Gas pipes could contaminate groundwater if the natural gas used during operation of the project contained dense contaminants (liquid natural gas) and there was a break in the bottom of the pipe where they can escape. Also contamination could occur where compressor stations are located to boost the gas flow. It is important to mention that the gas to be used in the Via Verde project will not have the type of contaminant that is condensed (by specification), or have compressor stations.

Open trench impacts include increased turbidity, sedimentation downstream from crossings, and direct impact to sessile wildlife and aquatic flora. To minimize any impact that potential erosion and sedimentation from land may have on the aquatic environment PREPA has taken the following measures:

- o An Erosion and Sedimentation Control Plan (CES) was developed and will be submitted to the Environmental Quality Board for approval. This Plan will identify the construction easement to avoid impacting other areas; will identify water bodies that may be affected by construction to protect them; and will identify drainage patterns to a body of water and locate areas where control measures such as bales of hay and strainers will be installed. Also, a CES Plan inspector will oversee the development of the project, and will report its findings to the EQB.
- o Submit a Notice of Intent to the US Environmental Protection Agency (EPA) and prepared a Storm Water Pollution Prevention Plan (SWPPP). This Plan will be finalized using the EPA guidance, Developing a Stormwater Pollution Prevention Plan: A Guide for Construction Operators and staff that accompanies it.
- o PREPA will present written notification to the EQB on the initiation of activities. Such notice shall be not later than five (5) business days following the commencement of any activity defined in the CES Plan.

- In those areas where steep gradients are encountered, slope stabilization (terraces) will be utilized to reduce runoff velocity and minimize erosion. Geotextiles will also be installed in these areas to prevent rain or wind erosion.
- Sediment traps will be installed at points of discharge throughout the construction site to contain runoff. These traps will incorporate a catchment area with rocks of different sizes placed to control the discharge velocity of runoff.
- Silt fence will be installed along with rectangular hay bales along the perimeter of the 100-foot construction easement to contain any sediment and avoid transport to adjacent areas.
- Hay bales will be used to protect existing storm drains in impervious surfaces, where applicable, and will be kept in good conditions.

Another secondary impact would be effects to water quality from leakage of oils and other fluids from machinery. Although the possibility of groundwater contamination is considered remote, oil and fuel spills that are not addressed promptly could contaminate the water. To avoid this possibility, PREPA will implement a Spill Control Plan Environmental Coordinator project. This Plan will be prepared following the guidelines of the Code of Regulations Federal Regulations, Title 40, Protection of the Environment, Part 112, Oil Pollution Prevention. The plan will be submitted to EPA and the Environmental Quality Board (EQB) for evaluation. Each Operations Center will have a copy of the Plan. The Environmental Coordinator will provide briefings at each Center.

During construction, the resident engineer will be responsible for ensuring implementation of control measures in coordination with Environmental Coordinator. PREPA will do everything possible to ensure no vehicles are allowed to leak oil or other liquids that may affect water quality. If a vehicle develops leaks during the work, spill kits will be used to collect any leaks and the vehicle will be removed.

Secondary (temporal) impacts will also be mitigated by reducing construction time. PREPA will apply standards that require surface crossings of water bodies less than 10 feet wide to be completed in 24 hours or less. Water bodies of 10-100 feet wide will be crossed in 48 hours or less. These crossings will use one of the three "open" cut methods outlined in Appendix F of the Joint Permit Application. After installation of the pipeline, topographic contours will be returned to conditions that existed prior to construction to avoid affecting the hydrology and natural cycles or patterns of movement of water in the surface streams or ditches.

Finally, to reduce any secondary impacts to air quality water trucks will be used to spray the areas of construction. This includes the construction easement, any mounds of soil and all Centers of Operations. This will keep soil moist and minimize the amount of dust that might be dispersed. In addition, haul trucks will be required to use tarps to prevent dust emissions during transport of material on roadways. The tarps will be in good condition and shall properly be tied to prevent loosening and the wind from moving it.

In addition to the information provided above, the translation of Chapter #6 of the State Environmental Impact Statement that covers impacts minimization has been included as Attachment #1.

Alternatives Analysis:

PREPA recently completed an extended Alternative Analysis aimed to address EPA concerns and guidelines as presented on December 22, 2010 letter. Attachment # 2 includes said Alternative Analysis.

Alternative Fuels:

Attachment # 3 included a translation of Chapter # 4 of the State Environmental Impact Statement that covers the subject mentioned above.

Compensatory Mitigation:

In our previous letter we explained why an extensive compensatory mitigation plan was not submitted up front with the permit application. Since there will be no permanent fill of waters of the U.S., and secondary impacts to these same wetlands is expected to be minimal due to the size of the pipe and its method of placement, **temporal impacts to the aquatic resource is the remaining impact that may require compensation.**

PREPA is prepared to immediately work with the Corps to identify an appropriate goal for aquatic resource "lift" to offset temporal "loss". In terms of location, mitigation could be two types: 1) in situ enhancement or creation and, 2) land acquisition, preferably adjacent and identical or similar in ecological value. PREPA is ready to propose mitigation "on site", since it is difficult to get land with the characteristics necessary for successful mitigation.

As discussed at the PDT meeting on February 1, 2011, as the pipe is put in place the contractor will move forward and "walk" the construction along the corridor. As the pipeline trench is backfilled with the wetland hydric soil and topsoil, the wetland will be returned to its preconstruction topography. The vegetation in the areas of wetlands to be impacted with open trench will be allowed to immediately restore naturally. In wetlands that are active agricultural areas, landowners will be allowed to continue planting crops that do not have deep roots. In the rest of the project corridor, i.e. uplands, reforestation will occur naturally or through mitigation plans coordinated with Department of Natural and Environmental Resources (DNER), except for the growth of deep-rooted trees within the 50 foot construction easement (25 feet on either side of the pipe whenever possible.) A mitigation plan to include reforestation at a rate of 3:1 for trees to be removed is already required by the DNER and has been agreed to by PREPA. This mitigation plan will provide habitat compensation by acquiring land, reforestation of public areas or any combination the DNER deems necessary.

One mitigation opportunity PREPA is prepared to execute exists at the herbaceous Caño Tiburones wetland reserve, which has been significantly impacted by agricultural activities in the past. The dominating herbaceous species in this wetland is cattail (*Typha domingensis*), identified as an unwanted invasive species by federal agencies.

The method of installing the pipeline in this areas will allow replacing the cattail vegetation that existed before the construction with a desirable aquatic species.

Cultural Resource Concerns:

Efforts are being undertaken by PREPA to complete the translation of the Archaeological Study 1A as requested by the USACE during the meeting held on February 1, 2011. Translation efforts are around 70% complete and final document will be presented before the USACE in the forthcoming week.

In the mean time, PREPA's consultants periodically meet with State Historic and Preservation Office (SHPO) in an effort to secure all data available to ensure that all data has been included in the efforts being undertaken by our consultants. In a meeting held at SHPO on February 23, 2011, an agreement was reached to have additional meetings between PREPA's consultants and SHPO personnel to discuss the progress being made in the implementation of the Phase 1B study initiated during the month of January 2011. These meetings will be also geared to address any particular information concerns that needed to be addressed as part of the consultation process performed by the USACE.

HDD Crossing Information:

At the PDT meeting the Corps, US Fish and Wildlife Service and National Marine Fisheries Service requested information on the proposed HDD crossing locations to include length of each crossing and depth the pipe would be placed at beneath the waterway being crossed. The following information is provided for the HDD crossing sites still proposed (due to site limitations three previous sites will no longer utilize the HDD construction method):

Number	Waterway	"C" No.	Length of HDD		Depth of Pipe
			Crossing	Entry to Exit	Under Waterway
1	Matilde River	C1		1,417 ft	-50 ft
2	Unnamed Canal	C3		1,100 ft	-58 ft
3	Río Tallaboa	C5		1,298 ft	-58 ft
4	Grande de Arecibo	C34		1,185 ft	-40 ft
5	Grande de Arecibo	C36		1,850 ft	-60 ft
6	Grande de Arecibo	C37		1,200 ft	-45 ft
7	Río Tanama	C39		1,360 ft	-65 ft
8	Grande de Arecibo	C43		1,838 ft	-55 ft
9	Río Manatí	C66		1,230 ft	-40 ft
10	Río Manatí	C72		1,200 ft	-48 ft
11	Río Manatí	C73		1,910 ft	-40 ft
12	Río Indio	C74		1,387 ft	-41 ft
13	Río Indio	C75		1,150 ft	-47 ft
14	Río Indio	C79		1,145 ft	-40 ft
15	Río de la Plata	C83		1,600 ft	-48 ft
16	Mangrove Slough	C90		1,300 ft	-50 ft
17	Río Cocal mangroves	C93		4,531 ft	-55 ft
18	Uplands at Punta Salina	NA		3,588 ft	-50 ft

19	Shoreline at Levittown	NA	4,495 ft	-55 ft
20	Shoreline at Levittown	NA	3,782 ft	-55 ft
21	Rio Hondo/Rio Bayamon	C95	1,831 ft	-80 ft

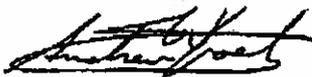
*NOTE: The "C" numbers show the crossing location as identified in Table 5 in the Joint Permit Application (JPA) and on the Impact Maps in Appendix B of the JPA

The pipe depth at each HDD crossing (none less than 40 feet) will ensure no channel bed erosion will affect the pipe (and vice versa). This technology will enable a "dry crossing" well below the river bed. These sections of the project will be built so the drilling begins at a safe distance from a waterway channel and extends below the bed at an appropriate depth, which was determined by subsurface exploration with geotechnical borings. In addition to the eighteen waterway crossings, three locations (18-20) are proposed to minimize the potential for liquefaction and coastal erosion. At these locations the pipe will be installed by HDD at depths of 50 feet or more, which protect the pipe from the action of the waves. For this reason, no impact will occur to the dunes and the coastline at Levittown.

Another approach aimed to reduce and minimize impact associated with the HDD are the use of temporary construction workpads. For these workpads, a 200 X 200 foot area will be used on both sides of the body of water at the entry and exit points of the pipeline. Once the HDD crossing is completed, these workpads will be immediately removed and preconstruction site conditions restored. At 14 of the 18 HDD waterway crossing locations the temporary workpads will be located in Palustrine Wetlands (previously disturbed by ranching or farming activities). None of the workpads are located in forested wetland habitat. More detailed information on these workpads will be provided soon.

As indicated previously, PREPA is committed to address any and all concerns presented by the US Army Corps of Engineers (USACE). In the event additional information related with the Joint Permit Application is needed by the Corps, please do not hesitate to contact us at 503-781-7930 at your earliest convenience.

Cordially Yours,



Andrew Goetz
 President
 BCPeabody
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 Tampa, Florida 33613



cc. Mr. Osvaldo Collazo (CoE)
Eng. Francisco E. López (PREPA)
Via Verde Project File